**Part III.**

CDRA RESULTS

**STEP 1**

Table 1. **PROJECTED CHANGES IN CLIMATE CHANGE VARIABLES, MUNICIPALITY OF MANGALDAN.**

|  |  |  |  |  |  |  |  |  |  |
| --- | --- | --- | --- | --- | --- | --- | --- | --- | --- |
| **Climate Variables** | **Observed Baseline (1971-2000)** | **Specific Change Expected and Reference Period** | **General Changes in Climate Variables** | **Information about Patterns of Change** | **Population** | **Natural Resources** | **Critical facilities** | **Urban Use Areas** | **Infrastructure and Utilities** |
| **A** | **B** | **C** | **D** | **E** | **F** | **G** | **H** | **I** | **J** |
| Extreme Daily Rainfall Events | 2 extreme rainfall events exceeding 300 mm | 13 days with >150mm of rain in 2020  13 days with >150mm of rain in 2050 | Increasing of  Extreme Daily Rainfall Events | Increasing of  Extreme Daily Rainfall Events | - | - | - | - | - |

Instructions:

1. Summarize and organize computed values in columns **B** and **C**.
2. Specify expected change in climate variables in column **D** ( e.g. increase in temperature and decrease of rainfall during MAM for 2020, potential increase in current sea level by 2100)
3. Provide information on the pattern of changes in climate in column E (e.g. hotter days and reduction of rainfall during summer in 2020 and 2050.)
4. \*Columns F-J will be discussed on Step 2

Note:

PAGASA USED THREE CLIMATE SCENARIOS (HIGH, MEDIUM ANDLOW RANGE SCENARIOS). The medium-range emission scenario will be used for the CDRA. It indicates “a future world of very rapid economic growth, with the global population peaking in mid-century and declining thereafter and there is rapid introduction of new and more efficient technologies with energy generation and balanced across all sources” (PAGASA: 2011).

The essential variations are as follows: **(A)**the DJF (December, January, February or northeastmonsoon locally known as “Amihan” season; **(B)**the MAM (March, April, May or summer season and **(C)**JJA (June, July, August or southwest monsoon locally known as “Habagat”) season; and **(D)** SON (September, October, November or transition from southwest to northeast monsoon)season.

Table 2. **HAZARD INVENTORY MATRIX, MUNICIPALITY OF MANGALDAN.**

|  |  |  |  |  |  |  |  |  |
| --- | --- | --- | --- | --- | --- | --- | --- | --- |
| **Hazard** | **Map Information** | | | **Hazard Description** | | | | |
| **Source** | **Scale** | **Format/Data/ Reference System** | **Susceptibility** | **Magnitude** | **Speed of Onset** | **Frequency and/or Duration** | **Areas Covered** |
| **A** | **B** | **C** | **D** | **E** | **F** | **G** | **H** | **I** |
| Flood Susceptibility | MGB | 1:10,000 | 2016 | HIGH | Depth of Water <1M | RAPID/ FAST | YEARLY/ 1 day | Anolid, Banaoang, Bantayan, Bateng, David, Guesang, Guiguilonen, Inlambo, Lanas, Macayug, Navaluan, Nibaliw, Osiem, Palua, Poblacion, Pogo, Salaan, Talogtog, Tebag |

Instructions:

1. Enumerate gathered hazard maps from mandated agencies and developed by the LGU**(A)**
2. Referring to your hazard maps, identify the following:

\*Source **(B)**: the agencies that provided/formulated the maps

\*Scale **(C)**: 1:10,000, 1:50,000

\*Formulate/Reference system **(D)**: Provide remarks on the date of formulation of the map, the location/storage, format/file type and other information

1. Characterize Hazards based on the following descriptors:

\*Susceptibility**(E)**, What is the likelihood to be influenced/harmed by the hazard? (high, medium, low)

\*Magnitude **(F)**, What is the estimated strength of the hazard that will impact an area?

\*Speed of Onset **(G)**, Is the hazard slow/creeping (i.e. SLP, Drought) or rapid/fast (flashfloods, earthquakes, landslides)?

\*Likelihood of Occurrence **(H)**, What is the estimated likelihood or the average recurrence interval (expressed in years) that a hazard event may happen? How long will the hazard occur (expressed in seconds, minutes, days, weeks, etc.)?

\*Areas Covered **(I)**, What areas/barangays within the municipality/city are likely to be inundated or affected by a particular hazard?

Table 3. **RECORDS OF PREVIOUS DISASTERS, MUNICIPALITY OF MANGALDAN.**

|  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |
| --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- |
| **Hazard Events and Description/ Date** | **Affected Barangays** | **Number of Casualties** | | | **Number of Affected Persons** | | **Number of Houses Damaged** | | **Damage to Properties (PhP)** | | | | | **Source**  **of**  **Informa-tion** |
| **Dead** | **Injured** | **Missing** | **Persons** | **Families** | **Totally** | **Partially** | **Infra** | **Agri** | **Insti** | **Private/ Com’l.** | **Total** |
| **A** | **B** | **C** | **D** | **E** | **F** | **G** | **H** | **I** | **J** | **K** | **L** | **M** | **N** | **O** |
| TYPHOON GADING in September 1998 had flooded all barangays due to heavy downpour of rain and release of water from Binga and Ambuklao Dams | All  Barangays | 0 | 0 | 0 | - | 3,284 | 0 | 0 | 51.8 M | 66.44 M | - | 10 M | 128.24 M | MDRRMC  Secretariat |
| TYPHOON ELIANG in October 1998 had flooded all barangays due to heavy downpour of rain and release of water from Binga and Ambuklao Dams | All  Barangays | 0 | 0 | 0 | - | 3,284 | 0 | 0 | 51.8 M | 66.44 M | - | 10 M | 128.24 M | MDRRMC  Secretariat |
| TYPHOON PEPING was considered as devastating | All  Barangays | 0 | 0 | 0 | - | 18,580 | 0 | 0 | 85.8 M | 23.55 M | - | - | 109.35 M | MDRRMC  Secretariat |
| TYPHOON FERIA in July 3, 2001 has brought an unprecedented depth soaked with flood waters. The ground floor of the new municipal building was soaked with flood waters. According to the random flood mark survey the inundation depth was generally 0.3 meters to 1.0 meters and flooding were 1 to 3 days. In the low lying areas, the water depth was 2 to 3 meters and the inundation lasted 10 to 20 days. | All  Barangays | 0 | 0 | 0 | - | 10,970 | 0 | 0 | 28.65 M | 20 M | - | 15 M | 63.65 M | MDRRMC  Secretariat |
| TYPHOON COSME in May 2008 which made its landfall during the weekend in Western Pangasinan and Southern la Union with 135 kph wind leaving heavy losses to agricultural crops, infrastructure, telecommunications and power utilities. | All  Barangays | 0 | 0 | 0 | - | 7,934 | 0 | 0 | 85.8 M | 23.55 M | - | - | 109.35 M | MDRRMC  Secretariat |
| TYPHOON PEPENG in October 2009 affected thousands of families where the San Roque Dam released water to prevent it from being overtopped causing floodwaters to inundate several areas in the province. | All  Barangays | 0 | 0 | 0 | - | 7,934 | 0 | 0 | 85.8 M | 23.55 M | - | - | 109.35 M | MDRRMC  Secretariat |
| TYPHOON JUAN in October 2010 | All  Barangays | 0 | 0 | 0 | - | 807 | 0 | 0 | 2.46 M | 30.744 M | - | - | 33.204 M | MDRRMC  Secretariat |

Instructions:

Summarize the gathered information on the number of casualties, number of affected people, no. of damaged properties, and affected barangay per hazard events in a municipality/city for the past five years

Table 4. **HAZARD SUSCEPTIBILITY INVENTORY MATRIX, MUNICIPALITY OF MANGALDAN.**

|  |  |  |  |  |  |  |  |  |  |  |  |
| --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- |
| **Barangay** | **Flood** | **Rain-Induced Landslide** | **Storm Surge** | **Drought** | **Sea Level Rise** | **Earthquake Induced Landslide** | **Liquefaction/ Sinkhole** | **Ground Shaking** | **Ground Rupture** | **Tsunami** | **Volcanic Eruption** |
| 1. Alitaya | N/A | N/A | N/A | N/A | N/A | N/A | N/A | N/A | N/A | N/A | N/A |
| 1. Amansabina | N/A | N/A | N/A | N/A | N/A | N/A | N/A | N/A | N/A | N/A | N/A |
| 1. Anolid | / | N/A | N/A | N/A | N/A | N/A | N/A | N/A | N/A | N/A | N/A |
| 1. Banaoang | / | N/A | N/A | N/A | N/A | N/A | N/A | N/A | N/A | N/A | N/A |
| 1. Bantayan | / | N/A | N/A | N/A | N/A | N/A | N/A | N/A | N/A | N/A | N/A |
| 1. Bari | N/A | N/A | N/A | N/A | N/A | N/A | N/A | N/A | N/A | N/A | N/A |
| 1. Bateng | / | N/A | N/A | N/A | N/A | N/A | N/A | N/A | N/A | N/A | N/A |
| 1. Buenlag | N/A | N/A | N/A | N/A | N/A | N/A | N/A | N/A | N/A | N/A | N/A |
| 1. David | / | N/A | N/A | N/A | N/A | N/A | N/A | N/A | N/A | N/A | N/A |
| 1. Embarcadero | / | N/A | N/A | N/A | N/A | N/A | N/A | N/A | N/A | N/A | N/A |
| 1. Gueguesangen | N/A | N/A | N/A | N/A | N/A | N/A | N/A | N/A | N/A | N/A | N/A |
| 1. Guesang | / | N/A | N/A | N/A | N/A | N/A | N/A | N/A | N/A | N/A | N/A |
| 1. Guiguilonen | / | N/A | N/A | N/A | N/A | N/A | N/A | N/A | N/A | N/A | N/A |
| 1. Guilig | N/A | N/A | N/A | N/A | N/A | N/A | N/A | N/A | N/A | N/A | N/A |
| 1. Inlambo | / | N/A | N/A | N/A | N/A | N/A | N/A | N/A | N/A | N/A | N/A |
| 1. Lanas | / | N/A | N/A | N/A | N/A | N/A | N/A | N/A | N/A | N/A | N/A |
| 1. Landas | / | N/A | N/A | N/A | N/A | N/A | N/A | N/A | N/A | N/A | N/A |
| 1. Maasin | / | N/A | N/A | N/A | N/A | N/A | N/A | N/A | N/A | N/A | N/A |
| 1. Macayug | / | N/A | N/A | N/A | N/A | N/A | N/A | N/A | N/A | N/A | N/A |
| 1. Malabago | N/A | N/A | N/A | N/A | N/A | N/A | N/A | N/A | N/A | N/A | N/A |
| 1. Navaluan | / | N/A | N/A | N/A | N/A | N/A | N/A | N/A | N/A | N/A | N/A |
| 1. Nibaliw | / | N/A | N/A | N/A | N/A | N/A | N/A | N/A | N/A | N/A | N/A |
| 1. Osiem | / | N/A | N/A | N/A | N/A | N/A | N/A | N/A | N/A | N/A | N/A |
| 1. Palua | / | N/A | N/A | N/A | N/A | N/A | N/A | N/A | N/A | N/A | N/A |
| 1. Poblacion | / | N/A | N/A | N/A | N/A | N/A | N/A | N/A | N/A | N/A | N/A |
| 1. Pogo | / | N/A | N/A | N/A | N/A | N/A | N/A | N/A | N/A | N/A | N/A |
| 1. Salaan | / | N/A | N/A | N/A | N/A | N/A | N/A | N/A | N/A | N/A | N/A |
| 1. Salay | N/A | N/A | N/A | N/A | N/A | N/A | N/A | N/A | N/A | N/A | N/A |
| 1. Talogtog | / | N/A | N/A | N/A | N/A | N/A | N/A | N/A | N/A | N/A | N/A |
| 1. Tebag | / | N/A | N/A | N/A | N/A | N/A | N/A | N/A | N/A | N/A | N/A |

Instructions:

Put a check (/) if the barangay is susceptible to climate change (i.e. sea-level rise), and geologic hazards including past events experienced by the municipality/city.

\*All applicable in each barangay put a check a mark

**STEP 2**

Table 1. **PROJECTED CHANGES IN CLIMATE CHANGE VARIABLES AND POTENTIAL AFFECTED EXPOSURE UNIT/S**

**MUNICIPALITY OF MANGALDAN.**

|  |  |  |  |  |  |  |  |  |  |
| --- | --- | --- | --- | --- | --- | --- | --- | --- | --- |
| **Climate Variables** | **Observed Baseline (1971-2000)** | **Specific Change Expected and Reference Period** | **General Changes in Climate Variables** | **Information about Patterns of Change** | **Population** | **Natural Resources** | **Critical facilities** | **Urban Use Areas** | **Infrastructure and Utilities** |
| **A** | **B** | **C** | **D** | **E** | **F** | **G** | **H** | **I** | **J** |
| **Extreme Daily Rainfall Events** | 2 extreme rainfall events exceeding 300 mm | 13 days with >150mm of rain in 2020  13 days with >150mm of rain in 2050 | Increasing of  Extreme Daily Rainfall Events | Increasing of  Extreme Daily Rainfall Events | yes | yes | yes | yes | yes |

Instructions:

1. Based on the projected changes in the mean climate variables due to climate change identified in Step 1 (columns **B-E**), mark “yes” if the system of interest (population, natural resources, critical facilities, urban use areas, infrastructure and utilities is likely to be affected by the climate stimuli.

Note:

Columns **B-E**are already completed in Step 1.

Table 5. **CLIMATE CHANGE IMPACTS, MUNICIPALITY OF MANGALDAN.**

|  |  |  |  |  |  |  |  |  |
| --- | --- | --- | --- | --- | --- | --- | --- | --- |
| **Climate Variables** | **General Changes Expected in Climate Variables** | **Information about Patterns of Change** | **Population** | **Natural Resource-based Production Areas** | **Critical Point Facilities** | **Urban Use Areas** | **Infrastructure and Utilities** | **Potential Impact Area/s** |
| **A** | **B** | **C** | **D** | **E** | **F** | **G** | **H** | **I** |
| **Extreme Rainfall** | Increase of extreme daily rainfall events | Increasing of  Extreme Daily Rainfall Events | \*Onset of epidemic disease  \*Increase in poverty  \*Higher expenses | \*Overflowing fishponds  \*Damaged croplands  \*Impassable Farm-to-Market Roads | \*Submerged Health Centers  \*Submerged school buildings | \*Submerged residential units  \*Submerged business establishments | \*Damage of power lines & electric equipment  \*Non availability of transportation services | \*Population  \*Agricultural Areas  \*Facilities  \*Business Establishments  \*Residential Units |

Instructions:

1. Using the sectoral/multi-sectoral impact chain, identify the potential impact of climate stimuli and geologic hazards to the system of interest, Columns **D** to **I**.

Note:

Columns **B** (General Changes Expected in Variables) and **C** (Information about Patterns of Change) can be derived from table 1. Climate Change Projections

Table 5.1 **GEOLOGIC HAZARD IMPACTS, MUNICIPALITY OF MANGALDAN.**

|  |  |  |  |  |  |  |
| --- | --- | --- | --- | --- | --- | --- |
| **Geologic Hazard** | **Population** | **Natural Resource-based Production Areas** | **Critical Point Facilities** | **Urban Use Areas** | **Infrastructure and Utilities** | **Potential Impact Area/s** |
| **C** | **D** | **E** | **F** | **G** | **H** | **I** |
| **Flooding** | Total Population of 74,244 | 2,656 Farmers, 333 Fisherfolks, 1,384 has. Farmland, 260.568 has. Fishponds | Barangay Health Stations, Schools, and Roads | Residential Housing Units,  Business establishments | Bridges, Power & Telecommuni-cation Lines | Anolid, Banaoang, Bantayan, Bateng, David, Embarcadero, Guesang, Guiguilonen, Inlambo, Lanas, Landas, Maasin, Macayug, Navaluan, Nibaliw, Osiem, Palua, Poblacion, Pogo, Salaan, Talogtog, Tebag |

**STEP 3**

|  |  |  |  |  |  |
| --- | --- | --- | --- | --- | --- |
| **STIMULI: EXTREME RAINFALL** | | | | | |
| Table 6.1. **POPULATION ATTRIBUTE TABLE, MUNICIPALITY OF MANGALDAN.** | | | | | |
| **BARANGAY** | **EXPOSURE INDICATORS** | **SENSITIVITY INDICATORS** | **ADAPTIVE CAPACITY** | | | | | | |
| **A** | **B** | **C** | **D** | | | | | | |
| **Wealth** | **Information** | **Infrastructure** | | **Technology** | **Institution & Governance** | **Social Capital** |
| **Anolid** | Sector: Social Indicator: Population (Settlement-Residential): 1,699 HHs, PWD - 27, Senior Citizens - 561 | 255 hhs living in low lying areas and below poverty threshold. 20 PWDs are sensitive because of physical disabilities, of which 16 are males and 4 are females. 224 or 40% of the senior citizens are sensitive because of health & physical infirmities. Out of the total 90 are males and 114 are females. | Donations, NGA, Subsidy from NGOs, IRA, BDRRM Fund, MDRRM Fund, AICS Fund, PhilHealth | Brochures, Information Education Campaign, Trainings/ Seminars, Hazard Maps, Bantay Barangay, Barangay Assemblies | telecommunications, concreted farm to market roads, Flood control facility, drainage canals | | Gadgets, television, radio, Online Broadcasting, print media | Contingency Plan, CLUP/Zoning Ordinance, Municipal Disaster Plan, Peace & Order Plan, Barangay Disaster Plan | CSO, LGU & PNP Enforcement through Trained staff, knowledgeable populace/ residents regarding hazards, |
| Sector: Social Area: Education Indicator: 1,656 students | 75 pupils of Anolid Elem. School are sensitive since they belong to families beyond poverty threshold, of which 50 are males & 25 are females | Donations, NGA, Subsidy from NGOs, IRA, BDRRM Fund, MDRRM Fund, Local School Board Fund | Brochures, Information Education Campaign, Trainings/ Seminars, Hazard Maps, Bantay Barangay, Barangay Assemblies | telecommunications, School Buildings in good condition (elevated), | | Gadgets, television, radio, online broadcasting, print media | Contingency Plan, CLUP/Zoning Ordinance, MDRRMP, Local School Board Plan, Schools Improvement Plan | DepEd, CSO, LGU & PNP Enforcement through Trained staff, school disaster focal persons |
| Sector: Economic Area: Agriculture Indicator: 140 farmers | 81 farmers are sensitive since they belong to families beyond poverty threshold and live in low lying area. Of which 75 are males and 25 are females. | Donations, NGA, LGU, Subsidy from NGOs | Brochures, Information Education Campaign, Trainings/ Seminars, Hazard Maps, Bantay Barangay, Barangay Assemblies | telecommunications & roads in good condition and public market operating continuously, concreted farm to market road | | Gadgets, television, radio, online broadcasting, print media | Contingency Plan, CLUP/Zoning Ordinance, Municipal Disaster Plan, Barangay Disaster Plan | DA, CSO, LGU & PNP Enforcement through Trained staff, Farmers' Association, MAFC, Irrigators’ Association |
| Sector: Economic Area: Agriculture Indicator: 10 Fishermen | 8 fishermen are sensitive since they are living in low lying area, of which 7 are males and 1 is female. | Donations, NGA, LGU, Subsidy from NGOs | Brochures, Information Education Campaign, Trainings/ Seminars, Hazard Maps, Bantay Barangay, Barangay Assemblies | telecommunications & roads in good condition and public market operating continuously, concreted farm to market road | | Gadgets, television, radio, online broadcasting, print media | Contingency Plan, CLUP/Zoning Ordinance, Municipal Disaster Plan, Barangay Disaster Plan | DA, CSO, LGU & PNP Enforcement through Trained staff, Farmers' Association, MAFC, Irrigators’ Association |
| Sector: Economic Area: Commerce & Industry Indicator: 95 Business Owners/ Entrepreneurs | 40 of the entrepreneurs are sensitive since they are living in low lying area and 10 belong to families beyond poverty threshold | Donations, NGA, LGU, Subsidy from NGOs, | Brochures, Information Education Campaign, Trainings/ Seminars, Hazard Maps, Bantay Barangay, Barangay Assemblies | telecommunications & roads in good condition and public market operating continuously | | Gadgets, television, radio, online broadcasting, print media | Contingency Plan, CLUP/Zoning Ordinance, Municipal Disaster Plan, Barangay Disaster Plan | LGU, Vendors’ Associations, DTI, CSO, TODA, PODA |

|  |  |  |  |  |  |
| --- | --- | --- | --- | --- | --- |
| **STIMULI: EXTREME RAINFALL** | | | | | |
| Table 6.1. **POPULATION ATTRIBUTE TABLE, MUNICIPALITY OF MANGALDAN.** | | | | | |
| **BARANGAY** | **EXPOSURE INDICATORS** | **SENSITIVITY INDICATORS** | **ADAPTIVE CAPACITY** | | | | | | |
| **A** | **B** | **C** | **D** | | | | | | |
| **Wealth** | **Information** | **Infrastructure** | | **Technology** | **Institution & Governance** | **Social Capital** |
| **Banaoang** | Sector: Social Indicator: Population (Settlement-Residential): 1,129 HHs, PWDs - 40, Senior Citizens - 361 | 276 hhs living in low lying areas and below poverty threshold. 20 PWD are sensitive because of physical disabilities, out of the total 15 are males and 5 are females. 108 or 30% of the senior citizens because of health & physical infirmities. Out of the total 28 are males and 80 are females | Donations, NGA, Subsidy from NGOs, IRA, BDRRM Fund, MDRRM Fund, AICS Fund, PhilHealth | Brochures, Information Education Campaign, Trainings/ Seminars, Hazard Maps, Bantay Barangay, Barangay Assemblies | telecommunications, concreted farm to market roads, Flood control facility, drainage canals | | Gadgets, television, radio, Online Broadcasting, print media | Contingency Plan, CLUP/Zoning Ordinance, Municipal Disaster Plan, Peace & Order Plan, Barangay Disaster Plan | CSO, LGU & PNP Enforcement through Trained staff, knowledgeable populace/ residents regarding hazards, |
| Sector: Social Area: Education Indicator: 1,089 students | 45 pupils of Anolid Elem. School are sensitive since they belong to families beyond poverty threshold, of which 25 are males & 20 are females | Donations, NGA, Subsidy from NGOs, IRA, BDRRM Fund, MDRRM Fund, Local School Board Fund | Brochures, Information Education Campaign, Trainings/ Seminars, Hazard Maps, Bantay Barangay, Barangay Assemblies | telecommunications, School Buildings in good condition (elevated), | | Gadgets, television, radio, online broadcasting, print media | Contingency Plan, CLUP/Zoning Ordinance, MDRRMP, Local School Board Plan, Schools Improvement Plan | DepEd, CSO, LGU & PNP Enforcement through Trained staff, school disaster focal persons |
| Sector: Economic Area: Agriculture Indicator: 68 farmers | 13 farmers are sensitive since they belong to families beyond poverty threshold and live in low lying area. Out of the total 7 are males and 5 are females. | Donations, NGA, LGU, Subsidy from NGOs | Brochures, Information Education Campaign, Trainings/ Seminars, Hazard Maps, Bantay Barangay, Barangay Assemblies | telecommunications & roads in good condition and public market operating continuously, concreted farm to market road | | Gadgets, television, radio, online broadcasting, print media | Contingency Plan, CLUP/Zoning Ordinance, Municipal Disaster Plan, Barangay Disaster Plan | DA, CSO, LGU & PNP Enforcement through Trained staff, Farmers' Association, MAFC, Irrigators’ Association |
| Sector: Economic Area: Commerce & Industry Indicator: 29 Business Owners/ Entrepreneurs | 8 of the entrepreneurs are sensitive since they are living in low lying area and 2 belong to families beyond poverty threshold | Donations, NGA, LGU, Subsidy from NGOs, | Brochures, Information Education Campaign, Trainings/ Seminars, Hazard Maps, Bantay Barangay, Barangay Assemblies | telecommunications & roads in good condition and public market operating continuously | | Gadgets, television, radio, online broadcasting, print media | Contingency Plan, CLUP/Zoning Ordinance, Municipal Disaster Plan, Barangay Disaster Plan | LGU, Vendors’ Associations, DTI, CSO, TODA, PODA |
| **Bantayan** | Sector: Social Indicator: Population (Settlement-Residential): 868 HHs, PWDs - 19, Senior Citizens - 337 | 140 hhs living in low lying areas and below poverty threshold. 10 PWD are sensitive because of physical disabilities, out of the total 5 are males and 5 are females. 67 or 20% of the senior citizens because of health & physical infirmities. Out of the total 28 are males and 39 are females | Donations, NGA, Subsidy from NGOs, IRA, BDRRM Fund, MDRRM Fund, AICS Fund, PhilHealth | Brochures, Information Education Campaign, Trainings/ Seminars, Hazard Maps, Bantay Barangay, Barangay Assemblies | telecommunications, concreted farm to market roads, Flood control facility, drainage canals | | Gadgets, television, radio, Online Broadcasting, print media | Contingency Plan, CLUP/Zoning Ordinance, Municipal Disaster Plan, Peace & Order Plan, Barangay Disaster Plan | CSO, LGU & PNP Enforcement through Trained staff, knowledgeable populace/ residents regarding hazards, |

|  |  |  |  |  |  |  |  |  |  |  |  |
| --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- |
| **STIMULI: EXTREME RAINFALL** | | | | | | | | | | | |
| Table 6.1. **POPULATION ATTRIBUTE TABLE, MUNICIPALITY OF MANGALDAN.** | | | | | | | | | | | |
| **BARANGAY** | | **EXPOSURE INDICATORS** | | **SENSITIVITY INDICATORS** | | **ADAPTIVE CAPACITY** | | | | | | | | | | |
| **A** | | **B** | | **C** | | **D** | | | | | | | | | | |
| **Wealth** | | **Information** | **Infrastructure** | | **Technology** | | | **Institution & Governance** | **Social Capital** | |
| **Bantayan** | | Sector: Social Area: Education Indicator: 721 students | | 33 pupils of Anolid Elem. School are sensitive since they belong to families beyond poverty threshold, of which 17 are males & 16 are females | | Donations, NGA, Subsidy from NGOs, IRA, BDRRM Fund, MDRRM Fund, Local School Board Fund | | Brochures, Information Education Campaign, Trainings/ Seminars, Hazard Maps, Bantay Barangay, Barangay Assemblies | telecommunications, School Buildings in good condition (elevated), | | Gadgets, television, radio, online broadcasting, print media | | | Contingency Plan, CLUP/Zoning Ordinance, MDRRMP, Local School Board Plan, Schools Improvement Plan | DepEd, CSO, LGU & PNP Enforcement through Trained staff, school disaster focal persons | |
| Sector: Economic Area: Agriculture Indicator: 77 farmers | | 15 farmers are sensitive since they belong to families beyond poverty threshold and live in low lying area. Out of the total 10 are males and 5 are females. | | Donations, NGA, LGU, Subsidy from NGOs | | Brochures, Information Education Campaign, Trainings/ Seminars, Hazard Maps, Bantay Barangay, Barangay Assemblies | telecommunications & roads in good condition and public market operating continuously, concreted farm to market road | | Gadgets, television, radio, online broadcasting, print media | | | Contingency Plan, CLUP/Zoning Ordinance, Municipal Disaster Plan, Barangay Disaster Plan | DA, CSO, LGU & PNP Enforcement through Trained staff, Farmers' Association, MAFC, Irrigators’ Association | |
| Sector: Economic Area: Commerce & Industry Indicator: 12 Business Owners/ Entrepreneurs | | 4 of the entrepreneurs are sensitive since they are living in low lying area and 3 belong to families beyond poverty threshold | | Donations, NGA, LGU, Subsidy from NGOs, | | Brochures, Information Education Campaign, Trainings/ Seminars, Hazard Maps, Bantay Barangay, Barangay Assemblies | telecommunications & roads in good condition and public market operating continuously | | Gadgets, television, radio, online broadcasting, print media | | | Contingency Plan, CLUP/Zoning Ordinance, Municipal Disaster Plan, Barangay Disaster Plan | LGU, Vendors’ Associations, DTI, CSO, TODA, PODA | |
| **Bateng** | | Sector: Social Indicator: Population (Settlement-Residential): 569 HHs, PWD - 19, Senior Citizens - 234 | | 215 hhs living in low lying areas and below poverty threshold. 11 PWDs are sensitive because of physical disabilities, of which 5 are males and 6 are females. 93 or 40% of the senior citizens are sensitive because of health & physical infirmities. Out of the total 50 are males and 43 are females. | | Donations, NGA, Subsidy from NGOs, IRA, BDRRM Fund, MDRRM Fund, AICS Fund, PhilHealth | | Brochures, Information Education Campaign, Trainings/ Seminars, Hazard Maps, Bantay Barangay, Barangay Assemblies | telecommunications, concreted farm to market roads, Flood control facility, drainage canals | | Gadgets, television, radio, Online Broadcasting, print media | | | Contingency Plan, CLUP/Zoning Ordinance, Municipal Disaster Plan, Peace & Order Plan, Barangay Disaster Plan | CSO, LGU & PNP Enforcement through Trained staff, knowledgeable populace/ residents regarding hazards, | |
| Sector: Social Area: Education Indicator: 602 students | | 22 pupils of Anolid Elem. School are sensitive since they belong to families beyond poverty threshold, of which 11 are males & 11 are females | | Donations, NGA, Subsidy from NGOs, IRA, BDRRM Fund, MDRRM Fund, Local School Board Fund | | Brochures, Information Education Campaign, Trainings/ Seminars, Hazard Maps, Bantay Barangay, Barangay Assemblies | telecommunications, School Buildings in good condition (elevated), | | Gadgets, television, radio, online broadcasting, print media | | | Contingency Plan, CLUP/Zoning Ordinance, MDRRMP, Local School Board Plan, Schools Improvement Plan | DepEd, CSO, LGU & PNP Enforcement through Trained staff, school disaster focal persons | |
| Sector: Economic Area: Agriculture Indicator: 31 farmers | | 10 farmers are sensitive since they belong to families beyond poverty threshold and live in low lying area. Of which 6 are males and 4 are females. | | Donations, NGA, LGU, Subsidy from NGOs | | Brochures, Information Education Campaign, Trainings/ Seminars, Hazard Maps, Bantay Barangay, Barangay Assemblies | telecommunications & roads in good condition and public market operating continuously, concreted farm to market road | | Gadgets, television, radio, online broadcasting, print media | | | Contingency Plan, CLUP/Zoning Ordinance, Municipal Disaster Plan, Barangay Disaster Plan | DA, CSO, LGU & PNP Enforcement through Trained staff, Farmers' Association, MAFC, Irrigators’ Association | |
| **STIMULI: EXTREME RAINFALL** | | | | | | | | | | | | |
| Table 6.1. **POPULATION ATTRIBUTE TABLE, MUNICIPALITY OF MANGALDAN.** | | | | | | | | | | | | |
| **BARANGAY** | **EXPOSURE INDICATORS** | | **SENSITIVITY INDICATORS** | | **ADAPTIVE CAPACITY** | | | | | | | | | | | | |
| **A** | **B** | | **C** | | **D** | | | | | | | | | | | | |
| **Wealth** | | **Information** | | | **Infrastructure** | **Technology** | | | **Institution & Governance** | | **Social Capital** | |
| **Bateng** | Sector: Economic Area: Agriculture Indicator: 90 Fishermen | | 60 fishermen are sensitive since they are living in low lying area, of which 40 are males and 20 is female. | | Donations, NGA, LGU, Subsidy from NGOs | | Brochures, Information Education Campaign, Trainings/ Seminars, Hazard Maps, Bantay Barangay, Barangay Assemblies | | | Telecommunications& roads in good condition and public market operating continuously, concreted farm to market road | Gadgets, television, radio, online broadcasting, print media | | | Contingency Plan, CLUP/Zoning Ordinance, Municipal Disaster Plan, Barangay Disaster Plan | | DA, CSO, LGU & PNP Enforcement through Trained staff, Farmers' Association, MAFC, Irrigators’ Association | |
| Sector: Economic Area: Commerce & Industry Indicator: 16 Business Owners/ Entrepreneurs | | 4 of the entrepreneurs are sensitive since they are living in low lying area and 6 belong to families beyond poverty threshold | | Donations, NGA, LGU, Subsidy from NGOs, | | Brochures, Information Education Campaign, Trainings/ Seminars, Hazard Maps, Bantay Barangay, Barangay Assemblies | | | telecommunications & roads in good condition and public market operating continuously | Gadgets, television, radio, online broadcasting, print media | | | Contingency Plan, CLUP/Zoning Ordinance, Municipal Disaster Plan, Barangay Disaster Plan | | LGU, Vendors’ Associations, DTI, CSO, TODA, PODA | |
| **David** | Sector: Social Indicator: Population (Settlement-Residential): 989 HHs, PWDs - 80, Senior Citizens - 389 | | 284 hhs living in low lying areas and below poverty threshold. 40 PWD are sensitive because of physical disabilities, out of the total 15 are males and 25 are females. 116 or 30% of the senior citizens because of health & physical infirmities. Out of the total 29 are males and 87 are females | | Donations, NGA, Subsidy from NGOs, IRA, BDRRM Fund, MDRRM Fund, AICS Fund, PhilHealth | | Brochures, Information Education Campaign, Trainings/ Seminars, Hazard Maps, Bantay Barangay, Barangay Assemblies | | | telecommunications, concreted farm to market roads, Flood control facility, drainage canals | Gadgets, television, radio, Online Broadcasting, print media | | | ContingencyPlan, CLUP/Zoning Ordinance, Municipal Disaster Plan, Peace & Order Plan, Barangay Disaster Plan | | CSO, LGU &PNP Enforcement through Trained staff, knowledge-able populace/ residents regarding hazards, | |
| Sector: Social Area: Education Indicator: 1,003 students & pupils | | 41 students & pupils are sensitive since they belong to families beyond poverty threshold, of which 27 are males & 14 are females | | Donations, NGA, Subsidy from NGOs, IRA, BDRRM Fund, MDRRM Fund, Local School Board Fund | | Brochures, Information Education Campaign, Trainings/ Seminars, Hazard Maps, Bantay Barangay, Barangay Assemblies | | | telecommunications, School Buildings in good condition (elevated), | Gadgets, television, radio, online broadcasting, print media | | | Contingency Plan, CLUP/Zoning Ordinance, MDRRMP, Local School Board Plan, Schools Improvement Plan | | DepEd, CSO, LGU & PNP Enforcement through Trained staff, school disaster focal persons | |
| Sector: Economic Area: Agriculture Indicator: 109 farmers | | 71 farmers are sensitive since they belong to families beyond poverty threshold and live in low lying area. Out of the total 75 are male and 25 are female. | | Donations, NGA, LGU, Subsidy from NGOs | | Brochures, Information Education Campaign, Trainings/ Seminars, Hazard Maps, Bantay Barangay, Barangay Assemblies | | | Telecommunications& roads in good condition and public market operating continuously, concreted farm to market road | Gadgets, television, radio, online broadcasting, print media | | | Contingency Plan, CLUP/Zoning Ordinance, Municipal Disaster Plan, Barangay Disaster Plan | | DA, CSO, LGU & PNP Enforcement through Trained staff, Farmers' Association, MAFC, Irrigators’ Association | |
| Sector: Economic Area: Commerce & Industry Indicator: 17 Business Owners/ Entrepreneurs | | 7 of the entrepreneurs are sensitive since they are living in low lying area and 3 belong to families beyond poverty threshold | | Donations, NGA, LGU, Subsidy from NGOs, | | Brochures, Information Education Campaign, Trainings/ Seminars, Hazard Maps, Bantay Barangay, Barangay Assemblies | | | telecommunications & roads in good condition and public market operating continuously | Gadgets, television, radio, online broadcasting, print media | | | Contingency Plan, CLUP/Zoning Ordinance, Municipal Disaster Plan, Barangay Disaster Plan | | LGU, Vendors’ Associations, DTI, CSO, TODA, PODA | |

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| **STIMULI: EXTREME RAINFALL** | | | | | |
| Table 6.1. **POPULATION ATTRIBUTE TABLE, MUNICIPALITY OF MANGALDAN.** | | | | | |
| **BARANGAY** | **EXPOSURE INDICATORS** | **SENSITIVITY INDICATORS** | **ADAPTIVE CAPACITY** | | | | | |
| **A** | **B** | **C** | **D** | | | | | |
| **Wealth** | **Information** | **Infrastructure** | **Technology** | **Institution & Governance** | **Social Capital** |
| **Embarcadero** | Sector: Social Indicator: Population (Settlement-Residential): 591 HHs, PWDs - 24, Senior Citizens - 193 | 138 hhs living in low lying areas and below poverty threshold. 20 PWDs are sensitive because of physical disabilities, of which 12 are males and 8 are females. 86 or 45% of the senior citizens are sensitive because of health & physical infirmities. Out of the total 40 are males and 46 are females. | Donations, NGA, Subsidy from NGOs, IRA, BDRRM Fund, MDRRM Fund, AICS Fund, PhilHealth | Brochures, Information Education Campaign, Trainings/ Seminars, Hazard Maps, Bantay Barangay, Barangay Assemblies | telecommunications, concreted farm to market roads, Flood control facility, drainage canals | Gadgets, television, radio, Online Broadcasting, print media | Contingency Plan, CLUP/Zoning Ordinance, Municipal Disaster Plan, Peace &Order Plan, Barangay Disaster Plan | CSO, LGU & PNP Enforcement through Trained staff, knowledge-able populace/ residents regarding hazards, |
| Sector: Social Area: Education Indicator: 615 students & pupils | 36 students & pupils are sensitive since they belong to families beyond poverty threshold, of which 24 are males & 12 are females | Donations, NGA, Subsidy from NGOs, IRA, BDRRM Fund, MDRRM Fund, Local School Board Fund | Brochures, Information Education Campaign, Trainings/ Seminars, Hazard Maps, Bantay Barangay, Barangay Assemblies | telecommunications, School Buildings in good condition (elevated), | Gadgets, television, radio, online broadcasting, print media | Contingency Plan, CLUP/Zoning Ordinance, MDRRMP, Local School Board Plan, Schools Improvement Plan | DepEd, CSO, LGU & PNP Enforcement through Trained staff, school disaster focal persons |
| Sector: Economic Area: Agriculture Indicator: 19 farmers | 19 farmers are sensitive since they belong to families beyond poverty threshold and live in low lying area. Out of the total 17 are male and 2 are female. | Donations, NGA, LGU, Subsidy from NGOs | Brochures, Information Education Campaign, Trainings/ Seminars, Hazard Maps, Bantay Barangay, Barangay Assemblies | telecommunications & roads in good condition and public market operating continuously, concreted farm to market road | Gadgets, television, radio, online broadcasting, print media | Contingency Plan, CLUP/Zoning Ordinance, Municipal Disaster Plan, Barangay Disaster Plan | DA, CSO, LGU & PNP Enforcement through Trained staff, Farmers' Association, MAFC, Irrigators’ Association |
| Sector: Economic Area: Commerce & Industry Indicator: 20 Business Owners/ Entrepreneurs | 10 of the entrepreneurs are sensitive since they are living in low lying area and 5 belong to families beyond poverty threshold | Donations, NGA, LGU, Subsidy from NGOs, | Brochures, Information Education Campaign, Trainings/ Seminars, Hazard Maps, Bantay Barangay, Barangay Assemblies | Telecommunications& roads in good condition and public market operating continuously | Gadgets, television, radio, online broadcasting, print media | Contingency Plan, CLUP/Zoning Ordinance, Municipal Disaster Plan, Barangay Disaster Plan | LGU, Vendors’ Associations, DTI, CSO, TODA, PODA |
| **Guesang** | Sector: Social Indicator: Population (Settlement-Residential): 822 HHs, PWDs - 28, Senior Citizens - 317 | 169 hhs living in low lying areas and below poverty threshold. 20 PWDs are sensitive because of physical disabilities, of which 12 are males and 8 are females. 126 or 40% of the senior citizens are sensitive because of health & physical infirmities. Out of the total 50 are males and 76 are females. | Donations, NGA, Subsidy from NGOs, IRA, BDRRM Fund, MDRRM Fund, AICS Fund, PhilHealth | Brochures, Information Education Campaign, Trainings/ Seminars, Hazard Maps, Bantay Barangay, Barangay Assemblies | telecommunications, concreted farm to market roads, Flood control facility, drainage canals | Gadgets, television, radio, Online Broadcasting, print media | Contingency Plan, CLUP/Zoning Ordinance, Municipal Disaster Plan, Peace & Order Plan, Barangay Disaster Plan | CSO, LGU & PNP Enforcement through Trained staff, knowledge-able populace/ residents regarding hazards, |

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| **STIMULI: EXTREME RAINFALL** | | | | | |
| Table 6.1. **POPULATION ATTRIBUTE TABLE, MUNICIPALITY OF MANGALDAN.** | | | | | |
| **BARANGAY** | **EXPOSURE INDICATORS** | **SENSITIVITY INDICATORS** | **ADAPTIVE CAPACITY** | | | | | |
| **A** | **B** | **C** | **D** | | | | | |
| **Wealth** | **Information** | **Infrastructure** | **Technology** | **Institution & Governance** | **Social Capital** |
| **Guesang** | Sector: Social Area: Education Indicator: 896 students & pupils | 25 students & pupils are sensitive since they belong to families beyond poverty threshold, of which 17 are males & 8 are females | Donations, NGA, Subsidy from NGOs, IRA, BDRRM Fund, MDRRM Fund, Local School Board Fund | Brochures, Information Education Campaign, Trainings/ Seminars, Hazard Maps, Bantay Barangay, Barangay Assemblies | telecommunications, School Buildings in good condition (elevated), | Gadgets, television, radio, online broadcasting, print media | Contingency Plan, CLUP/Zoning Ordinance, MDRRMP, Local School Board Plan, Schools Improvement Plan | DepEd, CSO, LGU & PNP Enforcement through Trained staff, school disaster focal persons |
| Sector: Economic Area: Agriculture Indicator: 83 farmers | 77 farmers are sensitive since they belong to families beyond poverty threshold and live in low lying area. Out of the total 70 are male and 7 are female. | Donations, NGA, LGU, Subsidy from NGOs | Brochures, Information Education Campaign, Trainings/ Seminars, Hazard Maps, Bantay Barangay, Barangay Assemblies | telecommunications & roads in good condition and public market operating continuously, concreted farm to market road | Gadgets, television, radio, online broadcasting, print media | Contingency Plan, CLUP/Zoning Ordinance, Municipal Disaster Plan, Barangay Disaster Plan | DA, CSO, LGU & PNP Enforcement through Trained staff, Farmers' Association, MAFC, Irrigators’ Association |
| Sector: Economic Area: Commerce & Industry Indicator: 10 Business Owners/ Entrepreneurs | 3 of the entrepreneurs are sensitive since they are living in low lying area and 5 belong to families beyond poverty threshold | Donations, NGA, LGU, Subsidy from NGOs, | Brochures, Information Education Campaign, Trainings/ Seminars, Hazard Maps, Bantay Barangay, Barangay Assemblies | telecommunications & roads in good condition and public market operating continuously | Gadgets, television, radio, online broadcasting, print media | Contingency Plan, CLUP/Zoning Ordinance, Municipal Disaster Plan, Barangay Disaster Plan | LGU, Vendors’ Associations, DTI, CSO, TODA, PODA |
| **Guiguilonen** | Sector: Social Indicator: Population (Settlement-Residential): 676 HHs, PWDs - 54, Senior Citizens - 311 | 181 hhs living in low lying areas and below poverty threshold. 40 PWDs are sensitive because of physical disabilities, of which 12 are males and 28 are females. 62 or 20% of the senior citizens are sensitive because of health & physical infirmities. Out of the total 20 are males and 42 are females. | Donations, NGA, Subsidy from NGOs, IRA, BDRRM Fund, MDRRM Fund, AICS Fund, PhilHealth | Brochures, Information Education Campaign, Trainings/ Seminars, Hazard Maps, Bantay Barangay, Barangay Assemblies | telecommunications, concreted farm to market roads, Flood control facility, drainage canals | Gadgets, television, radio, Online Broadcasting, print media | Contingency Plan, CLUP/Zoning Ordinance, Municipal Disaster Plan, Peace & Order Plan, Barangay Disaster Plan | CSO, LGU & PNP Enforcement through Trained staff, knowledgeable populace/ residents regarding hazards, |
| Sector: Social Area: Education Indicator: 642 students & pupils | 30 students & pupils are sensitive since they belong to families beyond poverty threshold, of which 18 are males & 12 are females. | Donations, NGA, Subsidy from NGOs, IRA, BDRRM Fund, MDRRM Fund, Local School Board Fund | Brochures, Information Education Campaign, Trainings/ Seminars, Hazard Maps, Bantay Barangay, Barangay Assemblies | telecommunications, School Buildings in good condition (elevated), | Gadgets, television, radio, online broadcasting, print media | Contingency Plan, CLUP/Zoning Ordinance, MDRRMP, Local School Board Plan, Schools Improvement Plan | DepEd, CSO, LGU & PNP Enforcement through Trained staff, school disaster focal persons |
| Sector: Economic Area: Agriculture Indicator: 83 farmers | 77 farmers are sensitive since they belong to families beyond poverty threshold and live in low lying area. Out of the total 70 are male and 7 are female. | Donations, NGA, LGU, Subsidy from NGOs | Brochures, Information Education Campaign, Trainings/ Seminars, Hazard Maps, Bantay Barangay, Barangay Assemblies | telecommunications & roads in good condition and public market operating continuously, concreted farm to market road | Gadgets, television, radio, online broadcasting, print media | Contingency Plan, CLUP/Zoning Ordinance, Municipal Disaster Plan, Barangay Disaster Plan | DA, CSO, LGU & PNP Enforcement through Trained staff, Farmers' Association, MAFC, Irrigators’ Association |

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| **STIMULI: EXTREME RAINFALL** | | | | | |
| Table 6.1. **POPULATION ATTRIBUTE TABLE, MUNICIPALITY OF MANGALDAN.** | | | | | |
| **BARANGAY** | **EXPOSURE INDICATORS** | **SENSITIVITY INDICATORS** | **ADAPTIVE CAPACITY** | | | | | | |
| **A** | **B** | **C** | **D** | | | | | | |
| **Wealth** | **Information** | **Infrastructure** | | **Technology** | **Institution & Governance** | **Social Capital** |
| **Guiguilonen** | Sector: Economic Area: Commerce & Industry Indicator: 24 Business Owners/ Entrepreneurs | 12 of the entrepreneurs are sensitive since they are living in low lying area and 3 belong to families beyond poverty threshold | Donations, NGA, LGU, Subsidy from NGOs, | Brochures, Information Education Campaign, Trainings/ Seminars, Hazard Maps, Bantay Barangay, Barangay Assemblies | telecommunications & roads in good condition and public market operating continuously | | Gadgets, television, radio, online broadcasting, print media | Contingency Plan, CLUP/Zoning Ordinance, Municipal Disaster Plan, Barangay Disaster Plan | LGU, Vendors’ Associations, DTI, CSO, TODA, PODA |
| **Inlambo** | Sector: Social Indicator: Population (Settlement-Residential): 341 HHs, PWDs - 31, Senior Citizens - 138 | 120 hhs living in low lying areas and below poverty threshold. 15 PWDs are sensitive because of physical disabilities, of which 10 are males and 5 are females. 55 or 40% of the senior citizens are sensitive because of health & physical infirmities. Out of the total 15 are males and 40 are females. | Donations, NGA, Subsidy from NGOs, IRA, BDRRM Fund, MDRRM Fund, AICS Fund, PhilHealth | Brochures, Information Education Campaign, Trainings/ Seminars, Hazard Maps, Bantay Barangay, Barangay Assemblies | telecommunications, concreted farm to market roads, Flood control facility, drainage canals | | Gadgets, television, radio, Online Broadcasting, print media | Contingency Plan, CLUP/Zoning Ordinance, Municipal Disaster Plan, Peace & Order Plan, Barangay Disaster Plan | CSO, LGU & PNP Enforcement through Trained staff, knowledgeable populace/ residents regarding hazards, |
| Sector: Social Area: Education Indicator: 419 students & pupils | 23 students & pupils are sensitive since they belong to families beyond poverty threshold. Out of the total 18 are males & 5 are females | Donations, NGA, Subsidy from NGOs, IRA, BDRRM Fund, MDRRM Fund, Local School Board Fund | Brochures, Information Education Campaign, Trainings/ Seminars, Hazard Maps, Bantay Barangay, Barangay Assemblies | telecommunications, School Buildings in good condition (elevated), | | Gadgets, television, radio, online broadcasting, print media | Contingency Plan, CLUP/Zoning Ordinance, MDRRMP, Local School Board Plan, Schools Improvement Plan | DepEd, CSO, LGU & PNP Enforcement through Trained staff, school disaster focal persons |
| Sector: Economic Area: Agriculture Indicator: 196 farmers | 11 farmers are sensitive since they belong to families beyond poverty threshold and live in low lying area, of which 7 are males and 4 are females. | Donations, NGA, LGU, Subsidy from NGOs | Brochures, Information Education Campaign, Trainings/ Seminars, Hazard Maps, Bantay Barangay, Barangay  Assemblies | telecommunications & roads in good condition and public market operating continuously, concreted farm to market road | | Gadgets, television, radio, online broadcasting, print media | Contingency Plan, CLUP/Zoning Ordinance, Municipal Disaster Plan, Barangay Disaster Plan | DA, CSO, LGU & PNP Enforcement through Trained staff, Farmers' Association, MAFC, Irrigators’ Association |
| Sector: Economic Area: Commerce & Industry Indicator: 8 Business Owners/ Entrepreneurs | 2 of the entrepreneurs are sensitive since they are living in low lying area and 6 belong to families beyond poverty threshold | Donations, NGA, LGU, Subsidy from NGOs, | Brochures, Information Education Campaign, Trainings/ Seminars, Hazard Maps, Bantay Barangay, Barangay Assemblies | telecommunications & roads in good condition and public market operating continuously | | Gadgets, television, radio, online broadcasting, print media | Contingency Plan, CLUP/Zoning Ordinance, Municipal Disaster Plan, Barangay Disaster Plan | LGU, Vendors’ Associations, DTI, CSO, TODA, PODA |
| **Lanas** | Sector: Social Indicator: Population (Settlement-Residential): 732 HHs, PWDs - 26, Senior Citizens - 272 | 200 hhs living in low lying areas and below poverty threshold. 15 PWDs are sensitive because of physical disabilities, of which 7 are males and 8 are females. 95 or 35% of the senior citizens are sensitive because of health & physical infirmities. Out of the total 40 are males and 55 are females. | Donations, NGA, Subsidy from NGOs, IRA, BDRRM Fund, MDRRM Fund, AICS Fund, PhilHealth | Brochures, Information Education Campaign, Trainings/ Seminars, Hazard Maps, Bantay Barangay, Barangay Assemblies | telecommunications, concreted farm to market roads, Flood control facility, drainage canals | | Gadgets, television, radio, Online Broadcasting, print media | Contingency Plan, CLUP/Zoning Ordinance, Municipal Disaster Plan, Peace & Order Plan, Barangay Disaster Plan | CSO, LGU & PNP Enforcement through Trained staff, knowledgeable populace/ residents regarding hazards, |

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| **STIMULI: EXTREME RAINFALL** | | | | | | | | |
| Table 6.1. **POPULATION ATTRIBUTE TABLE, MUNICIPALITY OF MANGALDAN.** | | | | | | | | |
| **BARANGAY** | **EXPOSURE INDICATORS** | **SENSITIVITY INDICATORS** | **ADAPTIVE CAPACITY** | | | | | | | | | | | | |
| **A** | **B** | **C** | **D** | | | | | | | | | | | | |
| **Wealth** | | **Information** | | **Infrastructure** | | | **Technology** | | | **Institution & Governance** | | **Social Capital** |
| **Lanas** | Sector: Social Area: Education Indicator: 677 students & pupils | 26 students & pupils are sensitive since they belong to families beyond poverty threshold, of which 15 are male & 11 are female | Donations, NGA, Subsidy from NGOs, IRA, BDRRM Fund, MDRRM Fund, Local School Board Fund | | Brochures, Information Education Campaign, Trainings/ Seminars, Hazard Maps, Bantay Barangay, Barangay Assemblies | | telecommunications, School Buildings in good condition (elevated), | | | Gadgets, television, radio, online broadcasting, print media | | | Contingency Plan, CLUP/Zoning Ordinance, MDRRMP, Local School Board Plan, Schools Improvement Plan | | DepEd, CSO, LGU & PNP Enforcement through Trained staff, school disaster focal persons |
| Sector: Economic Area: Agriculture Indicator: 143 farmers | 49 farmers are sensitive since they belong to families beyond poverty threshold and live in low lying area. Out of the total 40 are males and 9 are females. | Donations, NGA, LGU, Subsidy from NGOs | | Brochures, Information Education Campaign, Trainings/ Seminars, Hazard Maps, Bantay Barangay, Barangay Assemblies | | telecommunications & roads in good condition and public market operating continuously, concreted farm to market road | | | Gadgets, television, radio, online broadcasting, print media | | | Contingency Plan, CLUP/Zoning Ordinance, Municipal Disaster Plan, Barangay Disaster Plan | | DA, CSO, LGU & PNP Enforcement through Trained staff, Farmers' Association, MAFC, Irrigators’ Association |
| Sector: Economic Area: Agriculture Indicator: 30 fishermen | 20 fishermen are sensitive since they are living in low lying area, of which 15 are males and 5 are females. | Donations, NGA, LGU, Subsidy from NGOs | | Brochures, Information Education Campaign, Trainings/ Seminars, Hazard Maps, Bantay Barangay, Barangay Assemblies | | telecommunications & roads in good condition and public market operating continuously, concreted farm to market road | | | Gadgets, television, radio, online broadcasting, print media | | | Contingency Plan, CLUP/Zoning Ordinance, Municipal Disaster Plan, Barangay Disaster Plan | | DA, CSO, LGU & PNP Enforcement through Trained staff, Farmers' Association, MAFC, Irrigators’ Association |
| Sector: Economic Area: Commerce & Industry Indicator: 10 Business Owners/ Entrepreneurs | 4 of the entrepreneurs are sensitive since they are living in low lying area and 4 belong to families beyond poverty threshold | Donations, NGA, LGU, Subsidy from NGOs, | | Brochures, Information Education Campaign, Trainings/ Seminars, Hazard Maps, Bantay Barangay, Barangay Assemblies | | telecommunications & roads in good condition and public market operating continuously | | | Gadgets, television, radio, online broadcasting, print media | | | Contingency Plan, CLUP/Zoning Ordinance, Municipal Disaster Plan, Barangay Disaster Plan | | LGU, Vendors’ Associations, DTI, CSO, TODA, PODA |
| **Landas** | Sector: Social Indicator: Population (Settlement-Residential): 541 HHs, PWDs - 27, Senior Citizens - 198 | 77 hhs living in low lying areas and below poverty threshold. 12 PWDs are sensitive because of physical disabilities, of which 8 are males and 4 are females. 79 or 40% of the senior citizens are sensitive because of health & physical infirmities. Out of the total 30 are males and 49 are females. | Donations, NGA, Subsidy from NGOs, IRA, BDRRM Fund, MDRRM Fund, AICS Fund, PhilHealth | | Brochures, Information Education Campaign, Trainings/ Seminars, Hazard Maps, Bantay Barangay, Barangay Assemblies | | telecommunications, concreted farm to market roads, Flood control facility, drainage canals | | | Gadgets, television, radio, Online Broadcasting, print media | | | Contingency Plan, CLUP/Zoning Ordinance, Municipal Disaster Plan, Peace & Order Plan, Barangay Disaster Plan | | CSO, LGU & PNP Enforcement through Trained staff, knowledgeable populace/ residents regarding hazards, |
| Sector: Social Area: Education Indicator: 479 students & pupils | 9 students & pupils are sensitive since they belong to families beyond poverty threshold, of which 8 are males & 1 is female | Donations, NGA, Subsidy from NGOs, IRA, BDRRM Fund, MDRRM Fund, Local School Board Fund | | Brochures, Information Education Campaign, Trainings/ Seminars, Hazard Maps, Bantay Barangay, Barangay Assemblies | | telecommunications, School Buildings in good condition (elevated), | | | Gadgets, television, radio, online broadcasting, print media | | | Contingency Plan, CLUP/Zoning Ordinance, MDRRMP, Local School Board Plan, Schools Improvement Plan | | DepEd, CSO, LGU & PNP Enforcement through Trained staff, school disaster focal persons |
| **STIMULI: EXTREME RAINFALL** | | | | | | | | | | |
| Table 6.1. **POPULATION ATTRIBUTE TABLE, MUNICIPALITY OF MANGALDAN.** | | | | | | | | | | |
| **BARANGAY** | **EXPOSURE INDICATORS** | **SENSITIVITY INDICATORS** | | **ADAPTIVE CAPACITY** | | | | | | | | | | | | |
| **A** | **B** | **C** | | **D** | | | | | | | | | | | | |
| **Wealth** | | **Information** | | **Infrastructure** | | **Technology** | | **Institution & Governance** | | **Social Capital** | | |
| **Landas** | Sector: Economic Area: Agriculture Indicator: 39 farmers | 17 farmers are sensitive since they belong to families beyond poverty threshold and live in low lying area. Out of the total 10 are male and 7 are female. | | Donations, NGA, LGU, Subsidy from NGOs | | Brochures, Information Education Campaign, Trainings/ Seminars, Hazard Maps, Bantay Barangay, Barangay Assemblies | | telecommunications & roads in good condition and public market operating continuously, concreted farm to market road | | Gadgets, television, radio, online broadcasting, print media | | Contingency Plan, CLUP/Zoning Ordinance, Municipal Disaster Plan, Barangay Disaster Plan | | DA, CSO, LGU & PNP Enforcement through Trained staff, Farmers' Association, MAFC, Irrigators’ Association | | |
| Sector: Economic Area: Commerce & Industry Indicator: 11 Business Owners/ Entrepreneurs | 6 of the entrepreneurs are sensitive since they are living in low lying area and 2 belong to families beyond poverty threshold | | Donations, NGA, LGU, Subsidy from NGOs, | | Brochures, Information Education Campaign, Trainings/ Seminars, Hazard Maps, Bantay Barangay, Barangay Assemblies | | telecommunications & roads in good condition and public market operating continuously | | Gadgets, television, radio, online broadcasting, print media | | Contingency Plan, CLUP/Zoning Ordinance, Municipal Disaster Plan, Barangay Disaster Plan | | LGU, Vendors’ Associations, DTI, CSO, TODA, PODA | | |
| **Maasin** | Sector: Social Indicator: Population (Settlement-Residential): 741 HHs, PWDs - 14, Senior Citizens - 286 | 211 hhs living in low lying areas and below poverty threshold. 10 PWDs are sensitive because of physical disabilities, of which 8 are males and 2 are females. 57 or 20% of the senior citizens are sensitive because of health & physical infirmities. Out of the total 30 are males and 49 are females. | | Donations, NGA, Subsidy from NGOs, IRA, BDRRM Fund, MDRRM Fund, AICS Fund, PhilHealth | | Brochures, Information Education Campaign, Trainings/ Seminars, Hazard Maps, Bantay Barangay, Barangay Assemblies | | telecommunications, concreted farm to market roads, Flood control facility, drainage canals | | Gadgets, television, radio, Online Broadcasting, print media | | Contingency Plan, CLUP/Zoning Ordinance, Municipal Disaster Plan, Peace & Order Plan, Barangay Disaster Plan | | CSO, LGU & PNP Enforcement through Trained staff, knowledgeable populace/ residents regarding hazards, | | |
| Sector: Social Area: Education Indicator: 639 students & pupils | 34 students & pupils are sensitive since they belong to families beyond poverty threshold, of which 25 are males & 9 are females. | | Donations, NGA, Subsidy from NGOs, IRA, BDRRM Fund, MDRRM Fund, Local School Board Fund | | Brochures, Information Education Campaign, Trainings/ Seminars, Hazard Maps, Bantay Barangay, Barangay Assemblies | | telecommunications, School Buildings in good condition (elevated), | | Gadgets, television, radio, online broadcasting, print media | | Contingency Plan, CLUP/Zoning Ordinance, MDRRMP, Local School Board Plan, Schools Improvement Plan | | DepEd, CSO, LGU & PNP Enforcement through Trained staff, school disaster focal persons | | |
| Sector: Economic Area: Agriculture Indicator: 115 farmers | 12 farmers are sensitive since they belong to families beyond poverty threshold and live in low lying area. Out of the total 10 are males and 2 are females. | | Donations, NGA, LGU, Subsidy from NGOs | | Brochures, Information Education Campaign, Trainings/ Seminars, Hazard Maps, Bantay Barangay, Barangay Assemblies | | telecommunications & roads in good condition and public market operating continuously, concreted farm to market road | | Gadgets, television, radio, online broadcasting, print media | | Contingency Plan, CLUP/Zoning Ordinance, Municipal Disaster Plan, Barangay Disaster Plan | | DA, CSO, LGU & PNP Enforcement through Trained staff, Farmers' Association, MAFC, Irrigators’ Association | | |
| Sector: Economic Area: Agriculture Indicator: 107 Fishermen | 60 fishermen are sensitive since they are living in low lying area, of which 50 are males and 10 are females. | | Donations, NGA, LGU, Subsidy from NGOs | | Brochures, Information Education Campaign, Trainings/ Seminars, Hazard Maps, Bantay Barangay, Barangay Assemblies | | telecommunications & roads in good condition and public market operating continuously, concreted farm to market road | | Gadgets, television, radio, online broadcasting, print media | | Contingency Plan, CLUP/Zoning Ordinance, Municipal Disaster Plan, Barangay Disaster Plan | | DA, CSO, LGU & PNP Enforcement through Trained staff, Farmers' Association, MAFC, Irrigators’ Association | | |

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| **STIMULI: EXTREME RAINFALL** | | | | | |
| Table 6.1. **POPULATION ATTRIBUTE TABLE, MUNICIPALITY OF MANGALDAN.** | | | | | |
| **BARANGAY** | **EXPOSURE INDICATORS** | **SENSITIVITY INDICATORS** | **ADAPTIVE CAPACITY** | | | | | | |
| **A** | **B** | **C** | **D** | | | | | | |
| **Wealth** | **Information** | **Infrastructure** | | **Technology** | **Institution & Governance** | **Social Capital** |
| **Maasin** | Sector: Economic Area: Commerce & Industry Indicator: 21 Business Owners/ Entrepreneurs | 10 of the entrepreneurs are sensitive since they are living in low lying area and 5 belong to families beyond poverty threshold | Donations, NGA, LGU, Subsidy from NGOs, | Brochures, Information Education Campaign, Trainings/ Seminars, Hazard Maps, Bantay Barangay, Barangay Assemblies | telecommunications & roads in good condition and public market operating continuously | | Gadgets, television, radio, online broadcasting, print media | Contingency Plan, CLUP/Zoning Ordinance, Municipal Disaster Plan, Barangay Disaster Plan | LGU, Vendors’ Associations, DTI, CSO, TODA, PODA |
| **Macayug** | Sector: Social Indicator: Population (Settlement-Residential): 572 HHs, PWDs - 25, Senior Citizens - 210 | 305 hhs living in low lying areas and below poverty threshold. 10 PWDs are sensitive because of physical disabilities, of which 8 are males and 2 are females. 126 or 60% of the senior citizens are sensitive because of health & physical infirmities. Out of the total 50 are males and 76 are females. | Donations, NGA, Subsidy from NGOs, IRA, BDRRM Fund, MDRRM Fund, AICS Fund, PhilHealth | Brochures, Information Education Campaign, Trainings/ Seminars, Hazard Maps, Bantay Barangay, Barangay Assemblies | telecommunications, concreted farm to market roads, Flood control facility, drainage canals | | Gadgets, television, radio, Online Broadcasting, print media | Contingency Plan, CLUP/Zoning Ordinance, Municipal Disaster Plan, Peace & Order Plan, Barangay Disaster Plan | CSO, LGU & PNP Enforcement through Trained staff, knowledgeable populace/ residents regarding hazards, |
| Sector: Social Area: Education Indicator: 2634 students & pupils | 1976 students & pupils are sensitive since they belong to families beyond poverty threshold. Out of the total 1,008 are males & 968 are females | Donations, NGA, Subsidy from NGOs, IRA, BDRRM Fund, MDRRM Fund, Local School Board Fund | Brochures, Information Education Campaign, Trainings/ Seminars, Hazard Maps, Bantay Barangay, Barangay Assemblies | telecommunications, School Buildings in good condition (elevated), | | Gadgets, television, radio, online broadcasting, print media | Contingency Plan, CLUP/Zoning Ordinance, MDRRMP, Local School Board Plan, Schools Improvement Plan | DepEd, CSO, LGU & PNP Enforcement through Trained staff, school disaster focal persons |
| Sector: Economic Area: Agriculture Indicator: 117 farmers | 69 farmers are sensitive since they belong to families beyond poverty threshold and live in low lying area. Out of the total 50 are males and 19 are females. | Donations, NGA, LGU, Subsidy from NGOs | Brochures, Information Education Campaign, Trainings/ Seminars, Hazard Maps, Bantay Barangay, Barangay Assemblies | telecommunications & roads in good condition and public market operating continuously, concreted farm to market road | | Gadgets, television, radio, online broadcasting, print media | Contingency Plan, CLUP/Zoning Ordinance, Municipal Disaster Plan, Barangay Disaster Plan | DA, CSO, LGU & PNP Enforcement through Trained staff, Farmers' Association, MAFC, Irrigators’ Association |
| Sector: Economic Area: Commerce & Industry Indicator: 7 Business Owners/ Entrepreneurs | 3 of the entrepreneurs are sensitive since they are living in low lying area and 2 belong to families beyond poverty threshold | Donations, NGA, LGU, Subsidy from NGOs, | Brochures, Information Education Campaign, Trainings/ Seminars, Hazard Maps, Bantay Barangay, Barangay Assemblies | telecommunications & roads in good condition and public market operating continuously | | Gadgets, television, radio, online broadcasting, print media | Contingency Plan, CLUP/Zoning Ordinance, Municipal Disaster Plan, Barangay Disaster Plan | LGU, Vendors’ Associations, DTI, CSO, TODA, PODA |

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| **STIMULI: EXTREME RAINFALL** | | | | | | |
| Table 6.1. **POPULATION ATTRIBUTE TABLE, MUNICIPALITY OF MANGALDAN.** | | | | | | |
| **BARANGAY** | **EXPOSURE INDICATORS** | **SENSITIVITY INDICATORS** | **ADAPTIVE CAPACITY** | | | | | | |
| **A** | **B** | **C** | **D** | | | | | | |
| **Wealth** | **Information** | **Infrastructure** | **Technology** | | **Institution & Governance** | **Social Capital** |
| **Landas** | Sector: Economic Area: Commerce & Industry Indicator: 11 Business Owners/ Entrepreneurs | 6 of the entrepreneurs are sensitive since they are living in low lying area and 2 belong to families beyond poverty threshold | Donations, NGA, LGU, Subsidy from NGOs, | Brochures, Information Education Campaign, Trainings/ Seminars, Hazard Maps, Bantay Barangay, Barangay Assemblies | telecommunications & roads in good condition and public market operating continuously | Gadgets, television, radio, online broadcasting, print media | | Contingency Plan, CLUP/Zoning Ordinance, Municipal Disaster Plan, Barangay Disaster Plan | LGU, Vendors’ Associations, DTI, CSO, TODA, PODA |
| **Maasin** | Sector: Social Indicator: Population (Settlement-Residential): 741 HHs, PWDs - 14, Senior Citizens - 286 | 211 hhs living in low lying areas and below poverty threshold. 10 PWDs are sensitive because of physical disabilities, of which 8 are males and 2 are females. 57 or 20% of the senior citizens are sensitive because of health & physical infirmities. Out of the total 30 are males and 49 are females. | Donations, NGA, Subsidy from NGOs, IRA, BDRRM Fund, MDRRM Fund, AICS Fund, PhilHealth | Brochures, Information Education Campaign, Trainings/ Seminars, Hazard Maps, Bantay Barangay, Barangay Assemblies | telecommunications, concreted farm to market roads, Flood control facility, drainage canals | Gadgets, television, radio, Online Broadcasting, print media | | Contingency Plan, CLUP/Zoning Ordinance, Municipal Disaster Plan, Peace & Order Plan, Barangay Disaster Plan | CSO, LGU & PNP Enforcement through Trained staff, knowledgeable populace/ residents regarding hazards, |
| Sector: Social Area: Education Indicator: 639 students & pupils | 34 students & pupils are sensitive since they belong to families beyond poverty threshold, of which 25 are males & 9 are females. | Donations, NGA, Subsidy from NGOs, IRA, BDRRM Fund, MDRRM Fund, Local School Board Fund | Brochures, Information Education Campaign, Trainings/ Seminars, Hazard Maps, Bantay Barangay, Barangay Assemblies | telecommunications, School Buildings in good condition (elevated), | Gadgets, television, radio, online broadcasting, print media | | Contingency Plan, CLUP/Zoning Ordinance, MDRRMP, Local School Board Plan, Schools Improvement Plan | DepEd, CSO, LGU & PNP Enforcement through Trained staff, school disaster focal persons |
| Sector: Economic Area: Agriculture Indicator: 115 farmers | 12 farmers are sensitive since they belong to families beyond poverty threshold and live in low lying area. Out of the total 10 are males and 2 are females. | Donations, NGA, LGU, Subsidy from NGOs | Brochures, Information Education Campaign, Trainings/ Seminars, Hazard Maps, Bantay Barangay, Barangay Assemblies | telecommunications & roads in good condition and public market operating continuously, concreted farm to market road | Gadgets, television, radio, online broadcasting, print media | | Contingency Plan, CLUP/Zoning Ordinance, Municipal Disaster Plan, Barangay Disaster Plan | DA, CSO, LGU & PNP Enforcement through Trained staff, Farmers' Association, MAFC, Irrigators’ Association |
| Sector: Economic Area: Agriculture Indicator: 107 Fishermen | 60 fishermen are sensitive since they are living in low lying area, of which 50 are males and 10 are females. | Donations, NGA, LGU, Subsidy from NGOs | Brochures, Information Education Campaign, Trainings/ Seminars, Hazard Maps, Bantay Barangay, Barangay Assemblies | telecommunications & roads in good condition and public market operating continuously, concreted farm to market road | Gadgets, television, radio, online broadcasting, print media | | Contingency Plan, CLUP/Zoning Ordinance, Municipal Disaster Plan, Barangay Disaster Plan | DA, CSO, LGU & PNP Enforcement through Trained staff, Farmers' Association, MAFC, Irrigators’ Association |
| Sector: Economic Area: Commerce & Industry Indicator: 21 Business Owners/ Entrepreneurs | 10 of the entrepreneurs are sensitive since they are living in low lying area and 5 belong to families beyond poverty threshold | Donations, NGA, LGU, Subsidy from NGOs, | Brochures, Information Education Campaign, Trainings/ Seminars, Hazard Maps, Bantay Barangay, Barangay Assemblies | telecommunications & roads in good condition and public market operating continuously | Gadgets, television, radio, online broadcasting, print media | | Contingency Plan, CLUP/Zoning Ordinance, Municipal Disaster Plan, Barangay Disaster Plan | LGU, Vendors’ Associations, DTI, CSO, TODA, PODA |

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| **STIMULI: EXTREME RAINFALL** | | | | | |
| Table 6.1. **POPULATION ATTRIBUTE TABLE, MUNICIPALITY OF MANGALDAN.** | | | | | |
| **BARANGAY** | **EXPOSURE INDICATORS** | **SENSITIVITY INDICATORS** | **ADAPTIVE CAPACITY** | | | | | | |
| **A** | **B** | **C** | **D** | | | | | | |
| **Wealth** | **Information** | **Infrastructure** | | **Technology** | **Institution & Governance** | **Social Capital** |
| **Macayug** | Sector: Social Indicator: Population (Settlement-Residential): 572 HHs, PWDs - 25, Senior Citizens - 210 | 305 hhs living in low lying areas and below poverty threshold. 10 PWDs are sensitive because of physical disabilities, of which 8 are males and 2 are females. 126 or 60% of the senior citizens are sensitive because of health & physical infirmities. Out of the total 50 are males and 76 are females. | Donations, NGA, Subsidy from NGOs, IRA, BDRRM Fund, MDRRM Fund, AICS Fund, PhilHealth | Brochures, Information Education Campaign, Trainings/ Seminars, Hazard Maps, Bantay Barangay, Barangay Assemblies | telecommunications, concreted farm to market roads, Flood control facility, drainage canals | | Gadgets, television, radio, Online Broadcasting, print media | Contingency Plan, CLUP/Zoning Ordinance, Municipal Disaster Plan, Peace & Order Plan, Barangay Disaster Plan | CSO, LGU & PNP Enforcement through Trained staff, knowledgeable populace/ residents regarding hazards, |
| Sector: Social Area: Education Indicator: 2634 students & pupils | 1976 students & pupils are sensitive since they belong to families beyond poverty threshold. Out of the total 1,008 are males & 968 are females | Donations, NGA, Subsidy from NGOs, IRA, BDRRM Fund, MDRRM Fund, Local School Board Fund | Brochures, Information Education Campaign, Trainings/ Seminars, Hazard Maps, Bantay Barangay, Barangay Assemblies | telecommunications, School Buildings in good condition (elevated), | | Gadgets, television, radio, online broadcasting, print media | Contingency Plan, CLUP/Zoning Ordinance, MDRRMP, Local School Board Plan, Schools Improvement Plan | DepEd, CSO, LGU & PNP Enforcement through Trained staff, school disaster focal persons |
| Sector: Economic Area: Agriculture Indicator: 117 farmers | 69 farmers are sensitive since they belong to families beyond poverty threshold and live in low lying area. Out of the total 50 are males and 19 are females. | Donations, NGA, LGU, Subsidy from NGOs | Brochures, Information Education Campaign, Trainings/ Seminars, Hazard Maps, Bantay Barangay, Barangay Assemblies | telecommunications & roads in good condition and public market operating continuously, concreted farm to market road | | Gadgets, television, radio, online broadcasting, print media | Contingency Plan, CLUP/Zoning Ordinance, Municipal Disaster Plan, Barangay Disaster Plan | DA, CSO, LGU & PNP Enforcement through Trained staff, Farmers' Association, MAFC, Irrigators’ Association |
| Sector: Economic Area: Commerce & Industry Indicator: 7 Business Owners/ Entrepreneurs | 3 of the entrepreneurs are sensitive since they are living in low lying area and 2 belong to families beyond poverty threshold | Donations, NGA, LGU, Subsidy from NGOs, | Brochures, Information Education Campaign, Trainings/ Seminars, Hazard Maps, Bantay Barangay, Barangay Assemblies | telecommunications & roads in good condition and public market operating continuously | | Gadgets, television, radio, online broadcasting, print media | Contingency Plan, CLUP/Zoning Ordinance, Municipal Disaster Plan, Barangay Disaster Plan | LGU, Vendors’ Associations, DTI, CSO, TODA, PODA |
| Sector: Social Indicator: Population (Settlement-Residential): 572 HHs, PWDs - 25, Senior Citizens - 210 | 305 hhs living in low lying areas and below poverty threshold. 10 PWDs are sensitive because of physical disabilities, of which 8 are males and 2 are females. 126 or 60% of the senior citizens are sensitive because of health & physical infirmities. Out of the total 50 are males and 76 are females. | Donations, NGA, Subsidy from NGOs, IRA, BDRRM Fund, MDRRM Fund, AICS Fund, PhilHealth | Brochures, Information Education Campaign, Trainings/ Seminars, Hazard Maps, Bantay Barangay, Barangay Assemblies | telecommunications, concreted farm to market roads, Flood control facility, drainage canals | | Gadgets, television, radio, Online Broadcasting, print media | Contingency Plan, CLUP/Zoning Ordinance, Municipal Disaster Plan, Peace & Order Plan, Barangay Disaster Plan | CSO, LGU & PNP Enforcement through Trained staff, knowledgeable populace/ residents regarding hazards, |

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| **STIMULI: EXTREME RAINFALL** | | | | | |
| Table 6.1. **POPULATION ATTRIBUTE TABLE, MUNICIPALITY OF MANGALDAN.** | | | | | |
| **BARANGAY** | **EXPOSURE INDICATORS** | **SENSITIVITY INDICATORS** | **ADAPTIVE CAPACITY** | | | | | |
| **A** | **B** | **C** | **D** | | | | | |
| **Wealth** | **Information** | **Infrastructure** | **Technology** | **Institution & Governance** | **Social Capital** |
| **Navaluan** | Sector: Social Indicator: Population (Settlement-Residential): 762 HHs, PWDs - 49, Senior Citizens - 283 | 180 hhs living in low lying areas and below poverty threshold. 20 PWDs are sensitive because of physical disabilities, of which 8 are males and 12 are females. 113 or 40% of the senior citizens are sensitive because of health & physical infirmities. Out of the total 50 are males and 63 are females. | Donations, NGA, Subsidy from NGOs, IRA, BDRRM Fund, MDRRM Fund, AICS Fund, PhilHealth | Brochures, Information Education Campaign, Trainings/ Seminars, Hazard Maps, Bantay Barangay, Barangay Assemblies | telecommunications, concreted farm to market roads, Flood control facility, drainage canals | Gadgets, television, radio, Online Broadcasting, print media | Contingency Plan, CLUP/Zoning Ordinance, Municipal Disaster Plan, Peace & Order Plan, Barangay Disaster Plan | CSO, LGU & PNP Enforcement through Trained staff, knowledgeable populace/ residents regarding hazards, |
| Sector: Social Area: Education Indicator: 900 students & pupils | 38 students & pupils are sensitive since they belong to families beyond poverty threshold. Out of the total 25 are male & 13 are female | Donations, NGA, Subsidy from NGOs, IRA, BDRRM Fund, MDRRM Fund, Local School Board Fund | Brochures, Information Education Campaign, Trainings/ Seminars, Hazard Maps, Bantay Barangay, Barangay Assemblies | telecommunications, School Buildings in good condition (elevated), | Gadgets, television, radio, online broadcasting, print media | Contingency Plan, CLUP/Zoning Ordinance, MDRRMP, Local School Board Plan, Schools Improvement Plan | DepEd, CSO, LGU & PNP Enforcement through Trained staff, school disaster focal persons |
| Sector: Economic Area: Agriculture Indicator: 45 farmers | 37 farmers are sensitive since they belong to families beyond poverty threshold and live in low lying area. Out of the total 30 are male and 7 are female. | Donations, NGA, LGU, Subsidy from NGOs | Brochures, Information Education Campaign, Trainings/ Seminars, Hazard Maps, Bantay Barangay, Barangay Assemblies | telecommunications & roads in good condition and public market operating continuously, concreted farm to market road | Gadgets, television, radio, online broadcasting, print media | Contingency Plan, CLUP/Zoning Ordinance, Municipal Disaster Plan, Barangay Disaster Plan | DA, CSO, LGU & PNP Enforcement through Trained staff, Farmers' Association, MAFC, Irrigators’ Association |
| Sector: Economic Area: Commerce & Industry Indicator: 11 Business Owners/ Entrepreneurs | 5 of the entrepreneurs are sensitive since they are living in low lying area and 2 belong to families beyond poverty threshold | Donations, NGA, LGU, Subsidy from NGOs, | Brochures, Information Education Campaign, Trainings/ Seminars, Hazard Maps, Bantay Barangay, Barangay Assemblies | telecommunications & roads in good condition and public market operating continuously | Gadgets, television, radio, online broadcasting, print media | Contingency Plan, CLUP/Zoning Ordinance, Municipal Disaster Plan, Barangay Disaster Plan | LGU, Vendors’ Associations, DTI, CSO, TODA, PODA |
| **Nibaliw** | Sector: Social Indicator: Population (Settlement-Residential): 675 HHs, PWDs - 44, Senior Citizens - 246 | 335 hhs living in low lying areas and below poverty threshold. 25 PWDs are sensitive because of physical disabilities, of which 15 are males and 10 are females. 98 or 40% of the senior citizens are sensitive because of health & physical infirmities. Out of the total 50 are males and 48 are females. | Donations, NGA, Subsidy from NGOs, IRA, BDRRM Fund, MDRRM Fund, AICS Fund, PhilHealth | Brochures, Information Education Campaign, Trainings/ Seminars, Hazard Maps, Bantay Barangay, Barangay Assemblies | telecommunications, concreted farm to market roads, Flood control facility, drainage canals | Gadgets, television, radio, Online Broadcasting, print media | Contingency Plan, CLUP/Zoning Ordinance, Municipal Disaster Plan, Peace &Order Plan, Barangay Disaster Plan | CSO, LGU & PNP Enforcement through Trained staff, knowledgeable populace/ residents regarding hazards, |

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| **STIMULI: EXTREME RAINFALL** | | | | | | |
| Table 6.1. **POPULATION ATTRIBUTE TABLE, MUNICIPALITY OF MANGALDAN.** | | | | | | |
| **BARANGAY** | **EXPOSURE INDICATORS** | **SENSITIVITY INDICATORS** | **ADAPTIVE CAPACITY** | | | | | | |
| **A** | **B** | **C** | **D** | | | | | | |
| **Wealth** | **Information** | **Infrastructure** | **Technology** | | **Institution & Governance** | **Social Capital** |
| **Nibaliw** | Sector: Social Area: Education Indicator: 750 students & pupils | 39 students & pupils are sensitive since they belong to families beyond poverty threshold. Out of the total 23 are male & 16 are female | Donations, NGA, Subsidy from NGOs, IRA, BDRRM Fund, MDRRM Fund, Local School Board Fund | Brochures, Information Education Campaign, Trainings/ Seminars, Hazard Maps, Bantay Barangay, Barangay Assemblies | telecommunications, School Buildings in good condition (elevated), | Gadgets, television, radio, online broadcasting, print media | | Contingency Plan, CLUP/Zoning Ordinance, MDRRMP, Local School Board Plan, Schools Improvement Plan | DepEd, CSO, LGU & PNP Enforcement through Trained staff, school disaster focal persons |
| Sector: Economic Area: Agriculture Indicator: 35 farmers | 20 male farmers are sensitive since they belong to families beyond poverty threshold and live in low lying area | Donations, NGA, LGU, Subsidy from NGOs | Brochures, Information Education Campaign, Trainings/ Seminars, Hazard Maps, Bantay Barangay, Barangay Assemblies | telecommunications& roads in good condition and public market operating continuously, concreted farm to market road | Gadgets, television, radio, online broadcasting, print media | | Contingency Plan, CLUP/Zoning Ordinance, Municipal Disaster Plan, Barangay Disaster Plan | DA, CSO, LGU & PNP Enforcement through Trained staff, Farmers' Association, MAFC, Irrigators’ Association |
| Sector: Social Indicator: Population (Settlement-Residential): 675 HHs, PWDs - 44, Senior Citizens - 246 | 335 hhs living in low lying areas and below poverty threshold. 25 PWDs are sensitive because of physical disabilities, of which 15 are males and 10 are females. 98 or 40% of the senior citizens are sensitive because of health & physical infirmities. Out of the total 50 are males and 48 are females. | Donations, NGA, Subsidy from NGOs, IRA, BDRRM Fund, MDRRM Fund, AICS Fund, PhilHealth | Brochures, Information Education Campaign, Trainings/ Seminars, Hazard Maps, Bantay Barangay, Barangay Assemblies | telecommunications, concreted farm to market roads, Flood control facility, drainage canals | Gadgets, television, radio, Online Broadcasting, print media | | Contingency Plan, CLUP/Zoning Ordinance, Municipal Disaster Plan, Peace & Order Plan, Barangay Disaster Plan | CSO, LGU &PNP Enforcement through Trained staff, knowledgeable populace/ residents regarding hazards, |
| Sector: Economic Area: Commerce & Industry Indicator: 11 Business Owners/ Entrepreneurs | 2 of the entrepreneurs are sensitive since they are living in low lying area and 6 belong to families beyond poverty threshold | Donations, NGA, LGU, Subsidy from NGOs, | Brochures, Information Education Campaign, Trainings/ Seminars, Hazard Maps, Bantay Barangay, Barangay Assemblies | telecommunications & roads in good condition and public market operating continuously | Gadgets, television, radio, online broadcasting, print media | | Contingency Plan, CLUP/Zoning Ordinance, Municipal Disaster Plan, Barangay Disaster Plan | LGU, Vendors’ Associations, DTI, CSO, TODA, PODA |
| **Osiem** | Sector: Social Indicator: Population (Settlement-Residential): 809 HHs, PWDs - 11, Senior Citizens - 268 | 87 hhs living in low lying areas and below poverty threshold. 6 PWDs are sensitive because of physical disabilities, of which 4 are males and 2 are females. 107 or 40% of the senior citizens are sensitive because of health & physical infirmities. Out of the total 60 are males and 47 are females. | Donations, NGA, Subsidy from NGOs, IRA, BDRRM Fund, MDRRM Fund, AICS Fund, PhilHealth | Brochures, Information Education Campaign, Trainings/ Seminars, Hazard Maps, Bantay Barangay, Barangay Assemblies | telecommunications, concreted farm to market roads, Flood control facility, drainage canals | Gadgets, television, radio, Online Broadcasting, print media | | Contingency Plan, CLUP/Zoning Ordinance, Municipal Disaster Plan, Peace & Order Plan, Barangay Disaster Plan | CSO, LGU & PNP Enforcement through Trained staff, knowledge-able populace/ residents regarding hazards, |

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| **STIMULI: EXTREME RAINFALL** | | | | | | |
| Table 6.1. **POPULATION ATTRIBUTE TABLE, MUNICIPALITY OF MANGALDAN.** | | | | | | |
| **BARANGAY** | **EXPOSURE INDICATORS** | **SENSITIVITY INDICATORS** | **ADAPTIVE CAPACITY** | | | | | | |
| **A** | **B** | **C** | **D** | | | | | | |
| **Wealth** | **Information** | **Infrastructure** | **Technology** | | **Institution & Governance** | **Social Capital** |
| **Osiem** | Sector: Social Area: Education Indicator: 741 students & pupils | 22 students & pupils are sensitive since they belong to families beyond poverty threshold. Out of the total 15 are male & 7 are female | Donations, NGA, Subsidy from NGOs, IRA, BDRRM Fund, MDRRM Fund, Local School Board Fund | Brochures, Information Education Campaign, Trainings/ Seminars, Hazard Maps, Bantay Barangay, Barangay Assemblies | telecommunications, School Buildings in good condition (elevated), | Gadgets, television, radio, online broadcasting, print media | | Contingency Plan, CLUP/Zoning Ordinance, MDRRMP, Local School Board Plan, Schools Improvement Plan | DepEd, CSO, LGU & PNP Enforcement through Trained staff, school disaster focal persons |
| Sector: Economic Area: Agriculture Indicator: 106 farmers | 13 farmers are sensitive since they belong to families beyond poverty threshold and live in low lying area. Out of the total 10 are male and 3 are female. | Donations, NGA, LGU, Subsidy from NGOs | Brochures, Information Education Campaign, Trainings/ Seminars, Hazard Maps, Bantay Barangay, Barangay Assemblies | telecommunications & roads in good condition and public market operating continuously, concreted farm to market road | Gadgets, television, radio, online broadcasting, print media | | Contingency Plan, CLUP/Zoning Ordinance, Municipal Disaster Plan, Barangay Disaster Plan | DA, CSO, LGU & PNP Enforcement through Trained staff, Farmers' Association, MAFC, Irrigators’ Association |
| Sector: Economic Area: Commerce & Industry Indicator: 13 Business Owners/ Entrepreneurs | 7 of the entrepreneurs are sensitive since they are living in low lying area and 3 belong to families beyond poverty threshold | Donations, NGA, LGU, Subsidy from NGOs, | Brochures, Information Education Campaign, Trainings/ Seminars, Hazard Maps, Bantay Barangay, Barangay Assemblies | telecommunications & roads in good condition and public market operating continuously | Gadgets, television, radio, online broadcasting, print media | | Contingency Plan, CLUP/Zoning Ordinance, Municipal Disaster Plan, Barangay Disaster Plan | LGU, Vendors’ Associations, DTI, CSO, TODA, PODA |
| **Palua** | Sector: Social Indicator: Population (Settlement-Residential): 446 HHs, PWDs - 24, Senior Citizens - 152 | 125 hhs living in low lying areas and below poverty threshold. 14 PWDs are sensitive because of physical disabilities, of which 4 are males and 10 are females. 60 or 40% of the senior citizens are sensitive because of health & physical infirmities. Out of the total 25 are males and 35 are females. | Donations, NGA, Subsidy from NGOs, IRA, BDRRM Fund, MDRRM Fund, AICS Fund, PhilHealth | Brochures, Information Education Campaign, Trainings/ Seminars, Hazard Maps, Bantay Barangay, Barangay Assemblies | telecommunications, concreted farm to market roads, Flood control facility, drainage canals | Gadgets, television, radio, Online Broadcasting, print media | | Contingency Plan, CLUP/Zoning Ordinance, Municipal Disaster Plan, Peace & Order Plan, Barangay Disaster Plan | CSO, LGU & PNP Enforcement through Trained staff, knowledgeable populace/ residents regarding hazards, |
| Sector: Social Area: Education Indicator: 427 students & pupils | 34 students & pupils are sensitive since they belong to families beyond poverty threshold. Out of the total 22 are male & 12 are female | Donations, NGA, Subsidy from NGOs, IRA, BDRRM Fund, MDRRM Fund, Local School Board Fund | Brochures, Information Education Campaign, Trainings/ Seminars, Hazard Maps, Bantay Barangay, Barangay Assemblies | telecommunications, School Buildings in good condition (elevated), | Gadgets, television, radio, online broadcasting, print media | | Contingency Plan, CLUP/Zoning Ordinance, MDRRMP, Local School Board Plan, Schools Improvement Plan | DepEd, CSO, LGU & PNP Enforcement through Trained staff, school disaster focal persons |
| Sector: Economic Area: Agriculture Indicator: 67 farmers | 26 farmers are sensitive since they belong to families beyond poverty threshold and live in low lying area. Out of the total 21 are male and 5 are female. | Donations, NGA, LGU, Subsidy from NGOs | Brochures, Information Education Campaign, Trainings/ Seminars, Hazard Maps, Bantay Barangay, Barangay Assemblies | telecommunications & roads in good condition and public market operating continuously, concreted farm to market road | Gadgets, television, radio, online broadcasting, print media | | Contingency Plan, CLUP/Zoning Ordinance, Municipal Disaster Plan, Barangay Disaster Plan | DA, CSO, LGU & PNP Enforcement through Trained staff, Farmers' Association, MAFC, Irrigators’ Association |

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| **STIMULI: EXTREME RAINFALL** | | | | | |
| Table 6.1. **POPULATION ATTRIBUTE TABLE, MUNICIPALITY OF MANGALDAN.** | | | | | |
| **BARANGAY** | **EXPOSURE INDICATORS** | **SENSITIVITY INDICATORS** | **ADAPTIVE CAPACITY** | | | | | | |
| **A** | **B** | **C** | **D** | | | | | | |
| **Wealth** | **Information** | **Infrastructure** | | **Technology** | **Institution & Governance** | **Social Capital** |
| **Palua** | Sector: Economic Area: Commerce & Industry Indicator: 10 Business Owners/ Entrepreneurs | 6 of the entrepreneurs are sensitive since they are living in low lying area and 2 belong to families beyond poverty threshold | Donations, NGA, LGU, Subsidy from NGOs, | Brochures, Information Education Campaign, Trainings/ Seminars, Hazard Maps, Bantay Barangay, Barangay Assemblies | telecommunications & roads in good condition and public market operating continuously | | Gadgets, television, radio, online broadcasting, print media | Contingency Plan, CLUP/Zoning Ordinance, Municipal Disaster Plan, Barangay Disaster Plan | LGU, Vendors’ Associations, DTI, CSO, TODA, PODA |
| **Poblacion** | Sector: Social Indicator: Population (Settlement-Residential): 835 HHs, PWDs - 24, Senior Citizens - 492 | 101 living in low lying areas and below poverty threshold. 10 PWDs are sensitive because of physical disabilities, of which 8 are males and1 2 are females. 49 or 10% of the senior citizens are sensitive because of health & physical infirmities. Out of the total 20 are males and 29 are females. | Donations, NGA, Subsidy from NGOs, IRA, BDRRM Fund, MDRRM Fund, AICS Fund, PhilHealth | Brochures, Information Education Campaign, Trainings/ Seminars, Hazard Maps, Bantay Barangay, Barangay Assemblies | telecommunications, concreted farm to market roads, Flood control facility, drainage canals | | Gadgets, television, radio, Online Broadcasting, print media | Contingency Plan, CLUP/Zoning Ordinance, Municipal Disaster Plan, Peace & Order Plan, Barangay Disaster Plan | CSO, LGU & PNP Enforcement through Trained staff, knowledgeable populace/ residents regarding hazards, |
| Sector: Social Area: Education Indicator: 717 students & pupils | 21 students & pupils are sensitive since they belong to families beyond poverty threshold. Out of the total 15 are male & 6 are female | Donations, NGA, Subsidy from NGOs, IRA, BDRRM Fund, MDRRM Fund, Local School Board Fund | Brochures, Information Education Campaign, Trainings/ Seminars, Hazard Maps, Bantay Barangay, Barangay Assemblies | telecommunications, School Buildings in good condition (elevated), | | Gadgets, television, radio, online broadcasting, print media | Contingency Plan, CLUP/Zoning Ordinance, MDRRMP, Local School Board Plan, Schools Improvement Plan | DepEd, CSO, LGU & PNP Enforcement through Trained staff, school disaster focal persons |
| Sector: Economic Area: Industry Indicator: 200 Business Owners/ Entrepreneurs | 80 of the entrepreneurs are sensitive since they are living in low lying area and 20 belong to families beyond poverty threshold | Donations, NGA, LGU, Subsidy from NGOs, | Brochures, Information Education Campaign, Trainings/ Seminars, Hazard Maps, Bantay Barangay, Barangay Assemblies | telecommunications & roads in good condition and public market operating continuously | | Gadgets, television, radio, online broadcasting, print media | Contingency Plan, CLUP/Zoning Ordinance, Municipal Disaster Plan, Barangay Disaster Plan | LGU, Vendors’ Associations, DTI, CSO, TODA, PODA |
| Sector: Social Indicator: Population (Settlement-Residential): 835 HHs, PWDs - 24, Senior Citizens - 492 | 101 living in low lying areas and below poverty threshold. 10 PWDs are sensitive because of physical disabilities, of which 8 are males and1 2 are females. 49 or 10% of the senior citizens are sensitive because of health & physical infirmities. Out of the total 20 are males and 29 are females. | Donations, NGA, Subsidy from NGOs, IRA, BDRRM Fund, MDRRM Fund, AICS Fund, PhilHealth | Brochures, Information Education Campaign, Trainings/ Seminars, Hazard Maps, Bantay Barangay, Barangay Assemblies | telecommunications, concreted farm to market roads, Flood control facility, drainage canals | | Gadgets, television, radio, Online Broadcasting, print media | Contingency Plan, CLUP/Zoning Ordinance, Municipal Disaster Plan, Peace & Order Plan, Barangay Disaster Plan | CSO, LGU & PNP Enforcement through Trained staff, knowledgeable populace/ residents regarding hazards, |

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| **STIMULI: EXTREME RAINFALL** | | | | | |
| Table 6.1. **POPULATION ATTRIBUTE TABLE, MUNICIPALITY OF MANGALDAN.** | | | | | |
| **BARANGAY** | **EXPOSURE INDICATORS** | **SENSITIVITY INDICATORS** | **ADAPTIVE CAPACITY** | | | | | | |
| **A** | **B** | **C** | **D** | | | | | | |
| **Wealth** | **Information** | **Infrastructure** | | **Technology** | **Institution & Governance** | **Social Capital** |
| **Pogo** | Sector: Social Indicator: Population (Settlement-Residential): 408 HHs, PWDs - 14, Senior Citizens - 151 | 53 hhs living in low lying areas and below poverty threshold. 10 PWDs are sensitive because of physical disabilities, of which 6 are males and 4 are females. 60 or 40% of the senior citizens are sensitive because of health & physical infirmities. Out of the total 35 are males and 25 are females. | Donations, NGA, Subsidy from NGOs, IRA, BDRRM Fund, MDRRM Fund, AICS Fund, PhilHealth | Brochures, Information Education Campaign, Trainings/ Seminars, Hazard Maps, Bantay Barangay, Barangay Assemblies | telecommunications, concreted farm to market roads, Flood control facility, drainage canals | | Gadgets, television, radio, Online Broadcasting, print media | Contingency Plan, CLUP/Zoning Ordinance, Municipal Disaster Plan, Peace & Order Plan, Barangay Disaster Plan | CSO, LGU & PNP Enforcement through Trained staff, knowledgeable populace/ residents regarding hazards, |
| Sector: Social Area: Education Indicator: 307 students & pupils | 18 students & pupils are sensitive since they belong to families beyond poverty threshold. Out of the total 10 are male & 8 are female | Donations, NGA, Subsidy from NGOs, IRA, BDRRM Fund, MDRRM Fund, Local School Board Fund | Brochures, Information Education Campaign, Trainings/ Seminars, Hazard Maps, Bantay Barangay, Barangay Assemblies | telecommunications, School Buildings in good condition (elevated), | | Gadgets, television, radio, online broadcasting, print media | Contingency Plan, CLUP/Zoning Ordinance, MDRRMP, Local School Board Plan, Schools Improvement Plan | DepEd, CSO, LGU & PNP Enforcement through Trained staff, school disaster focal persons |
| Sector: Economic Area: Agriculture Indicator: 37 farmers | 20 farmers are sensitive since they belong to families beyond poverty threshold and live in low lying area. Out of the total 16 are male and 4 are female. | Donations, NGA, LGU, Subsidy from NGOs | Brochures, Information Education Campaign, Trainings/ Seminars, Hazard Maps, Bantay Barangay, Barangay Assemblies | telecommunications & roads in good condition and public market operating continuously, concreted farm to market road | | Gadgets, television, radio, online broadcasting, print media | Contingency Plan, CLUP/Zoning Ordinance, Municipal Disaster Plan, Barangay Disaster Plan | DA, CSO, LGU & PNP Enforcement through Trained staff, Farmers' Association, MAFC, Irrigators’ Association |
| Sector: Economic Area: Commerce & Industry Indicator: 10 Business Owners/ Entrepreneurs | 5 of the entrepreneurs are sensitive since they are living in low lying area and 3 belong to families beyond poverty threshold | Donations, NGA, LGU, Subsidy from NGOs, | Brochures, Information Education Campaign, Trainings/ Seminars, Hazard Maps, Bantay Barangay, Barangay Assemblies | telecommunications & roads in good condition and public market operating continuously | | Gadgets, television, radio, online broadcasting, print media | Contingency Plan, CLUP/Zoning Ordinance, Municipal Disaster Plan, Barangay Disaster Plan | LGU, Vendors’ Associations, DTI, CSO, TODA, PODA |
| **Salaan** | Sector: Social Indicator: Population (Settlement-Residential): 589 HHs, PWDs - 13, Senior Citizens - 268 | 228 hhs living in low lying areas and below poverty threshold. 9 PWDs are sensitive because of physical disabilities, of which 6 are males and 3 are females. 120 or 45% of the senior citizens are sensitive because of health & physical infirmities. Out of the total 80 are males and 40 are females. | Donations, NGA, Subsidy from NGOs, IRA, BDRRM Fund, MDRRM Fund, AICS Fund, PhilHealth | Brochures, Information Education Campaign, Trainings/ Seminars, Hazard Maps, Bantay Barangay, Barangay Assemblies | telecommunications, concreted farm to market roads, Flood control facility, drainage canals | | Gadgets, television, radio, Online Broadcasting, print media | Contingency Plan, CLUP/Zoning Ordinance, Municipal Disaster Plan, Peace &Order Plan, Barangay Disaster Plan | CSO, LGU & PNP Enforcement through Trained staff, knowledgeable populace/ residents regarding hazards, |

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| **STIMULI: EXTREME RAINFALL** | | | | | | | | | | | | | |
| Table 6.1. **POPULATION ATTRIBUTE TABLE, MUNICIPALITY OF MANGALDAN.** | | | | | | | | | | | | | |
| **BARANGAY** | | **EXPOSURE INDICATORS** | | **SENSITIVITY INDICATORS** | | **ADAPTIVE CAPACITY** | | | | | | | | | | | | | | |
| **A** | | **B** | | **C** | | **D** | | | | | | | | | | | | | | |
| **Wealth** | | **Information** | | **Infrastructure** | | | **Technology** | | | **Institution & Governance** | | **Social Capital** | | |
| **Salaan** | | Sector: Social Area: Education Indicator: 601 students & pupils | | 17 students & pupils are sensitive since they belong to families beyond poverty threshold. Out of the total 10 are male & 7 are female | | Donations, NGA, Subsidy from NGOs, IRA, BDRRM Fund, MDRRM Fund, Local School Board Fund | | Brochures, Information Education Campaign, Trainings/ Seminars, Hazard Maps, Bantay Barangay, Barangay Assemblies | | telecommunications, School Buildings in good condition (elevated), | | | Gadgets, television, radio, online broadcasting, print media | | | Contingency Plan, CLUP/Zoning Ordinance, MDRRMP, Local School Board Plan, Schools Improvement Plan | | DepEd, CSO, LGU & PNP Enforcement through Trained staff, school disaster focal persons | | |
| Sector: Economic Area: Agriculture Indicator: 28 farmers | | 13 farmers are sensitive since they belong to families beyond poverty threshold and live in low lying area. Out of the total 10 are male and 5 are female. | | Donations, NGA, LGU, Subsidy from NGOs | | Brochures, Information Education Campaign, Trainings/ Seminars, Hazard Maps, Bantay Barangay, Barangay Assemblies | | telecommunications & roads in good condition and public market operating continuously, concreted farm to market road | | | Gadgets, television, radio, online broadcasting, print media | | | Contingency Plan, CLUP/Zoning Ordinance, Municipal Disaster Plan, Barangay Disaster Plan | | DA, CSO, LGU & PNP Enforcement through Trained staff, Farmers' Association, MAFC, Irrigators’ Association | | |
| Sector: Economic Area: Commerce & Industry Indicator: 8 Business Owners/ Entrepreneurs | | 5 of the entrepreneurs are sensitive since they are living in low lying area and 2 belong to families beyond poverty threshold | | Donations, NGA, LGU, Subsidy from NGOs, | | Brochures, Information Education Campaign, Trainings/ Seminars, Hazard Maps, Bantay Barangay, Barangay Assemblies | | telecommunications & roads in good condition and public market operating continuously | | | Gadgets, television, radio, online broadcasting, print media | | | Contingency Plan, CLUP/Zoning Ordinance, Municipal Disaster Plan, Barangay Disaster Plan | | LGU, Vendors’ Associations, DTI, CSO, TODA, PODA | | |
| **Talogtog** | | Sector: Social Indicator: Population (Settlement-Residential): 570 HHs, PWD - 20, Senior Citizens - 242 | | 70 hhs living in low lying areas and below poverty threshold. 12 PWDs are sensitive because of physical disabilities, of which 10 are males and 2 are females. 96 or 40% of the senior citizens are sensitive because of health & physical infirmities. Out of the total 50 are males and 46 are females. | | Donations, NGA, Subsidy from NGOs, IRA, BDRRM Fund, MDRRM Fund, AICS Fund, PhilHealth | | Brochures, Information Education Campaign, Trainings/ Seminars, Hazard Maps, Bantay Barangay, Barangay Assemblies | | telecommunications, concreted farm to market roads, Flood control facility, drainage canals | | | Gadgets, television, radio, Online Broadcasting, print media | | | Contingency Plan, CLUP/Zoning Ordinance, Municipal Disaster Plan, Peace &Order Plan, Barangay Disaster Plan | | CSO, LGU & PNP Enforcement through Trained staff, knowledgeable populace/ residents regarding hazards, | | |
| Sector: Social Area: Education Indicator: 506 students | | 20 pupils of Anolid Elem. School are sensitive since they belong to families beyond poverty threshold, of which 13 are males & 7 are females | | Donations, NGA, Subsidy from NGOs, IRA, BDRRM Fund, MDRRM Fund, Local School Board Fund | | Brochures, Information Education Campaign, Trainings/ Seminars, Hazard Maps, Bantay Barangay, Barangay Assemblies | | telecommunications, School Buildings in good condition (elevated), | | | Gadgets, television, radio, online broadcasting, print media | | | Contingency Plan, CLUP/Zoning Ordinance, MDRRMP, Local School Board Plan, Schools Improvement Plan | | DepEd, CSO, LGU & PNP Enforcement through Trained staff, school disaster focal persons | | |
| Sector: Economic Area: Agriculture Indicator: 82 farmers | | 30 farmers are sensitive since they belong to families beyond poverty threshold and live in low lying area. Of which 25 are males and 5 are females. | | Donations, NGA, LGU, Subsidy from NGOs | | Brochures, Information Education Campaign, Trainings/ Seminars, Hazard Maps, Bantay Barangay, Barangay Assemblies | | telecommunications & roads in good condition and public market operating continuously, concreted farm to market road | | | Gadgets, television, radio, online broadcasting, print media | | | Contingency Plan, CLUP/Zoning Ordinance, Municipal Disaster Plan, Barangay Disaster Plan | | DA, CSO, LGU & PNP Enforcement through Trained staff, Farmers' Association, MAFC, Irrigators’ Association | | |
| **STIMULI: EXTREME RAINFALL** | | | | | | | | | | | |
| Table 6.1. **POPULATION ATTRIBUTE TABLE, MUNICIPALITY OF MANGALDAN.** | | | | | | | | | | | |
| **BARANGAY** | | | **EXPOSURE INDICATORS** | | **SENSITIVITY INDICATORS** | | **ADAPTIVE CAPACITY** | | | | | | | | | | | | | |
| **A** | | | **B** | | **C** | | **D** | | | | | | | | | | | | | |
| **Wealth** | | **Information** | | **Infrastructure** | | **Technology** | | **Institution & Governance** | | **Social Capital** | | | |
| **Talogtog** | | | Sector: Economic Area: Agriculture Indicator: 96 Fishermen | | 38 fishermen are sensitive since they are living in low lying area, of which 35 are males and 3 is females. | | Donations, NGA, LGU, Subsidy from NGOs | | Brochures, Information Education Campaign, Trainings/ Seminars, Hazard Maps, Bantay Barangay, Barangay Assemblies | | telecommunications & roads in good condition and public market operating continuously, concreted farm to market road | | Gadgets, television, radio, online broadcasting, print media | | Contingency Plan, CLUP/Zoning Ordinance, Municipal Disaster Plan, Barangay Disaster Plan | | DA, CSO, LGU & PNP Enforcement through Trained staff, Farmers' Association, MAFC, Irrigators’ Association | | | |
| **Tebag** | | | Sector: Social Indicator: Population (Settlement-Residential): 605 HHs, PWDs - 20, Senior Citizens - 217 | | 185 hhs living in low lying areas and below poverty threshold. 11 PWDs are sensitive because of physical disabilities, of which 8 are males and 3 are females. 97 or 45% of the senior citizens are sensitive because of health &physical infirmities. Out of the total 60 are males and 37 are females. | | Donations, NGA, Subsidy from NGOs, IRA, BDRRM Fund, MDRRM Fund, AICS Fund, PhilHealth | | Brochures, Information Education Campaign, Trainings/ Seminars, Hazard Maps, Bantay Barangay, Barangay Assemblies | | telecommunications, concreted farm to market roads, Flood control facility, drainage canals | | Gadgets, television, radio, Online Broadcasting, print media | | Contingency Plan, CLUP/Zoning Ordinance, Municipal Disaster Plan, Peace & Order Plan, Barangay Disaster Plan | | CSO, LGU & PNP Enforcement through Trained staff, knowledgeable populace/ residents regarding hazards, | | | |
| Sector: Social Area: Education Indicator: 688 students & pupils | | 39 students & pupils are sensitive since they belong to families beyond poverty threshold. Out of the total 22 are male & 17 are female | | Donations, NGA, Subsidy from NGOs, IRA, BDRRM Fund, MDRRM Fund, Local School Board Fund | | Brochures, Information Education Campaign, Trainings/ Seminars, Hazard Maps, Bantay Barangay, Barangay Assemblies | | telecommunications, School Buildings in good condition (elevated), | | Gadgets, television, radio, online broadcasting, print media | | Contingency Plan, CLUP/Zoning Ordinance, MDRRMP, Local School Board Plan, Schools Improvement Plan | | DepEd, CSO, LGU & PNP Enforcement through Trained staff, school disaster focal persons | | | |
| Sector: Economic Area: Agriculture Indicator: 23 farmers | | 13 farmers are sensitive since they belong to families beyond poverty threshold and live in low lying area. Out of the total 10 are male and 3 are female. | | Donations, NGA, LGU, Subsidy from NGOs | | Brochures, Information Education Campaign, Trainings/ Seminars, Hazard Maps, Bantay Barangay, Barangay Assemblies | | telecommunications & roads in good condition and public market operating continuously, concreted farm to market road | | Gadgets, television, radio, online broadcasting, print media | | Contingency Plan, CLUP/Zoning Ordinance, Municipal Disaster Plan, Barangay Disaster Plan | | DA, CSO, LGU & PNP Enforcement through Trained staff, Farmers' Association, MAFC, Irrigators’ Association | | | |
| Sector: Economic Area: Commerce & Industry Indicator: 24 Business Owners/ Entrepreneurs | | 10 of the entrepreneurs are sensitive since they are living in low lying area and 6 belong to families beyond poverty threshold | | Donations, NGA, LGU, Subsidy from NGOs, | | Brochures, Information Education Campaign, Trainings/ Seminars, Hazard Maps, Bantay Barangay, Barangay Assemblies | | telecommunications & roads in good condition and public market operating continuously | | Gadgets, television, radio, online broadcasting, print media | | Contingency Plan, CLUP/Zoning Ordinance, Municipal Disaster Plan, Barangay Disaster Plan | | LGU, Vendors’ Associations, DTI, CSO, TODA, PODA | | | |
| **Instructions:** | | | | | | | | | | | | | | | | | | |
| 1. List down the all the barangays in Column **A.** | | | | | | | | | | | | | | | | | | |
| 2. Exposure, Column **B**. Using the gathered data and maps, indicate information and values for each population exposure indicators. | | | | | | | | | | | | | | | | | | |
| 3. Sensitivity, Column **C**. Using the gathered data and maps, indicate information and values for each population sensitivity indicators. | | | | | | | | | | | | | | | | | | |
| 4. In column **D,** evaluate the adaptive capacity of the barangays using the following six dimensions: | | | | | | | | | | | | | | | | | | |
| \*Wealth – Financial resources | | | | | | | | | | | | | | | | | | |
| \*Information – Level of knowledge to hazards, climate change and disaster, info dissemination | | | | | | | | | | | | | | | | | | |
| \*Technology – Example: drought resistant crop types being tested, research conducted | | | | | | | | | | | | | | | | | | |
| \*Institution and Governance – Existing policies, plans and programs | | | | | | | | | | | | | | | | | | |
| \*Social capital – Capacities, organized groups, CSO, trained staff | | | | | | | | | | | | | | | | | | |
| \*Infrastructure – Structures to withstand climate projections | | | | | | | | | | | | | | | | | | |

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| **STIMULI: EXTREME RAINFALL** |  |  |  |  |  |  |  |
| Table 6.2**. EXISTING NATURAL RESOURCES ATTRIBUTE TABLE, MUNICIPALITY OF MANGALDAN** | | |  |  |  |  |  |

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| **BARANGAY** | **EXPOSURE INDICATORS** | **SENSITIVITY INDICATORS** | **ADAPTIVE CAPACITY** | | | | | |
| **A** | **B** | **C** | **D** | | | | | |
| **Wealth** | **Information** | **Infrastructure** | **Technology** | **Institution & Governance** | **Social Capital** |
| **Anolid** | Sector: Economic Area: Agriculture; Indicator: 101 has. of Strategic Agriculture and Fishery Development Zone; Production: 3,524.4 MT | 60 hectares or 59% of the farmland are submerged during flood. Decreased of production about 2,093.70 MT | Donations, NGA, LGU, Subsidy from NGOs | Brochures, Information Education Campaign, Trainings/ Seminars, Hazard Maps, Bantay Barangay, Barangay Assemblies | telecommunications & roads in good condition and public market operating continuously, concreted farm to market road | Gadgets, television, radio, online broadcasting, print media | Contingency Plan, CLUP/Zoning Ordinance, Municipal Disaster Plan, Barangay Disaster Plan | DA, CSO, LGU & PNP Enforcement through Trained staff, Farmers' Association, MAFC, Irrigators’ Association |
| Sector: Economic Area: Agriculture; Indicator: 14.4 has. of Strategic Agriculture and Fishery Development Zone, production: 16.2 MT | 10 hectares or 69.44% of the fishpond are submerged during flood. Decreased of production about 11.25 MT | Donations, NGA, LGU, Subsidy from NGOs | Brochures, Information Education Campaign, Trainings/ Seminars, Hazard Maps, Bantay Barangay, Barangay Assemblies | telecommunications & roads in good condition and public market operating continuously, concreted farm to market road | Gadgets, television, radio, online broadcasting, print media | Contingency Plan, CLUP/Zoning Ordinance, Municipal Disaster Plan, Barangay Disaster Plan | DA, CSO, LGU & PNP Enforcement through Trained staff, Farmers' Association, MAFC, Irrigators’ Association |
| **Banaoang** | Sector: Economic Area: Agriculture; Indicator: 25 has. Farmland; Production: 105 MT | 10 hectares or 40 % of the farmland are submerged during flood. Decreased of production about 42 MT | Donations, NGA, LGU, Subsidy from NGOs | Brochures, Information Education Campaign, Trainings/ Seminars, Hazard Maps, Bantay Barangay, Barangay Assemblies | telecommunications & roads in good condition and public market operating continuously, concreted farm to market road | Gadgets, television, radio, online broadcasting, print media | Contingency Plan, CLUP/Zoning Ordinance, Municipal Disaster Plan, Barangay Disaster Plan | DA, CSO, LGU & PNP Enforcement through Trained staff, Farmers' Association, MAFC, Irrigators’ Association |
| **Bantayan** | Sector: Economic Area: Agriculture; Indicator: 5 has. Farmland; Production: 198 MT | 2 hectares or 40 % of the farmland are submerged during flood. Decreased of production about 79.2 MT. | Donations, NGA, LGU, Subsidy from NGOs | Brochures, Information Education Campaign, Trainings/ Seminars, Hazard Maps, Bantay Barangay, Barangay Assemblies | telecommunications & roads in good condition and public market operating continuously, concreted farm to market road | Gadgets, television, radio, online broadcasting, print media | Contingency Plan, CLUP/Zoning Ordinance, Municipal Disaster Plan, Barangay Disaster Plan | DA, CSO, LGU &PNP Enforcement through Trained staff, Farmers' Association, MAFC, Irrigators’ Association |
| **Bateng** | Sector: Economic Area: Agriculture; Indicator: 2 has. Farmland; Production: 100 MT | 1 hectare or 50 % of the farmland are submerged during flood. Decreased of production about 50 MT. | Donations, NGA, LGU, Subsidy from NGOs | Brochures, Information Education Campaign, Trainings/ Seminars, Hazard Maps, Bantay Barangay, Barangay Assemblies | telecommunications & roads in good condition and public market operating continuously, concreted farm to market road | Gadgets, television, radio, online broadcasting, print media | Contingency Plan, CLUP/Zoning Ordinance, Municipal Disaster Plan, Barangay Disaster Plan | DA, CSO, LGU & PNP Enforcement through Trained staff, Farmers' Association, MAFC, Irrigators’ Association |
| Sector: Economic Area: Agriculture; Indicator: 70.58 Of Strategic Agriculture and Fishery Development Zone has. of Fishponds, Production: 79.40 MT | 42.35 hectares or 60% of the fishpond are submerged during flood. Decreased of production about 47.64 MT | Donations, NGA, LGU, Subsidy from NGOs | Brochures, Information Education Campaign, Trainings/ Seminars, Hazard Maps, Bantay Barangay, Barangay Assemblies | telecommunications & roads in good condition and public market operating continuously, concreted farm to market road | Gadgets, television, radio, online broadcasting, print media | Contingency Plan, CLUP/Zoning Ordinance, Municipal Disaster Plan, Barangay Disaster Plan | DA, CSO, LGU & PNP Enforcement through Trained staff, Farmers' Association, MAFC, Irrigators’ Association |
| **David** | Sector: Economic Area: Agriculture; Indicator: 60 has. Farmland; Production: 594 MT | 45 hectares or 75 % of the farmland are submerged during flood. Decreased of production about 2,093.70 MT | Donations, NGA, LGU, Subsidy from NGOs | Brochures, Information Education Campaign, Trainings/ Seminars, Hazard Maps, Bantay Barangay, Barangay Assemblies | telecommunications & roads in good condition and public market operating continuously, concreted farm to market road | Gadgets, television, radio, online broadcasting, print media | Contingency Plan, CLUP/Zoning Ordinance, Municipal Disaster Plan, Barangay Disaster Plan | DA, CSO, LGU & PNP Enforcement through Trained staff, Farmers' Association, MAFC, Irrigators’ Association |

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| **STIMULI: EXTREME RAINFALL** | | | | | | | | |
| Table 6.2**. EXISTING NATURAL RESOURCES ATTRIBUTE TABLE, MUNICIPALITY OF MANGALDAN** | | | | | | | | |
| **BARANGAY** | **EXPOSURE INDICATORS** | **SENSITIVITY INDICATORS** | **ADAPTIVE CAPACITY** | | | | | |
| **A** | **B** | **C** | **D** | | | | | |
| **Wealth** | **Information** | **Infrastructure** | **Technology** | **Institution & Governance** | **Social Capital** |
| **Embarcadero** | Sector: Economic Area: Agriculture; Indicator: 25 has. Farmland; Production: 105 MT | 16.25 hectares or 65% of the farmland are submerged during flood. Decreased of production about 68.25 MT | Donations, NGA, LGU, Subsidy from NGOs | Brochures, Information Education Campaign, Trainings/ Seminars, Hazard Maps, Bantay Barangay, Barangay Assemblies | telecommunications & roads in good condition and public market operating continuously, concreted farm to market road | Gadgets, television, radio, online broadcasting, print media | Contingency Plan, CLUP/Zoning Ordinance, Municipal Disaster Plan, Barangay Disaster Plan | DA, CSO, LGU & PNP Enforcement through Trained staff, Farmers' Association, MAFC, Irrigators’ Association |
| **Guesang** | Sector: Economic Area: Agriculture; Indicator: 68.5 has. Farmland; Production: 225 MT | 41.79 hectares or 61% of the farmland are submerged during flood. Decreased of production about 137.27 MT | Donations, NGA, LGU, Subsidy from NGOs | Brochures, Information Education Campaign, Trainings/ Seminars, Hazard Maps, Bantay Barangay, Barangay Assemblies | telecommunications & roads in good condition and public market operating continuously, concreted farm to market road | Gadgets, television, radio, online broadcasting, print media | Contingency Plan, CLUP/Zoning Ordinance, Municipal Disaster Plan, Barangay Disaster Plan | DA, CSO, LGU & PNP Enforcement through Trained staff, Farmers' Association, MAFC, Irrigators’ Association |
| **Guiguilonen** | Sector: Economic Area: Agriculture; Indicator: 10 has. Farmland; Production: 5 MT | 5 hectares or 50% of the farmland are submerged during flood. Decreased of production about 2.5 MT | Donations, NGA, LGU, Subsidy from NGOs | Brochures, Information Education Campaign, Trainings/ Seminars, Hazard Maps, Bantay Barangay, Barangay Assemblies | telecommunications & roads in good condition and public market operating continuously, concreted farm to market road | Gadgets, television, radio, online broadcasting, print media | Contingency Plan, CLUP/Zoning Ordinance, Municipal Disaster Plan, Barangay Disaster Plan | DA, CSO, LGU & PNP Enforcement through Trained staff, Farmers' Association, MAFC, Irrigators’ Association |
| **Inlambo** | Sector: Economic Area: Agriculture; Indicator: 65 has. Farmland; Production: 638 MT | 35 hectares or 53% of the farmland are submerged during flood. Decreased of production about 343.54 MT | Donations, NGA, LGU, Subsidy from NGOs | Brochures, Information Education Campaign, Trainings/ Seminars, Hazard Maps, Bantay Barangay, Barangay Assemblies | telecommunications & roads in good condition and public market operating continuously, concreted farm to market road | Gadgets, television, radio, online broadcasting, print media | Contingency Plan, CLUP/Zoning Ordinance, Municipal Disaster Plan, Barangay Disaster Plan | DA, CSO, LGU & PNP Enforcement through Trained staff, Farmers' Association, MAFC, Irrigators’ Association |
| **Lanas** | Sector: Economic Area: Agriculture; Indicator: 10 has. Farmland; Production: 50 MT | 5.2 hectares or 52% of the farmland are submerged during flood. Decreased of production about 26 MT | Donations, NGA, LGU, Subsidy from NGOs | Brochures, Information Education Campaign, Trainings/ Seminars, Hazard Maps, Bantay Barangay, Barangay Assemblies | telecommunications & roads in good condition and public market operating continuously, concreted farm to market road | Gadgets, television, radio, online broadcasting, print media | Contingency Plan, CLUP/Zoning Ordinance, Municipal Disaster Plan, Barangay Disaster Plan | DA, CSO, LGU & PNP Enforcement through Trained staff, Farmers' Association, MAFC, Irrigators’ Association |
| Sector: Economic Area: Agriculture; Indicator: 33.29 has. of Strategic Agriculture and Fishery Development Zone of Fishponds, Production: 37.45 MT | 25 hectares or 75.09% of the fishpond are submerged during flood. Decreased of production about 28.12 MT | Donations, NGA, LGU, Subsidy from NGOs | Brochures, Information Education Campaign, Trainings/ Seminars, Hazard Maps, Bantay Barangay, Barangay Assemblies | telecommunications & roads in good condition and public market operating continuously, concreted farm to market road | Gadgets, television, radio, online broadcasting, print media | Contingency Plan, CLUP/Zoning Ordinance, Municipal Disaster Plan, Barangay Disaster Plan | DA, CSO, LGU & PNP Enforcement through Trained staff, Farmers' Association, MAFC, Irrigators’ Association |
| **Landas** | Sector: Economic Area: Agriculture; Indicator: 45 has. Farmland; Production 225 MT | 9 hectares or 20% of the farmland are submerged during flood. Decreased of production about 45 MT | Donations, NGA, LGU, Subsidy from NGOs | Brochures, Information Education Campaign, Trainings/ Seminars, Hazard Maps, Bantay Barangay, Barangay Assemblies | telecommunications & roads in good condition and public market operating continuously, concreted farm to market road | Gadgets, television, radio, online broadcasting, print media | Contingency Plan, CLUP/Zoning Ordinance, Municipal Disaster Plan, Barangay Disaster Plan | DA, CSO, LGU & PNP Enforcement through Trained staff, Farmers' Association, MAFC, Irrigators’ Association |

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| **STIMULI: EXTREME RAINFALL** |
| Table 6.2**.EXISTING NATURAL RESOURCES ATTRIBUTE TABLE, MUNICIPALITY OF MANGALDAN** |

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| **BARANGAY** | **EXPOSURE INDICATORS** | **SENSITIVITY INDICATORS** | **ADAPTIVE CAPACITY** | | | | | |
| **A** | **B** | **C** | **D** | | | | | |
| **Wealth** | **Information** | **Infrastructure** | **Technology** | **Institution & Governance** | **Social Capital** |
| **Maasin** | Sector: Economic Area: Agriculture; Indicator: 107.27 has. of Strategic Agriculture and Fishery Development Zone of Fishponds, Production: 120.67MT | 80.45 hectares or 75% of the fishpond are submerged during flood. Decreased of production about 90.50 MT | Donations, NGA, LGU, Subsidy from NGOs | Brochures, Information Education Campaign, Trainings/ Seminars, Hazard Maps, Bantay Barangay, Barangay Assemblies | telecommunications & roads in good condition and public market operating continuously, concreted farm to market road | Gadgets, television, radio, online broadcasting, print media | Contingency Plan, CLUP/Zoning Ordinance, Municipal Disaster Plan, Barangay Disaster Plan | DA, CSO, LGU & PNP Enforcement through Trained staff, Farmers' Association, MAFC, Irrigators’ Assn. |
| **Macayug** | Sector: Economic Area: Agriculture; Indicator: 30 has. Farmland; Production: 365.2 MT | 25 hectares or 83% of the farmland are submerged during flood. Decreased of production about 304.33 MT | Donations, NGA, LGU, Subsidy from NGOs | Brochures, Information Education Campaign, Trainings/ Seminars, Hazard Maps, Bantay Barangay, Barangay Assemblies | telecommunications & roads in good condition and public market operating continuously, concreted farm to market road | Gadgets, television, radio, online broadcasting, print media | Contingency Plan, CLUP/Zoning Ordinance, Municipal Disaster Plan, Barangay Disaster Plan | DA, CSO, LGU & PNP Enforcement through Trained staff, Farmers' Association, MAFC, Irrigators’ Assn. |
| **Navaluan** | Sector: Economic Area: Agriculture; Indicator: 37 has. Farmland; Production: 162.8 MT | 18 hectares or 48% of the farmland are submerged during flood. Decreased of production about 79.2 MT | Donations, NGA, LGU, Subsidy from NGOs | Brochures, Information Education Campaign, Trainings/ Seminars, Hazard Maps, Bantay Barangay, Barangay Assemblies | telecommunications & roads in good condition and public market operating continuously, concreted farm to market road | Gadgets, television, radio, online broadcasting, print media | Contingency Plan, CLUP/Zoning Ordinance, Municipal Disaster Plan, Barangay Disaster Plan | DA, CSO, LGU & PNP Enforcement through Trained staff, Farmers' Association, MAFC, Irrigators’ Assn. |
| **Nibaliw** | Sector: Economic Area: Agriculture; Indicator: 36 has. Farmland; Production 162.8 MT | 20 hectares or 55.56% of the farmland are submerged during flood. Decreased of production about 90.44 MT | Donations, NGA, LGU, Subsidy from NGOs | Brochures, Information Education Campaign, Trainings/ Seminars, Hazard Maps, Bantay Barangay, Barangay Assemblies | telecommunications & roads in good condition and public market operating continuously, concreted farm to market road | Gadgets, television, radio, online broadcasting, print media | Contingency Plan, CLUP/Zoning Ordinance, Municipal Disaster Plan, Barangay Disaster Plan | DA, CSO, LGU & PNP Enforcement through Trained staff, Farmers' Association, MAFC, Irrigators’ Assn. |
| **Osiem** | Sector: Economic Area: Agriculture; Indicator: 47 has. Farmland; Production 206.8 MT | 27 hectares or 57% of the farmland are submerged during flood. Decreased of production about 118.8 MT | Donations, NGA, LGU, Subsidy from NGOs | Brochures, Information Education Campaign, Trainings/ Seminars, Hazard Maps, Bantay Barangay, Barangay Assemblies | telecommunications & roads in good condition and public market operating continuously, concreted farm to market road | Gadgets, television, radio, online broadcasting, print media | Contingency Plan, CLUP/Zoning Ordinance, Municipal Disaster Plan, Barangay Disaster Plan | DA, CSO, LGU & PNP Enforcement through Trained staff, Farmers' Association, MAFC, Irrigators’ Assn. |
| **Palua** | Sector: Economic Area: Agriculture; Indicator: 35 has. Farmland; Production: 180 MT | 14 hectares or 40% of the farmland are submerged during flood. Decreased of production about 72 MT | Donations, NGA, LGU, Subsidy from NGOs | Brochures, Information Education Campaign, Trainings/ Seminars, Hazard Maps, Bantay Barangay, Barangay Assemblies | telecommunications & roads in good condition and public market operating continuously, concreted farm to market road | Gadgets, television, radio, online broadcasting, print media | Contingency Plan, CLUP/Zoning Ordinance, Municipal Disaster Plan, Barangay Disaster Plan | DA, CSO, LGU & PNP Enforcement through Trained staff, Farmers' Association, MAFC, Irrigators’ Assn. |
| **Pogo** | Sector: Economic Area: Agriculture; Indicator: 36 has. Farmland; Production: 206.8 MT | 16.2 hectares or 45% of the farmland are submerged during flood. Decreased of production about 93.06 MT | Donations, NGA, LGU, Subsidy from NGOs | Brochures, Information Education Campaign, Trainings/ Seminars, Hazard Maps, Bantay Barangay, Barangay Assemblies | telecommunications & roads in good condition and public market operating continuously, concreted farm to market road | Gadgets, television, radio, online broadcasting, print media | Contingency Plan, CLUP/Zoning Ordinance, Municipal Disaster Plan, Barangay Disaster Plan | DA, CSO, LGU & PNP Enforcement through Trained staff, Farmers' Association, MAFC, Irrigators’ Assn. |

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| **STIMULI: EXTREME RAINFALL** | | | | | | | | |
| Table 6.2**.EXISTING NATURAL RESOURCES ATTRIBUTE TABLE, MUNICIPALITY OF MANGALDAN** | | | | | | | | |
| **BARANGAY** | **EXPOSURE INDICATORS** | **SENSITIVITY INDICATORS** | **ADAPTIVE CAPACITY** | | | | | |
| **A** | **B** | **C** | **D** | | | | | |
| **Wealth** | **Information** | **Infrastructure** | **Technology** | **Institution & Governance** | **Social Capital** |
| **Salaan** | Sector: Economic Area: Agriculture; Indicator: 25 has. Farmland; Production: 105 MT | 16.25 hectares or 65% of the farmland are submerged during flood. Decreased of production about 68.25 MT | Donations, NGA, LGU, Subsidy from NGOs | Brochures, Information Education Campaign, Trainings/ Seminars, Hazard Maps, Bantay Barangay, Barangay Assemblies | telecommunications & roads in good condition and public market operating continuously, concreted farm to market road | Gadgets, television, radio, online broadcasting, print media | Contingency Plan, CLUP/Zoning Ordinance, Municipal Disaster Plan, Barangay Disaster Plan | DA, CSO, LGU & PNP Enforcement through Trained staff, Farmers' Association, MAFC, Irrigators’ Association |
| **Talogtog** | Sector: Economic Area: Agriculture; Indicator: 2 has. Farmland; Production: 100 MT | 1 hectare or 50 % of the farmland are submerged during flood. Decreased of production about 50 MT. | Donations, NGA, LGU, Subsidy from NGOs | Brochures, Information Education Campaign, Trainings/ Seminars, Hazard Maps, Bantay Barangay, Barangay Assemblies | telecommunications & roads in good condition and public market operating continuously, concreted farm to market road | Gadgets, television, radio, online broadcasting, print media | Contingency Plan, CLUP/Zoning Ordinance, Municipal Disaster Plan, Barangay Disaster Plan | DA, CSO, LGU & PNP Enforcement through Trained staff, Farmers' Association, MAFC, Irrigators’ Association |
| Sector: Economic Area: Agriculture; Indicator: 35.028 Of Strategic Agriculture and Fishery Development Zone has. of Fishponds, Production: 39.40 MT | 18 hectares or 51.39% of the fishpond are submerged during flood. Decreased of production about 28.34 MT | Donations, NGA, LGU, Subsidy from NGOs | Brochures, Information Education Campaign, Trainings/ Seminars, Hazard Maps, Bantay Barangay, Barangay Assemblies | telecommunications & roads in good condition and public market operating continuously, concreted farm to market road | Gadgets, television, radio, online broadcasting, print media | Contingency Plan, CLUP/Zoning Ordinance, Municipal Disaster Plan, Barangay Disaster Plan | DA, CSO, LGU & PNP Enforcement through Trained staff, Farmers' Association, MAFC, Irrigators’ Association |
| **Tebag** | Sector: Economic Area: Agriculture; Indicator: 30 has. Farmland; Production: 365.2 MT | 25 hectares or 83% of the farmland are submerged during flood. Decreased of production about 304.33 MT | Donations, NGA, LGU, Subsidy from NGOs | Brochures, Information Education Campaign, Trainings/ Seminars, Hazard Maps, Bantay Barangay, Barangay Assemblies | telecommunications & roads in good condition and public market operating continuously, concreted farm to market road | Gadgets, television, radio, online broadcasting, print media | Contingency Plan, CLUP/Zoning Ordinance, Municipal Disaster Plan, Barangay Disaster Plan | DA, CSO, LGU & PNP Enforcement through Trained staff, Farmers' Association, MAFC, Irrigators’ Association |

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| **STIMULI: EXTREME RAINFALL** | | | | | | | | |
| Table 6.3. **CRITICAL FACILITIES DATABASE, MUNICIPALITY OF MANGALDAN.** | | | | | | | | |
| **BARANGAY** | **EXPOSURE INDICATORS** | **SENSITIVITY INDICATORS** | **ADAPTIVE CAPACITY** | | | | | | |
| **A** | **B** | **C** | **D** | | | | | | |
| **Wealth** | **Information** | **Infrastructure** | **Technology** | **Institution & Governance** | **Social Capital** | |
| **Anolid** | Sector: Social Area: Health Indicator: Barangay Health Station | Barangay Health Station is located in low lying area and not hazard resistant design. | Donations, NGA, Subsidy from NGOs, IRA, BDRRM Fund, MDRRM Fund | Brochures, Information Education Campaign, Trainings/ Seminars, Hazard Maps, Bantay Barangay, Barangay Assemblies | telecommunications, Flood control facility, drainage canals | Retrofitting of existing structure | Contingency Plan, CLUP/Zoning Ordinance, Municipal Disaster Plan, Peace & Order Plan, Barangay Disaster Plan | CSO, LGU & PNP Enforcement through Trained staff, knowledgeable populace/ residents regarding hazards, | |
| Sector: Social Area: Education Indicator: Anolid Elementary School | Anolid Elementary School is located in low lying area. School building is made of mixed materials and not hazard resilient. | Donations, NGA, Subsidy from NGOs, IRA, BDRRM Fund, MDRRM Fund, Local School Board Fund | Brochures, Information Education Campaign, Trainings/ Seminars, Hazard Maps, Bantay Barangay, Barangay Assemblies | telecommunications, School Buildings in good condition (elevated), | Gadgets, television, radio, online broadcasting, print media | Contingency Plan, CLUP/Zoning Ordinance, MDRRMP, Local School Board Plan, Schools Improvement Plan | DepEd, CSO, LGU & PNP Enforcement through Trained staff, school disaster focal persons | |
| **STIMULI: EXTREME RAINFALL** | | | | | | | | |
| Table 6.3.**CRITICAL FACILITIES DATABASE, MUNICIPALITY OF MANGALDAN.** | | | | | | | | |
| **BARANGAY** | **EXPOSURE INDICATORS** | **SENSITIVITY INDICATORS** | **ADAPTIVE CAPACITY** | | | | | | |
| **A** | **B** | **C** | **D** | | | | | | |
| **Wealth** | **Information** | **Infrastructure** | **Technology** | **Institution & Governance** | **Social Capital** | |
| **Anolid** | Sector: Infrastructure Area: Road  Indicator: 1 km concreted farm to market road | Anolid-Perlan Road is located in low lying area. Impassable during flood. | Donations, NGA, Subsidy from NGOs, IRA, BDRRM Fund, MDRRM Fund, 20% Dev't. Fund | Brochures, Information Education Campaign, Trainings/ Seminars, Hazard Maps, Bantay Barangay, Barangay Assemblies | telecommunications, Flood control facility, drainage canals | Retrofitting of existing structure | Contingency Plan, CLUP/ Zoning Ordinance, MDRRMP | DPWH, CSO, LGU & PNP Enforcement through Trained staff, knowledgeable populace/ residents regarding hazards, | |
| **Banaoang** | Sector: Infrastructure Area: Road  Indicator: 1 km Provincial Road | 600 meters Banaoang East Provincial Road is located in low lying and easily flooded | Donations, NGA, Subsidy from NGOs, IRA, BDRRM Fund, MDRRM Fund, 20% Dev't. Fund | Brochures, Information Education Campaign, Trainings/ Seminars, Hazard Maps, Bantay Barangay, Barangay Assemblies | telecommunications, Flood control facility, drainage canals | Retrofitting of existing structure | Contingency Plan, CLUP/ Zoning Ordinance, MDRRMP | DPWH, CSO, LGU & PNP Enforcement through Trained staff, knowledgeable populace/ residents regarding hazards, | |
| **Bantayan** | Sector: Social Area: Education Indicator: Mangaldan Integrated School | Mangaldan Integrated School is located in low lying area. And some school buildings are made of mixed materials and not hazard resilient | Donations, NGA, Subsidy from NGOs, IRA, BDRRM Fund, MDRRM Fund, Local School Board Fund | Brochures, Information Education Campaign, Trainings/ Seminars, Hazard Maps, Bantay Barangay, Barangay Assemblies | telecommunications, School Buildings in good condition (elevated), | Gadgets, television, radio, online broadcasting, print media | Contingency Plan, CLUP/Zoning Ordinance, MDRRMP, Local School Board Plan, Schools Improvement Plan | DepEd, CSO, LGU & PNP Enforcement through Trained staff, school disaster focal persons | |
| Sector: Infrastructure Area: Road  Indicator: 1.544 km unpaved barangay road | Barangay Road is located in low lying area. Impassable during flood and made of earth. | Donations, NGA, Subsidy from NGOs, IRA, BDRRM Fund, MDRRM Fund, 20% Dev't. Fund | Brochures, Information Education Campaign, Trainings/ Seminars, Hazard Maps, Bantay Barangay, Barangay Assemblies | telecommunications, Flood control facility, drainage canals | Retrofitting of existing structure | Contingency Plan, CLUP/ Zoning Ordinance, MDRRMP | DPWH, CSO, LGU & PNP Enforcement through Trained staff, knowledgeable populace/ residents regarding hazards, | |
| **Bateng** | Sector: Social Area: Health Indicator: Barangay Health Station | Barangay Health Station is located in low lying area and easily flooded. | Donations, NGA, Subsidy from NGOs, IRA, BDRRM Fund, MDRRM Fund | Brochures, Information Education Campaign, Trainings/ Seminars, Hazard Maps, Bantay Barangay, Barangay Assemblies | telecommunications, Flood control facility, drainage canals | Retrofitting of existing structure | Contingency Plan, CLUP/Zoning Ordinance, Municipal Disaster Plan, Peace & Order Plan, Barangay Disaster Plan | CSO, LGU & PNP Enforcement through Trained staff, knowledgeable populace/ residents regarding hazards, | |
| **David** | Sector: Social Area: Health Indicator: Barangay Health Station | Barangay Health Station is located in low lying area and easily flooded. | Donations, NGA, Subsidy from NGOs, IRA, BDRRM Fund, MDRRM Fund | Brochures, Information Education Campaign, Trainings/ Seminars, Hazard Maps, Bantay Barangay, Barangay Assemblies | telecommunications, Flood control facility, drainage canals | Retrofitting of existing structure | Contingency Plan, CLUP/Zoning Ordinance, Municipal Disaster Plan, Peace & Order Plan, Barangay Disaster Plan | CSO, LGU & PNP Enforcement through Trained staff, knowledgeable populace/ residents regarding hazards, | |
| Sector: Social Area: Education Indicator: David Elementary School | David Elementary School is located in low lying area. And some school buildings are made of mixed materials and not hazard resilient | Donations, NGA, Subsidy from NGOs, IRA, BDRRM Fund, MDRRM Fund, Local School Board Fund | Brochures, Information Education Campaign, Trainings/ Seminars, Hazard Maps, Bantay Barangay, Barangay Assemblies | telecommunications, School Buildings in good condition (elevated), | Gadgets, television, radio, online broadcasting, print media | Contingency Plan, CLUP/Zoning Ordinance, MDRRMP, Local School Board Plan, Schools Improvement Plan | DepEd, CSO, LGU & PNP Enforcement through Trained staff, school disaster focal persons | |

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| **STIMULI: EXTREME RAINFALL** | | | | | | | | |
| Table 6.3.**CRITICAL FACILITIES DATABASE, MUNICIPALITY OF MANGALDAN.** | | | | | | | | |
| **BARANGAY** | **EXPOSURE INDICATORS** | **SENSITIVITY INDICATORS** | **ADAPTIVE CAPACITY** | | | | | | |
| **A** | **B** | **C** | **D** | | | | | | |
| **Wealth** | **Information** | **Infrastructure** | **Technology** | **Institution & Governance** | **Social Capital** | |
| **David** | Sector: Infrastructure Area: Road  Indicator: 1 km concreted Provincial Road | 500 meters Provincial Road is located in low lying area with pothole and pavement crack. Impassable during flood. | Donations, NGA, Subsidy from NGOs, IRA, BDRRM Fund, MDRRM Fund, 20% Dev't. Fund | Brochures, Information Education Campaign, Trainings/ Seminars, Hazard Maps, Bantay Barangay, Barangay Assemblies | telecommunications, Flood control facility, drainage canals | Retrofitting of existing structure | Contingency Plan, CLUP/ Zoning Ordinance, MDRRMP | DPWH, CSO, LGU & PNP Enforcement through Trained staff, knowledgeable populace/ residents regarding hazards, | |
| **Embarcadero** | Sector: Social Area: Education Indicator: Embarcadero Elementary School | Embarcadero Elementary School is located in low lying area and easily flooded. | Donations, NGA, Subsidy from NGOs, IRA, BDRRM Fund, MDRRM Fund, Local School Board Fund | Brochures, Information Education Campaign, Trainings/ Seminars, Hazard Maps, Bantay Barangay, Barangay Assemblies | telecommunications, School Buildings in good condition (elevated), | Gadgets, television, radio, online broadcasting, print media | Contingency Plan, CLUP/Zoning Ordinance, MDRRMP, Local School Board Plan, Schools Improvement Plan | DepEd, CSO, LGU & PNP Enforcement through Trained staff, school disaster focal persons | |
| Sector: Infrastructure Area: Road  Indicator: 180 meters farm to market road unpaved | 110 meters Farm to market road is located in low lying area made of earth | Donations, NGA, Subsidy from NGOs, IRA, BDRRM Fund, MDRRM Fund, 20% Dev't. Fund | Brochures, Information Education Campaign, Trainings/ Seminars, Hazard Maps, Bantay Barangay, Barangay Assemblies | telecommunications, Flood control facility, drainage canals | Retrofitting of existing structure | Contingency Plan, CLUP/ Zoning Ordinance, MDRRMP | DPWH, CSO, LGU & PNP Enforcement through Trained staff, knowledgeable populace/ residents regarding hazards, | |
| **Guesang** | Sector: Social Area: Education Indicator: Guesang Elementary School | Guesang Elementary School is located in low lying area. School building is made of mixed materials and not hazard resilient. | Donations, NGA, Subsidy from NGOs, IRA, BDRRM Fund, MDRRM Fund, Local School Board Fund | Brochures, Information Education Campaign, Trainings/ Seminars, Hazard Maps, Bantay Barangay, Barangay Assemblies | telecommunications, School Buildings in good condition (elevated), | Gadgets, television, radio, online broadcasting, print media | Contingency Plan, CLUP/Zoning Ordinance, MDRRMP, Local School Board Plan, Schools Improvement Plan | DepEd, CSO, LGU & PNP Enforcement through Trained staff, school disaster focal persons | |
| Sector: Infrastructure Area: Road  Indicator: 4.443 kms barangay road unpaved | 1.140 km Barangay road is located in low lying area made of earth | Donations, NGA, Subsidy from NGOs, IRA, BDRRM Fund, MDRRM Fund, 20% Dev't. Fund | Brochures, Information Education Campaign, Trainings/ Seminars, Hazard Maps, Bantay Barangay, Barangay Assemblies | telecommunications, Flood control facility, drainage canals | Retrofitting of existing structure | Contingency Plan, CLUP/ Zoning Ordinance, MDRRMP | DPWH, CSO, LGU & PNP Enforcement through Trained staff, knowledgeable populace/ residents regarding hazards, | |
| **Guiguilonen** | Sector: Infrastructure Area: Road  Indicator: 182 meters barangay road unpaved | Barangay road is located in low lying area and made of earth. | Donations, NGA, Subsidy from NGOs, IRA, BDRRM Fund, MDRRM Fund, 20% Dev't. Fund | Brochures, Information Education Campaign, Trainings/ Seminars, Hazard Maps, Bantay Barangay, Barangay Assemblies | telecommunications, Flood control facility, drainage canals | Retrofitting of existing structure | Contingency Plan, CLUP/ Zoning Ordinance, MDRRMP | DPWH, CSO, LGU & PNP Enforcement through Trained staff, knowledgeable populace/ residents regarding hazards, | |
| **Inlambo** | Sector: Social Area: Education Indicator: Inlambo Elementary School | Inlambo Elementary School is located in low lying area. School building is made of mixed materials and not hazard resistant design. | Donations, NGA, Subsidy from NGOs, IRA, BDRRM Fund, MDRRM Fund, Local School Board Fund | Brochures, Information Education Campaign, Trainings/ Seminars, Hazard Maps, Bantay Barangay, Barangay Assemblies | telecommunications, School Buildings in good condition (elevated), | Gadgets, television, radio, online broadcasting, print media | Contingency Plan, CLUP/Zoning Ordinance, MDRRMP, Local School Board Plan, Schools Improvement Plan | DepEd, CSO, LGU & PNP Enforcement through Trained staff, school disaster focal persons | |

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| **STIMULI: EXTREME RAINFALL** | | | | | | | | |
| Table 6.3.**CRITICAL FACILITIES DATABASE, MUNICIPALITY OF MANGALDAN.** | | | | | | | | |
| **BARANGAY** | **EXPOSURE INDICATORS** | **SENSITIVITY INDICATORS** | **ADAPTIVE CAPACITY** | | | | | | |
| **A** | **B** | **C** | **D** | | | | | | |
| **Wealth** | **Information** | **Infrastructure** | **Technology** | **Institution & Governance** | **Social Capital** | |
| **Inlambo** | Sector: Infrastructure Area: Road  Indicator: 2.166 km barangay road unpaved | 418 meters Inlambo barangay road is located in low lying area and made of earth | Donations, NGA, Subsidy from NGOs, IRA, BDRRM Fund, MDRRM Fund, 20% Dev't. Fund | Brochures, Information Education Campaign, Trainings/ Seminars, Hazard Maps, Bantay Barangay, Barangay Assemblies | telecommunications, Flood control facility, drainage canals | Retrofitting of existing structure | Contingency Plan, CLUP/ Zoning Ordinance, MDRRMP | DPWH, CSO, LGU & PNP Enforcement through Trained staff, knowledgeable populace/ residents regarding hazards, | |
| **Lanas** | Sector: Social Area: Education Indicator: Lanas Elementary School | Lanas Elementary School is located in low lying area and easily flooded. | Donations, NGA, Subsidy from NGOs, IRA, BDRRM Fund, MDRRM Fund, Local School Board Fund | Brochures, Information Education Campaign, Trainings/ Seminars, Hazard Maps, Bantay Barangay, Barangay Assemblies | telecommunications, School Buildings in good condition (elevated), | Gadgets, television, radio, online broadcasting, print media | Contingency Plan, CLUP/Zoning Ordinance, MDRRMP, Local School Board Plan, Schools Improvement Plan | DepEd, CSO, LGU & PNP Enforcement through Trained staff, school disaster focal persons | |
| Sector: Infrastructure Area: Road  Indicator: 2.620 km barangay road made unpaved | 2.350 Barangay road is located in low lying area made of earth | Donations, NGA, Subsidy from NGOs, IRA, BDRRM Fund, MDRRM Fund, 20% Dev't. Fund | Brochures, Information Education Campaign, Trainings/ Seminars, Hazard Maps, Bantay Barangay, Barangay Assemblies | telecommunications, Flood control facility, drainage canals | Retrofitting of existing structure | Contingency Plan, CLUP/ Zoning Ordinance, MDRRMP | DPWH, CSO, LGU & PNP Enforcement through Trained staff, knowledgeable populace/ residents regarding hazards, | |
| **Landas** | Sector: Infrastructure Area: Road  Indicator: 200 meters barangay road unpaved | Riverside Road is located in low lying area and made of earth | Donations, NGA, Subsidy from NGOs, IRA, BDRRM Fund, MDRRM Fund, 20% Dev't. Fund | Brochures, Information Education Campaign, Trainings/ Seminars, Hazard Maps, Bantay Barangay, Barangay Assemblies | telecommunications, Flood control facility, drainage canals | Retrofitting of existing structure | Contingency Plan, CLUP/ Zoning Ordinance, MDRRMP | DPWH, CSO, LGU & PNP Enforcement through Trained staff, knowledgeable populace/ residents regarding hazards, | |
| **Maasin** | Sector: Social Area: Health Indicator: Barangay Health Station | Barangay Health Station is located in low lying area and easily flooded. | Donations, NGA, Subsidy from NGOs, IRA, BDRRM Fund, MDRRM Fund | Brochures, Information Education Campaign, Trainings/ Seminars, Hazard Maps, Bantay Barangay, Barangay Assemblies | telecommunications, Flood control facility, drainage canals | Retrofitting of existing structure | Contingency Plan, CLUP/Zoning Ordinance, Municipal Disaster Plan, Peace & Order Plan, Barangay Disaster Plan | CSO, LGU & PNP Enforcement through Trained staff, knowledgeable populace/ residents regarding hazards, | |
| Sector: Social Area: Education Indicator: Maasin Elementary School | Maasin Elem. School is located in low lying area and easily flooded Some of the school buildings are made of mixed materials. | Donations, NGA, Subsidy from NGOs, IRA, BDRRM Fund, MDRRM Fund, Local School Board Fund | Brochures, Information Education Campaign, Trainings/ Seminars, Hazard Maps, Bantay Barangay, Barangay Assemblies | telecommunications, School Buildings in good condition (elevated), | Gadgets, television, radio, online broadcasting, print media | Contingency Plan, CLUP/Zoning Ordinance, MDRRMP, Local School Board Plan, Schools Improvement Plan | DepEd, CSO, LGU & PNP Enforcement through Trained staff, school disaster focal persons | |
| Sector: Infrastructure Area: Road  Indicator: 500 meters barangay road unpaved | Maasin barangay road is located in low lying area and easily flooded | Donations, NGA, Subsidy from NGOs, IRA, BDRRM Fund, MDRRM Fund, 20% Dev't. Fund | Brochures, Information Education Campaign, Trainings/ Seminars, Hazard Maps, Bantay Barangay, Barangay Assemblies | telecommunications, Flood control facility, drainage canals | Retrofitting of existing structure | Contingency Plan, CLUP/ Zoning Ordinance, MDRRMP | DPWH, CSO, LGU & PNP Enforcement through Trained staff, knowledgeable populace/ residents regarding hazards, | |

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| **STIMULI: EXTREME RAINFALL** | | | | | | | | | | | | |
| Table 6.3.**CRITICAL FACILITIES DATABASE, MUNICIPALITY OF MANGALDAN.** | | | | | | | | | | | | |
| **BARANGAY** | **EXPOSURE INDICATORS** | **SENSITIVITY INDICATORS** | **ADAPTIVE CAPACITY** | | | | | | | | | | |
| **A** | **B** | **C** | **D** | | | | | | | | | | |
| **Wealth** | **Information** | | **Infrastructure** | **Technology** | | **Institution & Governance** | | **Social Capital** | | |
| **Macayug** | Sector: Social Area: Health Indicator: Barangay Health Station | Barangay Health Station is located in low lying area and easily flooded. | Donations, NGA, Subsidy from NGOs, IRA, BDRRM Fund, MDRRM Fund | Brochures, Information Education Campaign, Trainings/ Seminars, Hazard Maps, Bantay Barangay, Barangay Assemblies | | telecommunications, Flood control facility, drainage canals | Retrofitting of existing structure | | Contingency Plan, CLUP/Zoning Ordinance, Municipal Disaster Plan, Peace & Order Plan, Barangay Disaster Plan | | CSO, LGU & PNP Enforcement through Trained staff, knowledgeable populace/ residents regarding hazards, | | |
| Sector: Social Area: Education Indicator: Macayug Elementary School | Macayug Elementary School is located in low lying area and easily flooded. School buildings are made of mixed materials and not hazard resistant. | Donations, NGA, Subsidy from NGOs, IRA, BDRRM Fund, MDRRM Fund, Local School Board Fund | Brochures, Information Education Campaign, Trainings/ Seminars, Hazard Maps, Bantay Barangay, Barangay Assemblies | | telecommunications, School Buildings in good condition (elevated), | Gadgets, television, radio, online broadcasting, print media | | Contingency Plan, CLUP/Zoning Ordinance, MDRRMP, Local School Board Plan, Schools Improvement Plan | | DepEd, CSO, LGU & PNP Enforcement through Trained staff, school disaster focal persons | | |
| **Navaluan** | Sector: Social Area: Health Indicator: Barangay Health Station | Barangay Health Station is located in low lying area and easily flooded. | Donations, NGA, Subsidy from NGOs, IRA, BDRRM Fund, MDRRM Fund | Brochures, Information Education Campaign, Trainings/ Seminars, Hazard Maps, Bantay Barangay, Barangay Assemblies | | telecommunications, Flood control facility, drainage canals | Retrofitting of existing structure | | Contingency Plan, CLUP/Zoning Ordinance, Municipal Disaster Plan, Peace & Order Plan, Barangay Disaster Plan | | CSO, LGU & PNP Enforcement through Trained staff, knowledgeable populace/ residents regarding hazards, | | |
| Sector: Social Area: Education Indicator: Navaluan Elementary School | Navaluan Elementary School is located in low lying area. And some school building s are made of mixed materials and not hazard resilient | Donations, NGA, Subsidy from NGOs, IRA, BDRRM Fund, MDRRM Fund, Local School Board Fund | Brochures, Information Education Campaign, Trainings/ Seminars, Hazard Maps, Bantay Barangay, Barangay Assemblies | | telecommunications, School Buildings in good condition (elevated), | Gadgets, television, radio, online broadcasting, print media | | Contingency Plan, CLUP/Zoning Ordinance, MDRRMP, Local School Board Plan, Schools Improvement Plan | | DepEd, CSO, LGU & PNP Enforcement through Trained staff, school disaster focal persons | | |
| Sector: Infrastructure Area: Road  Indicator: 500 meters unpaved farm to market road | 420 meters Farm to Market Road is located in low lying area and made of earth. Impassable during flood. | Donations, NGA, Subsidy from NGOs, IRA, BDRRM Fund, MDRRM Fund, 20% Dev't. Fund | Brochures, Information Education Campaign, Trainings/ Seminars, Hazard Maps, Bantay Barangay, Barangay Assemblies | | telecommunications, Flood control facility, drainage canals | Retrofitting of existing structure | | Contingency Plan, CLUP/ Zoning Ordinance, MDRRMP | | DPWH, CSO, LGU & PNP Enforcement through Trained staff, knowledgeable populace/ residents regarding hazards, | | |
| **Nibaliw** | Sector: Social Area: Health Indicator: Barangay Health Station | Barangay Health Station is located in low lying area and easily flooded. | Donations, NGA, Subsidy from NGOs, IRA, BDRRM Fund, MDRRM Fund | Brochures, Information Education Campaign, Trainings/ Seminars, Hazard Maps, Bantay Barangay, Barangay Assemblies | | telecommunications, Flood control facility, drainage canals | Retrofitting of existing structure | | Contingency Plan, CLUP/Zoning Ordinance, Municipal Disaster Plan, Peace & Order Plan, Barangay Disaster Plan | | CSO, LGU & PNP Enforcement through Trained staff, knowledgeable populace/ residents regarding hazards, | | |
| Sector: Social Area: Education Indicator: Nibaliw Elementary School | Nibaliw Elementary School is located in low lying area. And some school buildings are made of mixed materials and not hazard resilient | Donations, NGA, Subsidy from NGOs, IRA, BDRRM Fund, MDRRM Fund, Local School Board Fund | Brochures, Information Education Campaign, Trainings/ Seminars, Hazard Maps, Bantay Barangay, Barangay Assemblies | | telecommunications, School Buildings in good condition (elevated), | Gadgets, television, radio, online broadcasting, print media | | Contingency Plan, CLUP/Zoning Ordinance, MDRRMP, Local School Board Plan, Schools Improvement Plan | | DepEd, CSO, LGU & PNP Enforcement through Trained staff, school disaster focal persons | | |
| **STIMULI: EXTREME RAINFALL** | | | | | | | | | | | | |
| Table 6.3.**CRITICAL FACILITIES DATABASE, MUNICIPALITY OF MANGALDAN.** | | | | | | | | | | | | |
| **BARANGAY** | **EXPOSURE INDICATORS** | **SENSITIVITY INDICATORS** | **ADAPTIVE CAPACITY** | | | | | | | | | | | |
| **A** | **B** | **C** | **D** | | | | | | | | | | | |
| **Wealth** | **Information** | **Infrastructure** | | | **Technology** | | **Institution & Governance** | | **Social Capital** | | |
| **Nibaliw** | Sector: Infrastructure Area: Road  Indicator: 650 meters barangay road | 420 meters barangay Road is located in low lying area made of gravel. Impassable during flood. | Donations, NGA, Subsidy from NGOs, IRA, BDRRM Fund, MDRRM Fund, 20% Dev't. Fund | Brochures, Information Education Campaign, Trainings/ Seminars, Hazard Maps, Bantay Barangay, Barangay Assemblies | telecommunications, Flood control facility, drainage canals | | | Retrofitting of existing structure | | Contingency Plan, CLUP/ Zoning Ordinance, MDRRMP | | DPWH, CSO, LGU & PNP Enforcement through Trained staff, knowledgeable populace/ residents regarding hazards, | | |
| **Osiem** | Sector: Social Area: Health Indicator: Barangay Health Station | Barangay Health Station is located in low lying area and easily flooded. | Donations, NGA, Subsidy from NGOs, IRA, BDRRM Fund, MDRRM Fund | Brochures, Information Education Campaign, Trainings/ Seminars, Hazard Maps, Bantay Barangay, Barangay Assemblies | telecommunications, Flood control facility, drainage canals | | | Retrofitting of existing structure | | Contingency Plan, CLUP/Zoning Ordinance, Municipal Disaster Plan, Peace & Order Plan, Barangay Disaster Plan | | CSO, LGU & PNP Enforcement through Trained staff, knowledgeable populace/ residents regarding hazards, | | |
| Sector: Social Area: Education Indicator: Osiem Elementary School | Osiem Elementary School is located in low lying area. And some school buildings are made of mixed materials and not hazard resilient | Donations, NGA, Subsidy from NGOs, IRA, BDRRM Fund, MDRRM Fund, Local School Board Fund | Brochures, Information Education Campaign, Trainings/ Seminars, Hazard Maps, Bantay Barangay, Barangay Assemblies | telecommunications, School Buildings in good condition (elevated), | | | Gadgets, television, radio, online broadcasting, print media | | Contingency Plan, CLUP/Zoning Ordinance, MDRRMP, Local School Board Plan, Schools Improvement Plan | | DepEd, CSO, LGU & PNP Enforcement through Trained staff, school disaster focal persons | | |
| Sector: Infrastructure Area: Road  Indicator: 470 meters barangay road unpaved | Osiem barangay road is located in low lying area and made of earth. | Donations, NGA, Subsidy from NGOs, IRA, BDRRM Fund, MDRRM Fund, 20% Dev't. Fund | Brochures, Information Education Campaign, Trainings/ Seminars, Hazard Maps, Bantay Barangay, Barangay Assemblies | telecommunications, Flood control facility, drainage canals | | | Retrofitting of existing structure | | Contingency Plan, CLUP/ Zoning Ordinance, MDRRMP | | DPWH, CSO, LGU & PNP Enforcement through Trained staff, knowledgeable populace/ residents regarding hazards, | | |
| **Palua** | Sector: Social Area: Health Indicator: Barangay Health Station | Barangay Health Station is located in low lying area and easily flooded. | Donations, NGA, Subsidy from NGOs, IRA, BDRRM Fund, MDRRM Fund | Brochures, Information Education Campaign, Trainings/ Seminars, Hazard Maps, Bantay Barangay, Barangay Assemblies | telecommunications, Flood control facility, drainage canals | | | Retrofitting of existing structure | | Contingency Plan, CLUP/Zoning Ordinance, Municipal Disaster Plan, Peace & Order Plan, Barangay Disaster Plan | | CSO, LGU & PNP Enforcement through Trained staff, knowledgeable populace/ residents regarding hazards, | | |
| Sector: Infrastructure Area: Road  Indicator: 2.120 km unpaved barangay road | 1.600 km barangay road is located in low lying area and made of earth. Impassable during flood. | Donations, NGA, Subsidy from NGOs, IRA, BDRRM Fund, MDRRM Fund, 20% Dev't. Fund | Brochures, Information Education Campaign, Trainings/ Seminars, Hazard Maps, Bantay Barangay, Barangay Assemblies | telecommunications, Flood control facility, drainage canals | | | Retrofitting of existing structure | | Contingency Plan, CLUP/ Zoning Ordinance, MDRRMP | | DPWH, CSO, LGU & PNP Enforcement through Trained staff, knowledgeable populace/ residents regarding hazards, | | |
| **Poblacion** | Sector: Social Area: Health Indicator: Urgent Care Clinic | Urgent Care Clinic is located in low lying area and easily flooded | Donations, NGA, Subsidy from NGOs, IRA, BDRRM Fund, MDRRM Fund | Brochures, Information Education Campaign, Trainings/ Seminars, Hazard Maps, Bantay Barangay, Barangay Assemblies | telecommunications, Flood control facility, drainage canals | | | Retrofitting of existing structure | | Contingency Plan, CLUP/Zoning Ordinance, Municipal Disaster Plan, Peace & Order Plan, Barangay Disaster Plan | | CSO, LGU & PNP Enforcement through Trained staff, knowledgeable populace/ residents regarding hazards, | | |

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| **STIMULI: EXTREME RAINFALL** | | | | | | | | |
| Table 6.3.**CRITICAL FACILITIES DATABASE, MUNICIPALITY OF MANGALDAN.** | | | | | | | | |
| **BARANGAY** | **EXPOSURE INDICATORS** | **SENSITIVITY INDICATORS** | **ADAPTIVE CAPACITY** | | | | | | |
| **A** | **B** | **C** | **D** | | | | | | |
| **Wealth** | **Information** | **Infrastructure** | **Technology** | **Institution & Governance** | **Social Capital** | |
| **Poblacion** | Sector: Social Area: Education Indicator: Mangaldan Central School | Mangaldan Central School is located in low lying area and easily flooded | Donations, NGA, Subsidy from NGOs, IRA, BDRRM Fund, MDRRM Fund, Local School Board Fund | Brochures, Information Education Campaign, Trainings/ Seminars, Hazard Maps, Bantay Barangay, Barangay Assemblies | telecommunications, School Buildings in good condition (elevated), | Gadgets, television, radio, online broadcasting, print media | Contingency Plan, CLUP/Zoning Ordinance, MDRRMP, Local School Board Plan, Schools Improvement Plan | DepEd, CSO, LGU & PNP Enforcement through Trained staff, school disaster focal persons | |
| Sector: Infrastructure Area: Road  Indicator: 500 m of dilapidated road (Duyala St.) | 400 meters Duyala Road is located in low lying area with pothole and pavement crack. | Donations, NGA, Subsidy from NGOs, IRA, BDRRM Fund, MDRRM Fund, 20% Dev't. Fund | Brochures, Information Education Campaign, Trainings/ Seminars, Hazard Maps, Bantay Barangay, Barangay Assemblies | telecommunications, Flood control facility, drainage canals | Retrofitting of existing structure | Contingency Plan, CLUP/ Zoning Ordinance, MDRRMP | DPWH, CSO, LGU & PNP Enforcement through Trained staff, knowledgeable populace/ residents regarding hazards, | |
| **Pogo** | Sector: Social Area: Health Indicator: Barangay Health Station | Barangay Health Station is located in low lying area and easily flooded. | Donations, NGA, Subsidy from NGOs, IRA, BDRRM Fund, MDRRM Fund | Brochures, Information Education Campaign, Trainings/ Seminars, Hazard Maps, Bantay Barangay, Barangay Assemblies | telecommunications, Flood control facility, drainage canals | Retrofitting of existing structure | Contingency Plan, CLUP/Zoning Ordinance, Municipal Disaster Plan, Peace & Order Plan, Barangay Disaster Plan | CSO, LGU & PNP Enforcement through Trained staff, knowledgeable populace/ residents regarding hazards, | |
| Sector: Social Area: Education Indicator: Pogo-Palua Elementary School | Pogo-Palua Elementary School is located in low lying area. And some school buildingsare made of mixed materials and not hazard resilient | Donations, NGA, Subsidy from NGOs, IRA, BDRRM Fund, MDRRM Fund, Local School Board Fund | Brochures, Information Education Campaign, Trainings/ Seminars, Hazard Maps, Bantay Barangay, Barangay Assemblies | telecommunications, School Buildings in good condition (elevated), | Gadgets, television, radio, online broadcasting, print media | Contingency Plan, CLUP/Zoning Ordinance, MDRRMP, Local School Board Plan, Schools Improvement Plan | DepEd, CSO, LGU & PNP Enforcement through Trained staff, school disaster focal persons | |
| Sector: Infrastructure Area: Road  Indicator: 1.210 km unpaved barangay road | 950 meters barangay road is located in low lying area and made of earth. Impassable during flood. | Donations, NGA, Subsidy from NGOs, IRA, BDRRM Fund, MDRRM Fund, 20% Dev't. Fund | Brochures, Information Education Campaign, Trainings/ Seminars, Hazard Maps, Bantay Barangay, Barangay Assemblies | telecommunications, Flood control facility, drainage canals | Retrofitting of existing structure | Contingency Plan, CLUP/ Zoning Ordinance, MDRRMP | DPWH, CSO, LGU & PNP Enforcement through Trained staff, knowledgeable populace/ residents regarding hazards, | |
| **Salaan** | Sector: Social Area: Health Indicator: Barangay Health Station | Barangay Health Station is located in low lying area and easily flooded. | Donations, NGA, Subsidy from NGOs, IRA, BDRRM Fund, MDRRM Fund | Brochures, Information Education Campaign, Trainings/ Seminars, Hazard Maps, Bantay Barangay, Barangay Assemblies | telecommunications, Flood control facility, drainage canals | Retrofitting of existing structure | Contingency Plan, CLUP/Zoning Ordinance, Municipal Disaster Plan, Peace & Order Plan, Barangay Disaster Plan | CSO, LGU & PNP Enforcement through Trained staff, knowledgeable populace/ residents regarding hazards, | |
| Sector: Social Area: Education Indicator: Salaan Elementary School | Salaan Elementary School is located in low lying area. And some school buildingsare made of mixed materials and not hazard resilient | Donations, NGA, Subsidy from NGOs, IRA, BDRRM Fund, MDRRM Fund, Local School Board Fund | Brochures, Information Education Campaign, Trainings/ Seminars, Hazard Maps, Bantay Barangay, Barangay Assemblies | telecommunications, School Buildings in good condition (elevated), | Gadgets, television, radio, online broadcasting, print media | Contingency Plan, CLUP/Zoning Ordinance, MDRRMP, Local School Board Plan, Schools Improvement Plan | DepEd, CSO, LGU & PNP Enforcement through Trained staff, school disaster focal persons | |

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| **STIMULI: EXTREME RAINFALL** | | | | | | | | | | | |
| Table 6.3.**CRITICAL FACILITIES DATABASE, MUNICIPALITY OF MANGALDAN.** | | | | | | | | | | | |
| **BARANGAY** | | **EXPOSURE INDICATORS** | **SENSITIVITY INDICATORS** | **ADAPTIVE CAPACITY** | | | | | | | | |
| **A** | | **B** | **C** | **D** | | | | | | | | |
| **Wealth** | **Information** | **Infrastructure** | **Technology** | | **Institution & Governance** | | **Social Capital** | |
| **Salaan** | | Sector: Infrastructure Area: Road  Indicator: 770 meters unpaved barangay road | 550 meters barangay Road is located in low lying area and made of earth. Impassable during flood. | Donations, NGA, Subsidy from NGOs, IRA, BDRRM Fund, MDRRM Fund, 20% Dev't. Fund | Brochures, Information Education Campaign, Trainings/ Seminars, Hazard Maps, Bantay Barangay, Barangay Assemblies | telecommunications, Flood control facility, drainage canals | Retrofitting of existing structure | | Contingency Plan, CLUP/ Zoning Ordinance, MDRRMP | | DPWH, CSO, LGU & PNP Enforcement through Trained staff, knowledgeable populace/ residents regarding hazards, | |
| **Talogtog** | | Sector: Social Area: Health Indicator: Barangay Health Station | Barangay Health Station is located in low lying area and easily flooded. | Donations, NGA, Subsidy from NGOs, IRA, BDRRM Fund, MDRRM Fund | Brochures, Information Education Campaign, Trainings/ Seminars, Hazard Maps, Bantay Barangay, Barangay Assemblies | telecommunications, Flood control facility, drainage canals | Retrofitting of existing structure | | Contingency Plan, CLUP/Zoning Ordinance, Municipal Disaster Plan, Peace & Order Plan, Barangay Disaster Plan | | CSO, LGU & PNP Enforcement through Trained staff, knowledgeable populace/ residents regarding hazards, | |
| Sector: Social Area: Education Indicator: Talogtog-Bateng Elementary School | Talogtog-Bateng Elementary School is located in low lying area. And some school buildings are made of mixed materials and not hazard resilient | Donations, NGA, Subsidy from NGOs, IRA, BDRRM Fund, MDRRM Fund, Local School Board Fund | Brochures, Information Education Campaign, Trainings/ Seminars, Hazard Maps, Bantay Barangay, Barangay Assemblies | telecommunications, School Buildings in good condition (elevated), | Gadgets, television, radio, online broadcasting, print media | | Contingency Plan, CLUP/Zoning Ordinance, MDRRMP, Local School Board Plan, Schools Improvement Plan | | DepEd, CSO, LGU & PNP Enforcement through Trained staff, school disaster focal persons | |
| Sector: Infrastructure Area: Road  Indicator:586 meters unpaved barangay road | 586 meters barangay Road is located in low lying area and made of earth. Impassable during flood. | Donations, NGA, Subsidy from NGOs, IRA, BDRRM Fund, MDRRM Fund, 20% Dev't. Fund | Brochures, Information Education Campaign, Trainings/ Seminars, Hazard Maps, Bantay Barangay, Barangay Assemblies | telecommunications, Flood control facility, drainage canals | Retrofitting of existing structure | | Contingency Plan, CLUP/ Zoning Ordinance, MDRRMP | | DPWH, CSO, LGU & PNP Enforcement through Trained staff, knowledgeable populace/ residents regarding hazards, | |
| **Tebag** | | Sector: Social Area: Health Indicator: Barangay Health Station | Barangay Health Station is located in low lying area and easily flooded. | Donations, NGA, Subsidy from NGOs, IRA, BDRRM Fund, MDRRM Fund | Brochures, Information Education Campaign, Trainings/ Seminars, Hazard Maps, Bantay Barangay, Barangay Assemblies | telecommunications, Flood control facility, drainage canals | Retrofitting of existing structure | | Contingency Plan, CLUP/Zoning Ordinance, Municipal Disaster Plan, Peace & Order Plan, Barangay Disaster Plan | | CSO, LGU & PNP Enforcement through Trained staff, knowledgeable populace/ residents regarding hazards, | |
| Sector: Social Area: Education Indicator: Tebag Elementary School | Talogtog-Bateng Elementary School is located in low lying area. And some school buildings are made of mixed materials and not hazard resilient | Donations, NGA, Subsidy from NGOs, IRA, BDRRM Fund, MDRRM Fund, Local School Board Fund | Brochures, Information Education Campaign, Trainings/ Seminars, Hazard Maps, Bantay Barangay, Barangay Assemblies | telecommunications, School Buildings in good condition (elevated), | Gadgets, television, radio, online broadcasting, print media | | Contingency Plan, CLUP/Zoning Ordinance, MDRRMP, Local School Board Plan, Schools Improvement Plan | | DepEd, CSO, LGU & PNP Enforcement through Trained staff, school disaster focal persons | |
| **STIMULI: EXTREME RAINFALL** | | | | | | | | | | | |
| Table 6.3.**CRITICAL FACILITIES DATABASE, MUNICIPALITY OF MANGALDAN.** | | | | | | | | | | | |
| **BARANGAY** | | **EXPOSURE INDICATORS** | **SENSITIVITY INDICATORS** | **ADAPTIVE CAPACITY** | | | | | | | | |
| **A** | | **B** | **C** | **D** | | | | | | | | |
| **Wealth** | **Information** | **Infrastructure** | **Technology** | | **Institution & Governance** | | **Social Capital** | |
| **Tebag** | | Sector: Infrastructure Area: Road  Indicator: 1.210 unpaved barangay road | 260 meters barangay Road is located in low lying area and made of earth. Impassable during flood. | Donations, NGA, Subsidy from NGOs, IRA, BDRRM Fund, MDRRM Fund, 20% Dev't. Fund | Brochures, Information Education Campaign, Trainings/ Seminars, Hazard Maps, Bantay Barangay, Barangay Assemblies | telecommunications, Flood control facility, drainage canals | Retrofitting of existing structure | | Contingency Plan, CLUP/ Zoning Ordinance, MDRRMP | | DPWH, CSO, LGU & PNP Enforcement through Trained staff, knowledgeable populace/ residents regarding hazards, | |
| **Instructions:** | | | | | | |
| 1. List down the all the barangays in Column **A.** | | | | | | |
| 2. Exposure, Column **B**. Using the gathered data and maps, indicate information and values for each exposure indicators. | | | | | | |
| 3. Sensitivity, Column **C**. Using the gathered data and maps, indicate information and values for each sensitivity indicators. | | | | | | |
| 4. In column**D,** evaluate the adaptive capacity of the barangays using the following six dimensions: | | | | | | |
| \*Wealth – Financial resources | | | | | | | | |
| \*Information – Level of knowledge to hazards, climate change and disaster, info dissemination | | | | | | | | |
| \*Technology – Example: drought resistant crop types being tested, research conducted | | | | | | | | |
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| **STIMULI: EXTREME RAINFALL** | | | | | | | |
| Table 6.4. **LIFELINE FACILITIES DATABASE, MUNICIPALITY OF MANGALDAN** | | | | | | | |
| **BARANGAY** | | **EXPOSURE INDICATORS** | **SENSITIVITY INDICATORS** | **ADAPTIVE CAPACITY** | | | | | | |
| **A** | | **B** | **c** | **D** | | | | | | |
| **Wealth** | **Information** | **Infrastructure** | **Technology** | **Institution & Governance** | | **Social Capital** | |
| **Talogtog** | | Sector: Infrastructure Area: Bridge Indicator: 50 meters concreted Mangueragday Bridge | Manguerag-day Bridge is located in low lying area and needs rehabilitation/retrofitting. | Donations, NGA, Subsidy from NGOs, IRA, BDRRM Fund, MDRRM Fund, 20% Dev't. Fund | Brochures, Information Education Campaign, Trainings/ Seminars, Hazard Maps, Bantay Barangay, Barangay Assemblies | telecommunications, Flood control facility, drainage canals | Retrofitting of existing structure | Contingency Plan, CLUP/ Zoning Ordinance, MDRRMP | | DPWH, CSO, LGU & PNP Enforcement through Trained staff, knowledgeable populace/ residents regarding hazards, | |
| **Anolid, Banaoang, Bantayan, Bateng David, Guesang, Guiguilonen, Inlambo, Lanas, Landas, Maasin, Macayug, Navaluan, Nibaliw, Osiem, Palua, Poblacion, Pogo, Salaan, Talogtog, Tebag** | | Sector: Infrastructure Area: Power Indicator: Electric Posts (CENPELCO) & Telecommunication posts | Electric posts & telecommunication posts are encroaching major transportation network causing great danger during flooding | CENPELCO, LGU | Brochures, Information Education Campaign, Trainings/ Seminars, Hazard Maps, Bantay Barangay, Barangay Assemblies | Appropriate design of posts & strategically located | Hazard resistant design | Contingency Plan, CLUP/Zoning Ordinance, Municipal Disaster Plan, Peace & Order Plan, Barangay Disaster Plan | | CSO, LGU & PNP Enforcement through Trained staff, CENPELCO | |
| **Instructions:** | | | | | | | | | |
| 1. List down all the barangays in Column **A.** | | | | | | | | | |
| 2. Exposure, Column **B**. Using the gathered data and maps, indicate information and values for each exposure indicators. | | | | | | | | | |
| 3. Sensitivity, Column **C.** Using the gathered data and maps, indicate information and values for each sensitivity indicators. | | | | | | | | | |
| 4. In column**D**, evaluate the adaptive capacity of the barangays using the following six dimensions: | | | | | | | | | |

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| \*Wealth – Financial resources |
| \*Information – Level of knowledge to hazards, climate change and disaster, info dissemination |
| \*Technology – Example: drought resistant crop types being tested, research conducted |
| \*Institution and Governance – Existing policies, plans and programs such as zoning ordinances |
| \*Social capital – Capacities, organized groups, CSO, trained staff |
| \*Infrastructure – Structures to withstand climate projections |

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| **STIMULI: EXTREME RAINFALL** | | | | | | | | | | |
| Table 6.5. **URBAN USE DATABASE, MUNICIPALITY OF MANGALDAN.** | | | | | | | | | | |
| **BARANGAY** | **EXPOSURE INDICATORS** | **SENSITIVITY INDICATORS** | **ADAPTIVE CAPACITY** | | | | | |
| **A** | **B** | **c** | **D** | | | | | |
| **Wealth** | **Information** | **Infrastructure** | **Technology** | **Institution & Governance** | **Social Capital** | |
| **Anolid** | Sector: Social Area: Population (Residential Settlement)  Indicator: 40 residential units belong to informal settler and makeshift housing | 29 residential units are constructed in low lying areas and made of light materials & salvaged/ makeshift materials. | Donations, NGA, Subsidy from NGOs, IRA, BDRRM Fund, MDRRM Fund, AICS Fund, PhilHealth | Brochures, Information Education Campaign, Trainings/ Seminars, Hazard Maps, Bantay Barangay, Barangay Assemblies | telecommunications, concreted farm to market roads, Flood control facility, drainage canals | Gadgets, television, radio, Online Broadcasting, print media | Contingency Plan, CLUP/Zoning Ordinance, Municipal Disaster Plan, Peace & Order Plan, Barangay Disaster Plan | CSO, LGU & PNP Enforcement through Trained staff, knowledgeable populace/ residents regarding hazards, | |
| **Sector: Economic Area: Industry Indicator: 95 Business establishments** | 40 out of 95 or 42.11% business establishments are located in low lying area and easily flooded. | Donations, NGA, LGU, Subsidy from NGOs, | Brochures, Information Education Campaign, Trainings/ Seminars, Hazard Maps, Bantay Barangay, Barangay Assemblies | telecommunications & roads in good condition and public market operating continuously | Gadgets, television, radio, online broadcasting, print media | Contingency Plan, CLUP/Zoning Ordinance, Municipal Disaster Plan, Barangay Disaster Plan | LGU, Vendors’ Associations, DTI, CSO, TODA, PODA | |
| **Banaoang** | Sector: Social Area: Population (Residential Settlement) Indicator: 83 residential units belong to informal settler and makeshift housing | 65 residential units are constructed in low lying area and made of light materials and salvaged/ makeshift materials. | Donations, NGA, Subsidy from NGOs, IRA, BDRRM Fund, MDRRM Fund, AICS Fund, PhilHealth | Brochures, Information Education Campaign, Trainings/ Seminars, Hazard Maps, Bantay Barangay, Barangay Assemblies | telecommunications, concreted farm to market roads, Flood control facility, drainage canals | Gadgets, television, radio, Online Broadcasting, print media | Contingency Plan, CLUP/Zoning Ordinance, Municipal Disaster Plan, Peace & Order Plan, Barangay Disaster Plan | CSO, LGU & PNP Enforcement through Trained staff, knowledgeable populace/ residents regarding hazards, | |
| Sector: Economic Area: IndustryIndicator: 29 Business establishments | 8 out of 29 or 27.59% business establishments are located in low lying area and easily flooded. | Donations, NGA, LGU, Subsidy from NGOs, | Brochures, Information Education Campaign, Trainings/ Seminars, Hazard Maps, Bantay Barangay, Barangay Assemblies | telecommunications & roads in good condition and public market operating continuously | Gadgets, television, radio, online broadcasting, print media | Contingency Plan, CLUP/Zoning Ordinance, Municipal Disaster Plan, Barangay Disaster Plan | LGU, Vendors’ Associations, DTI, CSO, TODA, PODA | |
| **Bantayan** | Sector: Social Area: Population (Residential Settlement) Indicator: 26 residential units belong to informal settler and makeshift housing | 12 residential units are constructed in low lying area and made of light materials and salvaged/ makeshift materials. | Donations, NGA, Subsidy from NGOs, IRA, BDRRM Fund, MDRRM Fund, AICS Fund, PhilHealth | Brochures, Information Education Campaign, Trainings/ Seminars, Hazard Maps, Bantay Barangay, Barangay Assemblies | telecommunications, concreted farm to market roads, Flood control facility, drainage canals | Gadgets, television, radio, Online Broadcasting, print media | Contingency Plan, CLUP/Zoning Ordinance, Municipal Disaster Plan, Peace & Order Plan, Barangay Disaster Plan | CSO, LGU & PNP Enforcement through Trained staff, knowledgeable populace/ residents regarding hazards, | |
| Sector: Economic Area: Industry Indicator: 12 Business establishments | 4 out of 12 or 33.33% business establishments are located in low lying area and easily flooded | Donations, NGA, LGU, Subsidy from NGOs, | Brochures, Information Education Campaign, Trainings/ Seminars, Hazard Maps, Bantay Barangay, Barangay Assemblies | telecommunications & roads in good condition and public market operating continuously | Gadgets, television, radio, online broadcasting, print media | Contingency Plan, CLUP/Zoning Ordinance, Municipal Disaster Plan, Barangay Disaster Plan | LGU, Vendors’ Associations, DTI, CSO, TODA, PODA | |
| **Bateng** | Sector: Social Area: Population (Residential Settlement) Indicator: 20 residential units belong to informal settler and makeshift housing | 18 residential units are constructed in low lying area and made of light materials and salvaged/ makeshift materials. | Donations, NGA, Subsidy from NGOs, IRA, BDRRM Fund, MDRRM Fund, AICS Fund, PhilHealth | Brochures, Information Education Campaign, Trainings/ Seminars, Hazard Maps, Bantay Barangay, Barangay Assemblies | telecommunications, concreted farm to market roads, Flood control facility, drainage canals | Gadgets, television, radio, Online Broadcasting, print media | Contingency Plan, CLUP/Zoning Ordinance, Municipal Disaster Plan, Peace & Order Plan, Barangay Disaster Plan | CSO, LGU & PNP Enforcement through Trained staff, knowledgeable populace/ residents regarding hazards, | |

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| **STIMULI: EXTREME RAINFALL** | | | | | | | | | |
| Table 6.5. **URBAN USE DATABASE, MUNICIPALITY OF MANGALDAN.** | | | | | | | | | |
| **BARANGAY** | **EXPOSURE INDICATORS** | **SENSITIVITY INDICATORS** | **ADAPTIVE CAPACITY** | | | | | |
| **A** | **B** | **c** | **D** | | | | | |
| **Wealth** | **Information** | **Infrastructure** | **Technology** | **Institution & Governance** | **Social Capital** |
| **Bateng** | Sector: Economic Area: Industry Indicator: 16 Business establishments | 4 out of 16 or 25% business establishments are located in low lying area and easily flooded | Donations, NGA, LGU, Subsidy from NGOs, | Brochures, Information Education Campaign, Trainings/ Seminars, Hazard Maps, Bantay Barangay, Barangay Assemblies | telecommunications & roads in good condition and public market operating continuously | Gadgets, television, radio, online broadcasting, print media | Contingency Plan, CLUP/Zoning Ordinance, Municipal Disaster Plan, Barangay Disaster Plan | LGU, Vendors’ Associations, DTI, CSO, TODA, PODA |
| **David** | Sector: Social Area: Population (Residential Settlement) Indicator: 150 residential units belong to informal settler and makeshift housing | 43 residential units are constructed in low lying area and made of light materials and salvaged/ makeshift materials. | Donations, NGA, Subsidy from NGOs, IRA, BDRRM Fund, MDRRM Fund, AICS Fund, PhilHealth | Brochures, Information Education Campaign, Trainings/ Seminars, Hazard Maps, Bantay Barangay, Barangay Assemblies | telecommunications, concreted farm to market roads, Flood control facility, drainage canals | Gadgets, television, radio, Online Broadcasting, print media | Contingency Plan, CLUP/Zoning Ordinance, Municipal Disaster Plan, Peace & Order Plan, Barangay Disaster Plan | CSO, LGU & PNP Enforcement through Trained staff, knowledge-able populace/ residents regarding hazards, |
| Sector: Economic Area: Industry Indicator: 17 Business establishments | 7 out of 17 or 41.18% business establishments are located in low lying area and easily flooded. | Donations, NGA, LGU, Subsidy from NGOs, | Brochures, Information Education Campaign, Trainings/ Seminars, Hazard Maps, Bantay Barangay, Barangay Assemblies | telecommunications & roads in good condition and public market operating continuously | Gadgets, television, radio, online broadcasting, print media | Contingency Plan, CLUP/Zoning Ordinance, Municipal Disaster Plan, Barangay Disaster Plan | LGU, Vendors’ Associations, DTI, CSO, TODA, PODA |
| **Embarcadero** | Sector: Social Area: Population (Residential Settlement) Indicator: 30 residential units belong to informal settler and makeshift housing | 25 residential units are constructed in low lying area and made of light materials and salvaged/ makeshift materials. | Donations, NGA, Subsidy from NGOs, IRA, BDRRM Fund, MDRRM Fund, AICS Fund, PhilHealth | Brochures, Information Education Campaign, Trainings/ Seminars, Hazard Maps, Bantay Barangay, Barangay Assemblies | telecommunications, concreted farm to market roads, Flood control facility, drainage canals | Gadgets, television, radio, Online Broadcasting, print media | Contingency Plan, CLUP/Zoning Ordinance, Municipal Disaster Plan, Peace & Order Plan, Barangay Disaster Plan | CSO, LGU & PNP Enforcement through Trained staff, knowledge  -able populace/ residents regarding hazards, |
| Sector: Economic Area: Industry Indicator: 20 Business establishments | 10 out of 20 or 50% business establishments are located in low lying area | Donations, NGA, LGU, Subsidy from NGOs, | Brochures, Information Education Campaign, Trainings/ Seminars, Hazard Maps, Bantay Barangay, Barangay Assemblies | telecommunications & roads in good condition and public market operating continuously | Gadgets, television, radio, online broadcasting, print media | Contingency Plan, CLUP/Zoning Ordinance, Municipal Disaster Plan, Barangay Disaster Plan | LGU, Vendors’ Associations, DTI, CSO, TODA, PODA |
| **Guesang** | Sector: Social Area: Population (Residential Settlement) Indicator: 14 residential units belong to informal settler and makeshift housing | 9 residential units are constructed in low lying area and made of light materials and salvaged/ makeshift materials. | Donations, NGA, Subsidy from NGOs, IRA, BDRRM Fund, MDRRM Fund, AICS Fund, PhilHealth | Brochures, Information Education Campaign, Trainings/ Seminars, Hazard Maps, Bantay Barangay, Barangay Assemblies | telecommunications, concreted farm to market roads, Flood control facility, drainage canals | Gadgets, television, radio, Online Broadcasting, print media | Contingency Plan, CLUP/Zoning Ordinance, Municipal Disaster Plan, Peace & Order Plan, Barangay Disaster Plan | CSO, LGU & PNP Enforcement through Trained staff, knowledge-able populace/ residents regarding hazards, |

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| **STIMULI: EXTREME RAINFALL** | | | | | | | | |
| Table 6.5. **URBAN USE DATABASE, MUNICIPALITY OF MANGALDAN.** | | | | | | | | |
| **BARANGAY** | **EXPOSURE INDICATORS** | **SENSITIVITY INDICATORS** | **ADAPTIVE CAPACITY** | | | | | | |
| **A** | **B** | **c** | **D** | | | | | | |
| **Wealth** | **Information** | **Infrastructure** | **Technology** | **Institution & Governance** | **Social Capital** | |
| **Guesang** | Sector: Economic Area: Industry Indicator: 10 Business establishments | 3 out of 10 or 30% business establishments are located in low lying area and easily flooded. | Donations, NGA, LGU, Subsidy from NGOs, | Brochures, Information Education Campaign, Trainings/ Seminars, Hazard Maps, Bantay Barangay, Barangay Assemblies | telecommunications & roads in good condition and public market operating continuously | Gadgets, television, radio, online broadcasting, print media | Contingency Plan, CLUP/Zoning Ordinance, Municipal Disaster Plan, Barangay Disaster Plan | LGU, Vendors’ Associations, DTI, CSO, TODA, PODA | |
| **Guiguilonen** | Sector: Social Area: Population (Residential Settlement) Indicator: 17 residential units belong to informal settler and makeshift housing | 12 residential units are constructed in low lying area and made of light materials and salvaged/ makeshift materials. | Donations, NGA, Subsidy from NGOs, IRA, BDRRM Fund, MDRRM Fund, AICS Fund, PhilHealth | Brochures, Information Education Campaign, Trainings/ Seminars, Hazard Maps, Bantay Barangay, Barangay Assemblies | telecommunications, concreted farm to market roads, Flood control facility, drainage canals | Gadgets, television, radio, Online Broadcasting, print media | Contingency Plan, CLUP/Zoning Ordinance, Municipal Disaster Plan, Peace & Order Plan, Barangay Disaster Plan | CSO, LGU & PNP Enforcement through Trained staff, knowledgeable populace/ residents regarding hazards, | |
| Sector: Economic Area: Industry Indicator: 24 Business establishments | 12 out of 24 or 50% business establishments are located in low lying area and easily flooded | Donations, NGA, LGU, Subsidy from NGOs, | Brochures, Information Education Campaign, Trainings/ Seminars, Hazard Maps, Bantay Barangay, Barangay Assemblies | telecommunications & roads in good condition and public market operating continuously | Gadgets, television, radio, online broadcasting, print media | Contingency Plan, CLUP/Zoning Ordinance, Municipal Disaster Plan, Barangay Disaster Plan | LGU, Vendors’ Associations, DTI, CSO, TODA, PODA | |
| **Inlambo** | Sector: Social Area: Population (Residential Settlement) Indicator: 33 residential units belong to informal settler and makeshift housing | 30 residential units are constructed in low lying area and made of light materials and salvaged/ makeshift materials. | Donations, NGA, Subsidy from NGOs, IRA, BDRRM Fund, MDRRM Fund, AICS Fund, PhilHealth | Brochures, Information Education Campaign, Trainings/ Seminars, Hazard Maps, Bantay Barangay, Barangay Assemblies | telecommunications, concreted farm to market roads, Flood control facility, drainage canals | Gadgets, television, radio, Online Broadcasting, print media | Contingency Plan, CLUP/Zoning Ordinance, Municipal Disaster Plan, Peace & Order Plan, Barangay Disaster Plan | CSO, LGU & PNP Enforcement through Trained staff, knowledgeable populace/ residents regarding hazards, | |
| Sector: Economic Area: Industry Indicator: 8 Business establishments | 2 out of 8 or 25% business establishments are located in low lying area and easily flooded | Donations, NGA, LGU, Subsidy from NGOs, | Brochures, Information Education Campaign, Trainings/ Seminars, Hazard Maps, Bantay Barangay, Barangay Assemblies | telecommunications & roads in good condition and public market operating continuously | Gadgets, television, radio, online broadcasting, print media | Contingency Plan, CLUP/Zoning Ordinance, Municipal Disaster Plan, Barangay Disaster Plan | LGU, Vendors’ Associations, DTI, CSO, TODA, PODA | |
| **Lanas** | Sector: Social Area: Population (Residential Settlement) Indicator: 21 residential units belong to informal settler and makeshift housing | 21 residential units are constructed in low lying area and made of light materials and salvaged/ makeshift materials. | Donations, NGA, Subsidy from NGOs, IRA, BDRRM Fund, MDRRM Fund, AICS Fund, PhilHealth | Brochures, Information Education Campaign, Trainings/ Seminars, Hazard Maps, Bantay Barangay, Barangay Assemblies | telecommunications, concreted farm to market roads, Flood control facility, drainage canals | Gadgets, television, radio, Online Broadcasting, print media | Contingency Plan, CLUP/Zoning Ordinance, Municipal Disaster Plan, Peace & Order Plan, Barangay Disaster Plan | CSO, LGU & PNP Enforcement through Trained staff, knowledgeable populace/ residents regarding hazards, | |

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| **STIMULI: EXTREME RAINFALL** | | | | | | | | |
| Table 6.5. **URBAN USE DATABASE, MUNICIPALITY OF MANGALDAN.** | | | | | | | | |
| **BARANGAY** | **EXPOSURE INDICATORS** | **SENSITIVITY INDICATORS** | **ADAPTIVE CAPACITY** | | | | | | |
| **A** | **B** | **c** | **D** | | | | | | |
| **Wealth** | **Information** | **Infrastructure** | **Technology** | **Institution & Governance** | **Social Capital** | |
| **Lanas** | Sector: Economic Area: Industry Indicator: 10 Business establishments | 4 out of 10 or 40% business establishments are located in low lying area and easily flooded | Donations, NGA, LGU, Subsidy from NGOs, | Brochures, Information Education Campaign, Trainings/ Seminars, Hazard Maps, Bantay Barangay, Barangay Assemblies | telecommunications & roads in good condition and public market operating continuously | Gadgets, television, radio, online broadcasting, print media | Contingency Plan, CLUP/Zoning Ordinance, Municipal Disaster Plan, Barangay Disaster Plan | LGU, Vendors’ Associations, DTI, CSO, TODA, PODA | |
| **Landas** | Sector: Social Area: Population (Residential Settlement) Indicator: 4 residential units belong to informal settler and makeshift housing | 2 residential units are constructed in low lying area and made of light materials and salvaged/ makeshift materials. | Donations, NGA, Subsidy from NGOs, IRA, BDRRM Fund, MDRRM Fund, AICS Fund, PhilHealth | Brochures, Information Education Campaign, Trainings/ Seminars, Hazard Maps, Bantay Barangay, Barangay Assemblies | telecommunications, concreted farm to market roads, Flood control facility, drainage canals | Gadgets, television, radio, Online Broadcasting, print media | Contingency Plan, CLUP/Zoning Ordinance, Municipal Disaster Plan, Peace & Order Plan, Barangay Disaster Plan | CSO, LGU & PNP Enforcement through Trained staff, knowledgeable populace/ residents regarding hazards, | |
| Sector: Economic Area: Industry Indicator: 11 Business establishments | 6 out of 11 or 54.55% business establishments are located in low lying area and easily flooded | Donations, NGA, LGU, Subsidy from NGOs, | Brochures, Information Education Campaign, Trainings/ Seminars, Hazard Maps, Bantay Barangay, Barangay Assemblies | telecommunications & roads in good condition and public market operating continuously | Gadgets, television, radio, online broadcasting, print media | Contingency Plan, CLUP/Zoning Ordinance, Municipal Disaster Plan, Barangay Disaster Plan | LGU, Vendors’ Associations, DTI, CSO, TODA, PODA | |
| **Maasin** | Sector: Social Area: Population (Residential Settlement) Indicator: 315 residential units belong to informal settler and makeshift housing | 5 residential units are constructed in low lying area and made of light materials and salvaged/ makeshift materials. | Donations, NGA, Subsidy from NGOs, IRA, BDRRM Fund, MDRRM Fund, AICS Fund, PhilHealth | Brochures, Information Education Campaign, Trainings/ Seminars, Hazard Maps, Bantay Barangay, Barangay Assemblies | telecommunications, concreted farm to market roads, Flood control facility, drainage canals | Gadgets, television, radio, Online Broadcasting, print media | Contingency Plan, CLUP/Zoning Ordinance, Municipal Disaster Plan, Peace & Order Plan, Barangay Disaster Plan | CSO, LGU & PNP Enforcement through Trained staff, knowledgeable populace/ residents regarding hazards, | |
| Sector: Economic Area: Industry Indicator: 21 Business establishments | 10 out of 21 or 47.62% business establishments are located in low lying area and easily flooded. | Donations, NGA, LGU, Subsidy from NGOs, | Brochures, Information Education Campaign, Trainings/ Seminars, Hazard Maps, Bantay Barangay, Barangay Assemblies | telecommunications & roads in good condition and public market operating continuously | Gadgets, television, radio, online broadcasting, print media | Contingency Plan, CLUP/Zoning Ordinance, Municipal Disaster Plan, Barangay Disaster Plan | LGU, Vendors’ Associations, DTI, CSO, TODA, PODA | |
| **Macayug** | Sector: Social Area: Population (Residential Settlement) Indicator: 8 residential units belong to informal settler and makeshift housing | 8 residential units are constructed in low lying area and made of light materials and salvaged/ makeshift materials. | Donations, NGA, Subsidy from NGOs, IRA, BDRRM Fund, MDRRM Fund, AICS Fund, PhilHealth | Brochures, Information Education Campaign, Trainings/ Seminars, Hazard Maps, Bantay Barangay, Barangay Assemblies | telecommunications, concreted farm to market roads, Flood control facility, drainage canals | Gadgets, television, radio, Online Broadcasting, print media | Contingency Plan, CLUP/Zoning Ordinance, Municipal Disaster Plan, Peace & Order Plan, Barangay Disaster Plan | CSO, LGU & PNP Enforcement through Trained staff, knowledgeable populace/ residents regarding hazards, | |

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| **STIMULI: EXTREME RAINFALL** | | | | | | | | |
| Table 6.5. **URBAN USE DATABASE, MUNICIPALITY OF MANGALDAN.** | | | | | | | | |
| **BARANGAY** | **EXPOSURE INDICATORS** | **SENSITIVITY INDICATORS** | **ADAPTIVE CAPACITY** | | | | | |
| **A** | **B** | **c** | **D** | | | | | |
| **Wealth** | **Information** | **Infrastructure** | **Technology** | **Institution & Governance** | **Social Capital** |
| **Macayug** | Sector: Economic Area: Industry Indicator: 7 Business establishments | 3 out of 7 or 42.86% business establishments are located in low lying area and easily flooded. | Donations, NGA, LGU, Subsidy from NGOs, | Brochures, Information Education Campaign, Trainings/ Seminars, Hazard Maps, Bantay Barangay, Barangay Assemblies | telecommunications & roads in good condition and public market operating continuously | Gadgets, television, radio, online broadcasting, print media | Contingency Plan, CLUP/Zoning Ordinance, Municipal Disaster Plan, Barangay Disaster Plan | LGU,  Vendors’ Associations, DTI, CSO, TODA, PODA |
| **Navaluan** | Sector: Social Area: Population (Residential Settlement) Indicator: 26 residential units belong to informal settler and makeshift housing | 26 residential units are constructed in low lying area and made of light materials and salvaged/ makeshift materials. | Donations, NGA, Subsidy from NGOs, IRA, BDRRM Fund, MDRRM Fund, AICS Fund, PhilHealth | Brochures, Information Education Campaign, Trainings/ Seminars, Hazard Maps, Bantay Barangay, Barangay Assemblies | telecommunications, concreted farm to market roads, Flood control facility, drainage canals | Gadgets, television, radio, Online Broadcasting, print media | Contingency Plan, CLUP/Zoning Ordinance, Municipal Disaster Plan, Peace & Order Plan, Barangay Disaster Plan | CSO, LGU & PNP Enforcement through Trained staff, knowledge-able populace/ residents regarding hazards, |
| Sector: Economic Area: Industry Indicator: 11 Business establishments | 5 out of 11 or 45% business establishments are located in low lying area | Donations, NGA, LGU, Subsidy from NGOs, | Brochures, Information Education Campaign, Trainings/ Seminars, Hazard Maps, Bantay Barangay, Barangay Assemblies | telecommunications & roads in good condition and public market operating continuously | Gadgets, television, radio, online broadcasting, print media | Contingency Plan, CLUP/Zoning Ordinance, Municipal Disaster Plan, Barangay Disaster Plan | LGU,  Vendors’ Associations, DTI, CSO, TODA, PODA |
| **Nibaliw** | Sector: Social Area: Population (Residential Settlement) Indicator: 53 residential units belong to informal settler and makeshift housing | 48 residential units are constructed in low lying area and made of light materials and salvaged/ makeshift materials. | Donations, NGA, Subsidy from NGOs, IRA, BDRRM Fund, MDRRM Fund, AICS Fund, PhilHealth | Brochures, Information Education Campaign, Trainings/ Seminars, Hazard Maps, Bantay Barangay, Barangay Assemblies | telecommunications, concreted farm to market roads, Flood control facility, drainage canals | Gadgets, television, radio, Online Broadcasting, print media | Contingency Plan, CLUP/Zoning Ordinance, Municipal Disaster Plan, Peace & Order Plan, Barangay Disaster Plan | CSO, LGU & PNP Enforcement through Trained staff, knowledge-able populace/ residents regarding hazards, |
| Sector: Economic Area: Industry Indicator: 11 Business establishments | 2 out of 11 or 18.18% business establishments are located in low lying area and easily flooded. | Donations, NGA, LGU, Subsidy from NGOs, | Brochures, Information Education Campaign, Trainings/ Seminars, Hazard Maps, Bantay Barangay, Barangay Assemblies | telecommunications & roads in good condition and public market operating continuously | Gadgets, television, radio, online broadcasting, print media | Contingency Plan, CLUP/Zoning Ordinance, Municipal Disaster Plan, Barangay Disaster Plan | LGU, Vendors’ Associations, DTI, CSO, TODA, PODA |
| **Osiem** | Sector: Social Area: Population (Residential Settlement) Indicator: 22 residential units belong to informal settler and makeshift housing | 21 residential units are constructed in low lying area and made of light materials and salvaged/ makeshift materials. | Donations, NGA, Subsidy from NGOs, IRA, BDRRM Fund, MDRRM Fund, AICS Fund, PhilHealth | Brochures, Information Education Campaign, Trainings/ Seminars, Hazard Maps, Bantay Barangay, Barangay Assemblies | telecommunications, concreted farm to market roads, Flood control facility, drainage canals | Gadgets, television, radio, Online Broadcasting, print media | Contingency Plan, CLUP/Zoning Ordinance, Municipal Disaster Plan, Peace & Order Plan, Barangay Disaster Plan | CSO, LGU & PNP Enforcement through Trained staff, knowledge-able populace/ residents regarding hazards, |

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| **EXTREME RAINFALL** | | | | | | | | |
| Table 6.5. **URBAN USE DATABASE, MUNICIPALITY OF MANGALDAN.** | | | | | | | | |
| **BARANGAY** | **EXPOSURE INDICATORS** | **SENSITIVITY INDICATORS** | **ADAPTIVE CAPACITY** | | | | | | |
| **A** | **B** | **c** | **D** | | | | | | |
| **Wealth** | **Information** | **Infrastructure** | **Technology** | **Institution & Governance** | **Social Capital** | |
| **Osiem** | Sector: Economic Area: Industry Indicator: 13 Business establishments | 7 out of 13 or 53.85% business establishments are located in low lying area and easily flooded. | Donations, NGA, LGU, Subsidy from NGOs, | Brochures, Information Education Campaign, Trainings/ Seminars, Hazard Maps, Bantay Barangay, Barangay Assemblies | telecommunications & roads in good condition and public market operating continuously | Gadgets, television, radio, online broadcasting, print media | Contingency Plan, CLUP/Zoning Ordinance, Municipal Disaster Plan, Barangay Disaster Plan | LGU, Vendors’ Associations, DTI, CSO, TODA, PODA | |
| **Palua** | Sector: Social Area: Population (Residential Settlement) Indicator: 50 residential units belong to informal settler and makeshift housing | 24 residential units are constructed in low lying area and made of light materials and salvaged/ makeshift materials. | Donations, NGA, Subsidy from NGOs, IRA, BDRRM Fund, MDRRM Fund, AICS Fund, PhilHealth | Brochures, Information Education Campaign, Trainings/ Seminars, Hazard Maps, Bantay Barangay, Barangay Assemblies | telecommunications, concreted farm to market roads, Flood control facility, drainage canals | Gadgets, television, radio, Online Broadcasting, print media | Contingency Plan, CLUP/Zoning Ordinance, Municipal Disaster Plan, Peace & Order Plan, Barangay Disaster Plan | CSO, LGU & PNP Enforcement through Trained staff, knowledge-able populace/ residents regarding hazards, | |
| Sector: Economic Area: Industry Indicator: 10 Business establishments | 6 out of 10 or 60% business establishments are located in low lying area | Donations, NGA, LGU, Subsidy from NGOs, | Brochures, Information Education Campaign, Trainings/ Seminars, Hazard Maps, Bantay Barangay, Barangay Assemblies | telecommunications & roads in good condition and public market operating continuously | Gadgets, television, radio, online broadcasting, print media | Contingency Plan, CLUP/Zoning Ordinance, Municipal Disaster Plan, Barangay Disaster Plan | LGU, Vendors’ Associations, DTI, CSO, TODA, PODA | |
| **Poblacion** | Sector: Social Area: Residential Settlement Indicator: 14 residential units belong to informal settler and makeshift housing | 9 residential units are constructed in low lying area and made of light materials and salvaged/ makeshift materials. | Donations, NGA, Subsidy from NGOs, IRA, BDRRM Fund, MDRRM Fund, AICS Fund, PhilHealth | Brochures, Information Education Campaign, Trainings/ Seminars, Hazard Maps, Bantay Barangay, Barangay Assemblies | telecommunications, concreted farm to market roads, Flood control facility, drainage canals | Gadgets, television, radio, Online Broadcasting, print media | Contingency Plan, CLUP/Zoning Ordinance, Municipal Disaster Plan, Peace & Order Plan, Barangay Disaster Plan | CSO, LGU & PNP Enforcement through Trained staff, knowledge-able populace/ residents regarding hazards, | |
| Sector: Economic Area: Industry Indicator: 355 business establishments | 100 out of 355 or 28% business establishments. 50% are located in low lying area | Donations, NGA, LGU, Subsidy from NGOs, | Brochures, Information Education Campaign, Trainings/ Seminars, Hazard Maps, Bantay Barangay, Barangay Assemblies | telecommunications & roads in good condition and public market operating continuously | Gadgets, television, radio, online broadcasting, print media | Contingency Plan, CLUP/Zoning Ordinance, Municipal Disaster Plan, Barangay Disaster Plan | LGU, Vendors’ Associations, DTI, CSO, TODA, PODA | |
| **Pogo** | Sector: Social Area: Residential Settlement Indicator: 12 residential units belong to informal settler and makeshift housing | 12 residential units are constructed in low lying area and made of light materials and salvaged/ makeshift materials. | Donations, NGA, Subsidy from NGOs, IRA, BDRRM Fund, MDRRM Fund, AICS Fund, PhilHealth | Brochures, Information Education Campaign, Trainings/ Seminars, Hazard Maps, Bantay Barangay, Barangay Assemblies | telecommunications, concreted farm to market roads, Flood control facility, drainage canals | Gadgets, television, radio, Online Broadcasting, print media | Contingency Plan, CLUP/Zoning Ordinance, Municipal Disaster Plan, Peace & Order Plan, Barangay Disaster Plan | CSO, LGU & PNP Enforcement through Trained staff, knowledge-able populace/ residents regarding hazards, | |

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| **STIMULI: EXTREME RAINFALL** | | | | | | | | |
| Table 6.5. **URBAN USE DATABASE, MUNICIPALITY OF MANGALDAN.** | | | | | | | | |
| **BARANGAY** | **EXPOSURE INDICATORS** | **SENSITIVITY INDICATORS** | **ADAPTIVE CAPACITY** | | | | | | |
| **A** | **B** | **c** | **D** | | | | | | |
| **Wealth** | **Information** | **Infrastructure** | **Technology** | **Institution & Governance** | **Social Capital** | |
| **Pogo** | Sector: Economic Area: Industry Indicator: 10 business establishments | 5 out of 10 or 50% business establishments. 50% are located in low lying area | Donations, NGA, LGU, Subsidy from NGOs, | Brochures, Information Education Campaign, Trainings/ Seminars, Hazard Maps, Bantay Barangay, Barangay Assemblies | telecommunications & roads in good condition and public market operating continuously | Gadgets, television, radio, online broadcasting, print media | Contingency Plan, CLUP/Zoning Ordinance, Municipal Disaster Plan, Barangay Disaster Plan | LGU,  Vendors’ Associations, DTI, CSO, TODA, PODA | |
| **Salaan** | Sector: Social Area: Residential Settlement Indicator: 22 residential units belong to informal settler and makeshift housing | 15 residential units are constructed in low lying area and made of light materials and salvaged/ makeshift materials. | Donations, NGA, Subsidy from NGOs, IRA, BDRRM Fund, MDRRM Fund, AICS Fund, PhilHealth | Brochures, Information Education Campaign, Trainings/ Seminars, Hazard Maps, Bantay Barangay, Barangay Assemblies | telecommunications, concreted farm to market roads, Flood control facility, drainage canals | Gadgets, television, radio, Online Broadcasting, print media | Contingency Plan, CLUP/Zoning Ordinance, Municipal Disaster Plan, Peace & Order Plan, Barangay Disaster Plan | CSO, LGU & PNP Enforcement through Trained staff, knowledge-able populace/ residents regarding hazards, | |
| Sector: Economic Area: Industry Indicator: 8 business establishments | 5 out of 8 or 62.5% business establishments. 50% are located in low lying area and easily flooded. | Donations, NGA, LGU, Subsidy from NGOs, | Brochures, Information Education Campaign, Trainings/ Seminars, Hazard Maps, Bantay Barangay, Barangay Assemblies | telecommunications & roads in good condition and public market operating continuously | Gadgets, television, radio, online broadcasting, print media | Contingency Plan, CLUP/Zoning Ordinance, Municipal Disaster Plan, Barangay Disaster Plan | LGU,  Vendors’ Associations, DTI, CSO, TODA, PODA | |
| **Talogtog** | Sector: Social Area: Residential Settlement Indicator: 14 residential units belong to informal settler and makeshift housing | 3 residential units are constructed in low lying area and made of light materials and salvaged/ makeshift materials. | Donations, NGA, Subsidy from NGOs, IRA, BDRRM Fund, MDRRM Fund, AICS Fund, PhilHealth | Brochures, Information Education Campaign, Trainings/ Seminars, Hazard Maps, Bantay Barangay, Barangay Assemblies | telecommunications, concreted farm to market roads, Flood control facility, drainage canals | Gadgets, television, radio, Online Broadcasting, print media | Contingency Plan, CLUP/Zoning Ordinance, Municipal Disaster Plan, Peace & Order Plan, Barangay Disaster Plan | CSO, LGU & PNP Enforcement through Trained staff, knowledge-able populace/ residents regarding hazards, | |
| Sector: Economic Area: Industry Indicator: 15 business establishments | 8 out of 15 or 53.33% business establishments. 50% are located in low lying area | Donations, NGA, LGU, Subsidy from NGOs, | Brochures, Information Education Campaign, Trainings/ Seminars, Hazard Maps, Bantay Barangay, Barangay Assemblies | telecommunications & roads in good condition and public market operating continuously | Gadgets, television, radio, online broadcasting, print media | Contingency Plan, CLUP/Zoning Ordinance, Municipal Disaster Plan, Barangay Disaster Plan | LGU,  Vendors’ Associations, DTI, CSO, TODA, PODA | |
| **Tebag** | Sector: Social Area: Residential Settlement Indicator: 54 residential units belong to informal settler and makeshift housing | 50 residential units are constructed in low lying area and made of light materials and salvaged/ makeshift materials. | Donations, NGA, Subsidy from NGOs, IRA, BDRRM Fund, MDRRM Fund, AICS Fund, PhilHealth | Brochures, Information Education Campaign, Trainings/ Seminars, Hazard Maps, Bantay Barangay, Barangay Assemblies | telecommunications, concreted farm to market roads, Flood control facility, drainage canals | Gadgets, television, radio, Online Broadcasting, print media | Contingency Plan, CLUP/Zoning Ordinance, Municipal Disaster Plan, Peace & Order Plan, Barangay Disaster Plan | CSO, LGU & PNP Enforcement through Trained staff, knowledge-able populace/ residents regarding hazards, | |

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| **STIMULI: EXTREME RAINFALL** | | | | | | | | |
| Table 6.5. **URBAN USE DATABASE, MUNICIPALITY OF MANGALDAN.** | | | | | | | | |
| **BARANGAY** | **EXPOSURE INDICATORS** | **SENSITIVITY INDICATORS** | **ADAPTIVE CAPACITY** | | | | | |
| **A** | **B** | **c** | **D** | | | | | |
| **Wealth** | **Information** | **Infrastructure** | **Technology** | **Institution & Governance** | **Social Capital** |
| **Tebag** | Sector: Economic Area: Industry Indicator: 24 business establishments | 10 out of 24 or 41.67% business establishments are located in low lying area and easily flooded. | Donations, NGA, LGU, Subsidy from NGOs, | Brochures, Information Education Campaign, Trainings/ Seminars, Hazard Maps, Bantay Barangay, Barangay Assemblies | telecommunications & roads in good condition and public market operating continuously | Gadgets, television, radio, online broadcasting, print media | Contingency Plan, CLUP/Zoning Ordinance, Municipal Disaster Plan, Barangay Disaster Plan | LGU, Vendors’ Associations, DTI, CSO, TODA, PODA |

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| **Instructions:** |
| 1. List down the all the barangays in Column **A.** |
| 2. Exposure, Column **B.** Using the gathered data and maps, indicate information and values for each exposure indicators. |
| 3. Sensitivity, Column **C.** Using the gathered data and maps, indicate information and values for each sensitivity indicators. |
| 4. In column **D**, evaluate the adaptive capacity of the barangays using the following six dimensions: |

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| \*Wealth – Financial resources |
| \*Information – Level of knowledge to hazards, climate change and disaster, info dissemination |
| \*Technology – Example: drought resistant crop types being tested, research conducted |
| \*Institution and Governance – Existing policies, plans and programs such as zoning ordinances |
| \*Social capital – Capacities, organized groups, CSO, trained staff |
| \*Infrastructure – Structures to withstand climate projections |

**STEP 4**

Table 7.**IMPACT AREA AND CLIMATE STIMULI, MUNICIPALITY OF MANGALDAN**

|  |  |  |  |  |
| --- | --- | --- | --- | --- |
| **Climate Stimuli** | **Impact Area** | **Area of Concerns** | | |
| **A** | **B** | **C** | | |
|  |  | **System/ s of Interest** | **Development Sectors** | |
| **Extreme Rainfall (Flooding)** | Anolid, Banaoang, Bantayan, Bateng David, Embarcadero, Guesang, Guiguilonen, Inlambo, Lanas, Landas, Maasin, Macayug, Navaluan, Nibaliw, Osiem, Palua, Poblacion, Pogo, Salaan, Talogtog, Tebag | Population, Natural resources, Critical Facilities, Lifeline Facilities, Urban Use | Economic, Social, Infrastructure, Environment | |
| **Instructions:** | | | |
| 1. In column **A**, based from the scoping in step 2, list down all the identified climate stimuli. | | | |
| Climate change stimuli refer to the general changes expected in the climate. These include changes in seasonal temperature and rainfall, number of dry days, sea level rise, and number of days with extreme temperatures. | | | |
| 2. In column **B**, determine the estimated impact area where the climate stimuli will manifest. Impact area could be the whole barangay or specific areas (purok/sitio). The impact area map generated in this Step can provide a better view of the extent of impact of the climate stimuli. | | | |
| 3. In column **C**, list down the potential Systems of Interest and Development Sectors that can be affected by the climate stimuli. The climate stimuli may or may not affect all the systems of interests and the development sectors. | | | |
| \*Systems of Interest: Natural Resources, Population, Critical Facilities, Urban Use, Lifeline Facilities | | | |
| **\***Development Sectors: Social, Environment, Infrastructure, Institution, Economic | | | |

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| Table 8.1. **POPULATION CCVA, MUNICIPALITY OF MANGALDAN.** |
| **CLIMATE STIMULI: EXTREME RAINFALL** |

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| --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- |
| **Barangay** | **Exposure Indicators** | **Sensitivity** | **ADAPTIVE CAPACITY** | | | | | | **DEGREE OF IMPACT SCORE** | **ADAPTIVE CAPACITY SCORE** | **VULNERABILITY** | |
| **A** | **B** | **C** | **D** | | | | | | **E** | **F** | **Vulnerability Index** | **Vulnerability Score** |
| **Wealth** | **Information** | **Infrastructure** | **Technology** | **Institution & Governance** | **Social Capital** |
| **Anolid** | Sector: Social Indicator: Population (Settlement-Residential): 1,699 HHs, PWD - 27, Senior Citizens - 561 | 255 hhs living in low lying areas and below poverty threshold. 20 PWDs are sensitive because of physical disabilities, of which 16 are males and 4 are females. 224 or 40% of the senior citizens are sensitive because of health & physical infirmities. Out of the total 90 are males and 114 are females. | **Moderate (2)** Donations, NGA, Subsidy from NGOs, IRA, BDRRM Fund, MDRRM Fund, AICS Fund, PhilHealth | **High (1)** Brochures, Information Education Campaign, Trainings/ Seminars, Hazard Maps, Bantay Barangay, Barangay Assemblies | **Moderate (2)** telecommu-nications, concreted farm to market roads, Flood  control facility, drainage canals | **High (1)** Gadgets, television, radio, Online Broadcasting, print media | **High (1)** Contingency Plan, CLUP/Zoning Ordinance, Municipal Disaster Plan, Peace & Order Plan, Barangay Disaster Plan | **High (1)** CSO, LGU & PNP Enforcement through Trained staff, knowledgeable populace/ residents regarding hazards, | 1 | 1.33 | low | 1.33 |
| Sector: Social Area: Education Indicator: 1,656 students | 75 pupils of Anolid Elem. School are sensitive since they belong to families beyond poverty threshold, of which 50 are males & 25 are females | **Moderate (2)** Donations, NGA, Subsidy from NGOs, IRA, BDRRM Fund, MDRRM Fund, Local School Board Fund | **High (1)** Brochures, Information Education Campaign, Trainings/ Seminars, Hazard Maps, Bantay Barangay, Barangay Assemblies | **Moderate (2)** telecommu-nications, School Buildings in good condition (elevated), | **High (1)** Gadgets, television, radio, online broadcast-ing, print media | **High (1)** Contingency Plan, CLUP/Zoning Ordinance, MDRRMP, Local School Board Plan, Schools Improvement Plan | **High (1)** DepEd, CSO, LGU & PNP Enforcement through Trained staff, school disaster focal persons | 1 | 1.33 | low | 1.33 |
| Sector: Economic Area: Agriculture Indicator: 140 farmers | 81 farmers are sensitive since they belong to families beyond poverty threshold and live in low lying area. Of which 75 are males and 25 are females. | **High (1)** Donations, NGA, LGU, Subsidy from NGOs | **High (1)** Brochures, Information Education Campaign, Trainings/ Seminars, Hazard Maps, Bantay Barangay, Barangay Assemblies | **Moderate (2)** telecommuni-cations & roads in good condition and public market operating continuously, concreted farm-to-market road | **High (1)** Gadgets, television, radio, online broadcasting, print media | **High (1)** Contingency Plan, CLUP/Zoning Ordinance, Municipal Disaster Plan, Barangay Disaster Plan | **High (1)** DA, CSO, LGU & PNP Enforce-ment through Trained staff, Farmers' Association, MAFC, Irrigators’ Association | 1 | 1.16 | low | 1.16 |
| Sector: Economic Area: Agriculture Indicator: 10 Fishermen | 8 fishermen are sensitive since they are living in low lying area, of which 7 are males and 1 is female. | **High (1)** Donations, NGA, LGU, Subsidy from NGOs | **High (1)** Brochures, Information Education Campaign, Trainings/ Seminars, Hazard Maps, Bantay Barangay, Barangay Assemblies | **Moderate (2)**  telecommuni-cations & roads in good condition and public market operating continuously, concreted farm to market road | **High (1)** Gadgets, television, radio, online broadcasting, print media | **High (1)** Contingency Plan, CLUP/Zoning Ordinance, Municipal Disaster Plan, Barangay Disaster Plan | **High (1)** DA, CSO, LGU & PNP Enforcement through Trained staff, Farmers' Association, MAFC, Irrigators’ Association | 1 | 1.16 | low | 1.16 |

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| Table 8.1. **POPULATION CCVA, MUNICIPALITY OF MANGALDAN.** |
| **CLIMATE STIMULI: EXTREME RAINFALL** |

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| --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- |
| **Barangay** | **Exposure Indicators** | **Sensitivity** | **ADAPTIVE CAPACITY** | | | | | | **DEGREE OF IMPACT SCORE** | **ADAPTIVE CAPACITY SCORE** | **VULNERABILITY** | |
| **A** | **B** | **C** | **D** | | | | | | **E** | **F** | **Vulnerability Index** | **Vulnerability Score** |
| **Wealth** | **Information** | **Infrastructure** | **Technology** | **Institution & Governance** | **Social Capital** |
| **Anolid** | Sector: Economic Area: Commerce & Industry Indicator: 95 Business Owners/ Entrepreneurs | 40 of the entrepreneurs are sensitive since they are living in low lying area and 10 belong to families beyond poverty threshold | **Moderate (2)** Donations, NGA, LGU, Subsidy from NGOs, | **High (1)** Brochures, Information Education Campaign, Trainings/ Seminars, Hazard Maps, Bantay Barangay, Barangay Assemblies | **Moderate (2)** telecommu-nications & roads in good condition and public market operating continuous-ly | **High (1)** Gadgets, television, radio, online broadcasting, print media | **High (1)** Contingency Plan, CLUP/Zoning Ordinance, Municipal Disaster Plan, Barangay Disaster Plan | **Moderate (1)** LGU, Vendors’ Associations, DTI, CSO, TODA, PODA | 1 | 1.33 | low | 1.33 |
| **Banaoang** | Sector: Social Indicator: Population (Settlement-Residential): 1,129 HHs, PWDs - 40, Senior Citizens - 361 | 276 hhs living in low lying areas and below poverty threshold. 20 PWD are sensitive because of physical disabilities, out of the total 15 are males and 5 are females. 108 or 30% of the senior citizens because of health & physical infirmities. Out of the total 28 are males and 80 are females | **Moderate (2)** Donations, NGA, Subsidy from NGOs, IRA, BDRRM Fund, MDRRM Fund, AICS Fund, PhilHealth | **High (1)** Brochures, Information Education Campaign, Trainings/ Seminars, Hazard Maps, Bantay Barangay, Barangay Assemblies | **Moderate (2)** telecommu-nications, concreted farm to market roads, Flood control facility, drainage canals | **High (1)** Gadgets, television, radio, Online Broadcast-ing, print media | **High (1)** Contingency Plan, CLUP/Zoning Ordinance, Municipal Disaster Plan, Peace & Order Plan, Barangay Disaster Plan | **High (1)** CSO, LGU & PNP Enforce-ment through Trained staff, knowledgeable populace/ residents regarding hazards, | 1 | 1.33 | low | 1.33 |
| Sector: Social Area: Education Indicator: 1,089 students | 45 pupils of Don Gregorio I Magno Elem. School are sensitive since they belong to families beyond poverty threshold, of which 25 are males & 20 are females | **Moderate (2)** Donations, NGA, Subsidy from NGOs, IRA, BDRRM Fund, MDRRM Fund, Local School Board Fund | **High (1)** Brochures, Information Education Campaign, Trainings/ Seminars, Hazard Maps, Bantay Barangay, Barangay Assemblies | **Moderate (2)** telecommu-nications, School Buildings in good condition (elevated), | **High (1)** Gadgets, television, radio, online broadcast-ing, print media | **High (1)** Contingency Plan, CLUP/Zoning Ordinance, MDRRMP, Local School Board Plan, Schools Improvement Plan | **High (1)** DepEd, CSO, LGU & PNP Enforce-ment through Trained staff, school disaster focal persons | 1 | 1.33 | low | 1.33 |
| Sector: Economic Area: Agriculture Indicator: 68 farmers | 13 farmers are sensitive since they belong to families beyond poverty threshold and live in low lying area. Out of the total 7 are males and 5 are females. | **High (1)** Dona-tions, NGA, LGU, Subsidy from NGOs | **High (1)** Brochures, Information Education Campaign, Trainings/ Seminars, Hazard Maps, Bantay Barangay, Barangay Assemblies | **Moderate (2)** telecommu-nications & roads in good condition and public market operating continuous-ly, concreted farm to market road | **High (1)** Gadgets, television, radio, online broadcast-ting, print media | **High (1)** Contingency Plan, CLUP/Zoning Ordinance, Municipal Disaster Plan, Barangay Disaster Plan | **High (1)** DA, CSO, LGU & PNP Enforce-ment through Trained staff, Farmers' Association, MAFC, Irrigators’ Association | 1 | 1.16 | low | 1.16 |

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| Table 8.1. **POPULATION CCVA, MUNICIPALITY OF MANGALDAN.**  **CLIMATE STIMULI: EXTREME RAINFALL** |

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| --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- |
| **Barangay** | **Exposure Indicators** | **Sensitivity** | **ADAPTIVE CAPACITY** | | | | | | **DEGREE OF IMPACT SCORE** | **ADAPTIVE CAPACITY SCORE** | **VULNERABILITY** | |
| **A** | **B** | **C** | **D** | | | | | | **E** | **F** | **Vulnerability Index** | **Vulnerability Score** |
| **Wealth** | **Information** | **Infrastructure** | **Technology** | **Institution & Governance** | **Social Capital** |
| **Banaoang** | Sector: Economic Area: Commerce & Industry Indicator: 29 Business Owners/ Entrepre-neurs | 8 of the entrepreneurs are sensitive since they are living in low lying area and 2 belong to families beyond poverty threshold | **Moderate (2)** Donations, NGA, LGU, Subsidy from NGOs, | **High (1)** Brochures, Information Education Campaign, Trainings/ Seminars, Hazard Maps, Bantay Barangay, Barangay Assemblies | **Moderate (2)** telecommu-nications & roads in good condition and public market operating continuously | **High (1)** Gadgets, television, radio, online broadcasting, print media | **High (1)** Contingency Plan, CLUP/Zoning Ordinance, Municipal Disaster Plan, Barangay Disaster Plan | **Moderate (1)** LGU, Vendors’ Associations, DTI, CSO, TODA, PODA | 1 | 1.33 | low | 1.33 |
| **Bantayan** | Sector: Social Indicator: Population (Settlement-Residential): 868 HHs, PWDs - 19, Senior Citizens - 337 | 140 hhs living in low lying areas and below poverty threshold. 10 PWD are sensitive because of physical disabilities, out of the total 5 are males and 5 are females. 67 or 20% of the senior citizens because of health & physical infirmities. Out of the total 28 are males and 39 are females | **Moderate (2)** Donations, NGA, Subsidy from NGOs, IRA, BDRRM Fund, MDRRM Fund, AICS Fund, PhilHealth | **High (1)** Brochures, Information Education Campaign, Trainings/ Seminars, Hazard Maps, Bantay Barangay, Barangay Assemblies | **Moderate (2)** telecommu-nications, concreted farm to market roads, Flood control facility, drainage canals | **High (1)** Gadgets, television, radio, Online Broadcasting, print media | **High (1)** Contingency Plan, CLUP/Zoning Ordinance, Municipal Disaster Plan, Peace & Order Plan, Barangay Disaster Plan | **High (1)** CSO, LGU & PNP Enforcement through Trained staff, knowledgeable populace/ residents regarding hazards, | 1 | 1.33 | low | 1.33 |
| Sector: Social Area: Education Indicator: 721 students | 33 pupils of Anolid Elem. School are sensitive since they belong to families beyond poverty threshold, of which 17 are males & 16 are females | **Moderate (2)** Donations, NGA, Subsidy from NGOs, IRA, BDRRM Fund, MDRRM Fund, Local School Board Fund | **High (1)** Brochures, Information Education Campaign, Trainings/ Seminars, Hazard Maps, Bantay Barangay, Barangay Assemblies | **Moderate (2)** telecommunications, School Buildings in good condition (elevated), | **High (1)** Gadgets, television, radio, online broadcasting, print media | **High (1)** Contingency Plan, CLUP/Zoning Ordinance, MDRRMP, Local School Board Plan, Schools Improvement Plan | **High (1)** DepEd, CSO, LGU & PNP Enforcement through Trained staff, school disaster focal persons | 1 | 1.33 | low | 1.33 |
| Sector: Economic Area: Agriculture Indicator: 77 farmers | 15 farmers are sensitive since they belong to families beyond poverty threshold and live in low lying area. Out of the total 10 are males and 5 are females. | **High (1)** Donations, NGA, LGU, Subsidy from NGOs | **High (1)** Brochures, Information Education Campaign, Trainings/ Seminars, Hazard Maps, Bantay Barangay, Barangay Assemblies | **Moderate (2)** telecommunications & roads in good condition and public market operating continuously, concreted farm to market road | **High (1)** Gadgets, television, radio, online broadcasting, print media | **High (1)** Contingency Plan, CLUP/Zoning Ordinance, Municipal Disaster Plan, Barangay Disaster Plan | **High (1)** DA, CSO, LGU & PNP Enforce-ment through Trained staff, Farmers' Association, MAFC, Irrigators’ Association | 1 | 1.16 | low | 1.16 |

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| Table 8.1. **POPULATION CCVA, MUNICIPALITY OF MANGALDAN.** |
| **CLIMATE STIMULI: EXTREME RAINFALL** |

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| --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- |
| **Barangay** | **Exposure Indicators** | **Sensitivity** | **ADAPTIVE CAPACITY** | | | | | | **DEGREE OF IMPACT SCORE** | **ADAPTIVE CAPACITY SCORE** | **VULNERABILITY** | |
| **A** | **B** | **C** | **D** | | | | | | **E** | **F** | **Vulnerability Index** | **Vulnerability Score** |
| **Wealth** | **Information** | **Infrastructure** | **Technology** | **Institution & Governance** | **Social Capital** |
| **Bantayan** | Sector: Economic Area: Commerce & Industry Indicator: 12 Business Owners/ Entrepre-neurs | 4 of the entrepreneurs are sensitive since they are living in low lying area and 3 belong to families beyond poverty threshold | **Moderate (2)** Dona-tions, NGA, LGU, Subsidy from NGOs, | **High (1)** Brochures, Information Education Campaign, Trainings/ Seminars, Hazard Maps, Bantay Barangay, Barangay Assemblies | **Moderate (2)** telecommuni-cations &  roads in good condition and public market operating continuously | **High (1)** Gadgets, television, radio, online broadcast-ing, print media | **High (1)** Contingency Plan, CLUP/Zoning Ordinance, Municipal Disaster Plan, Barangay Disaster Plan | **Moderate (1)** LGU, Vendors’ Associations, DTI, CSO, TODA, PODA | 1 | 1.33 | low | 1.33 |
| **Bateng** | Sector: Social Indicator: Population (Settlement-Residential): 569 HHs, PWD - 19, Senior Citizens - 234 | 215 hhs living in low lying areas and below poverty threshold. 11 PWDs are sensitive because of physical disabilities, of which 5 are males and 6 are females. 93 or 40% of the senior citizens are sensitive because of health & physical infirmities. Out of the total 50 are males and 43 are females. | **Moderate (2)** Donations, NGA, Subsidy from NGOs, IRA, BDRRM Fund, MDRRM Fund, AICS Fund, PhilHealth | **High (1)** Brochures, Information Education Campaign, Trainings/ Seminars, Hazard Maps, Bantay Barangay, Barangay Assemblies | **Moderate (2)** telecommuni-cations, concreted  farm to  market roads, Flood control facility, drainage  canals | **High (1)** Gadgets, television, radio, Online Broadcast-ing, print media | **High (1)** Contingency Plan, CLUP/Zoning Ordinance, Municipal Disaster Plan, Peace & Order Plan, Barangay Disaster Plan | **High (1)** CSO, LGU & PNP Enforce-ment through Trained staff, knowledgeable populace/ residents regarding hazards, | 1 | 1.33 | low | 1.33 |
| Sector: Social Area: Education Indicator: 602 students | 22 pupils of Anolid Elem. School are sensitive since they belong to families beyond poverty threshold, of which 11 are males & 11 are females | **Moderate (2)** Donations, NGA, Subsidy from NGOs, IRA, BDRRM Fund, MDRRM Fund, Local School Board Fund | **High (1)** Brochures, Information Education Campaign, Trainings/ Seminars, Hazard Maps, Bantay Barangay, Barangay Assemblies | **Moderate (2)** telecommu-nications, School Buildings in good condition (elevated), | **High (1)** Gadgets, television, radio, online broadcast-ing, print media | **High (1)** Contingency Plan, CLUP/Zoning Ordinance, MDRRMP, Local School Board Plan, Schools Improvement Plan | **High (1)** DepEd, CSO, LGU & PNP Enforce-ment through Trained staff, school disaster focal persons | 1 | 1.33 | low | 1.33 |
| Sector: Economic Area: Agriculture Indicator: 31 farmers | 10 farmers are sensitive since they belong to families beyond poverty threshold and live in low lying area, of which 6 are males and 4 are females. | **High (1)** Donations, NGA, LGU, Subsidy from NGOs | **High (1)** Brochures, Information Education Campaign, Trainings/ Seminars, Hazard Maps, Bantay Barangay, Barangay Assemblies | **Moderate (2)**  telecommu-nications & roads in good condition and public market operating continuous-ly, concreted farm to market road | **High (1)** Gadgets, television, radio, online broadcast-ing, print media | **High (1)** Contingency Plan, CLUP/Zoning Ordinance, Municipal Disaster Plan, Barangay Disaster Plan | **High (1)** DA, CSO, LGU & PNP Enforce-ment through Trained staff, Farmers' Association, MAFC, Irrigators’ Association | 1 | 1.16 | low | 1.16 |

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| Table 8.1. **POPULATION CCVA, MUNICIPALITY OF MANGALDAN.** |
| **CLIMATE STIMULI: EXTREME RAINFALL** |

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| --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- |
| **Barangay** | **Exposure Indicators** | **Sensitivity** | **ADAPTIVE CAPACITY** | | | | | | **DEGREE OF IMPACT SCORE** | **ADAPTIVE CAPACITY SCORE** | **VULNERABILITY** | |
| **A** | **B** | **C** | **D** | | | | | | **E** | **F** | **Vulnerability Index** | **Vulnerability Score** |
| **Wealth** | **Information** | **Infrastructure** | **Technology** | **Institution & Governance** | **Social Capital** |
| **Bateng** | Sector: Economic Area: Agriculture Indicator: 90 Fishermen | 60 fishermen are sensitive since they are living in low lying area, of which 40 are males and 20 are females. | **High (1)** Donations, NGA, LGU, Subsidy from NGOs | **High (1)** Brochures, Information Education Campaign, Trainings/ Seminars, Hazard Maps, Bantay Barangay, Barangay Assemblies | **Moderate (2)** telecom-munications & roads in good condition and public market operating continuous-ly, concreted farm to market road | **High (1)** Gadgets, television, radio, online broadcast-ing, print media | **High (1)** Contingency Plan, CLUP/Zoning Ordinance, Municipal Disaster Plan, Barangay Disaster Plan | **High (1)** DA, CSO, LGU & PNP Enforce-ment through Trained staff, Farmers' Association, MAFC, Irrigators’ Association | 1 | 1.16 | low | 1.16 |
| Sector: Economic Area: Commerce & Industry Indicator: 16 Business Owners/ Entrepre-neurs | 4 of the entrepreneurs are sensitive since they are living in low lying area and 6 belong to families beyond poverty threshold | **Moderate (2)** Donations, NGA, LGU, Subsidy from NGOs, | **High (1)** Brochures, Information Education Campaign, Trainings/ Seminars, Hazard Maps, Bantay Barangay, Barangay Assemblies | **Moderate (2)** telecom-munications & roads in good condition and public market operating continuous-ly | **High (1)** Gadgets, television, radio, online broadcast-ing, print media | **High (1)** Contingency Plan, CLUP/Zoning Ordinance, Municipal Disaster Plan, Barangay Disaster Plan | **Moderate (1)** LGU, Vendors’ Associations, DTI, CSO, TODA, PODA | 1 | 1.33 | low | 1.33 |
| **David** | Sector: Social Indicator: Population (Settlement-Residential): 989 HHs, PWDs - 80, Senior Citizens - 389 | 284 hhs living in low lying areas and below poverty threshold. 40 PWD are sensitive because of physical disabilities, out of the total 15 are males and 25 are females. 116 or 30% of the senior citizens because of health & physical infirmities. Out of the total 29 are males and 87 are females | **Moderate (2)** Donations, NGA, Subsidy from NGOs, IRA, BDRRM Fund, MDRRM Fund, AICS Fund, PhilHealth | **High (1)** Brochures, Information Education Campaign, Trainings/ Seminars, Hazard Maps, Bantay Barangay, Barangay Assemblies | **Moderate (2)** telecom-munications, concreted farm to market roads, Flood control facility, drainage canals | **High (1)** Gadgets, television, radio, Online Broadcast-ing, print media | **High (1)** Contingency Plan, CLUP/Zoning Ordinance, Municipal Disaster Plan, Peace & Order Plan, Barangay Disaster Plan | **High (1)** CSO, LGU & PNP Enforce-ment through Trained staff, knowledgeable populace/ residents regarding hazards, | 1 | 1.33 | low | 1.33 |
| Sector: Social Area: Education Indicator: 1,003 students & pupils | 41 students & pupils are sensitive since they belong to families beyond poverty threshold, of which 27 are males & 14 are females | **Moderate (2)** Donations, NGA, Subsidy from NGOs, IRA, BDRRM Fund, MDRRM Fund, Local School Board Fund | **High (1)** Brochures, Information Education Campaign, Trainings/ Seminars, Hazard Maps, Bantay Barangay, Barangay Assemblies | **Moderate (2)** telecommunications, School Buildings in good condition (elevated), | **High (1)** Gadgets, television, radio, online broadcast-ing, print media | **High (1)** Contingency Plan, CLUP/Zoning Ordinance, MDRRMP, Local School Board Plan, Schools Improvement Plan | **High (1)** DepEd, CSO, LGU & PNP Enforce-ment through Trained staff, school disaster focal persons | 1 | 1.33 | low | 1.33 |

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| Table 8.1. **POPULATION CCVA, MUNICIPALITY OF MANGALDAN.** |
| **CLIMATE STIMULI: EXTREME RAINFALL** |

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| --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- |
| **Barangay** | **Exposure Indicators** | **Sensitivity** | **ADAPTIVE CAPACITY** | | | | | | **DEGREE OF IMPACT SCORE** | **ADAPTIVE CAPACITY SCORE** | **VULNERABILITY** | |
| **A** | **B** | **C** | **D** | | | | | | **E** | **F** | **Vulnerability Index** | **Vulnerability Score** |
| **Wealth** | **Information** | **Infrastructure** | **Technology** | **Institution & Governance** | **Social Capital** |
| **David** | Sector: Economic Area: Agriculture Indicator: 109 farmers | 71 farmers are sensitive since they belong to families beyond poverty threshold and live in low lying area. Out of the total 75 are male and 25 are female. | **High (1)**  Dona-tions, NGA, LGU, Subsidy from NGOs | **High (1)** Brochures, Information Education Campaign, Trainings/ Seminars, Hazard Maps, Bantay Barangay, Barangay Assemblies | **Moderate (2)** telecommuni-cations & roads in good condition and public market operating continuously, concreted farm to market road | **High (1)** Gadgets, television, radio, online broadcasting, print media | **High (1)** Contingency Plan, CLUP/Zoning Ordinance, Municipal Disaster Plan, Barangay Disaster Plan | **High (1)** DA, CSO, LGU & PNP Enforce-ment through Trained staff, Farmers' Association, MAFC, Irrigators’ Association | 1 | 1.16 | low | 1.16 |
| Sector: Economic Area: Commerce & Industry Indicator: 17 Business Owners/ Entrepre-neurs | 7 of the entrepreneurs are sensitive since they are living in low lying area and 3 belong to families beyond poverty threshold | **Moderate (2)** Donations, NGA, LGU, Subsidy from NGOs, | **High (1)** Brochures, Information Education Campaign, Trainings/ Seminars, Hazard Maps, Bantay Barangay, Barangay Assemblies | **Moderate (2)** telecommunications & roads  in good condition and public market operating continuously | **High (1)** Gadgets, television, radio, online broadcasting, print media | **High (1)** Contingency Plan, CLUP/Zoning Ordinance, Municipal Disaster Plan, Barangay Disaster Plan | **Moderate (1)** LGU, Vendors’ Associations, DTI, CSO, TODA, PODA | 1 | 1.33 | low | 1.33 |
| **Embarcadero** | Sector: Social Indicator: Population (Settlement-Residential): 591 HHs, PWDs - 24, Senior Citizens - 193 | 138 hhs living in low lying areas and below poverty threshold. 20 PWDs are sensitive because of physical disabilities, of which 12 are males and 8 are females. 86 or 45% of the senior citizens are sensitive because of health & physical infirmities. Out of the total 40 are males and 46 are females. | **Moderate (2)** Donations, NGA, Subsidy from NGOs, IRA, BDRRM Fund, MDRRM Fund, AICS Fund, PhilHealth | **High (1)** Brochures, Information Education Campaign, Trainings/ Seminars, Hazard Maps, Bantay Barangay, Barangay Assemblies | **Moderate (2)** telecommuni-cations, concreted farm to market roads, Flood control facility, drainage canals | **High (1)** Gadgets, television, radio, Online Broadcasting, print media | **High (1)** Contingency Plan, CLUP/Zoning Ordinance, Municipal Disaster Plan, Peace & Order Plan, Barangay Disaster Plan | **High (1)** CSO, LGU  & PNP Enforcement through  Trained staff, knowledgeable populace/ residents regarding hazards, | 1 | 1.33 | low | 1.33 |
| Sector: Social Area: Education Indicator: 615 students & pupils | 36 students & pupils are sensitive since they belong to families beyond poverty threshold, of which 24 are males & 12 are females | **Moderate (2)** Donations, NGA, Subsidy from NGOs, IRA, BDRRM Fund, MDRRM Fund, Local School Board Fund | **High (1)** Brochures, Information Education Campaign, Trainings/ Seminars, Hazard Maps, Bantay Barangay, Barangay Assemblies | **Moderate (2)** telecommunications, School Buildings in good condition (elevated), | **High (1)** Gadgets, television, radio, online broadcasting, print media | **High (1)** Contingency Plan, CLUP/Zoning Ordinance, MDRRMP, Local School Board Plan, Schools Improvement Plan | **High (1)** DepEd, CSO, LGU & PNP Enforcement through Trained staff, school disaster focal persons | 1 | 1.33 | low | 1.33 |

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| Table 8.1. **POPULATION CCVA, MUNICIPALITY OF MANGALDAN.**  **CLIMATE STIMULI: EXTREME RAINFALL** |

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| --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- |
| **Barangay** | **Exposure Indicators** | **Sensitivity** | **ADAPTIVE CAPACITY** | | | | | | **DEGREE OF IMPACT SCORE** | **ADAPTIVE CAPACITY SCORE** | **VULNERABILITY** | |
| **A** | **B** | **C** | **D** | | | | | | **E** | **F** | **Vulnerability Index** | **Vulnerability Score** |
| **Wealth** | **Information** | **Infrastructure** | **Technology** | **Institution & Governance** | **Social Capital** |
| **Embarcadero** | Sector: Economic Area: Agriculture Indicator: 19 farmers | 19 farmers are sensitive since they belong to families beyond poverty threshold and live in low lying area. Out of the total 17 are male and 2 are female. | **High (1)** Donations, NGA, LGU, Subsidy from NGOs | **High (1)** Brochures, Information Education Campaign, Trainings/ Seminars, Hazard Maps, Bantay Barangay, Barangay Assemblies | **Moderate (2)** telecommunications & roads in good condition and public market operating continuously, concreted farm to market road | **High (1)** Gadgets, television, radio, online broadcasting, print media | **High (1)** Contingency Plan, CLUP/Zoning Ordinance, Municipal Disaster Plan, Barangay Disaster Plan | **High (1)** DA, CSO, LGU & PNP Enforcement through Trained staff, Farmers' Association, MAFC, Irrigators’ Association | 1 | 1.16 | low | 1.16 |
| Sector: Economic Area: Commerce & Industry Indicator: 20 Business Owners/ Entrepre-neurs | 10 of the entrepreneurs are sensitive since they are living in low lying area and 5 belong to families beyond poverty threshold | **Moderate (2)** Donations, NGA, LGU, Subsidy from NGOs, | **High (1)** Brochures, Information Education Campaign, Trainings/ Seminars, Hazard Maps, Bantay Barangay, Barangay Assemblies | **Moderate (2)** telecommunications & roads in good condition and public market operating continuously | **High (1)** Gadgets, television, radio, online broadcasting, print media | **High (1)** Contingency Plan, CLUP/Zoning Ordinance, Municipal Disaster Plan, Barangay Disaster Plan | **Moderate (1)** LGU, Vendors’ Associations, DTI, CSO, TODA, PODA | 1 | 1.33 | low | 1.33 |
| **Guesang** | Sector: Social Indicator: Population (Settlement-Residential): 822 HHs, PWDs - 28, Senior Citizens - 317 | 169 hhs living in low lying areas and below poverty threshold. 20 PWDs are sensitive because of physical disabilities, of which 12 are males and 8 are females. 126 or 40% of the senior citizens are sensitive because of health & physical infirmities. Out of the total 50 are males and 76 are females. | **Moderate (2)** Donations, NGA, Subsidy from NGOs, IRA, BDRRM Fund, MDRRM Fund, AICS Fund, PhilHealth | **High (1)** Brochures, Information Education Campaign, Trainings/ Seminars, Hazard Maps, Bantay Barangay, Barangay Assemblies | **Moderate (2)** telecommunications, concreted farm to market roads, Flood control facility, drainage canals | **High (1)** Gadgets, television, radio, Online Broadcasting, print media | **High (1)** Contingency Plan, CLUP/Zoning Ordinance, Municipal Disaster Plan, Peace & Order Plan, Barangay Disaster Plan | **High (1)** CSO, LGU & PNP Enforcement through Trained staff, knowledgeable populace/ residents regarding hazards, | 1 | 1.33 | low | 1.33 |
| Sector: Social Area: Education Indicator: 896 students & pupils | 25 students & pupils are sensitive since they belong to families beyond poverty threshold, of which 17 are males & 8 are females | **Moderate (2)** Donations, NGA, Subsidy from NGOs, IRA, BDRRM Fund, MDRRM Fund, Local School Board Fund | **High (1)** Brochures, Information Education Campaign, Trainings/ Seminars, Hazard Maps, Bantay Barangay, Barangay Assemblies | **Moderate (2)** telecom-munications, School Buildings in good condition (elevated), | **High (1)** Gadgets, television, radio, online broadcasting, print media | **High (1)** Contingency Plan, CLUP/Zoning Ordinance, MDRRMP, Local School Board Plan, Schools Improvement Plan | **High (1)** DepEd, CSO, LGU & PNP Enforcement through Trained staff, school disaster focal persons | 1 | 1.33 | low | 1.33 |

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| Table 8.1. **POPULATION CCVA, MUNICIPALITY OF MANGALDAN.** |
| **CLIMATE STIMULI: EXTREME RAINFALL** |

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| --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- |
| **Barangay** | **Exposure Indicators** | **Sensitivity** | **ADAPTIVE CAPACITY** | | | | | | **DEGREE OF IMPACT SCORE** | **ADAPTIVE CAPACITY SCORE** | **VULNERABILITY** | |
| **A** | **B** | **C** | **D** | | | | | | **E** | **F** | **Vulnerability Index** | **Vulnerability Score** |
| **Wealth** | **Information** | **Infrastructure** | **Technology** | **Institution & Governance** | **Social Capital** |
| **Guesang** | Sector: Economic Area: Agriculture Indicator: 83 farmers | 77 farmers are sensitive since they belong to families beyond poverty threshold and live in low lying area. Out of the total 70 are male and 7 are female. | **High (1)** Donations, NGA, LGU, Subsidy from NGOs | **High (1)** Brochures, Information Education Campaign, Trainings/ Seminars, Hazard Maps, Bantay Barangay, Barangay Assemblies | **Moderate (2)** telecommuni-cations & roads in good condition and public market operating continuously, concreted farm to market road | **High (1)** Gadgets, television, radio, online broadcasting, print media | **High (1)** Contingency Plan, CLUP/Zoning Ordinance, Municipal Disaster Plan, Barangay Disaster Plan | **High (1)** DA, CSO, LGU & PNP Enforcement through Trained staff, Farmers' Association, MAFC, Irrigators’ Association | 1 | 1.16 | low | 1.16 |
| Sector: Economic Area: Commerce & Industry Indicator: 10 Business Owners/ Entrepre-neurs | 3 of the entrepreneurs are sensitive since they are living in low lying area and 5 belong to families beyond poverty threshold | **Moderate (2)** Donations, NGA, LGU, Subsidy from NGOs, | **High (1)** Brochures, Information Education Campaign, Trainings/ Seminars, Hazard Maps, Bantay Barangay, Barangay Assemblies | **Moderate (2)** telecommuni-cations & roads in good condition and public market operating continuously | **High (1)** Gadgets, television, radio, online broadcasting, print media | **High (1)** Contingency Plan, CLUP/Zoning Ordinance, Municipal Disaster Plan, Barangay Disaster Plan | **Moderate (1)** LGU, Vendors’ Associations, DTI, CSO, TODA, PODA | 1 | 1.33 | low | 1.33 |
| **Guiguilonen** | Sector: Social Indicator: Population (Settlement-Residential): 676 HHs, PWDs - 54, Senior Citizens - 311 | 181 hhs living in low lying areas and below poverty threshold. 40 PWDs are sensitive because of physical disabilities, of which 12 are males and 28 are females. 62 or 20% of the senior citizens are sensitive because of health & physical infirmities. Out of the total 20 are males and 42 are females. | **Moderate (2)** Donations, NGA, Subsidy from NGOs, IRA, BDRRM Fund, MDRRM Fund, AICS Fund, PhilHealth | **High (1)** Brochures, Information Education Campaign, Trainings/ Seminars, Hazard Maps, Bantay Barangay, Barangay Assemblies | **Moderate (2)** telecommuni-cations, concreted  farm to market roads, Flood control facility, drainage canals | **High (1)** Gadgets, television, radio, Online Broadcasting, print media | **High (1)** Contingency Plan, CLUP/Zoning Ordinance, Municipal Disaster Plan, Peace & Order Plan, Barangay Disaster Plan | **High (1)** CSO, LGU & PNP Enforcement through Trained staff, knowledgeable populace/ residents regarding hazards, | 1 | 1.33 | low | 1.33 |
| Sector: Social Area: Education Indicator: 642 students & pupils | 30 students & pupils are sensitive since they belong to families beyond poverty threshold, of which 18 are males & 12 are females. | **Moderate (2)** Donations, NGA, Subsidy from NGOs, IRA, BDRRM Fund, MDRRM Fund, Local School Board Fund | **High (1)** Brochures, Information Education Campaign, Trainings/ Seminars, Hazard Maps, Bantay Barangay, Barangay Assemblies | **Moderate (2)** telecommuni-cations, School Buildings in good condition (elevated), | **High (1)** Gadgets, television, radio, online broadcasting, print media | **High (1)** Contingency Plan, CLUP/Zoning Ordinance, MDRRMP, Local School Board Plan, Schools Improvement Plan | **High (1)** DepEd, CSO, LGU & PNP Enforcement through Trained staff, school disaster focal persons | 1 | 1.33 | low | 1.33 |

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| Table 8.1. **POPULATION CCVA, MUNICIPALITY OF MANGALDAN.** |
| **CLIMATE STIMULI: EXTREME RAINFALL** |

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| --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- |
| **Barangay** | **Exposure Indicators** | **Sensitivity** | **ADAPTIVE CAPACITY** | | | | | | **DEGREE OF IMPACT SCORE** | **ADAPTIVE CAPACITY SCORE** | **VULNERABILITY** | |
| **A** | **B** | **C** | **D** | | | | | | **E** | **F** | **Vulnerability Index** | **Vulnerability Score** |
| **Wealth** | **Information** | **Infrastructure** | **Technology** | **Institution & Governance** | **Social Capital** |
| **Guiguilonen** | Sector: Economic Area: Agriculture Indicator: 83 farmers | 77 farmers are sensitive since they belong to families beyond poverty threshold and live in low lying area. Out of the total 70 are male and 7 are female. | **High (1)** Donations, NGA, LGU, Subsidy from NGOs | **High (1)** Brochures, Information Education Campaign, Trainings/ Seminars, Hazard Maps, Bantay Barangay, Barangay Assemblies | **Moderate (2)** telecommuni-cations & roads in good condition and public market operating continuously, concreted farm to market road | **High (1)** Gadgets, television, radio, online broadcasting, print media | **High (1)** Contingency Plan, CLUP/Zoning Ordinance, Municipal Disaster Plan, Barangay Disaster Plan | **High (1)** DA, CSO, LGU & PNP Enforcement through Trained staff, Farmers' Association, MAFC, Irrigators’ Association | 1 | 1.16 | low | 1.16 |
| Sector: Economic Area: Commerce & Industry Indicator: 24 Business Owners/ Entrepre-neurs | 12 of the entrepreneurs are sensitive since they are living in low lying area and 3 belong to families beyond poverty threshold | **Moderate (2)** Donations, NGA, LGU, Subsidy from NGOs, | **High (1)** Brochures, Information Education Campaign, Trainings/ Seminars, Hazard Maps, Bantay Barangay, Barangay Assemblies | **Moderate (2)** telecommuni-cations & roads in good condition and public market operating continuously | **High (1)** Gadgets, television, radio, online broadcasting, print media | **High (1)** Contingency Plan, CLUP/Zoning Ordinance, Municipal Disaster Plan, Barangay Disaster Plan | **Moderate (1)** LGU, Vendors’ Associations, DTI, CSO, TODA, PODA | 1 | 1.33 | low | 1.33 |
| **Inlambo** | Sector: Social Indicator: Population (Settlement-Residential): 341 HHs, PWDs - 31, Senior Citizens - 138 | 120 hhs living in low lying areas and below poverty threshold. 15 PWDs are sensitive because of physical disabilities, of which 10 are males and 5 are females. 55 or 40% of the senior citizens are sensitive because of health & physical infirmities. Out of the total 15 are males and 40 are females. | **Moderate (2)** Donations, NGA, Subsidy from NGOs, IRA, BDRRM Fund, MDRRM Fund, AICS Fund, PhilHealth | **High (1)** Brochures, Information Education Campaign, Trainings/ Seminars, Hazard Maps, Bantay Barangay, Barangay Assemblies | **Moderate (2)** telecommuni-cations, concreted farm to market roads, Flood control facility, drainage canals | **High (1)** Gadgets, television, radio, Online Broadcasting, print media | **High (1)** Contingency Plan, CLUP/Zoning Ordinance, Municipal Disaster Plan, Peace & Order Plan, Barangay Disaster Plan | **High (1)** CSO, LGU & PNP Enforcement through Trained staff, knowledgeable populace/ residents regarding hazards, | 1 | 1.33 | low | 1.33 |
| Sector: Social Area: Education Indicator: 419 students & pupils | 23 students & pupils are sensitive since they belong to families beyond poverty threshold. Out of the total 18 are males & 5 are females | **Moderate (2)** Donations, NGA, Subsidy from NGOs, IRA, BDRRM Fund, MDRRM Fund, Local School Board Fund | **High (1)** Brochures, Information Education Campaign, Trainings/ Seminars, Hazard Maps, Bantay Barangay, Barangay Assemblies | **Moderate (2)** telecommuni-cations, School Buildings in good condition (elevated), | **High (1)** Gadgets, television, radio, online broadcasting, print media | **High (1)** Contingency Plan, CLUP/Zoning Ordinance, MDRRMP, Local School Board Plan, Schools Improvement Plan | **High (1)** DepEd, CSO, LGU & PNP Enforcement through Trained staff, school disaster focal persons | 1 | 1.33 | low | 1.33 |

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| Table 8.1. **POPULATION CCVA, MUNICIPALITY OF MANGALDAN.** |
| **CLIMATE STIMULI: EXTREME RAINFALL** |

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| --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- |
| **Barangay** | **Exposure Indicators** | **Sensitivity** | **ADAPTIVE CAPACITY** | | | | | | **DEGREE OF IMPACT SCORE** | **ADAPTIVE CAPACITY SCORE** | **VULNERABILITY** | |
| **A** | **B** | **C** | **D** | | | | | | **E** | **F** | **Vulnerability Index** | **Vulnerability Score** |
| **Wealth** | **Information** | **Infrastructure** | **Technology** | **Institution & Governance** | **Social Capital** |
| **Inlambo** | Sector: Economic Area: Agriculture Indicator: 196 farmers | 11 farmers are sensitive since they belong to families beyond poverty threshold and live in low lying area, of which 7 are males and 4 are females. | **High (1)** Donations, NGA, LGU, Subsidy from NGOs | **High (1)** Brochures, Information Education Campaign, Trainings/ Seminars, Hazard Maps, Bantay Barangay, Barangay Assemblies | **Moderate (2)** telecommuni-cations & roads in good condition and public market operating continuously, concreted farm to market road | **High (1)** Gadgets, television, radio, online broadcasting, print media | **High (1)** Contingency Plan, CLUP/Zoning Ordinance, Municipal Disaster Plan, Barangay Disaster Plan | **High (1)** DA, CSO, LGU & PNP Enforce-ment through Trained staff, Farmers' Association, MAFC, Irrigators’ Association | 1 | 1.16 | low | 1.16 |
| Sector: Economic Area: Commerce & Industry Indicator: 8 Business Owners/ Entrepre-neurs | 2 of the entrepreneurs are sensitive since they are living in low lying area and 6 belong to families beyond poverty threshold | **Moderate (2)** Donations, NGA, LGU, Subsidy from NGOs, | **High (1)** Brochures, Information Education Campaign, Trainings/ Seminars, Hazard Maps, Bantay Barangay, Barangay Assemblies | **Moderate (2)** telecommuni-cations & roads in good condition and public market operating continuously | **High (1)** Gadgets, television, radio, online broadcasting, print media | **High (1)** Contingency Plan, CLUP/Zoning Ordinance, Municipal Disaster Plan, Barangay Disaster Plan | **Moderate (1)** LGU, Vendors’ Associations, DTI, CSO, TODA, PODA | 1 | 1.33 | low | 1.33 |
| **Lanas** | Sector: Social Indicator: Population (Settlement-Residential): 732 HHs, PWDs - 26, Senior Citizens - 272 | 200 hhs living in low lying areas and below poverty threshold. 15 PWDs are sensitive because of physical disabilities, of which 7 are males and 8 are females. 95 or 35% of the senior citizens are sensitive because of health & physical infirmities. Out of the total 40 are males and 55 are females. | **Moderate (2)** Donations, NGA, Subsidy from NGOs, IRA, BDRRM Fund, MDRRM Fund, AICS Fund, PhilHealth | **High (1)** Brochures, Information Education Campaign, Trainings/ Seminars, Hazard Maps, Bantay Barangay, Barangay Assemblies | **Moderate (2)** telecommuni-cations, concreted farm to market roads, Flood control facility, drainage canals | **High (1)** Gadgets, television, radio, Online Broadcasting, print media | **High (1)** Contingency Plan, CLUP/Zoning Ordinance, Municipal Disaster Plan, Peace & Order Plan, Barangay Disaster Plan | **High (1)** CSO, LGU & PNP Enforce-ment through Trained staff, knowledgeable populace/ residents regarding hazards, | 1 | 1.33 | low | 1.33 |
| Sector: Social Area: Education Indicator: 677 students & pupils | 26 students & pupils are sensitive since they belong to families beyond poverty threshold, of which 15 are male & 11 are female | **Moderate (2)** Donations, NGA, Subsidy from NGOs, IRA, BDRRM Fund, MDRRM Fund, Local School Board Fund | **High (1)** Brochures, Information Education Campaign, Trainings/ Seminars, Hazard Maps, Bantay Barangay, Barangay Assemblies | **Moderate (2)** telecommuni-cations, School Buildings in good condition (elevated), | **High (1)** Gadgets, television, radio, online broadcasting, print media | **High (1)** Contingency Plan, CLUP/Zoning Ordinance, MDRRMP, Local School Board Plan, Schools Improvement Plan | **High (1)** DepEd, CSO, LGU & PNP Enforce-ment through Trained staff, school disaster focal persons | 1 | 1.33 | low | 1.33 |

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| Table 8.1. **POPULATION CCVA, MUNICIPALITY OF MANGALDAN.** |
| **CLIMATE STIMULI: EXTREME RAINFALL** |

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| **Barangay** | **Exposure Indicators** | **Sensitivity** | **ADAPTIVE CAPACITY** | | | | | | **DEGREE OF IMPACT SCORE** | **ADAPTIVE CAPACITY SCORE** | **VULNERABILITY** | |
| **A** | **B** | **C** | **D** | | | | | | **E** | **F** | **Vulnerability Index** | **Vulnerability Score** |
| **Wealth** | **Information** | **Infrastructure** | **Technology** | **Institution & Governance** | **Social Capital** |
| **Lanas** | Sector: Economic Area: Agriculture Indicator: 143 farmers | 49 farmers are sensitive since they belong to families beyond poverty threshold and live in low lying area. Out of the total 40 are males and 9 are females. | **High (1)** Donations, NGA, LGU, Subsidy from NGOs | **High (1)** Brochures, Information Education Campaign, Trainings/ Seminars, Hazard Maps, Bantay Barangay, Barangay Assemblies | **Moderate (2)** telecommuni-cations & roads in good condition and public market operating continuously, concreted farm to market road | **High (1)** Gadgets, television, radio, online broadcasting, print media | **High (1)** Contingency Plan, CLUP/Zoning Ordinance, Municipal Disaster Plan, Barangay Disaster Plan | **High (1)** DA, CSO, LGU & PNP Enforce-ment through Trained staff, Farmers' Association, MAFC, Irrigators’ Association | 1 | 1.16 | low | 1.16 |
| Sector: Economic Area: Agriculture Indicator: 30 fishermen | 20 fishermen are sensitive since they are living in low lying area, of which 15 are males and 5 are females. | **High (1)** Donations, NGA, LGU, Subsidy from NGOs | **High (1)** Brochures, Information Education Campaign, Trainings/ Seminars, Hazard Maps, Bantay Barangay, Barangay Assemblies | **Moderate (2)** telecommuni-cations & roads in good condition and public market operating continuously, concreted farm to market road | **High (1)** Gadgets, television, radio, online broadcasting, print media | **High (1)** Contingency Plan, CLUP/Zoning Ordinance, Municipal Disaster Plan, Barangay Disaster Plan | **High (1)** DA, CSO, LGU & PNP Enforcement through Trained staff, Farmers' Association, MAFC, Irrigators’ Association | 1 | 1.16 | low | 1.16 |
| Sector: Economic Area: Commerce & Industry Indicator: 10 Business Owners/ Entrepre-neurs | 4 of the entrepreneurs are sensitive since they are living in low lying area and 4 belong to families beyond poverty threshold | **Moderate**  **(2)**  Donations, NGA, LGU, Subsidy  from NGOs, | **High (1)** Brochures, Information Education Campaign, Trainings/ Seminars, Hazard Maps, Bantay Barangay, Barangay Assemblies | **Moderate (2)** telecommuni-cations & roads in good condition and public market operating continuously | **High (1)** Gadgets, television, radio, online broadcasting, print media | **High (1)** Contingency Plan, CLUP/Zoning Ordinance, Municipal Disaster Plan, Barangay Disaster Plan | **Moderate (1)** LGU, Vendors’ Associations, DTI, CSO, TODA, PODA | 1 | 1.33 | low | 1.33 |
| **Landas** | Sector: Social Indicator: Population (Settlement-Residential): 541 HHs, PWDs - 27, Senior Citizens - 198 | 77 hhs living in low lying areas and below poverty threshold. 12 PWDs are sensitive because of physical disabilities, of which 8 are males and 4 are females. 79 or 40% of the senior citizens are sensitive because of health & physical infirmities. Out of the total 30 are males and 49 are females. | **Moderate**  **(2)** Donations, NGA,  Subsidy from NGOs, IRA, BDRRM  Fund, MDRRM Fund, AICS Fund, PhilHealth | **High (1)** Brochures, Information Education Campaign, Trainings/ Seminars, Hazard Maps, Bantay Barangay, Barangay Assemblies | **Moderate (2)** telecommuni-cations, concreted farm to market roads, Flood control facility, drainage canals | **High (1)** Gadgets, television, radio, Online Broadcasting, print media | **High (1)** Contingency Plan, CLUP/Zoning Ordinance, Municipal Disaster Plan, Peace & Order Plan, Barangay Disaster Plan | **High (1)** CSO, LGU & PNP Enforce-ment through Trained staff, knowledgeable populace/ residents regarding hazards, | 1 | 1.33 | low | 1.33 |

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| Table 8.1. **POPULATION CCVA, MUNICIPALITY OF MANGALDAN.** |
| **CLIMATE STIMULI: EXTREME RAINFALL** |

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| **Barangay** | **Exposure Indicators** | **Sensitivity** | **ADAPTIVE CAPACITY** | | | | | | **DEGREE OF IMPACT SCORE** | **ADAPTIVE CAPACITY SCORE** | **VULNERABILITY** | |
| **A** | **B** | **C** | **D** | | | | | | **E** | **F** | **Vulnerability Index** | **Vulnerability Score** |
| **Wealth** | **Information** | **Infrastructure** | **Technology** | **Institution & Governance** | **Social Capital** |
| **Landas** | Sector: Social Area: Education Indicator: 479 students & pupils | 9 students & pupils are sensitive since they belong to families beyond poverty threshold, of which 8 are males & 1 is female | **Moderate (2)** Donations, NGA, Subsidy from NGOs, IRA, BDRRM Fund, MDRRM Fund, Local School Board Fund | **High (1)** Brochures, Information Education Campaign, Trainings/ Seminars, Hazard Maps, Bantay Barangay, Barangay Assemblies | **Moderate (2)** telecommu-nications, School Buildings in good condition (elevated), | **High (1)** Gadgets, television, radio, online broadcasting, print media | **High (1)** Contingency Plan, CLUP/Zoning Ordinance, MDRRMP, Local School Board Plan, Schools Improvement Plan | **High (1)** DepEd, CSO, LGU & PNP Enforce-ment through Trained staff, school disaster focal persons | 1 | 1.33 | low | 1.33 |
| Sector: Economic Area: Agriculture Indicator: 39 farmers | 17 farmers are sensitive since they belong to families beyond poverty threshold and live in low lying area. Out of the total 10 are male and 7 are female. | **High (1)** Donations, NGA, LGU, Subsidy from NGOs | **High (1)** Brochures, Information Education Campaign, Trainings/ Seminars, Hazard Maps, Bantay Barangay, Barangay Assemblies | **Moderate (2)** telecommu-nications & roads in good condition and public market operating continuously, concreted farm to market road | **High (1)** Gadgets, television, radio, online broadcasting, print media | **High (1)** Contingency Plan, CLUP/Zoning Ordinance, Municipal Disaster Plan, Barangay Disaster Plan | **High (1)** DA, CSO, LGU & PNP Enforce-ment through Trained staff, Farmers' Association, MAFC, Irrigators’ Association | 1 | 1.16 | low | 1.16 |
| Sector: Economic Area: Commerce & Industry Indicator: 11 Business Owners/ Entrepreneurs | 6 of the entrepreneurs are sensitive since they are living in low lying area and 2 belong to families beyond poverty threshold | **Moderate (2)** Donations, NGA, LGU, Subsidy from NGOs, | **High (1)** Brochures, Information Education Campaign, Trainings/ Seminars, Hazard Maps, Bantay Barangay, Barangay Assemblies | **Moderate (2)** telecommu-nications & roads in good condition and public market operating continuously | **High (1)** Gadgets, television, radio, online broadcasting, print media | **High (1)** Contingency Plan, CLUP/Zoning Ordinance, Municipal Disaster Plan, Barangay Disaster Plan | **Moderate (1)** LGU, Vendors’ Associations, DTI, CSO, TODA, PODA | 1 | 1.33 | low | 1.33 |
| **Maasin** | Sector: Social Indicator: Population (Settlement-Residential): 741 HHs, PWDs - 14, Senior Citizens - 286 | 211 hhs living in low lying areas and below poverty threshold. 10 PWDs are sensitive because of physical disabilities, of which 8 are males and 2 are females. 57 or 20% of the senior citizens are sensitive because of health & physical infirmities. Out of the total 30 are males and 49 are females. | **Moderate (2)** Donations, NGA, Subsidy from NGOs, IRA, BDRRM Fund, MDRRM Fund, AICS Fund, PhilHealth | **High (1)** Brochures, Information Education Campaign, Trainings/ Seminars, Hazard Maps, Bantay Barangay, Barangay Assemblies | **Moderate (2)** telecommu-nications, concreted farm to market roads, Flood control facility, drainage canals | **High (1)** Gadgets, television, radio, Online Broadcasting, print media | **High (1)** Contingency Plan, CLUP/Zoning Ordinance, Municipal Disaster Plan, Peace & Order Plan, Barangay Disaster Plan | **High (1)** CSO, LGU & PNP Enforce-ment through Trained staff, knowledgeable populace/ residents regarding hazards, | 1 | 1.33 | low | 1.33 |

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| Table 8.1. **POPULATION CCVA, MUNICIPALITY OF MANGALDAN.** |
| **CLIMATE STIMULI: EXTREME RAINFALL** |

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| **Barangay** | **Exposure Indicators** | **Sensitivity** | **ADAPTIVE CAPACITY** | | | | | | **DEGREE OF IMPACT SCORE** | **ADAPTIVE CAPACITY SCORE** | **VULNERABILITY** | |
| **A** | **B** | **C** | **D** | | | | | | **E** | **F** | **Vulnerability Index** | **Vulnerability Score** |
| **Wealth** | **Information** | **Infrastructure** | **Technology** | **Institution & Governance** | **Social Capital** |
| **Maasin** | Sector: Social Area: Education Indicator: 639 students & pupils | 34 students & pupils are sensitive since they belong to families beyond poverty threshold, of which 25 are males & 9 are females. | **Moderate (2)** Donations, NGA, Subsidy from NGOs, IRA, BDRRM Fund, MDRRM Fund, Local School Board Fund | **High (1)** Brochures, Information Education Campaign, Trainings/ Seminars, Hazard Maps, Bantay Barangay, Barangay Assemblies | **Moderate**  **(2)** telecom-munications, School Buildings in good condition (elevated), | **High (1)** Gadgets, television, radio, online broadcasting, print media | **High (1)** Contingency Plan, CLUP/Zoning Ordinance, MDRRMP, Local School Board Plan, Schools Improvement Plan | **High (1)** DepEd, CSO, LGU & PNP Enforcement through Trained staff, school disaster focal persons | 1 | 1.33 | low | 1.33 |
| Sector: Economic Area: Agriculture Indicator: 115 farmers | 12 farmers are sensitive since they belongto families beyond poverty threshold and live in low lying area. Out of the total 10 are males and 2 are females. | **High (1)** Donations, NGA, LGU, Subsidy from NGOs | **High (1)** Brochures, Information Education Campaign, Trainings/ Seminars, Hazard Maps, Bantay Barangay, Barangay Assemblies | **Moderate (2)** telecom-munications & roads in good condition and public market operating continuously, concreted farm to market road | **High (1)** Gadgets, television, radio, online broadcasting, print media | **High (1)** Contingency Plan, CLUP/Zoning Ordinance, Municipal Disaster Plan, Barangay Disaster Plan | **High (1)** DA, CSO, LGU & PNP Enforcement through Trained staff, Farmers' Association, MAFC, Irrigators’ Association | 1 | 1.16 | low | 1.16 |
| Sector: Economic Area: Agriculture Indicator: 107 Fishermen | 60 fishermen are sensitive since they are living in low lying area, of which 50 are males and 10 are females. | **High (1)** Donations, NGA, LGU, Subsidy from NGOs | **High (1)** Brochures, Information Education Campaign, Trainings/ Seminars, Hazard Maps, Bantay Barangay, Barangay Assemblies | **Moderate (2)** telecommu-nications & roads in good condition and public market operating continuously, concreted farm to market road | **High (1)** Gadgets, television, radio, online broadcasting, print media | **High (1)** Contingency Plan, CLUP/Zoning Ordinance, Municipal Disaster Plan, Barangay Disaster Plan | **High (1)** DA, CSO, LGU & PNP Enforcement through Trained staff, Farmers' Association, MAFC, Irrigators’ Association | 1 | 1.16 | low | 1.16 |
| Sector: Economic Area: Commerce & Industry Indicator: 21 Business Owners/ Entrepreneurs | 10 of the entrepreneurs are sensitive since they are living in low lying area and 5 belong to families beyond poverty threshold | **Moderate (2)** Donations, NGA, LGU, Subsidy from NGOs, | **High (1)** Brochures, Information Education Campaign, Trainings/ Seminars, Hazard Maps, Bantay Barangay, Barangay Assemblies | **Moderate**  **(2)** telecommu-nications & roads in good condition and public market operating continuously | **High (1)** Gadgets, television, radio, online broadcasting, print media | **High (1)** Contingency Plan, CLUP/Zoning Ordinance, Municipal Disaster Plan, Barangay Disaster Plan | **Moderate (1)** LGU, Vendors’ Associations, DTI, CSO, TODA, PODA | 1 | 1.33 | low | 1.33 |
| **Macayug** | Sector: Social Indicator: Population (Settlement-Residential): 572 HHs, PWDs - 25, Senior Citizens - 210 | 305 hhs living in low lying areas and below poverty threshold. 10 PWDs are sensitive because of physical disabilities, of which 8 are males and 2 are females. 126 or 60% of the senior citizens are | **Moderate (2)** Donations, NGA, Subsidy from NGOs, IRA, BDRRM Fund, MDRRM Fund, AICS Fund, PhilHealth | **High (1)** Brochures, Information Education Campaign, Trainings/ Seminars, Hazard Maps, Bantay Barangay, Barangay Assemblies | **Moderate (2)** telecommu-nications, concreted farm to market roads, Flood control facility, drainage canals | **High (1)** Gadgets, television, radio, Online Broadcasting, print media | **High (1)** Contingency Plan, CLUP/Zoning Ordinance, Municipal Disaster Plan, Peace & Order Plan, Barangay Disaster Plan | **High (1)** CSO, LGU & PNP Enforce-ment through Trained staff, knowledgeable populace/ residents regarding hazards, | 1 | 1.33 | low | 1.33 |

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| Table 8.1. **POPULATION CCVA, MUNICIPALITY OF MANGALDAN.** |
| **CLIMATE STIMULI: EXTREME RAINFALL** |

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| **Barangay** | **Exposure Indicators** | **Sensitivity** | **ADAPTIVE CAPACITY** | | | | | | **DEGREE OF IMPACT SCORE** | **ADAPTIVE CAPACITY SCORE** | **VULNERABILITY** | |
| **A** | **B** | **C** | **D** | | | | | | **E** | **F** | **Vulnerability Index** | **Vulnerability Score** |
| **Wealth** | **Information** | **Infrastructure** | **Technology** | **Institution & Governance** | **Social Capital** |
| **Macayug** |  | Sensitive because of health &physical infirmities. Out of the total 50 are males and 76 are females. |  |  |  |  |  |  |  |  |  |  |
| Sector: Social Area: Education Indicator: 2634 students & pupils | 1976 students & pupils are sensitive since they belong to families beyond poverty threshold. Out of the total 1,008 are males & 968 are females | **Moderate (2)** Donations, NGA, Subsidy from NGOs, IRA, BDRRM Fund, MDRRM Fund, Local School Board Fund | **High (1)** Brochures, Information Education Campaign, Trainings/ Seminars, Hazard Maps, Bantay Barangay, Barangay Assemblies | **Moderate**  **(2)** telecommu-nications, School Buildings in good condition (elevated), | **High (1)** Gadgets, television, radio, online broadcast-ing, print media | **High (1)** Contingency Plan, CLUP/Zoning Ordinance, MDRRMP, Local School Board Plan, Schools Improvement Plan | **High (1)** DepEd, CSO, LGU & PNP Enforce-ment through Trained staff, school disaster focal persons | 1 | 1.33 | low | 1.33 |
| Sector: Economic Area: Agriculture Indicator: 117 farmers | 69 farmers are sensitive since they belong to families beyond poverty threshold and live in low lying area. Out of the total 50 are males and 19 are females. | **High (1)** Donations, NGA, LGU, Subsidy from NGOs | **High (1)** Brochures, Information Education Campaign, Trainings/ Seminars, Hazard Maps, Bantay Barangay, Barangay Assemblies | **Moderate (2)** telecommunications & roads in good condition and public market operating continuously, concreted farm to market road | **High (1)** Gadgets, television, radio, online broadcast-ing, print media | **High (1)** Contingency Plan, CLUP/Zoning Ordinance, Municipal Disaster Plan, Barangay Disaster Plan | **High (1)** DA, CSO, LGU & PNP Enforcement through Trained staff, Farmers' Association, MAFC, Irrigators’ Association | 1 | 1.16 | low | 1.16 |
| Sector: Economic Area: Commerce & Industry Indicator: 7 Business Owners/ Entrepreneurs | 3 of the entrepreneurs are sensitive since they are living in low lying area and 2 belong to families beyond poverty threshold | **Moderate (2)** Donations, NGA, LGU, Subsidy from NGOs, | **High (1)** Brochures, Information Education Campaign, Trainings/ Seminars, Hazard Maps, Bantay Barangay, Barangay Assemblies | **Moderate (2)** telecommunications & roads in good condition and public market operating continuously | **High (1)** Gadgets, television, radio, online broadcast-ing, print media | **High (1)** Contingency Plan, CLUP/Zoning Ordinance, Municipal Disaster Plan, Barangay Disaster Plan | **Moderate (1)** LGU, Vendors’ Associations, DTI, CSO, TODA, PODA | 1 | 1.33 | low | 1.33 |
| **Navaluan** | Sector: Social Indicator: Population (Settlement-Residential): 762 HHs, PWDs - 49, Senior Citizens - 283 | 180 hhs living in low lying areas and below poverty threshold. 20 PWDs are sensitive because of physical disabilities, of which 8 are males and 12 are females. 113 or 40% of the senior citizens are sensitive because of health & physical infirmities. | **Moderate (2)** Donations, NGA, Subsidy from NGOs, IRA, BDRRM Fund, MDRRM Fund, AICS Fund, PhilHealth | **High (1)** Brochures, Information Education Campaign, Trainings/ Seminars, Hazard Maps, Bantay Barangay, Barangay Assemblies | **Moderate (2)** telecommu-nications, concreted farm to market roads, Flood control facility, drainage canals | **High (1)** Gadgets, television, radio, Online Broadcast-ing, print media | **High (1)** Contingency Plan, CLUP/Zoning Ordinance, Municipal Disaster Plan, Peace & Order Plan, Barangay Disaster Plan | **High (1)** CSO, LGU & PNP Enforce-ment through Trained staff, knowledgeable populace/ residents regarding hazards, | 1 | 1.33 | low | 1.33 |

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| Table 8.1. **POPULATION CCVA, MUNICIPALITY OF MANGALDAN.** |
| **CLIMATE STIMULI: EXTREME RAINFALL** |

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| --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- |
| **Barangay** | **Exposure Indicators** | **Sensitivity** | **ADAPTIVE CAPACITY** | | | | | | **DEGREE OF IMPACT SCORE** | **ADAPTIVE CAPACITY SCORE** | **VULNERABILITY** | |
| **A** | **B** | **C** | **D** | | | | | | **E** | **F** | **Vulnerability Index** | **Vulnerability Score** |
| **Wealth** | **Information** | **Infrastructure** | **Technology** | **Institution & Governance** | **Social Capital** |
|  |  | Out of the total 50 are males and 63 are females. |  |  |  |  |  |  |  |  |  |  |
| **Navaluan** | Sector: Social Area: Education Indicator: 900 students & pupils | 38 students & pupils are sensitive since they belong to families beyond poverty threshold. Out of the total 25 are male & 13 are female | **Moderate (2)** Donations, NGA, Subsidy from NGOs, IRA, BDRRM Fund, MDRRM Fund, Local School Board Fund | **High (1)** Brochures, Information Education Campaign, Trainings/ Seminars, Hazard Maps, Bantay Barangay, Barangay Assemblies | **Moderate (2)** telecommu-nications, School Buildings in good condition (elevated), | **High (1)** Gadgets, television, radio, online broadcast-ting, print media | **High (1)** Contingency Plan, CLUP/Zoning Ordinance, MDRRMP, Local School Board Plan, Schools Improvement Plan | **High (1)** DepEd, CSO, LGU & PNP Enforce-ment through Trained staff, school disaster focal persons | 1 | 1.33 | low | 1.33 |
| Sector: Economic Area: Agriculture Indicator: 45 farmers | 37 farmers are sensitive since they belong to families beyond poverty threshold and live in low lying area. Out of the total 30 are male and 7 are female. | **High (1)** Donations, NGA, LGU, Subsidy from NGOs | **High (1)** Brochures, Information Education Campaign, Trainings/ Seminars, Hazard Maps, Bantay Barangay, Barangay Assemblies | **Moderate (2)** telecommu-nications & roads in good condition and public market operating continuously, concreted farm to market road | **High (1)** Gadgets, television, radio, online broadcast-ing, print media | **High (1)** Contingency Plan, CLUP/Zoning Ordinance, Municipal Disaster Plan, Barangay Disaster Plan | **High (1)** DA, CSO, LGU & PNP Enforce-ment through Trained staff, Farmers' Association, MAFC, Irrigators’ Association | 1 | 1.16 | low | 1.16 |
| Sector: Economic Area: Commerce & Industry Indicator: 11 Business Owners/ Entrepreneurs | 5 of the entrepreneurs are sensitive since they are living in low lying area and 2 belong to families beyond poverty threshold | **Moderate (2)** Donations, NGA, LGU, Subsidy from NGOs, | **High (1)** Brochures, Information Education Campaign, Trainings/ Seminars, Hazard Maps, Bantay Barangay, Barangay Assemblies | **Moderate (2)** telecommunications & roads in good condition and public market operating continuously | **High (1)** Gadgets, television, radio, online broadcast-ing, print media | **High (1)** Contingency Plan, CLUP/Zoning Ordinance, Municipal Disaster Plan, Barangay Disaster Plan | **Moderate (1)** LGU, Vendors’ Associations, DTI, CSO, TODA, PODA | 1 | 1.33 | low | 1.33 |
| **Nibaliw** | Sector: Social Indicator: Population (Settlement-Residential): 675 HHs, PWDs - 44, Senior Citizens - 246 | 335 hhs living in low lying areas and below poverty threshold. 25 PWDs are sensitive because of physical disabilities, of which 15 are males and 10 are females. 98 or 40% of the senior citizens are sensitive because of health & physical infirmities. Out of the total 50 are males and 48 are females. | **Moderate (2)** Donations, NGA, Subsidy from NGOs, IRA, BDRRM Fund, MDRRM Fund, AICS Fund, PhilHealth | **High (1)** Brochures, Information Education Campaign, Trainings/ Seminars, Hazard Maps, Bantay Barangay, Barangay Assemblies | **Moderate (2)** telecommunications, concreted farm to market roads, Flood control facility, drainage canals | **High (1)** Gadgets, television, radio, Online Broadcasting, print media | **High (1)** Contingency Plan, CLUP/Zoning Ordinance, Municipal Disaster Plan, Peace & Order Plan, Barangay Disaster Plan | **High (1)** CSO, LGU & PNP Enforce-ment through Trained staff, knowledgeable populace/ residents regarding hazards, | 1 | 1.33 | low | 1.33 |

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| Table 8.1. **POPULATION CCVA, MUNICIPALITY OF MANGALDAN.** |
| **CLIMATE STIMULI: EXTREME RAINFALL** |

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| --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- |
| **Barangay** | **Exposure Indicators** | **Sensitivity** | **ADAPTIVE CAPACITY** | | | | | | **DEGREE OF IMPACT SCORE** | **ADAPTIVE CAPACITY SCORE** | **VULNERABILITY** | |
| **A** | **B** | **C** | **D** | | | | | | **E** | **F** | **Vulnerability Index** | **Vulnerability Score** |
| **Wealth** | **Information** | **Infrastructure** | **Technology** | **Institution & Governance** | **Social Capital** |
| **Nibaliw** | Sector: Social Area: Education Indicator: 750 students & pupils | 39 students & pupils are sensitive since they belong to families beyond poverty threshold. Out of the total 23 are male & 16 are female | **Moderate (2)** Donations, NGA, Subsidy from NGOs, IRA, BDRRM Fund, MDRRM Fund, Local School Board Fund | **High (1)** Brochures, Information Education Campaign, Trainings/ Seminars, Hazard Maps, Bantay Barangay, Barangay Assemblies | **Moderate (2)** telecommu-nications, School Buildings in good condition (elevated), | **High (1)** Gadgets, television, radio, online broadcast-ing, print media | **High (1)** Contingency Plan, CLUP/Zoning Ordinance, MDRRMP, Local School Board Plan, Schools Improvement Plan | **High (1)** DepEd, CSO, LGU & PNP Enforce-ment through Trained staff, school disaster focal persons | 1 | 1.33 | low | 1.33 |
| Sector: Economic Area: Agriculture Indicator: 35 farmers | 20 male farmers are sensitive since they belong to families beyond poverty threshold and live in low lying area | **High (1)** Donations, NGA, LGU, Subsidy from NGOs | **High (1)** Brochures, Information Education Campaign, Trainings/ Seminars, Hazard Maps, Bantay Barangay, Barangay Assemblies | **Moderate (2)** telecommu-nications & roads in good condition and public market operating continuously, concreted farm to market road | **High (1)** Gadgets, television, radio, online broadcast-ing, print media | **High (1)** Contingency Plan, CLUP/Zoning Ordinance, Municipal Disaster Plan, Barangay Disaster Plan | **High (1)** DA, CSO, LGU & PNP Enforce-ment through Trained staff, Farmers' Association, MAFC, Irrigators’ Association | 1 | 1.16 | low | 1.16 |
| Sector: Economic Area: Commerce & Industry Indicator: 11 Business Owners/ Entrepreneurs | 2 of the entrepreneurs are sensitive since they are living in low lying area and 6 belong to families beyond poverty threshold | **Moderate (2)** Donations, NGA, LGU, Subsidy from NGOs, | **High (1)** Brochures, Information Education Campaign, Trainings/ Seminars, Hazard Maps, Bantay Barangay, Barangay Assemblies | **Moderate (2)** telecommu-nications & roads in good condition and public market operating continuously | **High (1)** Gadgets, television, radio, online broadcast-ing, print media | **High (1)** Contingency Plan, CLUP/Zoning Ordinance, Municipal Disaster Plan, Barangay Disaster Plan | **Moderate (1)** LGU, Vendors’ Associations, DTI, CSO, TODA, PODA | 1 | 1.33 | low | 1.33 |
| **Osiem** | Sector: Social Indicator: Population (Settlement-Residential): 809 HHs, PWDs - 11, Senior Citizens - 268 | 87 hhs living in low lying areas and below poverty threshold. 6 PWDs are sensitive because of physical disabilities, of which 4 are males and 2 are females. 107 or 40% of the senior citizens are sensitive because of health & physical infirmities. Out of the total 60 are males and 47 are females. | **Moderate (2)** Donations, NGA, Subsidy from NGOs, IRA, BDRRM Fund, MDRRM Fund, AICS Fund, PhilHealth | **High (1)** Brochures, Information Education Campaign, Trainings/ Seminars, Hazard Maps, Bantay Barangay, Barangay Assemblies | **Moderate (2)** telecommunications, concreted farm to market roads, Flood control facility, drainage canals | **High (1)** Gadgets, television, radio, Online Broadcast-ing, print media | **High (1)** Contingency Plan, CLUP/Zoning Ordinance, Municipal Disaster Plan, Peace & Order Plan, Barangay Disaster Plan | **High (1)** CSO, LGU & PNP Enforce-ment through Trained staff, knowledgeable populace/ residents regarding hazards, | 1 | 1.33 | low | 1.33 |

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| Table 8.1. **POPULATION CCVA, MUNICIPALITY OF MANGALDAN.** |
| **CLIMATE STIMULI: EXTREME RAINFALL** |

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| **Barangay** | **Exposure Indicators** | **Sensitivity** | **ADAPTIVE CAPACITY** | | | | | | **DEGREE OF IMPACT SCORE** | **ADAPTIVE CAPACITY SCORE** | **VULNERABILITY** | |
| **A** | **B** | **C** | **D** | | | | | | **E** | **F** | **Vulnerability Index** | **Vulnerability Score** |
| **Wealth** | **Information** | **Infrastructure** | **Technology** | **Institution & Governance** | **Social Capital** |
| **Osiem** | Sector: Social Area: Education Indicator: 741 students & pupils | 22 students & pupils are sensitive since they belong to families beyond poverty threshold. Out of the total 15 are male & 7 are female | **Moderate (2)** Donations, NGA, Subsidy from NGOs, IRA, BDRRM Fund, MDRRM Fund, Local School Board Fund | **High (1)** Brochures, Information Education Campaign, Trainings/ Seminars, Hazard Maps, Bantay Barangay, Barangay Assemblies | **Moderate (2)** telecommu-nications, School Buildings in good condition (elevated), | **High (1)** Gadgets, television, radio, online broadcast-ing, print media | **High (1)** Contingency Plan, CLUP/Zoning Ordinance, MDRRMP, Local School Board Plan, Schools Improvement Plan | **High (1)** DepEd, CSO, LGU & PNP Enforce-ment through Trained staff, school disaster focal persons | 1 | 1.33 | low | 1.33 |
| Sector: Economic Area: Agriculture Indicator: 106 farmers | 13 farmers are sensitive since they belong to families beyond poverty threshold and live in low lying area. Out of the total 10 are male and 3 are female. | **High (1)** Donations, NGA, LGU, Subsidy from NGOs | **High (1)** Brochures, Information Education Campaign, Trainings/ Seminars, Hazard Maps, Bantay Barangay, Barangay Assemblies | **Moderate (2)** telecommu-nications & roads in good condition and public market operating continuously, concreted farm to market road | **High (1)** Gadgets, television, radio, online broadcast-ing, print media | **High (1)** Contingency Plan, CLUP/Zoning Ordinance, Municipal Disaster Plan, Barangay Disaster Plan | **High (1)** DA, CSO, LGU & PNP Enforce-ment through Trained staff, Farmers' Association, MAFC, Irrigators’ Association | 1 | 1.16 | low | 1.16 |
| Sector: Economic Area: Commerce & Industry Indicator: 13 Business Owners/ Entrepreneurs | 7 of the entrepreneurs are sensitive since they are living in low lying area and 3 belong to families beyond poverty threshold | **Moderate (2)** Donations, NGA, LGU, Subsidy from NGOs, | **High (1)** Brochures, Information Education Campaign, Trainings/ Seminars, Hazard Maps, Bantay Barangay, Barangay Assemblies | **Moderate (2)** telecommu-nications & roads in good condition and public market operating continuously | **High (1)** Gadgets, television, radio, online broadcasting, print media | **High (1)** Contingency Plan, CLUP/Zoning Ordinance, Municipal Disaster Plan, Barangay Disaster Plan | **Moderate (1)** LGU, Vendors’ Associations, DTI, CSO, TODA, PODA | 1 | 1.33 | low | 1.33 |
| **Palua** | Sector: Social Indicator: Population (Settlement-Residential): 446 HHs, PWDs - 24, Senior Citizens - 152 | 125 hhs living in low lying areas and below poverty threshold. 14 PWDs are sensitive because of physical disabilities, of which 4 are males and 10 are females. 60 or 40% of the senior citizens are sensitive because of health & physical infirmities. Out of the total 25 are males and 35 are females. | **Moderate (2)** Donations, NGA, Subsidy from NGOs, IRA, BDRRM Fund, MDRRM Fund, AICS Fund, PhilHealth | **High (1)** Brochures, Information Education Campaign, Trainings/ Seminars, Hazard Maps, Bantay Barangay, Barangay Assemblies | **Moderate (2)** telecommunications, concreted farm to market roads, Flood control facility, drainage canals | **High (1)** Gadgets, television, radio, Online Broadcasting, print media | **High (1)** Contingency Plan, CLUP/Zoning Ordinance, Municipal Disaster Plan, Peace & Order Plan, Barangay Disaster Plan | **High (1)** CSO, LGU & PNP Enforcement through Trained staff, knowledgeable populace/ residents regarding hazards, | 1 | 1.33 | low | 1.33 |

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| Table 8.1. **POPULATION CCVA, MUNICIPALITY OF MANGALDAN.** |
| **CLIMATE STIMULI: EXTREME RAINFALL** |

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| **Barangay** | **Exposure Indicators** | **Sensitivity** | **ADAPTIVE CAPACITY** | | | | | | **DEGREE OF IMPACT SCORE** | **ADAPTIVE CAPACITY SCORE** | **VULNERABILITY** | |
| **A** | **B** | **C** | **D** | | | | | | **E** | **F** | **Vulnerability Index** | **Vulnerability Score** |
| **Wealth** | **Information** | **Infrastructure** | **Technology** | **Institution & Governance** | **Social Capital** |
| **Palua** | Sector: Social Area: Education Indicator: 427 students & pupils | 34 students & pupils are sensitive since they belong to families beyond poverty threshold. Out of the total 22 are male & 12 are female | **Moderate (2)** Donations, NGA, Subsidy from NGOs, IRA, BDRRM Fund, MDRRM Fund, Local School Board Fund | **High (1)** Brochures, Information Education Campaign, Trainings/ Seminars, Hazard Maps, Bantay Barangay, Barangay Assemblies | **Moderate (2)** telecommunications, School Buildings in good condition (elevated), | **High (1)** Gadgets, television, radio, online broadcast-ing, print media | **High (1)** Contingency Plan, CLUP/Zoning Ordinance, MDRRMP, Local School Board Plan, Schools Improvement Plan | **High (1)** DepEd, CSO, LGU & PNP Enforce-ment through Trained staff, school disaster focal persons | 1 | 1.33 | low | 1.33 |
| Sector: Economic Area: Agriculture Indicator: 67 farmers | 26 farmers are sensitive since they belong to families beyond poverty threshold and live in low lying area. Out of the total 21 are male and 5 are female. | **High (1)** Donations, NGA, LGU, Subsidy from NGOs | **High (1)** Brochures, Information Education Campaign, Trainings/ Seminars, Hazard Maps, Bantay Barangay, Barangay Assemblies | **Moderate (2)** telecommunications & roads in good condition and public market operating continuously, concreted farm to market road | **High (1)** Gadgets, television, radio, online broadcast-ing, print media | **High (1)** Contingency Plan, CLUP/Zoning Ordinance, Municipal Disaster Plan, Barangay Disaster Plan | **High (1)** DA, CSO, LGU & PNP Enforce-ment through Trained staff, Farmers' Association, MAFC, Irrigators’ Association | 1 | 1.16 | low | 1.16 |
| Sector: Economic Area: Commerce & Industry Indicator: 10 Business Owners/ Entrepreneurs | 6 of the entrepreneurs are sensitive since they are living in low lying area and 2 belong to families beyond poverty threshold | **Moderate (2)** Donations, NGA, LGU, Subsidy from NGOs, | **High (1)** Brochures, Information Education Campaign, Trainings/ Seminars, Hazard Maps, Bantay Barangay, Barangay Assemblies | **Moderate (2)** telecommunications & roads in good condition and public market operating continuously | **High (1)** Gadgets, television, radio, online broadcast-ing, print media | **High (1)** Contingency Plan, CLUP/Zoning Ordinance, Municipal Disaster Plan, Barangay Disaster Plan | **Moderate (1)** LGU, Vendors’ Associations, DTI, CSO, TODA, PODA | 1 | 1.33 | low | 1.33 |
| **Poblacion** | Sector: Social Indicator: Population (Settlement-Residential): 835 HHs, PWDs - 24, Senior Citizens - 492 | 101 living in low lying areas and below poverty threshold. 10 PWDs are sensitive because of physical disabilities, of which 8 are males and1 2 are females. 49 or 10% of the senior citizens are sensitive because of health & physical infirmities. Out of the total 20 are males and 29 are females. | **Moderate (2)** Donations, NGA, Subsidy from NGOs, IRA, BDRRM Fund, MDRRM Fund, AICS Fund, PhilHealth | **High (1)** Brochures, Information Education Campaign, Trainings/ Seminars, Hazard Maps, Bantay Barangay, Barangay Assemblies | **Moderate (2)** telecommu-nications, concreted farm to market roads, Flood control facility, drainage canals | **High (1)** Gadgets, television, radio, Online Broadcast-ing, print media | **High (1)** Contingency Plan, CLUP/Zoning Ordinance, Municipal Disaster Plan, Peace & Order Plan, Barangay Disaster Plan | **High (1)** CSO, LGU & PNP Enforce-ment through Trained staff, knowledgeable populace/ residents regarding hazards, | 1 | 1.33 | low | 1.33 |

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| Table 8.1. **POPULATION CCVA, MUNICIPALITY OF MANGALDAN.** |
| **CLIMATE STIMULI: EXTREME RAINFALL** |

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| --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- |
| **Barangay** | **Exposure Indicators** | **Sensitivity** | **ADAPTIVE CAPACITY** | | | | | | **DEGREE OF IMPACT SCORE** | **ADAPTIVE CAPACITY SCORE** | **VULNERABILITY** | |
| **A** | **B** | **C** | **D** | | | | | | **E** | **F** | **Vulnerability Index** | **Vulnerability Score** |
| **Wealth** | **Information** | **Infrastructure** | **Technology** | **Institution & Governance** | **Social Capital** |
| **Poblacion** | Sector: Social Area: Education Indicator: 717 students & pupils | 21 students & pupils are sensitive since they belong to families beyond poverty threshold. Out of the total 15 are male & 6 are female | **Moderate (2)** Donations, NGA, Subsidy from NGOs, IRA, BDRRM Fund, MDRRM Fund, Local School Board Fund | **High (1)** Brochures, Information Education Campaign, Trainings/ Seminars, Hazard Maps, Bantay Barangay, Barangay Assemblies | **Moderate (2)** telecommunications, School Buildings in good condition (elevated), | **High (1)** Gadgets, television, radio, online broadcast-ing, print media | **High (1)** Contingency Plan, CLUP/Zoning Ordinance, MDRRMP, Local School Board Plan, Schools Improvement Plan | **High (1)** DepEd, CSO, LGU & PNP Enforce-ment through Trained staff, school disaster focal persons | 1 | 1.33 | low | 1.33 |
| Sector: Economic Area: Industry Indicator: 200 Business Owners/ Entrepreneurs | 80 of the entrepreneurs are sensitive since they are living in low lying area and 20 belong to families beyond poverty threshold | **Moderate (2)** Donations, NGA, LGU, Subsidy from NGOs, | **High (1)** Brochures, Information Education Campaign, Trainings/ Seminars, Hazard Maps, Bantay Barangay, Barangay Assemblies | **Moderate**  **(2)** telecommu-nications & roads in good condition and public market operating continuously | **High (1)** Gadgets, television, radio, online broadcast-ing, print media | **High (1)** Contingency Plan, CLUP/Zoning Ordinance, Municipal Disaster Plan, Barangay Disaster Plan | **Moderate (1)** LGU, Vendors’ Associations, DTI, CSO, TODA, PODA | 1 | 1.33 | low | 1.33 |
| **Pogo** | Sector: Social Indicator: Population (Settlement-Residential): 408 HHs, PWDs - 14, Senior Citizens - 151 | 53 hhs living in low lying areas and below poverty threshold. 10 PWDs are sensitive because of physical disabilities, of which 6 are males and 4 are females. 60 or 40% of the senior citizens are sensitive because of health & physical infirmities. Out of the total 35 are males and 25 are females. | **Moderate (2)** Donations, NGA, Subsidy from NGOs, IRA, BDRRM Fund, MDRRM Fund, AICS Fund, PhilHealth | **High (1)** Brochures, Information Education Campaign, Trainings/ Seminars, Hazard Maps, Bantay Barangay, Barangay Assemblies | **Moderate (2)** telecommunications, concreted farm to market roads, Flood control facility, drainage canals | **High (1)** Gadgets, television, radio, Online Broadcast-ing, print media | **High (1)** Contingency Plan, CLUP/Zoning Ordinance, Municipal Disaster Plan, Peace & Order Plan, Barangay Disaster Plan | **High (1)** CSO, LGU & PNP Enforce-ment through Trained staff, knowledgeable populace/ residents regarding hazards, | 1 | 1.33 | low | 1.33 |
| Sector: Social Area: Education Indicator: 307 students &pupils | 18 students & pupils are sensitive since they belong to families beyond poverty threshold. Out of the total 10 are male & 8 are female | **Moderate (2)** Donations, NGA, Subsidy from NGOs, IRA, BDRRM Fund, MDRRM Fund, Local School Board Fund | **High (1)** Brochures, Information Education Campaign, Trainings/ Seminars, Hazard Maps, Bantay Barangay, Barangay Assemblies | **Moderate (2)** telecommunications, School Buildings in good condition (elevated), | **High (1)** Gadgets, television, radio, online broadcast-ing, print media | **High (1)** Contingency Plan, CLUP/Zoning Ordinance, MDRRMP, Local School Board Plan, Schools Improvement Plan | **High (1)** DepEd, CSO, LGU & PNP Enforce-ment through Trained staff, school disaster focal persons | 1 | 1.33 | low | 1.33 |

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| Table 8.1. **POPULATION CCVA, MUNICIPALITY OF MANGALDAN.** |
| **CLIMATE STIMULI: EXTREME RAINFALL** |

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| **Barangay** | **Exposure Indicators** | **Sensitivity** | **ADAPTIVE CAPACITY** | | | | | | **DEGREE OF IMPACT SCORE** | **ADAPTIVE CAPACITY SCORE** | **VULNERABILITY** | |
| **A** | **B** | **C** | **D** | | | | | | **E** | **F** | **Vulnerability Index** | **Vulnerability Score** |
| **Wealth** | **Information** | **Infrastructure** | **Technology** | **Institution & Governance** | **Social Capital** |
| **Pogo** | Sector: Economic Area: Agriculture Indicator: 37 farmers | 20 farmers are sensitive since they belong to families beyond poverty threshold and live in low lying area. Out of the total 16 are male and 4 are female. | **High (1)** Donations, NGA, LGU, Subsidy from NGOs | **High (1)** Brochures, Information Education Campaign, Trainings/ Seminars, Hazard Maps, Bantay Barangay, Barangay Assemblies | **Moderate (2)** telecommunications & roads in good condition and public market operating continuously, concreted farm to market road | **High (1)** Gadgets, television, radio, online broadcast-ing, print media | **High (1)** Contingency Plan, CLUP/Zoning Ordinance, Municipal Disaster Plan, Barangay Disaster Plan | **High (1)** DA, CSO, LGU & PNP Enforce-ment through Trained staff, Farmers' Association, MAFC, Irrigators’ Association | 1 | 1.16 | low | 1.16 |
| Sector: Economic Area: Commerce & Industry Indicator: 10 Business Owners/ Entrepreneurs | 5 of the entrepreneurs are sensitive since they are living in low lying area and 3 belong to families beyond poverty threshold | **Moderate (2)** Donations, NGA, LGU, Subsidy from NGOs, | **High (1)** Brochures, Information Education Campaign, Trainings/ Seminars, Hazard Maps, Bantay Barangay, Barangay Assemblies | **Moderate (2)** telecommu-nications & roads in good condition and public market operating continuously | **High (1)** Gadgets, television, radio, online broadcast-ing, print media | **High (1)** Contingency Plan, CLUP/Zoning Ordinance, Municipal Disaster Plan, Barangay Disaster Plan | **Moderate (1)** LGU, Vendors’ Associations, DTI, CSO, TODA, PODA | 1 | 1.33 | low | 1.33 |
| **Salaan** | Sector: Social Indicator: Population (Settlement-Residential): 589 HHs, PWDs - 13, Senior Citizens - 268 | 228 hhs living in low lying areas and below poverty threshold. 9 PWDs are sensitive because of physical disabilities, of which 6 are males and 3 are females. 120 or 45% of the senior citizens are sensitive because of health & physical infirmities. Out of the total 80 are males and 40 are females. | **Moderate (2)** Donations, NGA, Subsidy from NGOs, IRA, BDRRM Fund, MDRRM Fund, AICS Fund, PhilHealth | **High (1)** Brochures, Information Education Campaign, Trainings/ Seminars, Hazard Maps, Bantay Barangay, Barangay Assemblies | **Moderate (2)** telecommu-nications, concreted farm to market roads, Flood control facility, drainage canals | **High (1)** Gadgets, television, radio, Online Broadcast-ing, print media | **High (1)** Contingency Plan, CLUP/Zoning Ordinance, Municipal Disaster Plan, Peace & Order Plan, Barangay Disaster Plan | **High (1)** CSO, LGU & PNP Enforce-ment through Trained staff, knowledgeable populace/ residents regarding hazards, | 1 | 1.33 | low | 1.33 |
| Sector: Social Area: Education Indicator: 601 students & pupils | 17 students & pupils are sensitive since they belong to families beyond poverty threshold. Out of the total 10 are male & 7 are female | **Moderate (2)** Donations, NGA, Subsidy from NGOs, IRA, BDRRM Fund, MDRRM Fund, Local School Board Fund | **High (1)** Brochures, Information Education Campaign, Trainings/ Seminars, Hazard Maps, Bantay Barangay, Barangay Assemblies | **Moderate (2)** telecommu-nications, School Buildings in good condition (elevated), | **High (1)** Gadgets, television, radio, online broadcast-ting, print media | **High (1)** Contingency Plan, CLUP/Zoning Ordinance, MDRRMP, Local School Board Plan, Schools Improvement Plan | **High (1)** DepEd, CSO, LGU & PNP Enforce-ment through Trained staff, school disaster focal persons | 1 | 1.33 | low | 1.33 |

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| Table 8.1. **POPULATION CCVA, MUNICIPALITY OF MANGALDAN.** |
| **CLIMATE STIMULI: EXTREME RAINFALL** |

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| --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- |
| **Barangay** | **Exposure Indicators** | **Sensitivity** | **ADAPTIVE CAPACITY** | | | | | | **DEGREE OF IMPACT SCORE** | **ADAPTIVE CAPACITY SCORE** | **VULNERABILITY** | |
| **A** | **B** | **C** | **D** | | | | | | **E** | **F** | **Vulnerability Index** | **Vulnerability Score** |
| **Wealth** | **Information** | **Infrastructure** | **Technology** | **Institution & Governance** | **Social Capital** |
| **Salaan** | Sector: Economic Area: Agriculture Indicator: 28 farmers | 13 farmers are sensitive since they belong to families beyond poverty threshold and live in low lying area. Out of the total 10 are male and 5 are female. | **High (1)** Donations, NGA, LGU, Subsidy from NGOs | **High (1)** Brochures, Information Education Campaign, Trainings/ Seminars, Hazard Maps, Bantay Barangay, Barangay Assemblies | **Moderate (2)** telecommuni-cations & roads in good condition and public market operating continuously, concreted farm to market road | **High (1)** Gadgets, television, radio, online broadcast-ing, print media | **High (1)** Contingency Plan, CLUP/Zoning Ordinance, Municipal Disaster Plan, Barangay Disaster Plan | **High (1)** DA, CSO, LGU & PNP Enforce-ment through Trained staff, Farmers' Association, MAFC, Irrigators’ Association | 1 | 1.16 | low | 1.16 |
| Sector: Economic Area: Commerce & Industry Indicator: 8 Business Owners/ Entrepreneurs | 5 of the entrepreneurs are sensitive since they are living in low lying area and 2 belong to families beyond poverty threshold | **Moderate (2)** Donations, NGA, LGU, Subsidy from NGOs, | **High (1)** Brochures, Information Education Campaign, Trainings/ Seminars, Hazard Maps, Bantay Barangay, Barangay Assemblies | **Moderate (2)** telecommuni-cations & roads in good condition and public market operating continuously | **High (1)** Gadgets, television, radio, online broadcast-ing, print media | **High (1)** Contingency Plan, CLUP/Zoning Ordinance, Municipal Disaster Plan, Barangay Disaster Plan | **Moderate (1)** LGU, Vendors’ Associations, DTI, CSO, TODA, PODA | 1 | 1.33 | low | 1.33 |
| **Talogtog** | Sector: Social Indicator: Population (Settlement-Residential): 570 HHs, PWD - 20, Senior Citizens - 242 | 70 hhs living in low lying areas and below poverty threshold. 12 PWDs are sensitive because of physical disabilities, of which 10 are males and 2 are females. 96 or 40% of the senior citizens are sensitive because of health & physical infirmities. Out of the total 50 are males and 46 are females. | **Moderate (2)** Donations, NGA, Subsidy from NGOs, IRA, BDRRM Fund, MDRRM Fund, AICS Fund, PhilHealth | **High (1)** Brochures, Information Education Campaign, Trainings/ Seminars, Hazard Maps, Bantay Barangay, Barangay Assemblies | **Moderate (2)** telecommuni-cations, concreted farm to market roads, Flood control facility, drainage canals | **High (1)** Gadgets, television, radio, Online Broadcast-ing, print media | **High (1)** Contingency Plan, CLUP/Zoning Ordinance, Municipal Disaster Plan, Peace & Order Plan, Barangay Disaster Plan | **High (1)** CSO, LGU & PNP Enforce-ment through Trained staff, knowledgeable populace/ residents regarding hazards, | 1 | 1.33 | low | 1.33 |
| Sector: Social Area: Education Indicator: 506 students | 20 pupils of Anolid Elem. School are sensitive since they belong to families beyond poverty threshold, of which 13 are males & 7 are females | **Moderate (2)** Donations, NGA, Subsidy from NGOs, IRA, BDRRM Fund, MDRRM Fund, Local School Board Fund | **High (1)** Brochures, Information Education Campaign, Trainings/ Seminars, Hazard Maps, Bantay Barangay, Barangay Assemblies | **Moderate (2)** telecommuni-cations, School Buildings in good condition (elevated), | **High (1)** Gadgets, television, radio, online broadcast-ing, print media | **High (1)** Contingency Plan, CLUP/Zoning Ordinance, MDRRMP, Local School Board Plan, Schools Improvement Plan | **High (1)** DepEd, CSO, LGU & PNP Enforce-ment through Trained staff, school disaster focal persons | 1 | 1.33 | low | 1.33 |

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| Table 8.1. **POPULATION CCVA, MUNICIPALITY OF MANGALDAN.** |
| **CLIMATE STIMULI: EXTREME RAINFALL** |

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| --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- |
| **Barangay** | **Exposure Indicators** | **Sensitivity** | **ADAPTIVE CAPACITY** | | | | | | **DEGREE OF IMPACT SCORE** | **ADAPTIVE CAPACITY SCORE** | **VULNERABILITY** | |
| **A** | **B** | **C** | **D** | | | | | | **E** | **F** | **Vulnerability Index** | **Vulnerability Score** |
| **Wealth** | **Information** | **Infrastructure** | **Technology** | **Institution & Governance** | **Social Capital** |
| **Talogtog** | Sector: Economic Area: Agriculture Indicator: 82 farmers | 30 farmers are sensitive since they belong to families beyond poverty threshold and live in low lying area. Of which 25 are males and 5 are females. | **High (1)** Donations, NGA, LGU, Subsidy from NGOs | **High (1)** Brochures, Information Education Campaign, Trainings/ Seminars, Hazard Maps, Bantay Barangay, Barangay Assemblies | **Moderate (2)** telecommu-nications & roads in good condition and public market operating continuously, concreted farm to market road | **High (1)** Gadgets, television, radio, online broadcast-ing, print media | **High (1)** Contingency Plan, CLUP/Zoning Ordinance, Municipal Disaster Plan, Barangay Disaster Plan | **High (1)** DA, CSO, LGU & PNP Enforce-ment through Trained staff, Farmers' Association, MAFC, Irrigators’ Association | 1 | 1.16 | low | 1.16 |
| Sector: Economic Area: Agriculture Indicator: 96 Fishermen | 38 fishermen are sensitive since they are living in low lying area, of which 35 are males and 3 is females. | **High (1)** Donations, NGA, LGU, Subsidy from NGOs | **High (1)** Brochures, Information Education Campaign, Trainings/ Seminars, Hazard Maps, Bantay Barangay, Barangay Assemblies | **Moderate (2)** telecommu-nications &roads in good condition and public market operating continuously, concreted farm to market road | **High (1)** Gadgets, television, radio, online broadcast-ing, print media | **High (1)** Contingency Plan, CLUP/Zoning Ordinance, Municipal Disaster Plan, Barangay Disaster Plan | **High (1)** DA, CSO, LGU & PNP Enforce-ment through Trained staff, Farmers' Association, MAFC, Irrigators’ Association | 1 | 1.16 | low | 1.16 |
| Sector: Economic Area: Commerce & Industry Indicator: 15 Business Owners/ Entrepreneurs | 8 of the entrepreneurs are sensitive since they are living in low lying area and 4 belong to families beyond poverty threshold | **Moderate (2)** Donations, NGA, LGU, Subsidy from NGOs, | **High (1)** Brochures, Information Education Campaign, Trainings/ Seminars, Hazard Maps, Bantay Barangay, Barangay Assemblies | **Moderate (2)** telecommun-ications & roads in good condition and public market operating continuously | **High (1)** Gadgets, television, radio, online broadcast-ing, print media | **High (1)** Contingency Plan, CLUP/Zoning Ordinance, Municipal Disaster Plan, Barangay Disaster Plan | **Moderate (1)** LGU, Vendors’ Associations, DTI, CSO, TODA, PODA | 1 | 1.33 | low | 1.33 |
| **Tebag** | Sector: Social Indicator: Population (Settlement-Residential): 605 HHs, PWDs - 20, Senior Citizens - 217 | 185 hhs living in low lying areas and below poverty threshold. 11 PWDs are sensitive because of physical disabilities, of which 8 are males and 3 are females. 97 or 45% of the senior citizens are sensitive because of health & physical infirmities. Out of the total 60 are males and 37 are females. | **Moderate (2)** Donations, NGA, Subsidy from NGOs, IRA, BDRRM Fund, MDRRM Fund, AICS Fund, PhilHealth | **High (1)** Brochures, Information Education Campaign, Trainings/ Seminars, Hazard Maps, Bantay Barangay, Barangay Assemblies | **Moderate (2)** telecom-munications, concreted farm to market roads, Flood control facility, drainage canals | **High (1)** Gadgets, television, radio, Online Broadcast-ing, print media | **High (1)** Contingency Plan, CLUP/Zoning Ordinance, Municipal Disaster Plan, Peace & Order Plan, Barangay Disaster Plan | **High (1)** CSO, LGU & PNP Enforce-ment through Trained staff, knowledgeable populace/ residents regarding hazards, | 1 | 1.33 | low | 1.33 |

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| Table 8.1. **POPULATION CCVA, MUNICIPALITY OF MANGALDAN.** |
| **CLIMATE STIMULI: EXTREME RAINFALL** |

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| **Barangay** | **Exposure Indicators** | **Sensitivity** | **ADAPTIVE CAPACITY** | | | | | | **DEGREE OF IMPACT SCORE** | **ADAPTIVE CAPACITY SCORE** | **VULNERABILITY** | | |
| **A** | **B** | **C** | **D** | | | | | | **E** | **F** | **Vulnerability Index** | | **Vulnerability Score** |
| **Wealth** | **Information** | **Infrastructure** | **Technology** | **Institution & Governance** | **Social Capital** |
| **Tebag** | Sector: Social Area: Education Indicator: 688 students & pupils | 39 students & pupils are sensitive since they belong to families beyond poverty threshold. Out of the total 22 are male & 17 are female | **Moderate (2)** Donations, NGA, Subsidy from NGOs, IRA, BDRRM Fund, MDRRM Fund, Local School Board Fund | **High (1)** Brochures, Information Education Campaign, Trainings/ Seminars, Hazard Maps, Bantay Barangay, Barangay Assemblies | **Moderate (2)** telecommuni-cations, School Buildings in good condition (elevated), | **High (1)** Gadgets, television, radio, online broadcasting, print media | **High (1)** Contingency Plan, CLUP/Zoning Ordinance, MDRRMP, Local School Board Plan, Schools Improvement Plan | **High (1)** DepEd, CSO, LGU &PNP Enforcement through Trained staff, school disaster focal persons | 1 | 1.33 | low | | 1.33 |
| Sector: Economic Area: Agriculture Indicator: 23 farmers | 13 farmers are sensitive since they belong to families beyond poverty threshold and live in low lying area. Out of the total 10 are male and 3 are female. | **High (1)** Donations, NGA, LGU, Subsidy from NGOs | **High (1)** Brochures, Information Education Campaign, Trainings/ Seminars, Hazard Maps, Bantay Barangay, Barangay Assemblies | **Moderate (2)** telecommuni-cations & roads in good condition and public market operating continuously, concreted farm to market road | **High (1)** Gadgets, television, radio, online broadcasting, print media | **High (1)** Contingency Plan, CLUP/Zoning Ordinance, Municipal Disaster Plan, Barangay Disaster Plan | **High (1)** DA, CSO, LGU & PNP Enforcement through Trained staff, Farmers' Association, MAFC, Irrigators’ Association | 1 | 1.16 | low | | 1.16 |
| Sector: Economic Area: Commerce & Industry Indicator: 24 Business Owners/ Entrepreneurs | 10 of the entrepreneurs are sensitive since they are living in low lying area and 6 belong to families beyond poverty threshold | **Moderate (2)** Donations, NGA, LGU, Subsidy from NGOs, | **High (1)** Brochures, Information Education Campaign, Trainings/ Seminars, Hazard Maps, Bantay Barangay, Barangay Assemblies | **Moderate (2)** telecommuni-cations & roads in good condition and public market operating continuously | **High (1)** Gadgets, television, radio, online broadcasting, print media | **High (1)** Contingency Plan, CLUP/Zoning Ordinance, Municipal Disaster Plan, Barangay Disaster Plan | **Moderate (1)** LGU, Vendors’ Associations, DTI, CSO, TODA, PODA | 1 | 1.33 | low | | 1.33 |
| **Instructions:** | | | | | | | | | | | |
| 1. In Columns **B-C**, using the gathered data and maps, indicate information and compute values for each population exposure and sensitivity indicators. | | | | | | | | | | | |
| 2. In column**D**, provide existing adaptive or preventive measures of the municipality/city. | | | | | | | | | | | |
| 3. In column **E**, based on the estimated exposure, the degree of sensitivities of the exposed units, and identified potential impacts, qualitatively determine the degree of impact score using the suggested rating scale.  High (3) - Estimated direct impacts in terms of number of fatalities, injuries and value of property damage will be disastrous given the extent of exposure and current sensitivity of the system.   Moderate (2) - Moderate direct impacts in terms of number of fatalities, injuries and value of property damage are expected given the extent of exposure and current sensitivities of the system.  Low (1) - Estimated direct and indirect impacts are low to negligible which can be felt within a short term period. | | | | | | | | | | | |
| 4. In column F, Evaluate the various adaptive capacities of the system being studied by referring to the adaptive capacity indicators in the exposure database. These indicators of adaptive capacities can describe whether the system is able to accommodate or cope with the impacts with very minimal disruption or short to long term detrimental effects/impacts.  High (1) - The system is able to accommodate changes in climate. There are adaptation measures in place to address impacts.   Moderate (2) - Addressing the impacts will require significant cost but it is still within the capacity of the system to adapt to potential impacts.   Low (3) - The system is not able to accommodate changes in the climate. Addressing the impacts will be costly. The LGU and property owners will require external assistance to address the impacts. | | | | | | | | | | | |
| 5. In column G, Compute for the vulnerability index by multiplying the Impact and Adaptive Capacity Scores. Accordingly, based on the computed vulnerability index, categorize the index scores into categories:High (3): > 6 - 9  Moderate (2): > 3 - 6  Low (1): < 3 | | | | | | | | | | | |
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| TABLE 8.2. **NATURAL RESOURCES CCVA, MUNICIPALITY OF MANGALDAN.** | | | | | | | | | |
| **CLIMATE STIMULI: EXTREME RAINFALL** | | | | | | | | | |
| **Barangay** | **Exposure Indicators** | **Sensitivity** | **ADAPTIVE CAPACITY** | | | | | | **DEGREE OF IMPACT SCORE** | | **ADAPTIVE CAPACITY SCORE** | **VULNERABILITY** | |
| **A** | **B** | **C** | **D** | | | | | | **E** | | **F** | **Vulnerability Index** | **Vulnerability Score** |
| **Wealth** | **Information** | **Infrastructure** | **Technology** | **Institution & Governance** | **Social Capital** |
| **Anolid** | Sector: Economic Area: Agriculture; Indicator: 101 has. Of Strategic Agriculture and Fishery Development Zone; Production: 3,524.4 MT | 60 hectares or 59% of the farmland are submerged during flood. Decreased of production about 2,093.70 MT | **Moderate (2)** Donations, NGA, LGU, Subsidy from NGOs | **High (1)** Brochures, Information Education Campaign, Trainings/ Seminars, Hazard Maps, Bantay Barangay, Barangay Assemblies | **Moderate (2)** telecommunications & roads in good condition and public market operating continuously, concreted farm to market road | **High (1)**  Gadgets, television, radio, online broadcast-ing, print media | **High (1)** Contingency Plan, CLUP/Zoning Ordinance, Municipal Disaster Plan, Barangay Disaster Plan | **High (1)**  DA, CSO, LGU& PNP Enforcement through Trained staff, Farmers' Association, MAFC, Irrigators’ Association | 2 | | 1.33 | Low | 2.66 |
| Sector: Economic Area: Agriculture; Indicator: 14.4 has. Of Strategic Agriculture and Fishery Development Zone, Production: 16.2 MT | 10 hectares or 69.44% of the fishpond are submerged during flood. Decreased of production about 11.25 MT | **Moderate (2)** Donations, NGA, LGU, Subsidy from NGOs | **High (1)** Brochures, Information Education Campaign, Trainings/ Seminars, Hazard Maps, Bantay Barangay, Barangay Assemblies | **Moderate (2)** telecommunications & roads in good condition and public market operating continuously, concreted farm to market road | **High (1)**  Gadgets, television, radio, online broadcast-ing, print media | **High (1)** Contingency Plan, CLUP/Zoning Ordinance, Municipal Disaster Plan, Barangay Disaster Plan | **High (1)**  DA, CSO, LGU& PNP Enforcement through Trained staff, Farmers' Association, MAFC, Irrigators’ Association | 1 | | 1.33 | Low | 1.33 |
| **Banaoang** | Sector: Economic Area: Agriculture; Indicator: 25 has. Farmland; Production: 105 MT | 10 hectares or 40 % of the farmland are submerged during flood. Decreased of production about 42 MT | **Moderate (2)** Donations, NGA, LGU, Subsidy from NGOs | **High (1)** Brochures, Information Education Campaign, Trainings/ Seminars, Hazard Maps, Bantay Barangay, Barangay Assemblies | **Moderate (2)** telecommunications & roads in good condition and public market operating continuously, concreted farm to market road | **High (1)**  Gadgets, television, radio, online broadcast-ing, print media | **High (1)** Contingency Plan, CLUP/Zoning Ordinance, Municipal Disaster Plan, Barangay Disaster Plan | **High (1)**  DA, CSO, LGU& PNP Enforcement through Trained staff, Farmers' Association, MAFC, Irrigators’ Association | 2 | | 1.33 | Low | 2.66 |
| **Bantayan** | Sector: Economic Area: Agriculture; Indicator: 5 has. Farmland; Production: 198 MT | 2 hectares or 40 % of the farmland are submerged during flood. Decreased of production about 79.2 MT. | **Moderate (2)** Donations, NGA, LGU, Subsidy from NGOs | **High (1)** Brochures, Information Education Campaign, Trainings/ Seminars, Hazard Maps, Bantay Barangay, Barangay Assemblies | **Moderate (2)** telecommunications & roads in good condition and public market operating continuously, concreted farm to market road | **High (1)**  Gadgets, television, radio, online broadcast-ing, print media | **High (1)** Contingency Plan, CLUP/Zoning Ordinance, Municipal Disaster Plan, Barangay Disaster Plan | **High (1)**  DA, CSO, LGU& PNP Enforcement through Trained staff, Farmers' Association, MAFC, Irrigators’ Association | 2 | | 1.33 | Low | 2.66 |
| **Bateng** | Sector: Economic Area: Agriculture; Indicator: 2 has. Farmland; Production: 100 MT | 1 hectare or 50 % of the farmland are submerged during flood. Decreased of production about 50 MT. | **Moderate (2)** Donations, NGA, LGU, Subsidy from NGOs | **High (1)** Brochures, Information Education Campaign, Trainings/ Seminars, Hazard Maps, Bantay Barangay, Barangay Assemblies | **Moderate (2)** telecommunications & roads in good condition and public market operating continuously, concreted farm to market road | **High (1)**  Gadgets, television, radio, online broadcast-ing, print media | **High (1)** Contingency Plan, CLUP/Zoning Ordinance, Municipal Disaster Plan, Barangay Disaster Plan | **High (1)**  DA, CSO, LGU & PNP Enforcement through Trained staff, Farmers' Association, MAFC, Irrigators’ Association | 2 | | 1.33 | Low | 2.66 |
| Sector: Economic Area: Agriculture; Indicator: 70.58 Of Strategic Agriculture and Fishery Development Zone has. of Fishponds, Production: 79.40 MT | 42.35 hectares or 60% of the fishpond are submerged during flood. Decreased of production about 47.64 MT | **Moderate (2)** Donations, NGA, LGU, Subsidy from NGOs | **High (1)** Brochures, Information Education Campaign, Trainings/ Seminars, Hazard Maps, Bantay Barangay, Barangay Assemblies | **Moderate (2)** telecommunications & roads in good condition and public market operating continuously, concreted farm to market road | **High (1)**  Gadgets, television, radio, online broadcast-ing, print media | **High (1)** Contingency Plan, CLUP/Zoning Ordinance, Municipal Disaster Plan, Barangay Disaster Plan | **High (1)**  DA, CSO, LGU & PNP Enforcement through Trained staff, Farmers' Association, MAFC, Irrigators’ Association | 1 | | 1.33 | Low | 1.33 |

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| Table 8.2. **NATURAL RESOURCES CCVA, MUNICIPALITY OF MANGALDAN.** | | | | | | | | | |
| **CLIMATE STIMULI: EXTREME RAINFALL** | | | | | | | | | |
| **Barangay** | **Exposure Indicators** | **Sensitivity** | **ADAPTIVE CAPACITY** | | | | | | **DEGREE OF IMPACT SCORE** | | **ADAPTIVE CAPACITY SCORE** | **VULNERABILITY** | |
| **A** | **B** | **C** | **D** | | | | | | **E** | | **F** | **Vulnerability Index** | **Vulnerability Score** |
| **Wealth** | **Information** | **Infrastructure** | **Technology** | **Institution & Governance** | **Social Capital** |
| **David** | Sector: Economic Area: Agriculture; Indicator: 60 has. Farmland; Production: 594 MT | 45 hectares or 75 % of the farmland are submerged during flood. Decreased of production about 2,093.70 MT | **Moderate (2)** Donations, NGA, LGU, Subsidy from NGOs | **High (1)** Brochures, Information Education Campaign, Trainings/ Seminars, Hazard Maps, Bantay Barangay, Barangay Assemblies | **Moderate (2)** telecommunications & roads in good condition and public market operating continuously, concreted farm to market road | **High (1)**  Gadgets, television, radio, online broadcast-ing, print media | **High (1)** Contingency Plan, CLUP/Zoning Ordinance, Municipal Disaster Plan, Barangay Disaster Plan | **High (1)**  DA, CSO, LGU & PNP Enforcement through Trained staff, Farmers' Association, MAFC, Irrigators’ Association | 2 | | 1.33 | Low | 2.66 |
| **Embarca-dero** | Sector: Economic Area: Agriculture; Indicator: 25 has. Farmland; Production: 105 MT | 16.25 hectares or 65% of the farmland are submerged during flood. Decreased of production about 68.25 MT | **Moderate (2)** Donations, NGA, LGU, Subsidy from NGOs | **High (1)** Brochures, Information Education Campaign, Trainings/ Seminars, Hazard Maps, Bantay Barangay, Barangay Assemblies | **Moderate (2)** telecommunications & roads in good condition and public market operating continuously, concreted farm to market road | **High (1)**  Gadgets, television, radio, online broadcast-ing, print media | **High (1)** Contingency Plan, CLUP/Zoning Ordinance, Municipal Disaster Plan, Barangay Disaster Plan | **High (1)**  DA, CSO, LGU & PNP Enforcement through Trained staff, Farmers' Association, MAFC, Irrigators’ Association | 2 | | 1.33 | Low | 2.66 |
| **Gue-sang** | Sector: Economic Area: Agriculture; Indicator: 68.5 has. Farmland; Production: 225 MT | 41.79 hectares or 61% of the farmland are submerged during flood. Decreased of production about 137.27 MT | **Moderate (2)** Donations, NGA, LGU, Subsidy from NGOs | **High (1)** Brochures, Information Education Campaign, Trainings/ Seminars, Hazard Maps, Bantay Barangay, Barangay Assemblies | **Moderate (2)** telecommunications & roads in good condition and public market operating continuously, concreted farm to market road | **High (1)**  Gadgets, television, radio, online broadcast-ing, print media | **High (1)** Contingency Plan, CLUP/Zoning Ordinance, Municipal Disaster Plan, Barangay Disaster Plan | **High (1)**  DA, CSO, LGU & PNP Enforcement through Trained staff, Farmers' Association, MAFC, Irrigators’ Association | 2 | | 1.33 | Low | 2.66 |
| **Guigui-lonen** | Sector: Economic Area: Agriculture; Indicator: 10 has. Farmland; Production: 5 MT | 5 hectares or 50% of the farmland are submerged during flood. Decreased of production about 2.5 MT | **Moderate (2)** Donations, NGA, LGU, Subsidy from NGOs | **High (1)** Brochures, Information Education Campaign, Trainings/ Seminars, Hazard Maps, Bantay Barangay, Barangay Assemblies | **Moderate (2)** telecommunications & roads in good condition and public market operating continuously, concreted farm to market road | **High (1)**  Gadgets, television, radio, online broadcast-ing, print media | **High (1)** Contingency Plan, CLUP/Zoning Ordinance, Municipal Disaster Plan, Barangay Disaster Plan | **High (1)**  DA, CSO, LGU & PNP Enforcement through Trained staff, Farmers' Association, MAFC, Irrigators’ Association | 2 | | 1.33 | Low | 2.66 |
| **Inlambo** | Sector: Economic Area: Agriculture; Indicator: 65 has. Farmland; Production: 638 MT | 35 hectares or 53% of the farmland are submerged during flood. Decreased of production about 343.54 MT | **Moderate (2)** Donations, NGA, LGU, Subsidy from NGOs | **High (1)** Brochures, Information Education Campaign, Trainings/ Seminars, Hazard Maps, Bantay Barangay, Barangay Assemblies | **Moderate (2)** telecommunications & roads in good condition and public market operating continuously, concreted farm to market road | **High (1)** Gadgets, television, radio, online broadcast-ing, print media | **High (1)**Contingency Plan, CLUP/Zoning Ordinance, Municipal Disaster Plan, Barangay Disaster Plan | **High (1)** DA, CSO, LGU & PNP Enforcement through Trained staff, Farmers' Association, MAFC, Irrigators’ Association | 2 | | 1.33 | Low | 2.66 |

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| Table 8.2. **NATURAL RESOURCES CCVA, MUNICIPALITY OF MANGALDAN.** | | | | | | | | | |
| **CLIMATE STIMULI: EXTREME RAINFALL** | | | | | | | | | |
| **Barangay** | **Exposure Indicators** | **Sensitivity** | **ADAPTIVE CAPACITY** | | | | | | **DEGREE OF IMPACT SCORE** | | **ADAPTIVE CAPACITY SCORE** | **VULNERABILITY** | |
| **A** | **B** | **C** | **D** | | | | | | **E** | | **F** | **Vulnerability Index** | **Vulnerability Score** |
| **Wealth** | **Information** | **Infrastructure** | **Technology** | **Institution & Governance** | **Social Capital** |
| **Lanas** | Sector: Economic Area: Agriculture; Indicator: 10 has. Farmland; Production: 50 MT | 5.2 hectares or 52% of the farmland are submerged during flood. Decreased of production about 26 MT | **Moderate (2)** Donations, NGA, LGU, Subsidy from NGOs | **High (1)** Brochures, Information Education Campaign, Trainings/ Seminars, Hazard Maps, Bantay Barangay, Barangay Assemblies | **Moderate (2)** telecommunications & roads in good condition and public market operating continuously, concreted farm to market road | **High (1)**  Gadgets, television, radio, online broadcasting, print media | **High (1)** Contingency Plan, CLUP/Zoning Ordinance, Municipal Disaster Plan, Barangay Disaster Plan | **High (1)**  DA, CSO, LGU & PNP Enforce-ment through Trained staff, Farmers' Association, MAFC, Irrigators’ Association | 2 | | 1.33 | Low | 2.66 |
| Sector: Economic Area: Agriculture; Indicator: 33.29 has. Of Strategic Agriculture and Fishery Development Zone of Fishponds, Production: 37.45 MT | 25 hectares or 75.09% of the fishpond are submerged during flood. Decreased of production about 28.12 MT | **Moderate (2)** Donations, NGA, LGU, Subsidy from NGOs | **High (1)** Brochures, Information Education Campaign, Trainings/ Seminars, Hazard Maps, Bantay Barangay, Barangay Assemblies | **Moderate (2)** telecommunications & roads in good condition and public market operating continuously, concreted farm to market road | **High (1)**  Gadgets, television, radio, online broadcasting, print media | **High (1)** Contingency Plan, CLUP/Zoning Ordinance, Municipal Disaster Plan, Barangay Disaster Plan | **High (1)**  DA, CSO, LGU & PNP Enforce-ment through Trained staff, Farmers' Association, MAFC, Irrigators’ Association | 1 | | 1.33 | Low | 1.33 |
| **Landas** | Sector: Economic Area: Agriculture; Indicator: 45 has. Farmland; Production 225 MT | 9 hectares or 20% of the farmland are submerged during flood. Decreased of production about 45 MT | **Moderate (2)** Donations, NGA, LGU, Subsidy from NGOs | **High (1)** Brochures, Information Education Campaign, Trainings/ Seminars, Hazard Maps, Bantay Barangay, Barangay Assemblies | **Moderate (2)** telecommunications & roads in good condition and public market operating continuously, concreted farm to market road | **High (1)**  Gadgets, television, radio, online broadcasting, print media | **High (1)** Contingency Plan, CLUP/Zoning Ordinance, Municipal Disaster Plan, Barangay Disaster Plan | **High (1)**  DA, CSO, LGU & PNP Enforcement through Trained staff, Farmers' Association, MAFC, Irrigators’ Association | 2 | | 1.33 | Low | 2.66 |
| **Maasin** | Sector: Economic Area: Agriculture; Indicator: 10 has. Farmland; Production: 198 MT | 5 hectares or 50% of the farmland are submerged during flood. Decreased of production about 99 MT | **Moderate (2)** Donations, NGA, LGU, Subsidy from NGOs | **High (1)** Brochures, Information Education Campaign, Trainings/ Seminars, Hazard Maps, Bantay Barangay, Barangay Assemblies | **Moderate (2)** telecommunications & roads in good condition and public market operating continuously, concreted farm to market road | **High (1)**  Gadgets, television, radio, online broadcasting, print media | **High (1)** Contingency Plan, CLUP/Zoning Ordinance, Municipal Disaster Plan, Barangay Disaster Plan | **High (1)**  DA, CSO, LGU & PNP Enforce-ment through Trained staff, Farmers' Association, MAFC, Irrigators’ Association | 2 | | 1.33 | Low | 2.66 |
| Sector: Economic Area: Agriculture; Indicator: 107.27 has. Of Strategic Agriculture and Fishery Development Zone of Fishponds, Production: 120.67MT | 80.45 hectares or 75% of the fishpond are submerged during flood. Decreased of production about 90.50 MT | **Moderate (2)** Donations, NGA, LGU, Subsidy from NGOs | **High (1)** Brochures, Information Education Campaign, Trainings/ Seminars, Hazard Maps, Bantay Barangay, Barangay Assemblies | **Moderate (2)** telecommunications & roads in good condition and public market operating continuously, concreted farm to market road | **High (1)** Gadgets, television, radio, online broadcasting, print media | **High (1)** Contingency Plan, CLUP/Zoning Ordinance, Municipal Disaster Plan, Barangay Disaster Plan | **High (1)** DA, CSO, LGU & PNP Enforcement through Trained staff, Farmers' Association, MAFC, Irrigators’ Association | 1 | | 1.33 | Low | 1.33 |
| **Macayug** | Sector: Economic Area: Agriculture; Indicator: 30 has. Farmland ;Production: 365.2 MT | 25 hectares or 83% of the farmland are submerged during flood. Decreased of production about 304.33 MT | **Moderate (2)** Donations, NGA, LGU, Subsidy from NGOs | **High (1)** Brochures, Information Education Campaign, Trainings/ Seminars, Hazard Maps, Bantay Barangay, Barangay Assemblies | **Moderate (2)** telecommunications & roads in good condition and public market operating continuously, concreted farm to market road | **High (1)** Gadgets, television, radio, online broadcasting, print media | **High (1)** Contingency Plan, CLUP/Zoning Ordinance, Municipal Disaster Plan, Barangay Disaster Plan | **High (1)** DA, CSO, LGU & PNP Enforce-ment through Trained staff, Farmers' Association, MAFC, Irrigators’ Association | 2 | | 1.33 | Low | 2.66 |

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| Table 8.2. **NATURAL RESOURCES CCVA, MUNICIPALITY OF MANGALDAN.** | | | | | | | | | |
| **CLIMATE STIMULI: EXTREME RAINFALL** | | | | | | | | | |
| **Barangay** | **Exposure Indicators** | **Sensitivity** | **ADAPTIVE CAPACITY** | | | | | | **DEGREE**  **OF IMPACT SCORE** | **ADAPTIVE CAPACITY SCORE** | | **VULNERABILITY** | | |
| **A** | **B** | **C** | **D** | | | | | | **E** | **F** | | **Vulnerability Index** | | **Vulnerability Score** |
| **Wealth** | **Information** | **Infrastructure** | **Technology** | **Institution & Governance** | **Social Capital** |
| **Navaluan** | Sector: Economic Area: Agriculture; Indicator: 37 has. Farmland; Production: 162.8 MT | 18 hectares or 48% of the farmland are submerged during flood. Decreased of production about 79.2 MT | **Moderate (2)** Donations, NGA, LGU, Subsidy from NGOs | **High (1)** Brochures, Information Education Campaign, Trainings/ Seminars, Hazard Maps, Bantay Barangay, Barangay Assemblies | **Moderate (2)** telecommunications & roads in good condition and public market operating continuously, concreted farm to market road | **High (1)**  Gadgets, television, radio, online broadcasting, print media | **High (1)** Contingency Plan, CLUP/Zoning Ordinance, Municipal Disaster Plan, Barangay Disaster Plan | **High (1)**  DA, CSO, LGU & PNP Enforcement through Trained staff, Farmers' Association, MAFC, Irrigators’ Association | 2 | 1.33 | | Low | | 2.66 |
| **Nibaliw** | Sector: Economic Area: Agriculture; Indicator: 36 has. Farmland; Production 162.8 MT | 20 hectares or 55.56% of the farmland are submerged during flood. Decreased of production about 90.44 MT | **Moderate (2)** Donations, NGA, LGU, Subsidy from NGOs | **High (1)** Brochures, Information Education Campaign, Trainings/ Seminars, Hazard Maps, Bantay Barangay, Barangay Assemblies | **Moderate (2)** telecommunications & roads in good condition and public market operating continuously, concreted farm to market road | **High (1)**  Gadgets, television, radio, online broadcasting, print media | **High (1)** Contingency Plan, CLUP/Zoning Ordinance, Municipal Disaster Plan, Barangay Disaster Plan | **High (1)**  DA, CSO, LGU & PNP Enforcement through Trained staff, Farmers' Association, MAFC, Irrigators’ Association | 2 | 1.33 | | Low | | 2.66 |
| **Osiem** | Sector: Economic Area: Agriculture; Indicator: 47 has. Farmland; Production 206.8 MT | 27 hectares or 57% of the farmland are submerged during flood. Decreased of production about 118.8 MT | **Moderate (2)** Donations, NGA, LGU, Subsidy from NGOs | **High (1)** Brochures, Information Education Campaign, Trainings/ Seminars, Hazard Maps, Bantay Barangay, Barangay Assemblies | **Moderate (2)** telecommunications & roads in good condition and public market operating continuously, concreted farm to market road | **High (1)**  Gadgets, television, radio, online broadcasting, print media | **High (1)** Contingency Plan, CLUP/Zoning Ordinance, Municipal Disaster Plan, Barangay Disaster Plan | **High (1)**  DA, CSO, LGU & PNP Enforcement through Trained staff, Farmers' Association, MAFC, Irrigators’ Association | 2 | 1.33 | | Low | | 2.66 |
| **Palua** | Sector: Economic Area: Agriculture; Indicator: 35 has. Farmland; Production: 180 MT | 14 hectares or 40% of the farmland are submerged during flood. Decreased of production about 72 MT | **Moderate (2)** Donations, NGA, LGU, Subsidy from NGOs | **High (1)** Brochures, Information Education Campaign, Trainings/ Seminars, Hazard Maps, Bantay Barangay, Barangay Assemblies | **Moderate (2)** telecommunications & roads in good condition and public market operating continuously, concreted farm to market road | **High (1)**  Gadgets, television, radio, online broadcasting, print media | **High (1)** Contingency Plan, CLUP/Zoning Ordinance, Municipal Disaster Plan, Barangay Disaster Plan | **High (1)**  DA, CSO, LGU & PNP Enforcement through Trained staff, Farmers' Association, MAFC, Irrigators’ Association | 2 | 1.33 | | Low | | 2.66 |
| **Pogo** | Sector: Economic Area: Agriculture; Indicator: 36 has. Farmland; Production: 206.8 MT | 16.2 hectares or 45% of the farmland are submerged during flood. Decreased of production about 93.06 MT | **Moderate (2)** Donations, NGA, LGU, Subsidy from NGOs | **High (1)** Brochures, Information Education Campaign, Trainings/ Seminars, Hazard Maps, Bantay Barangay, Barangay Assemblies | **Moderate (2)** telecommunications & roads in good condition and public market operating continuously, concreted farm to market road | **High (1)**  Gadgets, television, radio, online broadcasting, print media | **High (1)** Contingency Plan, CLUP/Zoning Ordinance, Municipal Disaster Plan, Barangay Disaster Plan | **High (1)**  DA, CSO, LGU & PNP Enforcement through Trained staff, Farmers' Association, MAFC, Irrigators’ Association | 2 | 1.33 | | Low | | 2.66 |
| **Salaan** | Sector: Economic Area: Agriculture; Indicator: 25 has. Farmland; Production: 105 MT | 16.25 hectares or 65% of the farmland are submerged during flood. Decreased of production about 68.25 MT | **Moderate (2)** Donations, NGA, LGU, Subsidy from NGOs | **High (1)** Brochures, Information Education Campaign, Trainings/ Seminars, Hazard Maps, Bantay Barangay, Barangay Assemblies | **Moderate (2)** telecommunications & roads in good condition and public market operating continuously, concreted farm to market road | **High (1)**  Gadgets, television, radio, online broadcasting, print media | **High (1)** Contingency Plan, CLUP/Zoning Ordinance, Municipal Disaster Plan, Barangay Disaster Plan | **High (1)**  DA, CSO, LGU & PNP Enforcement through Trained staff, Farmers' Association, MAFC, Irrigators’ Association | 2 | 1.33 | | Low | | 2.66 |
| Table 8.2. **NATURAL RESOURCES CCVA, MUNICIPALITY OF MANGALDAN.** | | | | | | | | | |
| **CLIMATE STIMULI: EXTREME RAINFALL** | | | | | | | | | |
| **Barangay** | **Exposure Indicators** | **Sensitivity** | **ADAPTIVE CAPACITY** | | | | | | **DEGREE**  **OF IMPACT SCORE** | **ADAPTIVE CAPACITY SCORE** | | **VULNERABILITY** | | |
| **A** | **B** | **C** | **D** | | | | | | **E** | **F** | | **Vulnerability Index** | | **Vulnerability Score** |
| **Wealth** | **Information** | **Infrastructure** | **Technology** | **Institution & Governance** | **Social Capital** |
| **Talogtog** | Sector: Economic Area: Agriculture; Indicator: 2 has. Farmland; Production: 100 MT | 1 hectare or 50 % of the farmland are submerged during flood. Decreased of production about 50 MT. | **Moderate (2)** Donations, NGA, LGU, Subsidy from NGOs | **High (1)** Brochures, Information Education Campaign, Trainings/ Seminars, Hazard Maps, Bantay Barangay, Barangay Assemblies | **Moderate (2)** telecommunications & roads in good condition and public market operating continuously, concreted farm to market road | **High (1)**  Gadgets, television, radio, online broadcasting, print media | **High (1)** Contingency Plan, CLUP/Zoning Ordinance, Municipal Disaster Plan, Barangay Disaster Plan | **High (1)**  DA, CSO, LGU & PNP Enforcement through Trained staff, Farmers' Association, MAFC, Irrigators’ Association | 2 | 1.33 | | Low | | 2.66 |
| Sector: Economic Area: Agriculture; Indicator: 35.028 Of Strategic Agriculture and Fishery Development Zone has. of Fishponds, Production: 39.40 MT | 18 hectares or 51.39% of the fishpond are submerged during flood. Decreased of production about 28.34 MT | **Moderate (2)** Donations, NGA, LGU, Subsidy from NGOs | **High (1)** Brochures, Information Education Campaign, Trainings/ Seminars, Hazard Maps, Bantay Barangay, Barangay Assemblies | **Moderate (2)** telecommunications & roads in good condition and public market operating continuously, concreted farm to market road | **High (1)**  Gadgets, television, radio, online broadcasting, print media | **High (1)** Contingency Plan, CLUP/Zoning Ordinance, Municipal Disaster Plan, Barangay Disaster Plan | **High (1)**  DA, CSO, LGU & PNP Enforcement through Trained staff, Farmers' Association, MAFC, Irrigators’ Association | 1 | 1.33 | | Low | | 1.33 |
| **Tebag** | Sector: Economic Area: Agriculture; Indicator: 30 has. Farmland; Production: 365.2 MT | 25 hectares or 83% of the farmland are submerged during flood. Decreased of production about 304.33 MT | **Moderate (2)** Donations, NGA, LGU, Subsidy from NGOs | **High (1)** Brochures, Information Education Campaign, Trainings/ Seminars, Hazard Maps, Bantay Barangay, Barangay Assemblies | **Moderate (2)** telecommunications & roads in good condition and public market operating continuously, concreted farm to market road | **High (1)**  Gadgets, television, radio, online broadcasting, print media | **High (1)** Contingency Plan, CLUP/Zoning Ordinance, Municipal Disaster Plan, Barangay Disaster Plan | **High (1)**  DA, CSO, LGU & PNP Enforcement through Trained staff, Farmers' Association, MAFC, Irrigators’ Association | 2 | 1.33 | | Low | | 2.66 |
| **Instructions:** | | | | | | | | | | | | |
| 1. In columns **B-C**, using the gathered data and maps, indicate information and compute values for each natural resources exposure and sensitivity | | | | | | | | | | | | |
| 2. In column **D**, provide existing adaptive or preventive measures of the municipality/city. | | | | | | | | | | | | |
| 3. In column **E**, based on the estimated exposure, the degree of sensitivities of the exposed units, and identified potential impacts, qualitatively determine the degree of impact score using the suggested rating scale.  High (3) - Estimated direct impacts in terms of number of fatalities, injuries and value of property damage will be disastrous given the extent of exposure and current sensitivity of the system.   Moderate (2) - Moderate direct impacts in terms of terms of number of fatalities, injuries and value of property damage are expected given the extent of exposure and current sensitivities of the system.  Low (1) - Estimated direct and indirect impacts are low to negligible which can be felt within a short term period. | | | | | | | | | | |
| D4 In column F, Evaluate the various adaptive capacities of the system being studied by referring to the adaptive capacity indicators in the exposure database. These indicators of adaptive capacities can describe whether the | | | | | | | | | | |
| 5. In column G, Compute for the vulnerability index by multiplying the Impact and Adaptive Capacity Scores. Accordingly, based on the computed vulnerability index, categorize the index scores into categories: High (3): > 6 - 9  Moderate (2): > 3 - 6  Low (1): < 3 | | | | | | | | | | |

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| Table 8.3. **CRITICAL FACILITIES CCVA, MUNICIPALITY OF MANGALDAN.** |
| **CLIMATE STIMULI: EXTREME RAINFALL** |

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| --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- |
| **Barangay** | **Exposure Indicators** | **Sensitivity** | **ADAPTIVE CAPACITY** | | | | | | **DEGREE OF IMPACT SCORE** | **ADAPTIVE CAPACITY SCORE** | **VULNERABILITY** | |
| **A** | **B** | **C** | **D** | | | | | | **E** | **F** | **Vulnerability Index** | **Vulnerability Score** |
| **Wealth** | **Information** | **Infrastructure** | **Technology** | **Institution & Governance** | **Social Capital** |
| **Anolid** | Sector: Social Area: Health Indicator: Barangay Health Station | Barangay Health Station is located in low lying area and not hazard resistant design. | **Moderate (2)** Donations, NGA, Subsidy from NGOs, IRA, BDRRM Fund, MDRRM Fund | **High (1)** Brochures, Information Education Campaign, Trainings/ Seminars, Hazard Maps, Bantay Barangay, Barangay Assemblies | **Moderate (2)** telecommunications, Flood control facility, drainage canals | **Moderate (2)** Retrofitting of existing structure | **High (1)** Contingency Plan, CLUP/Zoning Ordinance, Municipal Disaster Plan, Peace & Order Plan, Barangay Disaster Plan | **High (1)**  CSO, LGU & PNP Enforce-ment through Trained staff, knowledgeable populace/ residents regarding hazards, | **1** | **1.5** | **low** | **1.5** |
| Sector: Social Area: Education Indicator: Anolid Elementary School | Anolid Elementary School is located in low lying area. School building is made of mixed materials and not hazard resilient. | **Moderate (2)** Donations, NGA, Subsidy from NGOs, IRA, BDRRM Fund, MDRRM Fund, Local School Board Fund | **High (1)** Brochures, Information Education Campaign, Trainings/ Seminars, Hazard Maps, Bantay Barangay, Barangay Assemblies | **Moderate (2)** telecommunications, School Buildings in good condition (elevated), | **High (1)** Gadgets, television, radio, online broadcasting, print media | **High (1)** Contingency Plan, CLUP/Zoning Ordinance, MDRRMP, Local School Board Plan, Schools Improvement Plan | **High (1)** DepEd, CSO, LGU & PNP Enforce-ment through Trained staff, school disaster focal persons | 1 | 1.33 | low | 1.33 |
| Sector: Infrastructure Area: Road  Indicator: 1 km concreted farm to market road | Anolid-Perlan Road is located in low lying area. Impassable during flood. | **Moderate (2)** Donations, NGA, Subsidy from NGOs, IRA, BDRRM Fund, MDRRM Fund, 20% Dev't. Fund | **High (1)** Brochures, Information Education Campaign, Trainings/ Seminars, Hazard Maps, Bantay Barangay, Barangay Assemblies | **Moderate (2)** telecommunications, Flood control facility, drainage canals | **Moderate (2)** Retrofitting of existing structure | **High (1)** Contingency Plan, CLUP/ Zoning Ordinance, MDRRMP | **High (1)** DPWH, CSO, LGU & PNP Enforce-ment through Trained staff, knowledge-able populace/ residents regarding hazards, | **1** | **1.5** | **low** | **1.5** |
|  |  |  |  |  |  |  |  |  |  |  |  |  |
| **Banaoang** | Sector: Infrastructure Area: Road Indicator: 1 km Provincial Road | 600 meters Banaoang East Provincial Road is located in low lying and easily flooded | **Moderate (2)** Donations, NGA, Subsidy from NGOs, IRA, BDRRM Fund, MDRRM Fund, 20% Dev't. Fund | **High (1)** Brochures, Information Education Campaign, Trainings/ Seminars, Hazard Maps, Bantay Barangay, Barangay Assemblies | **Moderate (2)** telecommunications, Flood control facility, drainage canals | **Moderate (2)** Retrofitting of existing structure | **High (1)** Contingency Plan, CLUP/ Zoning Ordinance, MDRRMP | **High (1)** DPWH, CSO, LGU & PNP Enforce-ment through Trained staff, knowledgeable populace/ residents regarding hazards, | **1** | **1.5** | **low** | **1.5** |
| **Bantayan** | Sector: Social Area: Education Indicator: Mangaldan Integrated School | Mangaldan Integrated School is located in low lying area. And some school buildings are made of mixed materials and not hazard resilient | **Moderate (2)** Donations, NGA, Subsidy from NGOs, IRA, BDRRM Fund, MDRRM Fund, Local School Board Fund | **High (1)** Brochures, Information Education Campaign, Trainings/ Seminars, Hazard Maps, Bantay Barangay, Barangay Assemblies | **Moderate (2)** telecommunications, School Buildings in good condition (elevated), | **High (1)** Gadgets, television, radio, online broadcasting, print media | **High (1)** Contingency Plan, CLUP/Zoning Ordinance, MDRRMP, Local School Board Plan, Schools Improvement Plan | **High (1)** DepEd, CSO, LGU & PNP Enforce-ment through Trained staff, school disaster focal persons | 1 | 1.33 | low | 1.33 |

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| Table 8.3. **CRITICAL FACILITIES CCVA, MUNICIPALITY OF MANGALDAN.** |
| **CLIMATE STIMULI: EXTREME RAINFALL** |

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| --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- |
| **Barangay** | **Exposure Indicators** | **Sensitivity** | **ADAPTIVE CAPACITY** | | | | | | **DEGREE OF IMPACT SCORE** | **ADAPTIVE CAPACITY SCORE** | **VULNERABILITY** | |
| **A** | **B** | **C** | **D** | | | | | | **E** | **F** | **Vulnerability Index** | **Vulnerability Score** |
| **Wealth** | **Information** | **Infrastructure** | **Technology** | **Institution & Governance** | **Social Capital** |
| **Bantayan** | Sector: Infrastructure Area: Road  Indicator: 1.544 km unpaved barangay road | Barangay Road is located in low lying area. Impassable during flood and made of earth. | **Moderate (2)** Donations, NGA, Subsidy from NGOs, IRA, BDRRM Fund, MDRRM Fund, 20% Dev't. Fund | **High (1)** Brochures, Information Education Campaign, Trainings/ Seminars, Hazard Maps, Bantay Barangay, Barangay Assemblies | **Moderate (2)** telecommunications, Flood control facility, drainage canals | **Moderate (2)** Retrofitting of existing structure | **High (1)** Contingency Plan, CLUP/ Zoning Ordinance, MDRRMP | **High (1)** DPWH, CSO, LGU & PNP Enforce-ment through Trained staff, knowledgeable populace/ residents regarding hazards, | **1** | **1.5** | **low** | **1.5** |
| **Bateng** | Sector: Social Area: Health Indicator: Barangay Health Station | Barangay Health Station is located in low lying area and easily flooded. | **Moderate (2)** Donations, NGA, Subsidy from NGOs, IRA, BDRRM Fund, MDRRM Fund | **High (1)** Brochures, Information Education Campaign, Trainings/ Seminars, Hazard Maps, Bantay Barangay, Barangay Assemblies | **Moderate (2)** telecommunications, Flood control facility, drainage canals | **Moderate (2)** Retrofitting of existing structure | **High (1)** Contingency Plan, CLUP/Zoning Ordinance, Municipal Disaster Plan, Peace & Order Plan, Barangay Disaster Plan | **High (1)**  CSO, LGU & PNP Enforce-ment through Trained staff, knowledgeable populace/ residents regarding hazards, | **1** | **1.5** | **low** | **1.5** |
| **Guesang** | Sector: Social Area: Education Indicator: Guesang Elementary School | Guesang Elementary School is located in low lying area. School building is made of mixed materials and not hazard resilient. | **Moderate (2)** Donations, NGA, Subsidy from NGOs, IRA, BDRRM Fund, MDRRM Fund, Local School Board Fund | **High (1)** Brochures, Information Education Campaign, Trainings/ Seminars, Hazard Maps, Bantay Barangay, Barangay Assemblies | **Moderate (2)** telecommunications, School Buildings in good condition (elevated), | **High (1)** Gadgets, television, radio, online broadcasting, print media | **High (1)** Contingency Plan, CLUP/Zoning Ordinance, MDRRMP, Local School Board Plan, Schools Improvement Plan | **High (1)** DepEd, CSO, LGU & PNP Enforce-ment through Trained staff, school disaster focal persons | 1 | 1.33 | low | 1.33 |
| Sector: Infrastructure Area: Road  Indicator: 4.443 kms barangay road unpaved | 1.140 km Barangay road is located in low lying area made of earth | **Moderate (2)** Donations, NGA, Subsidy from NGOs, IRA, BDRRM Fund, MDRRM Fund, 20% Dev't. Fund | **High (1)** Brochures, Information Education Campaign, Trainings/ Seminars, Hazard Maps, Bantay Barangay, Barangay Assemblies | **Moderate (2)** telecommunications, Flood control facility, drainage canals | **Moderate (2)** Retrofitting of existing structure | **High (1)** Contingency Plan, CLUP/ Zoning Ordinance, MDRRMP | **High (1)** DPWH, CSO, LGU & PNP Enforce-ment through Trained staff, knowledgeable populace/ residents regarding hazards, | **1** | **1.5** | **low** | **1.5** |
| **Guiguilonen** | Sector: Infrastructure Area: Road  Indicator: 182 meters barangay road unpaved | Barangay road is located in low lying area and made of earth. | **Moderate (2)** Donations, NGA, Subsidy from NGOs, IRA, BDRRM Fund, MDRRM Fund, 20% Dev't. Fund | **High (1)** Brochures, Information Education Campaign, Trainings/ Seminars, Hazard Maps, Bantay Barangay, Barangay Assemblies | **Moderate (2)** telecommunications, Flood control facility, drainage canals | **Moderate (2)** Retrofitting of existing structure | **High (1)** Contingency Plan, CLUP/ Zoning Ordinance, MDRRMP | **High (1)** DPWH, CSO, LGU & PNP Enforce-ment through Trained staff, knowledgeable populace/ residents regarding hazards, | **1** | **1.5** | **low** | **1.5** |

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| Table 8.3. **CRITICAL FACILITIES CCVA, MUNICIPALITY OF MANGALDAN.** |
| **CLIMATE STIMULI: EXTREME RAINFALL** |

|  |  |  |  |  |  |  |  |  |  |  |  |  |
| --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- |
| **Barangay** | **Exposure Indicators** | **Sensitivity** | **ADAPTIVE CAPACITY** | | | | | | **DEGREE OF IMPACT SCORE** | **ADAPTIVE CAPACITY SCORE** | **VULNERABILITY** | |
| **A** | **B** | **C** | **D** | | | | | | **E** | **F** | **Vulnerability Index** | **Vulnerability Score** |
| **Wealth** | **Information** | **Infrastructure** | **Technology** | **Institution & Governance** | **Social Capital** |
| **Inlambo** | Sector: Social Area: Education Indicator: Inlambo Elementary School | Inlambo Elementary School is located in low lying area. School building is made of mixed materials and not hazard resistant design. | **Moderate (2)** Donations, NGA, Subsidy from NGOs, IRA, BDRRM Fund, MDRRM Fund, Local School Board Fund | **High (1)** Brochures, Information Education Campaign, Trainings/ Seminars, Hazard Maps, Bantay Barangay, Barangay Assemblies | **Moderate (2)** telecommunications, School Buildings in good condition (elevated), | **High (1)** Gadgets, television, radio, online broadcasting, print media | **High (1)** Contingency Plan, CLUP/Zoning Ordinance, MDRRMP, Local School Board Plan, Schools Improvement Plan | **High (1)** DepEd, CSO, LGU & PNP Enforce-ment through Trained staff, school disaster focal persons | 1 | 1.33 | low | 1.33 |
| Sector: Infrastructure Area: Road  Indicator: 2.166 km barangay road unpaved | 418 meters Inlambo barangay road is located in low lying area and made of earth | **Moderate (2)** Donations, NGA, Subsidy from NGOs, IRA, BDRRM Fund, MDRRM Fund, 20% Dev't. Fund | **High (1)** Brochures, Information Education Campaign, Trainings/ Seminars, Hazard Maps, Bantay Barangay, Barangay Assemblies | **Moderate (2)** telecommunications, Flood control facility, drainage canals | **Moderate (2)** Retrofitting of existing structure | **High (1)** Contingency Plan, CLUP/ Zoning Ordinance, MDRRMP | **High (1)** DPWH, CSO, LGU & PNP Enforce-ment through Trained staff, knowledgeable populace/ residents regarding hazards, | **1** | **1.5** | **low** | **1.5** |
| **Lanas** | Sector: Social Area: Education Indicator: Lanas Elementary School | Lanas Elementary School is located in low lying area and easily flooded. | **Moderate (2)** Donations, NGA, Subsidy from NGOs, IRA, BDRRM Fund, MDRRM Fund, Local School Board Fund | **High (1)** Brochures, Information Education Campaign, Trainings/ Seminars, Hazard Maps, Bantay Barangay, Barangay Assemblies | **Moderate (2)** telecommunications, School Buildings in good condition (elevated), | **High (1)** Gadgets, television, radio, online broadcasting, print media | **High (1)** Contingency Plan, CLUP/Zoning Ordinance, MDRRMP, Local School Board Plan, Schools Improvement Plan | **High (1)** DepEd, CSO, LGU & PNP Enforce-ment through Trained staff, school disaster focal persons | 1 | 1.33 | low | 1.33 |
| Sector: Infrastructure Area: Road  Indicator: 2.620 km barangay road made unpaved | 2.350 Km Barangay road is located in low lying area made of earth | **Moderate (2)** Donations, NGA, Subsidy from NGOs, IRA, BDRRM Fund, MDRRM Fund, 20% Dev't. Fund | **High (1)** Brochures, Information Education Campaign, Trainings/ Seminars, Hazard Maps, Bantay Barangay, Barangay Assemblies | **Moderate (2)** telecommunications, Flood control facility, drainage canals | **Moderate (2)** Retrofitting of existing structure | **High (1)** Contingency Plan, CLUP/ Zoning Ordinance, MDRRMP | **High (1)** DPWH, CSO, LGU & PNP Enforce-ment through Trained staff, knowledgeable populace/ residents regarding hazards, | **1** | **1.5** | **low** | **1.5** |

|  |  |  |  |  |  |  |  |  |  |  |  |  |
| --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- |
| **Landas** | Sector: Infrastructure Area: Road  Indicator: 200 meters barangay road unpaved | Riverside Road is located in low lying area and made of earth | **Moderate (2)** Donations, NGA, Subsidy from NGOs, IRA, BDRRM Fund, MDRRM Fund, 20% Dev't. Fund | **High (1)** Brochures, Information Education Campaign, Trainings/ Seminars, Hazard Maps, Bantay Barangay, Barangay Assemblies | **Moderate (2)** telecommunications, Flood control facility, drainage canals | **Moderate (2)** Retrofitting of existing structure | **High (1)** Contingency Plan, CLUP/ Zoning Ordinance, MDRRMP | **High (1)** DPWH, CSO, LGU & PNP Enforce-ment through Trained staff, knowledgeable populace/ residents regarding hazards, | **1** | **1.5** | **low** | **1.5** |

Table 8.3. **CRITICAL FACILITIES CCVA, MUNICIPALITY OF MANGALDAN.**

**CLIMATE STIMULI: EXTREME RAINFALL**

|  |  |  |  |  |  |  |  |  |  |  |  |  |
| --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- |
| **Barangay** | **Exposure Indicators** | **Sensitivity** | **ADAPTIVE CAPACITY** | | | | | | **DEGREE OF IMPACT SCORE** | **ADAPTIVE CAPACITY SCORE** | **VULNERABILITY** | |
| **A** | **B** | **C** | **D** | | | | | | **E** | **F** | **Vulnerability Index** | **Vulnerability Score** |
| **Wealth** | **Information** | **Infrastructure** | **Technology** | **Institution & Governance** | **Social Capital** |
| **Maasin** | Sector: Social Area: Health Indicator: Barangay Health Station | Barangay Health Station is located in low lying area and easily flooded. | **Moderate (2)** Donations, NGA, Subsidy from NGOs, IRA, BDRRM Fund, MDRRM Fund | **High (1)** Brochures, Information Education Campaign, Trainings/ Seminars, Hazard Maps, Bantay Barangay, Barangay Assemblies | **Moderate (2)** telecommunications, Flood control facility, drainage canals | **Moderate (2)** Retrofitting of existing structure | **High (1)** Contingency Plan, CLUP/Zoning Ordinance, Municipal Disaster Plan, Peace & Order Plan, Barangay Disaster Plan | **High (1)**  CSO, LGU & PNP Enforce-ment through Trained staff, knowledgeable populace/ residents regarding hazards, | **1** | **1.5** | **low** | **1.5** |
| Sector: Social Area: Education Indicator: Maasin Elementary School | Maasin Elementary School is located in low lying area and easily flooded Some of the school buildings are made of mixed materials. | **Moderate (2)** Donations, NGA, Subsidy from NGOs, IRA, BDRRM Fund, MDRRM Fund, Local School Board Fund | **High (1)** Brochures, Information Education Campaign, Trainings/ Seminars, Hazard Maps, Bantay Barangay, Barangay Assemblies | **Moderate (2)** telecommunications, School Buildings in good condition (elevated), | **High (1)** Gadgets, television, radio, online broadcasting, print media | **High (1)** Contingency Plan, CLUP/Zoning Ordinance, MDRRMP, Local School Board Plan, Schools Improvement Plan | **High (1)** DepEd, CSO, LGU & PNP Enforce-ment through Trained staff, school disaster focal persons | 1 | 1.33 | low | 1.33 |
| Sector: Infrastruc-ture Area: Road  Indicator: 500 meters barangay road unpaved | Maasin barangay road is located in low lying area and easily flooded | **Moderate (2)** Donations, NGA, Subsidy from NGOs, IRA, BDRRM Fund, MDRRM Fund, 20% Dev't. Fund | **High (1)** Brochures, Information Education Campaign, Trainings/ Seminars, Hazard Maps, Bantay Barangay, Barangay Assemblies | **Moderate (2)** telecommunications, Flood control facility, drainage canals | **Moderate (2)** Retrofitting of existing structure | **High (1)** Contingency Plan, CLUP/ Zoning Ordinance, MDRRMP | **High (1)** DPWH, CSO, LGU & PNP Enforce-ment through Trained staff, knowledgeable populace/ residents regarding hazards, | **1** | **1.5** | **low** | **1.5** |
| **Macayug** | Sector: Social Area: Health Indicator: Barangay Health Station | Barangay Health Station is located in low lying area and easily flooded. | **Moderate (2)** Donations, NGA, Subsidy from NGOs, IRA, BDRRM Fund, MDRRM Fund | **High (1)** Brochures, Information Education Campaign, Trainings/ Seminars, Hazard Maps, Bantay Barangay, Barangay Assemblies | **Moderate (2)** telecommunications, Flood control facility, drainage canals | **Moderate (2)** Retrofitting of existing structure | **High (1)** Contingency Plan, CLUP/Zoning Ordinance, Municipal Disaster Plan, Peace & Order Plan, Barangay Disaster Plan | **High (1)**  CSO, LGU & PNP Enforce-ment through Trained staff, knowledgeable populace/ residents regarding hazards, | **1** | **1.5** | **low** | **1.5** |
| Sector: Social Area: Education Indicator: Macayug Elementary School | Macayug Elementary School is located in low lying area and easily flooded. School buildings are made of mixed materials and not hazard resistant. | **Moderate (2)** Donations, NGA, Subsidy from NGOs, IRA, BDRRM Fund, MDRRM Fund, Local School Board Fund | **High (1)** Brochures, Information Education Campaign, Trainings/ Seminars, Hazard Maps, Bantay Barangay, Barangay Assemblies | **Moderate (2)** telecommunications, School Buildings in good condition (elevated), | **High (1)** Gadgets, television, radio, online broadcasting, print media | **High (1)** Contingency Plan, CLUP/Zoning Ordinance, MDRRMP, Local School Board Plan, Schools Improvement Plan | **High (1)** DepEd, CSO, LGU & PNP Enforce-ment through Trained staff, school disaster focal persons | 1 | 1.33 | low | 1.33 |

Table 8.3. **CRITICAL FACILITIES CCVA, MUNICIPALITY OF MANGALDAN.**

**CLIMATE STIMULI: EXTREME RAINFALL**

|  |  |  |  |  |  |  |  |  |  |  |  |  |
| --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- |
| **Barangay** | **Exposure Indicators** | **Sensitivity** | **ADAPTIVE CAPACITY** | | | | | | **DEGREE OF IMPACT SCORE** | **ADAPTIVE CAPACITY SCORE** | **VULNERABILITY** | |
| **A** | **B** | **C** | **D** | | | | | | **E** | **F** | **Vulnerability Index** | **Vulnerability Score** |
| **Wealth** | **Information** | **Infrastructure** | **Technology** | **Institution & Governance** | **Social Capital** |
| **Navaluan** | Sector: Social Area: Health Indicator: Barangay Health Station | Barangay Health Station is located in low lying area and easily flooded. | **Moderate (2)** Donations, NGA, Subsidy from NGOs, IRA, BDRRM Fund, MDRRM Fund | **High (1)** Brochures, Information Education Campaign, Trainings/ Seminars, Hazard Maps, Bantay Barangay, Barangay Assemblies | **Moderate (2)** telecommunications, Flood control facility, drainage canals | **Moderate (2)** Retrofitting of existing structure | **High (1)** Contingency Plan, CLUP/Zoning Ordinance, Municipal Disaster Plan, Peace & Order Plan, Barangay Disaster Plan | **High (1)**  CSO, LGU & PNP Enforce-ment through Trained staff, knowledgeable populace/ residents regarding hazards, | **1** | **1.5** | **low** | **1.5** |
| Sector: Social Area: Education Indicator: Navaluan Elementary School | Navaluan Elementary School is located in low lying area. And some school buildings are made of mixed materials and not hazard resilient | **Moderate (2)** Donations, NGA, Subsidy from NGOs, IRA, BDRRM Fund, MDRRM Fund, Local School Board Fund | **High (1)** Brochures, Information Education Campaign, Trainings/ Seminars, Hazard Maps, Bantay Barangay, Barangay Assemblies | **Moderate (2)** telecommunications, School Buildings in good condition (elevated), | **High (1)** Gadgets, television, radio, online broadcasting, print media | **High (1)** Contingency Plan, CLUP/Zoning Ordinance, MDRRMP, Local School Board Plan, Schools Improvement Plan | **High (1)** DepEd, CSO, LGU & PNP Enforce-ment through Trained staff, school disaster focal persons | 1 | 1.33 | low | 1.33 |
| Sector: Infrastruc-ture Area: Road  Indicator: 500 meters unpaved farm to market road | 420 meters Farm to Market Road is located in low lying area and made of earth. Impassable during flood. | **Moderate (2)** Donations, NGA, Subsidy from NGOs, IRA, BDRRM Fund, MDRRM Fund, 20% Dev't. Fund | **High (1)** Brochures, Information Education Campaign, Trainings/ Seminars, Hazard Maps, Bantay Barangay, Barangay Assemblies | **Moderate (2)** telecommunications, Flood control facility, drainage canals | **Moderate (2)** Retrofitting of existing structure | **(1)** Contingency Plan, CLUP/ Zoning Ordinance, MDRRMP | **High (1)** DPWH, CSO, LGU & PNP Enforce-ment through Trained staff, knowledgeable populace/ residents regarding hazards, | **1** | **1.5** | **low** | **1.5** |
| **Nibaliw** | Sector: Social Area: Health Indicator: Barangay Health Station | Barangay Health Station is located in low lying area and easily flooded. | **Moderate (2)** Donations, NGA, Subsidy from NGOs, IRA, BDRRM Fund, MDRRM Fund | **High (1)** Brochures, Information Education Campaign, Trainings/ Seminars, Hazard Maps, Bantay Barangay, Barangay Assemblies | **Moderate (2)** telecommunications, Flood control facility, drainage canals | **Moderate (2)** Retrofitting of existing structure | **High (1)** Contingency Plan, CLUP/Zoning Ordinance, Municipal Disaster Plan, Peace & Order Plan, Barangay Disaster Plan | **High (1)**  CSO, LGU & PNP Enforce-ment through Trained staff, knowledgeable populace/ residents regarding hazards, | **1** | **1.5** | **low** | **1.5** |
| Sector: Social Area: Education Indicator: Nibaliw Elementary School | Nibaliw Elementary School is located in low lying area. And some school buildings are made of mixed materials and not hazard resilient | **Moderate (2)** Donations, NGA, Subsidy from NGOs, IRA, BDRRM Fund, MDRRM Fund, Local School Board Fund | **High (1)** Brochures, Information Education Campaign, Trainings/ Seminars, Hazard Maps, Bantay Barangay, Barangay Assemblies | **Moderate (2)** telecommunications, School Buildings in good condition (elevated), | **High (1)** Gadgets, television, radio, online broadcasting, print media | **High (1)** Contingency Plan, CLUP/Zoning Ordinance, MDRRMP, Local School Board Plan, Schools Improvement Plan | **High (1)** DepEd, CSO, LGU & PNP Enforce-ment through Trained staff, school disaster focal persons | 1 | 1.33 | low | 1.33 |

Table 8.3. **CRITICAL FACILITIES CCVA, MUNICIPALITY OF MANGALDAN.**

**CLIMATE STIMULI: EXTREME RAINFALL**

|  |  |  |  |  |  |  |  |  |  |  |  |  |
| --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- |
| **Barangay** | **Exposure Indicators** | **Sensitivity** | **ADAPTIVE CAPACITY** | | | | | | **DEGREE OF IMPACT SCORE** | **ADAPTIVE CAPACITY SCORE** | **VULNERABILITY** | |
| **A** | **B** | **C** | **D** | | | | | | **E** | **F** | **Vulnerability Index** | **Vulnerability Score** |
| **Wealth** | **Information** | **Infrastructure** | **Technology** | **Institution & Governance** | **Social Capital** |
| **Nibaliw** | Sector: Infrastructure Area: Road  Indicator: 650 meters barangay road | 420 meters barangay Road is located in low lying area made of gravel. Impassable during flood. | **Moderate (2)** Donations, NGA, Subsidy from NGOs, IRA, BDRRM Fund, MDRRM Fund, 20% Dev't. Fund | **High (1)** Brochures, Information Education Campaign, Trainings/ Seminars, Hazard Maps, Bantay Barangay, Barangay Assemblies | **Moderate (2)** telecommunications, Flood control facility, drainage canals | **Moderate (2)** Retrofitting of existing structure | **High (1)** Contingency Plan, CLUP/ Zoning Ordinance, MDRRMP | **High (1)** DPWH, CSO, LGU & PNP Enforce-ment through Trained staff, knowledgeable populace/ residents regarding hazards, | **1** | **1.5** | **low** | **1.5** |
| **Osiem** | Sector: Infrastructure Area: Road  Indicator: 470 meters barangay road unpaved | Osiem barangay road is located in low lying area and made of earth. | **Moderate (2)** Donations, NGA, Subsidy from NGOs, IRA, BDRRM Fund, MDRRM Fund, 20% Dev't. Fund | **High (1)** Brochures, Information Education Campaign, Trainings/ Seminars, Hazard Maps, Bantay Barangay, Barangay Assemblies | **Moderate (2)** telecommunications, Flood control facility, drainage canals | **Moderate (2)** Retrofitting of existing structure | **High (1)** Contingency Plan, CLUP/ Zoning Ordinance, MDRRMP | **High (1)** DPWH, CSO, LGU & PNP Enforce-ment through Trained staff, knowledgeable populace/ residents regarding hazards, | **1** | **1.5** | **low** | **1.5** |
| **Palua** | Sector: Social Area: Health Indicator: Barangay Health Station | Barangay Health Station is located in low lying area and easily flooded. | **Moderate (2)** Donations, NGA, Subsidy from NGOs, IRA, BDRRM Fund, MDRRM Fund | **High (1)** Brochures, Information Education Campaign, Trainings/ Seminars, Hazard Maps, Bantay Barangay, Barangay Assemblies | **Moderate (2)** telecommunications, Flood control facility, drainage canals | **Moderate (2)** Retrofitting of existing structure | **High (1)** Contingency Plan, CLUP/Zoning Ordinance, Municipal Disaster Plan, Peace & Order Plan, Barangay Disaster Plan | **High (1)**  CSO, LGU & PNP Enforce-ment through Trained staff, knowledgeable populace/ residents regarding hazards, | **1** | **1.5** | **low** | **1.5** |
| Sector: Infrastructure Area: Road  Indicator: 2.120 km unpaved barangay road | 1.600 km barangay road is located in low lying area and made of earth. Impassable during flood. | **Moderate (2)** Donations, NGA, Subsidy from NGOs, IRA, BDRRM Fund, MDRRM Fund, 20% Dev't. Fund | **High (1)** Brochures, Information Education Campaign, Trainings/ Seminars, Hazard Maps, Bantay Barangay, Barangay Assemblies | **Moderate (2)** telecommunications, Flood control facility, drainage canals | **Moderate (2)** Retrofitting of existing structure | **High (1)** Contingency Plan, CLUP/ Zoning Ordinance, MDRRMP | **High (1)** DPWH, CSO, LGU & PNP Enforce-ment through Trained staff, knowledgeable populace/ residents regarding hazards, | **1** | **1.5** | **low** | **1.5** |
| **Poblacion** | Sector: Social Area: Health Indicator: Urgent Care Clinic | Urgent Care Clinic is located in low lying area and easily flooded | **Moderate (2)** Donations, NGA, Subsidy from NGOs, IRA, BDRRM Fund, MDRRM Fund | **High (1)** Brochures, Information Education Campaign, Trainings/ Seminars, Hazard Maps, Bantay Barangay, Barangay Assemblies | **Moderate (2)** telecommunications, Flood control facility, drainage canals | **Moderate (2)** Retrofitting of existing structure | **High (1)** Contingency Plan, CLUP/Zoning Ordinance, Municipal Disaster Plan, Peace & Order Plan, Barangay Disaster Plan | **High (1)**  CSO, LGU & PNP Enforce-ment through Trained staff, knowledgeable populace/ residents regarding hazards, | **1** | **1.5** | **low** | **1.5** |

Table 8.3. **CRITICAL FACILITIES CCVA, MUNICIPALITY OF MANGALDAN.**

**CLIMATE STIMULI: EXTREME RAINFALL**

|  |  |  |  |  |  |  |  |  |  |  |  |  |
| --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- |
| **Barangay** | **Exposure Indicators** | **Sensitivity** | **ADAPTIVE CAPACITY** | | | | | | **DEGREE OF IMPACT SCORE** | **ADAPTIVE CAPACITY SCORE** | **VULNERABILITY** | |
| **A** | **B** | **C** | **D** | | | | | | **E** | **F** | **Vulnerability Index** | **Vulnerability Score** |
| **Wealth** | **Information** | **Infrastructure** | **Technology** | **Institution & Governance** | **Social Capital** |
| **Poblacion** | Sector: Social Area: Education Indicator: Mangaldan Central School | Mangaldan Central School is located in low lying area and easily flooded | **Moderate (2)** Donations, NGA, Subsidy from NGOs, IRA, BDRRM Fund, MDRRM Fund, Local School Board Fund | **High (1)** Brochures, Information Education Campaign, Trainings/ Seminars, Hazard Maps, Bantay Barangay, Barangay Assemblies | **Moderate (2)** telecommunications, School Buildings in good condition (elevated), | **High (1)** Gadgets, television, radio, online broadcasting, print media | **High (1)** Contingency Plan, CLUP/Zoning Ordinance, MDRRMP, Local School Board Plan, Schools Improvement Plan | **High (1)** DepEd, CSO, LGU & PNP Enforce-ment through Trained staff, school disaster focal persons | 1 | 1.33 | low | 1.33 |
| Sector: Infrastructure Area: Road  Indicator: 500 m of dilapidated road (Duyala St.) | 400 meters Duyala Road is located in low lying area with pothole and pavement crack. | **Moderate (2)** Donations, NGA, Subsidy from NGOs, IRA, BDRRM Fund, MDRRM Fund, 20% Dev't. Fund | **High (1)** Brochures, Information Education Campaign, Trainings/ Seminars, Hazard Maps, Bantay Barangay, Barangay Assemblies | **Moderate (2)** telecommunications, Flood control facility, drainage canals | **Moderate (2)** Retrofitting of existing structure | **High (1)** Contingency Plan, CLUP/ Zoning Ordinance, MDRRMP | **High (1)** DPWH, CSO, LGU & PNP Enforce-ment through Trained staff, knowledgeable populace/ residents regarding hazards, | **1** | **1.5** | **low** | **1.5** |
| **Pogo** | Sector: Social Area: Health Indicator: Barangay Health Station | Barangay Health Station is located in low lying area and easily flooded. | **Moderate (2)** Donations, NGA, Subsidy from NGOs, IRA, BDRRM Fund, MDRRM Fund | **High (1)** Brochures, Information Education Campaign, Trainings/ Seminars, Hazard Maps, Bantay Barangay, Barangay Assemblies | **Moderate (2)** telecommunications, Flood control facility, drainage canals | **Moderate (2)** Retrofitting of existing structure | **High (1)** Contingency Plan, CLUP/Zoning Ordinance, Municipal Disaster Plan, Peace & Order Plan, Barangay Disaster Plan | **High (1)**  CSO, LGU & PNP Enforce-ment through Trained staff, knowledgeable populace/ residents regarding hazards, | **1** | **1.5** | **low** | **1.5** |
| Sector: Social Area: Education Indicator: Pogo-Palua Elementary School | Pogo-Palua Elementary School is located in low lying area. And some school buildings are made of mixed materials and not hazard resilient | **Moderate (2)** Donations, NGA, Subsidy from NGOs, IRA, BDRRM Fund, MDRRM Fund, Local School Board Fund | **High (1)** Brochures, Information Education Campaign, Trainings/ Seminars, Hazard Maps, Bantay Barangay, Barangay Assemblies | **Moderate (2)** telecommunications, School Buildings in good condition (elevated), | **High (1)** Gadgets, television, radio, online broadcasting, print media | **High (1)** Contingency Plan, CLUP/Zoning Ordinance, MDRRMP, Local School Board Plan, Schools Improvement Plan | **High (1)** DepEd, CSO, LGU & PNP Enforce-ment through Trained staff, school disaster focal persons | 1 | 1.33 | low | 1.33 |
| Sector: Infrastruc-ture Area: Road  Indicator: 1.210 km unpaved barangay road | 950 meters barangay road is located in low lying area and made of earth. Impassable during flood. | **Moderate (2)** Donations, NGA, Subsidy from NGOs, IRA, BDRRM Fund, MDRRM Fund, 20% Dev't. Fund | **High (1)** Brochures, Information Education Campaign, Trainings/ Seminars, Hazard Maps, Bantay Barangay, Barangay Assemblies | **Moderate (2)** telecommunications, Flood control facility, drainage canals | **Moderate (2)** Retrofitting of existing structure | **High (1)** Contingency Plan, CLUP/ Zoning Ordinance, MDRRMP | **High (1)** DPWH, CSO, LGU & PNP Enforce-ment through Trained staff, knowledgeable populace/ residents regarding hazards, | **1** | **1.5** | **low** | **1.5** |

Table 8.3. **CRITICAL FACILITIES CCVA, MUNICIPALITY OF MANGALDAN.**

**CLIMATE STIMULI: EXTREME RAINFALL**

|  |  |  |  |  |  |  |  |  |  |  |  |  |
| --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- |
| **Barangay** | **Exposure Indicators** | **Sensitivity** | **ADAPTIVE CAPACITY** | | | | | | **DEGREE OF IMPACT SCORE** | **ADAPTIVE CAPACITY SCORE** | **VULNERABILITY** | |
| **A** | **B** | **C** | **D** | | | | | | **E** | **F** | **Vulnerability Index** | **Vulnerability Score** |
| **Wealth** | **Information** | **Infrastructure** | **Technology** | **Institution & Governance** | **Social Capital** |
| **Salaan** | Sector: Social Area: Health Indicator: Barangay Health Station | Barangay Health Station is located in low lying area and easily flooded. | **Moderate (2)** Donations, NGA, Subsidy from NGOs, IRA, BDRRM Fund, MDRRM Fund | **High (1)** Brochures, Information Education Campaign, Trainings/ Seminars, Hazard Maps, Bantay Barangay, Barangay Assemblies | **Moderate (2)** telecommunications, Flood control facility, drainage canals | **Moderate (2)** Retrofitting of existing structure | **High (1)** Contingency Plan, CLUP/Zoning Ordinance, Municipal Disaster Plan, Peace & Order Plan, Barangay Disaster Plan | **High (1)**  CSO, LGU & PNP Enforce-ment through Trained staff, knowledgeable populace/ residents regarding hazards, | **1** | **1.5** | **low** | **1.5** |
| Sector: Social Area: Education Indicator: Salaan Elementary School | Salaan Elementary School is located in low lying area. And some school buildings are made of mixed materials and not hazard resilient | **Moderate (2)** Donations, NGA, Subsidy from NGOs, IRA, BDRRM Fund, MDRRM Fund, Local School Board Fund | **High (1)** Brochures, Information Education Campaign, Trainings/ Seminars, Hazard Maps, Bantay Barangay, Barangay Assemblies | **Moderate (2)** telecommunications, School Buildings in good condition (elevated), | **High (1)** Gadgets, television, radio, online broadcasting, print media | **High (1)** Contingency Plan, CLUP/Zoning Ordinance, MDRRMP, Local School Board Plan, Schools Improvement Plan | **High (1)** DepEd, CSO, LGU & PNP Enforce-ment through Trained staff, school disaster focal persons | 1 | 1.33 | low | 1.33 |
| Sector: Infrastruc-ture Area: Road  Indicator: 770 meters unpaved barangay road | 550 meters barangay Road is located in low lying area and made of earth. Impassable during flood. | **Moderate (2)** Donations, NGA, Subsidy from NGOs, IRA, BDRRM Fund, MDRRM Fund, 20% Dev't. Fund | **High (1)** Brochures, Information Education Campaign, Trainings/ Seminars, Hazard Maps, Bantay Barangay, Barangay Assemblies | **Moderate (2)** telecommunications, Flood control facility, drainage canals | **Moderate (2)** Retrofitting of existing structure | **High (1)** Contingency Plan, CLUP/ Zoning Ordinance, MDRRMP | **High (1)** DPWH, CSO, LGU & PNP Enforce-ment through Trained staff, knowledgeable populace/ residents regarding hazards, | **1** | **1.5** | **low** | **1.5** |
| **Talogtog** | Sector: Social Area: Health Indicator: Barangay Health Station | Barangay Health Station is located in low lying area and easily flooded. | **Moderate (2)** Donations, NGA, Subsidy from NGOs, IRA, BDRRM Fund, MDRRM Fund | **High (1)** Brochures, Information Education Campaign, Trainings/ Seminars, Hazard Maps, Bantay Barangay, Barangay Assemblies | **Moderate (2)** telecommunications, Flood control facility, drainage canals | **Moderate (2)** Retrofitting of existing structure | **High (1)** Contingency Plan, CLUP/Zoning Ordinance, Municipal Disaster Plan, Peace & Order Plan, Barangay Disaster Plan | **High (1)**  CSO, LGU & PNP Enforcement through Trained staff, knowledgeable populace/ residents regarding hazards, | **1** | **1.5** | **low** | **1.5** |
| Sector: Social Area: Education Indicator: Talogtog-Bateng Elementary School | Talogtog-Bateng Elementary School is located in low lying area. And some school buildings are made of mixed materials and not hazard resilient | **Moderate (2)** Donations, NGA, Subsidy from NGOs, IRA, BDRRM Fund, MDRRM Fund, Local School Board Fund | **High (1)** Brochures, Information Education Campaign, Trainings/ Seminars, Hazard Maps, Bantay Barangay, Barangay Assemblies | **Moderate (2)** telecommunications, School Buildings in good condition (elevated), | **High (1)** Gadgets, television, radio, online broadcasting, print media | **High (1)** Contingency Plan, CLUP/Zoning Ordinance, MDRRMP, Local School Board Plan, Schools Improvement Plan | **High (1)** DepEd, CSO, LGU & PNP Enforce-ment through Trained staff, school disaster focal persons | 1 | 1.33 | low | 1.33 |

Table 8.3. **CRITICAL FACILITIES CCVA, MUNICIPALITY OF MANGALDAN.**

**CLIMATE STIMULI: EXTREME RAINFALL**

|  |  |  |  |  |  |  |  |  |  |  |  |  |
| --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- |
| **Barangay** | **Exposure Indicators** | **Sensitivity** | **ADAPTIVE CAPACITY** | | | | | | **DEGREE OF IMPACT SCORE** | **ADAPTIVE CAPACITY SCORE** | **VULNERABILITY** | |
| **A** | **B** | **C** | **D** | | | | | | **E** | **F** | **Vulnerability Index** | **Vulnerability Score** |
| **Wealth** | **Information** | **Infrastructure** | **Technology** | **Institution & Governance** | **Social Capital** |
| **Talogtog** | Sector: Infrastruc-ture Area: Road  Indicator:586 meters unpaved barangay road | 586 meters barangay Road is located in low lying area and made of earth. Impassable during flood. | **Moderate (2)** Donations, NGA, Subsidy from NGOs, IRA, BDRRM Fund, MDRRM Fund, 20% Dev't. Fund | **High (1)** Brochures, Information Education Campaign, Trainings/ Seminars, Hazard Maps, Bantay Barangay, Barangay Assemblies | **Moderate (2)** telecommunications, Flood control facility, drainage canals | **Moderate (2)** Retrofitting of existing structure | **High (1)** Contingency Plan, CLUP/ Zoning Ordinance, MDRRMP | **High (1)** DPWH, CSO, LGU & PNP Enforce-ment through Trained staff, knowledgeable populace/ residents regarding hazards, | **1** | **1.5** | **low** | **1.5** |
| **Tebag** | Sector: Social Area: Health Indicator: Barangay Health Station | Barangay Health Station is located in low lying area and easily flooded. | **Moderate (2)** Donations, NGA, Subsidy from NGOs, IRA, BDRRM Fund, MDRRM Fund | **High (1)** Brochures, Information Education Campaign, Trainings/ Seminars, Hazard Maps, Bantay Barangay, Barangay Assemblies | **Moderate (2)** telecommunications, Flood control facility, drainage canals | **Moderate (2)** Retrofitting of existing structure | **High (1)** Contingency Plan, CLUP/Zoning Ordinance, Municipal Disaster Plan, Peace & Order Plan, Barangay Disaster Plan | **High (1)**  CSO, LGU & PNP Enforce-ment through Trained staff, knowledgeable populace/ residents regarding hazards, | **1** | **1.5** | **low** | **1.5** |
| Sector: Social Area: Education Indicator:Tebag Elementary School | Tebag Elementary School is located in low lying area. And some school buildings are made of mixed materials and not hazard resilient | **Moderate (2)** Donations, NGA, Subsidy from NGOs, IRA, BDRRM Fund, MDRRM Fund, Local School Board Fund | **High (1)** Brochures, Information Education Campaign, Trainings/ Seminars, Hazard Maps, Bantay Barangay, Barangay Assemblies | **Moderate (2)** telecommunications, School Buildings in good condition (elevated), | **High (1)** Gadgets, television, radio, online broadcasting, print media | **High (1)** Contingency Plan, CLUP/Zoning Ordinance, MDRRMP, Local School Board Plan, Schools Improvement Plan | **High (1)** DepEd, CSO, LGU & PNP Enforce-ment through Trained staff, school disaster focal persons | 1 | 1.33 | low | 1.33 |
| Sector: Infrastruc-ture Area: Road  Indicator: 1.210 unpaved barangay road | 260 meters barangay Road is located in low lying area and made of earth. Impassable during flood. | **Moderate (2)** Donations, NGA, Subsidy from NGOs, IRA, BDRRM Fund, MDRRM Fund, 20% Dev't. Fund | **High (1)** Brochures, Information Education Campaign, Trainings/ Seminars, Hazard Maps, Bantay Barangay, Barangay Assemblies | **Moderate (2)** telecommunications, Flood control facility, drainage canals | **Moderate (2)** Retrofitting of existing structure | **High (1)** Contingency Plan, CLUP/ Zoning Ordinance, MDRRMP | **High (1)** DPWH, CSO, LGU & PNP Enforce-ment through Trained staff, knowledgeable populace/ residents regarding hazards, | **1** | **1.5** | **low** | **1.5** |

|  |
| --- |
| Instructions: |
| A. In columns **B-C**, using the gathered data and maps, indicate information and compute values for each critical facility exposure and sensitivity |
| 2. In column**D**, provide existing adaptive or preventive measures of the municipality/city. |
| 3. In column **E**, based on the estimated exposure, the degree of sensitivities of the exposed units, and identified potential impacts, qualitatively determine the degree of impact score using the suggested rating scale.  High (3) - Estimated direct impacts in terms of number of fatalities, injuries and value of property damage will be disastrous given the extent of exposure and current sensitivity of the system.   Moderate (2) - Moderate direct impacts in terms of terms of number of fatalities, injuries and value of property damage are expected given the extent of exposure and current sensitivities of the system.  Low (1) - Estimated direct and indirect impacts are low to negligible which can be felt within a short term period. |
| D. In column **F**, evaluate the various adaptive capacities of the system being studied by referring to the adaptive capacity indicators in the exposure database. These indicators of adaptive capacities can describe whether the system is able to accommodate or cope with the impacts with very minimal disruption or short to long term detrimental effects/impacts.  High (1) - The system is able to accommodate changes in climate. There are adaptation measures in place to address impacts.   Moderate (2) - Addressing the impacts will require significant cost but it is still within the capacity of the system to adapt to potential impacts.   Low (3) - The system is not able to accommodate changes in the climate. Addressing the impacts will be costly. The LGU and property owners will require external assistance to address the impacts. |
| E. In column **G**, compute for the vulnerability index by multiplying the Impact and Adaptive Capacity Scores. Accordingly, based on the computed vulnerability index, categorize the index scores into categories:  High (3): > 6 - 9  Moderate (2): > 3 - 6  Low (1): < 3 |

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| Table 8.4. **LIFELINE FACILITIES CCVA, MUNICIPALITY OF MANGALDAN .** |
| **CLIMATE STIMULI: EXTREME RAINFALL** |

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| **Barangay** | **Exposure Indicators** | **Sensitivity** | **ADAPTIVE CAPACITY** | | | | | | **DEGREE OF IMPACT SCORE** | **ADAPTIVE CAPACITY SCORE** | **VULNERABILITY** | |
| **A** | **B** | **C** | **D** | | | | | | **E** | **F** | **Vulnerability Index** | **Vulnerability Score** |
| **Wealth** | **Information** | **Infrastructure** | **Technology** | **Institution & Governance** | **Social Capital** |
| **Talogtog** | Sector: Infrastruc-ture Area: Bridge Indicator: 50 meters concreted Mangue-ragday Bridge | Mangueragday Bridge is located in low lying area and need to rehabilitate/ retrofitting. | **Moderate (2)** Donations, NGA, Subsidy from NGOs, IRA, BDRRM Fund, MDRRM Fund, 20% Dev't. Fund | **High (1)** Brochures, Information Education Campaign, Trainings/ Seminars, Hazard Maps, Bantay Barangay, Barangay Assemblies | **Moderate (2)** telecommunications, Flood control facility, drainage canals | **Moderate (2)** Retrofitting of existing structure | **High (1)** Contingency Plan, CLUP/ Zoning Ordinance, MDRRMP | **High (1)** DPWH, CSO, LGU & PNP Enforcement through Trained staff, knowledgeable populace/ residents regarding hazards, | **1** | **1.5** | **low** | **1.5** |
| **Anolid, Banaoang, David, Guesang, Guiguilonen, Inlambo, Lanas, Landas, Maasin, Macayug, Navaluan, Osiem, Poblacion** | Sector: Infrastruc-ture Area: Power Indicator: Electric Posts (CENPELCO) & Telecommunication posts | Electric posts & telecommunication posts are encroaching major transportation network causing great danger during flooding | **High (1)** CENPELCO, PLDT, LGU | **High (1)** Brochures, Information Education Campaign, Trainings/ Seminars, Hazard Maps, Bantay Barangay, Barangay Assemblies | **Moderate (2)** Appropriate design of posts & strategically located | **Moderate (2)** Hazard resistant design | **High (1)** Contingency Plan, CLUP/Zoning Ordinance, Municipal Disaster Plan, Peace & Order Plan, Barangay Disaster Plan | **Moderate (1)** CSO, LGU & PNP Enforcement through Trained staff, CENPELCO and other telecommunication company | 1 | 1.33 | low | 1.33 |

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| Instructions: |
| A. In columns **B-C**, using the gathered data and maps, indicate information and compute values for each lifeline facility exposure and sensitivity |
| 2. In column **D**, provide existing adaptive or preventive measures of the municipality/city. |
| 3. In column **E**, based on the estimated exposure, the degree of sensitivities of the exposed units, and identified potential impacts, qualitatively determine the degree of impact score using the suggested rating scale.  High (3) - Estimated direct impacts in terms of number of fatalities, injuries and value of property damage will be disastrous given the extent of exposure and current sensitivity of the system.   Moderate (2) - Moderate direct impacts in terms of terms of number of fatalities, injuries and value of property damage are expected given the extent of exposure and current sensitivities of the system.  Low (1) - Estimated direct and indirect impacts are low to negligible which can be felt within a short term period. |
| 4. In column **F**, evaluate the various adaptive capacities of the system being studied by referring to the adaptive capacity indicators in the exposure database. These indicators of adaptive capacities can describe whether the system is able to accommodate or cope with the impacts with very minimal disruption or short to long term detrimental effects/impacts.  High (1) - The system is able to accommodate changes in climate. There are adaptation measures in place to address impacts.   Moderate (2) - Addressing the impacts will require significant cost but it is still within the capacity of the system to adapt to potential impacts.   Low (3) - The system is not able to accommodate changes in the climate. Addressing the impacts will be costly. The LGU and property owners will require  External assistance to address the impacts. |
| 5. In column **G**, compute for the vulnerability index by multiplying the Impact and Adaptive Capacity Scores. Accordingly, based on the computed vulnerability index, categorize the index scores into categories:  High (3): > 6 - 9  Moderate (2): > 3 - 6  Low (1): < 3 |

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| Table 8.5. **URBAN USE CCVA, MUNICIPALITY OF MANGALDAN .** |
| **CLIMATE STIMULI: EXTREME RAINFALL** |

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| **Barangay** | **Exposure Indicators** | **Sensitivity** | **ADAPTIVE CAPACITY** | | | | | | **DEGREE OF IMPACT SCORE** | **ADAPTIVE CAPACITY SCORE** | **VULNERABILITY** | |
| **A** | **B** | **C** | **D** | | | | | | **E** | **F** | **Vulnerability Index** | **Vulnerability Score** |
| **Wealth** | **Information** | **Infrastructure** | **Technology** | **Institution & Governance** | **Social Capital** |
| **Anolid** | Sector: Social Area: Population (Residential Settlement) Indicator: 40 residential units belong to informal settler and makeshift housing | 29 residential units are constructed in low lying areas and made of light materials & salvaged/ makeshift materials. | **Moderate (2)** Donations, NGA, Subsidy from NGOs, IRA, BDRRM Fund, MDRRM Fund, AICS Fund, PhilHealth | **High (1)** Brochures, Information Education Campaign, Trainings/ Seminars, Hazard Maps, Bantay Barangay, Barangay Assemblies | **Moderate (2)** telecommunications, concreted farm to market roads, Flood control facility, drainage canals | **High (1)** Gadgets, television, radio, Online Broadcasting, print media | **High (1)** Contingency Plan, CLUP/Zoning Ordinance, Municipal Disaster Plan, Peace & Order Plan, Barangay Disaster Plan | **Moderate (2)** CSO, LGU & PNP Enforcement through Trained staff, knowledgeable populace/ residents regarding hazards, | 1 | 1.5 | Low | 1.5 |
| Sector: Economic Area: Industry Indicator: 95 Business establish-ments | 40 out of 95 or 42.11% business establishments are located in low lying area and easily flooded. | **Moderate (2)** Donations, NGA, LGU, Subsidy from NGOs, | **High (1)** Brochures, Information Education Campaign, Trainings/ Seminars, Hazard Maps, Bantay Barangay, Barangay Assemblies | **High (1)** telecommunications & roads in good condition and public market operating continuously | **High (1)** Gadgets, television, radio, online broadcasting, print media | **High (1)** Contingency Plan, CLUP/Zoning Ordinance, Municipal Disaster Plan, Barangay Disaster Plan | **Moderate (2)** LGU, Vendors’ Associations, DTI, CSO, TODA, PODA | 1 | 1.33 | Low | 1.33 |
| **Banaoang** | Sector: Social Area: Population (Residential Settlement)Indicator: 83 residential units belong to informal settler and makeshift housing | 65 residential units are constructed in low lying area and made of light materials and salvaged/ makeshift materials. | **Moderate (2)** Donations, NGA, Subsidy from NGOs, IRA, BDRRM Fund, MDRRM Fund, AICS Fund, PhilHealth | **High (1)** Brochures, Information Education Campaign, Trainings/ Seminars, Hazard Maps, Bantay Barangay, Barangay Assemblies | **Moderate (2)** telecommunications, concreted farm to market roads, Flood control facility, drainage canals | **High (1)** Gadgets, television, radio, Online Broadcasting, print media | **High (1)** Contingency Plan, CLUP/Zoning Ordinance, Municipal Disaster Plan, Peace & Order Plan, Barangay Disaster Plan | **Moderate (2)** CSO, LGU & PNP Enforcement through Trained staff, knowledgeable populace/ residents regarding hazards, | 1 | 1.5 | Low | 1.5 |
| Sector: Economic Area: Industry Indicator: 29 Business establish-ments | 8 out of 29 or 27.59% business establishments are located in low lying area and easily flooded. | **Moderate (2)** Donations, NGA, LGU, Subsidy from NGOs, | **High (1)** Brochures, Information Education Campaign, Trainings/ Seminars, Hazard Maps, Bantay Barangay, Barangay Assemblies | **High (1)** telecommunications & roads in good condition and public market operating continuously | **High (1)** Gadgets, television, radio, online broadcasting, print media | **High (1)** Contingency Plan, CLUP/Zoning Ordinance, Municipal Disaster Plan, Barangay Disaster Plan | **Moderate (2)** LGU, Vendors’ Associations, DTI, CSO, TODA, PODA | 1 | 1.33 | Low | 1.33 |
| **Bantayan** | Sector: Social Area: Population (Residential Settlement) Indicator: 26 residential units belong to informal settler and makeshift housing | 12 residential units are constructed in low lying area and made of light materials and salvaged/ makeshift materials. | **Moderate (2)** Donations, NGA, Subsidy from NGOs, IRA, BDRRM Fund, MDRRM Fund, AICS Fund, PhilHealth | **High (1)** Brochures, Information Education Campaign, Trainings/ Seminars, Hazard Maps, Bantay Barangay, Barangay Assemblies | **Moderate (2)** telecommunications, concreted farm to market roads, Flood control facility, drainage canals | **High (1)** Gadgets, television, radio, Online Broadcasting, print media | **High (1)** Contingency Plan, CLUP/Zoning Ordinance, Municipal Disaster Plan, Peace & Order Plan, Barangay Disaster Plan | **Moderate (2)** CSO, LGU & PNP Enforcement through Trained staff, knowledgeable populace/ residents regarding hazards, | 1 | 1.5 | Low | 1.5 |

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| Table 8.5. **URBAN USE CCVA, MUNICIPALITY OF MANGALDAN.** |
| **CLIMATE STIMULI: EXTREME RAINFALL** |

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| **Barangay** | **Exposure Indicators** | **Sensitivity** | **ADAPTIVE CAPACITY** | | | | | | **DEGREE OF IMPACT SCORE** | **ADAPTIVE CAPACITY SCORE** | **VULNERABILITY** | |
| **A** | **B** | **C** | **D** | | | | | | **E** | **F** | **Vulnerability Index** | **Vulnerability Score** |
| **Wealth** | **Information** | **Infrastructure** | **Technology** | **Institution & Governance** | **Social Capital** |
| **Bantayan** | Sector: Economic Area: Industry Indicator: 12 Business establish-ments | 4 out of 12 or 33.33% business establishments are located in low lying area and easily flooded | **Moderate (2)** Donations, NGA, LGU, Subsidy from NGOs, | **High (1)** Brochures, Information Education Campaign, Trainings/ Seminars, Hazard Maps, Bantay Barangay, Barangay Assemblies | **High (1)** telecommunications & roads in good condition and public market operating continuously | **High (1)** Gadgets, television, radio, online broadcasting, print media | **High (1)** Contingency Plan, CLUP/Zoning Ordinance, Municipal Disaster Plan, Barangay Disaster Plan | **Moderate (2)** LGU, Vendors’ Associations, DTI, CSO, TODA, PODA | 1 | 1.33 | Low | 1.33 |
| **Bateng** | Sector: Social Area: Population (Residential Settlement) Indicator: 20 residential units belong to informal settler and makeshift housing | 18 residential units are constructed in low lying area and made of light materials and salvaged/ makeshift materials. | **Moderate (2)** Donations, NGA, Subsidy from NGOs, IRA, BDRRM Fund, MDRRM Fund, AICS Fund, PhilHealth | **High (1)** Brochures, Information Education Campaign, Trainings/ Seminars, Hazard Maps, Bantay Barangay, Barangay Assemblies | **Moderate (2)** telecommunications, concreted farm to market roads, Flood control facility, drainage canals | **High (1)** Gadgets, television, radio, Online Broadcasting, print media | **High (1)** Contingency Plan, CLUP/Zoning Ordinance, Municipal Disaster Plan, Peace & Order Plan, Barangay Disaster Plan | **Moderate (2)** CSO, LGU & PNP Enforcement through Trained staff, knowledgeable populace/ residents regarding hazards, | 1 | 1.5 | Low | 1.5 |
| Sector: Economic Area: Industry Indicator: 16 Business establish-ments | 4 out of 16 or 25% business establishments are located in low lying area and easily flooded | **Moderate (2)** Donations, NGA, LGU, Subsidy from NGOs, | **High (1)** Brochures, Information Education Campaign, Trainings/ Seminars, Hazard Maps, Bantay Barangay, Barangay Assemblies | **High (1)** telecommunications & roads in good condition and public market operating continuously | **High (1)** Gadgets, television, radio, online broadcasting, print media | **High (1)** Contingency Plan, CLUP/Zoning Ordinance, Municipal Disaster Plan, Barangay Disaster Plan | **Moderate (2)** LGU, Vendors’ Associations, DTI, CSO, TODA, PODA | 1 | 1.33 | Low | 1.33 |
| **David** | Sector: Social Area: Population (Residential Settlement) Indicator: 150 residential units belong to informal settler and makeshift housing | 43 residential units are constructed in low lying area and made of light materials and salvaged/ makeshift materials. | **Moderate (2)** Donations, NGA, Subsidy from NGOs, IRA, BDRRM Fund, MDRRM Fund, AICS Fund, PhilHealth | **High (1)** Brochures, Information Education Campaign, Trainings/ Seminars, Hazard Maps, Bantay Barangay, Barangay Assemblies | **Moderate (2)** telecommunications, concreted farm to market roads, Flood control facility, drainage canals | **High (1)** Gadgets, television, radio, Online Broadcasting, print media | **High (1)** Contingency Plan, CLUP/Zoning Ordinance, Municipal Disaster Plan, Peace & Order Plan, Barangay Disaster Plan | **Moderate (2)** CSO, LGU & PNP Enforcement through Trained staff, knowledgeable populace/ residents regarding hazards, | 1 | 1.5 | Low | 1.5 |
| Sector: Economic Area: Industry Indicator: 17 Business establish-ments | 7 out of 17 or 41.18% business establishments are located in low lying area and easily flooded. | **Moderate (2)** Donations, NGA, LGU, Subsidy from NGOs, | **High (1)** Brochures, Information Education Campaign, Trainings/ Seminars, Hazard Maps, Bantay Barangay, Barangay Assemblies | **High (1)** telecommunications & roads in good condition and public market operating continuously | **High (1)** Gadgets, television, radio, online broadcasting, print media | **High (1)** Contingency Plan, CLUP/Zoning Ordinance, Municipal Disaster Plan, Barangay Disaster Plan | **Moderate (2)** LGU, Vendors’ Associations, DTI, CSO, TODA, PODA | 1 | 1.33 | Low | 1.33 |

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| Table 8.5. **URBAN USE CCVA, MUNICIPALITY OF MANGALDAN .** |
| **CLIMATE STIMULI: EXTREME RAINFALL** |

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| **Barangay** | **Exposure Indicators** | **Sensitivity** | **ADAPTIVE CAPACITY** | | | | | | **DEGREE OF IMPACT SCORE** | **ADAPTIVE CAPACITY SCORE** | **VULNERABILITY** | |
| **A** | **B** | **C** | **D** | | | | | | **E** | **F** | **Vulnerability Index** | **Vulnerability Score** |
| **Wealth** | **Information** | **Infrastructure** | **Technology** | **Institution & Governance** | **Social Capital** |
| **Embarcadero** | Sector: Social Area: Population (Residential Settlement) Indicator: 30 residential units belong to informal settler and makeshift housing | 25 residential units are constructed in low lying area and made of light materials and salvaged/ makeshift materials. | **Moderate (2)** Donations, NGA, Subsidy from NGOs, IRA, BDRRM Fund, MDRRM Fund, AICS Fund, PhilHealth | **High (1)** Brochures, Information Education Campaign, Trainings/ Seminars, Hazard Maps, Bantay Barangay, Barangay Assemblies | **Moderate (2)** telecommunications, concreted farm to market roads, Flood control facility, drainage canals | **High (1)** Gadgets, television, radio, Online Broadcasting, print media | **High (1)** Contingency Plan, CLUP/Zoning Ordinance, Municipal Disaster Plan, Peace & Order Plan, Barangay Disaster Plan | **Moderate (2)** CSO, LGU & PNP Enforcement through Trained staff, knowledgeable populace/ residents regarding hazards, | 1 | 1.5 | Low | 1.5 |
| Sector: Economic Area: Industry Indicator: 20 Business establish-ments | 10 out of 20 or 50% business establishments are located in low lying area | **Moderate (2)** Donations, NGA, LGU, Subsidy from NGOs, | **High (1)** Brochures, Information Education Campaign, Trainings/ Seminars, Hazard Maps, Bantay Barangay, Barangay Assemblies | **High (1)** telecommunications & roads in good condition and public market operating continuously | **High (1)** Gadgets, television, radio, online broadcasting, print media | **High (1)** Contingency Plan, CLUP/Zoning Ordinance, Municipal Disaster Plan, Barangay Disaster Plan | **Moderate (2)** LGU, Vendors’ Associations, DTI, CSO, TODA, PODA | 1 | 1.33 | Low | 1.33 |
| **Guesang** | Sector: Social Area: Population (Residential Settlement) Indicator: 14 residential units belong to informal settler and makeshift housing | 9 residential units are constructed in low lying area and made of light materials and salvaged/ makeshift materials. | **Moderate (2)** Donations, NGA, Subsidy from NGOs, IRA, BDRRM Fund, MDRRM Fund, AICS Fund, PhilHealth | **High (1)** Brochures, Information Education Campaign, Trainings/ Seminars, Hazard Maps, Bantay Barangay, Barangay Assemblies | **Moderate (2)** telecommunications, concreted farm to market roads, Flood control facility, drainage canals | **High (1)** Gadgets, television, radio, Online Broadcasting, print media | **High (1)** Contingency Plan, CLUP/Zoning Ordinance, Municipal Disaster Plan, Peace & Order Plan, Barangay Disaster Plan | **Moderate (2)** CSO, LGU & PNP Enforcement through Trained staff, knowledgeable populace/ residents regarding hazards, | 1 | 1.5 | Low | 1.5 |
| Sector: Economic Area: Industry Indicator: 10 Business establish-ments | 3 out of 10 or 30% business establishments are located in low lying area and easily flooded. | **Moderate (2)** Donations, NGA, LGU, Subsidy from NGOs, | **High (1)** Brochures, Information Education Campaign, Trainings/ Seminars, Hazard Maps, Bantay Barangay, Barangay Assemblies | **High (1)** telecommunications & roads in good condition and public market operating continuously | **High (1)** Gadgets, television, radio, online broadcasting, print media | **High (1)** Contingency Plan, CLUP/Zoning Ordinance, Municipal Disaster Plan, Barangay Disaster Plan | **Moderate (2)** LGU, Vendors’ Associations, DTI, CSO, TODA, PODA | 1 | 1.33 | Low | 1.33 |
| **Guiguilonen** | Sector: Social Area: Population (Residential Settlement) Indicator: 17 residential units belong to informal settler and makeshift housing | 12 residential units are constructed in low lying area and made of light materials and salvaged/ makeshift materials. | **Moderate (2)** Donations, NGA, Subsidy from NGOs, IRA, BDRRM Fund, MDRRM Fund, AICS Fund, PhilHealth | **High (1)** Brochures, Information Education Campaign, Trainings/ Seminars, Hazard Maps, Bantay Barangay, Barangay Assemblies | **Moderate (2)** telecommunications, concreted farm to market roads, Flood control facility, drainage canals | **High (1)** Gadgets, television, radio, Online Broadcasting, print media | **High (1)** Contingency Plan, CLUP/Zoning Ordinance, Municipal Disaster Plan, Peace & Order Plan, Barangay Disaster Plan | **Moderate (2)** CSO, LGU &PNP Enforcement through Trained staff, knowledgeable populace/ residents regarding hazards, | 1 | 1.5 | Low | 1.5 |

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| Table 8.5. **Urban USE CCVA, MUNICIPALITY OF MANGALDAN.** |
| **CLIMATE STIMULI: EXTREME RAINFALL** |

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| --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- |
| **Barangay** | **Exposure Indicators** | **Sensitivity** | **ADAPTIVE CAPACITY** | | | | | | **DEGREE OF IMPACT SCORE** | **ADAPTIVE CAPACITY SCORE** | **VULNERABILITY** | |
| **A** | **B** | **C** | **D** | | | | | | **E** | **F** | **Vulnerability Index** | **Vulnerability Score** |
| **Wealth** | **Information** | **Infrastructure** | **Technology** | **Institution & Governance** | **Social Capital** |
| **Guiguilonen** | Sector: Economic Area: Industry Indicator: 24 Business establishments | 12 out of 24 or 50% business establishments are located in low lying area and easily flooded | **Moderate (2)** Donations, NGA, LGU, Subsidy from NGOs, | **High (1)** Brochures, Information Education Campaign, Trainings/ Seminars, Hazard Maps, Bantay Barangay, Barangay Assemblies | **High (1)** telecommunications & roads in good condition and public market operating continuously | **High (1)** Gadgets, television, radio, online broadcasting, print media | **High (1)** Contingency Plan, CLUP/Zoning Ordinance, Municipal Disaster Plan, Barangay Disaster Plan | **Moderate (2)** LGU, Vendors’ Associations, DTI, CSO, TODA, PODA | 1 | 1.33 | Low | 1.33 |
| **Inlambo** | Sector: Social Area: Population (Residential Settlement) Indicator: 33 residential units belong to informal settler and makeshift housing | 30 residential units are constructed in low lying area and made of light materials and salvaged/ makeshift materials. | **Moderate (2) Donations, NGA, Subsidy from NGOs, IRA, BDRRM Fund, MDRRM Fund, AICS Fund, PhilHealth** | **High (1)** Brochures, Information Education Campaign, Trainings/ Seminars, Hazard Maps, Bantay Barangay, Barangay Assemblies | **Moderate (2)** telecommunications, concreted farm to market roads, Flood control facility, drainage canals | **High (1)** Gadgets, television, radio, Online Broadcasting, print media | **High (1)** Contingency Plan, CLUP/Zoning Ordinance, Municipal Disaster Plan, Peace & Order Plan, Barangay Disaster Plan | **Moderate (2)** CSO, LGU & PNP Enforcement through Trained staff, knowledgeable populace/ residents regarding hazards, | 1 | 1.5 | Low | 1.5 |
| Sector: Economic Area: Industry Indicator: 8 Business establish-ments | 2 out of 8 or 25% business establishments are located in low lying area and easily flooded | **Moderate (2)** Donations, NGA, LGU, Subsidy from NGOs, | **High (1)** Brochures, Information Education Campaign, Trainings/ Seminars, Hazard Maps, Bantay Barangay, Barangay Assemblies | **High (1)** telecommunications & roads in good condition and public market operating continuously | **High (1)** Gadgets, television, radio, online broadcasting, print media | **High (1)** Contingency Plan, CLUP/Zoning Ordinance, Municipal Disaster Plan, Barangay Disaster Plan | **Moderate (2)** LGU, Vendors’ Associations, DTI, CSO, TODA, PODA | 1 | 1.33 | Low | 1.33 |
| **Lanas** | Sector: Social Area: Population (Residential Settlement) Indicator: 21 residential units belong to informal settler and makeshift housing | 21 residential units are constructed in low lying area and made of light materials and salvaged/ makeshift materials. | **Moderate (2)** Donations, NGA, Subsidy from NGOs, IRA, BDRRM Fund, MDRRM Fund, AICS Fund, PhilHealth | **High (1)** Brochures, Information Education Campaign, Trainings/ Seminars, Hazard Maps, Bantay Barangay, Barangay Assemblies | **Moderate (2)** telecommunications, concreted farm to market roads, Flood control facility, drainage canals | **High (1)** Gadgets, television, radio, Online Broadcasting, print media | **High (1)** Contingency Plan, CLUP/Zoning Ordinance, Municipal Disaster Plan, Peace & Order Plan, Barangay Disaster Plan | **Moderate (2)** CSO, LGU & PNP Enforcement through Trained staff, knowledgeable populace/ residents regarding hazards, | 1 | 1.5 | Low | 1.5 |
| Sector: Economic Area: Industry Indicator: 10 Business establish-ments | 4 out of 10 or 40% business establishments are located in low lying area and easily flooded | **Moderate (2)** Donations, NGA, LGU, Subsidy from NGOs, | **High (1)** Brochures, Information Education Campaign, Trainings/ Seminars, Hazard Maps, Bantay Barangay, Barangay Assemblies | **High (1)** telecommunications & roads in good condition and public market operating continuously | **High (1)** Gadgets, television, radio, online broadcasting, print media | **High (1)** Contingency Plan, CLUP/Zoning Ordinance, Municipal Disaster Plan, Barangay Disaster Plan | **Moderate (2)** LGU, Vendors’ Associations, DTI, CSO, TODA, PODA | 1 | 1.33 | Low | 1.33 |
| **Landas** | Sector: Social Area: Population (Residential Settlement) Indicator: 4 residential units belong to informal settler and makeshift housing | 2 residential units are constructed in low lying area and made of light materials and salvaged/ makeshift materials. | **Moderate (2)** Donations, NGA, Subsidy from NGOs, IRA, BDRRM Fund, MDRRM Fund, AICS Fund, PhilHealth | **High (1)** Brochures, Information Education Campaign, Trainings/ Seminars, Hazard Maps, Bantay Barangay, Barangay Assemblies | **Moderate (2)** telecommunications, concreted farm to market roads, Flood control facility, drainage canals | **High (1)** Gadgets, television, radio, Online Broadcasting, print media | **High (1)** Contingency Plan, CLUP/Zoning Ordinance, Municipal Disaster Plan, Peace & Order Plan, Barangay Disaster Plan | **Moderate (2)** CSO, LGU & PNP Enforcement through Trained staff, knowledgeable populace/ residents regarding hazards, | 1 | 1.5 | Low | 1.5 |

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| Table 8.5. **URBAN USE CCVA, MUNICIPALITY OF MANGALDAN .** |
| **CLIMATE STIMULI: EXTREME RAINFALL** |

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| --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- |
| **Barangay** | **Exposure Indicators** | **Sensitivity** | **ADAPTIVE CAPACITY** | | | | | | **DEGREE OF IMPACT SCORE** | **ADAPTIVE CAPACITY SCORE** | **VULNERABILITY** | |
| **A** | **B** | **C** | **D** | | | | | | **E** | **F** | **Vulnerability Index** | **Vulnerability Score** |
| **Wealth** | **Information** | **Infrastructure** | **Technology** | **Institution & Governance** | **Social Capital** |
| **Landas** | Sector: Economic Area: Industry Indicator: 11 Business establish-ments | 6 out of 11 or 54.55% business establish-ments are located in low lying area and easily flooded | **Moderate (2)** Donations, NGA, LGU, Subsidy from NGOs, | **High (1)** Brochures, Information Education Campaign, Trainings/ Seminars, Hazard Maps, Bantay Barangay, Barangay Assemblies | **High (1)** telecommunications & roads in good condition and public market operating continuously | **High (1)** Gadgets, television, radio, online broadcasting, print media | **High (1)** Contingency Plan, CLUP/Zoning Ordinance, Municipal Disaster Plan, Barangay Disaster Plan | **Moderate (2)** LGU, Vendors’ Associations, DTI, CSO, TODA, PODA | 1 | 1.33 | Low | 1.33 |
| **Maasin** | Sector: Social Area: Population (Residential Settlement) Indicator: 315 residential units belong to informal settler and makeshift housing | 5 residential units are constructed in low lying area and made of light materials and salvaged/ makeshift materials. | **Moderate (2)** Donations, NGA, Subsidy from NGOs, IRA, BDRRM Fund, MDRRM Fund, AICS Fund, PhilHealth | **High (1)** Brochures, Information Education Campaign, Trainings/ Seminars, Hazard Maps, Bantay Barangay, Barangay Assemblies | **Moderate (2)** telecommunications, concreted farm to market roads, Flood control facility, drainage canals | **High (1)** Gadgets, television, radio, Online Broadcasting, print media | **High (1)** Contingency Plan, CLUP/Zoning Ordinance, Municipal Disaster Plan, Peace & Order Plan, Barangay Disaster Plan | **Moderate (2)** CSO, LGU & PNP Enforcement through Trained staff, knowledgeable populace/ residents regarding hazards, | 1 | 1.5 | Low | 1.5 |
| Sector: Economic Area: Industry Indicator: 21 Business establishments | 10 out of 21 or 47.62% business establishments are located in low lying area and easily flooded. | **Moderate (2)** Donations, NGA, LGU, Subsidy from NGOs, | **High (1)** Brochures, Information Education Campaign, Trainings/ Seminars, Hazard Maps, Bantay Barangay, Barangay Assemblies | **High (1)** telecommunications & roads in good condition and public market operating continuously | **High (1)** Gadgets, television, radio, online broadcasting, print media | **High (1)** Contingency Plan, CLUP/Zoning Ordinance, Municipal Disaster Plan, Barangay Disaster Plan | **Moderate (2)** LGU, Vendors’ Associations, DTI, CSO, TODA, PODA | 1 | 1.33 | Low | 1.33 |
| **Macayug** | Sector: Social Area: Population (Residential Settlement) Indicator: 8 residential units belong to informal settler and makeshift housing | 8 residential units are constructed in low lying area and made of light materials and salvaged/ makeshift materials. | **Moderate (2)** Donations, NGA, Subsidy from NGOs, IRA, BDRRM Fund, MDRRM Fund, AICS Fund, PhilHealth | **High (1)** Brochures, Information Education Campaign, Trainings/ Seminars, Hazard Maps, Bantay Barangay, Barangay Assemblies | **Moderate (2)** telecommunications, concreted farm to market roads, Flood control facility, drainage canals | **High (1)** Gadgets, television, radio, Online Broadcasting, print media | **High (1)** Contingency Plan, CLUP/Zoning Ordinance, Municipal Disaster Plan, Peace & Order Plan, Barangay Disaster Plan | **Moderate (2)** CSO, LGU & PNP Enforcement through Trained staff, knowledgeable populace/ residents regarding hazards, | 1 | 1.5 | Low | 1.5 |
| Sector: Economic Area: Industry Indicator: 7 Business establishments | 3 out of 7 or 42.86% business establishments are located in low lying area and easily flooded. | **Moderate (2)** Donations, NGA, LGU, Subsidy from NGOs, | **High (1)** Brochures, Information Education Campaign, Trainings/ Seminars, Hazard Maps, Bantay Barangay, Barangay Assemblies | **High (1)** telecommuni-cations &  roads in good condition and public market operating continuously | **High (1)** Gadgets, television, radio, online broadcasting, print media | **High (1)** Contingency Plan, CLUP/Zoning Ordinance, Municipal Disaster Plan, Barangay Disaster Plan | **Moderate (2)** LGU, Vendors’ Associations, DTI, CSO, TODA, PODA | 1 | 1.33 | Low | 1.33 |
| **Navaluan** | Sector: Social Area: Population (Residential Settlement) Indicator: 26 residential units belong to informal settler and makeshift housing | 8 residential units are constructed in low lying area and made of light materials and salvaged/ makeshift materials. | **Moderate (2)** Donations, NGA, Subsidy from NGOs, IRA, BDRRM Fund, MDRRM Fund, AICS Fund, PhilHealth | **High (1)** Brochures, Information Education Campaign, Trainings/ Seminars, Hazard Maps, Bantay Barangay, Barangay Assemblies | **Moderate (2)** telecommunications, concreted farm to market roads, Flood control facility, drainage canals | **High (1)** Gadgets, television, radio, Online Broadcasting, print media | **High (1)** Contingency Plan, CLUP/Zoning Ordinance, Municipal Disaster Plan, Peace & Order Plan, Barangay Disaster Plan | **Moderate (2)** CSO, LGU & PNP Enforcement through Trained staff, knowledgeable populace/ residents regarding hazards, | 1 | 1.5 | Low | 1.5 |

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| Table 8.5. **URBAN USE CCVA, MUNICIPALITY OF MANGALDAN .** |
| **CLIMATE STIMULI: EXTREME RAINFALL** |

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| **Barangay** | **Exposure Indicators** | **Sensitivity** | **ADAPTIVE CAPACITY** | | | | | | **DEGREE OF IMPACT SCORE** | **ADAPTIVE CAPACITY SCORE** | **VULNERABILITY** | |
| **A** | **B** | **C** | **D** | | | | | | **E** | **F** | **Vulnerability Index** | **Vulnerability Score** |
| **Wealth** | **Information** | **Infrastructure** | **Technology** | **Institution & Governance** | **Social Capital** |
| **Navaluan** | Sector: Economic Area: Industry Indicator: 11 Business establishments | 5 out of 11 or 45% business establishments are located in low lying area | **Moderate (2)** Donations, NGA, LGU, Subsidy from NGOs, | **High (1)** Brochures, Information Education Campaign, Trainings/ Seminars, Hazard Maps, Bantay Barangay, Barangay Assemblies | **High (1)** telecommunications & roads in good condition and public market operating continuously | **High (1)** Gadgets, television, radio, online broadcasting, print media | **High (1)** Contingency Plan, CLUP/Zoning Ordinance, Municipal Disaster Plan, Barangay Disaster Plan | **Moderate (2)** LGU, Vendors’ Associations, DTI, CSO, TODA, PODA | 1 | 1.33 | Low | 1.33 |
| **Nibaliw** | Sector: Social Area: Population (Residential Settlement) Indicator: 53 residential units belong to informal settler and makeshift housing | 48 residential units are constructed in low lying area and made of light materials and salvaged/ makeshift materials. | **Moderate (2)** Donations, NGA, Subsidy from NGOs, IRA, BDRRM Fund, MDRRM Fund, AICS Fund, PhilHealth | **High (1)** Brochures, Information Education Campaign, Trainings/ Seminars, Hazard Maps, Bantay Barangay, Barangay Assemblies | **Moderate (2)** telecommunications, concreted farm to market roads, Flood control facility, drainage canals | **High (1)** Gadgets, television, radio, Online Broadcasting, print media | **High (1)** Contingency Plan, CLUP/Zoning Ordinance, Municipal Disaster Plan, Peace & Order Plan, Barangay Disaster Plan | **Moderate (2)** CSO, LGU & PNP Enforcement through Trained staff, knowledgeable populace/ residents regarding hazards, | 1 | 1.5 | Low | 1.5 |
| Sector: Economic Area: Industry Indicator: 11 Business establishments | 2 out of 11 or 18.18% business establishments are located in low lying area and easily flooded. | **Moderate (2)** Donations, NGA, LGU, Subsidy from NGOs, | **High (1)** Brochures, Information Education Campaign, Trainings/ Seminars, Hazard Maps, Bantay Barangay, Barangay Assemblies | **High (1)** telecommunications & roads in good condition and public market operating continuously | **High (1)** Gadgets, television, radio, online broadcasting, print media | **High (1)** Contingency Plan, CLUP/Zoning Ordinance, Municipal Disaster Plan, Barangay Disaster Plan | **Moderate (2)** LGU, Vendors’ Associations, DTI, CSO, TODA, PODA | 1 | 1.33 | Low | 1.33 |
| **Osiem** | Sector: Social Area: Population (Residential Settlement) Indicator: 22 residential units belong to informal settler and makeshift housing | 21 residential units are constructed in low lying area and made of light materials and salvaged/ makeshift materials. | **Moderate (2)** Donations, NGA, Subsidy from NGOs, IRA, BDRRM Fund, MDRRM Fund, AICS Fund, PhilHealth | **High (1)** Brochures, Information Education Campaign, Trainings/ Seminars, Hazard Maps, Bantay Barangay, Barangay Assemblies | **Moderate (2)** telecommunications, concreted farm to market roads, Flood control facility, drainage canals | **High (1)** Gadgets, television, radio, Online Broadcasting, print media | **High (1)** Contingency Plan, CLUP/Zoning Ordinance, Municipal Disaster Plan, Peace & Order Plan, Barangay Disaster Plan | **Moderate (2)** CSO, LGU & PNP Enforcement through Trained staff, knowledgeable populace/ residents regarding hazards, | 1 | 1.5 | Low | 1.5 |
| Sector: Economic Area: Industry Indicator: 13 Business establishments | 7 out of 13 or 53.85% business establishments are located in low lying area and easily flooded. | **Moderate (2)** Donations, NGA, LGU, Subsidy from NGOs, | **High (1)** Brochures, Information Education Campaign, Trainings/ Seminars, Hazard Maps, Bantay Barangay, Barangay Assemblies | **High (1)** telecommunications & roads in good condition and public market operating continuously | **High (1)** Gadgets, television, radio, online broadcasting, print media | **High (1)** Contingency Plan, CLUP/Zoning Ordinance, Municipal Disaster Plan, Barangay Disaster Plan | **Moderate (2)** LGU, Vendors’ Associations, DTI, CSO, TODA, PODA | 1 | 1.33 | Low | 1.33 |
| **Palua** | Sector: Social Area: Population (Residential Settlement) Indicator: 50 residential units belong to informal settler and makeshift housing | 24 residential units are constructed in low lying area and made of light materials and salvaged/ makeshift materials. | **Moderate (2)** Donations, NGA, Subsidy from NGOs, IRA, BDRRM Fund, MDRRM Fund, AICS Fund, PhilHealth | **High (1)** Brochures, Information Education Campaign, Trainings/ Seminars, Hazard Maps, Bantay Barangay, Barangay Assemblies | **Moderate (2)** telecommunications, concreted farm to market roads, Flood control facility, drainage canals | **High (1)** Gadgets, television, radio, Online Broadcasting, print media | **High (1)** Contingency Plan, CLUP/Zoning Ordinance, Municipal Disaster Plan, Peace & Order Plan, Barangay Disaster Plan | **Moderate (2)** CSO, LGU & PNP Enforcement through Trained staff, knowledgeable populace/ residents regarding hazards, | 1 | 1.5 | Low | 1.5 |

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| TABLE 8.5. **URBAN USE CCVA, MUNICIPALITY OF MANGALDAN .** |
| **CLIMATE STIMULI: EXTREME RAINFALL** |

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| **Barangay** | **Exposure Indicators** | **Sensitivity** | **ADAPTIVE CAPACITY** | | | | | | **DEGREE OF IMPACT SCORE** | **ADAPTIVE CAPACITY SCORE** | **VULNERABILITY** | |
| **A** | **B** | **C** | **D** | | | | | | **E** | **F** | **Vulnerability Index** | **Vulnerability Score** |
| **Wealth** | **Information** | **Infrastructure** | **Technology** | **Institution & Governance** | **Social Capital** |
| **Palua** | Sector: Economic Area: Industry Indicator: 10 Business establishments | 6 out of 10 or 60% business establishments are located in low lying area | **Moderate (2)** Donations, NGA, LGU, Subsidy from NGOs, | **High (1)** Brochures, Information Education Campaign, Trainings/ Seminars, Hazard Maps, Bantay Barangay, Barangay Assemblies | **High (1)** telecommunications & roads in good condition and public market operating continuously | **High (1)** Gadgets, television, radio, online broadcasting, print media | **High (1)** Contingency Plan, CLUP/Zoning Ordinance, Municipal Disaster Plan, Barangay Disaster Plan | **Moderate (2)** LGU, Vendors’ Associations, DTI, CSO, TODA, PODA | 1 | 1.33 | Low | 1.33 |
| **Poblacion** | Sector: Social Area: Residential Settlement Indicator: 14 residential units belong to informal settler and makeshift housing | 9 residential units are constructed in low lying area and made of light materials and salvaged/ makeshift materials. | **Moderate (2)** Donations, NGA, Subsidy from NGOs, IRA, BDRRM Fund, MDRRM Fund, AICS Fund, PhilHealth | **High (1)** Brochures, Information Education Campaign, Trainings/ Seminars, Hazard Maps, Bantay Barangay, Barangay Assemblies | **Moderate (2)** telecommunications, concreted farm to market roads, Flood control facility, drainage canals | **High (1)** Gadgets, television, radio, Online Broadcasting, print media | **High (1)** Contingency Plan, CLUP/Zoning Ordinance, Municipal Disaster Plan, Peace & Order Plan, Barangay Disaster Plan | **Moderate (2)** CSO, LGU & PNP Enforcement through Trained staff, knowledgeable populace/ residents regarding hazards, | 1 | 1.5 | Low | 1.5 |
| Sector: Economic Area: Industry Indicator: 355 business establishments | 100 out of 355 or 28% business establishments. 50% are located in low lying area | **Moderate (2)** Donations, NGA, LGU, Subsidy from NGOs, | **High (1)** Brochures, Information Education Campaign, Trainings/ Seminars, Hazard Maps, Bantay Barangay, Barangay Assemblies | **High (1)** telecommunications & roads in good condition and public market operating continuously | **High (1)** Gadgets, television, radio, online broadcasting, print media | **High (1)** Contingency Plan, CLUP/Zoning Ordinance, Municipal Disaster Plan, Barangay Disaster Plan | **Moderate (2)** LGU, Vendors’ Associations, DTI, CSO, TODA, PODA | 1 | 1.33 | Low | 1.33 |
| **Pogo** | Sector: Social Area: Residential Settlement Indicator: 12 residential units belong to informal settler and makeshift housing | 12 residential units are constructed in low lying area and made of light materials and salvaged/ makeshift materials. | **Moderate (2)** Donations, NGA, Subsidy from NGOs, IRA, BDRRM Fund, MDRRM Fund, AICS Fund, PhilHealth | **High (1)** Brochures, Information Education Campaign, Trainings/ Seminars, Hazard Maps, Bantay Barangay, Barangay Assemblies | **Moderate (2)** telecommunications, concreted farm to market roads, Flood control facility, drainage canals | **High (1)** Gadgets, television, radio, Online Broadcasting, print media | **High (1)** Contingency Plan, CLUP/Zoning Ordinance, Municipal Disaster Plan, Peace & Order Plan, Barangay Disaster Plan | **Moderate (2)** CSO, LGU & PNP Enforcement through Trained staff, knowledgeable populace/ residents regarding hazards, | 1 | 1.5 | Low | 1.5 |
| Sector: Economic Area: Industry Indicator: 10 business establishments | 5 out of 10 or 50% business establishments. 50% are located in low lying area | **Moderate (2)** Donations, NGA, LGU, Subsidy from NGOs, | **High (1)** Brochures, Information Education Campaign, Trainings/ Seminars, Hazard Maps, Bantay Barangay, Barangay Assemblies | **High (1)** telecommunications & roads in good condition and public market operating continuously | **High (1)** Gadgets, television, radio, online broadcasting, print media | **High (1)** Contingency Plan, CLUP/Zoning Ordinance, Municipal Disaster Plan, Barangay Disaster Plan | **Moderate (2)** LGU, Vendors’ Associations, DTI, CSO, TODA, PODA | 1 | 1.33 | Low | 1.33 |
| **Salaan** | Sector: Social Area: Residential Settlement Indicator: 22 residential units belong to informal settler and makeshift housing | 15 residential units are constructed in low lying area and made of light materials and salvaged/ makeshift materials. | **Moderate (2)** Donations, NGA, Subsidy from NGOs, IRA, BDRRM Fund, MDRRM Fund, AICS Fund, PhilHealth | **High (1)** Brochures, Information Education Campaign, Trainings/ Seminars, Hazard Maps, Bantay Barangay, Barangay Assemblies | **Moderate (2)** telecommunications, concreted farm to market roads, Flood control facility, drainage canals | **High (1)** Gadgets, television, radio, Online Broadcasting, print media | **High (1)** Contingency Plan, CLUP/Zoning Ordinance, Municipal Disaster Plan, Peace & Order Plan, Barangay Disaster Plan | **Moderate (2)** CSO, LGU & PNP Enforcement through Trained staff, knowledgeable populace/ residents regarding hazards, | 1 | 1.5 | Low | 1.5 |

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| Table 8.5. **URBAN USE CCVA, MUNICIPALITY OF MANGALDAN .** |
| **CLIMATE STIMULI: EXTREME RAINFALL** |

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| --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- |
| **Barangay** | **Exposure Indicators** | **Sensitivity** | **ADAPTIVE CAPACITY** | | | | | | **DEGREE OF IMPACT SCORE** | **ADAPTIVE CAPACITY SCORE** | **VULNERABILITY** | |
| **A** | **B** | **C** | **D** | | | | | | **E** | **F** | **Vulnerability Index** | **Vulnerability Score** |
| **Wealth** | **Information** | **Infrastructure** | **Technology** | **Institution & Governance** | **Social Capital** |
| **Salaan** | Sector: Economic Area: Industry Indicator: 8 business establish-ments | 5 out of 8 or 62.5% business establish-ments are located in low lying area and easily flooded. | **Moderate (2)** Donations, NGA, LGU, Subsidy from NGOs, | **High (1)** Brochures, Information Education Campaign, Trainings/ Seminars, Hazard Maps, Bantay Barangay, Barangay Assemblies | **High (1)** telecommunications & roads in good condition and public market operating continuously | **High (1)** Gadgets, television, radio, online broadcasting, print media | **High (1)** Contingency Plan, CLUP/Zoning Ordinance, Municipal Disaster Plan, Barangay Disaster Plan | **Moderate (2)** LGU, Vendors’ Associations, DTI, CSO, TODA, PODA | 1 | 1.33 | Low | 1.33 |
| **Talogtog** | Sector: Social Area: Residential Settlement Indicator: 14 residential units belong to informal settler and makeshift housing | 3 residential units are constructed in low lying area and made of light materials and salvaged/ makeshift materials. | **Moderate (2)** Donations, NGA, Subsidy from NGOs, IRA, BDRRM Fund, MDRRM Fund, AICS Fund, PhilHealth | **High (1)** Brochures, Information Education Campaign, Trainings/ Seminars, Hazard Maps, Bantay Barangay, Barangay Assemblies | **Moderate (2)** telecommunications, concreted farm to market roads, Flood control facility, drainage canals | **High (1)** Gadgets, television, radio, Online Broadcasting, print media | **High (1)** Contingency Plan, CLUP/Zoning Ordinance, Municipal Disaster Plan, Peace & Order Plan, Barangay Disaster Plan | **Moderate (2)** CSO, LGU & PNP Enforcement through Trained staff, knowledgeable populace/ residents regarding hazards, | 1 | 1.5 | Low | 1.5 |
| Sector: Economic Area: Industry Indicator: 15 business establish-ments | 8 out of 15 or 53.33% business establish-ments are located in low lying area | **Moderate (2)** Donations, NGA, LGU, Subsidy from NGOs, | **High (1)** Brochures, Information Education Campaign, Trainings/ Seminars, Hazard Maps, Bantay Barangay, Barangay Assemblies | **High (1)** telecommunications & roads in good condition and public market operating continuously | **High (1)** Gadgets, television, radio, online broadcasting, print media | **High (1)** Contingency Plan, CLUP/Zoning Ordinance, Municipal Disaster Plan, Barangay Disaster Plan | **Moderate (2)** LGU, Vendors’ Associations, DTI, CSO, TODA, PODA | 1 | 1.33 | Low | 1.33 |
| **Tebag** | Sector: Social Area: Residential Settlement Indicator: 54 residential units belong to informal settler and makeshift housing | 50 residential units are constructed in low lying area and made of light materials and salvaged/ makeshift materials. | **Moderate (2)** Donations, NGA, Subsidy from NGOs, IRA, BDRRM Fund, MDRRM Fund, AICS Fund, PhilHealth | **High (1)** Brochures, Information Education Campaign, Trainings/ Seminars, Hazard Maps, Bantay Barangay, Barangay Assemblies | **Moderate (2)** telecommunications, concreted farm to market roads, Flood control facility, drainage canals | **High (1)** Gadgets, television, radio, Online Broadcasting, print media | **High (1)** Contingency Plan, CLUP/Zoning Ordinance, Municipal Disaster Plan, Peace & Order Plan, Barangay Disaster Plan | **Moderate (2)** CSO, LGU & PNP Enforcement through Trained staff, knowledgeable populace/ residents regarding hazards, | 1 | 1.5 | Low | 1.5 |
| Sector: Economic Area: Industry Indicator: 24 business establish-ments | 10 out of 24 or 41.67% business establish-ments are located in low lying area and easily flooded. | **Moderate (2)** Donations, NGA, LGU, Subsidy from NGOs, | **High (1)** Brochures, Information Education Campaign, Trainings/ Seminars, Hazard Maps, Bantay Barangay, Barangay Assemblies | **High (1)** telecommunications & roads in good condition and public market operating continuously | **High (1)** Gadgets, television, radio, online broadcasting, print media | **High (1)** Contingency Plan, CLUP/Zoning Ordinance, Municipal Disaster Plan, Barangay Disaster Plan | **Moderate (2)** LGU, Vendors’ Associations, DTI, CSO, TODA, PODA | 1 | 1.33 | Low | 1.33 |

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| Instructions: |
| 1. In columns B**-C**, using the gathered data and maps, indicate information and compute values for each urban use facility exposure and sensitivity |
| 2. In column**D**, provide existing adaptive or preventive measures of the municipality/city. |
| 3. In column **E**, based on the estimated exposure, the degree of sensitivities of the exposed units, and identified potential impacts, qualitatively determine the degree of impact score using the suggested rating scale.  High (3) - Estimated direct impacts in terms of number of fatalities, injuries and value of property damage will be disastrous given the extent of exposure and current sensitivity of the system.   Moderate (2) - Moderate direct impacts in terms of terms of number of fatalities, injuries and value of property damage are expected given the extent of exposure and current sensitivities of the system.  Low (1) - Estimated direct and indirect impacts are low to negligible which can be felt within a short term period. |
| 4. In column **F**, evaluate the various adaptive capacities of the system being studied by referring to the adaptive capacity indicators in the exposure database. These indicators of adaptive capacities can describe whether the system is able to accommodate or cope with the impacts with very minimal disruption or short to long term detrimental effects/impacts.  High (1) - The system is able to accommodate changes in climate. There are adaptation measures in place to address impacts.   Moderate (2) - Addressing the impacts will require significant cost but it is still within the capacity of the system to adapt to potential impacts.   Low (3) - The system is not able to accommodate changes in the climate. Addressing the impacts will be costly. The LGU and property owners will require external assistance to address the impacts. |
| 5. In column **G**, compute for the vulnerability index by multiplying the Impact and Adaptive Capacity Scores. Accordingly, based on the computed vulnerability index, categorize the index scores into categories:  High (3): > 6 - 9  Moderate (2): > 3 - 6  Low (1): < 3 |

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| TABLE 4.6 **CLIMATE CHANGE VULNERABILITY ASSESSMENT SUMMARY MATRIX** | | | | | | |
| **SYSTEM OF INTEREST: POPULATION CCVA** | | | |  | |  |
| **CLIMATE STIMULI: EXTREME RAINFALL** | | | |  | |  |
|  | |  | |  | |  |
| **Decision Area/s** | **Technical Findings** | | **Implications** | | **Policy Interventions** | | |
| **A** | **B** | | **C** | | **D** | | |
| Sector: Social Area: Population (Residential Settlement), Education Indicator: Barangay Anolid | >In Barangay Anolid, 1,669 households are exposed to the identified climate stimuli, of which 15.27% of households living in low lying areas and below poverty threshold. 20 PWDs are sensitive because of physical disabilities, of which 16 are males and 4 are females. 224 or 40% of the senior citizens are sensitive because of health & physical infirmities, of which 90 are males and 114 are females. >Of the 1,656 enrolled, of which 4.52% pupils/ students are sensitive since they belong to families beyond poverty threshold, out of the total 50 are males & 25 are females. > The LGU's capability and adaptability measures are at an acceptable level. | | >> Onset of water borne diseases >> Increased number of morbidity/ mortality rate >> Increased number of drop-out rate >> Reduced number of school attendance >> Possible incidence of crime (looting) | | >> Implementation of plans and ordinances (CLUP, CDP, MDRRMP, Zoning Ordinance) >> Conduct of medical and financial assistance  >> Ensure peace and order | | |
| Sector: Economic Area: Agriculture (Farmers & Fishermen), Commerce & Industry Indicator: Barangay Anolid | > In Barangay Anolid, 140 farmers are exposed to the identified climate stimuli, of which 57.85% of farmers are sensitive since they belong to families beyond poverty threshold and live in low lying area. Out of the total, 75 are males and 25 are females. > Of the 10 fishermen, 8 are sensitive since they are living in low lying area, of which 7 are males and 1 is female. >Of the total 95 owners/ entrepreneurs, 40 of the entrepreneurs are sensitive since they are living in low lying area and 10 belong to families beyond poverty threshold. | | >> Decreased of production >> Loss of Income >> Loss of livelihood >> Food shortage >> Increased malnutrition  >> Price hike of various commodities | | >> Conduct Livelihood Programs >> Provision of disaster resilient flood control projects >> Seed subsidy (high yield and flood resilient variety) >> Adjust planting season of various crops >> Implementation of plans and ordinances (CLUP, CDP, MDRRMP, Zoning Ordinance) >> Prioritization of Climate Change adaptive projects (slope protection, flood control system, construction of drainage system/ dike) >> provision of different livelihood trainings as alternative sources of income >> Construction of communal irrigation system  >> Fingerlings dispersal >> Planting of mangroves | | |
| Sector: Social Area: Population (Residential Settlement), Education Indicator: Barangay Banaoang | >In Barangay Banaoang, 1,129 households are exposed to the identified climate stimuli, of which 24.45% hhs living in low lying areas and below poverty threshold. 20 PWD are sensitive because of physical disabilities, out of the total 15 are males and 5 are females. 108 or 30% of the senior citizens because of health & physical infirmities. Out of the total 28 are males and 80 are females > Of the 1,089 enrolled, 4.13% pupils/ students are sensitive since they belong to families beyond poverty threshold, of which 25 are males & 20 are females > The LGU's capability and adaptability measures is at an acceptable level. | | >> Onset of water borne diseases >> Increased number of morbidity/ mortality rate >> Increased number of drop-out rate >> Reduced number of school attendance >> Possible incidence of crime (looting) | | >> Implementation of plans and ordinances (CLUP, CDP, MDRRMP, Zoning Ordinance) >> Conduct of medical and financial assistance  >> Ensure peace and order | | |
| Sector: Economic Area: Agriculture (Farmers), Commerce & Industry Indicator: Barangay Banaoang | > In Barangay Banaoang, 68 farmers are exposed to the identifiedclimate stimuli, of which 13 farmers are sensitive since theybelong to families beyond poverty threshold and live in low lying area. Out of the total 7 are males and 5 are females. > Of the 29 total owners/ entrepreneurs, 8 of the entrepreneurs are sensitive since they are living in low lying area and 2 belong to families beyond poverty threshold. | | >> Decreased of production>> Loss of Income  >> Loss of livelihood >> Food shortage >> Increased malnutrition >> Price hike of various commodities | | >> Conduct Livelihood Programs  >> Provision of disaster resilient flood control projects  >> Seed subsidy (high yield and flood resilient variety)  >> Adjust planting season of various crops  >> Implementation of plans and ordinances (CLUP, CDP, MDRRMP, Zoning Ordinance) >> Prioritization of Climate Change adaptive projects (slope protection, flood control system, construction of drainage system/ dike) >> provision of different livelihood trainings as alternative source of income >> Construction of communal irrigation system | | |
| Sector: Social Area: Population (Residential Settlement), Education Indicator: Barangay Bantayan | > In Barangay Bantayan, 868 household, are exposed to the identified climate stimuli, of which 16.13% hhs living in low lying areas and below poverty threshold. 10 PWD are sensitive because of physical disabilities, out of the total 5 are males and 5 are females. 67 or 20% of the senior citizens because of because of health & physical infirmities. > Of the 721 enrolled, 33 pupils/ students are sensitive since they belong to families beyond poverty threshold, of which 17 are males & 16 are females > The LGU's capability and adaptability measures is at an acceptable level. | | >> Onset of water borne diseases >> Increased number of morbidity/ mortality rate >> Increased number of drop-out rate >> Reduced number of school attendance >> Possible incidence of crime (looting) | | >> Implementation of plans and ordinances (CLUP, CDP, MDRRMP, Zoning Ordinance) >> Conduct of medical and financial assistance  >> Ensure peace and order | | |

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| Table 4.6 **CLIMATE CHANGE VULNERABILITY ASSESSMENT SUMMARY MATRIX** | | | | |
| **SYSTEM OF INTEREST: POPULATION CCVA** | | | | |
| **CLIMATE STIMULI: EXTREME RAINFALL** | | | | |
|  | |
|  | |
| **Decision Area/s** | **Technical Findings** | | **Implications** | **Policy Interventions** |
| **A** | **B** | | **C** | **D** |
| Sector: Economic Area: Agriculture (Farmers), Commerce & Industry Indicator: Barangay Bantayan | In Barangay Bantayan, 77 farmers are exposed to the identified climate stimuli, of which 15 farmers are sensitive since they belong to families beyond poverty threshold and live in low lying area. Out of the total 10 are males and 5 are females. > Of the 12 total owners/ entrepreneurs, 4 of the entrepreneurs are sensitive since they are living in low lying area and 3 belong to families beyond poverty threshold | | >> Decreased of production >> Loss of Income >> Loss of livelihood >> Food shortage >> Increased malnutrition  >> Price hike of various commodities | >> Conduct Livelihood Programs >> Provision of disaster resilient flood control projects >> Seed subsidy (high yield and flood resilient variety) >> Adjust planting season of various crops >> Implementation of plans and ordinances (CLUP, CDP, MDRRMP, Zoning Ordinance) >> Prioritization of Climate Change adaptive projects (slope protection, flood control system, construction of drainage system/ dike) >> provision of different livelihood trainings as alternative sources of income >> Construction of communal irrigation system |
| Sector: Social Area: Population (Residential Settlement), Education Indicator: Barangay Bateng | In Barangay Bateng, 569 households are exposed to the identified climate stimuli, of which 37.78% hhs living in low lying areas and below poverty threshold. 11 PWDs are sensitive because of physical disabilities, of which 5 are males and 6 are females. 93 or 40% of the senior citizens are sensitive because of health & physical infirmities. Out of the total 50 are males and 43 are females. > Of the 602 enrolled, 3.65% pupils/ students are sensitive since they belong to families beyond poverty threshold, of which, 11 are males & 11 are females. > The LGU's capability and adaptability measure is at an acceptable level. | | >> Onset of water borne diseases >> Increased number of morbidity/ mortality rate >> Increased number of drop-out rate >> Reduced number of school attendance >> Possible incidence of crime (looting) | >> Implementation of plans and ordinances (CLUP, CDP, MDRRMP, Zoning Ordinance) >> Conduct of medical and financial assistance  >> Ensure peace and order |
| Sector: Economic Area: Agriculture (Farmers & Fishermen), Commerce & Industry Indicator: Barangay Bateng | In Barangay Bateng, 31 farmers are exposed to the identified climate stimuli, of which 10 farmers are sensitive since they belong to families beyond poverty threshold and live in low lying area. Of which 6 are males and 4 are females. >Of the 90 fishermen, 60 are sensitive since they are living in low lying area, of which 40 are males and 20 are female. > Of the 16 total owners/ entrepreneurs 4 of the entrepreneurs are sensitive since they are living in low lying area and 6 belong to families beyond poverty threshold | | >> Decreased of production >> Loss of Income >> Loss of livelihood >> Food shortage >> Increased malnutrition  >> Price hike of various commodities | >> Conduct Livelihood Programs >> Provision of disaster resilient flood control projects >> Seed subsidy (high yield and flood resilient variety) >> Adjust planting season of various crops >> Implementation of plans and ordinances (CLUP, CDP, MDRRMP, Zoning Ordinance) >> Prioritization of Climate Change adaptive projects (slope protection, flood control system, construction of drainage system/ dike) >> provision of different livelihood trainings as alternative sources of income >> Construction of communal irrigation system  >> Fingerlings dispersal >> Planting of mangroves |
| Sector: Social Area: Population (Residential Settlement), Education Indicator: Barangay David | In Barangay David, 989 households are exposed to the identified climate stimuli, of which 284.72% hhs living in low lying areas and below poverty threshold. 40 PWD are sensitive because of physical disabilities, out of the total 15 are males and 25 are females. 116 or 30% of the senior citizens because of health & physical infirmities. Out of the total 29 are males and 87 are females > Of the 1,003 enrolled, 4.09 students & pupils are sensitive since they belong to families beyond poverty threshold, of which 27 are males & 14 are females. > The LGU's capability and adaptability measure is at an acceptable level. | | >> Onset of water borne diseases >> Increased number of morbidity/ mortality rate >> Increased number of drop-out rate >> Reduced number of school attendance >> Possible incidence of crime (looting) | >> Implementation of plans and ordinances (CLUP, CDP, MDRRMP, Zoning Ordinance) >> Conduct of medical and financial assistance  >> Ensure peace and order |
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| Table 4.6 **CLIMATE CHANGE VULNERABILITY ASSESSMENT SUMMARY MATRIX** | | | | |
| **SYSTEM OF INTEREST: POPULATION CCVA** | | | | |
| **CLIMATE STIMULI: EXTREME RAINFALL** | | | | |
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| **Decision Area/s** | **Technical Findings** | | **Implications** | **Policy Interventions** | |
| **A** | **B** | | **C** | **D** | |
| Sector: Economic Area: Agriculture (Farmers), Commerce & Industry Indicator: Barangay David | In Barangay David, 109 farmers are exposed to the identified climate stimuli, of which 71 farmers are sensitive since they belong to families beyond poverty threshold and live in low lying area. Out of the total 75 are male and 25 are female. > Of the 17 total owners/ entrepreneurs 7 of the entrepreneurs are sensitive since they are living in low lying area and 3 belong to families beyond poverty threshold | | >> Decreased of production>> Loss of Income>> Loss of livelihood >> Food shortage >> Increased malnutrition >> Price hike of various commodities | >> Conduct Livelihood Programs  >> Provision of disaster resilient flood control projects  >> Seed subsidy (high yield and flood resilient variety)  >> Adjust planting season of various crops >> Implementation of plans and ordinances (CLUP, CDP, MDRRMP, Zoning Ordinance) >> Prioritization of Climate Change adaptive projects (slope protection, flood control system, construction of drainage system/ dike) >> provision of different livelihood trainings as alternative sources of income >> Const’n. of communal irrigation system | |
| Sector: Social Area: Population (Residential Settlement), Education Indicator: Barangay Embarcadero | In Barangay Embarcadero, 591 households are exposed to the identified climate stimuli, of which 23.35% hhs living in low lying areas and below poverty threshold. 20 PWDs are sensitive because of physical disabilities, of which 12 are males and 8 are females. 86 or 45% of the senior citizens are sensitive because of health & physical infirmities, 40 are males and 46 are females > Of the total 615 enrolled, 36 students & pupils are sensitive since they belong to families beyond poverty threshold, of which 24 are males & 12 are females. > The LGU's capability and adaptability measure is at an acceptable level. | | >> Onset of water borne diseases >> Increased number of morbidity/ mortality rate >> Increased number of drop-out rate >> Reduced number of school attendance >> Possible incidence of crime (looting) | >> Implementation of plans and ordinances (CLUP, CDP, MDRRMP, Zoning Ordinance) >> Conduct of medical and financial assistance  >> Ensure peace and order | |
| Sector: Economic Area: Agriculture (Farmers), Commerce & Industry Indicator: Barangay Embarcadero | In Barangay Embarcadero, 19 farmers are exposed to the identified climate stimuli, of which 19 farmers are sensitive since they belong to families beyond poverty threshold and live in low lying area. Out of the total 17 are male and 2 are female. > Of the 20 total owners/ entrepreneurs, 10 of the entrepreneurs are sensitive since they are living in low lying area and 5 belong to families beyond poverty threshold | | >> Decreased of production >> Loss of Income >> Loss of livelihood >> Food shortage >> Increased malnutrition  >> Price hike of various commodities | >> Conduct Livelihood Programs >> Provision of disaster resilient flood control projects >> Seed subsidy (high yield and flood resilient variety) >> Adjust planting season of various crops >> Implementation of plans and ordinances (CLUP, CDP, MDRRMP, Zoning Ordinance) >> Prioritization of Climate Change adaptive projects (slope protection, flood control system, construction of drainage system/ dike) >> provision of different livelihood trainings as alternative sources of income >> Construction of communal irrigation system | |
| Sector: Social Area: Population (Residential Settlement), Education Indicator: Barangay Guesang | In Barangay Guesang, 822 households are exposed to the identified climate stimuli, of which169 hhs living in low lying areas and below poverty threshold. 20 PWDs are sensitive because of physical disabilities, of which 12 are males and 8 are females. 126 or 40% of the senior citizens are sensitive because of health & physical infirmities. Out of the total 50 are males and 76 are females. > Out of the total 896 enrolled, 25 students & pupils are sensitive since they belong to families beyond poverty threshold, of which 17 are males & 8 are females. > The LGU's capability and adaptability measure is at an acceptable level. | | >> Onset of water borne diseases >> Increased number of morbidity/ mortality rate >> Increased number of drop-out rate >> Reduced number of school attendance >> Possible incidence of crime (looting) | >> Implementation of plans and ordinances (CLUP, CDP, MDRRMP, Zoning Ordinance) >> Conduct of medical and financial assistance  >> Ensure peace and order | |

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| Table 4.6 **CLIMATE CHANGE VULNERABILITY ASSESSMENT SUMMARY MATRIX** | | | | |
| **SYSTEM OF INTEREST: POPULATION CCVA** | | | | |
| **CLIMATE STIMULI: EXTREME RAINFALL** | | | | |
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| **Decision Area/s** | **Technical Findings** | | **Implications** | **Policy Interventions** |
| **A** | **B** | | **C** | **D** |
| Sector: Economic Area: Agriculture (Farmers), Commerce & Industry Indicator: Barangay Guesang | In Barangay Guesang, 83 farmers are exposed to the identified climate stimuli, of which 77 farmers are sensitive since they belong to families beyond poverty threshold and live in low lying area. Out of the total 70 are male and 7 are female. > Of the 10 total owners/ entrepreneurs 3 of the entrepreneurs are sensitive since they are living in low lying area and 5 belong to families beyond poverty threshold | | >> Decreased of production >> Loss of Income >> Loss of livelihood >> Food shortage >> Increased malnutrition  >> Price hike of various commodities | >> Conduct Livelihood Programs >> Provision of disaster resilient flood control projects >> Seed subsidy (high yield and flood resilient variety) >> Adjust planting season of various crops >> Implementation of plans and ordinances (CLUP, CDP, MDRRMP, Zoning Ordinance) >> Prioritization of Climate Change adaptive projects (slope protection, flood control system, construction of drainage system/ dike) >> provision of different livelihood trainings as alternative sources of income for farmers >> Construction of communal irrigation system |
| Sector: Social Area: Population (Residential Settlement), Education Indicator: Barangay Guiguilonen | In Barangay Guiguilonen, 676 households are exposed to the identified climate stimuli, of which 181 hhs living in low lying areas and below poverty threshold. 40 PWDs are sensitive because of physical disabilities, of which 12 are males and 28 are females. 62 or 20% of the senior citizens are sensitive because of health & physical infirmities. Out of the total 20 are males and 42 are females. > Out of the total 642 enrolled, 30 students & pupils are sensitive since they belong to families beyond poverty threshold, of which 18 are males & 12 are females. > The LGU's capability and adaptability measure is at an acceptable level. | | >> Onset of water borne diseases >> Increased number of morbidity/ mortality rate >> Increased number of drop-out rate >> Reduced number of school attendance >> Possible incidence of crime (looting) | >> Implementation of plans and ordinances (CLUP, CDP, MDRRMP, Zoning Ordinance) >> Conduct of medical and financial assistance  >> Ensure peace and order |
| Sector: Economic Area: Agriculture (Farmers), Commerce & Industry Indicator: Barangay Guiguilonen | In Barangay Guiguilonen, 83 farmers are exposed to the identified climate stimuli, of which 77 farmers are sensitive since they belong to families beyond poverty threshold and live in low lying area. Out of the total 70 are male and 7 are female. > Of the 24 total owners/ entrepreneurs 12 of the entrepreneurs are sensitive since they are living in low lying area and 3 belong to families beyond poverty threshold | | >> Decreased of production  >> Loss of Income>> Loss of livelihood >> Food shortage >> Increased malnutrition >> Price hike of various commodities | >> Conduct Livelihood Programs  >> Provision of disaster resilient flood control projects  >> Seed subsidy (high yield and flood resilient variety)  >> Adjust planting season of various crops >> Implementation of plans and ordinances (CLUP, CDP, MDRRMP, Zoning Ordinance) >> Prioritization of Climate Change adaptive projects (slope protection, flood control system, construction of drainage system/ dike) >> provision of different livelihood trainings as alternative sources of income >> Construction of communal irrigation system |
| Sector: Social Area: Population (Residential Settlement), Education Indicator: Barangay Inlambo | In Barangay Inlambo, 341 households are exposed to the identified climate stimuli, of which 120 hhs living in low lying areas and below poverty threshold. 15 PWDs are sensitive because of physical disabilities, of which 10 are males and 5 are females. 55 or 40% of the senior citizens are sensitive because of health & physical infirmities. Out of the total 15 are males and 40 are females. > Out of the total 419 enrolled 23 students & pupils are sensitive since they belong to families beyond poverty threshold. Out of the total 18 are males & 5 are females. > The LGU's capability and adaptability measure is at an acceptable level. | | >> Onset of water borne diseases >> Increased number of morbidity/ mortality rate >> Increased number of drop-out rate >> Reduced number of school attendance >> Possible incidence of crime (looting) | >> Implementation of plans and ordinances (CLUP, CDP, MDRRMP, Zoning Ordinance) >> Conduct of medical and financial assistance  >> Ensure peace and order |

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| Table 4.6 **CLIMATE CHANGE VULNERABILITY ASSESSMENT SUMMARY MATRIX** | | | | |
| **SYSTEM OF INTEREST: POPULATION CCVA** | | | | |
| **CLIMATE STIMULI: EXTREME RAINFALL** | | | | |
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| **Decision Area/s** | **Technical Findings** | | **Implications** | **Policy Interventions** | |
| **A** | **B** | | **C** | **D** | |
| Sector: Economic Area: Agriculture (Farmers), Commerce & Industry Indicator: Barangay Inlambo | In Barangay Inlambo, 196 farmers are exposed to the identified climate stimuli, of which 11 farmers are sensitive since they belong to families beyond poverty threshold and live in low lying area, of which 7 are males and 4 are females. > Of the 8 total owners/ entrepreneurs 2 of the entrepreneurs are sensitive since they are living in low lying area and 6 belong to families beyond poverty threshold | | >> Decreased of production >> Loss of Income >> Loss of livelihood >> Food shortage >> Increased malnutrition  >> Price hike of various commodities | >> Conduct Livelihood Programs >> Provision of disaster resilient flood control projects >> Seed subsidy (high yield and flood resilient variety) >> Adjust planting season of various crops >> Implementation of plans and ordinances (CLUP, CDP, MDRRMP, Zoning Ordinance) >> Prioritization of Climate Change adaptive projects (slope protection, flood control system, construction of drainage system/ dike) >> provision of different livelihood trainings as alternative sources of income >> Construction of communal irrigation system | |
| Sector: Social Area: Population (Residential Settlement), Education Indicator: Barangay Lanas | In Barangay Lanas, 732 households are exposed to the identified climate stimuli, of which 200 hhs living in low lying areas and below poverty threshold. 15 PWDs are sensitive because of physical disabilities, of which 7 are males and 8 are females. 95 or 35% of the senior citizens are sensitive because of health & physical infirmities. Out of the total 40 are males and 55 are females. > Out of the total 677 enrolled, 26 students & pupils are sensitive since they belong to families beyond poverty threshold, of which 15 are male & 11 are female > The LGU's capability and adaptability measures is at an acceptable level. | | >> Onset of water borne diseases >> Increased number of morbidity/ mortality rate >> Increased number of drop-out rate >> Reduced number of school attendance >> Possible incidence of crime (looting) | >> Implementation of plans and ordinances (CLUP, CDP, MDRRMP, Zoning Ordinance) >> Conduct of medical and financial assistance  >> Ensure peace and order | |
| Sector: Economic Area: Agriculture (Farmers), Commerce & Industry Indicator: Barangay Lanas | In Barangay Lanas, 143 farmers are exposed to the identified climate stimuli, of which 49 farmers are sensitive since they belong to families beyond poverty threshold and live in low lying area. Out of the total 40 are males and 9 are females. > Of the 30 fishermen, 20 fishermen are sensitive since they are living in low lying area, of which 15 are males and 5 are females. > Of the 10 total owners/ entrepreneurs 4 of the entrepreneurs are sensitive since they are living in low lying area and 4 belong to families beyond poverty threshold | | >> Decreased of production >> Loss of Income >> Loss of livelihood >> Food shortage >> Increased malnutrition  >> Price hike of various commodities | >> Conduct Livelihood Programs >> Provision of disaster resilient flood control projects >> Seed subsidy (high yield and flood resilient variety) >> Adjust planting season of various crops >> Implementation of plans and ordinances (CLUP, CDP, MDRRMP, Zoning Ordinance) >> Prioritization of Climate Change adaptive projects (slope protection, flood control system, construction of drainage system/ dike) >> provision of different livelihood trainings as alternative sources of income >> Const’n.of communal irrigation system  >> Fingerlings dispersal & Planting of mangroves | |
| Sector: Social Area: Population (Residential Settlement), Education Indicator: Barangay Landas | In Barangay Landas, 541 households are exposed to the identified climate stimuli, of which 77 hhs living in low lying areas and below poverty threshold. 12 PWDs are sensitive because of physical disabilities, of which 8 are males and 4 are females. 79 or 40% of the senior citizens are sensitive because of health & physical infirmities. Out of the total 30 are males and 49 are females. > Out of the total 479 enrolled 9 students & pupils are sensitive since they belong to families beyond poverty threshold, of which 8 are males & 1 is female. > The LGU's capability and adaptability measure is at an acceptable level. | | >> Onset of water borne diseases >> Increased number of morbidity/ mortality rate >> Increased number of drop-out rate >> Reduced number of school attendance >> Possible incidence of crime (looting) | >> Implementation of plans and ordinances (CLUP, CDP, MDRRMP, Zoning Ordinance) >> Conduct of medical and financial assistance  >> Ensure peace and order | |

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| Table 4.6 **CLIMATE CHANGE VULNERABILITY ASSESSMENT SUMMARY MATRIX** | | | | |
| **SYSTEM OF INTEREST: POPULATION CCVA** | | | | |
| **CLIMATE STIMULI: EXTREME RAINFALL** | | | | |
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| **Decision Area/s** | **Technical Findings** | | **Implications** | **Policy Interventions** |
| **A** | **B** | | **C** | **D** |
| Sector: Economic Area: Agriculture (Farmers), Commerce & Industry Indicator: Barangay Landas | In Barangay Landas, 39 farmers are exposed to the identified climate stimuli, of which 17 farmers are sensitive since they belong to families beyond poverty threshold and live in low lying area. Out of the total 10 are male and 7 are female. > Of the 11 total owners/ entrepreneurs, 6 of the entrepreneurs are sensitive since they are living in low lying area and 2 belong to families beyond poverty threshold | | >> Decreased of production>> Loss of Income>> Loss of livelihood >> Food shortage >> Increased malnutrition >> Price hike of various commodities | >> Conduct Livelihood Programs  >> Provision of disaster resilient flood control projects  >> Seed subsidy (high yield and flood resilient variety)  >> Adjust planting season of various crops >> Implementation of plans and ordinances (CLUP, CDP, MDRRMP, Zoning Ordinance) >> Prioritization of Climate Change adaptive projects (slope protection, flood control system, construction of drainage system/ dike) >> provision of different livelihood trainings as alternative sources of income >> Construction of communal irrigation system |
| Sector: Social Area: Population (Residential Settlement), Education Indicator: Barangay Maasin | In Barangay Maasin, 741 households are exposed to the identified climate stimuli, of which 211 hhs living in low lying areas and below poverty threshold. 10 PWDs are sensitive because of physical disabilities, of which 8 are males and 2 are females. 57 or 20% of the senior citizens are sensitive because of health & physical infirmities. Out of the total 30 are males and 49 are females. > Out of the total 639 enrolled, 34 students & pupils are sensitive since they belong to families beyond poverty threshold, of which 25 are males & 9 are females. > The LGU's capability and adaptability measure is at an acceptable level. | | >> Onset of water borne diseases >> Increased number of morbidity/ mortality rate >> Increased number of drop-out rate >> Reduced number of school attendance >> Possible incidence of crime (looting) | >> Implementation of plans and ordinances (CLUP, CDP, MDRRMP, Zoning Ordinance) >> Conduct of medical and financial assistance  >> Ensure peace and order |
| Sector: Economic Area: Agriculture (Farmers & Fishermen), Commerce & Industry Indicator: Barangay Maasin | In Barangay Maasin, 115 farmers are exposed to the identified climate stimuli, of which 12 farmers are sensitive since they belong to families beyond poverty threshold and live in low lying area. Out of the total 10 are males and 2 are females. > Of the 105 total fishermen 60 fishermen are sensitive since they are living in low lying area, of which 50 are males and 10 are females. > Of the 21 total owners/ entrepreneurs 10 of the entrepreneurs are sensitive since they are living in low lying area and 5 belong to families beyond poverty threshold | | >> Decreased of production >> Loss of Income >> Loss of livelihood >> Food shortage >> Increased malnutrition  >> Price hike of various commodities | >> Conduct Livelihood Programs >> Provision of disaster resilient flood control projects >> Seed subsidy (high yield and flood resilient variety) >> Adjust planting season of various crops >> Implementation of plans and ordinances (CLUP, CDP, MDRRMP, Zoning Ordinance) >> Prioritization of Climate Change adaptive projects (slope protection, flood control system, construction of drainage system/ dike) >> provision of different livelihood trainings as alternative sources of income >> Construction of communal irrigation system  >> Fingerlings dispersal >> Planting of mangroves |
| Sector: Social Area: Population (Residential Settlement), Education Indicator: Barangay Macayug | In Barangay Macayug, 572 households are exposed to the identified climate stimuli, of which 305 hhs living in low lying areas and below poverty threshold. 10 PWDs are sensitive because of physical disabilities, of which 8 are males and 2 are females. 126 or 60% of the senior citizens are sensitive because of health & physical infirmities, of which 50 are males and 76 are females. > Out of the total 551 enrolled, 33 students & pupils are sensitive since they belong to families beyond poverty threshold. Out of the total 20 are males & 13 are females. > The LGU's capability and adaptability measure is at an acceptable level. | | >> Onset of water borne diseases >> Increased number of morbidity/ mortality rate >> Increased number of drop-out rate >> Reduced number of school attendance >> Possible incidence of crime (looting) | >> Implementation of plans and ordinances (CLUP, CDP, MDRRMP, Zoning Ordinance) >> Conduct of medical and financial assistance  >> Ensure peace and order |

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| Table 4.6 **CLIMATE CHANGE VULNERABILITY ASSESSMENT SUMMARY MATRIX** | | | | |
| **SYSTEM OF INTEREST: POPULATION CCVA** | | | | |
| **CLIMATE STIMULI: EXTREME RAINFALL** | | | | |
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| **Decision Area/s** | **Technical Findings** | | **Implications** | **Policy Interventions** | |
| **A** | **B** | | **C** | **D** | |
| Sector: Economic Area: Agriculture (Farmers), Commerce & Industry Indicator: Barangay Macayug | In Barangay Macayug, 117 farmers are exposed to the identified climate stimuli, of which 69 farmers are sensitive since they belong to families beyond poverty threshold and live in low lying area. Out of the total 50 are males and 19 are females. > Of the 7 total owners/ entrepreneurs, 3 of the entrepreneurs are sensitive since they are living in low lying area and 2 belong to families beyond poverty threshold | | >> Decreased of production >> Loss of Income >> Loss of livelihood >> Food shortage >> Increased malnutrition  >> Price hike of various commodities | >> Conduct Livelihood Programs >> Provision of disaster resilient flood control projects >> Seed subsidy (high yield and flood resilient variety) >> Adjust planting season of various crops >> Implementation of plans and ordinances (CLUP, CDP, MDRRMP, Zoning Ordinance) >> Prioritization of Climate Change adaptive projects (slope protection, flood control system, construction of drainage system/ dike) >> provision of different livelihood trainings as alternative sources of income >> Construction of communal irrigation system | |
| Sector: Social Area: Population (Residential Settlement), Education Indicator: Barangay Navaluan | In Barangay Navaluan, 762 households are exposed to the identified climate stimuli, of which180 hhs living in low lying areas and below poverty threshold. 20 PWDs are sensitive because of physical disabilities, of which 8 are males and 12 are females. 113 or 40% of the senior citizens are sensitive because of health & physical infirmities. Out of the total 50 are males and 63 are females. > Out of the total 900 enrolled 38 students & pupils are sensitive since they belong to families beyond poverty threshold. Out of the total 25 are male & 13 are female. > The LGU's capability and adaptability measure is at an acceptable level. | | >> Onset of water borne diseases >> Increased number of morbidity/ mortality rate >> Increased number of drop-out rate >> Reduced number of school attendance >> Possible incidence of crime (looting) | >> Implementation of plans and ordinances (CLUP, CDP, MDRRMP, Zoning Ordinance) >> Conduct of medical and financial assistance  >> Ensure peace and order | |
| Sector: Economic Area: Agriculture (Farmers), Commerce & Industry Indicator: Barangay Navaluan | In Barangay Navaluan, 45 farmers are exposed to the identified climate stimuli, of which 37 farmers are sensitive since they belong to families beyond poverty threshold and live in low lying area. Out of the total 30 are male and 7 are female. > Of the 11 total owners/ entrepreneurs 5 of the entrepreneurs are sensitive since they are living in low lying area and 2 belong to families beyond poverty threshold | | >> Decreased of production >> Loss of Income >> Loss of livelihood >> Food shortage >> Increased malnutrition  >> Price hike of various commodities | >> Conduct Livelihood Programs >> Provision of disaster resilient flood control projects >> Seed subsidy (high yield and flood resilient variety) >> Adjust planting season of various crops >> Implementation of plans and ordinances (CLUP, CDP, MDRRMP, Zoning Ordinance) >> Prioritization of Climate Change adaptive projects (slope protection, flood control system, construction of drainage system/ dike) >> provision of different livelihood trainings as alternative sources of income >> Construction of communal irrigation system | |
| Sector: Social Area: Population (Residential Settlement), Education Indicator: Barangay Nibaliw | In Barangay Nibaliw, 675 households are exposed to the identified climate stimuli, of which 335 hhs living in low lying areas and below poverty threshold. 25 PWDs are sensitive because of physical disabilities, of which 15 are males and 10 are females. 98 or 40% of the senior citizens are sensitive because of health & physical infirmities. Out of the total, 50 are males and 48 are females. > Out of the total 750 enrolled 39 students & pupils are sensitive since they belong to families beyond poverty threshold. Out of the total, 23are male & 16 are females. > The LGU's capability and adaptability measure is at an acceptable level. | | >> Onset of water borne diseases >> Increased number of morbidity/ mortality rate >> Increased number of drop-out rate >> Reduced number of school attendance >> Possible incidence of crime (looting) | >> Implementation of plans and ordinances (CLUP, CDP, MDRRMP, Zoning Ordinance) >> Conduct of medical and financial assistance  >> Ensure peace and order | |
| Sector: Economic Area: Agriculture (Farmers), Commerce & Industry Indicator: Barangay Nibaliw | In Barangay Nibaliw, 35 farmers are exposed to the identified climate stimuli, of which 20 male farmers are sensitive since they belong to families beyond poverty threshold and live in low lying area. > Of the 11 total owners/ entrepreneurs 2 of the entrepreneurs are sensitive since they are living in low lying area and 6 belong to families beyond poverty threshold | | >> Decreased of production >> Loss of Income >> Loss of livelihood >> Food shortage >> Increased malnutrition  >> Price hike of various commodities | >> Conduct Livelihood Programs >> Provision of disaster resilient flood control projects >> Seed subsidy (high yield and flood resilient variety) >> Adjust planting season of various crops >> Implementation of plans and ordinances (CLUP, CDP, MDRRMP, Zoning Ordinance) >> Prioritization of Climate Change adaptive projects (slope protection, flood control system, construction of drainage system/ dike) >> provision of different livelihood trainings as alternative sources of income >> Construction of communal irrigation system | |
| Table 4.6 **CLIMATE CHANGE VULNERABILITY ASSESSMENT SUMMARY MATRIX** | | | | |
| **SYSTEM OF INTEREST: POPULATION CCVA** | | | | |
| **CLIMATE STIMULI: EXTREME RAINFALL** | | | | |
|  | |
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| **Decision Area/s** | **Technical Findings** | | **Implications** | **Policy Interventions** | |
| **A** | **B** | | **C** | **D** | |
| Sector: Social Area: Population (Residential Settlement), Education Indicator: Barangay Osiem | In Barangay Osiem, 809 household are exposed to the identified climate stimuli, of which 87 hhs living in low lying areas and below poverty threshold. 6 PWDs are sensitive because of physical disabilities, of which 4 are males and 2 are females. 107 or 40% of the senior citizens are sensitive because of health & physical infirmities, of which 60 are males and 47 are females. > Out of the 741 total enrolled, 22 students & pupils are sensitive since they belong to families beyond poverty threshold. Out of the total 15 are male & 7 are female.  > The LGU's capability and adaptability measure is at an acceptable level. | | >> Onset of water borne diseases >> Increased number of morbidity/ mortality rate >> Increased number of drop-out rate >> Reduced number of school attendance >> Possible incidence of crime (looting) | >> Implementation of plans and ordinances (CLUP, CDP, MDRRMP, Zoning Ordinance) >> Conduct of medical and financial assistance  >> Ensure peace and order | |
| Sector: Economic Area: Agriculture (Farmers), Commerce & Industry Indicator: Barangay Osiem | In Barangay Osiem, 106 farmers are exposed to the identified climate stimuli, of which 13 farmers are sensitive since they belong to families beyond poverty threshold and live in low lying area. Out of the total 10 are male and 3 are female. > Of the 13 total owners/ entrepreneurs 7 of the entrepreneurs are sensitive since they are living in low lying area and 3 belong to families beyond poverty threshold | | >> Decreased of production  >> Loss of Income  >> Loss of livelihood >> Food shortage >> Increased malnutrition >> Price hike of various commodities | >> Conduct Livelihood Programs  >> Provision of disaster resilient flood control projects  >> Seed subsidy (high yield and flood resilient variety)  >> Adjust planting season of various crops >> Implementation of plans and ordinances (CLUP, CDP, MDRRMP, Zoning Ordinance) >> Prioritization of Climate Change adaptive projects (slope protection, flood control system, construction of drainage system/ dike) >> provision of different livelihood trainings as alternative sources of income >> Construction of communal irrigation system | |
| Sector: Social Area: Population (Residential Settlement), Education Indicator: Barangay Palua | In Barangay Palua, 446 households are exposed to the identified climate stimuli, of which, 125 hhs living in low lying areas and below poverty threshold. 14 PWDs are sensitive because of physical disabilities, of which 4 are males and 10 are females. 60 or 40% of the senior citizens are sensitive because of health & physical infirmities, 25 are males and 35 are females. > Of the total 427 enrolled, 34 students & pupils are sensitive since they belong to families beyond poverty threshold. Out of the total 22 are male & 12 are female. > The LGU's capability and adaptability measure is at an acceptable level. | | >> Onset of water borne diseases >> Increased number of morbidity/ mortality rate >> Increase d number of drop-out rate >> Reduced number of school attendance >> Possible incidence of crime (looting) | >> Implementation of plans and ordinances (CLUP, CDP, MDRRMP, Zoning Ordinance) >> Conduct of medical and financial assistance  >> Ensure peace and order | |
| Sector: Economic Area: Agriculture (Farmers), Commerce & Industry Indicator: Barangay Palua | In Barangay Palua, 67 farmers are exposed to the identified climate stimuli, of which 26 farmers are sensitive since they belong to families beyond poverty threshold and live in low lying area. Out of the total 21 are male and 5 are female. > Of the 10 total owners/ entrepreneurs, 6 of the entrepreneurs are sensitive since they are living in low lying area and 2 belong to families beyond poverty threshold | | >> Decreased of production >> Loss of Income >> Loss of livelihood >> Food shortage >> Increased malnutrition  >> Price hike of various commodities | >> Conduct Livelihood Programs >> Provision of disaster resilient flood control projects >> Seed subsidy (high yield and flood resilient variety) >> Adjust planting season of various crops >> Implementation of plans and ordinances (CLUP, CDP, MDRRMP, Zoning Ordinance) >> Prioritization of Climate Change adaptive projects (slope protection, flood control system, construction of drainage system/ dike) >> provision of different livelihood trainings as alternative sources of income >> Construction of communal irrigation system | |
| Sector: Social Area: Population (Residential Settlement), Education Indicator: Barangay Poblacion | In Barangay Poblacion, 835 households are exposed to the identified climate stimuli, ofwhich 101 living in low lying areas and below poverty threshold. 10 PWDs are sensitive because of physical disabilities, of which 8 are males and1 2 are females. 49 or 10% of the senior citizens are sensitive because of health & physical infirmities. Out of the total 20 are males and 29 are females. > Of the 717 total enrolled 21 students & pupils are sensitive since they belong to families beyond poverty threshold. Out of the total 15 are male & 6 are female. > The LGU's capability and adaptability measure is at an acceptable level. | | >> Onset of water borne diseases >> Increased number of morbidity/ mortality rate >> Increased number of drop-out rate >> Reduced number of school attendance >> Possible incidence of crime (looting) | >> Implementation of plans and ordinances (CLUP, CDP, MDRRMP, Zoning Ordinance) >> Conduct of medical and financial assistance  >> Ensure peace and order | |

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| Table 4.6 **CLIMATE CHANGE VULNERABILITY ASSESSMENT SUMMARY MATRIX** | | | | | | | | | | | | | |
| **SYSTEM OF INTEREST: POPULATION CCVA** | | | | | | | | | | | | | |
| **CLIMATE STIMULI: EXTREME RAINFALL** | | | | | | | | | | | | | |
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| **Decision Area/s** | | **Technical Findings** | | | | **Implications** | | | | **Policy Interventions** | | | |
| **A** | | **B** | | | | **C** | | | | **D** | | | |
| Sector: Economic Area: Commerce & Industry Indicator: Barangay Poblacion | | In Barangay Poblacion, of the 355 total owners/ entrepreneurs 80 of the entrepreneurs are sensitive since they are living in low lying area and 20 belong to families beyond poverty threshold. | | | | >> Loss of Income >> Loss of livelihood >> Food shortage >> Increased malnutrition  >> Price hike of various commodities | | | | >> Conduct Livelihood Programs >> Provision of disaster resilient flood control projects >> Seed subsidy (high yield and flood resilient variety) >> Implementation of plans and ordinances (CLUP, CDP, MDRRMP, Zoning Ordinance) >> Prioritization of Climate Change adaptive projects (slope protection, flood control system, construction of drainage system/ dike) >> provision of different livelihood trainings as alternative sources of income >> Construction of communal irrigation system | | | |
| Sector: Social Area: Population (Residential Settlement), Education Indicator: Barangay Pogo | | In Barangay Pogo, 408 households are exposed to the identified climate stimuli, of which, 53 hhs living in low lying areas and below poverty threshold. 10 PWDs are sensitive because of physical disabilities, of which 6 are males and 4 are females. 60 or 40% of the senior citizens are sensitive because of health & physical infirmities. Out of the total 35 are males and 25 are females. > Of the 307 total enrolled 18 students & pupils are sensitive since they belong to families beyond poverty threshold. Out of the total 10 are male & 8 are female. > The LGU's capability and adaptability measure is at an acceptable level. | | | | >> Onset of water borne diseases >> Increased number of morbidity/ mortality rate >> Increased number of drop-out rate >> Reduced number of school attendance >> Possible incidence of crime (looting) | | | | >> Implementation of plans and ordinances (CLUP, CDP, MDRRMP, Zoning Ordinance) >> Conduct of medical and financial assistance  >> Ensure peace and order | | | |
| Sector: Economic Area: Agriculture (Farmers), Commerce & Industry Indicator: Barangay Pogo | | In Barangay Pogo, 37 farmers are exposed to the identified climate stimuli, of which 20 farmers are sensitive since they belong to families beyond poverty threshold and live in low lying area. Out of the total 16 are male and 4 are female. > Of the 10 total owners/ entrepreneurs 5 of the entrepreneurs are sensitive since they are living in low lying area and 3 belong to families beyond poverty threshold | | | | >> Decreased of production>> Loss of Income>> Loss of livelihood >> Food shortage >> Increased malnutrition >> Price hike of various commodities | | | | >> Conduct Livelihood Programs>> Provision of disaster resilient flood control projects  >> Seed subsidy (high yield and flood resilient variety)  >> Adjust planting season of various crops >> Implementation of plans and ordinances (CLUP, CDP, MDRRMP, Zoning Ordinance) >> Prioritization of Climate Change adaptive projects (slope protection, flood control system, construction of drainage system/ dike) >> provision of different livelihood trainings as alternative sources of income >> Construction of communal irrigation system | | | |
| Sector: Social Area: Population (Residential Settlement), Education Indicator: Barangay Salaan | | In Barangay Salaan, 589 households are exposed to the identified climate stimuli, of which 228 hhs living in low lying areas and below poverty threshold. 9 PWDs are sensitive because of physical disabilities, of which 6 are males and 3 are females. 120 or 45% of the senior citizens are sensitive because of health & physical infirmities. Out of the total 80 are males and 40 are females. > Of the 601 total enrolled 17 students & pupils are sensitive since they belong to families beyond poverty threshold. Out of the total 10 are male & 7 are female. > The LGU's capability and adaptability measure is at an acceptable level. | | | | >> Onset of water borne diseases >> Increased number of morbidity/ mortality rate >> Increased number of drop-out rate >> Reduced number of school attendance >> Possible incidence of crime (looting) | | | | >> Implementation of plans and ordinances (CLUP, CDP, MDRRMP, Zoning Ordinance) >> Conduct of medical and financial assistance  >> Ensure peace and order | | | |
| Sector: Economic Area: Agriculture (Farmers & Fishermen), Commerce & Industry Indicator: Barangay Salaan | | In Barangay Salaan, 228 farmers are exposed to the identified climate stimuli, are living in low lying areas, and belong to families below poverty threshold. 9 PWDs are sensitive because of physical disabilities, of which 6 are males and 3 are females. 120 or 45% of the senior citizens are sensitive because of health & physical infirmities. Out of the total 80 are males and 40 are females.  >Of the 601 total enrolled 17 students & pupils are sensitive since they belong to families beyond poverty threshold. Out of the total 10 are male & 7 are female > Of the 28 total farmers 13 farmers are sensitive since they are belong to families beyond poverty threshold and live in low lying area. Out of the total 10 are male and 5 are female. > Of the 8 entrepreneurs/ business owners 5 of the entrepreneurs are sensitive since they are living in low lying area and 2 belong to families beyond poverty threshold > The LGU's capability and adaptability measures is at an acceptable level. | | | | >> Decreased of production >> Loss of Income >> Loss of livelihood >> Food shortage >> Increased malnutrition  >> Price hike of various commodities | | | | >> Conduct Livelihood Programs >> Provision of disaster resilient flood control projects >> Seed subsidy (high yield and flood resilient variety) >> Adjust planting season of various crops >> Implementation of plans and ordinances (CLUP, CDP, MDRRMP, Zoning Ordinance) >> Prioritization of Climate Change adaptive projects (slope protection, flood control system, construction of drainage system/ dike) >> provision of different livelihood trainings as alternative sources of income >> Construction of communal irrigation system | | | |
| Table 4.6 **CLIMATE CHANGE VULNERABILITY ASSESSMENT SUMMARY MATRIX** | | | | | | | | | | | | | |
| **SYSTEM OF INTEREST: POPULATION CCVA** | | | | | | | | | | | | | |
| **CLIMATE STIMULI: EXTREME RAINFALL** | | | | | | | | | | | | | |
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| **Decision Area/s** | | **Technical Findings** | | | | **Implications** | | | | **Policy Interventions** | | | |
| **A** | | **B** | | | | **C** | | | | **D** | | | |
| Sector: Social Area: Population (Residential Settlement), Education Indicator: Barangay Talogtog | | In Barangay Talogtog, 570 households are exposed to the identified climate stimuli, of which 70 hhs living in low lying areas and below poverty threshold. 12 PWDs are sensitive because of physical disabilities, of which 10 are males and 2 are females. 96 or 40% of the senior citizens are sensitive because of health & physical infirmities. Out of the total 50 are males and 46 are females. > Out of the 506 total enrolled, 20 pupils of Anolid Elem. School are sensitive since they belong to families beyond poverty threshold, of which 13 are males & 7 are females. > The LGU's capability and adaptability measure is at an acceptable level. | | | | >> Onset of water borne diseases >> Increased number of morbidity/ mortality rate >> Increased number of drop-out rate >> Reduced number of school attendance >> Possible incidence of crime (looting) | | | | >> Implementation of plans and ordinances (CLUP, CDP, MDRRMP, Zoning Ordinance) >> Conduct of medical and financial assistance  >> Ensure peace and order | | | |
| Sector: Economic Area: Agriculture (Farmers & Fishermen), Commerce & Industry Indicator: Barangay Talogtog | | In Barangay Talogtog, 82 farmers are exposed to the identified climate stimuli, of which 30 farmers are sensitive since they belong to families beyond poverty threshold and live in low lying area. Of which 25 are males and 5 are females. > Of the 30 fishermen 96 fishermen 38 fishermen are sensitive since they are living in low lying area, of which 35 are males and 3 is females. > Of the 15 total owners/ entrepreneurs, 8 of the entrepreneurs are sensitive since they are living in low lying area and 4 belong to families beyond poverty threshold | | | | >> Decreased of production >> Loss of Income >> Loss of livelihood >> Food shortage >> Increased malnutrition  >> Price hike of various commodities | | | | >> Conduct Livelihood Programs >> Provision of disaster resilient flood control projects >> Seed subsidy (high yield and flood resilient variety) >> Adjust planting season of various crops >> Implementation of plans and ordinances (CLUP, CDP, MDRRMP, Zoning Ordinance) >> Prioritization of Climate Change adaptive projects (slope protection, flood control system, construction of drainage system/ dike) >> provision of different livelihood trainings as alternative sources of income >> Construction of communal irrigation system  >> Fingerlings dispersal >> Planting of mangroves | | | |
| Sector: Social Area: Population (Residential Settlement), Education Indicator: Barangay Tebag | | In Barangay Tebag, 605 households are exposed to the identified climate stimuli, of which 185 households are living in low lying areas and belong to families below poverty threshold. 11 PWDs are sensitive because of physical disabilities, of which 8 are males and 3 are females. 97 or 45% of the senior citizens are sensitive because of health & physical infirmities. Out of the total 60 are males and 37 are females. > Out of the 688 total enrolled, 39 students & pupils are sensitive since they belong to families beyond poverty threshold. Out of the total, 22 are males& 17 are females. > The LGU's capability and adaptability measure is at an acceptable level. | | | | >> Onset of water borne diseases >> Increased number of morbidity/ mortality rate >> Increased number of drop-out rate >> Reduced number of school attendance >> Possible incidence of crime (looting) | | | | >> Implementation of plans and ordinances (CLUP, CDP, MDRRMP, Zoning Ordinance) >> Conduct of medical and financial assistance  >> Ensure peace and order | | | |
| Sector: Economic Area: Agriculture (Farmers), Commerce & Industry Indicator: Barangay Tebag | | In Barangay Tebag, 23 farmers are exposed to the identified climate stimuli, of which 13 farmers are sensitive since they belong to families beyond poverty threshold and live in low lying area. Out of the total, 10 are males and 3 are females. > Of the 24 total owners/ entrepreneurs, 10 of the entrepreneurs are sensitive since they are living in low lying area and 6 belong to families beyond poverty threshold. | | | | >> Decreased of production >> Loss of Income >> Loss of livelihood >> Food shortage >> Increased malnutrition  >> Price hike of various commodities | | | | >> Conduct Livelihood Programs >> Provision of disaster resilient flood control projects >> Seed subsidy (high yield and flood resilient variety) >> Adjust planting season of various crops >> Implementation of plans and ordinances (CLUP, CDP, MDRRMP, Zoning Ordinance) >> Prioritization of Climate Change adaptive projects (slope protection, flood control system, construction of drainage system/ dike) >> provision of different livelihood trainings as alternative sources of income >> Construction of communal irrigation system | | | |
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| **Instructions:** | | | | | | | | | | | | | |
| A. Based on the vulnerability maps generated for the various exposure units, highlight and identify decision areas or elements. Decision areas can be the barangay or specific sites in the barangay such as coastal area, mountain sides, and riverbanks. | | | | | | | | | | | | | |
| - Identify decision areas in need of intervention based on the vulnerability maps | | | | | | | | | | | | | |
| - This can be identified as high to moderate vulnerable areas or may pertain to a specific area in the barangay | | | | | | | | | | | | | |
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| B. List down the significant findings/observed conditions and causes by describing the area or element in terms of the level of vulnerability, highlighting the various contributing factors such as exposure, sensitivity, and adaptive capacity. | | | | | | | | | | | | | |
| - Identify the climate stimuli and how these may manifest in the identified decision area | | | | | | | | | | | | | |
| - Expound on the exposure information (i.e. number of affected population, exposure percentage, exposed area, and cost) | | | | | | | | | | | | | |
| - Highlight relevant sensitivities of the exposed element to the identified climate stimulus | | | | | | | | | | | | | |
| - Highlight relevant adaptive capacity indicators of the exposed element to the identified climate stimuli | | | | | | | | | | | | | |
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| C. List down the planning/development implications when the identified vulnerabilities in the various decision areas are not addressed. | | | | | | | | | | | | | |
| - Highlight potential impact as mentioned in the sectoral impact chains | | | | | | | | | | | | | |
| - Highlight future scenario if vulnerabilities are not addressed | | | | | | | | | | | | | |
| - Identify future needs with emphasis on the spatial framework plan of the municipality | | | | | | | | | | | | | |
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| D. Identify various policy interventions that should seek to reduce the level of vulnerability by addressing the exposure, sensitivity, with consideration to the current adaptive capacities | | | | | | | | | | | | | |
| - Identify the various climate change adaptation and mitigation measures to reduce vulnerabilities to acceptable and tolerable levels. | | | | | | | | | | | | | |
| Table 4.6 **CLIMATE CHANGE VULNERABILITY ASSESSMENT SUMMARY MATRIX** | | | | | | | | | | | | |
| **SYSTEM OF INTEREST: NATURAL RESOURCES CCVA** | | | | | | | | | | | | | | | |
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| **CLIMATE STIMULI: EXTREME RAINFALL** | | | | |  | | | |  | | |  | | | |
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| **Decision Area/s** | **Technical Findings** | | | | **Implications** | | **Policy Interventions** | | | | | | | |
| **A** | **B** | | | | **C** | | **D** | | | | | | | |
| Sector: Economic Area: Agriculture (Farmland & Fishpond) Indicator: Barangay Anolid | In Barangay Anolid, 101 hectares or about 3,524.4 MT productions are exposed to the identified climate stimuli, of which, 60 hectares or 59% of the farmland are submerged during flood. Decrease of production is about 2,093.70 MT. Of the 14.4 hectares or about 16.2 MT productions, 10 hectares or 69.44% of the fishpond are submerged during flood. Decreaseof production is about 11.25 MT. | | | | >> Decreased of production >> Loss of Income >> Loss of livelihood >> Food shortage >> Increased malnutrition  >> Price hike of various commodities | | >> Conduct Livelihood Programs >> Provision of disaster resilient flood control projects >> Seed subsidy (high yield and flood resilient variety) >> Adjust planting season of various crops  >> Implementation of plans and ordinances (CLUP, CDP, MDRRMP, Zoning Ordinance)  >> Prioritization of Climate Change adaptive projects (slope protection, flood control system, construction of drainage system/ dike) >> provision of different livelihood trainings as alternative sources of income >> Construction of communal irrigation system  >> Fingerlings dispersal >> Planting of mangroves | | | | | | | |
| Sector: Economic Area: Agriculture (Farmland) Indicator: Barangay Banaoang | In Barangay Banaoang, 25 hectares or about 105 MT productions are exposed to the identified stimuli, of which 10 hectares or 40 % of the farmland are submerged during flood. Decrease of production is about 42 MT. | | | | >> Decreased of production >> Loss of Income >> Loss of livelihood >> Food shortage >> Increased malnutrition  >> Price hike of various commodities | | >> Conduct Livelihood Programs >> Provision of disaster resilient flood control projects >> Seed subsidy (high yield and flood resilient variety) >> Adjust planting season of various crops  >> Implementation of plans and ordinances (CLUP, CDP, MDRRMP, Zoning Ordinance)  >> Prioritization of Climate Change adaptive projects (slope protection, flood control system, construction of drainage system/ dike) >> provision of different livelihood trainings as alternative sources of income >> Construction of communal irrigation system | | | | | | | |
| Sector: Economic Area: Agriculture (Farmland) Indicator: Barangay Bantayan | In Barangay Bantayan, 5 hectares or about 198 MT production is exposed to the identified stimuli, of which 2 hectares or 40 % of the farmland are submerged during flood. Decrease of production is about 79.2 MT. | | | | >> Decreased of production>> Loss of Income>> Loss of livelihood >> Food shortage >> Increased malnutrition >> Price hike of various commodities | | >> Conduct Livelihood Programs>> Provision of disaster resilient flood control projects>> Seed subsidy (high yield and flood resilient variety)  >> Adjust planting season of various crops  >> Implementation of plans and ordinances (CLUP, CDP, MDRRMP, Zoning Ordinance)  >> Prioritization of Climate Change adaptive projects (slope protection, flood control system, construction of drainage system/ dike) >> provision of different livelihood trainings as alternative sources of income >> Construction of communal irrigation system | | | | | | | |
| Sector: Economic Area: Agriculture (Farmland & Fishpond) Indicator: Barangay Bateng | In Barangay Bateng, 2 hectares or about 100 MT production is exposed to the identified stimuli, of which 1 hectare or 50 % of the farmland are submerged during flood. Decrease of production is about 50 MT. Of the 70.58 hectares or about 79.40 MT production of fishpond, 42.35 hectares or 60% of the fishpond are submerged during flood. Decrease of production is about 47.64 MT. | | | | >> Decreased of production >> Loss of Income >> Loss of livelihood >> Food shortage >> Increased malnutrition  >> Price hike of various commodities | | >> Conduct Livelihood Programs >> Provision of disaster resilient flood control projects >> Seed subsidy (high yield and flood resilient variety) >> Adjust planting season of various crops  >> Implementation of plans and ordinances (CLUP, CDP, MDRRMP, Zoning Ordinance)  >> Prioritization of Climate Change adaptive projects (slope protection, flood control system, construction of drainage system/ dike) >> provision of different livelihood trainings as alternative sources of income >> Construction of communal irrigation system  >> Fingerlings dispersal >> Planting of mangroves | | | | | | | |
| Sector: Economic Area: Agriculture (Farmland) Indicator: Barangay David | In Barangay David, 60 hectares or about 594 MT production is exposed to the identified stimuli, of which 45 hectares or 75 % of the farmland are submerged during flood. Decrease of production is about 2,093.70 MT | | | | >> Decreased of production >> Loss of Income >> Loss of livelihood >> Food shortage >> Increased malnutrition  >> Price hike of various commodities | | >> Conduct Livelihood Programs >> Provision of disaster resilient flood control projects >> Seed subsidy (high yield and flood resilient variety) >> Adjust planting season of various crops  >> Implementation of plans and ordinances (CLUP, CDP, MDRRMP, Zoning Ordinance)  >> Prioritization of Climate Change adaptive projects (slope protection, flood control system, construction of drainage system/ dike) >> provision of different livelihood trainings as alternative sources of income >> Construction of communal irrigation system | | | | | | | |
| Sector: Economic Area: Agriculture (Farmland) Indicator: Barangay Embarcadero | In Barangay Embarcadero, 25 hectares or about 105 MT production is exposed to the identified stimuli, of which 16.25 hectares or 65% of the farmland are submerged during flood. Decrease of production is about 68.25 MT. | | | | >> Decreased of production  >> Loss of Income>> Loss of livelihood >> Food shortage >> Increased malnutrition >> Price hike of various commodities | | >> Conduct Livelihood Programs>> Provision of disaster resilient flood control projects>> Seed subsidy (high yield and flood resilient variety)  >> Adjust planting season of various crops  >> Implementation of plans and ordinances (CLUP, CDP, MDRRMP, Zoning Ordinance)  >> Prioritization of Climate Change adaptive projects (slope protection, flood control system, construction of drainage system/ dike) >> provision of different livelihood trainings as alternative sources of income >> Construction of communal irrigation system | | | | | | | |
| Sector: Economic Area: Agriculture (Farmland) Indicator: Barangay Guesang | In Barangay Guesang 68.5 hectares or about 225 MT production are exposed to the identify stimuli, of which 41.79 hectares or 61% of the farmland are submerged during flood. Decreased of production about 137.27 MT. | | | | >> Decreased of production >> Loss of Income >> Loss of livelihood >> Food shortage >> Increased malnutrition  >> Price hike of various commodities | | >> Conduct Livelihood Programs >> Provision of disaster resilient flood control projects >> Seed subsidy (high yield and flood resilient variety) >> Adjust planting season of various crops  >> Implementation of plans and ordinances (CLUP, CDP, MDRRMP, Zoning Ordinance)  >> Prioritization of Climate Change adaptive projects (slope protection, flood control system, construction of drainage system/ dike) >> provision of different livelihood trainings as alternative sources of income >> Construction of communal irrigation system | | | | | | | |
| Sector: Economic Area: Agriculture (Farmland) Indicator: Barangay Guiguilonen | In Barangay Guiguilonen, 10 hectares or about 5 MT productionsis exposed to the identified stimuli, of which5 hectares or 50% of the farmland are submerged during flood. Decrease of production is about 2.5 MT | | | | >> Decreased of production >> Loss of Income >> Loss of livelihood >> Food shortage >> Increased malnutrition  >> Price hike of various commodities | | >> Conduct Livelihood Programs >> Provision of disaster resilient flood control projects >> Seed subsidy (high yield and flood resilient variety) >> Adjust planting season of various crops  >> Implementation of plans and ordinances (CLUP, CDP, MDRRMP, Zoning Ordinance)  >> Prioritization of Climate Change adaptive projects (slope protection, flood control system, construction of drainage system/ dike) >> provision of different livelihood trainings as alternative sources of income >> Construction of communal irrigation system | | | | | | | |

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| Table 4.6 **CLIMATE CHANGE VULNERABILITY ASSESSMENT SUMMARY MATRIX** | | | | | |
| **SYSTEM OF INTEREST: NATURAL RESOURCES CCVA** | | | | | | | |
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| **CLIMATE STIMULI: EXTREME RAINFALL** | | | |
| **Decision Area/s** | **Technical Findings** | | **Implications** | | **Policy Interventions** |
| **A** | **B** | | **C** | | **D** |
| Sector: Economic Area: Agriculture (Farmland) Indicator: Barangay Inlambo | In Barangay Inlambo, 65 hectares or about 638 MT production is exposed to the identified stimuli, of which 35 hectares or 53% of the farmland are submerged during flood. Decrease of production is about 343.54 MT. | | >> Decreased of production  >> Loss of Income  >> Loss of livelihood >> Food shortage >> Increased malnutrition >> Price hike of various commodities | | >> Conduct Livelihood Programs>> Provision of disaster resilient flood control projects  >> Seed subsidy (high yield and flood resilient variety)  >> Adjust planting season of various crops  >> Implementation of plans and ordinances (CLUP, CDP, MDRRMP, Zoning Ordinance)  >> Prioritization of Climate Change adaptive projects (slope protection, flood control system, construction of drainage system/ dike) >> provision of different livelihood trainings as alternative sources of income >> Construction of communal irrigation system |
| Sector: Economic Area: Agriculture (Farmland & Fishpond) Indicator: Barangay Lanas | In Barangay Lanas, 10 hectares or about 50 MT production is exposed to the identified stimuli, of which 5.2 hectares or 52% of the farmland are submerged during flood. Decrease of production is about 26 MT. Of the 33.29 hectares or about 37.45 MT productions, 25 hectares or 75.09% of the fishponds are submerged during flood. Decrease of production is about 28.12 MT. | | >> Decreased of production >> Loss of Income >> Loss of livelihood >> Food shortage >> Increased malnutrition  >> Price hike of various commodities | | >> Conduct Livelihood Programs >> Provision of disaster resilient flood control projects >> Seed subsidy (high yield and flood resilient variety) >> Adjust planting season of various crops  >> Implementation of plans and ordinances (CLUP, CDP, MDRRMP, Zoning Ordinance)  >> Prioritization of Climate Change adaptive projects (slope protection, flood control system, construction of drainage system/ dike) >> provision of different livelihood trainings as alternative sources of income >> Construction of communal irrigation system  >> Fingerlings dispersal >> Planting of mangroves |
| Sector: Economic Area: Agriculture (Farmland) Indicator: Barangay Landas | In Barangay Landas,45 hectares or about 225 MT production is exposed to the identified stimuli, of which 9 hectares or 20% of the farmlands are submerged during flood. Decrease of production is about 45 MT. | | >> Decreased of production >> Loss of Income >> Loss of livelihood >> Food shortage >> Increased malnutrition  >> Price hike of various commodities | | >> Conduct Livelihood Programs >> Provision of disaster resilient flood control projects >> Seed subsidy (high yield and flood resilient variety) >> Adjust planting season of various crops  >> Implementation of plans and ordinances (CLUP, CDP, MDRRMP, Zoning Ordinance)  >> Prioritization of Climate Change adaptive projects (slope protection, flood control system, construction of drainage system/ dike) >> provision of different livelihood trainings as alternative sources of income >> Construction of communal irrigation system |
| Sector: Economic Area: Agriculture (Farmland & Fishpond) Indicator: Barangay Maasin | In Barangay Maasin, 10 hectares or about 198 MT production is exposed to the identified stimuli, of which 5 hectares or 50% of the farmlands are submerged during flood. Decrease of production is about 99 MT. Of the 107.27 Hectares or 120.6 MT productions, 80.45 hectares or 75% of the fishponds are submerged during flood. Decrease of production is about 90.50 MT. | | >> Decreased of production>> Loss of Income  >> Loss of livelihood >> Food shortage >> Increased malnutrition >> Price hike of various commodities | | >> Conduct Livelihood Programs>> Provision of disaster resilient flood control projects  >> Seed subsidy (high yield and flood resilient variety)  >> Adjust planting season of various crops  >> Implementation of plans and ordinances (CLUP, CDP, MDRRMP, Zoning Ordinance)  >> Prioritization of Climate Change adaptive projects (slope protection, flood control system, construction of drainage system/ dike) >> provision of different livelihood trainings as alternative sources of income >> Construction of communal irrigation system  >> Fingerlings dispersal  >> Planting of mangroves |
| Sector: Economic Area: Agriculture (Farmland & Fishpond) Indicator: Barangay Anolid | In Barangay Macayug, 30 hectares or about 365.2 MT production is exposed to the identified stimuli, of which 25 hectares or 83% of the farmlands are submerged during flood. Decrease of production is about 304.33 MT. | | >> Decreased of production >> Loss of Income >> Loss of livelihood >> Food shortage >> Increased malnutrition  >> Price hike of various commodities | | >> Conduct Livelihood Programs >> Provision of disaster resilient flood control projects >> Seed subsidy (high yield and flood resilient variety) >> Adjust planting season of various crops  >> Implementation of plans and ordinances (CLUP, CDP, MDRRMP, Zoning Ordinance)  >> Prioritization of Climate Change adaptive projects (slope protection, flood control system, construction of drainage system/ dike) >> provision of different livelihood trainings as alternative sources of income >> Construction of communal irrigation system |
| Sector: Economic Area: Agriculture (Farmland) Indicator: Barangay Navaluan | In Barangay Navaluan,37 hectares or about 162.8 MT production is exposed to the identified stimuli, of which 18 hectares or 48% of the farmlands are submerged during flood. Decrease of production is about 79.2 MT. | | >> Decreased of production>> Loss of Income>> Loss of livelihood >> Food shortage >> Increased malnutrition >> Price hike of various commodities | | >> Conduct Livelihood Programs  >> Provision of disaster resilient flood control projects  >> Seed subsidy (high yield and flood resilient variety)  >> Adjust planting season of various crops  >> Implementation of plans and ordinances (CLUP, CDP, MDRRMP, Zoning Ordinance)  >> Prioritization of Climate Change adaptive projects (slope protection, flood control system, construction of drainage system/ dike) >> provision of different livelihood trainings as alternative sources of income >> Construction of communal irrigation system |
| Sector: Economic Area: Agriculture (Farmland) Indicator: Barangay Nibaliw | In Barangay Nibaliw, 36 hectares or about 162.8 MT production is exposed to the identified stimuli, of which 20 hectares or 55.56% of the farmlands are submerged during flood. Decrease of production is about 90.44 MT. | | >> Decreased of production >> Loss of Income >> Loss of livelihood >> Food shortage >> Increased malnutrition  >> Price hike of various commodities | | >> Conduct Livelihood Programs >> Provision of disaster resilient flood control projects >> Seed subsidy (high yield and flood resilient variety) >> Adjust planting season of various crops  >> Implementation of plans and ordinances (CLUP, CDP, MDRRMP, Zoning Ordinance)  >> Prioritization of Climate Change adaptive projects (slope protection, flood control system, construction of drainage system/ dike) >> provision of different livelihood trainings as alternative sources of income >> Construction of communal irrigation system |
| Sector: Economic Area: Agriculture (Farmland) Indicator: Barangay Osiem | In Barangay Osiem, 47 hectares or about 206.8 MT production is exposed to the identified stimuli, of which 27 hectares or 57% of the farmlands are submerged during flood. Decrease of production is about 118.8 MT. | | >> Decreased of production >> Loss of Income >> Loss of livelihood >> Food shortage >> Increased malnutrition  >> Price hike of various commodities | | >> Conduct Livelihood Programs >> Provision of disaster resilient flood control projects >> Seed subsidy (high yield and flood resilient variety) >> Adjust planting season of various crops  >> Implementation of plans and ordinances (CLUP, CDP, MDRRMP, Zoning Ordinance)  >> Prioritization of Climate Change adaptive projects (slope protection, flood control system, construction of drainage system/ dike) >> provision of different livelihood trainings as alternative source of income >> Construction of communal irrigation system |
| Table 4.6 **CLIMATE CHANGE VULNERABILITY ASSESSMENT SUMMARY MATRIX** | | | | | |
| **SYSTEM OF INTEREST: NATURAL RESOURCES CCVA** | | | | | | |
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| **CLIMATE STIMULI: EXTREME RAINFALL** | |
| **Decision Area/s** | **Technical Findings** | | **Implications** | | **Policy Interventions** |
| **A** | **B** | | **C** | | **D** |
| Sector: Economic Area: Agriculture (Farmland) Indicator: Barangay Palua | In Barangay Palua, 35 hectares or about 180 MT production is exposed to the identify stimuli, of which 14 hectares or 40% of the farmlands are submerged during flood. Decrease of production is about 72 MT. | | >> Decreased of production  >> Loss of Income  >> Loss of livelihood >> Food shortage >> Increased malnutrition >> Price hike of various commodities | | >> Conduct Livelihood Programs  >> Provision of disaster resilient flood control projects  >> Seed subsidy (high yield and flood resilient variety)  >> Adjust planting season of various crops  >> Implementation of plans and ordinances (CLUP, CDP, MDRRMP, Zoning Ordinance)  >> Prioritization of Climate Change adaptive projects (slope protection, flood control system, construction of drainage system/ dike) >> provision of different livelihood trainings as alternative sources of income >> Construction of communal irrigation system |
| Sector: Economic Area: Agriculture (Farmland) Indicator: Barangay Pogo | In Barangay Pogo, 36 hectares or about 206.8 MT production is exposed to the identified stimuli, of which 16.2 hectares or 45% of the farmlands are submerged during flood. Decrease of production is about 93.06 MT. | | >> Decreased of production >> Loss of Income >> Loss of livelihood >> Food shortage >> Increased malnutrition  >> Price hike of various commodities | | >> Conduct Livelihood Programs >> Provision of disaster resilient flood control projects >> Seed subsidy (high yield and flood resilient variety) >> Adjust planting season of various crops  >> Implementation of plans and ordinances (CLUP, CDP, MDRRMP, Zoning Ordinance)  >> Prioritization of Climate Change adaptive projects (slope protection, flood control system, construction of drainage system/ dike) >> provision of different livelihood trainings as alternative sources of income >> Construction of communal irrigation system |
| Sector: Economic Area: Agriculture (Farmland) Indicator: Barangay Salaan | In Barangay Salaan, 25 hectares or about 105 MT production is exposed to the identified stimuli, of which 16.25 hectares or 65% of the farmlands are submerged during flood. Decrease of production is about 68.25 MT. | | >> Decreased of production >> Loss of Income >> Loss of livelihood >> Food shortage >> Increased malnutrition  >> Price hike of various commodities | | >> Conduct Livelihood Programs >> Provision of disaster resilient flood control projects >> Seed subsidy (high yield and flood resilient variety) >> Adjust planting season of various crops  >> Implementation of plans and ordinances (CLUP, CDP, MDRRMP, Zoning Ordinance)  >> Prioritization of Climate Change adaptive projects (slope protection, flood control system, construction of drainage system/ dike) >> provision of different livelihood trainings as alternative sources of income >> Construction of communal irrigation system |
| Sector: Economic Area: Agriculture (Farmland & Fishpond) Indicator: Barangay Talogtog | In Barangay Talogtog, 2 hectares or about 100 MT productions is exposed to the identified stimuli, of which1 hectare or 50 % of the farmlands are submerged during flood. Decrease of production is about 50 MT. Of the 35.028 hectares or 39.40 MT productions, 18 hectares or 51.39% of the fishponds are submerged during flood. Decrease of production is about 28.34 MT. | | >> Decreased of production>> Loss of Income>> Loss of livelihood >> Food shortage >> Increased malnutrition >> Price hike of various commodities | | >> Conduct Livelihood Programs  >> Provision of disaster resilient flood control projects>> Seed subsidy (high yield and flood resilient variety)  >> Adjust planting season of various crops  >> Implementation of plans and ordinances (CLUP, CDP, MDRRMP, Zoning Ordinance)  >> Prioritization of Climate Change adaptive projects (slope protection, flood control system, construction of drainage system/ dike) >> provision of different livelihood trainings as alternative sources of income >> Construction of communal irrigation system  >> Fingerlings dispersal  >> Planting of mangroves |
| Sector: Economic Area: Agriculture (Farmland) Indicator: Barangay Tebag | In Barangay Tebag, 30 hectares or about 365.2 MT production is exposed to the identified stimuli, of which 25 hectares or 83% of the farmlands are submerged during flood. Decrease of production isabout 304.33 MT | | >> Decreased of production >> Loss of Income >> Loss of livelihood >> Food shortage >> Increased malnutrition  >> Price hike of various commodities | | >> Conduct Livelihood Programs >> Provision of disaster resilient flood control projects >> Seed subsidy (high yield and flood resilient variety) >> Adjust planting season of various crops  >> Implementation of plans and ordinances (CLUP, CDP, MDRRMP, Zoning Ordinance)  >> Prioritization of Climate Change adaptive projects (slope protection, flood control system, construction of drainage system/ dike) >> provision of different livelihood trainings as alternative sources of income >> Construction of communal irrigation system |
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| **Instructions:** | | | | | |
| A. Based on the vulnerability maps generated for the various exposure units, highlight and identify decision areas or elements. Decision areas can be the barangay or specific sites in the barangay such as coastal area, mountain sides, and riverbanks. | | | | | |
| - identify decision areas in need of intervention based on the vulnerability maps | | | | | |
| - This can be identified as high to moderate vulnerable areas or may pertain to a specific area in the barangay | | | | | |
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| B. List down the significant findings/observed conditions and causes by describing the area or element in terms of the level of vulnerability, highlighting the various contributing factors such as exposure, sensitivity, and adaptive capacity. | | | | | |
| - identify the climate stimuli and how these may manifest in the identified decision area | | | | | |
| - expound on the exposure information (i.e. number of affected population, exposure percentage, exposed area, and cost) | | | | | |
| - highlight relevant sensitivities of the exposed element to the identified climate stimulus | | | | | |
| - highlight relevant adaptive capacity indicators of the exposed element to the identified climate stimuli | | | | | |
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| C. List down the planning/development implications when the identified vulnerabilities in the various decision areas are not addressed. | | | | | |
| - highlight potential impact as mentioned in the sectoral impact chains | | | | | |
| - highlight future scenario if vulnerabilities are not addressed | | | | | |
| - identify future needs with emphasis on the spatial framework plan of the municipality | | | | | |
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| D. Identify various policy interventions that should seek to reduce the level of vulnerability by addressing the exposure, sensitivity, with consideration to the current adaptive capacities | | | | | |
| - identify the various climate change adaptation and mitigation measures to reduce vulnerabilities to acceptable and tolerable levels. | | | | | |

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| Table 4.6 **CLIMATE CHANGE VULNERABILITY ASSESSMENT SUMMARY MATRIX** | | | | | | | | | | |
| **SYSTEM OF INTEREST: CRITICAL FACILITY CCVA** | | |  | | |  | | |  | | |
| **CLIMATE STIMULI: EXTREME RAINFALL** | | |  | | |  | | |  | | |
|  | |  | | |  | | |  | | |
| **Decision Area/s** | **Technical Findings** | | | **Implications** | | | **Policy Interventions** | | |
| **A** | **B** | | | **C** | | | **D** | | |
| Sector: Infrastructure Area: Health, Education & Road Indicator: Barangay Anolid | > In BarangayAnolid, Barangay Health Station is located in low lying area and not hazard resistant design.  > Anolid Elementary School is located in low lying area. School building is made of mixed materials and not hazard resilient.  > Anolid-Perlan Road is located in low lying area. Impassable during flood. | | | >> Onset of water borne diseases >> Increased number of morbidity/ mortality rate >> Increased number of drop-out rate >> Reduced number of school attendance  >> Possible incidence of crime (looting) >> Inadequate medical supplies >> Delay of mobility of people, goods and services | | | >> Implementation of plans and ordinances (CLUP, CDP, MDRRMP, Zoning Ordinance) >> Conduct make-up classes >> Prioritization of Climate Change adaptive projects (slope protection, flood control system, construction of drainage system/ dike) | | |
| Sector: Infrastructure Area: Road Indicator: Barangay Banaoang | In Barangay Banaoang, 600 meters Banaoang East Provincial Road is located in low lying and easily flooded. | | | >> Increased number of drop-out rate >> Reduced number of school attendance >> Delay of mobility of people, goods and services | | | >> Implementation of plans and ordinances (CLUP, CDP, MDRRMP, Zoning Ordinance) >> Conduct make-up classes >> Prioritization of Climate Change adaptive projects (slope protection, flood control system, construction of drainage system/ dike) | | |
| Sector: Infrastructure Area: Education & Road Indicator: Barangay Bantayan | In Barangay Bantayan, Mangaldan Integrated School is located in low lying area. And some school buildings are made of mixed materials and not hazard resilient> Barangay Road is located in low lying area. Impassable during flood and made of earth. | | | >> Increased number of drop-out rate >> Reduced number of school attendance  >> Delay of mobility of people, goods and services | | | >> Implementation of plans and ordinances (CLUP, CDP, MDRRMP, Zoning Ordinance) >> Conduct make-up classes >> Prioritization of Climate Change adaptive projects (slope protection, flood control system, construction of drainage system/ dike) | | |
| Sector: Infrastructure Area: Health Indicator: Barangay Bateng | In Barangay Bateng, Barangay Health Station is located in low lying area and easily flooded. | | | >> Onset of water borne diseases >> Increased number of morbidity/ mortality rate | | | >> Implementation of plans and ordinances (CLUP, CDP, MDRRMP, Zoning Ordinance) >> Conduct make-up classes >> Prioritization of Climate Change adaptive projects (slope protection, flood control system, construction of drainage system/ dike) | | |
| Sector: Infrastructure Area: Health, Education & Road Indicator: Barangay David | In Barangay David, Barangay Health Station is located in low lying area and easily flooded. > David Elementary School is located in low lying area. And some school buildings are made of mixed materials and not hazard resilient > 500 meters Provincial Road is located in low lying area with pothole and pavement crack. Impassable during flood. | | | >> Onset of water borne diseases >> Increased number of morbidity/ mortality rate >> Increased number of drop-out rate >> Reduced number of school attendance  >> Possible incidence of crime (looting) >> Inadequate medical supplies >> Delay of mobility of people, goods and services | | | >> Implementation of plans and ordinances (CLUP, CDP, MDRRMP, Zoning Ordinance) >> Conduct make-up classes >> Prioritization of Climate Change adaptive projects (slope protection, flood control system, construction of drainage system/ dike) | | |
| Sector: Infrastructure Area: Education & Road Indicator: Barangay Embarcadero | In Barangay Embarcadero, Embarcadero Elementary School is located in low lying area and easily flooded. > 110 meters Farm to market road is located in low lying area made of earth | | | >> Increased number of drop-out rate >> Reduced number of school attendance >> Delay of mobility of people, goods and services | | | >> Implementation of plans and ordinances (CLUP, CDP, MDRRMP, Zoning Ordinance) >> Conduct make-up classes >> Prioritization of Climate Change adaptive projects (slope protection, flood control system, construction of drainage system/ dike) | | |
| Sector: Infrastructure Area: Health, Education & Road Indicator: Barangay Guesang | In Barangay Guesang, Guesang Elementary School is located in low lying area. School building is made of mixed materials and not hazard resilient. > 1.140 km Barangay road is located in low lying area made of earth | | | >> Increased number of drop-out rate >> Reduced number of school attendance >> Delay of mobility of people, goods and services | | | >> Implementation of plans and ordinances (CLUP, CDP, MDRRMP, Zoning Ordinance) >> Conduct make-up classes >> Prioritization of Climate Change adaptive projects (slope protection, flood control system, construction of drainage system/ dike) | | |
| Sector: Infrastructure Area: Road Indicator: Barangay Anolid | In Barangay Guiguilonen, Barangay roads are located in low lying area and made of earth. | | | >> Increased number of drop-out rate >> Reduced number of school attendance >> Delay of mobility of people, goods and services | | | >> Implementation of plans and ordinances (CLUP, CDP, MDRRMP, Zoning Ordinance) >> Conduct make-up classes >> Prioritization of Climate Change adaptive projects (slope protection, flood control system, construction of drainage system/ dike) | | |
| Sector: Infrastructure Area: Education & Road Indicator: Barangay Inlambo | In Barangay Inlambo, Inlambo Elementary School is located in low lying area. School buildings are made of mixed materials and not hazard resistant design > 418 meters Inlambo barangay road is located in low lying area and made of earth | | | >> Increased number of drop-out rate >> Reduced number of school attendance >> Delay of mobility of people, goods and services | | | >> Implementation of plans and ordinances (CLUP, CDP, MDRRMP, Zoning Ordinance) >> Conduct make-up classes >> Prioritization of Climate Change adaptive projects (slope protection, flood control system, construction of drainage system/ dike) | | |
| Sector: Infrastructure Area: Education & Road Indicator: Barangay Lanas | In Barangay Lanas, Lanas Elementary School is located in low lying area and easily flooded. > 2.350 Km Barangay road is located in low lying area made of earth | | | >> Increased number of drop-out rate >> Reduced number of school attendance >> Delay of mobility of people, goods and services | | | >> Implementation of plans and ordinances (CLUP, CDP, MDRRMP, Zoning Ordinance) >> Conduct make-up classes >> Prioritization of Climate Change adaptive projects (slope protection, flood control system, construction of drainage system/ dike) | | |
| Sector: Infrastructure Area: Road Indicator: Barangay Landas | In Barangay Landas, Riverside Road road is located in low lying area and made of earth. | | | >> Increased number of drop-out rate >> Reduced number of school attendance >> Delay of mobility of people, goods and services | | | >> Implementation of plans and ordinances (CLUP, CDP, MDRRMP, Zoning Ordinance) >> Conduct make-up classes >> Prioritization of Climate Change adaptive projects (slope protection, flood control system, construction of drainage system/ dike) | | |
| Sector: Infrastructure Area: Health, Education & Road Indicator: Barangay Maasin | In Barangay Maasin, Barangay Health Station is located in low lying area and easily flooded. > Maasin Elementary School is located in low lying area and easily flooded Some of the school buildings are made of mixed materials. > Maasin barangay road is located in low lying area and easily flooded | | | >> Onset of water borne diseases >> Increased number of morbidity/ mortality rate >> Increased number of drop-out rate >> Reduced number of school attendance  >> Possible incidence of crime (looting) >> Inadequate medical supplies >> Delay of mobility of people, goods and services | | | >> Implementation of plans and ordinances (CLUP, CDP, MDRRMP, Zoning Ordinance) >> Conduct make-up classes >> Prioritization of Climate Change adaptive projects (slope protection, flood control system, construction of drainage system/ dike) | | |

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| Table 4.6 **CLIMATE CHANGE VULNERABILITY ASSESSMENT SUMMARY MATRIX** | | | | | |
| **SYSTEM OF INTEREST: CRITICAL FACILITY CCVA** | | | | | |
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| **CLIMATE STIMULI: EXTREME RAINFALL** | |
| **Decision Area/s** | **Technical Findings** | | **Implications** | **Policy Interventions** |
| **A** | **B** | | **C** | **D** |
| Sector: Infrastructure Area: Health, Education Indicator: Barangay Macayug | In Barangay Macayug, Barangay Health Station is located in low lying area and easily flooded. > Macayug Elementary School is located in low lying area and easily flooded. School buildings are made of mixed materials and not hazard resistant. | | >> Onset of water borne diseases >> Increased number of morbidity/ mortality rate >> Increased number of drop-out rate >> Reduced number of school attendance  >> Possible incidence of crime (looting) >> Inadequate medical supplies | >> Implementation of plans and ordinances (CLUP, CDP, MDRRMP, Zoning Ordinance) >> Conduct make-up classes >> Prioritization of Climate Change adaptive projects (slope protection, flood control system, construction of drainage system/ dike) |
| Sector: Infrastructure Area: Health, Education & Road Indicator: Barangay Navaluan | In Barangay Navaluan, Barangay Health Station is located in low lying area and easily flooded. > Navaluan Elementary School is located in low lying area. And some school buildings are made of mixed materials and not hazard resilient > 420 meters Farm to Market Road is located in low lying area and made of earth. Impassable during flood. | | >> Onset of water borne diseases >> Increased number of morbidity/ mortality rate >> Increased number of drop-out rate >> Reduced number of school attendance  >> Possible incidence of crime (looting) >> Inadequate medical supplies >> Delay of mobility of people, goods and services | >> Implementation of plans and ordinances (CLUP, CDP, MDRRMP, Zoning Ordinance) >> Conduct make-up classes >> Prioritization of Climate Change adaptive projects (slope protection, flood control system, construction of drainage system/ dike) |
| Sector: Infrastructure Area: Health, Education & Road Indicator: Barangay Nibaliw | In Barangay Nibaliw, Barangay Health Station is located in low lying area and easily flooded. > Nibaliw Elementary School is located in low lying area. And some school buildings are made of mixed materials and not hazard resilient > 420 meters barangay Road is located in low lying area made of gravel. Impassable during flood. | | >> Onset of water borne diseases >> Increased number of morbidity/ mortality rate >> Increased number of drop-out rate >> Reduced number of school attendance  >> Possible incidence of crime (looting) >> Inadequate medical supplies >> Delay of mobility of people, goods and services | >> Implementation of plans and ordinances (CLUP, CDP, MDRRMP, Zoning Ordinance) >> Conduct make-up classes >> Prioritization of Climate Change adaptive projects (slope protection, flood control system, construction of drainage system/ dike) |
| Sector: Infrastructure Area: Road Indicator: Barangay Osiem | In Barangay Osiem, Osiem barangay road is located in low lying area and made of earth. | | >> Increased number of drop-out rate >> Reduced number of school attendance >> Delay of mobility of people, goods and services | >> Implementation of plans and ordinances (CLUP, CDP, MDRRMP, Zoning Ordinance) >> Conduct make-up classes >> Prioritization of Climate Change adaptive projects (slope protection, flood control system, construction of drainage system/ dike) |
| Sector: Infrastructure Area: Health & Road Indicator: Barangay Palua | In Barangay Palua, Barangay Health Station is located in low lying area and easily flooded. > 1.600 km barangay road is located in low lying area and made of earth. Impassable during flood. | | >> Onset of water borne diseases >> Increased number of morbidity/ mortality rate >> Increased number of drop-out rate >> Reduced number of school attendance  >> Possible incidence of crime (looting) >> Inadequate medical supplies >> Delay of mobility of people, goods and services | >> Implementation of plans and ordinances (CLUP, CDP, MDRRMP, Zoning Ordinance) >> Conduct make-up classes >> Prioritization of Climate Change adaptive projects (slope protection, flood control system, construction of drainage system/ dike) |
| Sector: Infrastructure Area: Health, Education & Road Indicator: Barangay Poblacion | In Barangay Poblacion,Rural Health Unit I is located in low lying area and easily flooded > Mangaldan Central School is located in low lying area and easily flooded > 400 meters Duyala Road is located in low lying area with pothole and pavement crack. | | >> Onset of water borne diseases >> Increased number of morbidity/ mortality rate >> Increased number of drop-out rate >> Reduced number of school attendance  >> Possible incidence of crime (looting) >> Inadequate medical supplies >> Delay of mobility of people, goods and services | >> Implementation of plans and ordinances (CLUP, CDP, MDRRMP, Zoning Ordinance) >> Conduct make-up classes >> Prioritization of Climate Change adaptive projects (slope protection, flood control system, construction of drainage system/ dike) |
| Sector: Infrastructure Area: Health, Education & Road Indicator: Barangay Pogo | In Barangay Pogo Barangay Health Station is located in low lying area and easily flooded. > Pogo-Palua Elementary School is located in low lying area. And some school buildingsare made of mixed materials and not hazard resilient > 950 meters barangay road is located in low lying area and made of earth. Impassable during flood. | | >> Onset of water borne diseases >> Increase number of morbidity/ mortality rate >> Increase number of drop-out rate >> Reduced number of school attendance  >> Possible incidence of crime (looting) >> Inadequate medical supplies >> Delay of mobility of people, goods and services | >> Implementation of plans and ordinances (CLUP, CDP, MDRRMP, Zoning Ordinance) >> Conduct make-up classes >> Prioritization of Climate Change adaptive projects (slope protection, flood control system, construction of drainage system/ dike) |
| Sector: Infrastructure Area: Health, Education & Road Indicator: Barangay Salaan | In Barangay Salaan, Barangay Health Station is located in low lying area and easily flooded. > Salaan Elementary School is located in low lying area. And some school buildings are made of mixed materials and not hazard resilient > 550 meters barangay Road is located in low lying area and made of earth. Impassable during flood. | | >> Onset of water borne diseases >> Increased number of morbidity/ mortality rate >> Increased number of drop-out rate >> Reduced number of school attendance  >> Possible incidence of crime (looting) >> Inadequate medical supplies >> Delay of mobility of people, goods and services | >> Implementation of plans and ordinances (CLUP, CDP, MDRRMP, Zoning Ordinance) >> Conduct make-up classes >> Prioritization of Climate Change adaptive projects (slope protection, flood control system, construction of drainage system/ dike) |
| Sector: Infrastructure Area: Health, Education & Road Indicator: Barangay Talogtog | In Barangay Talogtog, Barangay Health Station is located in low lying area and easily flooded. > Talogtog-Bateng Elementary School is located in low lying area. And some school buildings are made of mixed materials and not hazard resilient > 586 meters barangay Road is located in low lying area and made of earth. Impassable during flood. | | >> Onset of water borne diseases >> Increased number of morbidity/ mortality rate >> Increased number of drop-out rate >> Reduced number of school attendance  >> Possible incidence of crime (looting) >> Inadequate medical supplies >> Delay of mobility of people, goods and services | >> Implementation of plans and ordinances (CLUP, CDP, MDRRMP, Zoning Ordinance) >> Conduct make-up classes >> Prioritization of Climate Change adaptive projects (slope protection, flood control system, construction of drainage system/ dike) |

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| Table 4.6 **CLIMATE CHANGE VULNERABILITY ASSESSMENT SUMMARY MATRIX** | | | | | | | | | | | | |
| **SYSTEM OF INTEREST: CRITICAL FACILITY CCVA** | | | | | | | | | | | | |
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| **CLIMATE STIMULI: EXTREME RAINFALL** | | |
| **Decision Area/s** | **Technical Findings** | | | | **Implications** | | | **Policy Interventions** | |
| **A** | **B** | | | | **C** | | | **D** | |
| Sector: Infrastructure Area: Health, Education & Road Indicator: Barangay Tebag | In Barangay Tebag, Barangay Health Station is located in low lying area and easily flooded. > Tebag Elementary School is located in low lying area. And some school buildings are made of mixed materials and not hazard resilient > 260 meters barangay Road is located in low lying area and made of earth. Impassable during flood. | | | | >> Onset of water borne diseases >> Increased number of morbidity/ mortality rate >> Increased number of drop-out rate >> Reduced number of school attendance  >> Possible incidence of crime (looting) >> Inadequate medical supplies >> Delay of mobility of people, goods and services | | | >> Implementation of plans and ordinances (CLUP, CDP, MDRRMP, Zoning Ordinance) >> Conduct make-up classes >> Prioritization of Climate Change adaptive projects (slope protection, flood control system, construction of drainage system/ dike) | |
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| **Instructions:** | | | | | | | | | |
| A. Based on the vulnerability maps generated for the various exposure units, highlight and identify decision areas or elements. Decision areas can be the barangay or specific sites in the barangay such as coastal area, mountain sides, and riverbanks. | | | | | | | | | |
| - identify decision areas in need of intervention based on the vulnerability maps | | | | | | | | | |
| - This can be identified as high to moderate vulnerable areas or may pertain to a specific area in the barangay | | | | | | | | | |
|  |  | | | |  | | |  | |
| B. List down the significant findings/observed conditions and causes by describing the area or element in terms of the level of vulnerability, highlighting the various contributing factors such as exposure, sensitivity, and adaptive capacity. | | | | | | | | | |
| - identify the climate stimuli and how these may manifest in the identified decision area | | | | | | | | | |
| - expound on the exposure information (i.e. number of affected population, exposure percentage, exposed area, and cost) | | | | | | | | | |
| - highlight relevant sensitivities of the exposed element to the identified climate stimulus | | | | | | | | | |
| - highlight relevant adaptive capacity indicators of the exposed element to the identified climate stimuli | | | | | | | | | |
|  |  | | | |  | | |  | |
| C. List down the planning/development implications when the identified vulnerabilities in the various decision areas are not addressed. | | | | | | | | | |
| - highlight potential impact as mentioned in the sectoral impact chains | | | | | | | | | |
| - highlight future scenario if vulnerabilities are not addressed | | | | | | | | | |
| - identify future needs with emphasis on the spatial framework plan of the municipality | | | | | | | | | |
|  |  | | | |  | | |  | |
| D. Identify various policy interventions that should seek to reduce the level of vulnerability by addressing the exposure, sensitivity, with consideration to the current adaptive capacities | | | | | | | | | |
| - identify the various climate change adaptation and mitigation measures to reduce vulnerabilities to acceptable and tolerable levels. | | | | | | | | | |
| Table 4.6 **CLIMATE CHANGE VULNERABILITY ASSESSMENT SUMMARY MATRIX** | | | | | | | | |
| **SYSTEM OF INTEREST: LIFELINE FACILITY CCVA** | | | | | |  | | | | |  |  | |
| **CLIMATE STIMULI: EXTREME RAINFALL** | | | | | |  | | | | |  |  | |
|  | | | | | |  | | | | |  |  | |
| **Decision Area/s** | | **Technical Findings** | | **Implications** | | | **Policy Interventions** | | |
| **A** | | **B** | | **C** | | | **D** | | |
| Sector: Infrastructure Area: Power Bridge Indicator: Barangay Talogtog | | Mangueragday Bridge is located in low lying area and need to rehabilitate/ retrofitting. | | >> Increased number of drop-out rate  >> Reduced number of school attendance >> Delay of mobility of people, goods and services | | | >> Implementation of plans and ordinances (CLUP, CDP, MDRRMP, Zoning Ordinance) >> Conduct make-up classes  >> Prioritization of Climate Change adaptive projects (slope protection, flood control system, construction of drainage system/ dike) | | |
| Sector: Infrastructure Area: Power (Electric Posts (CENPELCO) & Telecommunication posts) Indicator: Anolid, Banaoang, David, Guesang, Guiguilonen, Inlambo, Lanas, Landas, Maasin, Macayug, Navaluan, Osiem, Poblacion | | Electric posts & telecommunication posts are encroaching major transportation network causing great danger during flooding | | >> Slowed down of economic activities >> Loss of income >> Shortage of food supply >> Higher prices of goods | | | >> Implementation of plans and ordinances (CLUP, CDP, MDRRMP, Zoning Ordinance) >> Prioritization of Climate Change adaptive projects (slope protection, flood control system, construction of drainage system/ dike)  >> Sturdy & modern electrical posts | | |
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| **Instructions:** | | | | | | | | | |
| A. Based on the vulnerability maps generated for the various exposure units, highlight and identify decision areas or elements. Decision areas can be the barangay or specific sites in the barangay such as coastal area, mountain sides, and riverbanks. | | | | | | | | | |
| - Identify decision areas in need of intervention based on the vulnerability maps | | | | | | | | | |
| - This can be identified as high to moderate vulnerable areas or may pertain to a specific area in the barangay | | | | | | | | | |
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| B. List down the significant findings/observed conditions and causes by describing the area or element in terms of the level of vulnerability, highlighting the various contributing factors such as exposure, sensitivity, and adaptive capacity. | | | | | | | | | |
| - Identify the climate stimuli and how these may manifest in the identified decision area | | | | | | | | | |
| - Expound on the exposure information (i.e. number of affected population, exposure percentage, exposed area, and cost) | | | | | | | | | |
| - Highlight relevant sensitivities of the exposed element to the identified climate stimulus | | | | | | | | | |
| - Highlight relevant adaptive capacity indicators of the exposed element to the identified climate stimuli | | | | | | | | | |
|  | | | | | | | | | |  | | | |  |  |
| C. List down the planning/development implications when the identified vulnerabilities in the various decision areas are not addressed. | | | | | | | | | |
| - Highlight potential impact as mentioned in the sectoral impact chains | | | | | | | | | |
| - Highlight future scenario if vulnerabilities are not addressed | | | | | | | | | |
| - Identify future needs with emphasis on the spatial framework plan of the municipality | | | | | | | | | |
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| D. Identify various policy interventions that should seek to reduce the level of vulnerability by addressing the exposure, sensitivity, with consideration to the current adaptive capacities | | | | | | | | | |
| - Identify the various climate change adaptation and mitigation measures to reduce vulnerabilities to acceptable and tolerable levels. | | | | | | | | | |

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| Table 4.6 **CLIMATE CHANGE VULNERABILITY ASSESSMENT SUMMARY MATRIX** | | | | | |
| **SYSTEM OF INTEREST: URBAN USE CCVA** | | |  |  | | |  |
| **CLIMATE STIMULI: EXTREME RAINFALL** | | |  |  | | |  |
|  | | |  |  | | |  |
| **Decision Area/s** | **Technical Findings** | **Implications** | | | **Policy Interventions** | | | |
| **A** | **B** | **C** | | | **D** | | | |
| Sector: Social Area: Population (Residential Settlement) Indicator: Barangay Anolid | >In Barangay Anolid, 40 residential units are exposed to the identified climate stimuli, of which, 29 units are constructed in low lying areas and made of light materials & salvaged/ makeshift materials. | >> Increased number of informal settlers  >> Increased poverty >> Loss of livelihood >> Slowed down economic activities >> Higher prices of goods | | | >> Implementation of plans and ordinances (CLUP, CDP, MDRRMP, Zoning Ordinance)  >> Prioritization of Climate Change adaptive projects (slope protection, flood control system, construction of drainage system/ dike)  >> provision of different livelihood trainings as alternative sources of income | | | |
| Sector: Social Area: Population (Residential Settlement) Indicator: Barangay Banaoang | >In Barangay Banaoang, 83 residential units are exposed to the identified climate stimuli, of which 65 are constructed in low lying area and made of light materials and salvaged/ makeshift materials. | >> Increased number of informal settlers  >> Increased poverty >> Loss of livelihood >> Slowed down economic activities >> Higher prices of goods | | | >> Implementation of plans and ordinances (CLUP, CDP, MDRRMP, Zoning Ordinance)  >> Prioritization of Climate Change adaptive projects (slope protection, flood control system, construction of drainage system/ dike)  >> provision of different livelihood trainings as alternative sources of income | | | |
| Sector: Social Area: Population (Residential Settlement)  Indicator: Barangay Bantayan | > In Barangay Bantayan, 26 residential units are exposed to the identified climate stimuli, of which, 12 are constructed in low lying area and made of light materials and salvaged/ makeshift materials. | >> Increased number of informal settlers  >> Increased poverty >> Loss of livelihood >> Slowed down economic activities >> Higher prices of goods | | | >> Implementation of plans and ordinances (CLUP, CDP, MDRRMP, Zoning Ordinance)  >> Prioritization of Climate Change adaptive projects (slope protection, flood control system, construction of drainage system/ dike)  >> provision of different livelihood trainings as alternative sources of income | | | |
| Sector: Social Area: Population (Residential Settlement)  Indicator: Barangay Bateng | In Barangay Bateng, 20 residential units are exposed to the identified climate stimuli, of which 18 are constructed in low lying area and made of light materials and salvaged/ makeshift materials. | >> Increased number of informal settlers  >> Increased poverty >> Loss of livelihood >> Slowed down economic activities >> Higher prices of goods | | | >> Implementation of plans and ordinances (CLUP, CDP, MDRRMP, Zoning Ordinance) >> Prioritization of Climate Change adaptive projects (slope protection, flood control system, construction of drainage system/ dike) >> provision of different livelihood trainings as alternative source of income | | | |
| Sector: Social Area: Population (Residential Settlement) Indicator: Barangay David | In Barangay David, 150 residential units are exposed to the identified climate stimuli, of which 43 are constructed in low lying area and made of light materials and salvaged/ makeshift materials. | >> Increased number of informal settlers  >> Increased poverty >> Loss of livelihood >> Slowed down economic activities >> Higher prices of goods | | | >> Implementation of plans and ordinances (CLUP, CDP, MDRRMP, Zoning Ordinance)  >> Prioritization of Climate Change adaptive projects (slope protection, flood control system, construction of drainage system/ dike)  >> provision of different livelihood trainings as alternative sources of income | | | |
| Sector: Social Area: Population (Residential Settlement) Indicator: Barangay Embarcadero | In Barangay Embarcadero, 30 residential units are exposed to the identified climate stimuli, of which 25 are constructed in low lying area and made of light materials and salvaged/ makeshift materials. | >> Increased number of informal settlers  >> Increased poverty >> Loss of livelihood >> Slowed down economic activities >> Higher prices of goods | | | >> Implementation of plans and ordinances (CLUP, CDP, MDRRMP, Zoning Ordinance)  >> Prioritization of Climate Change adaptive projects (slope protection, flood control system, construction of drainage system/ dike)  >> provision of different livelihood trainings as alternative sources of income | | | |
| Sector: Social Area: Population (Residential Settlement) Indicator: Barangay Guesang | In Barangay Guesang, 14 residential units are exposed to the identified climate stimuli, of which 9 are constructed in low lying area and made of light materials and salvaged/ makeshift materials. | >> Increased number of informal settlers  >> Increased poverty >> Loss of livelihood >> Slowdown economic activities >> Higher prices of goods | | | >> Implementation of plans and ordinances (CLUP, CDP, MDRRMP, Zoning Ordinance)  >> Prioritization of Climate Change adaptive projects (slope protection, flood control system, construction of drainage system/ dike)  >> provision of different livelihood trainings as alternative sources of income | | | |
| Sector: Social Area: Population (Residential Settlement) Indicator: Barangay Guiguilonen | In Barangay Guiguilonen, 17 residential units are exposed to the identified climate stimuli, of which 12 are constructed in low lying area and made of light materials and salvaged/ makeshift materials. | >> Increased number of informal settlers  >> Increased poverty >> Loss of livelihood >> Slowed down economic activities >> Higher prices of goods | | | >> Implementation of plans and ordinances (CLUP, CDP, MDRRMP, Zoning Ordinance)  >> Prioritization of Climate Change adaptive projects (slope protection, flood control system, construction of drainage system/ dike)  >> provision of different livelihood trainings as alternative sources of income | | | |
| Sector: Social Area: Population (Residential Settlement) Indicator: Barangay Inlambo | In Barangay Inlambo, 33 residential units are exposed to the identified climate stimuli, of which 30 are constructed in low lying area and made of light materials and salvaged/ makeshift materials. | >> Increased number of informal settlers  >> Increased poverty >> Loss of livelihood >> Slowed down economic activities >> Higher prices of goods | | | >> Implementation of plans and ordinances (CLUP, CDP, MDRRMP, Zoning Ordinance) >> Prioritization of Climate Change adaptive projects (slope protection, flood control system, construction of drainage system/ dike) >> provision of different livelihood trainings as alternative sources of income | | | |
| Sector: Social Area: Population (Residential Settlement) Indicator: Barangay Lanas | In Barangay Lanas, 21 residential units are exposed to the identified climate stimuli, of which 21 constructed in low lying area and made of light materials and salvaged/ makeshift materials. | >> Increased number of informal settlers  >> Increased poverty >> Loss of livelihood >> Slowdown economic activities >> Higher prices of goods | | | >> Implementation of plans and ordinances (CLUP, CDP, MDRRMP, Zoning Ordinance)  >> Prioritization of Climate Change adaptive projects (slope protection, flood control system, construction of drainage system/ dike)  >> provision of different livelihood trainings as alternative sources of income | | | |
| Sector: Social Area: Population (Residential Settlement) Indicator: Barangay Landas | In Barangay Landas, 4 residential units are exposed to the identified climate stimuli, of which 2 houses are constructed in low lying area and made of light materials and salvaged/ makeshift materials. | >> Increased number of informal settlers  >> Increased poverty >> Loss of livelihood >> Slowed down economic activities >> Higher prices of goods | | | >> Implementation of plans and ordinances (CLUP, CDP, MDRRMP, Zoning Ordinance)  >> Prioritization of Climate Change adaptive projects (slope protection, flood control system, construction of drainage system/ dike)  >> provision of different livelihood trainings as alternative sources of income | | | |
| Sector: Social Area: Population (Residential Settlement) Indicator: Barangay Maasin | In Barangay Maasin, 315 residential units are exposed to the identified climate stimuli, of which 5 are constructed in low lying area and made of light materials and salvaged/ makeshift materials. | >> Increased number of informal settlers  >> Increased poverty >> Loss of livelihood >> Slowed down economic activities >> Higher prices of goods | | | >> Implementation of plans and ordinances (CLUP, CDP, MDRRMP, Zoning Ordinance)  >> Prioritization of Climate Change adaptive projects (slope protection, flood control system, construction of drainage system/ dike)  >> provision of different livelihood trainings as alternative sources of income | | | |

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| Table 4.6 **CLIMATE CHANGE VULNERABILITY ASSESSMENT SUMMARY MATRIX** | | | |
| **SYSTEM OF INTEREST: URBAN USE CCVA** | | | |
| **CLIMATE STIMULI: EXTREME RAINFALL** | | | |
| **Decision Area/s** | **Technical Findings** | **Implications** | **Policy Interventions** |
| **A** | **B** | **C** | **D** |
| Sector: Social Area: Population (Residential Settlement) Indicator: Barangay Macayug | In Barangay Macayug, 8 residential units are exposed to the identified climate stimuli, of which 8 are constructed in low lying area and made of light materials and salvaged/ makeshift materials. | >> Increased number of informal settlers  >> Increased poverty >> Loss of livelihood >> Slowed down economic activities >> Higher prices of goods | >> Implementation of plans and ordinances (CLUP, CDP, MDRRMP, Zoning Ordinance)  >> Prioritization of Climate Change adaptive projects (slope protection, flood control system, construction of drainage system/ dike)  >> provision of different livelihood trainings as alternative sources of income |
| Sector: Social Area: Population (Residential Settlement) Indicator: Barangay Navaluan | In Barangay Navaluan, 26 residential units are exposed to the identified climate stimuli, of which 8 are constructed in low lying area and made of light materials and salvaged/ makeshift materials. | >> Increased number of informal settlers  >> Increased poverty >> Loss of livelihood >> Slowed down economic activities >> Higher prices of goods | >> Implementation of plans and ordinances (CLUP, CDP, MDRRMP, Zoning Ordinance)  >> Prioritization of Climate Change adaptive projects (slope protection, flood control system, construction of drainage system/ dike)  >> provision of different livelihood trainings as alternative sources of income |
| Sector: Social Area: Population (Residential Settlement) Indicator: Barangay Nibaliw | In Barangay Nibaliw, 53 residential units are exposed to the identified climate stimuli, of which 48 are constructed in low lying area and made of light materials and salvaged/ makeshift materials. | >> Increased number of informal settlers  >> Increased poverty >> Loss of livelihood >> Slowed down economic activities >> Higher prices of goods | >> Implementation of plans and ordinances (CLUP, CDP, MDRRMP, Zoning Ordinance)  >> Prioritization of Climate Change adaptive projects (slope protection, flood control system, construction of drainage system/ dike)  >> provision of different livelihood trainings as alternative sources of income |
| Sector: Social Area: Population (Residential Settlement) Indicator: Barangay Osiem | In Barangay Osiem, 22 residential units are exposed to the identified climate stimuli, of which 21 are constructed in low lying area and made of light materials and salvaged/ makeshift materials. | >> Increased number of informal settlers  >> Increased poverty >> Loss of livelihood >> Slowed down economic activities >> Higher prices of goods | >> Implementation of plans and ordinances (CLUP, CDP, MDRRMP, Zoning Ordinance)  >> Prioritization of Climate Change adaptive projects (slope protection, flood control system, construction of drainage system/ dike)  >> provision of different livelihood trainings as alternative sources of income |
| Sector: Social Area: Population (Residential Settlement) Indicator: Barangay Palua | In Barangay Palua, 50 residential units are exposed to the identified climate stimuli, of which 24 are constructed in low lying area and made of light materials and salvaged/ makeshift materials. | >> Increased number of informal settlers  >> Increased poverty >> Loss of livelihood >> Slowed down economic activities >> Higher prices of goods | >> Implementation of plans and ordinances (CLUP, CDP, MDRRMP, Zoning Ordinance)  >> Prioritization of Climate Change adaptive projects (slope protection, flood control system, construction of drainage system/ dike)  >> provision of different livelihood trainings as alternative sources of income |
| Sector: Social Area: Population (Residential Settlement) Indicator: Barangay Poblacion | In Barangay Poblacion, 14 residential units are exposed to the identified climate stimuli, of which 9 are constructed in low lying area and made of light materials and salvaged/ makeshift materials. | >> Increased number of informal settlers  >> Increased poverty >> Loss of livelihood >> Slowed down economic activities >> Higher prices of goods | >> Implementation of plans and ordinances (CLUP, CDP, MDRRMP, Zoning Ordinance)  >> Prioritization of Climate Change adaptive projects (slope protection, flood control system, construction of drainage system/ dike)  >> provision of different livelihood trainings as alternative sources of income |
| Sector: Social Area: Population (Residential Settlement) Indicator: Barangay Pogo | In Barangay Pogo, 12 residential units are exposed to the identified climate stimuli, of which 12 houses are constructed in low lying area and made of light materials and salvaged/ makeshift materials. | >> Increased number of informal settlers  >> Increased poverty >> Loss of livelihood >> Slowed down economic activities >> Higher prices of goods | >> Implementation of plans and ordinances (CLUP, CDP, MDRRMP, Zoning Ordinance)  >> Prioritization of Climate Change adaptive projects (slope protection, flood control system, construction of drainage system/ dike)  >> provision of different livelihood trainings as alternative sources of income |
| Sector: Social Area: Population (Residential Settlement) Indicator: Barangay Salaan | In Barangay Salaan, 22 residential units are exposed to the identified climate stimuli, of which 15 houses are constructed in low lying area and made of light materials and salvaged/ makeshift materials. | >> Increased number of informal settlers  >> Increased poverty >> Loss of livelihood >> Slowed down economic activities >> Higher prices of goods | >> Implementation of plans and ordinances (CLUP, CDP, MDRRMP, Zoning Ordinance)  >> Prioritization of Climate Change adaptive projects (slope protection, flood control system, construction of drainage system/ dike)  >> provision of different livelihood trainings as alternative sources of income |
| Sector: Social Area: Population (Residential Settlement) Indicator: Barangay Talogtog | In Barangay Talogtog, 14 residential units are exposed to the identified climate stimuli, of which 3 houses are constructed in low lying area and made of light materials and salvaged/ makeshift materials. | >> Increased number of informal settlers  >> Increased poverty >> Loss of livelihood >> Slowed down economic activities >> Higher prices of goods | >> Implementation of plans and ordinances (CLUP, CDP, MDRRMP, Zoning Ordinance)  >> Prioritization of Climate Change adaptive projects (slope protection, flood control system, construction of drainage system/ dike)  >> provision of different livelihood trainings as alternative sources of income |
| Sector: Social Area: Population (Residential Settlement) Indicator: Barangay Tebag | In Barangay Tebag, 54 residential units are exposed to the identified climate stimuli, of which 50 houses are constructed in low lying area and made of light materials and salvaged/ makeshift materials. | >> Increased number of informal settlers  >> Increased poverty >> Loss of livelihood >> Slowed down economic activities >> Higher prices of goods | >> Implementation of plans and ordinances (CLUP, CDP, MDRRMP, Zoning Ordinance)  >> Prioritization of Climate Change adaptive projects (slope protection, flood control system, construction of drainage system/ dike)  >> provision of different livelihood trainings as alternative sources of income |
| Sector: Economic Area: Commerce & Industry Indicator: Barangay Anolid | > In Barangay Anolid, 40 out of 95 or 42.11% business establishments are located in low lying area and easily flooded. | >> Increased number of informal settlers  >> Increased poverty >> Loss of livelihood >> Slowed down economic activities >> Higher prices of goods | >> Implementation of plans and ordinances (CLUP, CDP, MDRRMP, Zoning Ordinance)  >> Prioritization of Climate Change adaptive projects (slope protection, flood control system, construction of drainage system/ dike)  >> provision of different livelihood trainings as alternative sources of income |
| Sector: Economic Area: Commerce & Industry Indicator: Barangay Banaoang | > In Barangay Banaoang, 8 out of 29 or 27.59% business establishments are located in low lying area and easily flooded. | >> Increased number of informal settlers  >> Increased poverty >> Loss of livelihood >> Slowed down economic activities >> Higher prices of goods | >> Implementation of plans and ordinances (CLUP, CDP, MDRRMP, Zoning Ordinance)  >> Prioritization of Climate Change adaptive projects (slope protection, flood control system, construction of drainage system/ dike)  >> provision of different livelihood trainings as alternative sources of income |

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| Table 4.6 **CLIMATE CHANGE VULNERABILITY ASSESSMENT SUMMARY MATRIX** | | | |
| **SYSTEM OF INTEREST: URBAN USE CCVA** | | | |
| **CLIMATE STIMULI: EXTREME RAINFALL** | | | |
| **Decision Area/s** | **Technical Findings** | **Implications** | **Policy Interventions** |
| **A** | **B** | **C** | **D** |
| Sector: Economic Area: Commerce & Industry Indicator: Barangay Bantayan | In Barangay Bantayan, 4 out of 12 or 33.33% business establishments are located in low lying area and easily flooded | >> Increased number of informal settlers  >> Increased poverty >> Loss of livelihood >> Slowed down economic activities >> Higher prices of goods | >> Implementation of plans and ordinances (CLUP, CDP, MDRRMP, Zoning Ordinance)  >> Prioritization of Climate Change adaptive projects (slope protection, flood control system, construction of drainage system/ dike)  >> provision of different livelihood trainings as alternative sources of income |
| Sector: Economic Area: Commerce & Industry Indicator: Barangay Bateng | In Barangay Bateng, 4 out of 16 or 25% business establishments are located in low lying area and easily flooded | >> Increased number of informal settlers  >> Increased poverty >> Loss of livelihood >> Slowed down economic activities >> Higher prices of goods | >> Implementation of plans and ordinances (CLUP, CDP, MDRRMP, Zoning Ordinance)  >> Prioritization of Climate Change adaptive projects (slope protection, flood control system, construction of drainage system/ dike)  >> provision of different livelihood trainings as alternative sources of income |
| Sector: Economic Area: Commerce & Industry Indicator: Barangay David | In Barangay David, 7 out of 17 or 41.18% business establishments are located in low lying area and easily flooded. | >> Increased number of informal settlers  >> Increased poverty >> Loss of livelihood >> Slowed down economic activities >> Higher prices of goods | >> Implementation of plans and ordinances (CLUP, CDP, MDRRMP, Zoning Ordinance)  >> Prioritization of Climate Change adaptive projects (slope protection, flood control system, construction of drainage system/ dike)  >> provision of different livelihood trainings as alternative sources of income |
| Sector: Economic Area: Commerce & Industry Indicator: Barangay Embarcadero | In Barangay Embarcadero, 10 out of 20 or 50% business establishments are located in low lying area | >> Increased number of informal settlers  >> Increased poverty >> Loss of livelihood >> Slowed down economic activities >> Higher prices of goods | >> Implementation of plans and ordinances (CLUP, CDP, MDRRMP, Zoning Ordinance)  >> Prioritization of Climate Change adaptive projects (slope protection, flood control system, construction of drainage system/ dike)  >> provision of different livelihood trainings as alternative sources of income |
| Sector: Economic Area: Commerce & Industry Indicator: Barangay Guesang | In Barangay Guesang, 3 out of 10 or 30% business establishments are located in low lying area and easily flooded. | >> Increased number of informal settlers  >> Increased poverty >> Loss of livelihood >> Slowed down economic activities >> Higher prices of goods | >> Implementation of plans and ordinances (CLUP, CDP, MDRRMP, Zoning Ordinance)  >> Prioritization of Climate Change adaptive projects (slope protection, flood control system, construction of drainage system/ dike)  >> provision of different livelihood trainings as alternative sources of income |
| Sector: Economic Area: Commerce & Industry Indicator: Barangay Guiguilonen | In Barangay Guiguilonen, 12 out of 24 or 50% business establishments are located in low lying area and easily flooded | >> Increased number of informal settlers  >> Increased poverty >> Loss of livelihood >> Slowed down economic activities >> Higher prices of goods | >> Implementation of plans and ordinances (CLUP, CDP, MDRRMP, Zoning Ordinance)  >> Prioritization of Climate Change adaptive projects (slope protection, flood control system, construction of drainage system/ dike)  >> provision of different livelihood trainings as alternative sources of income |
| Sector: Economic Area: Commerce & Industry Indicator: Barangay Inlambo | In Barangay Inlambo, 2 out of 8 or 25% business establishments are located in low lying area and easily flooded | >> Increased number of informal settlers  >> Increased poverty >> Loss of livelihood >> Slowed down economic activities >> Higher prices of goods | >> Implementation of plans and ordinances (CLUP, CDP, MDRRMP, Zoning Ordinance)  >> Prioritization of Climate Change adaptive projects (slope protection, flood control system, construction of drainage system/ dike) >> provision of different livelihood trainings as alternative source of income |
| Sector: Economic Area: Commerce & Industry Indicator: Barangay Lanas | In Barangay Lanas, 4 out of 10 or 40% business establishments are located in low lying area and easily flooded | >> Increased number of informal settlers  >> Increased poverty >> Loss of livelihood >> Slowed down economic activities >> Higher prices of goods | >> Implementation of plans and ordinances (CLUP, CDP, MDRRMP, Zoning Ordinance)  >> Prioritization of Climate Change adaptive projects (slope protection, flood control system, construction of drainage system/ dike)  >> provision of different livelihood trainings as alternative sources of income |
| Sector: Economic Area: Commerce & Industry Indicator: Barangay Landas | In Barangay Landas, 6 out of 11 or 54.55% business establishments are located in low lying area and easily flooded | >> Increased number of informal settlers  >> Increased poverty >> Loss of livelihood >> Slowed down economic activities >> Higher prices of goods | >> Implementation of plans and ordinances (CLUP, CDP, MDRRMP, Zoning Ordinance)  >> Prioritization of Climate Change adaptive projects (slope protection, flood control system, construction of drainage system/ dike)  >> provision of different livelihood trainings as alternative sources of income |
| Sector: Economic Area: Commerce & Industry Indicator: Barangay Maasin | In Barangay Maasin, 10 out of 21 or 47.62% business establishments are located in low lying area and easily flooded. | >> Increased number of informal settlers  >> Increased poverty >> Loss of livelihood >> Slowed down economic activities >> Higher prices of goods | >> Implementation of plans and ordinances (CLUP, CDP, MDRRMP, Zoning Ordinance)  >> Prioritization of Climate Change adaptive projects (slope protection, flood control system, construction of drainage system/ dike)  >> provision of different livelihood trainings as alternative sources of income |
| Sector: Economic Area: Commerce & Industry Indicator: Barangay Macayug | In Barangay Macayug, 3 out of 7 or 42.86% business establishments are located in low lying area and easily flooded. | >> Increased number of informal settlers  >> Increased poverty >> Loss of livelihood >> Slowed down economic activities >> Higher prices of goods | >> Implementation of plans and ordinances (CLUP, CDP, MDRRMP, Zoning Ordinance)  >> Prioritization of Climate Change adaptive projects (slope protection, flood control system, construction of drainage system/ dike)  >> provision of different livelihood trainings as alternative sources of income |
| Sector: Economic Area: Commerce & Industry Indicator: Barangay Navaluan | In Barangay Navaluan, 5 out of 11 or 45% business establishments are located in low lying area | >> Increased number of informal settlers  >> Increased poverty >> Loss of livelihood >> Slowed down economic activities >> Higher prices of goods | >> Implementation of plans and ordinances (CLUP, CDP, MDRRMP, Zoning Ordinance)  >> Prioritization of Climate Change adaptive projects (slope protection, flood control system, construction of drainage system/ dike)  >> provision of different livelihood trainings as alternative sources of income |

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| Table 4.6 **CLIMATE CHANGE VULNERABILITY ASSESSMENT SUMMARY MATRIX** | | | |
| **SYSTEM OF INTEREST: URBAN USE CCVA** | | | |
| **CLIMATE STIMULI: EXTREME RAINFALL** | | | |
| **Decision Area/s** | **Technical Findings** | **Implications** | **Policy Interventions** |
| **A** | **B** | **C** | **D** |
| Sector: Economic Area: Commerce & Industry Indicator: Barangay Nibaliw | In Barangay Nibaliw, 2 out of 11 or 18.18% business establishments are located in low lying area and easily flooded. | >> Increased number of informal settlers  >> Increased poverty >> Loss of livelihood >> Slowed down economic activities >> Higher prices of goods | >> Implementation of plans and ordinances (CLUP, CDP, MDRRMP, Zoning Ordinance)  >> Prioritization of Climate Change adaptive projects (slope protection, flood control system, construction of drainage system/ dike)  >> provision of different livelihood trainings as alternative sources of income |
| Sector: Economic Area: , Commerce & Industry Indicator: Barangay Osiem | In Barangay Osiem, 7 out of 13 or 53.85% business establishments are located in low lying area and easily flooded. | >> Increased number of informal settlers  >> Increased poverty >> Loss of livelihood >> Slowed down economic activities >> Higher prices of goods | >> Implementation of plans and ordinances (CLUP, CDP, MDRRMP, Zoning Ordinance)  >> Prioritization of Climate Change adaptive projects (slope protection, flood control system, construction of drainage system/ dike)  >> provision of different livelihood trainings as alternative sources of income |
| Sector: Economic Area: , Commerce & Industry Indicator: Barangay Palua | In Barangay Palua, 6 out of 10 or 60% business establishments are located in low lying area | >> Increased number of informal settlers  >> Increased poverty >> Loss of livelihood >> Slowed down economic activities >> Higher prices of goods | >> Implementation of plans and ordinances (CLUP, CDP, MDRRMP, Zoning Ordinance)  >> Prioritization of Climate Change adaptive projects (slope protection, flood control system, construction of drainage system/ dike)  >> provision of different livelihood trainings as alternative sources of income |
| Sector: Economic Area: Commerce & Industry Indicator: Barangay Poblacion | In Barangay Poblacion, 100 out of 355 or 28% business establishmentsare located in low lying area | >>Increased number of informal settlers  >> Increased poverty >> Loss of livelihood >> Slowed down economic activities >> Higher prices of goods | >> Implementation of plans and ordinances (CLUP, CDP, MDRRMP, Zoning Ordinance)  >> Prioritization of Climate Change adaptive projects (slope protection, flood control system, construction of drainage system/ dike)  >> provision of different livelihood trainings as alternative sources of income |
| Sector: Economic Area: Commerce & Industry Indicator: Barangay Pogo | In Barangay Pogo, 5 out of 10 or 50% business establishmentsare located in low lying area | >> Increased number of informal settlers  >> Increased poverty >> Loss of livelihood >> Slowdown economic activities >> Higher prices of goods | >> Implementation of plans and ordinances (CLUP, CDP, MDRRMP, Zoning Ordinance)  >> Prioritization of Climate Change adaptive projects (slope protection, flood control system, construction of drainage system/ dike)  >> provision of different livelihood trainings as alternative sources of income |
| Sector: Economic Area: Commerce & Industry Indicator: Barangay Salaan | In Barangay Salaan, 5 out of 8 or 62.5% business establishmentsare located in low lying area and easily flooded. | >> Increased number of informal settlers  >> Increased poverty >> Loss of livelihood >> Slowed down economic activities >> Higher prices of goods | >> Implementation of plans and ordinances (CLUP, CDP, MDRRMP, Zoning Ordinance)  >> Prioritization of Climate Change adaptive projects (slope protection, flood control system, construction of drainage system/ dike)  >> provision of different livelihood trainings as alternative sources of income |
| Sector: Economic Area: Commerce & Industry Indicator: Barangay Talogtog | In Barangay Talogtog, 8 out of 15 or 53.33% business establishments are located in low lying area | >> Increased number of informal settlers  >> Increased poverty >> Loss of livelihood >> Slowed down economic activities >> Higher prices of goods | >> Implementation of plans and ordinances (CLUP, CDP, MDRRMP, Zoning Ordinance)  >> Prioritization of Climate Change adaptive projects (slope protection, flood control system, construction of drainage system/ dike)  >> provision of different livelihood trainings as alternative sources of income |
| Sector: Economic Area: Agriculture (Farmers), Commerce & Industry Indicator: Barangay Tebag | In Barangay Tebag, 10 out of 24 or 41.67% business establishments are located in low lying area and easily flooded. | >> Increased number of informal settlers  >> Increased poverty >> Loss of livelihood >> Slowed down economic activities >> Higher prices of goods | >> Implementation of plans and ordinances (CLUP, CDP, MDRRMP, Zoning Ordinance)  >> Prioritization of Climate Change adaptive projects (slope protection, flood control system, construction of drainage system/ dike)  >> provision of different livelihood trainings as alternative sources of income |
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| **Instructions:** | | | |
| A. Based on the vulnerability maps generated for the various exposure units, highlight and identify decision areas or elements. Decision areas can be the barangay or specific sites in the barangay such as coastal area, mountain sides, and riverbanks. | | | |
| - identify decision areas in need of intervention based on the vulnerability maps | | | |
| - This can be identified as high to moderate vulnerable areas or may pertain to a specific area in the barangay | | | |
|  | | | |  |  |  |
| B. List down the significant findings/observed conditions and causes by describing the area or element in terms of the level of vulnerability, highlighting the various contributing factors such as exposure, sensitivity, and adaptive capacity. | | | |
| - identify the climate stimuli and how these may manifest in the identified decision area | | | |
| - expound on the exposure information (i.e. number of affected population, exposure percentage, exposed area, and cost) | | | |
| - highlight relevant sensitivities of the exposed element to the identified climate stimulus | | | |
| - highlight relevant adaptive capacity indicators of the exposed element to the identified climate stimuli | | | |
|  | | | |  |  |  |
| C. List down the planning/development implications when the identified vulnerabilities in the various decision areas are not addressed. | | | |
| - highlight potential impact as mentioned in the sectoral impact chains | | | |
| - highlight future scenario if vulnerabilities are not addressed | | | |
| - identify future needs with emphasis on the spatial framework plan of the municipality | | | |
|  | | | |  |  |  |
| D. Identify various policy interventions that should seek to reduce the level of vulnerability by addressing the exposure, sensitivity, with consideration to the current adaptive capacities | | | |
| - identify the various climate change adaptation and mitigation measures to reduce vulnerabilities to acceptable and tolerable levels. | | | |

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| Table 11. **DISASTER RISK ASSESSMENT SUMMARY MATRIX** | | | | | | | | | | | | | | | | | | | |
| **SYSTEM OF INTEREST: POPULATION DRA** | | | | | | | | | | | | | | | | | | | |
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| **HAZARD: FLOODING** | |  |  | |  |  |  |  |  |  | |  |  |  |  |  |  |  |  |
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| **Decision Area/s** | | **Technical Findings** | | | **Implications** | | | | | | | **Policy Interventions** | | | | | | | | | |  |  |  |  |  |  |  |  |  |  |  |  |  |
| **A** | | **B** | | | **C** | | | | | | | **D** | | | | | | | | | |  |  |  |  |  |  |  |  |  |  |  |  |  |
| Sector: Social Area: Population (Residential Settlement), Education  Indicator: Barangay Anolid | | In Barangay Anolid, 1,669 household are exposed to the identified climate stimuli, of which 15.27% of householdsare living in low lying areas and below poverty threshold. Of the 1,656 enrolled, 4.52% pupils/ students are sensitive since they belong to families beyond poverty threshold, out of the total, 50 are males & 25 are females. > The level of exposure and vulnerability of the population is characterized as moderate. The LGU's capability and adaptability measure is at an acceptable level. | | | >> Onset of water borne diseases >> Increased number of morbidity/ mortality rate >> Increased number of drop-out rate >> Reduced number of school attendance >> Possible incidence of crime (looting) | | | | | | | >> Implementation of plans and ordinances (CLUP, CDP, MDRRMP, Zoning Ordinance) >> Conduct of medical and financial assistance >> Ensure peace and order | | | | | | | | | |  |  |  |  |  |  |  |  |  |  |  |  |  |
| Sector: Economic Area: Agriculture (Farmers & Fishermen), Commerce & Industry Indicator: Barangay Anolid | | In Barangay Anolid, 140 farmers are exposed to the identified climate stimuli, of which 57.85% of farmers are sensitive since they belong to families beyond poverty threshold and live in low lying area. Out of the total 75 are males and 25 are females. > Of the 10 fishermen, 8 are sensitive since they are living in low lying area, of which 7 are males and 1 is female. > Of the total 95 owners/ entrepreneurs, 40 of the entrepreneurs are sensitive since they are living in low lying area and 10 belong to families beyond poverty threshold .> The level of exposure and vulnerability of the farmers & business owners is characterized as moderate. The LGU's capability and adaptability measure is at an acceptable level. | | | >> Decreased of production >> Loss of Income >> Loss of livelihood >> Food shortage >> Increased malnutrition  >> Price hike of various commodities | | | | | | | >> Conduct Livelihood Programs >> Provision of disaster resilient flood control projects >> Seed subsidy (high yield and flood resilient variety) >> Adjust planting season of various crops >> Implementation of plans and ordinances (CLUP, CDP, MDRRMP, Zoning Ordinance) >> Prioritization of Climate Change adaptive projects (slope protection, flood control system, construction of drainage system/ dike) >> provision of different livelihood trainings as alternative sources of income >> Construction of communal irrigation system  >> Fingerlings dispersal >> Planting of mangroves | | | | | | | | | |  |  |  |  |  |  |  |  |  |  |  |  |  |
| Sector: Social Area: Population (Residential Settlement), Education  Indicator: Barangay Banaoang | | >In Barangay Banaoang, 1,129 household are exposed to the identified climate stimuli, 24.45% hhs are living in low lying areas and below poverty threshold. Of the 1,656 enrolled, of which 4.52% pupils/ students are sensitive since they belong to families beyond poverty threshold, out of the total, 50 are males & 25 are females.  > The level of exposure and vulnerability of the population is characterized as moderate. The LGU's capability and adaptability measure is at an acceptable level. | | | >> Onset of water borne diseases >> Increased number of morbidity/ mortality rate >> Increased number of drop-out rate >> Reduced number of school attendance >> Possible incidence of crime (looting) >> Unsafe living conditions | | | | | | | >> Implementation of plans and ordinances (CLUP, CDP, MDRRMP, Zoning Ordinance) >> Conduct of medical and financial assistance >> Ensure peace and order | | | | | | | | | |  |  |  |  |  |  |  |  |  |  |  |  |  |
| Sector: Economic Area: Agriculture (Farmers), Commerce & Industry Indicator: Barangay Banaoang | | > In Barangay Banaoang, 68 farmers are exposed to the identified climate stimuli, of which, 13 farmers are sensitive since they belong to families beyond poverty threshold and live in low lying area. Out of the total, 7 are males and 5 are females. > Of the 29 total owners/ entrepreneurs 8 of the entrepreneurs are sensitive since they are living in low lying area and 2 belong to families beyond poverty threshold.  > The level of exposure and vulnerability of the farmers & business owners is characterized as moderate. The LGU's capability and adaptability measure is at an acceptable level. | | | >> Decreased of production >> Loss of Income >> Loss of livelihood >> Food shortage >> Increased malnutrition  >> Price hike of various commodities | | | | | | | >> Conduct Livelihood Programs >> Provision of disaster resilient flood control projects >> Seed subsidy (high yield and flood resilient variety) >> Adjust planting season of various crops >> Implementation of plans and ordinances (CLUP, CDP, MDRRMP, Zoning Ordinance) >> Prioritization of Climate Change adaptive projects (slope protection, flood control system, construction of drainage system/ dike) >> provision of different livelihood trainings as alternative source of income >> Construction of communal irrigation system | | | | | | | | | |  |  |  |  |  |  |  |  |  |  |  |  |  |
| Sector: Social Area: Population (Residential Settlement), Education  Indicator: Barangay Bantayan | | > In Barangay Bantayan, 868 household are exposed to the identified climate stimuli, 16.13% hhs are living in low lying areas and below poverty threshold. Of the 721 enrolled, 33 pupils/ students are sensitive since they belong to families beyond poverty threshold, of which 17 are males & 16 are females > The level of exposure and vulnerability of the population is characterized as moderate. The LGU's capability and adaptability measure is at an acceptable level. | | | >> Onset of water borne diseases >> Increased number of morbidity/ mortality rate >> Increased number of drop-out rate >> Reduced number of school attendance >> Possible incidence of crime (looting) | | | | | | | >> Implementation of plans and ordinances (CLUP, CDP, MDRRMP, Zoning Ordinance) >> Conduct of medical and financial assistance >> Ensure peace and order | | | | | | | | | |  |  |  |  |  |  |  |  |  |  |  |  |  |
| Sector: Economic Area: Agriculture (Farmers), Commerce & Industry Indicator: Barangay Bantayan | | In Barangay Bantayan, 77 farmers are exposed to the identified climate stimuli, of which 15 farmers are sensitive since they belong to families beyond poverty threshold and live in low lying area. Out of the total 10 are males and 5 are females. > Of the 12 total owners/ entrepreneurs 4 of the entrepreneurs are sensitive since they are living in low lying area and 3 belong to families beyond poverty threshold  > The level of exposure and vulnerability of the farmers & business owners is characterized as moderate. The LGU's capability and adaptability measure is at an acceptable level. | | | >> Decreased of production>> Loss of Income>> Loss of livelihood >> Food shortage >> Increased malnutrition >> Price hike of various commodities | | | | | | | >> Conduct Livelihood Programs>> Provision of disaster resilient flood control projects>> Seed subsidy (high yield and flood resilient variety)  >> Adjust planting season of various crops >> Implementation of plans and ordinances (CLUP, CDP, MDRRMP, Zoning Ordinance) >> Prioritization of Climate Change adaptive projects (slope protection, flood control system, construction of drainage system/ dike) >> provision of different livelihood trainings as alternative sources of income >> Construction of communal irrigation system | | | | | | | | | |  |  |  |  |  |  |  |  |  |  |  |  |  |
| Sector: Social Area: Population (Residential Settlement), Education  Indicator: Barangay Bateng | | In Barangay Bateng, 569 household are exposed to the identified climate stimuli, 37.78% hhs are living in low lying areas and below poverty threshold. Of the 602 enrolled, 3.65% pupils/ students are sensitive since they belong to families beyond poverty threshold, of which 11 are males & 11 are females. > The level of exposure and vulnerability of the population is characterized as moderate. The LGU's capability and adaptability measure is at an acceptable level. | | | >> Onset of water borne diseases >> Increased number of morbidity/ mortality rate >> Increased number of drop-out rate >> Reduced number of school attendance >> Possible incidence of crime (looting) | | | | | | | >> Implementation of plans and ordinances (CLUP, CDP, MDRRMP, Zoning Ordinance) >> Conduct of medical and financial assistance >> Ensure peace and order | | | | | | | | | |  |  |  |  |  |  |  |  |  |  |  |  |  |

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| Table 11. **DISASTER RISK ASSESSMENT SUMMARY MATRIX** | | | | | | | | | | | | | | | | | | | |
| **SYSTEM OF INTEREST: POPULATION DRA** | | | | | | | | | | | | | | | | | | | |
| **HAZARD: FLOODING** | |  |  | |  |  |  |  |  |  | |  |  |  |  |  |  |  |  |
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| **Decision Area/s** | | **Technical Findings** | | | **Implications** | | | | | | | **Policy Interventions** | | | | | | | | | |
| **A** | | **B** | | | **C** | | | | | | | **D** | | | | | | | | | |
| Sector: Economic Area: Agriculture (Farmers & Fishermen), Commerce & Industry Indicator: Barangay Bateng | | In Barangay Bateng, 31 farmers are exposed to the identified climate stimuli, 10 farmers are sensitive since they belong to families beyond poverty threshold and live in low lying area. Of which 6 are males and 4 are females. >Of the 90 fishermen, 60 are sensitive since they are living in low lying area, of which 40 are males and 20 are females. > Of the 16 total owners/ entrepreneurs 4 of the entrepreneurs are sensitive since they are living in low lying area and 6 belong to families beyond poverty threshold  > The level of exposure and vulnerability of the farmers & business owners is characterized as moderate. The LGU's capability and adaptability measure is at an acceptable level. | | | >> Decreased of production >> Loss of Income >> Loss of livelihood >> Food shortage >> Increased malnutrition  >> Price hike of various commodities | | | | | | | >> Conduct Livelihood Programs >> Provision of disaster resilient flood control projects >> Seed subsidy (high yield and flood resilient variety) >> Adjust planting season of various crops >> Implementation of plans and ordinances (CLUP, CDP, MDRRMP, Zoning Ordinance) >> Prioritization of Climate Change adaptive projects (slope protection, flood control system, construction of drainage system/ dike) >> provision of different livelihood trainings as alternative sources of income >> Construction of communal irrigation system  >> Fingerlings dispersal >> Planting of mangroves | | | | | | | | | |  |  |  |  |  |  |  |  |  |  |  |  |  |
| Sector: Social Area: Population (Residential Settlement), Education  Indicator: Barangay David | | In Barangay David, 989 household are exposed to the identified climate stimuli, 284.72% hhs are living in low lying areas and below poverty threshold. Of the 1,003 enrolled, 4.09 students & pupils are sensitive since they belong to families beyond poverty threshold, of which 27 are males & 14 are females. > The level of exposure and vulnerability of the population is characterized as moderate. The LGU's capability and adaptability measure is at an acceptable level. | | | >> Onset of water borne diseases >> Increased number of morbidity/ mortality rate >> Increased number of drop-out rate >> Reduced number of school attendance >> Possible incidence of crime (looting) | | | | | | | >> Implementation of plans and ordinances (CLUP, CDP, MDRRMP, Zoning Ordinance) >> Conduct of medical and financial assistance >> Ensure peace and order | | | | | | | | | |  |  |  |  |  |  |  |  |  |  |  |  |  |
| Sector: Economic Area: Agriculture (Farmers), Commerce & Industry Indicator: Barangay David | | In Barangay David, 109 farmers are exposed to the identified climate stimuli, of which 71 farmers are sensitive since they belong to families beyond poverty threshold and live in low lying area. Out of the total 75 are male and 25 are female. > Of the 17 total owners/ entrepreneurs 7 of the entrepreneurs are sensitive since they are living in low lying area and 3 belong to families beyond poverty threshold  > The level of exposure and vulnerability of the farmers & business owners is characterized as moderate. The LGU's capability and adaptability measure is at an acceptable level. | | | >> Decreased of production>> Loss of Income  >> Loss of livelihood >> Food shortage >> Increased malnutrition >> Price hike of various commodities | | | | | | | >> Conduct Livelihood Programs>> Provision of disaster resilient flood control projects>> Seed subsidy (high yield and flood resilient variety)  >> Adjust planting season of various crops >> Implementation of plans and ordinances (CLUP, CDP, MDRRMP, Zoning Ordinance) >> Prioritization of Climate Change adaptive projects (slope protection, flood control system, construction of drainage system/ dike) >> provision of different livelihood trainings as alternative sources of income >> Construction of communal irrigation system | | | | | | | | | |  |  |  |  |  |  |  |  |  |  |  |  |  |
| Sector: Social Area: Population (Residential Settlement), Education  Indicator: Barangay Embarcadero | | In Barangay Embarcadero, 591 household are exposed to the identified climate stimuli, 23.35% hhs are living in low lying areas and below poverty threshold. Of the total 615 enrolled, 36 students & pupils are sensitive since they belong to families beyond poverty threshold, of which 24 are males & 12 are females. > The level of exposure and vulnerability of the population is characterized as moderate. The LGU's capability and adaptability measure is at an acceptable level. | | | >> Onset of water borne diseases >> Increased number of morbidity/ mortality rate >> Increased number of drop-out rate >> Reduced number of school attendance  >> Possible incidence of crime (looting) | | | | | | | >> Implementation of plans and ordinances (CLUP, CDP, MDRRMP, Zoning Ordinance) >> Conduct of medical and financial assistance >> Ensure peace and order | | | | | | | | | |  |  |  |  |  |  |  |  |  |  |  |  |  |
| Sector: Economic Area: Agriculture (Farmers), Commerce & Industry Indicator: Barangay Embarcadero | | In Barangay Embarcadero, 19 farmers are exposed to the identified climate stimuli, of which 19 farmers are sensitive since they belong to families beyond poverty threshold and live in low lying area. Out of the total 17 are male and 2 are female. > Of the 20 total owners/ entrepreneurs 10 of the entrepreneurs are sensitive since they are living in low lying area and 5 belong to families beyond poverty threshold  > The level of exposure and vulnerability of the farmers & business owners is characterized as moderate. The LGU's capability and adaptability measure is at an acceptable level. | | | >> Decreased of production >> Loss of Income >> Loss of livelihood >> Food shortage >> Increased malnutrition  >> Price hike of various commodities | | | | | | | >> Conduct Livelihood Programs >> Provision of disaster resilient flood control projects >> Seed subsidy (high yield and flood resilient variety) >> Adjust planting season of various crops >> Implementation of plans and ordinances (CLUP, CDP, MDRRMP, Zoning Ordinance) >> Prioritization of Climate Change adaptive projects (slope protection, flood control system, construction of drainage system/ dike) >> provision of different livelihood trainings as alternative sources of income >> Construction of communal irrigation system | | | | | | | | | |  |  |  |  |  |  |  |  |  |  |  |  |  |
| Sector: Social Area: Population (Residential Settlement), Education  Indicator: Barangay Guesang | | In Barangay Guesang, 822 household are exposed to the identified climate stimuli, 169 hhs are living in low lying areas and below poverty threshold. Of the total 896 enrolled, 25 students & pupils are sensitive since they belong to families beyond poverty threshold, of which 17 are males & 8 are females. > The level of exposure and vulnerability of the population is characterized as moderate. The LGU's capability and adaptability measure is at an acceptable level. | | | >> Onset of water borne diseases >> Increased number of morbidity/ mortality rate >> Increased number of drop-out rate >> Reduced number of school attendance >> Possible incidence of crime (looting) | | | | | | | >> Implementation of plans and ordinances (CLUP, CDP, MDRRMP, Zoning Ordinance) >> Conduct of medical and financial assistance >> Ensure peace and order | | | | | | | | | |  |  |  |  |  |  |  |  |  |  |  |  |  |
| Sector: Economic Area: Agriculture (Farmers), Commerce & Industry Indicator: Barangay Guesang | | In Barangay Guesang, 83 farmers are exposed to the identified climate stimuli, 77 farmers are sensitive since they belong to families beyond poverty threshold and live in low lying area. Out of the total 70 are male and 7 are female. > Of the 10 total owners/ entrepreneurs 3 of the entrepreneurs are sensitive since they are living in low lying area and 5 belong to families beyond poverty threshold  > The level of exposure and vulnerability of the farmers & business owners is characterized as moderate. The LGU's capability and adaptability measure is at an acceptable level. | | | >> Decreased of production>> Loss of Income>> Loss of livelihood >> Food shortage >> Increased malnutrition >> Price hike of various commodities | | | | | | | >> Conduct Livelihood Programs>> Provision of disaster resilient flood control projects>> Seed subsidy (high yield and flood resilient variety)>> Adjust planting season of various crops >> Implementation of plans and ordinances (CLUP, CDP, MDRRMP, Zoning Ordinance) >> Prioritization of Climate Change adaptive projects (slope protection, flood control system, construction of drainage system/ dike) >> Provision of different livelihood trainings as alternative sources of income for farmers >> Construction of communal irrigation system | | | | | | | | | |  |  |  |  |  |  |  |  |  |  |  |  |  |
| Table 11. **DISASTER RISK ASSESSMENT SUMMARY MATRIX** | | | | | | | | | | | | | | | | | | | |
| **SYSTEM OF INTEREST: POPULATION DRA** | | | | | | | | | | | | | | | | | | | |
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| **HAZARD: FLOODING** | |  |  | |  |  |  |  |  |  | |  |  |  |  |  |  |  |  |
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| **Decision Area/s** | | **Technical Findings** | | | **Implications** | | | | | | | **Policy Interventions** | | | | | | | | | |
| **A** | | **B** | | | **C** | | | | | | | **D** | | | | | | | | | |
| Sector: Social Area: Population (Residential Settlement), Education  Indicator: Barangay Guiguilonen | | In Barangay Guiguilonen, 676 household are exposed to the identified climate stimuli, 181 hhs are living in low lying areas and below poverty threshold. Of the total 642 enrolled 30 students & pupils are sensitive since they belong to families beyond poverty threshold, of which 18 are males & 12 are females. > The level of exposure and vulnerability of the population is characterized as moderate. The LGU's capability and adaptability measure is at an acceptable level. | | | >> Onset of water borne diseases >> Increased number of morbidity/ mortality rate >> Increased number of drop-out rate >> Reduced number of school attendance >> Possible incidence of crime (looting) | | | | | | | >> Implementation of plans and ordinances (CLUP, CDP, MDRRMP, Zoning Ordinance) >> Conduct of medical and financial assistance >> Ensure peace and order | | | | | | | | | |  |  |  |  |  |  |  |  |  |  |  |  |  |
| Sector: Economic Area: Agriculture (Farmers), Commerce & Industry Indicator: Barangay Guiguilonen | | In Barangay Guiguilonen, 83 farmers are exposed to the identified climate stimuli, of which 77 farmers are sensitive since they belong to families beyond poverty threshold and live in low lying area. Out of the total, 70 are males and 7 are females. > Of the 24 total owners/ entrepreneurs 12 of the entrepreneurs are sensitive since they are living in low lying area and 3 belong to families beyond poverty threshold  > The level of exposure and vulnerability of the farmers & business owners is characterized as moderate. The LGU's capability and adaptability measure is at an acceptable level. | | | >> Decreased of production >> Loss of Income >> Loss of livelihood >> Food shortage >> Increased malnutrition  >> Price hike of various commodities | | | | | | | >> Conduct Livelihood Programs >> Provision of disaster resilient flood control projects >> Seed subsidy (high yield and flood resilient variety) >> Adjust planting season of various crops >> Implementation of plans and ordinances (CLUP, CDP, MDRRMP, Zoning Ordinance) >> Prioritization of Climate Change adaptive projects (slope protection, flood control system, construction of drainage system/ dike) >> provision of different livelihood trainings as alternative sources of income >> Construction of communal irrigation system | | | | | | | | | |  |  |  |  |  |  |  |  |  |  |  |  |  |
| Sector: Social Area: Population (Residential Settlement), Education  Indicator: Barangay Inlambo | | In Barangay Inlambo, 341 household are exposed to the identified climate stimuli, of which 120 hhs living in low lying areas and below poverty threshold. Of the total 419 enrolled, 23 students & pupils are sensitive since they belong to families beyond poverty threshold. Out of the total, 18 are males & 5 are females. > The level of exposure and vulnerability of the population is characterized as moderate. The LGU's capability and adaptability measure is at an acceptable level. | | | >> Onset of water borne diseases >> Increased number of morbidity/ mortality rate >> Increased number of drop-out rate >> Reduced number of school attendance >> Possible incidence of crime (looting) | | | | | | | >> Implementation of plans and ordinances (CLUP, CDP, MDRRMP, Zoning Ordinance) >> Conduct of medical and financial assistance >> Ensure peace and order | | | | | | | | | |  |  |  |  |  |  |  |  |  |  |  |  |  |
| Sector: Economic Area: Agriculture (Farmers), Commerce & Industry Indicator: Barangay Inlambo | | In Barangay Inlambo, 196 farmers are exposed to the identified climate stimuli, 11 farmers are sensitive since they belong to families beyond poverty threshold and live in low lying area, of which 7 are males and 4 are females. > Of the 8 total owners/ entrepreneurs 2 of the entrepreneurs are sensitive since they are living in low lying area and 6 belong to families beyond poverty threshold  > The level of exposure and vulnerability of the farmers & business owners is characterized as moderate. The LGU's capability and adaptability measure is at an acceptable level. | | | >> Decreased of production>> Loss of Income>> Loss of livelihood >> Food shortage >> Increased malnutrition >> Price hike of various commodities | | | | | | | >> Conduct Livelihood Programs>> Provision of disaster resilient flood control projects>> Seed subsidy (high yield and flood resilient variety)>> Adjust planting season of various crops >> Implementation of plans and ordinances (CLUP, CDP, MDRRMP, Zoning Ordinance) >> Prioritization of Climate Change adaptive projects (slope protection, flood control system, construction of drainage system/ dike) >> provision of different livelihood trainings as alternative sources of income >> Construction of communal irrigation system | | | | | | | | | |  |  |  |  |  |  |  |  |  |  |  |  |  |
| Sector: Social Area: Population (Residential Settlement), Education  Indicator: Barangay Lanas | | In Barangay Lanas, 732 household are exposed to the identified climate stimuli, of which 200 hhs living in low lying areas and below poverty threshold. Out of the total, 677 enrolled. 26 students & pupils are sensitive since they belong to families beyond poverty threshold, of which 15 are male & 11 are female > The level of exposure and vulnerability of the population is characterized as moderate. The LGU's capability and adaptability measure is at an acceptable level. | | | >> Onset of water borne diseases >> Increased number of morbidity/ mortality rate >> Increased number of drop-out rate >> Reduced number of school attendance >> Possible incidence of crime (looting) | | | | | | | >> Implementation of plans and ordinances (CLUP, CDP, MDRRMP, Zoning Ordinance) >> Conduct of medical and financial assistance >> Ensure peace and order | | | | | | | | | |  |  |  |  |  |  |  |  |  |  |  |  |  |
| Sector: Economic Area: Agriculture (Farmers), Commerce & Industry Indicator: Barangay Lanas | | In Barangay Lanas, 143 farmers are exposed to the identified climate stimuli, of which 49 farmers are sensitive since they belong to families beyond poverty threshold and live in low lying area. Out of the total 40 are males and 9 are females. > Of the 30 fishermen 20 fishermen are sensitive since they are living in low lying area, of which 15 are males and 5 are females. > Of the 10 total owners/ entrepreneurs 4 of the entrepreneurs are sensitive since they are living in low lying area and 4 belong to families beyond poverty threshold | | | >> Decreased of production >> Loss of Income >> Loss of livelihood >> Food shortage >> Increased malnutrition  >> Price hike of various commodities | | | | | | | >> Conduct Livelihood Programs >> Provision of disaster resilient flood control projects >> Seed subsidy (high yield and flood resilient variety) >> Adjust planting season of various crops >> Implementation of plans and ordinances (CLUP, CDP, MDRRMP, Zoning Ordinance) >> Prioritization of Climate Change adaptive projects (slope protection, flood control system, construction of drainage system/ dike) >> provision of different livelihood trainings as alternative sources of income >> Construction of communal irrigation system  >> Fingerlings dispersal >> Planting of mangroves | | | | | | | | | |  |  |  |  |  |  |  |  |  |  |  |  |  |
| Sector: Social Area: Population (Residential Settlement), Education  Indicator: Barangay Landas | | In Barangay Landas, 541 household are exposed to the identified climate stimuli, 77 hhs are living in low lying areas and below poverty threshold. Out of the total 479 enrolled 9 students & pupils are sensitive since they belong to families beyond poverty threshold, of which 8 are males & 1 is female. > The level of exposure and vulnerability of the population is characterized as moderate. The LGU's capability and adaptability measure is at an acceptable level. | | | >> Onset of water borne diseases >> Increased number of morbidity/ mortality rate >> Increased number of drop-out rate >> Reduced number of school attendance >> Possible incidence of crime (looting) | | | | | | | >> Implementation of plans and ordinances (CLUP, CDP, MDRRMP, Zoning Ordinance) >> Conduct of medical and financial assistance >> Ensure peace and order | | | | | | | | | |  |  |  |  |  |  |  |  |  |  |  |  |  |
| Table 11. **DISASTER RISK ASSESSMENT SUMMARY MATRIX** | | | | | | | | | | | | | | | | | | | |
| **SYSTEM OF INTEREST: POPULATION DRA** | | | | | | | | | | | | | | | | | | | |
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| **HAZARD: FLOODING** | |  |  | |  |  |  |  |  |  | |  |  |  |  |  |  |  |  |
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| **Decision Area/s** | | **Technical Findings** | | | **Implications** | | | | | | | **Policy Interventions** | | | | | | | | | |
| **A** | | **B** | | | **C** | | | | | | | **D** | | | | | | | | | |
| Sector: Economic Area: Agriculture (Farmers), Commerce & Industry Indicator: Barangay Landas | | In Barangay Landas, 39 farmers are exposed to the identified climate stimuli, 17 farmers are sensitive since they belong to families beyond poverty threshold and live in low lying area. Out of the total, 10 are male and 7 are female. > Of the 11 total owners/ entrepreneurs 6 of the entrepreneurs are sensitive since they are living in low lying area and 2 belong to families beyond poverty threshold | | | >> Decreased of production>> Loss of Income>> Loss of livelihood >> Food shortage >> Increased malnutrition >> Price hike of various commodities | | | | | | | >> Conduct Livelihood Programs>> Provision of disaster resilient flood control projects>> Seed subsidy (high yield and flood resilient variety)>> Adjust planting season of various crops >> Implementation of plans and ordinances (CLUP, CDP, MDRRMP, Zoning Ordinance) >> Prioritization of Climate Change adaptive projects (slope protection, flood control system, construction of drainage system/ dike) >> provision of different livelihood trainings as alternative sources of income >> Construction of communal irrigation system | | | | | | | | | |  |  |  |  |  |  |  |  |  |  |  |  |  |
| Sector: Social Area: Population (Residential Settlement), Education  Indicator: Barangay Maasin | | In Barangay Maasin, 741 household are exposed to the identified climate stimuli, 211 hhs are living in low lying areas and below poverty threshold. Out of the total 639 enrolled 34 students & pupils are sensitive since they belong to families beyond poverty threshold, of which 25 are males & 9 are females. > The level of exposure and vulnerability of the population is characterized as moderate. The LGU's capability and adaptability measure is at an acceptable level. | | | >> Onset of water borne diseases >> Increased number of morbidity/ mortality rate >> Increased number of drop-out rate >> Reduced number of school attendance >> Possible incidence of crime (looting) | | | | | | | >> Implementation of plans and ordinances (CLUP, CDP, MDRRMP, Zoning Ordinance) >> Conduct of medical and financial assistance >> Ensure peace and order | | | | | | | | | |  |  |  |  |  |  |  |  |  |  |  |  |  |
| Sector: Economic Area: Agriculture (Farmers & Fishermen), Commerce & Industry Indicator: Barangay Maasin | | In Barangay Maasin, 115 farmers are exposed to the identified climate stimuli, 12 farmers are sensitive since they belong to families beyond poverty threshold and live in low lying area. Out of the total 10 are males and 2 are females. > Of the 105 total fishermen 60 fishermen are sensitive since they are living in low lying area, of which 50 are males and 10 are females. > Of the 21 total owners/ entrepreneurs 10 of the entrepreneurs are sensitive since they are living in low lying area and 5 belong to families beyond poverty threshold | | | >> Decreased of production >> Loss of Income >> Loss of livelihood >> Food shortage >> Increased malnutrition  >> Price hike of various commodities | | | | | | | >> Conduct Livelihood Programs >> Provision of disaster resilient flood control projects >> Seed subsidy (high yield and flood resilient variety) >> Adjust planting season of various crops >> Implementation of plans and ordinances (CLUP, CDP, MDRRMP, Zoning Ordinance) >> Prioritization of Climate Change adaptive projects (slope protection, flood control system, construction of drainage system/ dike) >> provision of different livelihood trainings as alternative sources of income >> Construction of communal irrigation system  >> Fingerlings dispersal >> Planting of mangroves | | | | | | | | | |  |  |  |  |  |  |  |  |  |  |  |  |  |
| Sector: Social Area: Population (Residential Settlement), Education  Indicator: Barangay Macayug | | In Barangay Macayug, 572 household are exposed to the identified climate stimuli, 305 hhs are living in low lying areas and belong to below poverty threshold. Out of the total 551 enrolled, 33 students & pupils are sensitive since they belong to families beyond poverty threshold. Out of the total 20 are males & 13 are females. > The level of exposure and vulnerability of the population is characterized as moderate. The LGU's capability and adaptability measure is at an acceptable level. | | | >> Onset of water borne diseases >> Increased number of morbidity/ mortality rate >> Increased number of drop-out rate >> Reduced number of school attendance >> Possible incidence of crime (looting) | | | | | | | >> Implementation of plans and ordinances (CLUP, CDP, MDRRMP, Zoning Ordinance) >> Conduct of medical and financial assistance >> Ensure peace and order | | | | | | | | | |  |  |  |  |  |  |  |  |  |  |  |  |  |
| Sector: Economic Area: Agriculture (Farmers), Commerce & Industry Indicator: Barangay Macayug | | In Barangay Macayug, 117 farmers are exposed to the identified climate stimuli, 69 farmers are sensitive since they belong to families beyond poverty threshold and live in low lying area. Out of the total 50 are males and 19 are females. > Of the 7 total owners/ entrepreneurs, 3 of the entrepreneurs are sensitive since they are living in low lying area and 2 belong to families beyond poverty threshold  > The level of exposure and vulnerability of the farmers & business owners is characterized as moderate. The LGU's capability and adaptability measure is at an acceptable level. | | | >> Decreased of production>> Loss of Income>> Loss of livelihood >> Food shortage >> Increased malnutrition >> Price hike of various commodities | | | | | | | >> Conduct Livelihood Programs>> Provision of disaster resilient flood control projects>> Seed subsidy (high yield and flood resilient variety)>> Adjust planting season of various crops >> Implementation of plans and ordinances (CLUP, CDP, MDRRMP, Zoning Ordinance) >> Prioritization of Climate Change adaptive projects (slope protection, flood control system, construction of drainage system/ dike) >> provision of different livelihood trainings as alternative sources of income >> Construction of communal irrigation system | | | | | | | | | |  |  |  |  |  |  |  |  |  |  |  |  |  |
| Sector: Social Area: Population (Residential Settlement), Education  Indicator: Barangay Navaluan | | In Barangay Navaluan, 762 households are exposed to the identified climate stimuli, 80 hhs are living in low lying areas and belong to below poverty threshold. Out of the total, 900 enrolled 38 students & pupils are sensitive since they belong to families beyond poverty threshold. Out of the total 25 are male & 13 are female.  > The level of exposure and vulnerability of the population is characterized as moderate. The LGU's capability and adaptability measure is at an acceptable level. | | | >> Onset of water borne diseases >> Increased number of morbidity/ mortality rate >> Increased number of drop-out rate >> Reduced number of school attendance >> Possible incidence of crime (looting) | | | | | | | >> Implementation of plans and ordinances (CLUP, CDP, MDRRMP, Zoning Ordinance) >> Conduct of medical and financial assistance >> Ensure peace and order | | | | | | | | | |  |  |  |  |  |  |  |  |  |  |  |  |  |
| Sector: Economic Area: Agriculture (Farmers), Commerce & Industry Indicator: Barangay Navaluan | | In Barangay Navaluan, 45 farmers are exposed to the identify climate stimuli, 37 farmers are sensitive since they belong to families beyond poverty threshold and live in low lying area. Out of the total, 30 are males and 7 are females. > Of the 11 total owners/ entrepreneurs 5 of the entrepreneurs are sensitive since they are living in low lying area and 2 belong to families beyond poverty threshold  > The level of exposure and vulnerability of the farmers & business owners is characterized as moderate. The LGU's capability and adaptability measure is at an acceptable level. | | | >> Decreased of production >> Loss of Income >> Loss of livelihood >> Food shortage >> Increased malnutrition  >> Price hike of various commodities | | | | | | | >> Conduct Livelihood Programs >> Provision of disaster resilient flood control projects >> Seed subsidy (high yield and flood resilient) >> Adjust planting season of various crops >> Implementation of plans and ordinances (CLUP, CDP, MDRRMP, Zoning Ordinance) >> Prioritization of Climate Change adaptive projects (slope protection, flood control system, construction of drainage system/ dike) >> provision of different livelihood trainings as alternative sources of income >> Construction of communal irrigation system | | | | | | | | | |  |  |  |  |  |  |  |  |  |  |  |  |  |
| Table 11. **DISASTER RISK ASSESSMENT SUMMARY MATRIX** | | | | | | | | | | | | | | | | | | | |
| **SYSTEM OF INTEREST: POPULATION DRA** | | | | | | | | | | | | | | | | | | | |
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| **HAZARD: FLOODING** | |  |  | |  |  |  |  |  |  | |  |  |  |  |  |  |  |  |
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| **Decision Area/s** | | **Technical Findings** | | | **Implications** | | | | | | | **Policy Interventions** | | | | | | | | | |
| **A** | | **B** | | | **C** | | | | | | | **D** | | | | | | | | | |
| Sector: Social Area: Population (Residential Settlement), Education  Indicator: Barangay Nibaliw | | In Barangay Nibaliw, 675 households are exposed to the identified climate stimuli, 335 hhs are living in low lying areas and belong to below poverty threshold. Out of the total, 750 enrolled, 39 students & pupils are sensitive since they belong to families beyond poverty threshold. Out of the total 23 are male & 16 are female. > The level of exposure and vulnerability of the population is characterized as moderate. The LGU's capability and adaptability measure is at an acceptable level. | | | >> Onset of water borne diseases >> Increased number of morbidity/ mortality rate >> Increased number of drop-out rate >> Reduced number of school attendance >> Possible incidence of crime (looting) | | | | | | | >> Implementation of plans and ordinances (CLUP, CDP, MDRRMP, Zoning Ordinance) >> Conduct of medical and financial assistance >> Ensure peace and order | | | | | | | | | |  |  |  |  |  |  |  |  |  |  |  |  |  |
| Sector: Economic Area: Agriculture (Farmers), Commerce & Industry Indicator: Barangay Nibaliw | | In Barangay Nibaliw, 35 farmers are exposed to the identified climate stimuli, 20 male farmers are sensitive since they belong to families beyond poverty threshold and live in low lying area. > Of the 11 total owners/ entrepreneurs 2 of the entrepreneurs are sensitive since they living in low lying area and 6 belong to families beyond poverty threshold  > The level of exposure and vulnerability of the farmers & business owners is characterized as moderate. The LGU's capability and adaptability measure is at an acceptable level. | | | >> Decreased of production>> Loss of Income>> Loss of livelihood >> Food shortage >> Increased malnutrition >> Price hike of various commodities | | | | | | | >> Conduct Livelihood Programs>> Provision of disaster resilient flood control projects>> Seed subsidy (high yield and flood resilient variety)>> Adjust planting season of various crops >> Implementation of plans and ordinances (CLUP, CDP, MDRRMP, Zoning Ordinance) >> Prioritization of Climate Change adaptive projects (slope protection, flood control system, construction of drainage system/ dike) >> provision of different livelihood trainings as alternative sources of income >> Construction of communal irrigation system | | | | | | | | | |  |  |  |  |  |  |  |  |  |  |  |  |  |
| Sector: Social Area: Population (Residential Settlement), Education  Indicator: Barangay Osiem | | In Barangay Osiem, 809 households are exposed to the identified climate stimuli, 87 hhs are living in low lying areas and below poverty threshold. Of the 741 total enrolled, 22 students & pupils are sensitive since they belong to families beyond poverty threshold. Out of the total 15 are male & 7 are female. > The level of exposure and vulnerability of the population is characterized as moderate. The LGU's capability and adaptability measure is at an acceptable level. | | | >> Onset of water borne diseases >> Increased number of morbidity/ mortality rate >> Increased number of drop-out rate >> Reduced number of school attendance  >> Possible incidence of crime (looting) | | | | | | | >> Implementation of plans and ordinances (CLUP, CDP, MDRRMP, Zoning Ordinance) >> Conduct of medical and financial assistance >> Ensure peace and order | | | | | | | | | |  |  |  |  |  |  |  |  |  |  |  |  |  |
| Sector: Economic Area: Agriculture (Farmers), Commerce & Industry Indicator: Barangay Osiem | | In Barangay Osiem, 106 farmers are exposed to the identified climate stimuli, 13 farmers are sensitive since they belong to families beyond poverty threshold and live in low lying area. Out of the total 10 are male and 3 are female. > Of the 13 total owners/ entrepreneurs 7 of the entrepreneurs are sensitive since they are living in low lying area and 3 belong to families beyond poverty threshold  > The level of exposure and vulnerability of the farmers & business owners is characterized as moderate. The LGU's capability and adaptability measure is at an acceptable level. | | | >> Decreased of production >> Loss of Income >> Loss of livelihood >> Food shortage >> Increased malnutrition  >> Price hike of various commodities | | | | | | | >> Conduct Livelihood Programs >> Provision of disaster resilient flood control projects >> Seed subsidy (high yield and flood resilient variety) >> Adjust planting season of various crops >> Implementation of plans and ordinances (CLUP, CDP, MDRRMP, Zoning Ordinance) >> Prioritization of Climate Change adaptive projects (slope protection, flood control system, construction of drainage system/ dike) >> provision of different livelihood trainings as alternative sources of income >> Construction of communal irrigation system | | | | | | | | | |  |  |  |  |  |  |  |  |  |  |  |  |  |
| Sector: Social Area: Population (Residential Settlement), Education  Indicator: Barangay Palua | | In Barangay Palua, 446 households are exposed to the identified climate stimuli, 125 hhs are living in low lying areas and below poverty threshold. Of the total 427 enrolled, 34 students & pupils are sensitive since they belong to families beyond poverty threshold. Out of the total 22 are male & 12 are female. > The level of exposure and vulnerability of the population is characterized as moderate. The LGU's capability and adaptability measure is at an acceptable level. | | | >> Onset of water borne diseases >> Increased number of morbidity/ mortality rate >> Increased number of drop-out rate >> Reduced number of school attendance  >> Possible incidence of crime (looting) | | | | | | | >> Implementation of plans and ordinances (CLUP, CDP, MDRRMP, Zoning Ordinance) >> Conduct of medical and financial assistance >> Ensure peace and order | | | | | | | | | |  |  |  |  |  |  |  |  |  |  |  |  |  |
| Sector: Economic Area: Agriculture (Farmers), Commerce & Industry Indicator: Barangay Palua | | In Barangay Palua, 67 farmers are exposed to the identified climate stimuli, 26 farmers are sensitive since they belong to families beyond poverty threshold and live in low lying area. Out of the total 21 are male and 5 are female. > Of the 10 total owners/ entrepreneurs 6 of the entrepreneurs are sensitive since they are living in low lying area and 2 belong to families beyond poverty threshold  > The level of exposure and vulnerability of the farmers & business owners is characterized as moderate. The LGU's capability and adaptability measure is at an acceptable level. | | | >> Decreased of production>> Loss of Income>> Loss of livelihood >> Food shortage >> Increased malnutrition >> Price hike of various commodities | | | | | | | >> Conduct Livelihood Programs>> Provision of disaster resilient flood control projects>> Seed subsidy (high yield and flood resilient variety)>> Adjust planting season of various crops >> Implementation of plans and ordinances (CLUP, CDP, MDRRMP, Zoning Ordinance) >> Prioritization of Climate Change adaptive projects (slope protection, flood control system, construction of drainage system/ dike) >> provision of different livelihood trainings as alternative sources of income >> Construction of communal irrigation system | | | | | | | | | |  |  |  |  |  |  |  |  |  |  |  |  |  |
| Sector: Social Area: Population (Residential Settlement), Education  Indicator: Barangay Poblacion | | In Barangay Poblacion, 835 households are exposed to the identified climate stimuli, 101 living in low lying areas and below poverty threshold. Of the 717 total enrolled 21 students & pupils are sensitive since they belong to families beyond poverty threshold. Out of the total 15 are male & 6 are female. > The level of exposure and vulnerability of the population is characterized as moderate. The LGU's capability and adaptability measure is at an acceptable level. | | | >> Onset of water borne diseases >> Increased number of morbidity/ mortality rate >> Increased number of drop-out rate >> Reduced number of school attendance >> Possible incidence of crime (looting) | | | | | | | >> Implementation of plans and ordinances (CLUP, CDP, MDRRMP, Zoning Ordinance) >> Conduct of medical and financial assistance >> Ensure peace and order | | | | | | | | | |  |  |  |  |  |  |  |  |  |  |  |  |  |

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| Table 11. **DISASTER RISK ASSESSMENT SUMMARY MATRIX** | | | | | | | | | | | | | | | | | | | |
| **SYSTEM OF INTEREST: POPULATION DRA** | | | | | | | | | | | | | | | | | | | |
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| **HAZARD: FLOODING** | |  |  | |  |  |  |  |  |  | |  |  |  |  |  |  |  |  |
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| **Decision Area/s** | | **Technical Findings** | | | **Implications** | | | | | | | **Policy Interventions** | | | | | | | | | |
| **A** | | **B** | | | **C** | | | | | | | **D** | | | | | | | | | |
| Sector: Economic Area: Commerce & Industry Indicator: Barangay Poblacion | | In Barangay Poblacion, of the 355 total owners/ entrepreneurs 80 of the entrepreneurs are sensitive since they are living in low lying area and 20 belong to families beyond poverty threshold.  > The level of exposure and vulnerability of the business owners is characterized as moderate. The LGU's capability and adaptability measureis at an acceptable level. | | | >> Loss of Income >> Loss of livelihood >> Food shortage >> Increased malnutrition  >> Price hike of various commodities | | | | | | | >> Conduct Livelihood Programs >> Provision of disaster resilient flood control projects >> Seed subsidy (high yield and flood resilient variety) >> Implementation of plans and ordinances (CLUP, CDP, MDRRMP, Zoning Ordinance) >> Prioritization of Climate Change adaptive projects (slope protection, flood control system, construction of drainage system/ dike) >> provision of different livelihood trainings as alternative sources of income >> Construction of communal irrigation system | | | | | | | | | |  |  |  |  |  |  |  |  |  |  |  |  |  |
| Sector: Social Area: Population (Residential Settlement), Education  Indicator: Barangay Pogo | | In Barangay Pogo, 408 households are exposed to the identified climate stimuli, of which 53 hhs are living in low lying areas and belong to below poverty threshold. Of the 307 total enrolled 18 students & pupils are sensitive since they belong to families beyond poverty threshold. Out of the total 10 are male & 8 are female. > The level of exposure and vulnerability of the population is characterized as moderate. The LGU's capability and adaptability measure is at an acceptable level. | | | >> Onset of water borne diseases >> Increased number of morbidity/ mortality rate >> Increased number of drop-out rate >> Reduced number of school attendance >> Possible incidence of crime (looting) | | | | | | | >> Implementation of plans and ordinances (CLUP, CDP, MDRRMP, Zoning Ordinance) >> Conduct of medical and financial assistance >> Ensure peace and order | | | | | | | | | |  |  |  |  |  |  |  |  |  |  |  |  |  |
| Sector: Economic Area: Agriculture (Farmers), Commerce & Industry Indicator: Barangay Pogo | | In Barangay Pogo, 37 farmers are exposed to the identified climate stimuli, of which 20 farmers are sensitive since they belong to families beyond poverty threshold and live in low lying area. Out of the total 16 are male and 4 are female. > Of the 10 total owners/ entrepreneurs 5 of the entrepreneurs are sensitive since they are living in low lying area and 3 belong to families beyond poverty threshold  > The level of exposure and vulnerability of the farmers & business owners is characterized as moderate. The LGU's capability and adaptability measure is at an acceptable level. | | | >> Decreased of production>> Loss of Income>> Loss of livelihood >> Food shortage >> Increased malnutrition >> Price hike of various commodities | | | | | | | >> Conduct Livelihood Programs>> Provision of disaster resilient flood control projects>> Seed subsidy (high yield and flood resilient variety)>> Adjust planting season of various crops >> Implementation of plans and ordinances (CLUP, CDP, MDRRMP, Zoning Ordinance) >> Prioritization of Climate Change adaptive projects (slope protection, flood control system, construction of drainage system/ dike) >> provision of different livelihood trainings as alternative sources of income >> Construction of communal irrigation system | | | | | | | | | |  |  |  |  |  |  |  |  |  |  |  |  |  |
| Sector: Social Area: Population (Residential Settlement), Education  Indicator: Barangay Salaan | | In Barangay Salaan, 589 households are exposed to the identify climate stimuli, of which 228 hhs are living in low lying areas and below poverty threshold. Of the 601 total enrolled 17 students & pupils are sensitive since they belong to families beyond poverty threshold. Out of the total 10 are male & 7 are female. > The level of exposure and vulnerability of the population is characterized as moderate. The LGU's capability and adaptability measure is at an acceptable level. | | | >> Onset of water borne diseases >> Increased number of morbidity/ mortality rate >> Increased number of drop-out rate >> Reduced number of school attendance >> Possible incidence of crime (looting) | | | | | | | >> Implementation of plans and ordinances (CLUP, CDP, MDRRMP, Zoning Ordinance) >> Conduct of medical and financial assistance >> Ensure peace and order | | | | | | | | | |  |  |  |  |  |  |  |  |  |  |  |  |  |
| Sector: Economic Area: Agriculture (Farmers & Fishermen), Commerce & Industry Indicator: Barangay Salaan | | In Barangay Salaan, 13 farmers are sensitive since they belong to families beyond poverty threshold and live in low lying area. Out of the total, 10 are males and 5 are females.  >> Of the 8 business owners/ entrepreneurs, of which 5 are sensitive since they are living in low lying area and 2 belong to families beyond poverty threshold >> The level of exposure and vulnerability of the farmers & business owners is characterized as moderate. The LGU's capability and adaptability measure is at an acceptable level. | | | >> Decreased of production >> Loss of Income >> Loss of livelihood >> Food shortage >> Increased malnutrition  >> Price hike of various commodities | | | | | | | >> Conduct Livelihood Programs >> Provision of disaster resilient flood control projects >> Seed subsidy (high yield and flood resilient variety) >> Adjust planting season of various crops >> Implementation of plans and ordinances (CLUP, CDP, MDRRMP, Zoning Ordinance) >> Prioritization of Climate Change adaptive projects (slope protection, flood control system, construction of drainage system/ dike) >> provision of different livelihood trainings as alternative sources of income >> Construction of communal irrigation system | | | | | | | | | |  |  |  |  |  |  |  |  |  |  |  |  |  |
| Sector: Social Area: Population (Residential Settlement), Education  Indicator: Barangay Talogtog | | In Barangay Talogtog, 570 households are exposed to the identified climate stimuli, of which, 70 hhs are living in low lying areas and below poverty threshold. Out of the 506 total enrolled 20 pupils of Anolid Elem. School are sensitive since they belong to families beyond poverty threshold, of which 13 are males & 7 are females.  > The level of exposure and vulnerability of the popu-lation is characterized as moderate. The LGU's capability and adaptability measure is at an acceptable level. | | | >> Onset of water borne diseases >> Increased number of morbidity/ mortality rate >> Increased number of drop-out rate >> Reduced number of school attendance >> Possible incidence of crime (looting) | | | | | | | >> Implementation of plans and ordinances (CLUP, CDP, MDRRMP, Zoning Ordinance) >> Conduct of medical and financial assistance >> Ensure peace and order | | | | | | | | | |  |  |  |  |  |  |  |  |  |  |  |  |  |
| Sector: Economic Area: Agriculture (Farmers & Fishermen), Commerce & Industry Indicator: Barangay Talogtog | | In Barangay Talogtog, 82 farmers are exposed to the identified climate stimuli, of which 30 farmers are sensitive since they belong to families beyond poverty threshold and live in low lying area. Of which 25 are males and 5 are females. > Of the 30 fishermen 96 fishermen 38 fishermen are sensitive since they are living in low lying area, of which 35 are males and 3 is females. > Of the 15 total owners/ entrepreneurs 8 of the entrepreneurs are sensitive since they are living in low lying area and 4 belong to families beyond poverty threshold  > The level of exposure and vulnerability of the farmers & business owners is characterized as moderate. The LGU's capability and adaptability measure is at an acceptable level. | | | >> Decreased of production>> Loss of Income>> Loss of livelihood >> Food shortage >> Increased malnutrition >> Price hike of various commodities | | | | | | | >> Conduct Livelihood Programs>> Provision of disaster resilient flood control projects>> Seed subsidy (high yield and flood resilient variety)>> Adjust planting season of various crops >> Implementation of plans and ordinances (CLUP, CDP, MDRRMP, Zoning Ordinance) >> Prioritization of Climate Change adaptive projects (slope protection, flood control system, construction of drainage system/ dike) >> provision of different livelihood trainings as alternative sources of income >> Construction of communal irrigation system >> Fingerlings dispersal  >> Planting of mangroves | | | | | | | | | |  |  |  |  |  |  |  |  |  |  |  |  |  |
| Table 11. **DISASTER RISK ASSESSMENT SUMMARY MATRIX** | | | | | | | | | | | | | | | | | | | |
| **SYSTEM OF INTEREST: POPULATION DRA** | | | | | | | | | | | | | | | | | | | |
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| **HAZARD: FLOODING** | |  |  | |  |  |  |  |  |  | |  |  |  |  |  |  |  |  |
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| **Decision Area/s** | | **Technical Findings** | | | **Implications** | | | | | | | **Policy Interventions** | | | | | | | | | |
| **A** | | **B** | | | **C** | | | | | | | **D** | | | | | | | | | |
| Sector: Social Area: Population (Residential Settlement), Education  Indicator: Barangay Tebag | | In Barangay Tebag, 605 households are exposed to the identified climate stimuli, of which 185 hhs are living in low lying areas and below poverty threshold. Out of the 688 total enrolled, 39 students & pupils are sensitive since they belong to families beyond poverty threshold. Out of the total 22 are male & 17 are female. > The level of exposure and vulnerability of the population is characterized as moderate. The LGU's capability and adaptability measure is at an acceptable level. | | | >> Onset of water borne diseases >> Increased number of morbidity/ mortality rate >> Increased number of drop-out rate >> Reduced number of school attendance >> Possible incidence of crime (looting) | | | | | | | >> Implementation of plans and ordinances (CLUP, CDP, MDRRMP, Zoning Ordinance) >> Conduct of medical and financial assistance >> Ensure peace and order | | | | | | | | | |  |  |  |  |  |  |  |  |  |  |  |  |  |
| Sector: Economic Area: Agriculture (Farmers), Commerce & Industry Indicator: Barangay Tebag | | In Barangay Tebag, 23 farmers are exposed to the identified climate stimuli, of which 13 farmers are sensitive since they belong to families beyond poverty threshold and live in low lying area. Out of the total 10 are male and 3 are female. > Of the 24 total owners/ entrepreneurs 10 of the entrepreneurs are sensitive since they are living in low lying area and 6 belong to families beyond poverty threshold.  > The level of exposure and vulnerability of the farmers & business owners is characterized as moderate. The LGU's capability and adaptability measure is at an acceptable level. | | | >> Decreased of production >> Loss of Income >> Loss of livelihood >> Food shortage >> Increased malnutrition  >> Price hike of various commodities | | | | | | | >> Conduct Livelihood Programs >> Provision of disaster resilient flood control projects >> Seed subsidy (high yield and flood resilient variety) >> Adjust planting season of various crops >> Implementation of plans and ordinances (CLUP, CDP, MDRRMP, Zoning Ordinance) >> Prioritization of Climate Change adaptive projects (slope protection, flood control system, construction of drainage system/ dike) >> provision of different livelihood trainings as alternative sources of income >> Construction of communal irrigation system | | | | | | | | | |  |  |  |  |  |  |  |  |  |  |  |  |  |
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| **Instructions:** | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | |
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| A. Based on the risks maps generated for the various exposure units, highlight and identify decision areas or elements. Decision areas can be the barangay or specific sites in the barangay such as coastal area, mountain sides, and riverbanks. | | | | | | | | | | | | | | | | | | | | | |  |  |  |  |  |  |  |  |  |  |  |  |  |
| - Identify decision areas in need of intervention based on the generated risk maps | | | | | | | | | | | | | | | | | | | | | |  |  |  |  |  |  |  |  |  |  |  |  |  |
| - This can be identified as high to moderate risk areas or may pertain to a specific area in the barangay | | | | | | | | | | | | | | | | | | | | | |  |  |  |  |  |  |  |  |  |  |  |  |  |
|  | |  | | |  | | | | | | |  | | | | | | | | | |  |  |  |  |  |  |  |  |  |  |  |  |  |
| B. List down the significant findings/observed conditions and causes by describing the area or element in terms of the level of risk, highlighting the various contributing factors such as exposure, sensitivity, and adaptive capacity. | | | | | | | | | | | | | | | | | | | | | |  |  |  |  |  |  |  |  |  |  |  |  |  |
| - Identify the hazard and how these may manifest in the identified decision area | | | | | | | | | | | | | | | | | | | | | |  |  |  |  |  |  |  |  |  |  |  |  |  |
| - Expound on the exposure information (i.e. number of affected population, exposure percentage, exposed area, and cost) | | | | | | | | | | | | | | | | | | | | | |  |  |  |  |  |  |  |  |  |  |  |  |  |
| - Highlight relevant sensitivities of the exposed element to the identified hazard | | | | | | | | | | | | | | | | | | | | | |  |  |  |  |  |  |  |  |  |  |  |  |  |
| - Highlight relevant adaptive capacity indicators of the exposed element to the identified hazard | | | | | | | | | | | | | | | | | | | | | |  |  |  |  |  |  |  |  |  |  |  |  |  |
| C. List down the planning/development implications when the identified risks in the various decision areas are not addressed. | | | | | | | | | | | | | | | | | | | | | |  |  |  |  |  |  |  |  |  |  |  |  |  |
| - Highlight potential impact as mentioned in the sectoral impact chains | | | | | | | | | | | | | | | | | | | | | |  |  |  |  |  |  |  |  |  |  |  |  |  |
| - Highlight future scenario if risks are not addressed | | | | | | | | | | | | | | | | | | | | | |  |  |  |  |  |  |  |  |  |  |  |  |  |
| - Identify future needs with emphasis on the spatial framework plan of the municipality | | | | | | | | | | | | | | | | | | | | | |  |  |  |  |  |  |  |  |  |  |  |  |  |
| D. Identify various policy interventions that should seek to reduce the level of risks by addressing the exposure, sensitivity, with consideration to the current adaptive capacities | | | | | | | | | | | | | | | | | | | | | |  |  |  |  |  |  |  |  |  |  |  |  |  |
| - Identify the various disaster risk adaptation and mitigation measures to reduce into an acceptable and tolerable level. | | | | | | | | | | | | | | | | | | | | | |  |  |  |  |  |  |  |  |  |  |  |  |  |

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| Table 11. **DISASTER RISK ASSESSMENT SUMMARY MATRIX** | | | | | | | | | | | | | | | | | | | |
| **SYSTEM OF INTEREST: NATURAL RESOURCES DRA** | | | | | | | | | | | | | | | | | | | |
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| **HAZARD: FLOODING** | |  |  |  | |  |  |  |  |  |  | |  |  |  |  |  |  |  |
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| **Decision Area/s** | | **Technical Findings** | | | | **Implications** | | | | | | | **Policy Interventions** | | | | | | | | |  |  |  |  |  |  |  |  |  |  |  |  |  |
| **A** | | **B** | | | | **C** | | | | | | | **D** | | | | | | | | |  |  |  |  |  |  |  |  |  |  |  |  |  |
| Sector: Economic Area: Agriculture (Farmland & Fishpond) Indicator: Barangay Anolid | | In Barangay Anolid, 101 hectares or about 3,524.4 MT productions are exposed to the identified climate stimuli, of which 60 hectares or 59% of the farmland are submerged during flood. Decrease of production is about 2,093.70 MT. Of the 14.4 hectares or about 16.2 MT productions of fishponds 10 hectares or 69.44% are submerged during flood. Decrease of production about 11.25 MT. > The level of exposure and vulnerability of the Farmland and fishpond is characterized as high. The LGU's capability and adaptability measure is at an acceptable level. | | | | >> Decreased production >> Loss of Income >> Loss of livelihood >> Food shortage >> Increased malnutrition  >> Price hike of various commodities | | | | | | | >> Conduct Livelihood Programs >> Provision of disaster resilient flood control projects >> Seed subsidy (high yield and flood resilient variety) >> Adjust planting season of various crops >> Implementation of plans and ordinances (CLUP, CDP, MDRRMP, Zoning Ordinance) >> Prioritization of Climate Change adaptive projects (slope protection, flood control system, construction of drainage system/ dike) >> provision of different livelihood trainings as alternative sources of income >> Construction of communal irrigation system  >> Fingerlings dispersal >> Planting of mangroves | | | | | | | | |  |  |  |  |  |  |  |  |  |  |  |  |  |
| Sector: Economic Area: Agriculture (Farmland) Indicator: Barangay Banaoang | | In Barangay Banaoang, 25 hectares or about 105 MT productionsare exposed to the identified stimuli, of which 10 hectares or 40 % of the farmland are submerged during flood. Decrease of production is about 42 MT. > The level of exposure and vulnerability of the Farmland is characterized as high. The LGU's capability and adaptability measure is at an acceptable level. | | | | >> Decreased production >> Loss of Income >> Loss of livelihood >> Food shortage >> Increased malnutrition  >> Price hike of various commodities | | | | | | | >> Conduct Livelihood Programs >> Provision of disaster resilient flood control projects >> Seed subsidy (high yield and flood resilient variety) >> Adjust planting season of various crops >> Implementation of plans and ordinances (CLUP, CDP, MDRRMP, Zoning Ordinance) >> Prioritization of Climate Change adaptive projects (slope protection, flood control system, construction of drainage system/ dike) >> provision of different livelihood trainings as alternative source of income >> Construction of communal irrigation system | | | | | | | | |  |  |  |  |  |  |  |  |  |  |  |  |  |
| Sector: Economic Area: Agriculture (Farmland) Indicator: Barangay Bantayan | | In Barangay Bantayan, 5 hectares or about 198 MT productions are exposed to the identified stimuli, of which 2 hectares or 40 % of the farmland are submerged during flood. Decrease of production is about 79.2 MT. > The level of exposure and vulnerability of the Farmland is characterized as high. The LGU's capability and adaptability measure is at an acceptable level. | | | | >> Decreased of production >> Loss of Income >> Loss of livelihood >> Food shortage >> Increased malnutrition  >> Price hike of various commodities | | | | | | | >> Conduct Livelihood Programs >> Provision of disaster resilient flood control projects >> Seed subsidy (high yield and flood resilient variety) >> Adjust planting season of various crops >> Implementation of plans and ordinances (CLUP, CDP, MDRRMP, Zoning Ordinance) >> Prioritization of Climate Change adaptive projects (slope protection, flood control system, construction of drainage system/ dike) >> provision of different livelihood trainings as alternative sources of income >> Construction of communal irrigation system | | | | | | | | |  |  |  |  |  |  |  |  |  |  |  |  |  |
| Sector: Economic Area: Agriculture (Farmland & Fishpond) Indicator: Barangay Bateng | | In Barangay Bateng, 2 hectares or about 100 MT productions are exposed to the identified stimuli, of which 1 hectare or 50 % of the farmlands are submerged during flood. Decreased of production is about 50 MT. of the 70.58 hectares or about 79.40 MT production of fishpond, 42.35 hectares or 60% of the fishpond are submerged during flood. Decrease of production is about 47.64 MT. > The level of exposure and vulnerability of the Farmland and fishpond is characterized as high. The LGU's capability and adaptability measure is at an acceptable level. | | | | >> Decreased production >> Loss of Income >> Loss of livelihood >> Food shortage >> Increased malnutrition  >> Price hike of various commodities | | | | | | | >> Conduct Livelihood Programs >> Provision of disaster resilient flood control projects >> Seed subsidy (high yield and flood resilient variety) >> Adjust planting season of various crops >> Implementation of plans and ordinances (CLUP, CDP, MDRRMP, Zoning Ordinance) >> Prioritization of Climate Change adaptive projects (slope protection, flood control system, construction of drainage system/ dike) >> provision of different livelihood trainings as alternative sources of income >> Construction of communal irrigation system  >> Fingerlings dispersal >> Planting of mangroves | | | | | | | | |  |  |  |  |  |  |  |  |  |  |  |  |  |
| Sector: Economic Area: Agriculture (Farmland) Indicator: Barangay David | | In Barangay David, 60 hectares or about 594 MT productions are exposed to the identified stimuli, of which 45 hectares or 75 % of the farmland are submerged during flood. Decrease of production is about 2,093.70 MT | | | | >> Decreased production  >> Loss of Income>> Loss of livelihood >> Food shortage >> Increased malnutrition >> Price hike of various commodities | | | | | | | >> Conduct Livelihood Programs>> Provision of disaster resilient flood control projects>> Seed subsidy (high yield and flood resilient variety)>> Adjust planting season of various crops >> Implementation of plans and ordinances (CLUP, CDP, MDRRMP, Zoning Ordinance) >> Prioritization of Climate Change adaptive projects (slope protection, flood control system, construction of drainage system/ dike) >> provision of different livelihood trainings as alternative sources of income >> Construction of communal irrigation system | | | | | | | | |  |  |  |  |  |  |  |  |  |  |  |  |  |
| Sector: Economic Area: Agriculture (Farmland) Indicator: Barangay Embarcadero | | In Barangay Embarcadero, 25 hectares or about 105 MT productions are exposed to the identified stimuli, of which 16.25 hectares or 65% of the farmland are submerged during flood. Decrease of production is about 68.25 MT. > The level of exposure and vulnerability of the Farmland is characterized as high. The LGU's capability and adaptability measure is at an acceptable level. | | | | >> Decreased production >> Loss of Income >> Loss of livelihood >> Food shortage >> Increased malnutrition  >> Price hike of various commodities | | | | | | | >> Conduct Livelihood Programs >> Provision of disaster resilient flood control projects >> Seed subsidy (high yield and flood resilient variety) >> Adjust planting season of various crops >> Implementation of plans and ordinances (CLUP, CDP, MDRRMP, Zoning Ordinance) >> Prioritization of Climate Change adaptive projects (slope protection, flood control system, construction of drainage system/ dike) >> provision of different livelihood trainings as alternative sources of income >> Construction of communal irrigation system | | | | | | | | |  |  |  |  |  |  |  |  |  |  |  |  |  |

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| Table 11. **DISASTER RISK ASSESSMENT SUMMARY MATRIX** | | | | | | | | | | | | | | | | | | | |
| **SYSTEM OF INTEREST: NATURAL RESOURCES DRA** | | | | | | | | | | | | | | | | | | | |
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| **HAZARD: FLOODING** | |  |  |  | |  |  |  |  |  |  | |  |  |  |  |  |  |  |
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| **Decision Area/s** | | **Technical Findings** | | | | **Implications** | | | | | | | **Policy Interventions** | | | | | | | | |
| **A** | | **B** | | | | **C** | | | | | | | **D** | | | | | | | | |
| Sector: Economic Area: Agriculture (Farmland) Indicator: Barangay Guesang | | In Barangay Guesang, 68.5 hectares or about 225 MT productions are exposed to the identified stimuli, of which 41.79 hectares or 61% of the farmlands are submerged during flood. Decrease of production is about 137.27 MT.  > The level of exposure and vulnerability of the Farmland is characterized as high. The LGU's capability and adaptability measure is at an acceptable level. | | | | >> Decreased production >> Loss of Income >> Loss of livelihood >> Food shortage >> Increased malnutrition  >> Price hike of various commodities | | | | | | | >> Conduct Livelihood Programs >> Provision of disaster resilient flood control projects >> Seed subsidy (high yield and flood resilient variety) >> Adjust planting season of various crops >> Implementation of plans and ordinances (CLUP, CDP, MDRRMP, Zoning Ordinance) >> Prioritization of Climate Change adaptive projects (slope protection, flood control system, construction of drainage system/ dike) >> provision of different livelihood trainings as alternative sources of income >> Construction of communal irrigation system | | | | | | | | |  |  |  |  |  |  |  |  |  |  |  |  |  |
| Sector: Economic Area: Agriculture (Farmland) Indicator: Barangay Guiguilonen | | In Barangay Guiguilonen, 10 hectares or about 5 MT productions are exposed to the identified stimuli, of which5 hectares or 50% of the farmlands are submerged during flood. Decrease of production is about 2.5 MT | | | | >> Decreased production >> Loss of Income >> Loss of livelihood >> Food shortage >> Increased malnutrition  >> Price hike of various commodities | | | | | | | >> Conduct Livelihood Programs >> Provision of disaster resilient flood control projects >> Seed subsidy (high yield and flood resilient variety) >> Adjust planting season of various crops >> Implementation of plans and ordinances (CLUP, CDP, MDRRMP, Zoning Ordinance) >> Prioritization of Climate Change adaptive projects (slope protection, flood control system, construction of drainage system/ dike) >> provision of different livelihood trainings as alternative sources of income >> Construction of communal irrigation system | | | | | | | | |  |  |  |  |  |  |  |  |  |  |  |  |  |
| Sector: Economic Area: Agriculture (Farmland) Indicator: Barangay Inlambo | | In Barangay Inlambo, 65 hectares or about 638 MT productions are exposed to the identified stimuli, of which 35 hectares or 53% of the farmlands are submerged during flood. Decrease of production is about 343.54 MT.  > The level of exposure and vulnerability of the Farmland is characterized as high. The LGU's capability and adaptability measure is at an acceptable level. | | | | >> Decreased of production>> Loss of Income>> Loss of livelihood >> Food shortage >> Increased malnutrition >> Price hike of various commodities | | | | | | | >> Conduct Livelihood Programs>> Provision of disaster resilient flood control projects>> Seed subsidy (high yield and flood resilient variety)>> Adjust planting season of various crops >> Implementation of plans and ordinances (CLUP, CDP, MDRRMP, Zoning Ordinance) >> Prioritization of Climate Change adaptive projects (slope protection, flood control system, construction of drainage system/ dike) >> provision of different livelihood trainings as alternative sources of income >> Construction of communal irrigation system | | | | | | | | |  |  |  |  |  |  |  |  |  |  |  |  |  |
| Sector: Economic Area: Agriculture (Farmland & Fishpond) Indicator: Barangay Lanas | | In Barangay Lanas, 10 hectares or about 50 MT productions are exposed to the identified stimuli, of which 5.2 hectares or 52% of the farmlands are submerged during flood. Decrease of production is about 26 MT. Of the 33.29 hectares or about 37.45 MT productions, 25 hectares or 75.09% of the fishpond are submerged during flood. Decrease of production about 28.12 MT. | | | | >> Decreased production >> Loss of Income >> Loss of livelihood >> Food shortage >> Increased malnutrition  >> Price hike of various commodities | | | | | | | >> Conduct Livelihood Programs >> Provision of disaster resilient flood control projects >> Seed subsidy (high yield and flood resilient variety) >> Adjust planting season of various crops >> Implementation of plans and ordinances (CLUP, CDP, MDRRMP, Zoning Ordinance) >> Prioritization of Climate Change adaptive projects (slope protection, flood control system, construction of drainage system/ dike) >> provision of different livelihood trainings as alternative sources of income >> Construction of communal irrigation system  >> Fingerlings dispersal and planting of mangroves | | | | | | | | |  |  |  |  |  |  |  |  |  |  |  |  |  |
| Sector: Economic Area: Agriculture (Farmland) Indicator: Barangay Landas | | In Barangay Landas, 45 hectares or about 225 MT productions are exposed to the identified stimuli, of which 9 hectares or 20% of the farmlands are submerged during flood. Decrease of production is about 45 MT. | | | | >> Decreased production >> Loss of Income >> Loss of livelihood >> Food shortage >> Increased malnutrition  >> Price hike of various commodities | | | | | | | >> Conduct Livelihood Programs >> Provision of disaster resilient flood control projects >> Seed subsidy (high yield and flood resilient variety) >> Adjust planting season of various crops >> Implementation of plans and ordinances (CLUP, CDP, MDRRMP, Zoning Ordinance) >> Prioritization of Climate Change adaptive projects (slope protection, flood control system, construction of drainage system/ dike) >> provision of different livelihood trainings as alternative source of income >> Construction of communal irrigation system | | | | | | | | |  |  |  |  |  |  |  |  |  |  |  |  |  |
| Sector: Economic Area: Agriculture (Farmland & Fishpond) Indicator: Barangay Maasin | | In Barangay Maasin, 10 hectares or about 198 MT productions are exposed to the identified stimuli, of which 5 hectares or 50% of the farmlands are submerged during flood. Decrease of production is about 99 MT. Of the 107.27 Hectares or 120.6 MT productions,80.45 hectares or 75% of the fishpond are submerged during flood. Decrease of production is about 90.50 MT. > The level of exposure and vulnerability of the Farmland and fishpond is characterized as high. The LGU's capability and adaptability measure is at an acceptable level. | | | | >> Decreased production  >> Loss of Income>> Loss of livelihood >> Food shortage >> Increased malnutrition >> Price hike of various commodities | | | | | | | >> Conduct Livelihood Programs>> Provision of disaster resilient flood control projects>> Seed subsidy (high yield and flood resilient variety)>> Adjust planting season of various crops >> Implementation of plans and ordinances (CLUP, CDP, MDRRMP, Zoning Ordinance) >> Prioritization of Climate Change adaptive projects (slope protection, flood control system, construction of drainage system/ dike) >> provision of different livelihood trainings as alternative source of income >> Construction of communal irrigation system >> Fingerlings dispersal and >> Planting of mangroves | | | | | | | | |  |  |  |  |  |  |  |  |  |  |  |  |  |
| Sector: Economic Area: Agriculture (Farmland & Fishpond) Indicator: Barangay Anolid | | In Barangay Macayug, 30 hectares or about 365.2 MT productions are exposed to the identified stimuli, of which 25 hectares or 83% of the farmland are submerged during flood. Decrease of production is about 304.33 MT.  > The level of exposure and vulnerability of the Farmland is characterized as high. The LGU's capability and adaptability measure is at an acceptable level. | | | | >> Decreased production >> Loss of Income >> Loss of livelihood >> Food shortage >> Increased malnutrition  >> Price hike of various commodities | | | | | | | >> Conduct Livelihood Programs >> Provision of disaster resilient flood control projects >> Seed subsidy (high yield and flood resilient variety) >> Adjust planting season of various crops >> Implementation of plans and ordinances (CLUP, CDP, MDRRMP, Zoning Ordinance) >> Prioritization of Climate Change adaptive projects (slope protection, flood control system, construction of drainage system/ dike) >> provision of different livelihood trainings as alternative sources of income >> Construction of communal irrigation system | | | | | | | | |  |  |  |  |  |  |  |  |  |  |  |  |  |
| Table 11. **DISASTER RISK ASSESSMENT SUMMARY MATRIX** | | | | | | | | | | | | | | | | | | | |
| **SYSTEM OF INTEREST: NATURAL RESOURCES DRA** | | | | | | | | | | | | | | | | | | | |
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| **HAZARD: FLOODING** | |  |  |  | |  |  |  |  |  |  | |  |  |  |  |  |  |  |
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| **Decision Area/s** | | **Technical Findings** | | | | **Implications** | | | | | | | **Policy Interventions** | | | | | | | | |
| **A** | | **B** | | | | **C** | | | | | | | **D** | | | | | | | | |
| Sector: Economic Area: Agriculture (Farmland) Indicator: Barangay Navaluan | | In Barangay Navaluan, 37 hectares or about 162.8 MT productions are exposed to the identified stimuli, of which 18 hectares or 48% of the farmland are submerged during flood. Decrease of production is about 79.2 MT.  > The level of exposure and vulnerability of the Farmland is characterized as high. The LGU's capability and adaptability measure is at an acceptable level. | | | | >> Decreased production >> Loss of Income >> Loss of livelihood >> Food shortage >> Increased malnutrition  >> Price hike of various commodities | | | | | | | >> Conduct Livelihood Programs >> Provision of disaster resilient flood control projects >> Seed subsidy (high yield and flood resilient variety) >> Adjust planting season of various crops >> Implementation of plans and ordinances (CLUP, CDP, MDRRMP, Zoning Ordinance) >> Prioritization of Climate Change adaptive projects (slope protection, flood control system, construction of drainage system/ dike) >> provision of different livelihood trainings as alternative sources of income >> Construction of communal irrigation system | | | | | | | | |  |  |  |  |  |  |  |  |  |  |  |  |  |
| Sector: Economic Area: Agriculture (Farmland) Indicator: Barangay Nibaliw | | In Barangay Nibaliw, 36 hectares or about 162.8 MT productions are exposed to the identified stimuli, of which 20 hectares or 55.56% of the farmlands are submerged during flood. Decrease of production is about 90.44 MT.  > The level of exposure and vulnerability of the Farmland is characterized as high. The LGU's capability and adaptability measure is at an acceptable level. | | | | >> Decreased production >> Loss of Income >> Loss of livelihood >> Food shortage >> Increased malnutrition  >> Price hike of various commodities | | | | | | | >> Conduct Livelihood Programs >> Provision of disaster resilient flood control projects >> Seed subsidy (high yield and flood resilient variety) >> Adjust planting season of various crops >> Implementation of plans and ordinances (CLUP, CDP, MDRRMP, Zoning Ordinance) >> Prioritization of Climate Change adaptive projects (slope protection, flood control system, construction of drainage system/ dike) >> provision of different livelihood trainings as alternative sources of income >> Construction of communal irrigation system | | | | | | | | |  |  |  |  |  |  |  |  |  |  |  |  |  |
| Sector: Economic Area: Agriculture (Farmland) Indicator: Barangay Osiem | | In Barangay Osiem, 47 hectares or about 206.8 MT productions are exposed to the identified stimuli, of which 27 hectares or 57% of the farmlands are submerged during flood. Decrease of production is about 118.8 MT.  > The level of exposure and vulnerability of the Farmland is characterized as high. The LGU's capability and adaptability measure is at an acceptable level. | | | | >> Decreased production  >> Loss of Income>> Loss of livelihood >> Food shortage >> Increased malnutrition >> Price hike of various commodities | | | | | | | >> Conduct Livelihood Programs>> Provision of disaster resilient flood control projects>> Seed subsidy (high yield and flood resilient variety)>> Adjust planting season of various crops >> Implementation of plans and ordinances (CLUP, CDP, MDRRMP, Zoning Ordinance) >> Prioritization of Climate Change adaptive projects (slope protection, flood control system, construction of drainage system/ dike) >> provision of different livelihood trainings as alternative sources of income >> Construction of communal irrigation system | | | | | | | | |  |  |  |  |  |  |  |  |  |  |  |  |  |
| Sector: Economic Area: Agriculture (Farmland) Indicator: Barangay Palua | | In Barangay Palua, 35 hectares or about 180 MT productions are exposed to the identified stimuli, of which 14 hectares or 40% of the farmlands are submerged during flood. Decrease of production is about 72 MT.  > The level of exposure and vulnerability of the Farmland is characterized as high. The LGU's capability and adaptability measure is at an acceptable level. | | | | >> Decreased production >> Loss of Income >> Loss of livelihood >> Food shortage >> Increased malnutrition  >> Price hike of various commodities | | | | | | | >> Conduct Livelihood Programs >> Provision of disaster resilient flood control projects >> Seed subsidy (high yield and flood resilient variety) >> Adjust planting season of various crops >> Implementation of plans and ordinances (CLUP, CDP, MDRRMP, Zoning Ordinance) >> Prioritization of Climate Change adaptive projects (slope protection, flood control system, construction of drainage system/ dike) >> provision of different livelihood trainings as alternative sources of income >> Construction of communal irrigation system | | | | | | | | |  |  |  |  |  |  |  |  |  |  |  |  |  |
| Sector: Economic Area: Agriculture (Farmland) Indicator: Barangay Pogo | | In Barangay Pogo, 36 hectares or about 206.8 MT productions are exposed to the identified stimuli, of which 16.2 hectares or 45% of the farmlands are submerged during flood. Decrease of production is about 93.06 MT.  > The level of exposure and vulnerability of the Farmland is characterized as high. The LGU's capability and adaptability measure is at an acceptable level. | | | | >> Decreased production >> Loss of Income >> Loss of livelihood >> Food shortage >> Increased malnutrition  >> Price hike of various commodities | | | | | | | >> Conduct Livelihood Programs >> Provision of disaster resilient flood control projects >> Seed subsidy (high yield and flood resilient variety) >> Adjust planting season of various crops >> Implementation of plans and ordinances (CLUP, CDP, MDRRMP, Zoning Ordinance) >> Prioritization of Climate Change adaptive projects (slope protection, flood control system, construction of drainage system/ dike) >> provision of different livelihood trainings as alternative sources of income >> Construction of communal irrigation system | | | | | | | | |  |  |  |  |  |  |  |  |  |  |  |  |  |
| Sector: Economic Area: Agriculture (Farmland) Indicator: Barangay Salaan | | In Barangay Salaan, 25 hectares or about 105 MT productions are exposed to the identified stimuli, of which 16.25 hectares or 65% of the farmlands are submerged during flood. Decrease of production is about 68.25 MT.  > The level of exposure and vulnerability of the Farmland is characterized as high. The LGU's capability and adaptability measure is at an acceptable level. | | | | >> Decreased production >> Loss of Income >> Loss of livelihood >> Food shortage >> Increased malnutrition  >> Price hike of various commodities | | | | | | | >> Conduct Livelihood Programs >> Provision of disaster resilient flood control projects >> Seed subsidy (high yield and flood resilient variety) >> Adjust planting season of various crops >> Implementation of plans and ordinances (CLUP, CDP, MDRRMP, Zoning Ordinance) >> Prioritization of Climate Change adaptive projects (slope protection, flood control system, construction of drainage system/ dike) >> provision of different livelihood trainings as alternative sources of income >> Construction of communal irrigation system | | | | | | | | |  |  |  |  |  |  |  |  |  |  |  |  |  |
| Sector: Economic Area: Agriculture (Farmland & Fishpond) Indicator: Barangay Talogtog | | In Barangay Talogtog, 2 hectares or about 100 MT productions are exposed to the identified stimuli, of which1 hectare or 50 % of the farmlands are submerged during flood. Decrease of production is about 50 MT. Of the 35.028 hectares or 39.40 MT productions, 18 hectares or 51.39% of the fishponds are submerged during flood. Decrease of production is about 28.34 MT. > The level of exposure and vulnerability of the Farmland and fishpond is characterized as high. The LGU's capability and adaptability measure is at an acceptable level. | | | | >> Decreased production  >> Loss of Income  >> Loss of livelihood >> Food shortage >> Increased malnutrition >> Price hike of various commodities | | | | | | | >> Conduct Livelihood Programs>> Provision of disaster resilient flood control projects  >> Seed subsidy (high yield and flood resilient variety)  >> Adjust planting season of various crops >> Implementation of plans and ordinances (CLUP, CDP, MDRRMP, Zoning Ordinance) >> Prioritization of Climate Change adaptive projects (slope protection, flood control system, construction of drainage system/ dike) >> provision of different livelihood trainings as alternative sources of income >> Construction of communal irrigation system >> Fingerlings dispersal and >> Planting of mangroves | | | | | | | | |  |  |  |  |  |  |  |  |  |  |  |  |  |
| Table 11. **DISASTER RISK ASSESSMENT SUMMARY MATRIX** | | | | | | | | | | | | | | | | | | | |
| **SYSTEM OF INTEREST: NATURAL RESOURCES DRA** | | | | | | | | | | | | | | | | | | | |
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| **HAZARD: FLOODING** | |  |  |  | |  |  |  |  |  |  | |  |  |  |  |  |  |  |
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| **Decision Area/s** | | **Technical Findings** | | | | **Implications** | | | | | | | **Policy Interventions** | | | | | | | | |
| **A** | | **B** | | | | **C** | | | | | | | **D** | | | | | | | | |
| Sector: Economic Area: Agriculture (Farmland) Indicator: Barangay Tebag | | In Barangay Tebag, 30 hectares or about 365.2 MT productions are exposed to the identified stimuli, of which 25 hectares or 83% of the farmlands are submerged during flood. Decrease of production is about 304.33 MT  > The level of exposure and vulnerability of the Farmland is characterized as high. The LGU's capability and adaptability measure is at an acceptable level. | | | | >> Decreased production >> Loss of Income >> Loss of livelihood >> Food shortage >> Increased malnutrition  >> Price hike of various commodities | | | | | | | >> Conduct Livelihood Programs >> Provision of disaster resilient flood control projects >> Seed subsidy (high yield and flood resilient variety) >> Adjust planting season of various crops >> Implementation of plans and ordinances (CLUP, CDP, MDRRMP, Zoning Ordinance) >> Prioritization of Climate Change adaptive projects (slope protection, flood control system, construction of drainage system/ dike) >> provision of different livelihood trainings as alternative sources of income >> Construction of communal irrigation system | | | | | | | | |  |  |  |  |  |  |  |  |  |  |  |  |  |
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| **Instructions:** | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | |
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| A. Based on the risks maps generated for the various exposure units, highlight and identify decision areas or elements. Decision areas can be the barangay or specific sites in the barangay such as coastal area, mountain sides, and riverbanks. | | | | | | | | | | | | | | | | | | | | | |  |  |  |  |  |  |  |  |  |  |  |  |  |
| - Identify decision areas in need of intervention based on the generated risk maps | | | | | | | | | | | | | | | | | | | | | |  |  |  |  |  |  |  |  |  |  |  |  |  |
| - This can be identified as high to moderate risk areas or may pertain to a specific area in the barangay | | | | | | | | | | | | | | | | | | | | | |  |  |  |  |  |  |  |  |  |  |  |  |  |
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| B. List down the significant findings/observed conditions and causes by describing the area or element in terms of the level of risk, highlighting the various contributing factors such as exposure, sensitivity, and adaptive capacity. | | | | | | | | | | | | | | | | | | | | | |  |  |  |  |  |  |  |  |  |  |  |  |  |
| - Identify the hazard and how these may manifest in the identified decision area | | | | | | | | | | | | | | | | | | | | | |  |  |  |  |  |  |  |  |  |  |  |  |  |
| - Expound on the exposure information (i.e. number of affected population, exposure percentage, exposed area, and cost) | | | | | | | | | | | | | | | | | | | | | |  |  |  |  |  |  |  |  |  |  |  |  |  |
| - Highlight relevant sensitivities of the exposed element to the identified hazard | | | | | | | | | | | | | | | | | | | | | |  |  |  |  |  |  |  |  |  |  |  |  |  |
| - Highlight relevant adaptive capacity indicators of the exposed element to the identified hazard | | | | | | | | | | | | | | | | | | | | | |  |  |  |  |  |  |  |  |  |  |  |  |  |
|  | |  | | | |  | | | | | | |  | | | | | | | | |  |  |  |  |  |  |  |  |  |  |  |  |  |
| C. List down the planning/development implications when the identified risks in the various decision areas are not addressed. | | | | | | | | | | | | | | | | | | | | | |  |  |  |  |  |  |  |  |  |  |  |  |  |
| - Highlight potential impact as mentioned in the sectoral impact chains | | | | | | | | | | | | | | | | | | | | | |  |  |  |  |  |  |  |  |  |  |  |  |  |
| - Highlight future scenario if risks are not addressed | | | | | | | | | | | | | | | | | | | | | |  |  |  |  |  |  |  |  |  |  |  |  |  |
| - Identify future needs with emphasis on the spatial framework plan of the municipality | | | | | | | | | | | | | | | | | | | | | |  |  |  |  |  |  |  |  |  |  |  |  |  |
| D. Identify various policy interventions that should seek to reduce the level of risks by addressing the exposure, sensitivity, with consideration to the current adaptive capacities | | | | | | | | | | | | | | | | | | | | | |  |  |  |  |  |  |  |  |  |  |  |  |  |
| - Identify the various disaster risk adaptation and mitigation measures to reduce into an acceptable and tolerable level. | | | | | | | | | | | | | | | | | | | | | |  |  |  |  |  |  |  |  |  |  |  |  |  |

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| Table 4.6. **CLIMATE CHANGE VULNERABILITY ASSESSMENT SUMMARY MATRIX** | | | | | |
| **SYSTEM OF INTEREST: CRITICAL FACILITY CCVA** | | | | | |
| **CLIMATE STIMULI: EXTREME RAINFALL** | | | | | |
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| **Decision Area/s** | **Technical Findings** | **Implications** | | **Policy Interventions** | |
| **A** | **B** | **C** | | **D** | |
| Sector: Infrastructure Area: Health, Education & Road Indicator: Barangay Anolid | > In Barangay Anolid, Barangay Health Station is located in low lying area and not hazard resistant design. > Anolid Elementary School is located in low lying area. School building is made of mixed materials and not hazard resilient.  > Anolid-Perlan Road is located in low lying area. Impassable during flood. | >> Onset of water borne diseases >> Increased no. of morbidity/ mortality rate  >> Increased number of drop-out rate >> Reduced number of school attendance >> Possible incidence of crime (looting) >> Inadequate medical supplies >> Delay of mobility of people, goods and services | | >> Implementation of plans and ordinances (CLUP, CDP, MDRRMP, Zoning Ordinance) >> Conduct make-up classes >> Prioritization of Climate Change adaptive projects (slope protection, flood control system, construction of drainage system/ dike) | |
| Sector: Infrastructure Area: Road Indicator: Barangay Banaoang | In Barangay Banaoang, 600 meters Banaoang East Provincial Road is located in low lying and easily flooded. | >> Increased number of drop-out rate >> Reduced number of school attendance >> Delay of mobility of people, goods and services | | >> Implementation of plans and ordinances (CLUP, CDP, MDRRMP, Zoning Ordinance) >> Conduct make-up classes >> Prioritization of Climate Change adaptive projects (slope protection, flood control system, construction of drainage system/ dike) | |
| Sector: Infrastructure Area: Education & Road Indicator: Barangay Bantayan | In Barangay Bantayan, Mangaldan Integrated School is located in low lying area. And some school buildings are made of mixed materials and not hazard resilient > Barangay Road is located in low lying area. Impassable during flood and made of earth. | >> Increased number of drop-out rate >> Reduced number of school attendance >> Delay of mobility of people, goods and services | | >> Implementation of plans and ordinances (CLUP, CDP, MDRRMP, Zoning Ordinance) >> Conduct make-up classes >> Prioritization of Climate Change adaptive projects (slope protection, flood control system, construction of drainage system/ dike) | |
| Sector: Infrastructure Area: Health Indicator: Barangay Bateng | In Barangay Bateng, Barangay Health Station is located in low lying area and easily flooded. | >> Onset of water borne diseases >> Increased number of morbidity/ mortality rate | | >> Implementation of plans and ordinances (CLUP, CDP, MDRRMP, Zoning Ordinance) >> Conduct make-up classes >> Prioritization of Climate Change adaptive projects (slope protection, flood control system, construction of drainage system/ dike) | |
| Sector: Infrastructure Area: Health, Education & Road Indicator: Barangay David | In Barangay David, Barangay Health Station is located in low lying area and easily flooded. > David Elementary School is located in low lying area. And some school buildings are made of mixed materials and not hazard resilient> 500 meters Provincial Road is located in low lying area with pothole and pavement crack. Impassable during flood. | >> Onset of water borne diseases >> Increasedno. of morbidity/ mortality rate  >> Increased number of drop-out rate >> Reduced number of school attendance >> Possible incidence of crime (looting) >> Inadequate medical supplies >> Delay of mobility of people, goods and services | | >> Implementation of plans and ordinances (CLUP, CDP, MDRRMP, Zoning Ordinance) >> Conduct make-up classes >> Prioritization of Climate Change adaptive projects (slope protection, flood control system, construction of drainage system/ dike) | |
| Sector: Infrastructure Area: Education & Road Indicator: Barangay Embarcadero | In Barangay Embarcadero, Embarcadero Elementary School is located in low lying area and easily flooded.  > 110 meters Farm to market road is located in low lying area made of earth | >> Increased number of drop-out rate >> Reduced number of school attendance >> Delay of mobility of people, goods and services | | >> Implementation of plans and ordinances (CLUP, CDP, MDRRMP, Zoning Ordinance) >> Conduct make-up classes >> Prioritization of Climate Change adaptive projects (slope protection, flood control system, construction of drainage system/ dike) | |
| Sector: Infrastructure Area: Health, Education & Road Indicator: Barangay Guesang | In Barangay Guesang, Guesang Elementary School is located in low lying area. School buildings are made of mixed materials and not hazard resilient. > 1.140 km Barangay road is located in low lying area made of earth | >> Increased number of drop-out rate >> Reduced number of school attendance >> Delay of mobility of people, goods and services | | >> Implementation of plans and ordinances (CLUP, CDP, MDRRMP, Zoning Ordinance) >> Conduct make-up classes >> Prioritization of Climate Change adaptive projects (slope protection, flood control system, construction of drainage system/ dike) | |
| Sector: Infrastructure Area: Road Indicator: Barangay Anolid | In Barangay Guiguilonen, Barangay road is located in low lying area and made of earth. | >> Increased number of drop-out rate >> Reduced number of school attendance >> Delay of mobility of people, goods and services | | >> Implementation of plans and ordinances (CLUP, CDP, MDRRMP, Zoning Ordinance) >> Conduct make-up classes >> Prioritization of Climate Change adaptive projects (slope protection, flood control system, construction of drainage system/ dike) | |
| Sector: Infrastructure Area: Education & Road Indicator: Barangay Inlambo | In Barangay Inlambo, Inlambo Elementary School is located in low lying area. School building is made of mixed materials and not hazard resistant design > 418 meters Inlambo barangay road is located in low lying area and made of earth | >> Increased number of drop-out rate >> Reduced number of school attendance >> Delay of mobility of people, goods and services | | >> Implementation of plans and ordinances (CLUP, CDP, MDRRMP, Zoning Ordinance) >> Conduct make-up classes >> Prioritization of Climate Change adaptive projects (slope protection, flood control system, construction of drainage system/ dike) | |
| Sector: Infrastructure Area: Education & Road Indicator: Barangay Lanas | In Barangay Lanas, Lanas Elementary School is located in low lying area and easily flooded. > 2.350 Km Barangay road is located in low lying area made of earth | >> Increased number of drop-out rate >> Reduced number of school attendance >> Delay of mobility of people, goods and services | | >> Implementation of plans and ordinances (CLUP, CDP, MDRRMP, Zoning Ordinance) >> Conduct make-up classes >> Prioritization of Climate Change adaptive projects (slope protection, flood control system, construction of drainage system/ dike) | |
| Sector: Infrastructure Area: Road Indicator: Barangay Landas | In Barangay Landas, Riverside Road road is located in low lying area and made of earth. | >> Increased number of drop-out rate >> Reduced number of school attendance >> Delay of mobility of people, goods and services | | >> Implementation of plans and ordinances (CLUP, CDP, MDRRMP, Zoning Ordinance) >> Conduct make-up classes >> Prioritization of Climate Change adaptive projects (slope protection, flood control system, construction of drainage system/ dike) | |
| Sector: Infrastructure Area: Health, Education & Road Indicator: Barangay Maasin | In Barangay Maasin, Barangay Health Station is located in low lying area and easily flooded. > Maasin Elementary School is located in low lying area and easily flooded Some of the school buildings are made of mixed materials. > Maasin barangay road is located in low lying area and easily flooded | >> Onset of water borne diseases >> Increased no. of morbidity/ mortality rate >> Increased number of drop-out rate >> Reduced number of school attendance >> Possible incidence of crime (looting)  >> Inadequate medical supplies >> Delay of mobility of people, goods and services | | >> Implementation of plans and ordinances (CLUP, CDP, MDRRMP, Zoning Ordinance) >> Conduct make-up classes >> Prioritization of Climate Change adaptive projects (slope protection, flood control system, construction of drainage system/ dike) | |
| Sector: Infrastructure Area: Health, Education Indicator: Barangay Macayug | In Barangay Macayug, Barangay Health Station is located in low lying area and easily flooded. > Macayug Elementary School is located in low lying area and easily flooded. School buildings are made of mixed materials and not hazard resistant. | >> Onset of water borne diseases >> Increased no. of morbidity/ mortality rate  >> Increased number of drop-out rate >> Reduced number of school attendance >> Possible incidence of crime (looting) >> Inadequate medical supplies | | >> Implementation of plans and ordinances (CLUP, CDP, MDRRMP, Zoning Ordinance) >> Conduct make-up classes >> Prioritization of Climate Change adaptive projects (slope protection, flood control system, construction of drainage system/ dike) | |
| Table 4.6. **CLIMATE CHANGE VULNERABILITY ASSESSMENT SUMMARY MATRIX** | | | | | |
| **SYSTEM OF INTEREST: CRITICAL FACILITY CCVA** | | | | | |
| **CLIMATE STIMULI: EXTREME RAINFALL** | | | | | |
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| **Decision Area/s** | **Technical Findings** | | **Implications** | | **Policy Interventions** |
| **A** | **B** | | **C** | | **D** |
| Sector: Infrastructure Area: Health, Education & Road Indicator: Barangay Navaluan | In Barangay Navaluan, Barangay Health Station is located in low lying area and easily flooded. > Navaluan Elementary School is located in low lying area. And some school buildingsare made of mixed materials and not hazard resilient > 420 meters Farm to Market Road is located in low lying area and made of earth. Impassable during flood. | | >> Onset of water borne diseases >> Increased no. of morbidity/ mortality rate >> Increased number of drop-out rate >> Reduced number of school attendance >> Possible incidence of crime (looting) >> Inadequate medical supplies >> Delay of mobility of people, goods and services | | >> Implementation of plans and ordinances (CLUP, CDP, MDRRMP, Zoning Ordinance) >> Conduct make-up classes >> Prioritization of Climate Change adaptive projects (slope protection, flood control system, construction of drainage system/ dike) |
| Sector: Infrastructure Area: Health, Education & Road Indicator: Barangay Nibaliw | In Barangay Nibaliw, Barangay Health Station is located in low lying area and easily flooded. > Nibaliw Elementary School is located in low lying area. And some school buildingsare made of mixed materials and not hazard resilient > 420 meters barangay Road is located in low lying area made of gravel. Impassable during flood. | | >> Onset of water borne diseases >> Increased no. of morbidity/ mortality rate  >> Increased number of drop-out rate >> Reduced number of school attendance >> Possible incidence of crime (looting)  >> Inadequate medical supplies >> Delay of mobility of people, goods and services | | >> Implementation of plans and ordinances (CLUP, CDP, MDRRMP, Zoning Ordinance) >> Conduct make-up classes >> Prioritization of Climate Change adaptive projects (slope protection, flood control system, construction of drainage system/ dike) |
| Sector: Infrastructure Area: Road Indicator: Barangay Osiem | In Barangay Osiem, Osiem barangay road is located in low lying area and made of earth. | | >> Increased number of drop-out rate >> Reduced number of school attendance >> Delay of mobility of people, goods and services | | >> Implementation of plans and ordinances (CLUP, CDP, MDRRMP, Zoning Ordinance) >> Conduct make-up classes >> Prioritization of Climate Change adaptive projects (slope protection, flood control system, construction of drainage system/ dike) |
| Sector: Infrastructure Area: Health & Road Indicator: Barangay Palua | In Barangay Palua, Barangay Health Station is located in low lying area and easily flooded. > 1.600 km barangay road is located in low lying area and made of earth. Impassable during flood. | | >> Onset of water borne diseases >> Increased no. of morbidity/ mortality rate  >> Increased number of drop-out rate >> Reduced number of school attendance >> Possible incidence of crime (looting) >> Inadequate medical supplies >> Delay of mobility of people, goods and services | | >> Implementation of plans and ordinances (CLUP, CDP, MDRRMP, Zoning Ordinance) >> Conduct make-up classes >> Prioritization of Climate Change adaptive projects (slope protection, flood control system, construction of drainage system/ dike) |
| Sector: Infrastructure Area: Health, Education & Road Indicator: Barangay Poblacion | In Barangay Poblacion, Urgent Care Clinic is located in low lying area and easily flooded > Mangaldan Central School is located in low lying area and easily flooded > 400 meters Duyala Road is located in low lying area with pothole and pavement crack. | | >> Onset of water borne diseases >> Increasedno. of morbidity/ mortality rate  >> Increased number of drop-out rate >> Reduced number of school attendance >> Possible incidence of crime (looting) >> Inadequate medical supplies >> Delay of mobility of people, goods and services | | >> Implementation of plans and ordinances (CLUP, CDP, MDRRMP, Zoning Ordinance) >> Conduct make-up classes >> Prioritization of Climate Change adaptive projects (slope protection, flood control system, construction of drainage system/ dike) |
| Sector: Infrastructure Area: Health, Education & Road Indicator: Barangay Pogo | In Barangay Pogo, Barangay Health Station is located in low lying area and easily flooded. > Pogo-Palua Elementary School is located in low lying area. And some school buildings are made of mixed materials and not hazard resilient > 950 meters barangay road is located in low lying area and made of earth. Impassable during flood. | | >> Onset of water borne diseases >> Increasedno. of morbidity/ mortality rate  >> Increased number of drop-out rate >> Reduced number of school attendance >> Possible incidence of crime (looting) >> Inadequate medical supplies >> Delay of mobility of people, goods and services | | >> Implementation of plans and ordinances (CLUP, CDP, MDRRMP, Zoning Ordinance) >> Conduct make-up classes >> Prioritization of Climate Change adaptive projects (slope protection, flood control system, construction of drainage system/ dike) |
| Sector: Infrastructure Area: Health, Education & Road Indicator: Barangay Salaan | In Barangay Salaan, Barangay Health Station is located in low lying area and easily flooded. > Salaan Elementary School is located in low lying area. And some school buildings are made of mixed materials and not hazard resilient > 550 meters barangay Road is located in low lying area and made of earth. Impassable during flood. | | >> Onset of water borne diseases >> Increasedno. of morbidity/ mortality rate  >> Increased number of drop-out rate >> Reduced number of school attendance >> Possible incidence of crime (looting)  >> Inadequate medical supplies >> Delay of mobility of people, goods and services | | >> Implementation of plans and ordinances (CLUP, CDP, MDRRMP, Zoning Ordinance) >> Conduct make-up classes >> Prioritization of Climate Change adaptive projects (slope protection, flood control system, construction of drainage system/ dike) |
| Sector: Infrastructure Area: Health, Education & Road Indicator: Barangay Talogtog | In Barangay Talogtog, Barangay Health Station is located in low lying area and easily flooded. > Talogtog-Bateng Elementary School is located in low lying area. And some school buildings are made of mixed materials and not hazard resilient > 586 meters barangay Road is located in low lying area and made of earth. Impassable during flood. | | >> Onset of water borne diseases >> Increasedno. of morbidity/ mortality rate  >> Increased number of drop-out rate >> Reduced number of school attendance >> Possible incidence of crime (looting) >> Inadequate medical supplies >> Delay of mobility of people, goods and services | | >> Implementation of plans and ordinances (CLUP, CDP, MDRRMP, Zoning Ordinance) >> Conduct make-up classes >> Prioritization of Climate Change adaptive projects (slope protection, flood control system, construction of drainage system/ dike) |
| Sector: Infrastructure Area: Health, Education & Road Indicator: Barangay Anolid | In Barangay Tebag, Barangay Health Station is located in low lying area and easily flooded. > Tebag Elementary School is located in low lying area. And some school buildings are made of mixed materials and not hazard resilient > 260 meters barangay Road is located in low lying area and made of earth. Impassable during flood. | | >> Onset of water borne diseases >> Increasedno. of morbidity/ mortality rate  >> Increased number of drop-out rate >> Reduced number of school attendance >> Possible incidence of crime (looting) >> Inadequate medical supplies >> Delay of mobility of people, goods and services | | >> Implementation of plans and ordinances (CLUP, CDP, MDRRMP, Zoning Ordinance) >> Conduct make-up classes >> Prioritization of Climate Change adaptive projects (slope protection, flood control system, construction of drainage system/ dike) |
|  |  |  | |  | |
| **Instructions:** | | | | | |
| A. Based on the vulnerability maps generated for the various exposure units, highlight and identify decision areas or elements. Decision areas can be the barangay or specific sites in the barangay such as coastal area, mountain sides, and riverbanks. | | | | | |
| - Identify decision areas in need of intervention based on the vulnerability maps | | | | | |
| - This can be identified as high to moderate vulnerable areas or may pertain to a specific area in the barangay | | | | | |
|  |  |  | |  | |
| B. List down the significant findings/observed conditions and causes by describing the area or element in terms of the level of vulnerability, highlighting the various contributing factors such as exposure, sensitivity, and adaptive capacity. | | | | | |
| - Identify the climate stimuli and how these may manifest in the identified decision area | | | | | |
| - Expound on the exposure information (i.e. number of affected population, exposure percentage, exposed area, and cost) | | | | | |
| - Highlight relevant sensitivities of the exposed element to the identified climate stimulus | | | | | |
| - Highlight relevant adaptive capacity indicators of the exposed element to the identified climate stimuli | | | | | |
|  |  |  | |  | |
| C. List down the planning/development implications when the identified vulnerabilities in the various decision areas are not addressed. | | | | | |
| - Highlight potential impact as mentioned in the sectoral impact chains | | | | | |
| - Highlight future scenario if vulnerabilities are not addressed | | | | | |
| - Identify future needs with emphasis on the spatial framework plan of the municipality | | | | | |
| D. Identify various policy interventions that should seek to reduce the level of vulnerability by addressing the exposure, sensitivity, with consideration to the current adaptive capacities | | | | | |
| - Identify the various climate change adaptation and mitigation measures to reduce vulnerabilities to acceptable and tolerable level. | | | | | |

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| Table 4.6. **CLIMATE CHANGE VULNERABILITY ASSESSMENT SUMMARY MATRIX** | | | | | | | | | | |
| **SYSTEM OF INTEREST: LIFELINE FACILITY CCVA** | |  | | |  | | |  | | |
| **CLIMATE STIMULI: EXTREME RAINFALL** | |  | | |  | | |  | | |
|  | |  | | |  | | |  | | |
| **Decision Area/s** | **Technical Findings** | | **Implications** | | | **Policy Interventions** | | |
| **A** | **B** | | **C** | | | **D** | | |
| Sector: Infrastructure Area: Power Bridge Indicator: Barangay Talogtog | Mangueragday Bridge is located in low lying area and needs rehabilitation/ retrofitting. | | >> Increased number of drop-out rate >> Reduced number of school attendance >> Delay of mobility of people, goods and services | | | >> Implementation of plans and ordinances (CLUP, CDP, MDRRMP, Zoning Ordinance) >> Conduct make-up classes >> Prioritization of Climate Change adaptive projects (slope protection, flood control system, construction of drainage system/ dike) | | |
| Sector: Infrastructure Area: Power (Electric Posts (CENPELCO) & Telecommunication posts) Indicator: Anolid, Banaoang, David, Guesang, Guiguilonen, Inlambo, Lanas, Landas, Maasin, Macayug, Navaluan, Osiem, Poblacion | Electric posts & telecommunication posts are encroaching major transportation network causing great danger during flooding | | >> Slowed down economic activities >> Loss of income >> Shortage of food supply >> Higher prices of goods | | | >> Implementation of plans and ordinances (CLUP, CDP, MDRRMP, Zoning Ordinance) >> Prioritization of Climate Change adaptive projects (slope protection, flood control system, construction of drainage system/ dike) >> Sturdy & modern electrical posts | | |
|  |  | | |  | | |  | | |
| **Instructions:** | | | | | | | | | |
| A. Based on the vulnerability maps generated for the various exposure units, highlight and identify decision areas or elements. Decision areas can be the barangay or specific sites in the barangay such as coastal area, mountain sides, and riverbanks. | | | | | | | | | |
| - Identify decision areas in need of intervention based on the vulnerability maps | | | | | | | | | |
| - This can be identified as high to moderate vulnerable areas or may pertain to a specific area in the barangay | | | | | | | | | |
|  |  | | |  | | |  | | |
| B. List down the significant findings/observed conditions and causes by describing the area or element in terms of the level of vulnerability, highlighting the various contributing factors such as exposure, sensitivity, and adaptive capacity. | | | | | | | | | |
| - Identify the climate stimuli and how these may manifest in the identified decision area | | | | | | | | | |
| - Expound on the exposure information (i.e. number of affected population, exposure percentage, exposed area, and cost) | | | | | | | | | |
| - Highlight relevant sensitivities of the exposed element to the identified climate stimulus | | | | | | | | | |
| - Highlight relevant adaptive capacity indicators of the exposed element to the identified climate stimuli | | | | | | | | | |
|  |  | | |  | | |  | | |
| C. List down the planning/development implications when the identified vulnerabilities in the various decision areas are not addressed. | | | | | | | | | |
| - Highlight potential impact as mentioned in the sectoral impact chains | | | | | | | | | |
| - Highlight future scenario if vulnerabilities are not addressed | | | | | | | | | |
| - Identify future needs with emphasis on the spatial framework plan of the municipality | | | | | | | | | |
| D. Identify various policy interventions that should seek to reduce the level of vulnerability by addressing the exposure, sensitivity, with consideration to the current adaptive capacities | | | | | | | | | |
| - Identify the various climate change adaptation and mitigation measures to reduce vulnerabilities to acceptable and tolerable level. | | | | | | | | | |

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| Table 4.6. **CLIMATE CHANGE VULNERABILITY ASSESSMENT SUMMARY MATRIX** | | | | | | | |
| **SYSTEM OF INTEREST: URBAN USE CCVA** | |  | |  | |  | |
| **CLIMATE STIMULI: EXTREME RAINFALL** | |  | |  | |  | |
|  | |  | |  | |  | |
| **Decision Area/s** | **Technical Findings** | | **Implications** | | **Policy Interventions** | |
| **A** | **B** | | **C** | | **D** | |
| Sector: Social Area: Population (Residential Settlement) Indicator: Barangay Anolid | >In Barangay Anolid, 40 residential units are exposed to the identified climate stimuli, of which units 29 are constructed in low lying areas and made of light materials & salvaged/ makeshift materials. | | >> Increased number of informal settlers >> Increased poverty >> Loss of livelihood >> Slowed down economic activities >> Higher prices of goods | | >> Implementation of plans and ordinances (CLUP, CDP, MDRRMP, Zoning Ordinance) >> Prioritization of Climate Change adaptive projects (slope protection, flood control system, construction of drainage system/ dike) >> provision of different livelihood trainings as alternative source of income | |
| Sector: Social Area: Population (Residential Settlement) Indicator: Barangay Banaoang | >In Barangay Banaoang, 83 residential units are exposed to the identified climate stimuli, of which 65 are constructed in low lying area and made of light materials and salvaged/ makeshift materials. | | >> Increased number of informal settlers >> Increased poverty >> Loss of livelihood >> Slowed down economic activities >> Higher prices of goods | | >> Implementation of plans and ordinances (CLUP, CDP, MDRRMP, Zoning Ordinance) >> Prioritization of Climate Change adaptive projects (slope protection, flood control system, construction of drainage system/ dike) >> provision of different livelihood trainings as alternative source of income | |
| Sector: Social Area: Population (Residential Settlement)  Indicator: Barangay Bantayan | > In Barangay Bantayan, 26 residential units are exposed to the identified climate stimuli, of which 12 are constructed in low lying area and made of light materials and salvaged/ makeshift materials. | | >> Increased number of informal settlers >> Increased poverty >> Loss of livelihood >> Slowed down economic activities >> Higher prices of goods | | >> Implementation of plans and ordinances (CLUP, CDP, MDRRMP, Zoning Ordinance) >> Prioritization of Climate Change adaptive projects (slope protection, flood control system, construction of drainage system/ dike) >> provision of different livelihood trainings as alternative source of income | |
| Sector: Social Area: Population (Residential Settlement)  Indicator: Barangay Bateng | In Barangay Bateng, 20 residential units are exposed to the identified climate stimuli, of which 18 are constructed in low lying area and made of light materials and salvaged/ makeshift materials. | | >> Increased number of informal settlers >> Increased poverty >> Loss of livelihood >> Slowed down economic activities >> Higher prices of goods | | >> Implementation of plans and ordinances (CLUP, CDP, MDRRMP, Zoning Ordinance) >> Prioritization of Climate Change adaptive projects (slope protection, flood control system, construction of drainage system/ dike) >> provision of different livelihood trainings as alternative source of income | |
| Sector: Social Area: Population (Residential Settlement) Indicator: Barangay David | In Barangay David, 150 residential units are exposed to the identified climate stimuli, of which 43 are constructed in low lying area and made of light materials and salvaged/ makeshift materials. | | >> Increased number of informal settlers >> Increased poverty >> Loss of livelihood >> Slowed down economic activities >> Higher prices of goods | | >> Implementation of plans and ordinances (CLUP, CDP, MDRRMP, Zoning Ordinance) >> Prioritization of Climate Change adaptive projects (slope protection, flood control system, construction of drainage system/ dike) >> provision of different livelihood trainings as alternative source of income | |
| Sector: Social Area: Population (Residential Settlement) Indicator: Barangay Embarcadero | In Barangay Embarcadero, 30 residential units are exposed to the identified climate stimuli, of which 25 are constructed in low lying area and made of light materials and salvaged/ makeshift materials. | | >> Increased number of informal settlers >> Increased poverty >> Loss of livelihood >> Slowed down economic activities >> Higher prices of goods | | >> Implementation of plans and ordinances (CLUP, CDP, MDRRMP, Zoning Ordinance) >> Prioritization of Climate Change adaptive projects (slope protection, flood control system, construction of drainage system/ dike) >> provision of different livelihood trainings as alternative source of income | |
| Sector: Social Area: Population (Residential Settlement) Indicator: Barangay Guesang | In Barangay Guesang, 14 residential units are exposed to the identified climate stimuli, of which 9 are constructed in low lying area and made of light materials and salvaged/ makeshift materials. | | >> Increased number of informal settlers >> Increased poverty >> Loss of livelihood >> Slowed down economic activities >> Higher prices of goods | | >> Implementation of plans and ordinances (CLUP, CDP, MDRRMP, Zoning Ordinance) >> Prioritization of Climate Change adaptive projects (slope protection, flood control system, construction of drainage system/ dike) >> provision of different livelihood trainings as alternative source of income | |
| Sector: Social Area: Population (Residential Settlement) Indicator: Barangay Guiguilonen | In Barangay Guiguilonen, 17 residential units are exposed to the identified climate stimuli, of which 12 are constructed in low lying area and made of light materials and salvaged/ makeshift materials. | | >> Increased number of informal settlers >> Increased poverty >> Loss of livelihood >> Slowed down economic activities >> Higher prices of goods | | >> Implementation of plans and ordinances (CLUP, CDP, MDRRMP, Zoning Ordinance) >> Prioritization of Climate Change adaptive projects (slope protection, flood control system, construction of drainage system/ dike) >> provision of different livelihood trainings as alternative source of income | |
| Sector: Social Area: Population (Residential Settlement) Indicator: Barangay Inlambo | In Barangay Inlambo, 33 residential units are exposed to the identify climate stimuli, of which 30 are constructed in low lying area and made of light materials and salvaged/ makeshift materials. | | >> Increased number of informal settlers >> Increased poverty >> Loss of livelihood >> Slowed down economic activities >> Higher prices of goods | | >> Implementation of plans and ordinances (CLUP, CDP, MDRRMP, Zoning Ordinance) >> Prioritization of Climate Change adaptive projects (slope protection, flood control system, construction of drainage system/ dike) >> provision of different livelihood trainings as alternative source of income | |
| Sector: Social Area: Population (Residential Settlement) Indicator: Barangay Lanas | In Barangay Lanas 21 residential units are exposed to the identify climate stimuli, of which 21 constructed in low lying area and made of light materials and salvaged/ makeshift materials. | | >> Increase number of informal settlers >> Increase poverty >> Loss of livelihood >> Slowdown economic activities >> Higher prices of goods | | >> Implementation of plans and ordinances (CLUP, CDP, MDRRMP, Zoning Ordinance) >> Prioritization of Climate Change adaptive projects (slope protection, flood control system, construction of drainage system/ dike) >> provision of different livelihood trainings as alternative source of income | |
| Sector: Social Area: Population (Residential Settlement) Indicator: Barangay Landas | In Barangay Landas, 4 residential units are exposed to the identified climate stimuli, of which 2 houses are constructed in low lying area and made of light materials and salvaged/ makeshift materials. | | >> Increased number of informal settlers >> Increased poverty >> Loss of livelihood >> Slowed down economic activities >> Higher prices of goods | | >> Implementation of plans and ordinances (CLUP, CDP, MDRRMP, Zoning Ordinance) >> Prioritization of Climate Change adaptive projects (slope protection, flood control system, construction of drainage system/ dike) >> provision of different livelihood trainings as alternative source of income | |
| Sector: Social Area: Population (Residential Settlement) Indicator: Barangay Maasin | In Barangay Maasin, 315 residential units are exposed to the identify climate stimuli, of which 5 are constructed in low lying area and made of light materials and salvaged/ makeshift materials. | | >> Increased number of informal settlers >> Increased poverty >> Loss of livelihood >> Slowed down economic activities >> Higher prices of goods | | >> Implementation of plans and ordinances (CLUP, CDP, MDRRMP, Zoning Ordinance) >> Prioritization of Climate Change adaptive projects (slope protection, flood control system, construction of drainage system/ dike) >> provision of different livelihood trainings as alternative source of income | |

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| Table 4.6. **CLIMATE CHANGE VULNERABILITY ASSESSMENT SUMMARY MATRIX** | | | | | | | |
| **SYSTEM OF INTEREST: URBAN USE CCVA** | | | |  | |  | |
| **CLIMATE STIMULI: EXTREME RAINFALL** | | | |  | |  | |
|  | |  | |  | |  | |
| **Decision Area/s** | **Technical Findings** | | **Implications** | | **Policy Interventions** | |
| **A** | **B** | | **C** | | **D** | |
| Sector: Social Area: Population (Residential Settlement) Indicator: Barangay Macayug | In Barangay Macayug, 8 residential units are exposed to the identified climate stimuli, of which 8 are constructed in low lying area and made of light materials and salvaged/ makeshift materials. | | >> Increased number of informal settlers >> Increased poverty >> Loss of livelihood >> Slowed down economic activities >> Higher prices of goods | | >> Implementation of plans and ordinances (CLUP, CDP, MDRRMP, Zoning Ordinance) >> Prioritization of Climate Change adaptive projects (slope protection, flood control system, construction of drainage system/ dike) >> provision of different livelihood trainings as alternative source of income | |
| Sector: Social Area: Population (Residential Settlement) Indicator: Barangay Navaluan | In Barangay Navaluan, 26 residential units are exposed to the identified climate stimuli, of which 8 are constructed in low lying area and made of light materials and salvaged/ makeshift materials. | | >> Increased number of informal settlers >> Increased poverty >> Loss of livelihood >> Slowed down economic activities >> Higher prices of goods | | >> Implementation of plans and ordinances (CLUP, CDP, MDRRMP, Zoning Ordinance) >> Prioritization of Climate Change adaptive projects (slope protection, flood control system, construction of drainage system/ dike) >> provision of different livelihood trainings as alternative source of income | |
| Sector: Social Area: Population (Residential Settlement) Indicator: Barangay Nibaliw | In Barangay Nibaliw, 53 residential units are exposed to the identified climate stimuli, of which 48 are constructed in low lying area and made of light materials and salvaged/ makeshift materials. | | >> Increased number of informal settlers >> Increased poverty >> Loss of livelihood >> Slowed down economic activities >> Higher prices of goods | | >> Implementation of plans and ordinances (CLUP, CDP, MDRRMP, Zoning Ordinance) >> Prioritization of Climate Change adaptive projects (slope protection, flood control system, construction of drainage system/ dike) >> provision of different livelihood trainings as alternative source of income | |
| Sector: Social Area: Population (Residential Settlement) Indicator: Barangay Osiem | In Barangay Osiem, 22 residential units are exposed to the identified climate stimuli, of which 21 are constructed in low lying area and made of light materials and salvaged/ makeshift materials. | | >> Increased number of informal settlers >> Increased poverty >> Loss of livelihood >> Slowed down economic activities >> Higher prices of goods | | >> Implementation of plans and ordinances (CLUP, CDP, MDRRMP, Zoning Ordinance) >> Prioritization of Climate Change adaptive projects (slope protection, flood control system, construction of drainage system/ dike) >> provision of different livelihood trainings as alternative source of income | |
| Sector: Social Area: Population (Residential Settlement) Indicator: Barangay Palua | In Barangay Palua, 50 residential units are exposed to the identified climate stimuli, of which 24 are constructed in low lying area and made of light materials and salvaged/ makeshift materials. | | >> Increased number of informal settlers >> Increased poverty >> Loss of livelihood >> Slowed down economic activities >> Higher prices of goods | | >> Implementation of plans and ordinances (CLUP, CDP, MDRRMP, Zoning Ordinance) >> Prioritization of Climate Change adaptive projects (slope protection, flood control system, construction of drainage system/ dike) >> provision of different livelihood trainings as alternative source of income | |
| Sector: Social Area: Population (Residential Settlement) Indicator: Barangay Poblacion | In Barangay Poblacion, 14 residential units are exposed to the identified climate stimuli, of which 9 are constructed in low lying area and made of light materials and salvaged/ makeshift materials. | | >> Increased number of informal settlers >> Increased poverty >> Loss of livelihood >> Slowed down economic activities >> Higher prices of goods | | >> Implementation of plans and ordinances (CLUP, CDP, MDRRMP, Zoning Ordinance) >> Prioritization of Climate Change adaptive projects (slope protection, flood control system, construction of drainage system/ dike) >> provision of different livelihood trainings as alternative source of income | |
| Sector: Social Area: Population (Residential Settlement) Indicator: Barangay Pogo | In Barangay Pogo, 12 residential units are exposed to the identified climate stimuli, of which 12 houses are constructed in low lying area and made of light materials and salvaged/ makeshift materials. | | >> Increased number of informal settlers >> Increased poverty >> Loss of livelihood >> Slowed down economic activities >> Higher prices of goods | | >> Implementation of plans and ordinances (CLUP, CDP, MDRRMP, Zoning Ordinance) >> Prioritization of Climate Change adaptive projects (slope protection, flood control system, construction of drainage system/ dike) >> provision of different livelihood trainings as alternative source of income | |
| Sector: Social Area: Population (Residential Settlement) Indicator: Barangay Salaan | In Barangay Salaan, 22 residential units are exposed to the identified climate stimuli, of which 15 houses are constructed in low lying area and made of light materials and salvaged/ makeshift materials. | | >> Increased number of informal settlers >> Increased poverty >> Loss of livelihood >> Slowed down economic activities >> Higher prices of goods | | >> Implementation of plans and ordinances (CLUP, CDP, MDRRMP, Zoning Ordinance) >> Prioritization of Climate Change adaptive projects (slope protection, flood control system, construction of drainage system/ dike) >> provision of different livelihood trainings as alternative source of income | |
| Sector: Social Area: Population (Residential Settlement) Indicator: Barangay Talogtog | In Barangay Talogtog, 14 residential units are exposed to the identified climate stimuli, of which 3 houses are constructed in low lying area and made of light materials and salvaged/ makeshift materials. | | >> Increased number of informal settlers >> Increased poverty >> Loss of livelihood >> Slowed down economic activities >> Higher prices of goods | | >> Implementation of plans and ordinances (CLUP, CDP, MDRRMP, Zoning Ordinance) >> Prioritization of Climate Change adaptive projects (slope protection, flood control system, construction of drainage system/ dike) >> provision of different livelihood trainings as alternative source of income | |
| Sector: Social Area: Population (Residential Settlement) Indicator: Barangay Tebag | In Barangay Tebag, 54 residential units are exposed to the identified climate stimuli, of which 50 houses are constructed in low lying area and made of light materials and salvaged/ makeshift materials. | | >> Increased number of informal settlers >> Increased poverty >> Loss of livelihood >> Slowed down economic activities >> Higher prices of goods | | >> Implementation of plans and ordinances (CLUP, CDP, MDRRMP, Zoning Ordinance) >> Prioritization of Climate Change adaptive projects (slope protection, flood control system, construction of drainage system/ dike) >> provision of different livelihood trainings as alternative source of income | |
| Sector: Economic Area: Commerce & Industry Indicator: Barangay Anolid | > In Barangay Anolid, 40 out of 95 or 42.11% business establishments are located in low lying area and easily flooded. | | >> Increased number of informal settlers >> Increased poverty >> Loss of livelihood >> Slowed down economic activities >> Higher prices of goods | | >> Implementation of plans and ordinances (CLUP, CDP, MDRRMP, Zoning Ordinance) >> Prioritization of Climate Change adaptive projects (slope protection, flood control system, construction of drainage system/ dike) >> provision of different livelihood trainings as alternative source of income | |
| Sector: Economic Area: Commerce & Industry Indicator: Barangay Banaoang | > In Barangay Banaoang, 8 out of 29 or 27.59% business establishments are located in low lying area and easily flooded. | | >> Increased number of informal settlers >> Increased poverty >> Loss of livelihood >> Slowed down economic activities >> Higher prices of goods | | >> Implementation of plans and ordinances (CLUP, CDP, MDRRMP, Zoning Ordinance) >> Prioritization of Climate Change adaptive projects (slope protection, flood control system, construction of drainage system/ dike) >> provision of different livelihood trainings as alternative source of income | |

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| Table 4.6. **CLIMATE CHANGE VULNERABILITY ASSESSMENT SUMMARY MATRIX** | | | | | | | |
| **SYSTEM OF INTEREST: URBAN USE CCVA** | | | | | | | |
| **CLIMATE STIMULI: EXTREME RAINFALL** | | | | | | | |
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| **Decision Area/s** | **Technical Findings** | | **Implications** | | **Policy Interventions** | |
| **A** | **B** | | **C** | | **D** | |
| Sector: Economic Area: Commerce & Industry Indicator: Barangay Bantayan | In Barangay Bantayan, 4 out of 12 or 33.33% business establishments are located in low lying area and easily flooded | | >> Increased number of informal settlers >> Increased poverty >> Loss of livelihood >> Slowed down economic activities >> Higher prices of goods | | >> Implementation of plans and ordinances (CLUP, CDP, MDRRMP, Zoning Ordinance) >> Prioritization of Climate Change adaptive projects (slope protection, flood control system, construction of drainage system/ dike) >> provision of different livelihood trainings as alternative source of income | |
| Sector: Economic Area: Commerce & Industry Indicator: Barangay Bateng | In Barangay Bateng, 4 out of 16 or 25% business establishments are located in low lying area and easily flooded | | >> Increased number of informal settlers >> Increased poverty >> Loss of livelihood >> Slowed down economic activities >> Higher prices of goods | | >> Implementation of plans and ordinances (CLUP, CDP, MDRRMP, Zoning Ordinance) >> Prioritization of Climate Change adaptive projects (slope protection, flood control system, construction of drainage system/ dike) >> provision of different livelihood trainings as alternative source of income | |
| Sector: Economic Area: Commerce & Industry Indicator: Barangay David | In Barangay David, 7 out t of 17 or 41.18% business establishments are located in low lying area and easily flooded. | | >> Increased number of informal settlers >> Increased poverty >> Loss of livelihood >> Slowed down economic activities >> Higher prices of goods | | >> Implementation of plans and ordinances (CLUP, CDP, MDRRMP, Zoning Ordinance) >> Prioritization of Climate Change adaptive projects (slope protection, flood control system, construction of drainage system/ dike) >> provision of different livelihood trainings as alternative source of income | |
| Sector: Economic Area: Commerce & Industry Indicator: Barangay Embarcadero | In Barangay Embarcadero, 10 out of 20 or 50% business establishments are located in low lying area | | >> Increased number of informal settlers >> Increased poverty >> Loss of livelihood >> Slowed down economic activities >> Higher prices of goods | | >> Implementation of plans and ordinances (CLUP, CDP, MDRRMP, Zoning Ordinance) >> Prioritization of Climate Change adaptive projects (slope protection, flood control system, construction of drainage system/ dike) >> provision of different livelihood trainings as alternative source of income | |
| Sector: Economic Area: Commerce & Industry Indicator: Barangay Guesang | In Barangay Guesang, 3 out of 10 or 30% business establishments are located in low lying area and easily flooded. | | >> Increased number of informal settlers >> Increased poverty >> Loss of livelihood >> Slowed down economic activities >> Higher prices of goods | | >> Implementation of plans and ordinances (CLUP, CDP, MDRRMP, Zoning Ordinance) >> Prioritization of Climate Change adaptive projects (slope protection, flood control system, construction of drainage system/ dike) >> provision of different livelihood trainings as alternative source of income | |
| Sector: Economic Area: Commerce & Industry Indicator: Barangay Guiguilonen | In Barangay Guiguilonen, 12 out of 24 or 50% business establishments are located in low lying area and easily flooded | | >> Increased number of informal settlers >> Increased poverty >> Loss of livelihood >> Slowed down economic activities >> Higher prices of goods | | >> Implementation of plans and ordinances (CLUP, CDP, MDRRMP, Zoning Ordinance) >> Prioritization of Climate Change adaptive projects (slope protection, flood control system, construction of drainage system/ dike) >> provision of different livelihood trainings as alternative source of income | |
| Sector: Economic Area: Commerce & Industry Indicator: Barangay Inlambo | In Barangay Inlambo, 2 out of 8 or 25% business establishments are located in low lying area and easily flooded | | >> Increased number of informal settlers >> Increased poverty >> Loss of livelihood >> Slowed down economic activities >> Higher prices of goods | | >> Implementation of plans and ordinances (CLUP, CDP, MDRRMP, Zoning Ordinance) >> Prioritization of Climate Change adaptive projects (slope protection, flood control system, construction of drainage system/ dike) >> provision of different livelihood trainings as alternative source of income | |
| Sector: Economic Area: Commerce & Industry Indicator: Barangay Lanas | In Barangay Lanas, 4 out of 10 or 40% business establishments are located in low lying area and easily flooded | | >> Increased number of informal settlers >> Increased poverty >> Loss of livelihood >> Slowed down economic activities >> Higher prices of goods | | >> Implementation of plans and ordinances (CLUP, CDP, MDRRMP, Zoning Ordinance) >> Prioritization of Climate Change adaptive projects (slope protection, flood control system, construction of drainage system/ dike) >> provision of different livelihood trainings as alternative source of income | |
| Sector: Economic Area: Commerce & Industry Indicator: Barangay Landas | In Barangay Landas, 6 out of 11 or 54.55% business establishments are located in low lying area and easily flooded | | >> Increased number of informal settlers >> Increased poverty >> Loss of livelihood >> Slowed down economic activities >> Higher prices of goods | | >> Implementation of plans and ordinances (CLUP, CDP, MDRRMP, Zoning Ordinance) >> Prioritization of Climate Change adaptive projects (slope protection, flood control system, construction of drainage system/ dike) >> provision of different livelihood trainings as alternative source of income | |
| Sector: Economic Area: Commerce & Industry Indicator: Barangay Maasin | In Barangay Maasin, 10 out of 21 or 47.62% business establishments are located in low lying area and easily flooded. | | >> Increased number of informal settlers >> Increased poverty >> Loss of livelihood >> Slowed down economic activities >> Higher prices of goods | | >> Implementation of plans and ordinances (CLUP, CDP, MDRRMP, Zoning Ordinance) >> Prioritization of Climate Change adaptive projects (slope protection, flood control system, construction of drainage system/ dike) >> provision of different livelihood trainings as alternative source of income | |
| Sector: Economic Area: Commerce & Industry Indicator: Barangay Macayug | In Barangay Macayug, 3 out of 7 or 42.86% business establishments are located in low lying area and easily flooded. | | >> Increased number of informal settlers >> Increased poverty >> Loss of livelihood >> Slowed down economic activities >> Higher prices of goods | | >> Implementation of plans and ordinances (CLUP, CDP, MDRRMP, Zoning Ordinance) >> Prioritization of Climate Change adaptive projects (slope protection, flood control system, construction of drainage system/ dike) >> provision of different livelihood trainings as alternative source of income | |
| Sector: Economic Area: Commerce & Industry Indicator: Barangay Navaluan | In Barangay Navaluan, 5 out of 11 or 45% business establishments are located in low lying area | | >> Increased number of informal settlers >> Increased poverty >> Loss of livelihood >> Slowed down economic activities >> Higher prices of goods | | >> Implementation of plans and ordinances (CLUP, CDP, MDRRMP, Zoning Ordinance) >> Prioritization of Climate Change adaptive projects (slope protection, flood control system, construction of drainage system/ dike) >> provision of different livelihood trainings as alternative source of income | |

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| Table 4.6. **CLIMATE CHANGE VULNERABILITY ASSESSMENT SUMMARY MATRIX** | | | | | | | |
| **SYSTEM OF INTEREST: URBAN USE CCVA** | | | | | | | |
| **CLIMATE STIMULI: EXTREME RAINFALL** | | | | | | | |
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| **Decision Area/s** | **Technical Findings** | | **Implications** | | **Policy Interventions** | |
| **A** | **B** | | **C** | | **D** | |
| Sector: Economic Area: Commerce & Industry Indicator: Barangay Nibaliw | In Barangay Nibaliw, 2 out of 11 or 18.18% business establishments are located in low lying area and easily flooded. | | >> Increased number of informal settlers >> Increased poverty >> Loss of livelihood >> Slowed down economic activities >> Higher prices of goods | | >> Implementation of plans and ordinances (CLUP, CDP, MDRRMP, Zoning Ordinance) >> Prioritization of Climate Change adaptive projects (slope protection, flood control system, construction of drainage system/ dike) >> provision of different livelihood trainings as alternative source of income | |
| Sector: Economic Area: , Commerce & Industry Indicator: Barangay Osiem | In Barangay Osiem, 7 out of 13 or 53.85% business establishments are located in low lying area and easily flooded. | | >> Increased number of informal settlers >> Increased poverty >> Loss of livelihood >> Slowed down economic activities >> Higher prices of goods | | >> Implementation of plans and ordinances (CLUP, CDP, MDRRMP, Zoning Ordinance) >> Prioritization of Climate Change adaptive projects (slope protection, flood control system, construction of drainage system/ dike) >> provision of different livelihood trainings as alternative source of income | |
| Sector: Economic Area: , Commerce & Industry Indicator: Barangay Palua | In Barangay Palua, 6 out of 10 or 60% business establishments are located in low lying area | | >> Increased number of informal settlers >> Increased poverty >> Loss of livelihood >> Slowed down economic activities >> Higher prices of goods | | >> Implementation of plans and ordinances (CLUP, CDP, MDRRMP, Zoning Ordinance) >> Prioritization of Climate Change adaptive projects (slope protection, flood control system, construction of drainage system/ dike) >> provision of different livelihood trainings as alternative source of income | |
| Sector: Economic Area: Commerce & Industry Indicator: Barangay Poblacion | In Barangay Poblacion, 100 out of 355 or 28% business establishments. 50% are located in low lying area | | >> Increased number of informal settlers >> Increased poverty >> Loss of livelihood >> Slowed down economic activities >> Higher prices of goods | | >> Implementation of plans and ordinances (CLUP, CDP, MDRRMP, Zoning Ordinance) >> Prioritization of Climate Change adaptive projects (slope protection, flood control system, construction of drainage system/ dike) >> provision of different livelihood trainings as alternative source of income | |
| Sector: Economic Area: Commerce & Industry Indicator: Barangay Pogo | In Barangay Pogo, 5 out of 10 or 50% business establishments. 50% are located in low lying area | | >> Increased number of informal settlers >> Increased poverty >> Loss of livelihood >> Slowed down economic activities >> Higher prices of goods | | >> Implementation of plans and ordinances (CLUP, CDP, MDRRMP, Zoning Ordinance) >> Prioritization of Climate Change adaptive projects (slope protection, flood control system, construction of drainage system/ dike) >> provision of different livelihood trainings as alternative source of income | |
| Sector: Economic Area: Commerce & Industry Indicator: Barangay Salaan | In Barangay Salaan, 5 out of 8 or 62.5% business establishments. 50% are located in low lying area and easily flooded. | | >> Increased number of informal settlers >> Increased poverty >> Loss of livelihood >> Slowed down economic activities >> Higher prices of goods | | >> Implementation of plans and ordinances (CLUP, CDP, MDRRMP, Zoning Ordinance) >> Prioritization of Climate Change adaptive projects (slope protection, flood control system, construction of drainage system/ dike) >> provision of different livelihood trainings as alternative source of income | |
| Sector: Economic Area: Commerce & Industry Indicator: Barangay Talogtog | In Barangay Talogtog, 8 out of 15 or 53.33% business establishments. 50% are located in low lying area | | >> Increased number of informal settlers >> Increased poverty >> Loss of livelihood >> Slowed down economic activities >> Higher prices of goods | | >> Implementation of plans and ordinances (CLUP, CDP, MDRRMP, Zoning Ordinance) >> Prioritization of Climate Change adaptive projects (slope protection, flood control system, construction of drainage system/ dike) >> provision of different livelihood trainings as alternative source of income | |
| Sector: Economic Area: Agriculture (Farmers), Commerce & Industry Indicator: Barangay Tebag | In Barangay Tebag, 10 out of 24 or 41.67% business establishments are located in low lying area and easily flooded. | | >> Increased number of informal settlers >> Increased poverty >> Loss of livelihood >> Slowed down economic activities >> Higher prices of goods | | >> Implementation of plans and ordinances (CLUP, CDP, MDRRMP, Zoning Ordinance) >> Prioritization of Climate Change adaptive projects (slope protection, flood control system, construction of drainage system/ dike) >> provision of different livelihood trainings as alternative source of income | |
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| **Instructions:** | | | | | | |
| A. Based on the vulnerability maps generated for the various exposure units, highlight and identify decision areas or elements. Decision areas can be the barangay or specific sites in the barangay such as coastal area, mountain sides, and riverbanks. | | | | | | |
| - Identify decision areas in need of intervention based on the vulnerability maps | | | | | | |
| - This can be identified as high to moderate vulnerable areas or may pertain to a specific area in the barangay | | | | | | |
|  |  | |  | |  | |
| B. List down the significant findings/observed conditions and causes by describing the area or element in terms of the level of vulnerability, highlighting the various contributing factors such as exposure, sensitivity, and adaptive capacity. | | | | | | |
| - Identify the climate stimuli and how these may manifest in the identified decision area | | | | | | |
| - Expound on the exposure information (i.e. number of affected population, exposure percentage, exposed area, and cost) | | | | | | |
| - Highlight relevant sensitivities of the exposed element to the identified climate stimulus | | | | | | |
| - Highlight relevant adaptive capacity indicators of the exposed element to the identified climate stimuli | | | | | | |
|  |  | |  | |  | |
| C. List down the planning/development implications when the identified vulnerabilities in the various decision areas are not addressed. | | | | | | |
| - Highlight potential impact as mentioned in the sectoral impact chains | | | | | | |
| - Highlight future scenario if vulnerabilities are not addressed | | | | | | |
| - Identify future needs with emphasis on the spatial framework plan of the municipality | | | | | | |
|  |  | |  | |  | |
| D. Identify various policy interventions that should seek to reduce the level of vulnerability by addressing the exposure, sensitivity, with consideration to the current adaptive capacities | | | | | | |
| - Identify the various climate change adaptation and mitigation measures to reduce vulnerabilities to acceptable and tolerable levels. | | | | | | |

**STEP 5**

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| Table 10.1. **POPULATION EXPOSURE TABLE, MUNICIPALITY OF MANGALDAN** | | | | | | | | | | | | | | | | | | | | | | | | | | | | | |  | | |  | | |  | | | |  | |
| **Hazard: FLOODING** | | | |  | | |  | | |  | | | |  | | | |  | | | |  | | | | |  | | |  | | |  | | |  | | | |  | |
| **BARANGAY** | | **LIKELIHOOD OF OCCURRENCE** | | **EXPOSURE** | | | **VULNERABILITY** | | | **SEVERITY OF CONSEQUENCE** | | | **RISK** | | | | | | | | **ADAPTIVE CAPACITY** | | | | | | | | | | | | | | | | | | | | |
| **A** | | **B** | | **C** | | | **D** | | | **E** | | | **F** | | | | | | | | **G** | | | | | | | | | | | | | | | | | | | | |
| Score | | | Score | | | | Category | | | | **Wealth** | | | **Information** | | | | | | **Infrastructure** | | | **Technology** | | **Institution and Governance** | | | | | **Social Capital** | |
| Anolid | | 5 | | Sector: Social Indicator: Population (Settlement-Residential): 1,699 HHs, PWD - 27, Senior Citizens - 561 | | | 255 hhs are living in low lying areas and below poverty threshold. 20 PWDs are sensitive because of physical disabilities, of which 16 are males and 4 are females. 224 or 40% of the senior citizens are sensitive because of health & physical infirmities. Out of the total 90 are males and 114 are females. | | | 2 | | | 10 | | | | Moderate | | | | **Moderate (2)** Donations, NGA, Subsidy from NGOs, IRA, BDRRM Fund, MDRRM Fund, AICS Fund, PhilHealth | | | **High (1)** Brochures, Information Education Campaign, Trainings/ Seminars, Hazard Maps, Bantay Barangay, Barangay Assemblies | | | | | | **Moderate (2)** telecommunications, concreted farm to market roads, Flood control facility, drainage canals | | | **High (1)** Gadgets, television, radio, Online Broadcast-ing, print media | | **High (1)** Contingency Plan, CLUP/Zoning Ordinance, Municipal Disaster Plan, Peace & Order Plan, Barangay Disaster Plan | | | | | **High (1)** CSO, LGU & PNP Enforcement through Trained staff, knowledgeable populace/ residents regarding hazards, | |
| 5 | | Sector: Social Area: Education Indicator: 1,656 students | | | 75 pupils of Anolid Elem. School are sensitive since they belong to families beyond poverty threshold, of which 50 are males & 25 are females | | | 2 | | | 10 | | | | Moderate | | | | **Moderate (2)** Donations, NGA, Subsidy from NGOs, IRA, BDRRM Fund, MDRRM Fund, Local School Board Fund | | | **High (1)** Brochures, Information Education Campaign, Trainings/ Seminars, Hazard Maps, Bantay Barangay, Barangay Assemblies | | | | | | **Moderate (2)** telecommunications, School Buildings in good condition (elevated), | | | **High (1)** Gadgets, television, radio, online broadcast-ing, print media | | **High (1)** Contingency Plan, CLUP/Zoning Ordinance, MDRRMP, Local School Board Plan, Schools Improvement Plan | | | | | **High (1)** DepEd, CSO, LGU & PNP Enforcement through Trained staff, school disaster focal persons | |
| 5 | | Sector: Economic Area: Agriculture Indicator: 140 farmers | | | 81 farmers are sensitive since they belong to families beyond poverty threshold and live in low lying area. Of which 75 are males and 25 are females. | | | 2 | | | 10 | | | | Moderate | | | | **High (1)** Donations, NGA, LGU, Subsidy from NGOs | | | **High (1)** Brochures, Information Education Campaign, Trainings/ Seminars, Hazard Maps, Bantay Barangay, Barangay Assemblies | | | | | | **Moderate (2)** telecommunications & roads in good condition and public market operating continuously, concreted farm to market road | | | **High (1)** Gadgets, television, radio, online broadcast-ing, print media | | **High (1)** Contingency Plan, CLUP/Zoning Ordinance, Municipal Disaster Plan, Barangay Disaster Plan | | | | | **High (1)** DA, CSO, LGU & PNP Enforcement through Trained staff, Farmers' Association, MAFC, Irrigators’ Association | |
| Anolid | | 5 | | Sector: Economic Area: Agriculture Indicator: 10 Fishermen | | | 8 fishermen are sensitive since they are living in low lying area, of which 7 are males and 1 is female. | | | 2 | | | 10 | | | | Moderate | | | | **High (1)** Donations, NGA, LGU, Subsidy from NGOs | | | **High (1)** Brochures, Information Education Campaign, Trainings/ Seminars, Hazard Maps, Bantay Barangay, Barangay Assemblies | | | | | | **Moderate (2)** telecommunications & roads in good condition and public market operating continuously, concreted farm to market road | | | **High (1)** Gadgets, television, radio, online broadcast-ing, print media | | **High (1)** Contingency Plan, CLUP/Zoning Ordinance, Municipal Disaster Plan, Barangay Disaster Plan | | | | | **High (1)** DA, CSO, LGU & PNP Enforcement through Trained staff, Farmers' Association, MAFC, Irrigators’ Association | |
| 5 | | Sector: Economic Area: Commerce & Industry Indicator: 95 Business Owners/ Entrepreneurs | | | 40 of the entrepreneurs are sensitive since they are living in low lying area and 10 belong to families beyond poverty threshold | | | 2 | | | 10 | | | | Moderate | | | | **Moderate (2)** Donations, NGA, LGU, Subsidy from NGOs, | | | **High (1)** Brochures, Information Education Campaign, Trainings/ Seminars, Hazard Maps, Bantay Barangay, Barangay Assemblies | | | | | | **Moderate (2)** telecommunications & roads in good condition and public market operating continuously | | | **High (1)** Gadgets, television, radio, online broadcasting, print media | | **High (1)** Contingency Plan, CLUP/Zoning Ordinance, Municipal Disaster Plan, Barangay Disaster Plan | | | | | **Moderate (1)** LGU, Vendors’ Associations, DTI, CSO, TODA, PODA | |
| Banaoang | | 5 | | Sector: Social Indicator: Population (Settlement-Residential): 1,129 HHs | | | 276 hhs are living in low lying areas and below poverty threshold. | | | 2 | | | 10 | | | | Moderate | | | | **Moderate (2)** Donations, NGA, Subsidy from NGOs, IRA, BDRRM Fund, MDRRM Fund, AICS Fund, PhilHealth | | | **High (1)** Brochures, Information Education Campaign, Trainings/ Seminars, Hazard Maps, Bantay Barangay, Barangay Assemblies | | | | | | **Moderate (2)** telecommunications, concreted farm to market roads, Flood control facility, drainage canals | | | **High (1)** Gadgets, television, radio, Online Broadcast-ing, print media | | **High (1)** Contingency Plan, CLUP/Zoning Ordinance, Municipal Disaster Plan, Peace & Order Plan, Barangay Disaster Plan | | | | | **High (1)** CSO, LGU & PNP Enforcement through Trained staff, knowledgeable populace/ residents regarding hazards, | |
| Banaoang | | 5 | | Sector: Social Area: Education Indicator: 1,089 students | | | 45 pupils of Anolid Elem. School are sensitive since they belong to families beyond poverty threshold. Out of the total, 25 are male & 20 are female | | | 2 | | | 10 | | | | Moderate | | | | **Moderate (2)** Donations, NGA, Subsi-dy from NGOs, IRA, BDRRM Fund, MDRRM Fund, LSB Fund | | | **High (1)** Brochures, Information Education Campaign, Trainings/ Seminars, Hazard Maps, Bantay Barangay, Barangay Assemblies | | | | | | **Moderate (2)** telecommunications, School Buildings in good condition (elevated), | | | **High (1)** Gadgets, television, radio, online broadcast-ing, print media | | **High (1)** Contingency Plan, CLUP/Zoning Ordinance, MDRRMP, Local School Board Plan, Schools Improvement Plan | | | | | **High (1)** DepEd, CSO, LGU & PNP Enforcement through Trained staff, school disaster focal persons | |
| Table 10.1.**POPULATION EXPOSURE TABLE, MUNICIPALITY OF MANGALDAN** | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | |  | | |  | | |  | |  | | | |
| **Hazard: FLOODING** | | | | |  | | |  | | |  | | | |  | | | |  | | | |  | | | | |  | | |  | | |  | | |  | |  | | | |
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| **BARANGAY** | **LIKELIHOOD OF OCCURRENCE** | | **EXPOSURE** | | | **VULNERABILITY** | | | **SEVERITY OF CONSEQUENCE** | | | **RISK** | | | | | | | | **ADAPTIVE CAPACITY** | | | | | | | | | | | | | | | | | | | | | |
| **A** | **B** | | **C** | | | **D** | | | **E** | | | **F** | | | | | | | | **G** | | | | | | | | | | | | | | | | | | | | | |
| Score | | | Score | | | | Category | | | | **Wealth** | | | | | **Information** | | | | | **Infrastructure** | | | **Technology** | | **Institution and Governance** | | | | | **Social Capital** | |
| Banaoang | 5 | | Sector: Economic Area: Agriculture Indicator: 68 farmers | | | 13 farmers are sensitive since they belong to families beyond poverty threshold and live in low lying area. Out of the total 7 are male and 5 are female. | | | 2 | | | 10 | | | | Moderate | | | | **High (1)** Donations, NGA, LGU, Subsidy from NGOs | | | | | **High (1)** Brochures, Information Education Campaign, Trainings/ Seminars, Hazard Maps, Bantay Barangay, Barangay Assemblies | | | | | **Moderate (2)** telecommunications & roads in good condition and public market operating continuously, concreted farm to market road | | | **High (1)** Gadgets, television, radio, online broadcasting, print media | | **High (1)** Contingency Plan, CLUP/Zoning Ordinance, Municipal Disaster Plan, Barangay Disaster Plan | | | | | **High (1)** DA, CSO, LGU & PNP Enforcement through Trained staff, Farmers' Association, MAFC, Irrigators’ Association | |
| 5 | | Sector: Economic Area: Commerce & Industry Indicator: 29 Business Owners/ Entrepreneurs | | | 10 of the entrepreneurs are sensitive since they belong to families beyond poverty threshold and live in low lying area | | | 2 | | | 10 | | | | Moderate | | | | **Moderate (2)** Donations, NGA, LGU, Subsidy from NGOs, | | | | | **High (1)** Brochures, Information Education Campaign, Trainings/ Seminars, Hazard Maps, Bantay Barangay, Barangay Assemblies | | | | | **Moderate (2)** telecommunications & roads in good condition and public market operating continuously | | | **High (1)** Gadgets, television, radio, online broadcasting, print media | | **High (1)** Contingency Plan, CLUP/Zoning Ordinance, Municipal Disaster Plan, Barangay Disaster Plan | | | | | **Moderate (1)** LGU, Vendors’ Associations, DTI, CSO, TODA, PODA | |
| Bantayan | 5 | | Sector: Social Indicator: Population (Settlement-Residential): 868 HHs, PWDs - 19, Senior Citizens - 337 | | | 140 hhs are living in low lying areas and below poverty thres-hold. 10 PWD are sensitive because of physical disabilities, out of the total 5 are males and 5 are females. 67 or 20% of the senior citizens because of because of health & physical infirmities. 28 are males and 39 are females | | | 2 | | | 10 | | | | Moderate | | | | **Moderate (2)** Donations, NGA, Subsidy from NGOs, IRA, BDRRM Fund, MDRRM Fund, AICS Fund, PhilHealth | | | | | **High (1)** Brochures, Information Education Campaign, Trainings/ Seminars, Hazard Maps, Bantay Barangay, Barangay Assemblies | | | | | **Moderate (2)** telecommunications, concreted farm to market roads, Flood control facility, drainage canals | | | **High (1)** Gadgets, television, radio, Online Broadcasting, print media | | **High (1)** Contingency Plan, CLUP/Zoning Ordinance, Municipal Disaster Plan, Peace & Order Plan, Barangay Disaster Plan | | | | | **High (1)** CSO, LGU & PNP Enforcement through Trained staff, knowledgeable populace/ residents regarding hazards, | |
| 5 | | Sector: Social Area: Education Indicator: 721 students | | | 33 pupils of Anolid Elem. School are sensitive since they belong to families beyond poverty threshold, of which 17 are males & 16 are females | | | 2 | | | 10 | | | | Moderate | | | | **Moderate (2)** Donations, NGA, Subsidy from NGOs, IRA, BDRRM Fund, MDRRM Fund, Local School Board Fund | | | | | **High (1)** Brochures, Information Education Campaign, Trainings/ Seminars, Hazard Maps, Bantay Barangay, Barangay Assemblies | | | | | **Moderate (2)** telecommunications, School Buildings in good condition (elevated), | | | **High (1)** Gadgets, television, radio, online broadcasting, print media | | **High (1)** Contingency Plan, CLUP/Zoning Ordinance, MDRRMP, Local School Board Plan, Schools Improvement Plan | | | | | **High (1)** DepEd, CSO, LGU & PNP Enforcement through Trained staff, school disaster focal persons | |
| 5 | | Sector: Economic Area: Agriculture Indicator: 77 farmers | | | 15 farmers are sensitive since they belong to families beyond poverty threshold and live in low lying area. Out of the total 10 are males and 5 are females. | | | 2 | | | 10 | | | | Moderate | | | | **High (1)** Donations, NGA, LGU, Subsidy from NGOs | | | | | **High (1)** Brochures, Information Education Campaign, Trainings/ Seminars, Hazard Maps, Bantay Barangay, Barangay Assemblies | | | | | **Moderate (2)** telecommunications & roads in good condition and public market operating continuously, concreted farm to market road | | | **High (1)** Gadgets, television, radio, online broadcasting, print media | | **High (1)** Contingency Plan, CLUP/Zoning Ordinance, Municipal Disaster Plan, Barangay Disaster Plan | | | | | **High (1)** DA, CSO, LGU & PNP Enforcement through Trained staff, Farmers' Association, MAFC, Irrigators’ Association | |
| Bantayan | 5 | | Sector: Economic Area: Commerce & Industry Indicator: 12 Business Owners/ Entrepreneurs | | | 4 of the entrepreneurs are sensitive since they are living in low lying area and 3 belong to families beyond poverty threshold | | | 2 | | | 10 | | | | Moderate | | | | **Moderate (2)** Donations, NGA, LGU, Subsidy from NGOs, | | | | | **High (1)** Brochures, Information Education Campaign, Trainings/ Seminars, Hazard Maps, Bantay Barangay, Barangay Assemblies | | | | | **Moderate (2)** telecommunications & roads in good condition and public market operating continuously | | | **High (1)** Gadgets, television, radio, online broadcasting, print media | | **High (1)** Contingency Plan, CLUP/Zoning Ordinance, Municipal Disaster Plan, Barangay Disaster Plan | | | | | **Moderate (1)** LGU, Vendors’ Associations, DTI, CSO, TODA, PODA | |
| Bateng | 5 | | Sector: Social Indicator: Population (Settlement-Residential): 569 HHs, PWD - 19, Senior Citizens - 234 | | | 215 hhs are living in low lying areas and below poverty thres-hold. 11 PWDs are sensitive because of physical disabilities, of which 5 are males and 6 are females. 93 or 40% of the senior citizens are sensitive because of health & physical infirmities. 50 are males and 43 are females. | | | 2 | | | 10 | | | | Moderate | | | | **Moderate (2)** Donations, NGA, Subsidy from NGOs, IRA, BDRRM  Fund, MDRRM Fund, AICS Fund, PhilHealth | | | | | **High (1)** Brochures, Information Education Campaign, Trainings/ Seminars, Hazard Maps, Bantay Barangay, Barangay Assemblies | | | | | **Moderate (2)** telecommunications, concreted farm to market roads, Flood control facility, drainage canals | | | **High (1)** Gadgets, television, radio, Online Broadcasting, print media | | **High (1)** Contingency Plan, CLUP/Zoning Ordinance, Municipal Disaster Plan, Peace & Order Plan, Barangay Disaster Plan | | | | | **High (1)** CSO, LGU & PNP Enforcement through Trained staff, knowledge-able populace/ residents regarding hazards, | |

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| Table 10.1 **POPULATION EXPOSURE TABLE, MUNICIPALITY OF MANGALDAN.** | | | | | | | | | | | |  |  | |  | |  | |  | |
| **HAZARD: FLOODING** | | | | | | | | | |  | |  |  | |  | |  | |  | |
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| **BARAGAY** | **LIKELIHOOD OF OCCURRENCE** | **EXPOSURE** | **VULNERABILITY** | **SEVERITY OF CONSEQUENCE** | **RISK** | | | | **ADAPTIVE CAPACITY** | | | | | | | | | | | | |
| **A** | **B** | **C** | **D** | **E** | **F** | | | | **G** | | | | | | | | | | | | |
| Score | Score | | Category | | **Wealth** | | **Information** | | | **Infrastructure** | | **Technology** | | **Institution and Governance** | | **Social Capital** | |
| Bateng | 5 | Sector: Social Area: Education Indicator: 602 students | 22 pupils of Anolid Elem. School are sensitive since they belong to families beyond poverty threshold, of which, 11 are males & 11 are females | 2 | 10 | | Moderate | | **Moderate (2)** Donations, NGA, Subsidy from NGOs, IRA, BDRRM Fund, MDRRM Fund, Local School Board Fund | | **High (1)** Brochures, Information Education Campaign, Trainings/ Seminars, Hazard Maps, Bantay Barangay, Barangay Assemblies | | | **Moderate (2)** telecommunications, School Buildings in good condition (elevated), | | **High (1)** Gadgets, television, radio, online broadcasting, print media | | **High (1)** Contingency Plan, CLUP/Zoning Ordinance, MDRRMP, Local School Board Plan, Schools Imp’t. Plan | | **High (1)** DepEd, CSO, LGU & PNP Enforcement through Trained staff, school disaster focal persons | |
| Bateng | 5 | Sector: Economic Area: Agriculture Indicator: 31 farmers | 10 farmers are sensitive since they belong to families beyond poverty threshold and live in low lying area. Of which 6 are males and 4 are females. | 2 | 10 | | Moderate | | **High (1)** Donations, NGA, LGU, Subsidy from NGOs | | **High (1)** Brochures, Information Education Campaign, Trainings/ Seminars, Hazard Maps, Bantay Barangay, Barangay Assemblies | | | **Moderate (2)** telecommuni-cations &  roads in good condition and public market operating continuously, concreted farm to market road | | **High (1)** Gadgets, television, radio, online broadcasting, print media | | **High (1)** Contingency Plan, CLUP/Zoning Ordinance, Municipal Disaster Plan, Barangay Disaster Plan | | **High (1)** DA, CSO, LGU & PNP Enforcement through Trained staff, Farmers' Association, MAFC, Irrigators’ Association | |
| 5 | Sector: Economic Area: Agriculture Indicator: 90 Fishermen | 60 fishermen are sensitive since they are living in low lying area, of which 40 are males and 20 is female. | 2 | 10 | | Moderate | | **High (1)** Donations, NGA, LGU, Subsidy from NGOs | | **High (1)** Brochures, Information Education Campaign, Trainings/ Seminars, Hazard Maps, Bantay Barangay, Barangay Assemblies | | | **Moderate (2)** telecommuni-cations &  roads in good condition and public market operating continuously, concreted farm to market road | | **High (1)** Gadgets, television, radio, online broadcasting, print media | | **High (1)** Contingency Plan, CLUP/Zoning Ordinance, Municipal Disaster Plan, Barangay Disaster Plan | | **High (1)** DA, CSO, LGU & PNP Enforcement through Trained staff, Farmers' Association, MAFC, Irrigators’ Association | |
| 5 | Sector: Economic Area: Commerce & Industry Indicator: 16 Business Owners/ Entrepreneurs | 4 of the entrepreneurs are sensitive since they are living in low lying area and 6 belong to families beyond poverty threshold | 2 | 10 | | Moderate | | **Moderate (2)** Donations, NGA, LGU, Subsidy from NGOs, | | **High (1)** Brochures, Information Education Campaign, Trainings/ Seminars, Hazard Maps, Bantay Barangay, Barangay Assemblies | | | **Moderate (2)** telecommunications & roads in good condition and public market operating continuously | | **High (1)** Gadgets, television, radio, online broadcasting, print media | | **High (1)** Contingency Plan, CLUP/Zoning Ordinance, Municipal Disaster Plan, Barangay Disaster Plan | | **Moderate (1)** LGU, Vendors’ Associations, DTI, CSO, TODA, PODA | |
| David | 5 | Sector: Social Indicator: Population (Settlement-Residential): 989 HHs, PWDs - 80, Senior Citizens - 389 | 284 hhs are living in low lying areas and below poverty threshold. 40 PWD are sensitive because of physical disabilities, out of the total 15 are males and 25 are females. 116 or 30% of the senior citizens because of health & physical infirmities. Out of the total 29 are males and 87 are females | 2 | 10 | | Moderate | | **Moderate (2)** Donations, NGA, Subsidy from NGOs, IRA, BDRRM Fund, MDRRM Fund, AICS Fund, PhilHealth | | **High (1)** Brochures, Information Education Campaign, Trainings/ Seminars, Hazard Maps, Bantay Barangay, Barangay Assemblies | | | **Moderate (2)** telecommunications, concreted farm to market roads, Flood control facility, drainage canals | | **High (1)** Gadgets, television, radio, Online Broadcasting, print media | | **High (1)** Contingency Plan, CLUP/Zoning Ordinance, Municipal Disaster Plan, Peace & Order Plan, Barangay Disaster Plan | | **High (1)** CSO, LGU & PNP Enforcement through Trained staff, knowledgeable populace/ residents regarding hazards, | |
| 5 | Sector: Social Area: Education Indicator: 1,003 students & pupils | 41 students & pupils are sensitive since they belong to families beyond poverty threshold, of which 27 are males & 14 are females | 2 | 10 | | Moderate | | **Moderate (2)** Donations, NGA, Subsidy from NGOs, IRA, BDRRM Fund, MDRRM Fund, Local School Board Fund | | **High (1)** Brochures, Information Education Campaign, Trainings/ Seminars, Hazard Maps, Bantay Barangay, Barangay Assemblies | | | **Moderate (2)** telecommunications, School Buildings in good condition (elevated), | | **High (1)** Gadgets, television, radio, online broadcasting, print media | | **High (1)** Contingency Plan, CLUP/Zoning Ordinance, MDRRMP, Local School Board Plan, Schools Improvement Plan | | **High (1)** DepEd, CSO, LGU & PNP Enforcement through Trained staff, school disaster focal persons | |
| 5 | Sector: Economic Area: Agriculture Indicator: 109 farmers | 71 farmers are sensitive since they belong to families beyond poverty threshold and live in low lying area. Out of the total, 75 are male and 25 are female. | 2 | 10 | | Moderate | | **High (1)** Donations, NGA, LGU, Subsidy from NGOs | | **High (1)** Brochures, Information Education Campaign, Trainings/ Seminars, Hazard Maps, Bantay Barangay, Barangay Assemblies | | | **Moderate (2)** telecommunications & roads in good condition and public market operating continuously, concreted farm to market road | | **High (1)** Gadgets, television, radio, online broadcasting, print media | | **High (1)** Contingency Plan, CLUP/Zoning Ordinance, Municipal Disaster Plan, Barangay Disaster Plan | | **High (1)** DA, CSO, LGU & PNP Enforcement through Trained staff, Farmers' Association, MAFC, Irrigators’ Association | |

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| Table 10.1 **POPULATION EXPOSURE TABLE, MUNICIPALITY OF MANGALDAN.** | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | |
| **HAZARD: FLOODING** | | | | | | | | | | | | | | | | | | |  | | | | | |  | |  | | |  | | |  | | |  | | |
| **BARANGAY** | **LIKELIHOOD OF OCCURRENCE** | **EXPOSURE** | **VULNERABILITY** | | **SEVERITY OF CONSEQUENCE** | | **RISK** | | | | | | | | | | **ADAPTIVE CAPACITY** | | | | | | | | | | | | | | | | | | | | | | | |
| **A** | **B** | **C** | **D** | | **E** | | **F** | | | | | | | | | | **G** | | | | | | | | | | | | | | | | | | | | | | | |
| Score | | Score | | | | | Category | | | | | **Wealth** | | | | | | **Information** | | | | | **Infrastructure** | | | **Technology** | | | **Institution and Governance** | | | **Social Capital** | | | |
| David | 5 | Sector: Economic Area: Commerce & Industry Indicator: 17 Business Owners/ Entrepreneurs | 7 of the entrepreneurs are sensitive since they are living in low lying area and 3 belong to families beyond poverty threshold | | 2 | | 10 | | | | | Moderate | | | | | **Moderate (2)** Donations, NGA, LGU, Subsidy from NGOs, | | | | | | **High (1)** Brochures, Information Education Campaign, Trainings/ Seminars, Hazard Maps, Bantay Barangay, Barangay Assemblies | | | | | **Moderate (2)** telecommu-nications & roads in good condition and public market operating continuously | | | **High (1)** Gadgets, television, radio, online broadcasting, print media | | | **High (1)** Contingency Plan, CLUP/Zoning Ordinance, Municipal Disaster Plan, Barangay Disaster Plan | | | **Moderate (1)** LGU, Vendors’ Associations, DTI, CSO, TODA, PODA | | | |
| Embar-cadero | 5 | Sector: Social Indicator: Population (Settlement-Residential): 591 HHs, PWDs - 24, Senior Citizens - 193 | 138 hhs are living in low lying areas and below poverty threshold. 20 PWDs are sensitive because of physical disabilities, of which 12 are males and 8 are females. 86 or 45% of the senior citizens are sensitive because of health & physical infirmities. Out of the total 40 are males and 46 are females. | | 2 | | 10 | | | | | Moderate | | | | | **Moderate (2)** Donations, NGA, Subsidy from NGOs, IRA, BDRRM Fund, MDRRM Fund, AICS Fund, PhilHealth | | | | | | **High (1)** Brochures, Information Education Campaign, Trainings/ Seminars, Hazard Maps, Bantay Barangay, Barangay Assemblies | | | | | **Moderate (2)** telecommu-nications, concreted farm to market roads, Flood control facility, drainage canals | | | **High (1)** Gadgets, television, radio, Online Broadcasting, print media | | | **High (1)** Contingency Plan, CLUP/Zoning Ordinance, Municipal Disaster Plan, Peace & Order Plan, Barangay Disaster Plan | | | **High (1)** CSO, LGU & PNP Enforcement through Trained staff, knowledge-able populace/ residents regarding hazards, | | | |
| 5 | Sector: Social Area: Education Indicator: 615 students & pupils | 36 students & pupils are sensitive since they belong to families beyond poverty threshold, of which 24 are males & 12 are females | | 2 | | 10 | | | | | Moderate | | | | | **Moderate (2)** Donations, NGA, Subsidy from NGOs, IRA, BDRRM Fund, MDRRM Fund, Local School Board Fund | | | | | | **High (1)** Brochures, Information Education Campaign, Trainings/ Seminars, Hazard Maps, Bantay Barangay, Barangay Assemblies | | | | | **Moderate (2)** telecommunications, School Buildings in good condition (elevated), | | | **High (1)** Gadgets, television, radio, online broadcasting, print media | | | **High (1)** Contingency Plan, CLUP/Zoning Ordinance, MDRRMP, Local School Board Plan, Schools Improvement Plan | | | **High (1)** DepEd, CSO, LGU & PNP Enforcement through Trained staff, school disaster focal persons | | | |
| Embar-cadero | 5 | Sector: Economic Area: Agriculture Indicator: 19 farmers | 19 farmers are sensitive since they belong to families beyond poverty threshold and live in low lying area. Out of the total 17 are male and 2 are female. | | 2 | | 10 | | | | | Moderate | | | | | **High (1)** Donations, NGA, LGU, Subsidy from NGOs | | | | | | **High (1)** Brochures, Information Education Campaign, Trainings/ Seminars, Hazard Maps, Bantay Barangay, Barangay Assemblies | | | | | **Moderate (2)** telecommu-nications & roads in good condition and public market operating continuously, concreted farm to market road | | | **High (1)** Gadgets, television, radio, online broadcasting, print media | | | **High (1)** Contingency Plan, CLUP/Zoning Ordinance, Municipal Disaster Plan, Barangay Disaster Plan | | | **High (1)** DA, CSO, LGU & PNP Enforcement through Trained staff, Farmers' Association, MAFC, Irrigators’ Association | | | |
| 5 | Sector: Economic Area: Commerce & Industry Indicator: 20 Business Owners/ Entrepreneurs | 10 of the entrepreneurs are sensitive since they are living in low lying area and 5 belong to families beyond poverty threshold | | 2 | | 10 | | | | | Moderate | | | | | **Moderate (2)** Donations, NGA, LGU, Subsidy from NGOs, | | | | | | **High (1)** Brochures, Information Education Campaign, Trainings/ Seminars, Hazard Maps, Bantay Barangay, Barangay Assemblies | | | | | **Moderate (2)** telecommunications & roads in good condition and public market operating continuously | | | **High (1)** Gadgets, television, radio, online broadcasting, print media | | | **High (1)** Contingency Plan, CLUP/Zoning Ordinance, Municipal Disaster Plan, Barangay Disaster Plan | | | **Moderate (1)** LGU, Vendors’ Associations, DTI, CSO, TODA, PODA | | | |
| Guesang | 5 | Sector: Social Indicator: Population (Settlement-Residential): 822 HHs, PWDs - 28, Senior Citizens - 317 | 169 hhs are living in low lying areas and below poverty threshold. 20 PWDs are sensitive because of physical disabilities, of which 12 are males and 8 are females. 126 or 40% of the senior citizens are sensitive because of health & physical infirmities. Out of the total 50 are males and 76 are females. | | 2 | | 10 | | | | | Moderate | | | | | **Moderate (2)** Donations, NGA, Subsidy from NGOs, IRA, BDRRM Fund, MDRRM Fund, AICS Fund, PhilHealth | | | | | | **High (1)** Brochures, Information Education Campaign, Trainings/ Seminars, Hazard Maps, Bantay Barangay, Barangay Assemblies | | | | | **Moderate (2)** telecommu-nications, concreted farm to market roads, Flood control facility, drainage canals | | | **High (1)** Gadgets, television, radio, Online Broadcasting, print media | | | **High (1)** Contingency Plan, CLUP/Zoning Ordinance, Municipal Disaster Plan, Peace & Order Plan, Barangay Disaster Plan | | | **High (1)** CSO, LGU & PNP Enforcement through Trained staff, knowledge-able populace/ residents regarding hazards, | | | |
| 5 | Sector: Social Area: Education Indicator: 896 students & pupils | 25 students & pupils are sensitive since they belong to families beyond poverty threshold, of which 17 are males & 8 are females | | 2 | | 10 | | | | | Moderate | | | | | **Moderate (2)** Donations, NGA, Subsidy from NGOs, IRA, BDRRM Fund, MDRRM Fund, LSB Fund | | | | | | **High (1)** Brochures, Infor-mation Education Campaign, Trainings/ Seminars, Hazard Maps, Bantay Barangay, Barangay Assemblies | | | | | **Moderate (2)** telecommunications, School Buildings in good condition (elevated), | | | **High (1)** Gadgets, television, radio, online broadcasting, print media | | | **High (1)** Contingency Plan, CLUP/Zoning Ordinance, MDRRMP, LSB Plan, Schools Imp’t. Plan | | | **High (1)** DepEd, CSO, LGU & PNP Enforcement through Trained staff, school disaster focal persons | | | |
| Table 10.1 **POPULATION EXPOSURE TABLE, MUNICIPALITY OF MANGALDAN.** | | | | | | | | | | | | | | | | | | | | | | | | | |  | | |  | | |  | | |  | | |  | | | | |
| **HAZARD: FLOODING** | | | | | | | | | | | | | | | | | | | | |  | | | | |  | | |  | | |  | | |  | | |  | | | | |
|  | |  |  | |  | | | |  | | | | |  | | | | | | |  | | | | |  | | |  | | |  | | |  | | |  | | | | |
| **BARANGAY** | **LIKELIHOOD OF OCCURRENCE** | **EXPOSURE** | **VULNERABILITY** | | **SEVERITY OF CONSEQUENCE** | | **RISK** | | | | | | | | | **ADAPTIVE CAPACITY** | | | | | | | | | | | | | | | | | | | | | | | | | |
| **A** | **B** | **C** | **D** | | **E** | | **F** | | | | | | | | | **G** | | | | | | | | | | | | | | | | | | | | | | | | | |
| Score | | Score | | | | Category | | | | | **Wealth** | | | | | | **Information** | | | | | | **Infrastructure** | | | **Technology** | | | **Institution and Governance** | | | **Social Capital** | | | | |
| Guesang | 5 | Sector: Economic Area: Agriculture Indicator: 83 farmers | 77 farmers are sensitive since they belong to families beyond poverty threshold and live in low lying area. Out of the total 70 are male and 7 are female. | | 2 | | 10 | | | | Moderate | | | | | **High (1)** Donations, NGA, LGU, Subsidy from NGOs | | | | | | **High (1)** Brochures, Information Education Campaign, Trainings/ Seminars, Hazard Maps, Bantay Barangay, Barangay Assemblies | | | | | | **Moderate (2)** telecommuni-cations & roads in good condition and public market operating continuously, concreted farm to market road | | | **High (1)** Gadgets, television, radio, online broadcasting, print media | | | **High (1)** Contingency Plan, CLUP/Zoning Ordinance, Municipal Disaster Plan, Barangay Disaster Plan | | | **High (1)** DA, CSO, LGU & PNP Enforcement through Trained staff, Farmers' Association, MAFC, Irrigators’ Association | | | | |
| 5 | Sector: Economic Area: Commerce & Industry Indicator: 10 Business Owners/ Entrepreneurs | 3 of the entrepreneurs are sensitive since they are living in low lying area and 5 belong to families beyond poverty threshold | | 2 | | 10 | | | | Moderate | | | | | **Moderate (2)** Donations, NGA, LGU, Subsidy from NGOs, | | | | | | **High (1)** Brochures, Information Education Campaign, Trainings/ Seminars, Hazard Maps, Bantay Barangay, Barangay Assemblies | | | | | | **Moderate (2)** telecommunications & roads in good condition and public market operating continuously | | | **High (1)** Gadgets, television, radio, online broadcasting, print media | | | **High (1)** Contingency Plan, CLUP/Zoning Ordinance, Municipal Disaster Plan, Barangay Disaster Plan | | | **Moderate (1)** LGU, Vendors’ Associations, DTI, CSO, TODA, PODA | | | | |
| Guigui-lonen | 5 | Sector: Social Indicator: Population (Settlement-Residential): 676 HHs, PWDs - 54, Senior Citizens - 311 | 181 hhs are living in low lying areas and below poverty threshold. 40 PWDs are sensitive because of physical disabilities, of which 12 are males and 28 are females. 62 or 20% of the senior citizens are sensitive because of health & physical infirmities. Out of the total 20 are males and 42 are females. | | 2 | | 10 | | | | Moderate | | | | | **Moderate (2)** Donations, NGA, Subsidy from NGOs, IRA, BDRRM Fund, MDRRM Fund, AICS Fund, PhilHealth | | | | | | **High (1)** Brochures, Information Education Campaign, Trainings/ Seminars, Hazard Maps, Bantay Barangay, Barangay Assemblies | | | | | | **Moderate (2)** telecommunications, concreted farm to market roads, Flood control facility, drainage canals | | | **High (1)** Gadgets, television, radio, Online Broadcasting, print media | | | **High (1)** Contingency Plan, CLUP/Zoning Ordinance, Municipal Disaster Plan, Peace & Order Plan, Barangay Disaster Plan | | | **High (1)** CSO, LGU & PNP Enforcement through Trained staff, knowledgeable populace/ residents regarding hazards, | | | | |
| 5 | Sector: Social Area: Education Indicator: 642 students & pupils | 30 students & pupils are sensitive since they belong to families beyond poverty threshold, of which 18 are males & 12 are females. | | 2 | | 10 | | | | Moderate | | | | | **Moderate (2)** Donations, NGA, Subsidy from NGOs, IRA, BDRRM Fund, MDRRM Fund, Local School Board Fund | | | | | | **High (1)** Brochures, Information Education Campaign, Trainings/ Seminars, Hazard Maps, Bantay Barangay, Barangay Assemblies | | | | | | **Moderate (2)** telecommuni-cations, School Buildings in good condition (elevated), | | | **High (1)** Gadgets, television, radio, online broadcasting, print media | | | **High (1)** Contingency Plan, CLUP/Zoning Ordinance, MDRRMP, Local School Board Plan, Schools Improvement Plan | | | **High (1)** DepEd, CSO, LGU & PNP Enforcement through Trained staff,  school disaster focal persons | | | | |
| 5 | Sector: Economic Area: Agriculture Indicator: 83 farmers | 77 farmers are sensitive since they belong to families beyond poverty threshold and live in low lying area. Out of the total 70 are male and 7 are female. | | 2 | | 10 | | | | Moderate | | | | | **High (1)** Donations, NGA, LGU, Subsidy from NGOs | | | | | | **High (1)** Brochures, Information Education Campaign, Trainings/ Seminars, Hazard Maps, Bantay Barangay, Barangay Assemblies | | | | | | **Moderate (2)** telecommuni-cations & roads in good condition and public market operating continuously, concreted farm to market road | | | **High (1)** Gadgets, television, radio, online broadcasting, print media | | | **High (1)** Contingency Plan, CLUP/Zoning Ordinance, Municipal Disaster Plan, Barangay Disaster Plan | | | **High (1)** DA, CSO, LGU & PNP Enforcement through Trained staff, Farmers' Association, MAFC, Irrigators’ Association | | | | |
| Guigui-lonen | 5 | Sector: Economic Area: Commerce & Industry Indicator: 24 Business Owners/ Entrepreneurs | 12 of the entrepreneurs are sensitive since they are living in low lying area and 3 belong to families beyond poverty threshold | | 2 | | 10 | | | | Moderate | | | | | **Moderate (2)** Donations, NGA, LGU, Subsidy from NGOs, | | | | | | **High (1)** Brochures, Information Education Campaign, Trainings/ Seminars, Hazard Maps, Bantay Barangay, Barangay Assemblies | | | | | | **Moderate (2)** telecommuni-cations & roads in good condition and public market operating continuously | | | **High (1)** Gadgets, television, radio, online broadcasting, print media | | | **High (1)** Contingency Plan, CLUP/Zoning Ordinance, Municipal Disaster Plan, Barangay Disaster Plan | | | **Moderate (1)** LGU, Vendors’ Associations, DTI, CSO, TODA, PODA | | | | |
| Inlambo | 5 | Sector: Social Indicator: Population (Settlement-Residential): 341 HHs, PWDs - 31, Senior Citizens - 138 | 120 hhs are living in low lying areas and below poverty thres-hold. 15 PWDs are sensitive because of physical disabilities, of which 10 are males and 5 are females. 55 or 40% of the senior citizens are sensitive because of health & physical infirmities. Out of the total 15 are males and 40 are females. | | 2 | | 10 | | | | Moderate | | | | | **Moderate (2)** Donations, NGA, Subsidy from NGOs, IRA, BDRRM Fund, MDRRM Fund, AICS Fund, PhilHealth | | | | | | **High (1)** Brochures, Information Education Campaign, Trainings/ Seminars, Hazard Maps, Bantay Barangay, Barangay Assemblies | | | | | | **Moderate (2)** telecommunications, concreted farm to market roads, Flood control facility, drainage canals | | | **High (1)** Gadgets, television, radio, Online Broadcasting, print media | | | **High (1)** Contingency Plan, CLUP/Zoning Ordinance, Municipal Disaster Plan, Peace & Order Plan, Barangay Disaster Plan | | | **High (1)** CSO, LGU & PNP Enforcement through Trained staff, knowledgeable populace/ residents regarding hazards, | | | | |
| Table 10.1 **POPULATION EXPOSURE TABLE, MUNICIPALITY OF MANGALDAN.** | | | | | | | | | | | | | | | | | | | | |
| **HAZARD: FLOODING** | | | | | | | | | | | | | | | | | | | | |
| **BARANGAY** | **LIKELIHOOD OF OCCURRENCE** | **EXPOSURE** | **VULNERABILITY** | | **SEVERITY OF CONSEQUENCE** | | | **RISK** | | | | | | | | | | **ADAPTIVE CAPACITY** | | | | | | | | | | | | | | | | | | | | | | | |
| **A** | **B** | **C** | **D** | | **E** | | | **F** | | | | | | | | | | **G** | | | | | | | | | | | | | | | | | | | | | | | |
| Score | | | Score | | | | | Category | | | | | **Wealth** | | | | | | **Information** | | | | **Infrastructure** | | | **Technology** | | | **Institution and Governance** | | | **Social Capital** | | | | |
| Inlambo | 5 | Sector: Social Area: Education Indicator: 419 students & pupils | 23 students & pupils are sensitive since they belong to families beyond poverty threshold. Out of the total, 18 are males & 5 are females | | 2 | | | 10 | | | | | Moderate | | | | | **Moderate (2)** Donations, NGA, Subsidy from NGOs, IRA, BDRRM Fund, MDRRM Fund, Local School Board Fund | | | | | | **High (1)** Brochures, Information Education Campaign, Trainings/ Seminars, Hazard Maps, Bantay Barangay, Barangay Assemblies | | | | **Moderate (2)** telecommunications, School Buildings in good condition (elevated), | | | **High (1)** Gadgets, television, radio, online broadcasting, print media | | | **High (1)** Contingency Plan, CLUP/Zoning Ordinance, MDRRMP, Local School Board Plan, Schools Improvement Plan | | | **High (1)** DepEd, CSO, LGU & PNP Enforcement through Trained staff, school disaster focal persons | | | | |
| Inlambo | 5 | Sector: Economic Area: Agriculture Indicator: 196 farmers | 11 farmers are sensitive since they belong to families beyond poverty threshold and live in low lying area, of which 7 are males and 4 are females. | | 2 | | | 10 | | | | | Moderate | | | | | **High (1)** Donations, NGA, LGU, Subsidy from NGOs | | | | | | **High (1)** Brochures, Information Education Campaign, Trainings/ Seminars, Hazard Maps, Bantay Barangay, Barangay Assemblies | | | | **Moderate (2)** telecommunications & roads in good condition and public market operating continuously, concreted farm to market road | | | **High (1)** Gadgets, television, radio, online broadcasting, print media | | | **High (1)** Contingency Plan, CLUP/Zoning Ordinance, Municipal Disaster Plan, Barangay Disaster Plan | | | **High (1)** DA, CSO, LGU & PNP Enforcement through Trained staff, Farmers' Association, MAFC, Irrigators’ Association | | | | |
| 5 | Sector: Economic Area: Commerce & Industry Indicator: 8 Business Owners/ Entrepreneurs | 2 of the entrepreneurs are sensitive since they are living in low lying area and 6 belong to families beyond poverty threshold | | 2 | | | 10 | | | | | Moderate | | | | | **Moderate (2)** Donations, NGA, LGU, Subsidy from NGOs, | | | | | | **High (1)** Brochures, Information Education Campaign, Trainings/ Seminars, Hazard Maps, Bantay Barangay, Barangay Assemblies | | | | **Moderate (2)** telecommuni-cations & roads in good condition and public market operating continuously | | | **High (1)** Gadgets, television, radio, online broadcasting, print media | | | **High (1)** Contingency Plan, CLUP/Zoning Ordinance, Municipal Disaster Plan, Barangay Disaster Plan | | | **Moderate (1)** LGU, Vendors’ Associations, DTI, CSO, TODA, PODA | | | | |
| Lanas | 5 | Sector: Social Indicator: Population (Settlement-Residential): 732 HHs, PWDs - 26, Senior Citizens - 272 | 200 hhs are living in low lying areas and below poverty threshold. 15 PWDs are sensitive because of physical disabilities, of which 7 are males and 8 are females. 95 or 35% of the senior citizens are sensitive because of health & physical infirmities. Out of the total, 40 are males and 55 are females. | | 2 | | | 10 | | | | | Moderate | | | | | **Moderate (2)** Donations, NGA, Subsidy from NGOs, IRA, BDRRM Fund, MDRRM Fund, AICS Fund, PhilHealth | | | | | | **High (1)** Brochures, Information Education Campaign, Trainings/ Seminars, Hazard Maps, Bantay Barangay, Barangay Assemblies | | | | **Moderate (2)** telecommuni-cations, concreted farm to market roads, Flood control facility, drainage canals | | | **High (1)** Gadgets, television, radio, Online Broadcasting, print media | | | **High (1)** Contingency Plan, CLUP/Zoning Ordinance, Municipal Disaster Plan, Peace & Order Plan, Barangay Disaster Plan | | | **High (1)** CSO, LGU & PNP Enforcement through Trained staff, knowledgeable populace/ residents regarding hazards, | | | | |
| Lanas | 5 | Sector: Social Area: Education Indicator: 677 students & pupils | 26 students & pupils are sensitive since they belong to families beyond poverty threshold, of which 15 are male & 11 are female | | 2 | | | 10 | | | | | Moderate | | | | | **Moderate (2)** Donations, NGA, Subsidy from NGOs, IRA, BDRRM Fund, MDRRM Fund, Local School Board Fund | | | | | | **High (1)** Brochures, Information Education Campaign, Trainings/ Seminars, Hazard Maps, Bantay Barangay, Barangay Assemblies | | | | **Moderate (2)** telecommuni-cations, School Buildings in good condition (elevated), | | | **High (1)** Gadgets, television, radio, online broadcasting, print media | | | **High (1)** Contingency Plan, CLUP/Zoning Ordinance, MDRRMP, Local School Board Plan, Schools Improvement Plan | | | **High (1)** DepEd, CSO, LGU & PNP Enforcement through Trained staff, school disaster focal persons | | | | |
| 5 | Sector: Economic Area: Agriculture Indicator: 143 farmers | 49 farmers are sensitive since they belong to families beyond poverty threshold and live in low lying area. Out of the total 40 are males and 9 are females. | | 2 | | | 10 | | | | | Moderate | | | | | **High (1)** Donations, NGA, LGU, Subsidy from NGOs | | | | | | **High (1)** Brochures, Information Education Campaign, Trainings/ Seminars, Hazard Maps, Bantay Barangay, Barangay Assemblies | | | | **Moderate (2)** telecommuni-cations & roads in good condition and public market operating continuously, concreted farm to market road | | | **High (1)** Gadgets, television, radio, online broadcasting, print media | | | **High (1)** Contingency Plan, CLUP/Zoning Ordinance, Municipal Disaster Plan, Barangay Disaster Plan | | | **High (1)** DA, CSO, LGU & PNP Enforcement through Trained staff, Farmers' Association, MAFC, Irrigators’ Association | | | | |
| 5 | Sector: Economic Area: Agriculture Indicator: 30 fishermen | 20 fishermen are sensitive since they are living in low lying area, of which 15 are males and 5 are females. | | 2 | | | 10 | | | | | Moderate | | | | | **High (1)** Donations, NGA, LGU, Subsidy from NGOs | | | | | | **High (1)** Brochures, Information Education Campaign, Trainings/ Seminars, Hazard Maps, Bantay Barangay, Barangay Assemblies | | | | **Moderate (2)** telecommuni-cations & roads in good condition and public market operating continuously, concreted farm to market road | | | **High (1)** Gadgets, television, radio, online broadcasting, print media | | | **High (1)** Contingency Plan, CLUP/Zoning Ordinance, Municipal Disaster Plan, Barangay Disaster Plan | | | **High (1)** DA, CSO, LGU & PNP Enforcement through Trained staff, Farmers' Association, MAFC, Irrigators’ Association | | | | |
| Table 10.1 **POPULATION EXPOSURE TABLE, MUNICIPALITY OF MANGALDAN.** | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | |
| **HAZARD: FLOODING** | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | |
| **BARANGAY** | **LIKELIHOOD OF OCCURRENCE** | **EXPOSURE** | **VULNERABILITY** | **SEVERITY OF CONSEQUENCE** | | **RISK** | | | | | | | | | **ADAPTIVE CAPACITY** | | | | | | | | | | | | | | | | | | | | | | | | | | |
| **A** | **B** | **C** | **D** | **E** | | **F** | | | | | | | | | **G** | | | | | | | | | | | | | | | | | | | | | | | | | | |
| Score | | Score | | | | Category | | | | | **Wealth** | | | | | **Information** | | | | | | | | **Infrastructure** | | | **Technology** | | | **Institution and Governance** | | | **Social Capital** | | | | |
| Lanas | 5 | Sector: Economic Area: Commerce & Industry Indicator: 10 Business Owners/ Entrepreneurs | 4 of the entrepreneurs are sensitive since they are living in low lying area and 4 belong to families beyond poverty threshold | 2 | | 10 | | | | Moderate | | | | | **Moderate (2)** Donations, NGA, LGU, Subsidy from NGOs, | | | | | **High (1)** Brochures, Information Education Campaign, Trainings/ Seminars, Hazard Maps, Bantay Barangay, Barangay Assemblies | | | | | | | | **Moderate (2)** telecommu-nications & roads in good condition and public market operating continuously | | | **High (1)** Gadgets, television, radio, online broadcasting, print media | | | **High (1)** Contingency Plan, CLUP/Zoning Ordinance, Municipal Disaster Plan, Barangay Disaster Plan | | | **Moderate (1)** LGU, Vendors’ Associations, DTI, CSO, TODA, PODA | | | | |
| Landas | 5 | Sector: Social Indicator: Population (Settlement-Residential): 541 HHs, PWDs - 27, Senior Citizens - 198 | 77 hhs are living in low lying areas and below poverty threshold. 12 PWDs are sensitive because of physical disabilities, of which 8 are males and 4 are females. 79 or 40% of the senior citizens are sensitive because of health & physical infirmities. 30 are males and 49 are females. | 2 | | 10 | | | | Moderate | | | | | **Moderate (2)** Donations, NGA, Subsidy from NGOs, IRA, BDRRM Fund, MDRRM Fund, AICS Fund, PhilHealth | | | | | **High (1)** Brochures, Information Education Campaign, Trainings/ Seminars, Hazard Maps, Bantay Barangay, Barangay Assemblies | | | | | | | | **Moderate (2)** telecommu-nications, concreted farm to market roads, Flood control facility, drainage canals | | | **High (1)** Gadgets, television, radio, Online Broadcasting, print media | | | **High (1)** Contingency Plan, CLUP/Zoning Ordinance, Municipal Disaster Plan, Peace & Order Plan, Barangay Disaster Plan | | | **High (1)** CSO, LGU & PNP Enforcement through Trained staff, knowledgeable populace/ residents regarding hazards, | | | | |
| 5 | Sector: Social Area: Education Indicator: 479 students & pupils | 9 students & pupils are sensitive since they belong to families beyond poverty threshold, of which 8 are males & 1 is female | 2 | | 10 | | | | Moderate | | | | | **Moderate (2)** Donations, NGA, Subsidy from NGOs, IRA, BDRRM Fund, MDRRM Fund, Local School Board Fund | | | | | **High (1)** Brochures, Information Education Campaign, Trainings/ Seminars, Hazard Maps, Bantay Barangay, Barangay Assemblies | | | | | | | | **Moderate (2)** telecommu-nications, School Buildings in good condition (elevated), | | | **High (1)** Gadgets, television, radio, online broadcasting, print media | | | **High (1)** Contingency Plan, CLUP/Zoning Ordinance, MDRRMP, Local School Board Plan, Schools Improvement Plan | | | **High (1)** DepEd, CSO, LGU & PNP Enforcement through Trained staff, school disaster focal persons | | | | |
| Landas | 5 | Sector: Economic Area: Agriculture Indicator: 39 farmers | 17 farmers are sensitive since they belong to families beyond poverty threshold and live in low lying area. Out of the total 10 are male and 7 are female. | 2 | | 10 | | | | Moderate | | | | | **High (1)** Donations, NGA, LGU, Subsidy from NGOs | | | | | **High (1)** Brochures, Information Education Campaign, Trainings/ Seminars, Hazard Maps, Bantay Barangay, Barangay Assemblies | | | | | | | | **Moderate (2)** telecommu-nications & roads in good condition and public market operating continuously, concreted farm to market road | | | **High (1)** Gadgets, television, radio, online broadcasting, print media | | | **High (1)** Contingency Plan, CLUP/Zoning Ordinance, Municipal Disaster Plan, Barangay Disaster Plan | | | **High (1)** DA, CSO, LGU & PNP Enforcement through Trained staff, Farmers' Association, MAFC, Irrigators’ Association | | | | |
| 5 | Sector: Economic Area: Commerce & Industry Indicator: 11 Business Owners/ Entrepreneurs | 6 of the entrepreneurs are sensitive since they are living in low lying area and 2 belong to families beyond poverty threshold | 2 | | 10 | | | | Moderate | | | | | **Moderate (2)** Donations, NGA, LGU, Subsidy from NGOs, | | | | | **High (1)** Brochures, Information Education Campaign, Trainings/ Seminars, Hazard Maps, Bantay Barangay, Barangay Assemblies | | | | | | | | **Moderate (2)** telecommu-nications & roads in good condition and public market operating continuously | | | **High (1)** Gadgets, television, radio, online broadcasting, print media | | | **High (1)** Contingency Plan, CLUP/Zoning Ordinance, Municipal Disaster Plan, Barangay Disaster Plan | | | **Moderate (1)** LGU, Vendors’ Associations, DTI, CSO, TODA, PODA | | | | |
| Maasin | 5 | Sector: Social Indicator: Population (Settlement-Residential): 741 HHs, PWDs - 14, Senior Citizens - 286 | 211 hhs are living in low lying areas and below poverty threshold. 10 PWDs are sensitive because of physical disabilities, of which 8 are males and 2 are females. 57 or 20% of the senior citizens are sensitive because of health & physical infirmities. 30 are males and 49 are females. | 2 | | 10 | | | | Moderate | | | | | **Moderate (2)** Donations, NGA, Subsidy from NGOs, IRA, BDRRM Fund, MDRRM Fund, AICS Fund, PhilHealth | | | | | **High (1)** Brochures, Information Education Campaign, Trainings/ Seminars, Hazard Maps, Bantay Barangay, Barangay Assemblies | | | | | | | | **Moderate (2)** telecommu-nications, concreted farm to market roads, Flood control facility, drainage canals | | | **High (1)** Gadgets, television, radio, Online Broadcasting, print media | | | **High (1)** Contingency Plan, CLUP/Zoning Ordinance, Municipal Disaster Plan, Peace & Order Plan, Barangay Disaster Plan | | | **High (1)** CSO, LGU & PNP Enforcement through Trained staff, knowledgeable populace/ residents regarding hazards, | | | | |
| Maasin | 5 | Sector: Social Area: Education Indicator: 639 students & pupils | 34 students & pupils are sensitive since they belong to families beyond poverty threshold, of which 25 are males & 9 are females. | 2 | | 10 | | | | Moderate | | | | | **Moderate (2)** Donations, NGA, Subsidy from NGOs, IRA, BDRRM Fund, MDRRM Fund, Local School Board Fund | | | | | **High (1)** Brochures, Information Education Campaign, Trainings/ Seminars, Hazard Maps, Bantay Barangay, Barangay Assemblies | | | | | | | | **Moderate (2)** telecommu-nications, School Buildings in good condition (elevated), | | | **High (1)** Gadgets, television, radio, online broadcasting, print media | | | **High (1)** Contingency Plan, CLUP/Zoning Ordinance, MDRRMP, Local School Board Plan, Schools Improvement Plan | | | **High (1)** DepEd, CSO, LGU & PNP Enforcement through Trained staff, school disaster focal persons | | | | |

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| Table 10.1 **POPULATION EXPOSURE TABLE, MUNICIPALITY OF MANGALDAN.** | | | | | | | | | | | | |
| **HAZARD: FLOODING** | | | | | | | | | | | | |
| **BARANGAY** | **LIKELIHOOD OF OCCURRENCE** | **EXPOSURE** | **VULNERABILITY** | **SEVERITY OF CONSEQUENCE** | **RISK** | | **ADAPTIVE CAPACITY** | | | | | | |
| **A** | **B** | **C** | **D** | **E** | **F** | | **G** | | | | | | |
| Score | Score | Category | **Wealth** | **Information** | **Infrastructure** | **Technology** | **Institution and Governance** | **Social Capital** | |
| Maasin | 5 | Sector: Economic Area: Agriculture Indicator: 115 farmers | 12 farmers are sensitive since they belong to families beyond poverty threshold and live in low lying area. Out of the total 10 are males and 2 are females. | 2 | 10 | Moderate | **High (1)** Donations, NGA, LGU, Subsidy from NGOs | **High (1)** Brochures, Information Education Campaign, Trainings/ Seminars, Hazard Maps, Bantay Barangay, Barangay Assemblies | **Moderate (2)** telecommu-nications & roads in good condition and public market operating continuously, concreted farm to market road | **High (1)** Gadgets, television, radio, online broadcasting, print media | **High (1)** Contingency Plan, CLUP/Zoning Ordinance, Municipal Disaster Plan, Barangay Disaster Plan | **High (1)** DA, CSO, LGU & PNP Enforcement through Trained staff, Farmers' Association, MAFC, Irrigators’ Association | |
| 5 | Sector: Economic Area: Agriculture Indicator: 107 Fishermen | 60 fishermen are sensitive since they are living in low lying area, of which 50 are males and 10 are females. | 2 | 10 | Moderate | **High (1)** Donations, NGA, LGU, Subsidy from NGOs | **High (1)** Brochures, Information Education Campaign, Trainings/ Seminars, Hazard Maps, Bantay Barangay, Barangay Assemblies | **Moderate (2)** telecommu-nications & roads in good condition and public market operating continuously, concreted farm to market road | **High (1)** Gadgets, television, radio, online broadcasting, print media | **High (1)** Contingency Plan, CLUP/Zoning Ordinance, Municipal Disaster Plan, Barangay Disaster Plan | **High (1)** DA, CSO, LGU & PNP Enforcement through Trained staff, Farmers' Association, MAFC, Irrigators’ Association | |
| 5 | Sector: Economic Area: Commerce & Industry Indicator: 21 Business Owners/ Entrepreneurs | 10 of the entrepreneurs are sensitive since they are living in low lying area and 5 belong to families beyond poverty threshold | 2 | 10 | Moderate | **Moderate (2)** Donations, NGA, LGU, Subsidy from NGOs, | **High (1)** Brochures, Information Education Campaign, Trainings/ Seminars, Hazard Maps, Bantay Barangay, Barangay Assemblies | **Moderate (2)** telecommu-nications & roads in good condition and public market operating continuously | **High (1)** Gadgets, television, radio, online broadcasting, print media | **High (1)** Contingency Plan, CLUP/Zoning Ordinance, Municipal Disaster Plan, Barangay Disaster Plan | **Moderate (1)** LGU, Vendors’ Associations, DTI, CSO, TODA, PODA | |
| Macayug | 5 | Sector: Social Indicator: Population (Settlement-Residential): 572 HHs, PWDs - 25, Senior Citizens - 210 | 305 hhs are living in low lying areas and below poverty threshold. 10 PWDs are sensitive because of physical disabilities, of which 8 are males and 2 are females. 126 or 60% of the senior citizens are sensitive because of health & physical infirmities. Out of the total 50 are males and 76 are females. | 2 | 10 | Moderate | **Moderate (2)** Donations, NGA, Subsidy from NGOs, IRA, BDRRM Fund, MDRRM Fund, AICS Fund, PhilHealth | **High (1)** Brochures, Information Education Campaign, Trainings/ Seminars, Hazard Maps, Bantay Barangay, Barangay Assemblies | **Moderate (2)** telecommu-nications, concreted farm to market roads, Flood control facility, drainage canals | **High (1)** Gadgets, television, radio, Online Broadcasting, print media | **High (1)** Contingency Plan, CLUP/Zoning Ordinance, Municipal Disaster Plan, Peace & Order Plan, Barangay Disaster Plan | **High (1)** CSO, LGU & PNP Enforcement through Trained staff, knowledgeable populace/ residents regarding hazards, | |
| 5 | Sector: Social Area: Education Indicator: 2634 students & pupils | 1976 students & pupils are sensitive since they belong to families beyond poverty threshold. Out of the total 1,008 are males & 968 are females | 2 | 10 | Moderate | **Moderate (2)** Donations, NGA, Subsidy from NGOs, IRA, BDRRM Fund, MDRRM Fund, Local School Board Fund | **High (1)** Brochures, Information Education Campaign, Trainings/ Seminars, Hazard Maps, Bantay Barangay, Barangay Assemblies | **Moderate (2)** telecommu-nications, School Buildings in good condition (elevated), | **High (1)** Gadgets, television, radio, online broadcasting, print media | **High (1)** Contingency Plan, CLUP/Zoning Ordinance, MDRRMP, Local School Board Plan, Schools Improvement Plan | **High (1)** DepEd, CSO, LGU & PNP Enforcement through Trained staff, school disaster focal persons | |
| Macayug | 5 | Sector: Economic Area: Agriculture Indicator: 117 farmers | 69 farmers are sensitive since they belong to families beyond poverty threshold and live in low lying area. Out of the total 50 are males and 19 are females. | 2 | 10 | Moderate | **High (1)** Donations, NGA, LGU, Subsidy from NGOs | **High (1)** Brochures, Information Education Campaign, Trainings/ Seminars, Hazard Maps, Bantay Barangay, Barangay Assemblies | **Moderate (2)** telecommu-nications & roads in good condition and public market operating continuously, concreted farm to market road | **High (1)** Gadgets, television, radio, online broadcasting, print media | **High (1)** Contingency Plan, CLUP/Zoning Ordinance, Municipal Disaster Plan, Barangay Disaster Plan | **High (1)** DA, CSO, LGU & PNP Enforcement through Trained staff, Farmers' Association, MAFC, Irrigators’ Association | |
| 5 | Sector: Economic Area: Commerce & Industry Indicator: 7 Business Owners/ Entrepreneurs | 3 of the entrepreneurs are sensitive since they are living in low lying area and 2 belong to families beyond poverty threshold | 2 | 10 | Moderate | **Moderate (2)** Donations, NGA, LGU, Subsidy from NGOs, | **High (1)** Brochures, Information Education Campaign, Trainings/ Seminars, Hazard Maps, Bantay Barangay, Barangay Assemblies | **Moderate (2)** telecommu-nications & roads in good condition and public market operating continuously | **High (1)** Gadgets, television, radio, online broadcasting, print media | **High (1)** Contingency Plan, CLUP/Zoning Ordinance, Municipal Disaster Plan, Barangay Disaster Plan | **Moderate (1)** LGU, Vendors’ Associations, DTI, CSO, TODA, PODA | |

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| Table 10.1 **POPULATION EXPOSURE TABLE, MUNICIPALITY OF MANGALDAN.** | | | | | | | | | | | | |
| **HAZARD: FLOODING** | | | | | | | | | | | | |
| **BARANGAY** | **LIKELIHOOD OF OCCURRENCE** | **EXPOSURE** | **VULNERABILITY** | **SEVERITY OF CONSEQUENCE** | **RISK** | | **ADAPTIVE CAPACITY** | | | | | | | |
| **A** | **B** | **C** | **D** | **E** | **F** | | **G** | | | | | | | |
| Score | Score | Category | **Wealth** | **Information** | **Infrastructure** | **Technology** | **Institution and Governance** | **Social Capital** | |
| Navaluan | 5 | Sector: Social Indicator: Population (Settlement-Residential): 762 HHs, PWDs - 49, Senior Citizens - 283 | 180 hhs are living in low lying areas and below poverty threshold. 20 PWDs are sensitive because of physical disabilities, of which 8 are males and 12 are females. 113 or 40% of the senior citizens are sensitive because of health & physical infirmities. 50 are males and 63 are females. | 2 | 10 | Moderate | **Moderate (2)** Donations, NGA, Subsidy from NGOs, IRA, BDRRM Fund, MDRRM Fund, AICS Fund, PhilHealth | **High (1)** Brochures, Information Education Campaign, Trainings/ Seminars, Hazard Maps, Bantay Barangay, Barangay Assemblies | **Moderate (2)** telecommu-nications, concreted farm to market roads, Flood control facility, drainage canals | **High (1)** Gadgets, television, radio, Online Broadcasting, print media | **High (1)** Contingency Plan, CLUP/Zoning Ordinance, Municipal Disaster Plan, Peace & Order Plan, Barangay Disaster Plan | **High (1)** CSO, LGU & PNP Enforcement through Trained staff, knowledgeable populace/ residents regarding hazards, | |
| Navaluan | 5 | Sector: Social Area: Education Indicator: 900 students & pupils | 38 students & pupils are sensitive since they belong to families beyond poverty threshold. Out of the total 25 are male & 13 are female | 2 | 10 | Moderate | **Moderate (2)** Donations, NGA, Subsidy from NGOs, IRA, BDRRM Fund, MDRRM Fund, Local School Board Fund | **High (1)** Brochures, Information Education Campaign, Trainings/ Seminars, Hazard Maps, Bantay Barangay, Barangay Assemblies | **Moderate (2)** telecommu-nications, School Buildings in good condition (elevated), | **High (1)** Gadgets, television, radio, online broadcasting, print media | **High (1)** Contingency Plan, CLUP/Zoning Ordinance, MDRRMP, Local School Board Plan, Schools Improvement Plan | **High (1)** DepEd, CSO, LGU & PNP Enforcement through Trained staff, school disaster focal persons | |
| 5 | Sector: Economic Area: Agriculture Indicator: 45 farmers | 37 farmers are sensitive since they belong to families beyond poverty threshold and live in low lying area. Out of the total 30 are male and 7 are female. | 2 | 10 | Moderate | **High (1)** Donations, NGA, LGU, Subsidy from NGOs | **High (1)** Brochures, Information Education Campaign, Trainings/ Seminars, Hazard Maps, Bantay Barangay, Barangay Assemblies | **Moderate (2)** telecommu-nications & roads in good condition and public market operating continuously, concreted farm to market road | **High (1)** Gadgets, television, radio, online broadcasting, print media | **High (1)** Contingency Plan, CLUP/Zoning Ordinance, Municipal Disaster Plan, Barangay Disaster Plan | **High (1)** DA, CSO, LGU & PNP Enforcement through Trained staff, Farmers' Association, MAFC, Irrigators’ Association | |
| 5 | Sector: Economic Area: Commerce & Industry Indicator: 11 Business Owners/ Entrepreneurs | 5 of the entrepreneurs are sensitive since they are living in low lying area and 2 belong to families beyond poverty threshold | 2 | 10 | Moderate | **Moderate (2)** Donations, NGA, LGU, Subsidy from NGOs, | **High (1)** Brochures, Information Education Campaign, Trainings/ Seminars, Hazard Maps, Bantay Barangay, Barangay Assemblies | **Moderate (2)** telecommu-nications & roads in good condition and public market operating continuously | **High (1)** Gadgets, television, radio, online broadcasting, print media | **High (1)** Contingency Plan, CLUP/Zoning Ordinance, Municipal Disaster Plan, Barangay Disaster Plan | **Moderate (1)** LGU, Vendors’ Associations, DTI, CSO, TODA, PODA | |
| Nibaliw | 5 | Sector: Social Indicator: Population (Settlement-Residential): 675 HHs, PWDs - 44, Senior Citizens - 246 | 335 hhs are living in low lying areas and below poverty threshold. 25 PWDs are sensitive because of physical disabilities, of which 15 are males and 10 are females. 98 or 40% of the senior citizens are sensitive because of health & physical infirmities. 50 are males and 48 are females. | 2 | 10 | Moderate | **Moderate (2)** Donations, NGA, Subsidy from NGOs, IRA, BDRRM Fund, MDRRM Fund, AICS Fund, PhilHealth | **High (1)** Brochures, Information Education Campaign, Trainings/ Seminars, Hazard Maps, Bantay Barangay, Barangay Assemblies | **Moderate (2)** telecommu-nications, concreted farm to market roads, Flood control facility, drainage canals | **High (1)** Gadgets, television, radio, Online Broadcasting, print media | **High (1)** Contingency Plan, CLUP/Zoning Ordinance, Municipal Disaster Plan, Peace & Order Plan, Barangay Disaster Plan | **High (1)** CSO, LGU & PNP Enforcement through Trained staff, knowledgeable populace/ residents regarding hazards, | |
| 5 | Sector: Social Area: Education Indicator: 750 students & pupils | 39 students & pupils are sensitive since they belong to families beyond poverty threshold. Out of the total 23 are male & 16 are female | 2 | 10 | Moderate | **Moderate (2)** Donations, NGA, Subsidy from NGOs, IRA, BDRRM Fund, MDRRM Fund, Local School Board Fund | **High (1)** Brochures, Information Education Campaign, Trainings/ Seminars, Hazard Maps, Bantay Barangay, Barangay Assemblies | **Moderate (2)** telecommu-nications, School Buildings in good condition (elevated), | **High (1)** Gadgets, television, radio, online broadcasting, print media | **High (1)** Contingency Plan, CLUP/Zoning Ordinance, MDRRMP, Local School Board Plan, Schools Improvement Plan | **High (1)** DepEd, CSO, LGU & PNP Enforcement through Trained staff, school disaster focal persons | |

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| Table 10.1 **POPULATION EXPOSURE TABLE, MUNICIPALITY OF MANGALDAN.** | | | | | | | | | | | | | | |
| **HAZARD: FLOODING** | | | | | | | | | | | | | | |
| **BARANGAY** | **LIKELIHOOD OF OCCURRENCE** | **EXPOSURE** | **VULNERABILITY** | **SEVERITY OF CONSEQUENCE** | **RISK** | | **ADAPTIVE CAPACITY** | | | | | | | | |
| **A** | **B** | **C** | **D** | **E** | **F** | | **G** | | | | | | | | |
| Score | Score | Category | **Wealth** | **Information** | **Infrastructure** | **Technology** | **Institution and Governance** | | **Social Capital** | | |
| Nibaliw | 5 | Sector: Economic Area: Agriculture Indicator: 35 farmers | 20 male farmers are sensitive since they belong to families beyond poverty threshold and live in low lying area | 2 | 10 | Moderate | **High (1)** Donations, NGA, LGU, Subsidy from NGOs | **High (1)** Brochures, Information Education Campaign, Trainings/ Seminars, Hazard Maps, Bantay Barangay, Barangay Assemblies | **Moderate (2)** telecommu-nications & roads in good condition and public market operating continuously, concreted farm to market road | **High (1)** Gadgets, television, radio, online broadcasting, print media | **High (1)** Contingency Plan, CLUP/Zoning Ordinance, Municipal Disaster Plan, Barangay Disaster Plan | | **High (1)** DA, CSO, LGU & PNP Enforcement through Trained staff, Farmers' Association, MAFC, Irrigators’ Association | | |
| 5 | Sector: Economic Area: Commerce & Industry Indicator: 11 Business Owners/ Entrepreneurs | 2 of the entrepreneurs are sensitive since they are living in low lying area and 6 belong to families beyond poverty threshold | 2 | 10 | Moderate | **Moderate (2)** Donations, NGA, LGU, Subsidy from NGOs, | **High (1)** Brochures, Information Education Campaign, Trainings/ Seminars, Hazard Maps, Bantay Barangay, Barangay Assemblies | **Moderate (2)** telecommu-nications & roads in good condition and public market operating continuously | **High (1)** Gadgets, television, radio, online broadcasting, print media | **High (1)** Contingency Plan, CLUP/Zoning Ordinance, Municipal Disaster Plan, Barangay Disaster Plan | | **Moderate (1)** LGU, Vendors’ Associations, DTI, CSO, TODA, PODA | | |
| 5 | Sector: Social Indicator: Population (Settlement-Residential): 809 HHs, PWDs - 11, Senior Citizens - 268 | 87 hhs are living in low lying areas and below poverty threshold. 6 PWDs are sensitive because of physical disabilities, of which 4 are males and 2 are females. 107 or 40% of the senior citizens are sensitive because of health & physical infirmities. Out of the total 60 are males and 47 are females. | 2 | 10 | Moderate | **Moderate (2)** Donations, NGA, Subsidy from NGOs, IRA, BDRRM Fund, MDRRM Fund, AICS Fund, PhilHealth | **High (1)** Brochures, Information Education Campaign, Trainings/ Seminars, Hazard Maps, Bantay Barangay, Barangay Assemblies | **Moderate (2)** telecommu-nications, concreted farm to market roads, Flood control facility, drainage canals | **High (1)** Gadgets, television, radio, Online Broadcasting, print media | **High (1)** Contingency Plan, CLUP/Zoning Ordinance, Municipal Disaster Plan, Peace & Order Plan, Barangay Disaster Plan | | **High (1)** CSO, LGU & PNP Enforcement through Trained staff, knowledgeable populace/ residents regarding hazards, | | |
| Osiem | 5 | Sector: Social Area: Education Indicator: 741 students & pupils | 22 students & pupils are sensitive since they belong to families beyond poverty threshold. Out of the total 15 are male & 7 are female | 2 | 10 | Moderate | **Moderate (2)** Donations, NGA, Subsidy from NGOs, IRA, BDRRM Fund, MDRRM Fund, Local School Board Fund | **High (1)** Brochures, Information Education Campaign, Trainings/ Seminars, Hazard Maps, Bantay Barangay, Barangay Assemblies | **Moderate (2)** telecommu-nications, School Buildings in good condition (elevated), | **High (1)** Gadgets, television, radio, online broadcasting, print media | | **High (1)** Contingency Plan, CLUP/Zoning Ordinance, MDRRMP, Local School Board Plan, Schools Improvement Plan | | **High (1)** DepEd, CSO, LGU & PNP Enforcement through Trained staff, school disaster focal persons | | |
| 5 | Sector: Economic Area: Agriculture Indicator: 106 farmers | 13 farmers are sensitive since they belong to families beyond poverty threshold and live in low lying area. Out of the total 10 are male and 3 are female. | 2 | 10 | Moderate | **High (1)** Donations, NGA, LGU, Subsidy from NGOs | **High (1)** Brochures, Information Education Campaign, Trainings/ Seminars, Hazard Maps, Bantay Barangay, Barangay Assemblies | **Moderate (2)** telecommu-nications & roads in good condition and public market operating continuously, concreted farm to market road | **High (1)** Gadgets, television, radio, online broadcasting, print media | | **High (1)** Contingency Plan, CLUP/Zoning Ordinance, Municipal Disaster Plan, Barangay Disaster Plan | | **High (1)** DA, CSO, LGU & PNP Enforcement through Trained staff, Farmers' Association, MAFC, Irrigators’ Association | | |

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| Table 10.1 **POPULATION EXPOSURE TABLE, MUNICIPALITY OF MANGALDAN.** | | | | | | | | | | | | | | |
| **HAZARD: FLOODING** | | | | | | | | | | | | | | |
| **BARANGAY** | **LIKELIHOOD OF OCCURRENCE** | **EXPOSURE** | **VULNERABILITY** | **SEVERITY OF CONSEQUENCE** | **RISK** | | **ADAPTIVE CAPACITY** | | | | | | | | | |
| **A** | **B** | **C** | **D** | **E** | **F** | | **G** | | | | | | | | | |
| Score | Score | Category | **Wealth** | **Information** | **Infrastructure** | **Technology** | **Institution and Governance** | | **Social Capital** | | | |
| Osiem | 5 | Sector: Economic Area: Commerce & Industry Indicator: 13 Business Owners/ Entrepreneurs | 7 of the entrepreneurs are sensitive since they are living in low lying area and 3 belong to families beyond poverty threshold | 2 | 10 | Moderate | **Moderate (2)** Donations, NGA, LGU, Subsidy from NGOs, | **High (1)** Brochures, Information Education Campaign, Trainings/ Seminars, Hazard Maps, Bantay Barangay, Barangay Assemblies | **Moderate (2)** telecommu-nications & roads in good condition and public market operating continuously | **High (1)** Gadgets, television, radio, online broadcasting, print media | | **High (1)** Contingency Plan, CLUP/Zoning Ordinance, Municipal Disaster Plan, Barangay Disaster Plan | | **Moderate (1)** LGU, Vendors’ Associations, DTI, CSO, TODA, PODA | | |
| Palua | 5 | Sector: Social Indicator: Population (Settlement-Residential): 446 HHs, PWDs - 24, Senior Citizens - 152 | 125 hhs are living in low lying areas and below poverty threshold. 14 PWDs are sensitive because of physical disabilities, of which 4 are males and 10 are females. 60 or 40% of the senior citizens are sensitive because of health & physical infirmities. Out of the total 25 are males and 35 are females. | 2 | 10 | Moderate | **Moderate (2)** Donations, NGA, Subsidy from NGOs, IRA, BDRRM Fund, MDRRM Fund, AICS Fund, PhilHealth | **High (1)** Brochures, Information Education Campaign, Trainings/ Seminars, Hazard Maps, Bantay Barangay, Barangay Assemblies | **Moderate (2)** telecommu-nications, concreted farm to market roads, Flood control facility, drainage canals | **High (1)** Gadgets, television, radio, Online Broadcasting, print media | | **High (1)** Contingency Plan, CLUP/Zoning Ordinance, Municipal Disaster Plan, Peace & Order Plan, Barangay Disaster Plan | | **High (1)** CSO, LGU & PNP Enforcement through Trained staff, knowledgeable populace/ residents regarding hazards, | | |
| 5 | Sector: Social Area: Education Indicator: 427 students & pupils | 34 students & pupils are sensitive since they belong to families beyond poverty threshold. Out of the total 22 are male & 12 are female | 2 | 10 | Moderate | **Moderate (2)** Donations, NGA, Subsidy from NGOs, IRA, BDRRM Fund, MDRRM Fund, Local School Board Fund | **High (1)** Brochures, Information Education Campaign, Trainings/ Seminars, Hazard Maps, Bantay Barangay, Barangay Assemblies | **Moderate (2)** telecommu-nications, School Buildings in good condition (elevated), | **High (1)** Gadgets, television, radio, online broadcasting, print media | **High (1)** Contingency Plan, CLUP/Zoning Ordinance, MDRRMP, Local School Board Plan, Schools Improvement Plan | | **High (1)** DepEd, CSO, LGU & PNP Enforcement through Trained staff, school disaster focal persons | | |
| 5 | Sector: Economic Area: Agriculture Indicator: 67 farmers | 26 farmers are sensitive since they belong to families beyond poverty threshold and live in low lying area. Out of the total 21 are male and 5 are female. | 2 | 10 | Moderate | **High (1)** Donations, NGA, LGU, Subsidy from NGOs | **High (1)** Brochures, Information Education Campaign, Trainings/ Seminars, Hazard Maps, Bantay Barangay, Barangay Assemblies | **Moderate (2)** telecommu-nications & roads in good condition and public market operating continuously, concreted farm to market road | **High (1)** Gadgets, television, radio, online broadcasting, print media | **High (1)** Contingency Plan, CLUP/Zoning Ordinance, Municipal Disaster Plan, Barangay Disaster Plan | | **High (1)** DA, CSO, LGU & PNP Enforcement through Trained staff, Farmers' Association, MAFC, Irrigators’ Association | | |
| 5 | Sector: Economic Area: Commerce & Industry Indicator: 10 Business Owners/ Entrepreneurs | 6 of the entrepreneurs are sensitive since they are living in low lying area and 2 belong to families beyond poverty threshold | 2 | 10 | Moderate | **Moderate (2)** Donations, NGA, LGU, Subsidy from NGOs, | **High (1)** Brochures, Information Education Campaign, Trainings/ Seminars, Hazard Maps, Bantay Barangay, Barangay Assemblies | **Moderate (2)** telecommunications & roads in good condition and public market operating continuously | **High (1)** Gadgets, television, radio, online broadcast-ing, print media | **High (1)** Contingency Plan, CLUP/Zoning Ordinance, Municipal Disaster Plan, Barangay Disaster Plan | | **Moderate (1)** LGU, Vendors’ Associations, DTI, CSO, TODA, PODA | | |
| Poblacion | 5 | Sector: Social Indicator: Population (Settlement-Residential): 835 HHs, PWDs - 24, Senior Citizens - 492 | 101 hhs are living in low lying areas and below poverty threshold. 10 PWDs are sensitive because of physical disabilities, of which 8 are males and1 2 are females. 49 or 10% of the senior citizens are sensitive because of health & physical infirmities. Out of the total 20 are males and 29 are females. | 2 | 10 | Moderate | **Moderate (2)** Donations, NGA, Subsidy from NGOs, IRA, BDRRM Fund, MDRRM Fund, AICS Fund, PhilHealth | **High (1)** Brochures, Information Education Campaign, Trainings/ Seminars, Hazard Maps, Bantay Barangay, Barangay Assemblies | **Moderate (2)** telecommu-nications, concreted farm to market roads, Flood control facility, drainage canals | **High (1)** Gadgets, television, radio, Online Broadcasting, print media | **High (1)** Contingency Plan, CLUP/Zoning Ordinance, Municipal Disaster Plan, Peace & Order Plan, Barangay Disaster Plan | | **High (1)** CSO, LGU & PNP Enforcement through Trained staff, knowledgeable populace/ residents regarding hazards, | | |

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| **Table 10.1 POPULATION EXPOSURE TABLE, MUNICIPALITY OF MANGALDAN.** | | | | | | | | | | | | |
| **HAZARD: FLOODING** | | | | | | | | | | | | |
| **BARANGAY** | **LIKELIHOOD OF OCCURRENCE** | **EXPOSURE** | **VULNERABILITY** | **SEVERITY OF CONSEQUENCE** | **RISK** | | **ADAPTIVE CAPACITY** | | | | | | |
| **A** | **B** | **C** | **D** | **E** | **F** | | **G** | | | | | | |
| Score | Score | Category | **Wealth** | **Information** | **Infrastructure** | **Technology** | **Institution and Governance** | **Social Capital** | |
| Poblacion | 5 | Sector: Social Area: Education Indicator: 717 students & pupils | 21 students & pupils are sensitive since they belong to families beyond poverty threshold. Out of the total 15 are male & 6 are female | 2 | 10 | Moderate | **Moderate (2)** Donations, NGA, Subsidy from NGOs, IRA, BDRRM Fund, MDRRM Fund, Local School Board Fund | **High (1)** Brochures, Information Education Campaign, Trainings/ Seminars, Hazard Maps, Bantay Barangay, Barangay Assemblies | **Moderate (2)** telecommu-nications, School Buildings in good condition (elevated), | **High (1)** Gadgets, television, radio, online broadcast-ing, print media | **High (1)** Contingency Plan, CLUP/Zoning Ordinance, MDRRMP, Local School Board Plan, Schools Improvement Plan | **High (1)** DepEd, CSO, LGU & PNP Enforcement through Trained staff, school disaster focal persons | |
|  | 5 | Sector: Economic Area: Industry Indicator: 200 Business Owners/ Entrepreneurs | 80 of the entrepreneurs are sensitive since they are living in low lying area and 20 belong to families beyond poverty threshold | 2 | 10 | Moderate | **Moderate (2)** Donations, NGA, LGU, Subsidy from NGOs, | **High (1)** Brochures, Information Education Campaign, Trainings/ Seminars, Hazard Maps, Bantay Barangay, Barangay Assemblies | **Moderate (2)** telecommu-nications & roads in good condition and public market operating continuously | **High (1)** Gadgets, television, radio, online broadcasting, print media | **High (1)** Contingency Plan, CLUP/Zoning Ordinance, Municipal Disaster Plan, Barangay Disaster Plan | **Moderate (1)** LGU, Vendors’ Associations, DTI, CSO, TODA, PODA | |
| Pogo | 5 | Sector: Social Indicator: Population (Settlement-Residential): 408 HHs, PWDs - 14, Senior Citizens - 151 | 53 hhs are living in low lying areas and below poverty threshold. 10 PWDs are sensitive because of physical disabilities, of which 6 are males and 4 are females. 60 or 40% of the senior citizens are sensitive because of health & physical infirmities. Out of the total, 35 are males and 25 are females. | 2 | 10 | Moderate | **Moderate (2)** Donations, NGA, LGU, Subsidy from NGOs, | **High (1)** Brochures, Information Education Campaign, Trainings/ Seminars, Hazard Maps, Bantay Barangay, Barangay Assemblies | **Moderate (2)** telecommu-nications & roads in good condition and public market operating continuously | **High (1)** Gadgets, television, radio, online broadcasting, print media | **High (1)** Contingency Plan, CLUP/Zoning Ordinance, Municipal Disaster Plan, Barangay Disaster Plan | **Moderate (1)** LGU, Vendors’ Associations, DTI, CSO, TODA, PODA | |
| 5 | Sector: Social Area: Education Indicator: 307 students & pupils | 18 students & pupils are sensitive since they belong to families beyond poverty threshold. Out of the total, 10 are male & 8 are female | 2 | 10 | Moderate | **Moderate (2)** Donations, NGA, Subsidy from NGOs, IRA, BDRRM Fund, MDRRM Fund, AICS Fund, PhilHealth | **High (1)** Brochures, Information Education Campaign, Trainings/ Seminars, Hazard Maps, Bantay Barangay, Barangay Assemblies | **Moderate (2)** telecommu-nications, concreted farm to market roads, Flood control facility, drainage canals | **High (1)** Gadgets, television, radio, Online Broadcasting, print media | **High (1)** Contingency Plan, CLUP/Zoning Ordinance, Municipal Disaster Plan, Peace & Order Plan, Barangay Disaster Plan | **High (1)** CSO, LGU & PNP Enforcement through Trained staff, knowledgeable populace/ residents regarding hazards, | |
| 5 | Sector: Economic Area: Agriculture Indicator: 37 farmers | 20 farmers are sensitive since they belong to families beyond poverty threshold and live in low lying area. Out of the total 16 are male and 4 are female. | 2 | 10 | Moderate | **Moderate (2)** Donations, NGA, Subsidy from NGOs, IRA, BDRRM Fund, MDRRM Fund, Local School Board Fund | **High (1)** Brochures, Information Education Campaign, Trainings/ Seminars, Hazard Maps, Bantay Barangay, Barangay Assemblies | **Moderate (2)** telecommu-nications, School Buildings in good condition (elevated), | **High (1)** Gadgets, television, radio, online broadcasting, print media | **High (1)** Contingency Plan, CLUP/Zoning Ordinance, MDRRMP, Local School Board Plan, Schools Improvement Plan | **High (1)** DepEd, CSO, LGU & PNP Enforcement through Trained staff, school disaster focal persons | |
| 5 | Sector: Economic Area: Commerce & Industry Indicator: 10 Business Owners/ Entrepreneurs | 5 of the entrepreneurs are sensitive since they are living in low lying area and 3 belong to families beyond poverty threshold | 2 | 10 | Moderate | **High (1)** Donations, NGA, LGU, Subsidy from NGOs | **High (1)** Brochures, Information Education Campaign, Trainings/ Seminars, Hazard Maps, Bantay Barangay, Barangay Assemblies | **Moderate (2)** telecommu-nications & roads in good condition and public market operating continuously, concreted farm to market road | **High (1)** Gadgets, television, radio, online broadcasting, print media | **High (1)** Contingency Plan, CLUP/Zoning Ordinance, Municipal Disaster Plan, Barangay Disaster Plan | **High (1)** DA, CSO, LGU & PNP Enforcement through Trained staff, Farmers' Association, MAFC, Irrigators’ Association | |

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| Table 10.1 **POPULATION EXPOSURE TABLE, MUNICIPALITY OF MANGALDAN.** | | | | | | | | | | | | | |
| **HAZARD: FLOODING** | | | | | | | | | | | | | |
| **BARANGAY** | **LIKELIHOOD OF OCCURRENCE** | **EXPOSURE** | **VULNERABILITY** | **SEVERITY OF CONSEQUENCE** | **RISK** | | **ADAPTIVE CAPACITY** | | | | | |
| **A** | **B** | **C** | **D** | **E** | **F** | | **G** | | | | | |
| Score | Score | Category | **Wealth** | **Information** | **Infrastructure** | **Technology** | **Institution and Governance** | **Social Capital** |
| Salaan | 5 | Sector: Social Indicator: Population (Settlement-Residential): 589 HHs, PWDs - 13, Senior Citizens - 268 | 228 hhs are living in low lying areas and below poverty threshold. 9 PWDs are sensitive because of physical disabilities, of which 6 are males and 3 are females. 120 or 45% of the senior citizens are sensitive because of health & physical infirmities. Out of the total 80 are males and 40 are females. | 2 | 10 | Moderate | **Moderate (2)** Donations, NGA, Subsidy from NGOs, IRA, BDRRM Fund, MDRRM Fund, AICS Fund, PhilHealth | **High (1)** Brochures, Information Education Campaign, Trainings/ Seminars, Hazard Maps, Bantay Barangay, Barangay Assemblies | **Moderate (2)** telecommu-nications, concreted farm to market roads, Flood control facility, drainage canals | **High (1)** Gadgets, television, radio, Online Broadcasting, print media | **High (1)** Contingency Plan, CLUP/Zoning Ordinance, Municipal Disaster Plan, Peace & Order Plan, Barangay Disaster Plan | **High (1)** CSO, LGU & PNP Enforcement through Trained staff, knowledgeable populace/ residents regarding hazards, |
| 5 | Sector: Social Area: Education Indicator: 601 students & pupils | 17 students & pupils are sensitive since they belong to families beyond poverty threshold. Out of the total 10 are male & 7 are female | 2 | 10 | Moderate | **Moderate (2)** Donations, NGA, Subsidy from NGOs, IRA, BDRRM Fund, MDRRM Fund, Local School Board Fund | **High (1)** Brochures, Information Education Campaign, Trainings/ Seminars, Hazard Maps, Bantay Barangay, Barangay Assemblies | **Moderate (2)** telecommu-nications, School Buildings in good condition (elevated), | **High (1)** Gadgets, television, radio, online broadcasting, print media | **High (1)** Contingency Plan, CLUP/Zoning Ordinance, MDRRMP, Local School Board Plan, Schools Improvement Plan | **High (1)** DepEd, CSO, LGU & PNP Enforcement through Trained staff, school disaster focal persons |
| 5 | Sector: Economic Area: Agriculture Indicator: 28 farmers | 13 farmers are sensitive since they belong to families beyond poverty threshold and live in low lying area. Out of the total 10 are male and 5 are female. | 2 | 10 | Moderate | **High (1)** Donations, NGA, LGU, Subsidy from NGOs | **High (1)** Brochures, Information Education Campaign, Trainings/ Seminars, Hazard Maps, Bantay Barangay, Barangay Assemblies | **Moderate (2)** telecommu-nications & roads in good condition and public market operating continuously, concreted farm to market road | **High (1)** Gadgets, television, radio, online broadcasting, print media | **High (1)** Contingency Plan, CLUP/Zoning Ordinance, Municipal Disaster Plan, Barangay Disaster Plan | **High (1)** DA, CSO, LGU & PNP Enforcement through Trained staff, Farmers' Association, MAFC, Irrigators’ Association |
| 5 | Sector: Economic Area: Commerce & Industry Indicator: 8 Business Owners/ Entrepreneurs | 5 of the entrepreneurs are sensitive since they are living in low lying area and 2 belong to families beyond poverty threshold | 2 | 10 | Moderate | **Moderate (2)** Donations, NGA, LGU, Subsidy from NGOs, | **High (1)** Brochures, Information Education Campaign, Trainings/ Seminars, Hazard Maps, Bantay Barangay, Barangay Assemblies | **Moderate (2)** telecommu-nications & roads in good condition and public market operating continuously | **High (1)** Gadgets, television, radio, online broadcasting, print media | **High (1)** Contingency Plan, CLUP/Zoning Ordinance, Municipal Disaster Plan, Barangay Disaster Plan | **Moderate (1)** LGU, Vendors’ Associations, DTI, CSO, TODA, PODA |
| Talogtog | 5 | Sector: Social Indicator: Population (Settlement-Residential): 570 HHs, PWD - 20, Senior Citizens - 242 | 70 hhs are living in low lying areas and below poverty threshold. 12 PWDs are sensitive because of physical disabilities, of which 10 are males and 2 are females. 96 or 40% of the senior citizens are sensitive because of health & physical infirmities. Out of the total 50 are males and 46 are females. | 2 | 10 | Moderate | **Moderate (2)** Donations, NGA, Subsidy from NGOs, IRA, BDRRM Fund, MDRRM Fund, AICS Fund, PhilHealth | **High (1)** Brochures, Information Education Campaign, Trainings/ Seminars, Hazard Maps, Bantay Barangay, Barangay Assemblies | **Moderate (2)** telecommu-nications, concreted farm to market roads, Flood control facility, drainage canals | **High (1)** Gadgets, television, radio, Online Broadcasting, print media | **High (1)** Contingency Plan, CLUP/Zoning Ordinance, Municipal Disaster Plan, Peace & Order Plan, Barangay Disaster Plan | **High (1)** CSO, LGU & PNP Enforcement through Trained staff, knowledgeable populace/ residents regarding hazards, |

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| Table 10.1 **POPULATION EXPOSURE TABLE, MUNICIPALITY OF MANGALDAN.** | | | | | | | | | | | | | |
| **HAZARD: FLOODING** | | | | | | | | | | | | | |
| **BARANGAY** | **LIKELIHOOD OF OCCURRENCE** | **EXPOSURE** | **VULNERABILITY** | **SEVERITY OF CONSEQUENCE** | **RISK** | | **ADAPTIVE CAPACITY** | | | | | |
| **A** | **B** | **C** | **D** | **E** | **F** | | **G** | | | | | |
| Score | Score | Category | **Wealth** | **Information** | **Infrastructure** | **Technology** | **Institution and Governance** | **Social Capital** |
| Talogtog | 5 | Sector: Social Area: Education Indicator: 506 students | 20 pupils of Talogtog Elem. School are sensitive since they belong to families beyond poverty threshold, of which 13 are males & 7 are females | 2 | 10 | Moderate | **Moderate (2)** Donations, NGA, Subsidy from NGOs, IRA, BDRRM Fund, MDRRM Fund, Local School Board Fund | **High (1)** Brochures, Information Education Campaign, Trainings/ Seminars, Hazard Maps, Bantay Barangay, Barangay Assemblies | **Moderate (2)** telecommu-nications, School Buildings in good condition (elevated), | **High (1)** Gadgets, television, radio, online broadcasting, print media | **High (1)** Contingency Plan, CLUP/Zoning Ordinance, MDRRMP, Local School Board Plan, Schools Improvement Plan | **High (1)** DepEd, CSO, LGU & PNP Enforcement through Trained staff, school disaster focal persons |
| 5 | Sector: Economic Area: Agriculture Indicator: 82 farmers | 30 farmers are sensitive since they belong to families beyond poverty threshold and live in low lying area. Of which 25 are males and 5 are females. | 2 | 10 | Moderate | **High (1)** Donations, NGA, LGU, Subsidy from NGOs | **High (1)** Brochures, Information Education Campaign, Trainings/ Seminars, Hazard Maps, Bantay Barangay, Barangay Assemblies | **Moderate (2)** telecommu-nications & roads in good condition and public market operating continuously, concreted farm to market road | **High (1)** Gadgets, television, radio, online broadcasting, print media | **High (1)** Contingency Plan, CLUP/Zoning Ordinance, Municipal Disaster Plan, Barangay Disaster Plan | **High (1)** DA, CSO, LGU & PNP Enforcement through Trained staff, Farmers' Association, MAFC, Irrigators’ Association |
| 5 | Sector: Economic Area: Agriculture Indicator: 96 Fishermen | 38 fishermen are sensitive since they are living in low lying area, of which 35 are males and 3 is females. | 2 | 10 | Moderate | **High (1)** Donations, NGA, LGU, Subsidy from NGOs | **High (1)** Brochures, Information Education Campaign, Trainings/ Seminars, Hazard Maps, Bantay Barangay, Barangay Assemblies | **Moderate (2)** telecommu-nications & roads in good condition and public market operating continuously, concreted farm to market road | **High (1)** Gadgets, television, radio, online broadcasting, print media | **High (1)** Contingency Plan, CLUP/Zoning Ordinance, Municipal Disaster Plan, Barangay Disaster Plan | **High (1)** DA, CSO, LGU & PNP Enforcement through Trained staff, Farmers' Association, MAFC, Irrigators’ Association |
| 5 | Sector: Economic Area: Commerce & Industry Indicator: 15 Business Owners/ Entrepreneurs | 8 of the entrepreneurs are sensitive since they are living in low lying area and 4 belong to families beyond poverty threshold | 2 | 10 | Moderate | **Moderate (2)** Donations, NGA, LGU, Subsidy from NGOs, | **High (1)** Brochures, Information Education Campaign, Trainings/ Seminars, Hazard Maps, Bantay Barangay, Barangay Assemblies | **Moderate (2)** telecommu-nications & roads in good condition and public market operating continuously | **High (1)** Gadgets, television, radio, online broadcasting, print media | **High (1)** Contingency Plan, CLUP/Zoning Ordinance, Municipal Disaster Plan, Barangay Disaster Plan | **Moderate (1)** LGU, Vendors’ Associations, DTI, CSO, TODA, PODA |
| Tebag | 5 | Sector: Social Indicator: Population (Settlement-Residential): 605 HHs, PWDs - 20, Senior Citizens - 217 | 185 hhs are living in low lying areas and below poverty threshold. 11 PWDs are sensitive because of physical disabilities, of which 8 are males and 3 are females. 97 or 45% of the senior citizens are sensitive because of health & physical infirmities. Out of the total 60 are males and 37 are females. | 2 | 10 | Moderate | **Moderate (2)** Donations, NGA, Subsidy from NGOs, IRA, BDRRM Fund, MDRRM Fund, AICS Fund, PhilHealth | **High (1)** Brochures, Information Education Campaign, Trainings/ Seminars, Hazard Maps, Bantay Barangay, Barangay Assemblies | **Moderate (2)** telecommu-nications, concreted farm to market roads, Flood control facility, drainage canals | **High (1)** Gadgets, television, radio, Online Broadcasting, print media | **High (1)** Contingency Plan, CLUP/Zoning Ordinance, Municipal Disaster Plan, Peace & Order Plan, Barangay Disaster Plan | **High (1)** CSO, LGU & PNP Enforcement through Trained staff, knowledgeable populace/ residents regarding hazards, |

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| Table 10.1 **POPULATION EXPOSURE TABLE, MUNICIPALITY OF MANGALDAN.** | | | | | | | | | | | | | |
| **HAZARD: FLOODING** | | | | | | | | | | | | | |
| **BARANGAY** | **LIKELIHOOD OF OCCURRENCE** | **EXPOSURE** | **VULNERABILITY** | **SEVERITY OF CONSEQUENCE** | **RISK** | | **ADAPTIVE CAPACITY** | | | | | |
| **A** | **B** | **C** | **D** | **E** | **F** | | **G** | | | | | |
| Score | Score | Category | **Wealth** | **Information** | **Infrastructure** | **Technology** | **Institution and Governance** | **Social Capital** |
| Tebag | 5 | Sector: Social Area: Education Indicator: 688 students & pupils | 39 students & pupils are sensitive since they belong to families beyond poverty threshold. Out of the total 22 are male & 17 are female | 2 | 10 | Moderate | **Moderate (2)** Donations, NGA, Subsidy from NGOs, IRA, BDRRM Fund, MDRRM Fund, Local School Board Fund | **High (1)** Brochures, Information Education Campaign, Trainings/ Seminars, Hazard Maps, Bantay Barangay, Barangay Assemblies | **Moderate (2)** telecommu-nications, School Buildings in good condition (elevated), | **High (1)** Gadgets, television, radio, online broadcasting, print media | **High (1)** Contingency Plan, CLUP/Zoning Ordinance, MDRRMP, Local School Board Plan, Schools Improvement Plan | **High (1)** DepEd, CSO, LGU & PNP Enforcement through Trained staff, school disaster focal persons |
| 5 | Sector: Economic Area: Agriculture Indicator: 23 farmers | 13 farmers are sensitive since they belong to families beyond poverty threshold and live in low lying area. Out of the total 10 are male and 3 are female. | 2 | 10 | Moderate | **High (1)** Donations, NGA, LGU, Subsidy from NGOs | **High (1)** Brochures, Information Education Campaign, Trainings/ Seminars, Hazard Maps, Bantay Barangay, Barangay Assemblies | **Moderate (2)** telecommu-nications & roads in good condition and public market operating continuously, concreted farm to market road | **High (1)** Gadgets, television, radio, online broadcasting, print media | **High (1)** Contingency Plan, CLUP/Zoning Ordinance, Municipal Disaster Plan, Barangay Disaster Plan | **High (1)** DA, CSO, LGU & PNP Enforcement through Trained staff, Farmers' Association, MAFC, Irrigators’ Association |
| 5 | Sector: Economic Area: Commerce & Industry Indicator: 24 Business Owners/ Entrepreneurs | 10 of the entrepreneurs are sensitive since they are living in low lying area and 6 belong to families beyond poverty threshold | 2 | 10 | Moderate | **Moderate (2)** Donations, NGA, LGU, Subsidy from NGOs, | **High (1)** Brochures, Information Education Campaign, Trainings/ Seminars, Hazard Maps, Bantay Barangay, Barangay Assemblies | **Moderate (2)** telecommu-nications & roads in good condition and public market operating continuously | **High (1)** Gadgets, television, radio, online broadcasting, print media | **High (1)** Contingency Plan, CLUP/Zoning Ordinance, Municipal Disaster Plan, Barangay Disaster Plan | **Moderate (1)** LGU, Vendors’ Associations, DTI, CSO, TODA, PODA |
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| **Instructions:** | | | | | | |  |  |  |  |  |  |
| 1. Identify in Column A the barangays affected by the hazard based on the overlay of the hazard map and the base exposure map. | | | | | | | | | | | | |
| 2. In column B, assign the likelihood of occurrence of the hazard using the suggested indicative scoring below:  Frequent (1-3 years): 6  Moderate (4-10 years): 5  Occasional Slight Chance (11-30 years): 4  Improbable (31 - 100 years): 3  Rare (101-200 years): 2  Very Rare (>200 years): 1 | | | | | | | | | | | | |
| 3. Using the gathered data and maps, indicate information and values for each Population exposure and vulnerability indicators, Columns C and D respectively. | | | | | | | |  |  |  |  |  |
| 4. In column E, assigning the severity of consequence score shall be based on expected magnitude of the hazard (hazard characterization), the extent of exposure (determined through hazard exposure mapping), and the vulnerabilities of the exposed elements (compiled in the exposure database), the combination of which will be the basis for determining the severity of consequence rating.  Very High (4):> 20% of the population are affected and in need of immediate assistance.  High (3): >10 - <20% of affected population in need of immediate assistance  Moderate (2): >5%-10% of affected population in need of immediate assistance  Low (1): < 5% of the affected population in need of immediate assistance | | | | | | | | | | | | |
| 5. In column F, compute and categorize the risk by multiplying Likelihood of Occurrence Score (Column B) and Severity of Consequences Score (Column E). Based on the derived risk scores and corresponding risk categories, reclassify the risk scores into risk categories.  Low: 1-4  Moderate: 6-10  High: 12-24 | | | | | | | | | | | | |
| 6. In column G, provide existing adaptive or preventive measures of the municipality/city. | | | | | | |  |  |  |  |  |  |

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| Table 10.2 **NATURAL RESOURCES EXPOSURE TABLE, MUNICIPALITY OF MANGALDAN** | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | |
| **HAZARD: FLOODING** | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | |
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| **BARANGAY** | **LIKELIHOOD OF OCCURRENCE** | **EXPOSURE** | **VULNERABILITY** | **SEVERITY OF CONSEQUENCE** | **RISK** | | **ADAPTIVE CAPACITY** | | | | | |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  | |
| **A** | **B** | **C** | **D** | **E** | **F** | | **G** | | | | | |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  | |
| Score | Score | Category | **Wealth** | **Information** | **Infrastructure** | **Technology** | **Institution and Governance** | **Social Capital** |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  | |
| Anolid | 5 | Sector: Economic Area: Agriculture; Indicator: 101 has. of Strategic Agriculture and Fishery Development Zone; Production: 3,524.4 MT | 60 hectares or 59% of the farmland are submerged during flood. Decrease of production is about 2,093.70 MT | 4 | 20 | high | **Moderate (2)** Donations, NGA, LGU, Subsidy from NGOs | **High (1)** Brochures, Information Education Campaign, Trainings/ Seminars, Hazard Maps, Bantay Barangay, Barangay Assemblies | **Moderate (2)** telecommuni-cations & roads in good condition and public market operating continuously, concreted farm to market road | **High (1)**  Gadgets, television, radio, online broadcasting, print media | **High (1)** Contingency Plan, CLUP/Zoning Ordinance, Municipal Disaster Plan, Barangay Disaster Plan | **High (1)**  DA, CSO, LGU & PNP Enforcement through Trained staff, Farmers' Association, MAFC, Irrigators’ Association |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  | |
| 5 | Sector: Economic Area: Agriculture; Indicator: 14.4 has. of Strategic Agriculture and Fishery Development Zone, Production: 16.2 MT | 10 hectares or 69.44% of the fishpond are submerged during flood. Decrease of production is about 11.25 MT | 4 | 20 | high | **Moderate (2)** Donations, NGA, LGU, Subsidy from NGOs | **High (1)** Brochures, Information Education Campaign, Trainings/ Seminars, Hazard Maps, Bantay Barangay, Barangay Assemblies | **Moderate (2)** telecommuni-cations & roads in good condition and public market operating continuously, concreted farm to market road | **High (1)**  Gadgets, television, radio, online broadcasting, print media | **High (1)** Contingency Plan, CLUP/Zoning Ordinance, Municipal Disaster Plan, Barangay Disaster Plan | **High (1)**  DA, CSO, LGU & PNP Enforcement through Trained staff, Farmers' Association, MAFC, Irrigators’ Association |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  | |
| Banaoang | 5 | Sector: Economic Area: Agriculture; Indicator: 25 has. Farmland; Production: 105 MT | 10 hectares or 40 % of the farmland are submerged during flood. Decrease of production is about 42 MT | 4 | 20 | high | **Moderate (2)** Donations, NGA, LGU, Subsidy from NGOs | **High (1)** Brochures, Information Education Campaign, Trainings/ Seminars, Hazard Maps, Bantay Barangay, Barangay Assemblies | **Moderate (2)** telecommuni-cations & roads in good condition and public market operating continuously, concreted farm to market road | **High (1)**  Gadgets, television, radio, online broadcasting, print media | **High (1)** Contingency Plan, CLUP/Zoning Ordinance, Municipal Disaster Plan, Barangay Disaster Plan | **High (1)**  DA, CSO, LGU & PNP Enforcement through Trained staff, Farmers' Association, MAFC, Irrigators’ Association |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  | |
| Bantayan | 5 | Sector: Economic Area: Agriculture; Indicator: 5 has. Farmland; Production: 198 MT | 2 hectares or 40 % of the farmland are submerged during flood. Decrease of production is about 79.2 MT. | 4 | 20 | high | **Moderate (2)** Donations, NGA, LGU, Subsidy from NGOs | **High (1)** Brochures, Information Education Campaign, Trainings/ Seminars, Hazard Maps, Bantay Barangay, Barangay Assemblies | **Moderate (2)** telecommuni-cations & roads in good condition and public market operating continuously, concreted farm to market road | **High (1)**  Gadgets, television, radio, online broadcasting, print media | **High (1)** Contingency Plan, CLUP/Zoning Ordinance, Municipal Disaster Plan, Barangay Disaster Plan | **High (1)**  DA, CSO, LGU & PNP Enforcement through Trained staff, Farmers' Association, MAFC, Irrigators’ Association |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  | |
| Bateng | 5 | Sector: Economic Area: Agriculture; Indicator: 2 has. Farmland; Production: 100 MT | 1 hectare or 50 % of the farmland are submerged during flood. Decrease of production is about 50 MT. | 4 | 20 | high | **Moderate (2)** Donations, NGA, LGU, Subsidy from NGOs | **High (1)** Brochures, Information Education Campaign, Trainings/ Seminars, Hazard Maps, Bantay Barangay, Barangay Assemblies | **Moderate (2)** telecommuni-cations & roads in good condition and public market operating continuously, concreted farm to market road | **High (1)**  Gadgets, television, radio, online broadcasting, print media | **High (1)** Contingency Plan, CLUP/Zoning Ordinance, Municipal Disaster Plan, Barangay Disaster Plan | **High (1)**  DA, CSO, LGU & PNP Enforcement through Trained staff, Farmers' Association, MAFC, Irrigators’ Association |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  | |
| 5 | Sector: Economic Area: Agriculture; Indicator: 70.58 of Strategic Agriculture and Fishery Development Zone has. of Fishponds, Production: 79.40 MT | 42.35 hectares or 60% of the fishpond are submerged during flood. Decrease of production is about 47.64 MT | 4 | 20 | high | **Moderate (2)** Donations, NGA, LGU, Subsidy from NGOs | **High (1)** Brochures, Information Education Campaign, Trainings/ Seminars, Hazard Maps, Bantay Barangay, Barangay Assemblies | **Moderate (2)** telecommuni-cations & roads in good condition and public market operating continuously, concreted farm to market road | **High (1)**  Gadgets, television, radio, online broadcasting, print media | **High (1)** Contingency Plan, CLUP/Zoning Ordinance, Municipal Disaster Plan, Barangay Disaster Plan | **High (1)**  DA, CSO, LGU & PNP Enforcement through Trained staff, Farmers' Association, MAFC, Irrigators’ Association |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  | |

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| Table 10.2 **NATURAL RESOURCES EXPOSURE TABLE, MUNICIPALITY OF MANGALDAN** | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | |
| **HAZARD: FLOODING** | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | |
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| **BARANGAY** | **LIKELIHOOD OF OCCURRENCE** | **EXPOSURE** | **VULNERABILITY** | **SEVERITY OF CONSEQUENCE** | **RISK** | | **ADAPTIVE CAPACITY** | | | | | |
| **A** | **B** | **C** | **D** | **E** | **F** | | **G** | | | | | |
| Score | Score | Category | **Wealth** | **Information** | **Infrastructure** | **Technology** | **Institution and Governance** | **Social Capital** |
| David | 5 | Sector: Economic Area: Agriculture; Indicator: 60 has. Farmland; Production: 594 MT | 45 hectares or 75 % of the farmland are submerged during flood. Decrease of production is about 2,093.70 MT | 4 | 20 | high | **Moderate (2)** Donations, NGA, LGU, Subsidy from NGOs | **High (1)** Brochures, Information Education Campaign, Trainings/ Seminars, Hazard Maps, Bantay Barangay, Barangay Assemblies | **Moderate (2)** telecommunications & roads in good condition and  public market operating continuously, concreted farm to market road | **High (1)**  Gadgets, television, radio, online broadcasting, print media | **High (1)** Contingency Plan, CLUP/Zoning Ordinance, Municipal Disaster Plan, Barangay Disaster Plan | **High (1)**  DA, CSO, LGU & PNP Enforcement through Trained staff, Farmers' Association, MAFC, Irrigators’ Association |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |
| Embarca-dero | 5 | Sector: Economic Area: Agriculture; Indicator: 25 has. Farmland; Production: 105 MT | 16.25 hectares or 65% of the farmland are submerged during flood. Decrease of production is about 68.25 MT | 4 | 20 | high | **Moderate (2)** Donations, NGA, LGU, Subsidy from NGOs | **High (1)** Brochures, Information Education Campaign, Trainings/ Seminars, Hazard Maps, Bantay Barangay, Barangay Assemblies | **Moderate (2)** telecommunications & roads in good condition and  public market operating continuously, concreted farm to market road | **High (1)**  Gadgets, television, radio, online broadcasting, print media | **High (1)** Contingency Plan, CLUP/Zoning Ordinance, Municipal Disaster Plan, Barangay Disaster Plan | **High (1)**  DA, CSO, LGU & PNP Enforcement through Trained staff, Farmers' Association, MAFC, Irrigators’ Association |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |
| Guesang | 5 | Sector: Economic Area: Agriculture; Indicator: 68.5 has. Farmland; Production: 225 MT | 41.79 hectares or 61% of the farmland are submerged during flood. Decrease of production is about 137.27 MT | 4 | 20 | high | **Moderate (2)** Donations, NGA, LGU, Subsidy from NGOs | **High (1)** Brochures, Information Education Campaign, Trainings/ Seminars, Hazard Maps, Bantay Barangay, Barangay Assemblies | **Moderate (2)** telecommunications & roads in good condition and  public market operating continuously, concreted farm to market road | **High (1)**  Gadgets, television, radio, online broadcasting, print media | **High (1)** Contingency Plan, CLUP/Zoning Ordinance, Municipal Disaster Plan, Barangay Disaster Plan | **High (1)**  DA, CSO, LGU & PNP Enforcement through Trained staff, Farmers' Association, MAFC, Irrigators’ Association |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |
| Guiguilo-nen | 5 | Sector: Economic Area: Agriculture; Indicator: 10 has. Farmland; Production: 5 MT | 5 hectares or 50% of the farmland are submerged during flood. Decrease of production is about 2.5 MT | 4 | 20 | high | **Moderate (2)** Donations, NGA, LGU, Subsidy from NGOs | **High (1)** Brochures, Information Education Campaign, Trainings/ Seminars, Hazard Maps, Bantay Barangay, Barangay Assemblies | **Moderate (2)** telecommunications & roads in good condition and  public market operating continuously, concreted farm to market road | **High (1)**  Gadgets, television, radio, online broadcasting, print media | **High (1)** Contingency Plan, CLUP/Zoning Ordinance, Municipal Disaster Plan, Barangay Disaster Plan | **High (1)**  DA, CSO, LGU & PNP Enforcement through Trained staff, Farmers' Association, MAFC, Irrigators’ Association |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |
| Inlambo | 5 | Sector: Economic Area: Agriculture; Indicator: 65 has. Farmland; Production: 638 MT | 35 hectares or 53% of the farmland are submerged during flood. Decrease of production is about 343.54 MT | 4 | 20 | high | **Moderate (2)** Donations, NGA, LGU, Subsidy from NGOs | **High (1)** Brochures, Information Education Campaign, Trainings/ Seminars, Hazard Maps, Bantay Barangay, Barangay Assemblies | **Moderate (2)** telecommunications & roads in good condition and  public market operating continuously, concreted farm to market road | **High (1)**  Gadgets, television, radio, online broadcasting, print media | **High (1)** Contingency Plan, CLUP/Zoning Ordinance, Municipal Disaster Plan, Barangay Disaster Plan | **High (1)**  DA, CSO, LGU & PNP Enforcement through Trained staff, Farmers' Association, MAFC, Irrigators’ Association |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |
| Lanas | 5 | Sector: Economic Area: Agriculture; Indicator: 10 has. Farmland; Production: 50 MT | 5.2 hectares or 52% of the farmland are submerged during flood. Decrease of production is about 26 MT | 4 | 20 | high | **Moderate (2)** Donations, NGA, LGU, Subsidy from NGOs | **High (1)** Brochures, Information Education Campaign, Trainings/ Seminars, Hazard Maps, Bantay Barangay, Barangay Assemblies | **Moderate (2)** telecommunications & roads in good condition and  public market operating continuously, concreted farm to market road | **High (1)**  Gadgets, television, radio, online broadcasting, print media | **High (1)** Contingency Plan, CLUP/Zoning Ordinance, Municipal Disaster Plan, Barangay Disaster Plan | **High (1)**  DA, CSO, LGU & PNP Enforcement through Trained staff, Farmers' Association, MAFC, Irrigators’ Association |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |
| 5 | Sector: Economic Area: Agriculture; Indicator: 33.29 has. Of Strategic Agriculture and Fishery Development Zone of Fishponds, Production: 37.45 MT | 25 hectares or 75.09% of the fishpond are submerged during flood. Decrease of production is about 28.12 MT | 4 | 20 | high | **Moderate (2)** Donations, NGA, LGU, Subsidy from NGOs | **High (1)** Brochures, Information Education Campaign, Trainings/ Seminars, Hazard Maps, Bantay Barangay, Barangay Assemblies | **Moderate (2)** telecommunications & roads in good condition and  public market operating continuously, concreted farm to market road | **High (1)**  Gadgets, television, radio, online broadcasting, print media | **High (1)** Contingency Plan, CLUP/Zoning Ordinance, Municipal Disaster Plan, Barangay Disaster Plan | **High (1)**  DA, CSO, LGU & PNP Enforcement through Trained staff, Farmers' Association, MAFC, Irrigators’ Association |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |
| Landas | 5 | Sector: Economic Area: Agriculture; Indicator: 45 has. Farmland; Production 225 MT | 9 hectares or 20% of the farmland are submerged during flood. Decrease of production is about 45 MT | 4 | 20 | high | **Moderate (2)** Donations, NGA, LGU, Subsidy from NGOs | **High (1)** Brochures, Information Education Campaign, Trainings/ Seminars, Hazard Maps, Bantay Barangay, Barangay Assemblies | **Moderate (2)** telecommunications & roads in good condition and public market operating continuously, concreted farm to market road | **High (1)**  Gadgets, television, radio, online broadcasting, print media | **High (1)** Contingency Plan, CLUP/Zoning Ordinance, Municipal Disaster Plan, Barangay Disaster Plan | **High (1)**  DA, CSO, LGU & PNP Enforcement through Trained staff, Farmers' Association, MAFC, Irrigators’ Association |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |

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| Table 10.2 **NATURAL RESOURCES EXPOSURE TABLE, MUNICIPALITY OF MANGALDAN** | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | |
| **HAZARD: FLOODING** | | |  |  |  |  |  |  |  |  |  |  |
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| **BARANGAY** | **LIKELIHOOD OF OCCURRENCE** | **EXPOSURE** | **VULNERABILITY** | **SEVERITY OF CONSEQUENCE** | **RISK** | | **ADAPTIVE CAPACITY** | | | | | |
| **A** | **B** | **C** | **D** | **E** | **F** | | **G** | | | | | |
| Score | Score | Category | **Wealth** | **Information** | **Infrastructure** | **Technology** | **Institution and Governance** | **Social Capital** |
| Maasin | 5 | Sector: Economic Area: Agriculture; Indicator: 10 has. Farmland; Production: 198 MT | 5 hectares or 50% of the farmland are submerged during flood. Decrease of production is about 99 MT | 4 | 20 | high | **Moderate (2)** Donations, NGA, LGU, Subsidy from NGOs | **High (1)** Brochures, Information Education Campaign, Trainings/ Seminars, Hazard Maps, Bantay Barangay, Barangay Assemblies | **Moderate (2)** telecommunica-tions & roads in good condition and public market operating continuously, concreted farm to market road | **High (1)**  Gadgets, television, radio, online broadcasting, print media | **High (1)** Contingency Plan, CLUP/Zoning Ordinance, Municipal Disaster Plan, Barangay Disaster Plan | **High (1)**  DA, CSO, LGU & PNP Enforcement through Trained staff, Farmers' Association, MAFC, Irrigators’ Association |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |
| 5 | Sector: Economic Area: Agriculture; Indicator: 107.27 has. Of Strategic Agriculture and Fishery Development Zone of Fishponds, Production: 120.67MT | 80.45 hectares or 75% of the fishpond are submerged during flood. Decrease of production is about 90.50 MT | 4 | 20 | high | **Moderate (2)** Donations, NGA, LGU, Subsidy from NGOs | **High (1)** Brochures, Information Education Campaign, Trainings/ Seminars, Hazard Maps, Bantay Barangay, Barangay Assemblies | **Moderate (2)** telecommunica-tions & roads in good condition and public market operating continuously, concreted farm to market road | **High (1)**  Gadgets, television, radio, online broadcasting, print media | **High (1)** Contingency Plan, CLUP/Zoning Ordinance, Municipal Disaster Plan, Barangay Disaster Plan | **High (1)**  DA, CSO, LGU & PNP Enforcement through Trained staff, Farmers' Association, MAFC, Irrigators’ Association |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |
| Macayug | 5 | Sector: Economic Area: Agriculture; Indicator: 30 has. Farmland ;Production: 365.2 MT | 25 hectares or 83% of the farmland are submerged during flood. Decrease of production is about 304.33 MT | 4 | 20 | high | **Moderate (2)** Donations, NGA, LGU, Subsidy from NGOs | **High (1)** Brochures, Information Education Campaign, Trainings/ Seminars, Hazard Maps, Bantay Barangay, Barangay Assemblies | **Moderate (2)** telecommunica-tions & roads in good condition and public market operating continuously, concreted farm to market road | **High (1)**  Gadgets, television, radio, online broadcasting, print media | **High (1)** Contingency Plan, CLUP/Zoning Ordinance, Municipal Disaster Plan, Barangay Disaster Plan | **High (1)**  DA, CSO, LGU & PNP Enforcement through Trained staff, Farmers' Association, MAFC, Irrigators’ Association |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |
| Navaluan | 5 | Sector: Economic Area: Agriculture; Indicator: 37 has. Farmland; Production: 162.8 MT | 18 hectares or 48% of the farmland are submerged during flood. Decrease of production is about 79.2 MT | 4 | 20 | high | **Moderate (2)** Donations, NGA, LGU, Subsidy from NGOs | **High (1)** Brochures, Information Education Campaign, Trainings/ Seminars, Hazard Maps, Bantay Barangay, Barangay Assemblies | **Moderate (2)** telecommunica-tions & roads in good condition and public market operating continuously, concreted farm to market road | **High (1)**  Gadgets, television, radio, online broadcasting, print media | **High (1)** Contingency Plan, CLUP/Zoning Ordinance, Municipal Disaster Plan, Barangay Disaster Plan | **High (1)**  DA, CSO, LGU & PNP Enforcement through Trained staff, Farmers' Association, MAFC, Irrigators’ Association |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |
| Nibaliw | 5 | Sector: Economic Area: Agriculture; Indicator: 36 has. Farmland; Production 162.8 MT | 20 hectares or 55.56% of the farmland are submerged during flood. Decrease of production is about 90.44 MT | 4 | 20 | high | **Moderate (2)** Donations, NGA, LGU, Subsidy from NGOs | **High (1)** Brochures, Information Education Campaign, Trainings/ Seminars, Hazard Maps, Bantay Barangay, Barangay Assemblies | **Moderate (2)** telecommunica-tions & roads in good condition and public market operating continuously, concreted farm to market road | **High (1)**  Gadgets, television, radio, online broadcasting, print media | **High (1)** Contingency Plan, CLUP/Zoning Ordinance, Municipal Disaster Plan, Barangay Disaster Plan | **High (1)**  DA, CSO, LGU & PNP Enforcement through Trained staff, Farmers' Association, MAFC, Irrigators’ Association |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |
| Osiem | 5 | Sector: Economic Area: Agriculture; Indicator: 47 has. Farmland; Production 206.8 MT | 27 hectares or 57% of the farmland are submerged during flood. Decrease of production is about 118.8 MT | 4 | 20 | high | **Moderate (2)** Donations, NGA, LGU, Subsidy from NGOs | **High (1)** Brochures, Information Education Campaign, Trainings/ Seminars, Hazard Maps, Bantay Barangay, Barangay Assemblies | **Moderate (2)** telecommunica-tions & roads in good condition and public market operating continuously, concreted farm to market road | **High (1)**  Gadgets, television, radio, online broadcasting, print media | **High (1)** Contingency Plan, CLUP/Zoning Ordinance, Municipal Disaster Plan, Barangay Disaster Plan | **High (1)**  DA, CSO, LGU & PNP Enforcement through Trained staff, Farmers' Association, MAFC, Irrigators’ Association |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |

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| Table 10.2 **NATURAL RESOURCES EXPOSURE TABLE, MUNICIPALITY OF MANGALDAN** | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | |
| **HAZARD: FLOODING** | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | |
| **BARANGAY** | **LIKELIHOOD OF OCCURRENCE** | **EXPOSURE** | **VULNERABILITY** | **SEVERITY OF CONSEQUENCE** | **RISK** | | **ADAPTIVE CAPACITY** | | | | | | |
| **A** | **B** | **C** | **D** | **E** | **F** | | **G** | | | | | | |
| Score | Score | Category | **Wealth** | **Information** | **Infrastructure** | **Technology** | **Institution and Governance** | **Social Capital** | |
| Palua | 5 | Sector: Economic Area: Agriculture; Indicator: 35 has. Farmland; Production: 180 MT | 14 hectares or 40% of the farmland are submerged during flood. Decrease of production is about 72 MT | 4 | 20 | high | **Moderate (2)** Donations, NGA, LGU, Subsidy from NGOs | **High (1)** Brochures, Information Education Campaign, Trainings/ Seminars, Hazard Maps, Bantay Barangay, Barangay Assemblies | **Moderate (2)** telecommunica-tions & roads in good condition and public market operating continuously, concreted farm to market road | **High (1)**  Gadgets, television, radio, online broadcasting, print media | **High (1)** Contingency Plan, CLUP/Zoning Ordinance, Municipal Disaster Plan, Barangay Disaster Plan | **High (1)**  DA, CSO, LGU & PNP Enforcement through Trained staff, Farmers' Association, MAFC, Irrigators’ Association | |  | |  | |  | | |  | |  | |  | |  | |  | |  | |  | |  | |  | |  | |  | |  | |  | |  | |  | |  | | |
| Pogo | 5 | Sector: Economic Area: Agriculture; Indicator: 36 has. Farmland; Production: 206.8 MT | 16.2 hectares or 45% of the farmland are submerged during flood. Decrease of production is about 93.06 MT | 4 | 20 | high | **Moderate (2)** Donations, NGA, LGU, Subsidy from NGOs | **High (1)** Brochures, Information Education Campaign, Trainings/ Seminars, Hazard Maps, Bantay Barangay, Barangay Assemblies | **Moderate (2)** telecommunica-tions & roads in good condition and public market operating continuously, concreted farm to market road | **High (1)**  Gadgets, television, radio, online broadcasting, print media | **High (1)** Contingency Plan, CLUP/Zoning Ordinance, Municipal Disaster Plan, Barangay Disaster Plan | **High (1)**  DA, CSO, LGU & PNP Enforcement through Trained staff, Farmers' Association, MAFC, Irrigators’ Association | |  | |  | |  | | |  | |  | |  | |  | |  | |  | |  | |  | |  | |  | |  | |  | |  | |  | |  | |  | | |
| Salaan | 5 | Sector: Economic Area: Agriculture; Indicator: 25 has. Farmland; Production: 105 MT | 16.25 hectares or 65% of the farmland are submerged during flood. Decrease of production is about 68.25 MT | 4 | 20 | high | **Moderate (2)** Donations, NGA, LGU, Subsidy from NGOs | **High (1)** Brochures, Information Education Campaign, Trainings/ Seminars, Hazard Maps, Bantay Barangay, Barangay Assemblies | **Moderate (2)** telecommunica-tions & roads in good condition and public market operating continuously, concreted farm to market road | **High (1)**  Gadgets, television, radio, online broadcasting, print media | **High (1)** Contingency Plan, CLUP/Zoning Ordinance, Municipal Disaster Plan, Barangay Disaster Plan | **High (1)**  DA, CSO, LGU & PNP Enforcement through Trained staff, Farmers' Association, MAFC, Irrigators’ Association | |  | |  | |  | | |  | |  | |  | |  | |  | |  | |  | |  | |  | |  | |  | |  | |  | |  | |  | |  | | |
| Talogtog | 5 | Sector: Economic Area: Agriculture; Indicator: 2 has. Farmland; Production: 100 MT | 1 hectare or 50 % of the farmland are submerged during flood. Decrease of production is about 50 MT. | 4 | 20 | high | **Moderate (2)** Donations, NGA, LGU, Subsidy from NGOs | **High (1)** Brochures, Information Education Campaign, Trainings/ Seminars, Hazard Maps, Bantay Barangay, Barangay Assemblies | **Moderate (2)** telecommunica-tions & roads in good condition and public market operating continuously, concreted farm to market road | **High (1)**  Gadgets, television, radio, online broadcasting, print media | **High (1)** Contingency Plan, CLUP/Zoning Ordinance, Municipal Disaster Plan, Barangay Disaster Plan | **High (1)**  DA, CSO, LGU & PNP Enforcement through Trained staff, Farmers' Association, MAFC, Irrigators’ Association | |  | |  | |  | | |  | |  | |  | |  | |  | |  | |  | |  | |  | |  | |  | |  | |  | |  | |  | |  | | |
| Talogtog | 5 | Sector: Economic Area: Agriculture; Indicator: 35.028 Of Strategic Agriculture and Fishery Development Zone has. of Fishponds, Production: 39.40 MT | 18 hectares or 51.39% of the fishpond are submerged during flood. Decrease of production is about 28.34 MT | 4 | 20 | high | **Moderate (2)** Donations, NGA, LGU, Subsidy from NGOs | **High (1)** Brochures, Information Education Campaign, Trainings/ Seminars, Hazard Maps, Bantay Barangay, Barangay Assemblies | **Moderate (2)** telecommunications & roads in good condition and public market operating continuously, concreted farm to market road | **High (1)**  Gadgets, television, radio, online broadcasting, print media | **High (1)** Contingency Plan, CLUP/Zoning Ordinance, Municipal Disaster Plan, Barangay Disaster Plan | **High (1)**  DA, CSO, LGU & PNP Enforcement through Trained staff, Farmers' Association, MAFC, Irrigators’ Association | |  | |  | |  | | |  | |  | |  | |  | |  | |  | |  | |  | |  | |  | |  | |  | |  | |  | |  | |  | | |
| Tebag | 5 | Sector: Economic Area: Agriculture; Indicator: 30 has. Farmland;Production: 365.2 MT | 25 hectares or 83% of the farmland are submerged during flood. Decrease of production is about 304.33 MT | 4 | 20 | high | **Moderate (2)** Donations, NGA, LGU, Subsidy from NGOs | **High (1)** Brochures, Information Education Campaign, Trainings/ Seminars, Hazard Maps, Bantay Barangay, Barangay Assemblies | **Moderate (2)** telecommunica-tions & roads in good condition and public market operating continuously, concreted farm to market road | **High (1)**  Gadgets, television, radio, online broadcasting, print media | **High (1)** Contingency Plan, CLUP/Zoning Ordinance, Municipal Disaster Plan, Barangay Disaster Plan | **High (1)**  DA, CSO, LGU & PNP Enforcement through Trained staff, Farmers' Association, MAFC, Irrigators’ Association | |  | |  | |  | | |  | |  | |  | |  | |  | |  | |  | |  | |  | |  | |  | |  | |  | |  | |  | |  | | |
|  |  |  |  |  |  |  |  |  |  |  |  |  | |  | |  | |  | | |  | |  | |  | |  | |  | |  | |  | |  | |  | |  | |  | |  | |  | |  | |  | |  | | |
| **Instructions:** | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | |
| 1. Identify in Column A the barangays affected by the hazard based on the overlay of the hazard map and the base exposure map. | | | | | | | | | | | |  | |  | |  | |  | | |  | |  | |  | |  | |  | |  | |  | |  | |  | |  | |  | |  | |  | |  | |  | |  | | |
| 2. In column B, assign the likelihood of occurrence of the hazard:  Frequent (1-3 years): 6 Moderate (4-10 years): 5 Occasional Slight Chance (11-30 years): 4  Improbable (31 - 100 years): 3 Rare (101-200 years): 2 Very Rare (>200 years): 1 | | | | | | | | | | | |  | |  | |  | |  | | |  | |  | |  | |  | |  | |  | |  | |  | |  | |  | |  | |  | |  | |  | |  | |  | | |
| 3. Using the gathered data and maps, indicate information and values for each Natural Resources exposure and vulnerability indicators, Columns C and D respectively. | | | | | | | | | | | |  | |  | |  | |  | | |  | |  | |  | |  | |  | |  | |  | |  | |  | |  | |  | |  | |  | |  | |  | |  | | |
| 4. In column E, assigning the severity of consequence score shall be based on expected magnitude of the hazard (hazard characterization), the extent of exposure (determined through hazard exposure mapping), and the vulnerabilities of the exposed elements (compiled in the exposure database), the combination of which will be the basis for determining the severity of consequence rating.  Very High (4): > 40% of exposed production areas/means of livelihood such as fishponds, crops, poultry and livestock and other agricultural/forest products are severely damaged  High (3): 20 to <40% of exposed production areas/means of livelihood such as fishponds, crops, poultry and livestock and other agricultural/forest products are severely damaged  Moderate (2): 10 to <20% of exposed production areas/means of livelihood such as fishponds, crops, poultry and livestock and other agricultural/forest products are severely damaged  Low (1): < 10% and below of exposed production areas/means of livelihood such as fishponds, crops, poultry and livestock and other agricultural/forest products are severely damaged | | | | | | | | | | | | | | | | |  | |  | | |  | |  | |  | |  | |  | |  | |  | |  | |  | |  | |  | |  | |  | |  | |  | |
| 5. In column F, compute the risk by multiplying Likelihood of Occurrence Score (Column B) and Severity of Consequences Score (Column E). Based on the derived risk scores and corresponding risk categories, reclassify the risk scores into risk categories.  Low: 1-4  Moderate: 6-10  High: 12-24 | | | | | | | | | | | | |  | |  | |  | |  | | |  | |  | |  | |  | |  | |  | |  | |  | |  | |  | |  | |  | |  | |  | |  | |
| 6. In column G, provide existing adaptive or preventive measures of the municipality/city. | | | | | | | | | | | | | | | | | | | |  | | |  | |  | |  | |  | |  | |  | |  | |  | |  | |  | |  | |  | |  | |  | |  | | |  |  |  |

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| TABLE 10.3 **CRITICAL FACILITIES EXPOSURE TABLE, MUNICIPALITY OF MANGALDAN** | | | | | | | | | | | | | | | | | | | | | | |  | | | | | |  | | |  | | |
| **HAZARD: FLOODING** | |  | |  | | | | |  | | |  | |  | | |  | | |  | | |  | | |  | | |  | | |  | | |
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| **BARANGAY** | **LIKELIHOOD OF OCCURRENCE** | **EXPOSURE** | | **VULNERABILITY** | | | **SEVERITY OF CONSEQUENCE** | | | **RISK** | | | | | **ADAPTIVE CAPACITY** | | | | | | | | | | | | | | | | | | |
| **A** | **B** | **C** | | **D** | | | **E** | | | **F** | | | | | **G** | | | | | | | | | | | | | | | | | | |
| Score | | | Score | | Category | | | **Wealth** | | | **Information** | | | | **Infrastructure** | | | **Technology** | | | **Institution and Governance** | | | **Social Capital** | | |
| **Anolid** | 5 | Sector: Social Area: Health Indicator: Barangay Health Station | | Barangay Health Station is located in low lying area and not hazard resistant design. | | | 1 | | | 5 | | low | | | **Moderate (2)** Donations, NGA, Subsidy from NGOs, IRA, BDRRM Fund, MDRRM Fund | | | **High (1)** Brochures, Information Education Campaign, Trainings/ Seminars, Hazard Maps, Bantay Barangay, Barangay Assemblies | | | | **Moderate (2)** telecommu-nications, Flood control facility, drainage canals | | | **Moderate (2)** Retrofitting  of existing structure | | | **High (1)** Contingency Plan, CLUP/Zoning Ordinance, Municipal Disaster Plan, Peace & Order Plan, Barangay Disaster Plan | | | **High (1)**  CSO, LGU  & PNP Enforce-ment through Trained staff, knowledge-able populace/ residents regarding hazards, | | |
| 5 | Sector: Social Area: Education Indicator: Anolid Elementary School | | Anolid Elementary School is located in low lying area. School building is made of mixed materials and not hazard resilient. | | | 1 | | | 5 | | low | | | **Moderate (2)** Donations, NGA, Subsidy from NGOs, IRA, BDRRM Fund, MDRRM Fund, Local School Board Fund | | | **High (1)** Brochures, Information Education Campaign, Trainings/ Seminars, Hazard Maps, Bantay Barangay, Barangay Assemblies | | | | **Moderate (2)** telecommu-nications, School Buildings in good condition (elevated), | | | **High (1)** Gadgets, television, radio, online broadcasting, print media | | | **High (1)** Contingency Plan, CLUP/Zoning Ordinance, MDRRMP, Local School Board Plan, Schools Improvement Plan | | | **High (1)** DepEd, CSO, LGU & PNP Enforce-ment through Trained staff, school disaster focal persons | | |
| 5 | Sector: Infrastruc-ture Area: Road  Indicator: 1 km concreted farm to market road | | Anolid-Perlan Road is located in low lying area. Impassable during flood. | | | 1 | | | 5 | | low | | | **Moderate (2)** Donations, NGA, Subsidy from NGOs, IRA, BDRRM Fund, MDRRM Fund, 20% Dev't. Fund | | | **High (1)** Brochures, Information Education Campaign, Trainings/ Seminars, Hazard Maps, Bantay Barangay, Barangay Assemblies | | | | **Moderate (2)** telecommu-nications, Flood control facility, drainage canals | | | **Moderate (2)** Retrofitting  of existing structure | | | **High (1)** Contingency Plan, CLUP/ Zoning Ordinance, MDRRMP | | | **High (1)** DPWH, CSO, LGU  & PNP Enforce-ment through Trained staff, knowledge-able populace/ residents regarding hazards, | | |
| **Banaoang** | 5 | Sector: Infrastruc-ture Area: Road Indicator: 1 km Provincial Road | | 600 meters Banaoang East Provincial Road is located in low lying and easily flooded | | | 1 | | | 5 | | low | | | **Moderate (2)** Donations, NGA, Subsidy from NGOs, IRA, BDRRM Fund, MDRRM Fund, 20% Dev't. Fund | | | **High (1)** Brochures, Information Education Campaign, Trainings/ Seminars, Hazard Maps, Bantay Barangay, Barangay Assemblies | | | | **Moderate (2)** telecommu-nications, Flood control facility, drainage canals | | | **Moderate (2)** Retrofitting  of existing structure | | | **High (1)** Contingency Plan, CLUP/ Zoning Ordinance, MDRRMP | | | **High (1)** DPWH, CSO, LGU & PNP Enforce-ment through Trained staff, knowledge-able populace/ residents regarding hazards, | | |
| **Bantayan** | 5 | Sector: Social Area: Education Indicator: Mangaldan Integrated School | | Mangaldan Integrated School is located in low lying area. And some school buildings are made of mixed materials and not hazard resilient | | | 1 | | | 5 | | low | | | **Moderate (2)**Donations, NGA, Subsidy from NGOs, IRA, BDRRM Fund, MDRRM Fund, Local School Board Fund | | | **High (1)** Brochures, Information Education Campaign, Trainings/ Seminars, Hazard Maps, Bantay Barangay, Barangay Assemblies | | | | **Moderate (2)** telecommu-nications, School Buildings in good condition (elevated), | | | **High (1)** Gadgets, television, radio, online broadcasting, print media | | | **High (1)** Contingency Plan, CLUP/Zoning Ordinance, MDRRMP, Local School Board Plan, Schools Improvement Plan | | | **High (1)** DepEd, CSO, LGU & PNP Enforce-ment through Trained staff, school disaster focal persons | | |
| 5 | Sector: Infrastruc-ture Area: Road  Indicator: 1.544 km unpaved barangay road | | Barangay Road is located in low lying area. Impassable during flood and made of earth. | | | 1 | | | 5 | | low | | | **Moderate (2)** Donations, NGA, Subsidy from NGOs, IRA, BDRRM Fund, MDRRM Fund, 20% Dev't. Fund | | | **High (1)** Brochures, Information Education Campaign, Trainings/ Seminars, Hazard Maps, Bantay Barangay, Barangay Assemblies | | | | **Moderate (2)** telecommu-nications, Flood control facility, drainage canals | | | **Moderate (2)** Retrofitting  of existing structure | | | **High (1)** Contingency Plan, CLUP/ Zoning Ordinance, MDRRMP | | | **High (1)** DPWH, CSO, LGU  & PNP Enforce-ment through Trained staff, knowledge-able populace/ residents regarding hazards, | | |
| Table 10.3 **CRITICAL FACILITIES EXPOSURE TABLE, MUNICIPALITY OF MANGALDAN** | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | |
| **HAZARD: FLOODING** | | | | | |
| **BARANGAY** | **LIKELIHOOD OF OCCURRENCE** | | **EXPOSURE** | | **VULNERABILITY** | | | **SEVERITY OF CONSEQUENCE** | | | **RISK** | | | | | **ADAPTIVE CAPACITY** | | | | | | | | | | | | | | | | |
| **A** | **B** | | **C** | | **D** | | | **E** | | | **F** | | | | | **G** | | | | | | | | | | | | | | | | |
| Score | | | Score | | Category | | | **Wealth** | | | **Information** | | **Infrastructure** | | | **Technology** | | | **Institution and Governance** | | | **Social Capital** | | |
| **Bateng** | 5 | | Sector: Social Area: Health Indicator: Barangay Health Station | | Barangay Health Station is located in low lying area and easily flooded. | | | 1 | | | 5 | | low | | | **Moderate (2)** Donations, NGA, Subsidy from NGOs, IRA, BDRRM Fund, MDRRM Fund | | | **High (1)** Brochures, Information Education Campaign, Trainings/ Seminars, Hazard Maps, Bantay Barangay, Barangay Assemblies | | **Moderate (2)** telecommu-nications, Flood control facility, drainage canals | | | **Moderate (2)** Retrofitting of existing structure | | | **High (1)** Contingency Plan, CLUP/Zoning Ordinance, Municipal Disaster Plan, Peace & Order Plan, Barangay Disaster Plan | | | **High (1)**  CSO, LGU & PNP Enforce-ment through Trained staff, knowledgeable populace/ residents regarding hazards, | | |
| **David** | 5 | | Sector: Social Area: Health Indicator: Barangay Health Station | | Barangay Health Station is located in low lying area and easily flooded. | | | 1 | | | 5 | | low | | | **Moderate (2)** Donations, NGA, Subsidy from NGOs, IRA, BDRRM Fund, MDRRM Fund | | | **High (1)** Brochures, Information Education Campaign, Trainings/ Seminars, Hazard Maps, Bantay Barangay, Barangay Assemblies | | **Moderate (2)** telecommu-nications, Flood control facility, drainage canals | | | **Moderate (2)** Retrofitting of existing structure | | | **High (1)** Contingency Plan, CLUP/Zoning Ordinance, Municipal Disaster Plan, Peace & Order Plan, Barangay Disaster Plan | | | **High (1)**  CSO, LGU  & PNP Enforce-ment through Trained staff, knowledge- able populace/ residents regarding hazards, | | |
| 5 | | Sector: Social Area: Education Indicator: David Elementary School | | David Elementary School is located in low lying area. And some school buildings are made of mixed materials and not hazard resilient | | | 1 | | | 5 | | low | | | **Moderate (2)** Donations, NGA, Subsidy from NGOs, IRA, BDRRM Fund, MDRRM Fund, Local School Board Fund | | | **High (1)** Brochures, Information Education Campaign, Trainings/ Seminars, Hazard Maps, Bantay Barangay, Barangay Assemblies | | **Moderate (2)** telecommu-nications, School Buildings in good condition (elevated), | | | **High (1)** Gadgets, television, radio, online broadcasting, print media | | | **High (1)** Contingency Plan, CLUP/Zoning Ordinance, MDRRMP, Local School Board Plan, Schools Improvement Plan | | | **High (1)** DepEd, CSO, LGU & PNP Enforce-ment through Trained staff, school disaster focal persons | | |
| 5 | | Sector: Infrastructure Area: Road Indicator: 1 km concreted Provincial Road | | 500 meters Provincial Road is located in low lying area with pothole and pavement crack. Impassable during flood. | | | 1 | | | 5 | | low | | | **Moderate (2)** Donations, NGA, Subsidy from NGOs, IRA, BDRRM Fund, MDRRM Fund, 20% Dev't. Fund | | | **High (1)** Brochures, Information Education Campaign, Trainings/ Seminars, Hazard Maps, Bantay Barangay, Barangay Assemblies | | **Moderate (2)** telecommu-nications, Flood control facility, drainage canals | | | **Moderate (2)** Retrofitting of existing structure | | | **High (1)** Contingency Plan, CLUP/ Zoning Ordinance, MDRRMP | | | **High (1)** DPWH, CSO, LGU & PNP Enforce-ment through Trained staff, knowledge-able populace/ residents regarding hazards, | | |
| **Embarca-dero** | 5 | | Sector: Social Area: Education Indicator: Embarcadero Elementary School | | Embarcadero Elementary School is located in low lying area and easily flooded. | | | 1 | | | 5 | | low | | | **Moderate (2)** Donations, NGA, Subsidy from NGOs, IRA, BDRRM Fund, MDRRM Fund, Local School Board Fund | | | **High (1)** Brochures, Information Education Campaign, Trainings/ Seminars, Hazard Maps, Bantay Barangay, Barangay Assemblies | | **Moderate (2)** telecommu-nications, School Buildings in good condition (elevated), | | | **High (1)** Gadgets, television, radio, online broadcasting, print media | | | **High (1)** Contingency Plan, CLUP/Zoning Ordinance, MDRRMP, Local School Board Plan, Schools Improvement Plan | | | **High (1)** DepEd, CSO, LGU & PNP Enforce-ment through Trained staff, school disaster focal persons | | |

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| Table 10.3 **CRITICAL FACILITIES EXPOSURE TABLE, MUNICIPALITY OF MANGALDAN** | | | | | | | | | | | | | | |
| **HAZARD: FLOODING** | | | |
| **BARANGAY** | **LIKELIHOOD OF OCCURRENCE** | **EXPOSURE** | **VULNERABILITY** | | **SEVERITY OF CONSEQUENCE** | **RISK** | | **ADAPTIVE CAPACITY** | | | | | |
| **A** | **B** | **C** | **D** | | **E** | **F** | | **G** | | | | | |
| Score | Score | Category | **Wealth** | **Information** | **Infrastructure** | **Technology** | **Institution and Governance** | **Social Capital** |
| **Embarca-dero** | 5 | Sector: Infrastructure Area: Road  Indicator: 180 meters farm to market road unpaved | 110 meters Farm to market road is located in low lying area made of earth | | 1 | 5 | low | **Moderate (2)** Donations, NGA, Subsidy from NGOs, IRA, BDRRM Fund, MDRRM Fund, 20% Dev't. Fund | **High (1)** Brochures, Information Education Campaign, Trainings/ Seminars, Hazard Maps, Bantay Barangay, Barangay Assemblies | **Moderate (2)** telecommuni-cations, Flood control facility, drainage canals | **Moderate (2)** Retrofitting of existing structure | **High (1)** Contingency Plan, CLUP/ Zoning Ordinance, MDRRMP | **High (1)** DPWH, CSO, LGU & PNP Enforce-ment through Trained staff, knowledge-able populace/ residents regarding hazards, |
| **Guesang** | 5 | Sector: Social Area: Education Indicator: Guesang Elementary School | Guesang Elementary School is located in low lying area. School building is made of mixed materials and not hazard resilient. | | 1 | 5 | low | **Moderate (2)** Donations, NGA, Subsidy from NGOs, IRA, BDRRM Fund, MDRRM Fund, Local School Board Fund | **High (1)** Brochures, Information Education Campaign, Trainings/ Seminars, Hazard Maps, Bantay Barangay, Barangay Assemblies | **Moderate (2)** telecommuni-cations, School Buildings in good condition (elevated), | **High (1)** Gadgets, television, radio, online broadcasting, print media | **High (1)** Contingency Plan, CLUP/Zoning Ordinance, MDRRMP, Local School Board Plan, Schools Improvement Plan | **High (1)** DepEd, CSO, LGU & PNP Enforce-ment through Trained staff, school disaster focal persons |
| 5 | Sector: Infrastructure Area: Road  Indicator: 4.443 kms barangay road unpaved | 1.140 km Barangay road is located in low lying area made of earth | | 1 | 5 | low | **Moderate (2)** Donations, NGA, Subsidy from NGOs, IRA, BDRRM Fund, MDRRM Fund, 20% Dev't. Fund | **High (1)** Brochures, Information Education Campaign, Trainings/ Seminars, Hazard Maps, Bantay Barangay, Barangay Assemblies | **Moderate (2)** telecommuni-cations, Flood control facility, drainage canals | **Moderate (2)** Retrofitting of existing structure | **High (1)** Contingency Plan, CLUP/ Zoning Ordinance, MDRRMP | **High (1)** DPWH, CSO, LGU & PNP Enforce-ment through Trained staff, knowledge- able populace/ residents regarding hazards, |
| **Guiguilo-nen** | 5 | Sector: Infrastructure Area: Road  Indicator: 182 meters barangay road unpaved | Barangay road is located in low lying area and made of earth. | | 1 | 5 | low | **Moderate (2)** Donations, NGA, Subsidy from NGOs, IRA, BDRRM Fund, MDRRM Fund, 20% Dev't. Fund | **High (1)** Brochures, Information Education Campaign, Trainings/ Seminars, Hazard Maps, Bantay Barangay, Barangay Assemblies | **Moderate (2)** telecommuni-cations, Flood control facility, drainage canals | **Moderate (2)** Retrofitting of existing structure | **High (1)** Contingency Plan, CLUP/ Zoning Ordinance, MDRRMP | **High (1)** DPWH, CSO, LGU & PNP Enforce-ment through Trained staff, knowledge-able populace/ residents regarding hazards, |
| **Inlambo** | 5 | Sector: Social Area: Education Indicator: Inlambo Elementary School | Inlambo Elementary School is located in low lying area. School building is made of mixed materials and not hazard resistant design. | | 1 | 5 | low | **Moderate (2)** Donations, NGA, Subsidy from NGOs, IRA, BDRRM Fund, MDRRM Fund, Local School Board Fund | **High (1)** Brochures, Information Education Campaign, Trainings/ Seminars, Hazard Maps, Bantay Barangay, Barangay Assemblies | **Moderate (2)** telecommuni-cations, School Buildings in good condition (elevated), | **High (1)** Gadgets, television, radio, online broadcasting, print media | **High (1)** Contingency Plan, CLUP/Zoning Ordinance, MDRRMP, Local School Board Plan, Schools Improvement Plan | **High (1)** DepEd, CSO, LGU & PNP Enforce-ment through Trained staff, school disaster focal persons |

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| Table 10.3 **CRITICAL FACILITIES EXPOSURE TABLE, MUNICIPALITY OF MANGALDAN** | | | | | | | | | | | | | | | | | | | | | | | | | | |
| **HAZARD: FLOODING** | | | | | |
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| **BARANGAY** | **LIKELIHOOD OF OCCURRENCE** | **EXPOSURE** | | **VULNERABILITY** | | | **SEVERITY OF CONSEQUENCE** | | **RISK** | | | | **ADAPTIVE CAPACITY** | | | | | | | | | | | |
| **A** | **B** | **C** | | **D** | | | **E** | | **F** | | | | **G** | | | | | | | | | | | |
| Score | | Score | Category | | | **Wealth** | | **Information** | | **Infrastructure** | | **Technology** | | **Institution and Governance** | | **Social Capital** | |
| **Inlambo** | 5 | Sector: Infrastructure Area: Road  Indicator: 2.166 km barangay road unpaved | | 418 meters Inlambo barangay road is located in low lying area and made of earth | | | 1 | | 5 | low | | | **Moderate (2)** Donations, NGA, Subsidy from NGOs, IRA, BDRRM Fund, MDRRM Fund, 20% Dev't. Fund | | **High (1)** Brochures, Information Education Campaign, Trainings/ Seminars,  Hazard Maps, Bantay Barangay, Barangay Assemblies | | **Moderate (2)** telecommu-  nications, Flood control facility, drainage canals | | **Moderate (2)** Retrofitting of existing structure | | **High (1)** Contingency Plan, CLUP/ Zoning Ordinance, MDRRMP | | **High (1)** DPWH, CSO, LGU & PNP Enforce-ment through Trained staff, knowledge-able populace/ residents regarding hazards, | |
| **Lanas** | 5 | Sector: Social Area: Education Indicator: Lanas Elementary School | | Lanas Elementary School is located in low lying area and easily flooded. | | | 1 | | 5 | low | | | **Moderate (2)** Donations, NGA, Subsidy from NGOs, IRA, BDRRM Fund, MDRRM Fund, Local School Board Fund | | **High (1)** Brochures, Information Education Campaign, Trainings/ Seminars, Hazard Maps, Bantay Barangay, Barangay Assemblies | | **Moderate (2)** telecommu-  nications, School Buildings in good condition (elevated), | | **High (1)** Gadgets, television, radio, online broadcasting, print media | | **High (1)** Contingency Plan, CLUP/Zoning Ordinance, MDRRMP,  Local School Board Plan, Schools Improvement Plan | | **High (1)** DepEd, CSO, LGU & PNP Enforce-ment through Trained staff, school disaster focal persons | |
| 5 | Sector: Infrastructure Area: Road Indicator: 2.620 km barangay road made unpaved | | 2.350 Km Barangay road is located in low lying area and made of earth | | | 1 | | 5 | low | | | **Moderate (2)** Donations, NGA, Subsidy from NGOs, IRA, BDRRM Fund, MDRRM Fund, 20% Dev't. Fund | | **High (1)** Brochures, Information Education Campaign, Trainings/ Seminars, Hazard Maps, Bantay Barangay, Barangay Assemblies | | **Moderate (2)**  telecommu-nications, Flood control facility, drainage canals | | **Moderate (2)** Retrofitting of existing structure | | **High (1)** Contingency Plan, CLUP/ Zoning Ordinance, MDRRMP | | **High (1)** DPWH, CSO, LGU & PNP Enforce-ment through Trained staff, knowledge-able populace/ residents regarding hazards, | |
| **Landas** | 5 | Sector: Infrastructure Area: Road  Indicator: 200 meters barangay road unpaved | | Riverside Road is located in low lying area and made of earth | | | 1 | | 5 | low | | | **Moderate (2)** Donations, NGA, Subsidy from NGOs, IRA, BDRRM Fund, MDRRM Fund, 20% Dev't. Fund | | **High (1)** Brochures, Information Education Campaign, Trainings/ Seminars, Hazard Maps, Bantay Barangay, Barangay Assemblies | | **Moderate (2)** telecommu-nications, Flood control facility, drainage canals | | **Moderate (2)** Retrofitting of existing structure | | **High (1)** Contingency Plan, CLUP/ Zoning Ordinance, MDRRMP | | **High (1)** DPWH, CSO, LGU & PNP Enforce-ment through Trained staff, knowledge-able populace/ residents regarding hazards, | |
| **Maasin** | 5 | Sector: Social Area: Health Indicator: Barangay Health Station | | Barangay Health Station is located in low lying area and easily flooded. | | | 1 | | 5 | low | | | **Moderate (2)** Donations, NGA, Subsidy from NGOs, IRA, BDRRM Fund, MDRRM Fund | | **High (1)** Brochures, Information Education Campaign, Trainings/ Seminars, Hazard Maps, Bantay Barangay, Barangay Assemblies | | **Moderate (2)** telecommu-nications, Flood control facility, drainage canals | | **Moderate (2)** Retrofitting of existing structure | | **High (1)** Contingency Plan, CLUP/Zoning Ordinance, Municipal Disaster Plan, Peace & Order Plan, Barangay Disaster Plan | | **High (1)**  CSO, LGU & PNP Enforce-ment through Trained staff, knowledge-able populace/ residents regarding hazards, | |
| 5 | Sector: Social Area: Education Indicator: Maasin Elementary School | | Maasin Elementary School is located in low lying area and easily flooded Some of the school buildings are made of mixed materials. | | | 1 | | 5 | low | | | **Moderate (2)** Donations, NGA, Subsidy from NGOs, IRA, BDRRM Fund, MDRRM Fund, Local School Board Fund | | **High (1)** Brochures, Information Education Campaign, Trainings/ Seminars, Hazard Maps, Bantay Barangay, Barangay Assemblies | | **Moderate (2)** telecommu-nications, School Buildings in good condition (elevated), | | **High (1)** Gadgets, television, radio, online broadcasting, print media | | **High (1)** Contingency Plan, CLUP/Zoning Ordinance, MDRRMP,  Local School Board Plan, Schools Improvement Plan | | **High (1)** DepEd, CSO, LGU & PNP Enforce-ment through Trained staff, school disaster focal persons | |

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| Table 10.3 **CRITICAL FACILITIES EXPOSURE TABLE, MUNICIPALITY OF MANGALDAN** | | | | | | | | | | | | | | | | |  | |  | |  | |  | |
| **HAZARD: FLOODING** | | |  | |  | |  | | |  |  | |  | |  | |  | |  | |  | |  | |
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| **BARANGAY** | **LIKELIHOOD OF OCCURRENCE** | **EXPOSURE** | | **VULNERABILITY** | | **SEVERITY OF CONSEQUENCE** | | **RISK** | | | | **ADAPTIVE CAPACITY** | | | | | | | | | | | |
| **A** | **B** | **C** | | **D** | | **E** | | **F** | | | | **G** | | | | | | | | | | | |
| Score | | Score | Category | | | **Wealth** | | **Information** | | **Infrastructure** | | **Technology** | | **Institution and Governance** | | **Social Capital** | |
| **Maasin** | 5 | Sector: Infrastructure Area: Road  Indicator: 500 meters barangay road unpaved | | Maasin barangay road is located in low lying area and easily flooded | | 1 | | 5 | low | | | **Moderate (2)** Donations, NGA, Subsidy from NGOs, IRA, BDRRM Fund, MDRRM Fund, 20% Dev't. Fund | | **High (1)** Brochures, Information Education Campaign, Trainings/ Seminars, Hazard Maps, Bantay Barangay, Barangay Assemblies | | **Moderate (2)** telecommunications, Flood control facility, drainage canals | | **Moderate (2)** Retrofitting  of existing structure | | **High (1)** Contingency Plan, CLUP/ Zoning Ordinance, MDRRMP | | **High (1)** DPWH, CSO, LGU & PNP Enforcement through  Trained staff, knowledge-able populace/ residents regarding hazards, | |
| **Macayug** | 5 | Sector: Social Area: Health Indicator: Barangay Health Station | | Barangay Health Station is located in low lying area and easily flooded. | | 1 | | 5 | low | | | **Moderate (2)** Donations, NGA, Subsidy from NGOs, IRA, BDRRM Fund, MDRRM Fund | | **High (1)** Brochures, Information Education Campaign, Trainings/ Seminars, Hazard Maps, Bantay Barangay, Barangay Assemblies | | **Moderate (2)** telecommunications, Flood control facility, drainage canals | | **Moderate (2)** Retrofitting  of existing structure | | **High (1)** Contingency Plan, CLUP/Zoning Ordinance, Municipal Disaster Plan, Peace & Order Plan, Barangay Disaster Plan | | **High (1)**  CSO, LGU & PNP Enforcement through  Trained staff, knowledge-able populace/ residents regarding hazards, | |
| 5 | Sector: Social Area: Education Indicator: Macayug Elementary School | | Macayug Elementary School is located in low lying area and easily flooded. School buildings are made of mixed materials and not hazard resistant. | | 1 | | 5 | low | | | **Moderate (2)** Donations, NGA, Subsidy from NGOs, IRA, BDRRM Fund, MDRRM Fund, Local School Board Fund | | **High (1)** Brochures, Information Education Campaign, Trainings/ Seminars, Hazard Maps, Bantay Barangay, Barangay Assemblies | | **Moderate (2)** telecommunications, School Buildings in good condition (elevated), | | **High (1)** Gadgets, television, radio, online broadcasting, print media | | **High (1)** Contingency Plan, CLUP/Zoning Ordinance, MDRRMP, Local School Board Plan, Schools Improvement Plan | | **High (1)** DepEd, CSO, LGU & PNP Enforcement through  Trained staff, school disaster focal persons | |
| **Navaluan** | 5 | Sector: Social Area: Health Indicator: Barangay Health Station | | Barangay Health Station is located in low lying area and easily flooded. | | 1 | | 5 | low | | | **Moderate (2)** Donations, NGA, Subsidy from NGOs, IRA, BDRRM Fund, MDRRM Fund | | **High (1)** Brochures, Information Education Campaign, Trainings/ Seminars, Hazard Maps, Bantay Barangay, Barangay Assemblies | | **Moderate (2)** telecommunications, Flood control facility, drainage canals | | **Moderate (2)** Retrofitting of existing structure | | **High (1)** Contingency Plan, CLUP/Zoning Ordinance, Municipal Disaster Plan, Peace & Order Plan, Barangay Disaster Plan | | **High (1)**  CSO, LGU & PNP Enforcement through  Trained staff, knowledge-able populace/ residents regarding hazards, | |
| 5 | Sector: Social Area: Education Indicator: Navaluan Elementary School | | Navaluan Elementary School is located in low lying area. And some school buildings are made of mixed materials and not hazard resilient | | 1 | | 5 | low | | | **Moderate (2)** Donations, NGA, Subsidy from NGOs, IRA, BDRRM Fund, MDRRM Fund, Local School Board Fund | | **High (1)** Brochures, Information Education Campaign, Trainings/ Seminars, Hazard Maps, Bantay Barangay, Barangay Assemblies | | **Moderate (2)** telecommunications, School Buildings in good condition (elevated), | | **High (1)** Gadgets, television, radio, online broadcasting, print media | | **High (1)** Contingency Plan, CLUP/Zoning Ordinance, MDRRMP, Local School Board Plan, Schools Improvement Plan | | **High (1)** DepEd, CSO, LGU & PNP Enforcement through  Trained staff, school disaster focal persons | |
| 5 | Sector: Infrastructure Area: Road Indicator: 500 meters unpaved farm to market road | | 420 meters Farm to Market Road is located in low lying area and made of earth. Impassable during flood. | | 1 | | 5 | low | | | **Moderate (2)** Donations, NGA, Subsidy from NGOs, IRA, BDRRM Fund, MDRRM Fund, 20% Dev't. Fund | | **High (1)** Brochures, Information Education Campaign, Trainings/ Seminars, Hazard Maps, Bantay Barangay, Barangay Assemblies | | **Moderate (2)** telecommunications, Flood control facility, drainage canals | | **Moderate (2)** Retrofitting  of existing structure | | **High (1)** Contingency Plan, CLUP/ Zoning Ordinance, MDRRMP | | **High (1)** DPWH, CSO, LGU & PNP Enforcement through  Trained staff, knowledge-able populace/ residents regarding hazards, | |

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| Table 10.3 **CRITICAL FACILITIES EXPOSURE TABLE, MUNICIPALITY OF MANGALDAN** | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | |
| **HAZARD: FLOODING** | | | |
| **BARANGAY** | **LIKELIHOOD OF OCCURRENCE** | **EXPOSURE** | | | | **VULNERABILITY** | | | **SEVERITY OF CONSEQUENCE** | | | **RISK** | | | | | | | | **ADAPTIVE CAPACITY** | | | | | | | | | | | | | | | | | | | | | | | | | | | | |
| **A** | **B** | **C** | | | | **D** | | | **E** | | | **F** | | | | | | | | **G** | | | | | | | | | | | | | | | | | | | | | | | | | | | | |
| Score | | | Score | | | Category | | | | | **Wealth** | | | | **Information** | | | | | **Infrastructure** | | | | | **Technology** | | | | | **Institution and Governance** | | | | | **Social Capital** | | | | |
| **Nibaliw** | 5 | Sector: Social Area: Health Indicator: Barangay Health Station | | | | Barangay Health Station is located in low lying area and easily flooded. | | | 1 | | | 5 | | | low | | | | | **Moderate (2)** Donations, NGA, Subsidy from NGOs, IRA, BDRRM Fund, MDRRM Fund | | | | **High (1)** Brochures, Information Education Campaign, Trainings/ Seminars, Hazard Maps, Bantay Barangay, Barangay Assemblies | | | | | **Moderate (2)** telecommuni-cations,  Flood control facility, drainage canals | | | | | **Moderate (2)** Retrofitting  of existing structure | | | | | **High (1)** Contingency Plan, CLUP/Zoning Ordinance, Municipal Disaster Plan, Peace & Order Plan, Barangay Disaster Plan | | | | | **High (1)**  CSO, LGU &PNP Enforcement through Trained staff, knowledge-able populace/ residents regarding hazards, | | | | |
| 5 | Sector: Social Area: Education Indicator: Nibaliw Elementary School | | | | Nibaliw Elementary School is located in low lying area. And some school buildings are made of mixed materials and not hazard resilient | | | 1 | | | 5 | | | low | | | | | **Moderate (2)** Donations, NGA, Subsidy from NGOs, IRA, BDRRM Fund, MDRRM Fund, Local School Board Fund | | | | **High (1)** Brochures, Information Education Campaign, Trainings/ Seminars, Hazard Maps, Bantay Barangay, Barangay Assemblies | | | | | **Moderate (2)** telecommuni-cations,  School Buildings in good condition (elevated), | | | | | **High (1)** Gadgets, television, radio, online broadcasting, print media | | | | | **High (1)** Contingency Plan, CLUP/Zoning Ordinance, MDRRMP, Local School Board Plan, Schools Improvement Plan | | | | | **High (1)** DepEd, CSO, LGU & PNP Enforcement through Trained staff, school disaster focal persons | | | | |
| 5 | Sector: Infrastructure Area: Road Indicator: 650 meters barangay road | | | | 420 meters barangay Road is located in low lying area made of gravel. Impassable during flood. | | | 1 | | | 5 | | | low | | | | | **Moderate (2)** Donations, NGA, Subsidy from NGOs, IRA, BDRRM Fund, MDRRM Fund, 20% Dev't. Fund | | | | **High (1)** Brochures, Information Education Campaign, Trainings/ Seminars, Hazard Maps, Bantay Barangay, Barangay Assemblies | | | | | **Moderate (2)** telecommuni-cations,  Flood control facility, drainage canals | | | | | **Moderate (2)** Retrofitting  of existing structure | | | | | **High (1)** Contingency Plan, CLUP/ Zoning Ordinance, MDRRMP | | | | | **High (1)** DPWH, CSO, LGU & PNP Enforcement through Trained staff, knowledge-able populace/ residents regarding hazards, | | | | |
| **Osiem** | 5 | Sector: Infrastructure Area: Road  Indicator: 470 meters barangay road unpaved | | | | Osiem barangay road is located in low lying area and made of earth. | | | 1 | | | 5 | | | low | | | | | **Moderate (2)** Donations, NGA, Subsidy from NGOs, IRA, BDRRM Fund, MDRRM Fund, 20% Dev't. Fund | | | | **High (1)** Brochures, Information Education Campaign, Trainings/ Seminars, Hazard Maps, Bantay Barangay, Barangay Assemblies | | | | | **Moderate (2)** telecommunications,  Flood control facility, drainage canals | | | | | **Moderate (2)** Retrofitting of existing structure | | | | | **High (1)** Contingency Plan, CLUP/ Zoning Ordinance, MDRRMP | | | | | **High (1)** DPWH, CSO, LGU & PNP Enforcement through Trained staff, knowledge-able populace/ residents regarding hazards, | | | | |
| **Palua** | 5 | Sector: Social Area: Health Indicator: Barangay Health Station | | | | Barangay Health Station is located in low lying area and easily flooded. | | | 1 | | | 5 | | | low | | | | | **Moderate (2)** Donations, NGA, Subsidy from NGOs, IRA, BDRRM Fund, MDRRM Fund | | | | **High (1)** Brochures, Information Education Campaign, Trainings/ Seminars, Hazard Maps, Bantay Barangay, Barangay Assemblies | | | | | **Moderate (2)** telecommuni-cations,  Flood control facility, drainage canals | | | | | **Moderate (2)** Retrofitting  of existing structure | | | | | **High (1)** Contingency Plan, CLUP/Zoning Ordinance, Municipal Disaster Plan, Peace & Order Plan, Barangay Disaster Plan | | | | | **High (1)**  CSO, LGU & PNP Enforcement through Trained staff, knowledge-able populace/ residents regarding hazards, | | | | |
| 5 | Sector: Infrastructure Area: Road Indicator: 2.120 km unpaved barangay road | | | | 1.600 km barangay road is located in low lying area and made of earth. Impassable during flood. | | | 1 | | | 5 | | | low | | | | | **Moderate (2)** Donations, NGA, Subsidy from NGOs, IRA, BDRRM Fund, MDRRM Fund, 20% Dev't. Fund | | | | **High (1)** Brochures, Information Education Campaign, Trainings/ Seminars, Hazard Maps, Bantay Barangay, Barangay Assemblies | | | | | **Moderate (2)** telecommuni-cations,  Flood control facility, drainage canals | | | | | **Moderate (2)** Retrofitting  of existing structure | | | | | **High (1)** Contingency Plan, CLUP/ Zoning Ordinance, MDRRMP | | | | | **High (1)** DPWH, CSO, LGU & PNP Enforcement through Trained staff, knowledge-able populace/ residents regarding hazards, | | | | |
| **Poblacion** | 5 | Sector: Social Area: Health Indicator: Urgent Care Clinic | | | | Urgent Care Clinic is located in low lying area and easily flooded | | | 1 | | | 5 | | | low | | | | | **Moderate (2)** Donations, NGA, Subsidy from NGOs, IRA, BDRRM Fund, MDRRM Fund | | | | **High (1)** Brochures, Information Education Campaign, Trainings/ Seminars, Hazard Maps, Bantay Barangay, Barangay Assemblies | | | | | **Moderate (2)** telecommuni-cations,  Flood control facility, drainage canals | | | | | **Moderate (2)** Retrofitting  of existing structure | | | | | **High (1)** Contingency Plan, CLUP/Zoning Ordinance, Municipal Disaster Plan, Peace & Order Plan, Barangay Disaster Plan | | | | | **High (1)**  CSO, LGU & PNP Enforcement through Trained staff, knowledge-able populace/ residents regarding hazards, | | | | |
| Table 10.3 **CRITICAL FACILITIES EXPOSURE TABLE, MUNICIPALITY OF MANGALDAN** | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | |  | | | | |
| **HAZARD: FLOODING** | | | | | | | | | | | | | | | | | | | | | | | | | |  | | | | |  | | | | |  | | | | |  | | | | |  | | | | |
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| **BARANGAY** | **LIKELIHOOD OF OCCURRENCE** | **EXPOSURE** | | | | **VULNERABILITY** | | | **SEVERITY OF CONSEQUENCE** | | | **RISK** | | | | | | | | **ADAPTIVE CAPACITY** | | | | | | | | | | | | | | | | | | | | | | | | | | | | |
| **A** | **B** | **C** | | | | **D** | | | **E** | | | **F** | | | | | | | | **G** | | | | | | | | | | | | | | | | | | | | | | | | | | | | |
| Score | | | Score | | | Category | | | | | **Wealth** | | | | **Information** | | | | | **Infrastructure** | | | | | **Technology** | | | | | **Institution and Governance** | | | | | **Social Capital** | | | | |
| **Poblacion** | 5 | Sector: Social Area: Education Indicator: Mangaldan Central School | | | | Mangaldan Central School is located in low lying area and easily flooded | | | 1 | | | 5 | | | low | | | | | **Moderate (2)** Donations, NGA, Subsidy from NGOs, IRA, BDRRM Fund, MDRRM Fund, LSB Fund | | | | **High (1)** Brochures, Information Education Campaign, Trainings/ Seminars, Hazard Maps, Bantay Barangay, Barangay Assemblies | | | | | **Moderate (2)** telecommuni-cations,  School Buildings in good condition (elevated), | | | | | **High (1)** Gadgets, television, radio, online broadcasting, print media | | | | | **High (1)** Contingency Plan, CLUP/Zoning Ordinance, MDRRMP, Local School Board Plan, Schools Improvement Plan | | | | | **High (1)** DepEd, CSO, LGU & PNP Enforcement through Trained staff, school disaster focal persons | | | | |
| 5 | Sector: Infrastructure Area: Road Indicator: 500 m of dilapidated road (Duyala St.) | | | | 400 meters Duyala Road is located in low lying area with pothole and pavement crack. | | | 1 | | | 5 | | | low | | | | | **Moderate (2)** Donations, NGA, Subsidy from NGOs, IRA, BDRRM Fund, MDRRM Fund, 20% Dev't. Fund | | | | **High (1)** Brochures, Information Education Campaign, Trainings/ Seminars, Hazard Maps, Bantay Barangay, Barangay Assemblies | | | | | **Moderate (2)** telecommuni-cations,  Flood control facility, drainage canals | | | | | **Moderate (2)** Retrofitting  of existing structure | | | | | **High (1)** Contingency Plan, CLUP/ Zoning Ordinance, MDRRMP | | | | | **High (1)** DPWH, CSO, LGU & PNP Enforcement through Trained staff, knowledge-able populace/ residents regarding hazards, | | | | |
| **Pogo** | 5 | Sector: Social Area: Health Indicator: Barangay Health Station | | | | Barangay Health Station is located in low lying area and easily flooded. | | | 1 | | | 5 | | | low | | | | | **Moderate (2)** Donations, NGA, Subsidy from NGOs, IRA, BDRRM Fund, MDRRM Fund | | | | **High (1)** Brochures, Information Education Campaign, Trainings/ Seminars, Hazard Maps, Bantay Barangay, Barangay Assemblies | | | | | **Moderate (2)** telecommuni-cations,  Flood control facility, drainage canals | | | | | **Moderate (2)** Retrofitting  of existing structure | | | | | **High (1)** Contingency Plan, CLUP/Zoning Ordinance, Municipal Disaster Plan, Peace & Order Plan, Barangay Disaster Plan | | | | | **High (1)**  CSO, LGU & PNP Enforcement through Trained staff, knowledge-able populace/ residents regarding hazards, | | | | |
| 5 | Sector: Social Area: Education Indicator: Pogo-Palua Elementary School | | | | Pogo-Palua Elementary School is located in low lying area. And some school buildings are made of mixed materials and not hazard resilient | | | 1 | | | 5 | | | low | | | | | **Moderate (2)** Donations, NGA, Subsidy from NGOs, IRA, BDRRM Fund, MDRRM Fund, LSB Fund | | | | **High (1)** Brochures, Information Education Campaign, Trainings/ Seminars, Hazard Maps, Bantay Barangay, Barangay Assemblies | | | | | **Moderate (2)** telecommuni-cations,  School Buildings in good condition (elevated), | | | | | **High (1)** Gadgets, television, radio, online broadcasting, print media | | | | | **High (1)** Contingency Plan, CLUP/Zoning Ordinance, MDRRMP, Local School Board Plan, Schools Improvement Plan | | | | | **High (1)** DepEd, CSO, LGU & PNP Enforcement through Trained staff, school disaster focal persons | | | | |
| 5 | Sector: Infrastructure Area: Road Indicator: 1.210 km unpaved barangay road | | | | 950 meters barangay road is located in low lying area and made of earth. Impassable during flood. | | | 1 | | | 5 | | | low | | | | | **Moderate (2)** Donations, NGA, Subsidy from NGOs, IRA, BDRRM Fund, MDRRM Fund, 20% Dev't. Fund | | | | **High (1)** Brochures, Information Education Campaign, Trainings/ Seminars, Hazard Maps, Bantay Barangay, Barangay Assemblies | | | | | **Moderate (2)** telecommuni-cations,  Flood control facility, drainage canals | | | | | **Moderate (2)** Retrofitting  of existing structure | | | | | **High (1)** Contingency Plan, CLUP/ Zoning Ordinance, MDRRMP | | | | | **High (1)** DPWH, CSO, LGU & PNP Enforcement through Trained staff, knowledge-able populace/ residents regarding hazards, | | | | |
| **Salaan** | 5 | Sector: Social Area: Health Indicator: Barangay Health Station | | | | Barangay Health Station is located in low lying area and easily flooded. | | | 1 | | | 5 | | | low | | | | | **Moderate (2)** Donations, NGA, Subsidy from NGOs, IRA, BDRRM Fund, MDRRM Fund | | | | **High (1)** Brochures, Information Education Campaign, Trainings/ Seminars, Hazard Maps, Bantay Barangay, Barangay Assemblies | | | | | **Moderate (2)** telecommuni-cations,  Flood control facility, drainage canals | | | | | **Moderate (2)** Retrofitting  of existing structure | | | | | **High (1)** Contingency Plan, CLUP/Zoning Ordinance, Municipal Disaster Plan, Peace & Order Plan, Barangay Disaster Plan | | | | | **High (1)**  CSO, LGU  & PNP Enforcement through Trained staff, knowledge-able populace/ residents regarding hazards, | | | | |
| 5 | Sector: Social Area: Education Indicator: Salaan Elementary School | | | | Salaan Elementary School is located in low lying area. And some school buildings are made of mixed materials and not hazard resilient | | | 1 | | | 5 | | | low | | | | | **Moderate (2)** Donations, NGA, Subsidy from NGOs, IRA, BDRRM Fund, MDRRM Fund, Local School Board Fund | | | | **High (1)**Brochures, Information Education Campaign, Trainings/ Seminars, Hazard Maps, Bantay Barangay, Barangay Assemblies | | | | | **Moderate (2)** telecommuni-cations, School Buildings in good condition (elevated), | | | | | **High (1)** Gadgets, television, radio, online broadcasting, print media | | | | | **High (1)** Contingency Plan, CLUP/Zoning Ordinance, MDRRMP, Local School Board Plan, Schools Improvement Plan | | | | | **High (1)** DepEd, CSO, LGU & PNP Enforcement through Trained staff, school disaster focal persons | | | | |
| Table 10.3 **CRITICAL FACILITIES EXPOSURE TABLE, MUNICIPALITY OF MANGALDAN** | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | |  | | | | |  | | | | |  | | | | |
| **HAZARD: FLOODING** | | | | | | | | | | | | | | | | | | | | | | | | | | |  | | | | |  | | | | |  | | | | |  | | | | |  | | | | |
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| **BARANGAY** | **LIKELIHOOD OF OCCURRENCE** | | **EXPOSURE** | | | | | **VULNERABILITY** | | **SEVERITY OF CONSEQUENCE** | | | **RISK** | | | | | | | | | **ADAPTIVE CAPACITY** | | | | | | | | | | | | | | | | | | | | | | | | | | | |
| **A** | **B** | | **C** | | | | | **D** | | **E** | | | **F** | | | | | | | | | **G** | | | | | | | | | | | | | | | | | | | | | | | | | | | |
| Score | | | Score | | | | | Category | | | | **Wealth** | | | **Information** | | | | | **Infrastructure** | | | | | **Technology** | | | | | **Institution and Governance** | | | | | **Social Capital** | | | | |
| **Salaan** | 5 | | Sector: Infrastructure Area: Road Indicator: 770 meters unpaved barangay road | | | | | 550 meters Barangay Road is located in low lying area and made of earth. Impassable during flood. | | 1 | | | 5 | | | | | low | | | | **Moderate (2)** Donations, NGA, Subsidy from NGOs, IRA, BDRRM Fund, MDRRM Fund, 20% Dev't. Fund | | | **High (1)** Brochures, Information Education Campaign, Trainings/ Seminars, Hazard Maps, Bantay Barangay, Barangay Assemblies | | | | | **Moderate (2)** telecommuni-cations,  Flood control facility, drainage canals | | | | | **Moderate (2)** Retrofitting  of existing structure | | | | | **High (1)** Contingency Plan, CLUP/ Zoning Ordinance, MDRRMP | | | | | **High (1)** DPWH, CSO, LGU & PNP Enforce-ment through Trained staff, knowledge-able populace/ residents regarding hazards, | | | | |
| **Talogtog** | 5 | | Sector:  Social Area: Health Indicator: Barangay Health Station | | | | | Barangay Health Station is located in low lying area and easily flooded. | | 1 | | | 5 | | | | | low | | | | **Moderate (2)** Donations, NGA, Subsidy from NGOs, IRA, BDRRM Fund, MDRRM Fund | | | **High (1)** Brochures, Information Education Campaign, Trainings/ Seminars, Hazard Maps, Bantay Barangay, Barangay Assemblies | | | | | **Moderate (2)** telecommuni-cations,  Flood control facility, drainage canals | | | | | **Moderate (2)** Retrofitting  of existing structure | | | | | **High (1)** Contingency Plan, CLUP/Zoning Ordinance, Municipal Disaster Plan, Peace & Order Plan, Barangay Disaster Plan | | | | | **High (1)**  CSO, LGU & PNP Enforce-ment through Trained staff, knowledge-able populace/ residents regarding hazards, | | | | |
| 5 | | Sector:  Social Area: Education Indicator: Talogtog-Bateng Elementary School | | | | | Talogtog-Bateng Elementary School is located in low lying area. And some school buildings are made of mixed materials and not hazard resilient | | 1 | | | 5 | | | | | low | | | | **Moderate (2)** Donations, NGA, Subsidy from NGOs, IRA, BDRRM Fund, MDRRM Fund, Local School Board Fund | | | **High (1)** Brochures, Information Education Campaign, Trainings/ Seminars, Hazard Maps, Bantay Barangay, Barangay Assemblies | | | | | **Moderate (2)** telecommuni-cations, School Buildings in good condition (elevated), | | | | | **High (1)** Gadgets, television, radio, online broadcasting, print media | | | | | **High (1)** Contingency Plan, CLUP/Zoning Ordinance, MDRRMP,  Local School Board Plan, Schools Improvement Plan | | | | | **High (1)** DepEd, CSO, LGU & PNP Enforce-ment through Trained staff, school disaster focal persons | | | | |
| 5 | | Sector: Infrastructure Area: Road Indicator:586 meters unpaved barangay  road | | | | | 586 meters barangay Road is located in low lying area and made of earth. Impassable during flood. | | 1 | | | 5 | | | | | low | | | | **Moderate (2)** Donations, NGA, Subsidy from NGOs, IRA, BDRRM Fund, MDRRM Fund, 20% Dev't. Fund | | | **High (1)** Brochures, Information Education Campaign, Trainings/ Seminars, Hazard Maps, Bantay Barangay, Barangay Assemblies | | | | | **Moderate (2)** telecommuni-cations,  Flood control facility, drainage canals | | | | | **Moderate (2)** Retrofitting  of existing structure | | | | | **High (1)** Contingency Plan, CLUP/ Zoning Ordinance, MDRRMP | | | | | **High (1)** DPWH, CSO, LGU & PNP Enforce-ment through Trained staff, knowledge-able populace/ residents regarding hazards, | | | | |
| **Tebag** | 5 | | Sector: Social Area: Health Indicator: Barangay Health Station | | | | | Barangay Health Station is located in low lying area and easily flooded. | | 1 | | | 5 | | | | | low | | | | **Moderate (2)** Donations, NGA, Subsidy from NGOs, IRA, BDRRM Fund, MDRRM Fund | | | **High (1)** Brochures, Information Education Campaign, Trainings/ Seminars, Hazard Maps, Bantay Barangay, Barangay Assemblies | | | | | **Moderate (2)** telecommunications, Flood control facility, drainage canals | | | | | **Moderate (2)** Retrofitting of existing structure | | | | | **High (1)** Contingency Plan, CLUP/Zoning Ordinance, Municipal Disaster Plan, Peace & Order Plan, Barangay Disaster Plan | | | | | **High (1)**  CSO, LGU  & PNP Enforce-ment through Trained staff, knowledge- able populace/ residents regarding hazards, | | | | |
| 5 | | Sector: Social Area: Education Indicator:Tebag Elementary School | | | | | Tebag Elementary School is located in low lying area. And some school building is made of mixed materials and not hazard resilient | | 1 | | | 5 | | | | | low | | | | **Moderate (2)**  Donations, NGA, Subsidy from NGOs, IRA, BDRRM Fund, MDRRM Fund, Local School Board Fund | | | **High (1)** Brochures, Information Education Campaign, Trainings/ Seminars, Hazard Maps, Bantay Barangay, Barangay Assemblies | | | | | **Moderate (2)** telecommunications, School Buildings in good condition (elevated), | | | | | **High (1)** Gadgets, television, radio, online broadcasting, print media | | | | | **High (1)** Contingency Plan, CLUP/Zoning Ordinance, MDRRMP, Local School Board Plan, Schools Improvement Plan | | | | | **High (1)** DepEd, CSO, LGU & PNP Enforce-ment through Trained staff, school disaster focal persons | | | | |

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| Table 10.3 **CRITICAL FACILITIES EXPOSURE TABLE, MUNICIPALITY OF MANGALDAN** | | | | | | | | | | | | | | | | |  | | |  | | |  | | |  | | |
| **HAZARD: FLOODING** | | | | | | | | | | | | | |  | | |  | | |  | | |  | | |  | | |
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| **BARANGAY** | **LIKELIHOOD OF OCCURRENCE** | **EXPOSURE** | | **VULNERABILITY** | **SEVERITY OF CONSEQUENCE** | | **RISK** | | | | **ADAPTIVE CAPACITY** | | | | | | | | | | | | | | | | |
| **A** | **B** | **C** | | **D** | **E** | | **F** | | | | **G** | | | | | | | | | | | | | | | | |
| Score | | Score | | Category | | **Wealth** | | **Information** | | | **Infrastructure** | | | **Technology** | | | **Institution and Governance** | | | **Social Capital** | | |
| **Tebag** | 5 | Sector: Infrastructure Area: Road Indicator: 1.210 unpaved barangay road | | 260 meters barangay Road is located in low lying area and made of earth. Impassable during flood. | 1 | | 5 | | low | | **Moderate (2)** Donations, NGA, Subsidy  from NGOs, IRA, BDRRM Fund, MDRRM Fund,  20% Dev't. Fund | | **High (1)** Brochures, Information Education Campaign, Trainings/ Seminars,  Hazard Maps,  Bantay Barangay, Barangay Assemblies | | | **Moderate (2)** telecommun-ications, Flood control facility, drainage canals | | | **Moderate (2)** Retrofitting  of existing structure | | | **High (1)** Contingency Plan, CLUP/ Zoning Ordinance, MDRRMP | | | **High (1)** DPWH, CSO, LGU  & PNP Enforce-ment through Trained staff, knowledge-able populace/ residents regarding hazards, | | |

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| Table 10.4 **LIFELINE FACILITIES EXPOSURE TABLE, MUNICIPALITY OF MANGALDAN** | | | | | | | | | | | | | | | | | | | | | | | | | | |  | |  | | | |  |
| **HAZARD: FLOODING** | | | | |  | | |  | | |  | | |  |  | |  | | | | |  | | | | |  | |  | | | |  |
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| **BARANGAY** | | **LIKELIHOOD OF OCCURRENCE** | | **EXPOSURE** | VULNERABILITY | | **SEVERITY OF CONSEQUENCE** | | **RISK** | | | | **ADAPTIVE CAPACITY** | | | | | | | | | | | |
| **A** | | **B** | | **C** | **D** | | **E** | | **F** | | | | **G** | | | | | | | | | | | |
| Score | | Score | Category | | | **Wealth** | | | **Information** | | | **Infrastructure** | | | **Technology** | **Institution and Governance** | **Social Capital** |
| **Talogtog** | | 5 | | Sector: Infrastructure Area: Bridge Indicator: 50 meters concreted Mangueragday Bridge | Mangueragday Bridge is located in low lying area and needs rehabilitation/ retrofitting. | | 1 | | 5 | Low | | | **High (1)** CENPELCO, PLDT, LGU | | | **High (1)** Brochures, Information Education Campaign, Trainings/ Seminars, Hazard Maps, Bantay Barangay, Barangay Assemblies | | | **Moderate (2)** Appro-priate design of posts & strategi-cally located | | | **Moderate (2)**  Hazard resistant design | **High (1)** Contingency Plan, CLUP/Zoning Ordinance, Municipal Disaster Plan, Peace & Order Plan, Barangay Disaster Plan | **Moderate (1)**  CSO, LGU & PNP Enforce-ment through Trained staff, CENPELCO and other telecommunication company |
| **Anolid, Banaoang, David, Guesang, Guiguilonen, Inlambo, Lanas, Landas, Maasin, Macayug, Navaluan, Osiem, Poblacion** | | 5 | | Sector: Infrastructure Area: Power Indicator: Electric Posts (CENPELCO) & Telecommunication posts | Electric posts & telecommunication posts are encroaching major transportation network causing great danger during flooding | | 1 | | 5 | Low | | | **High (1)** CENPELCO, PLDT, LGU | | | **High (1)** Brochures, Information Education Campaign, Trainings/ Seminars, Hazard Maps, Bantay Barangay, Barangay Assemblies | | | **Moderate (2)** Appro-priate design of posts & strategic-ally located | | | **Moderate (2)**  Hazard resistant design | **High (1)** Contingency Plan, CLUP/Zoning Ordinance, Municipal Disaster Plan, Peace & Order Plan, Barangay Disaster Plan | **Moderate (1)**  CSO, LGU & PNP Enforce-ment through Trained staff, CENPELCO and other telecommunication company |
| **Instructions:** | |  | | |  | | | | | |  | | | | | | | |  |  | | | | | | |  | |  | | | | |  |  |  |  |  |
| 1. Identify in Column **A** the barangays affected by the hazard based on the overlay of the hazard map and the base exposure map. | | | | | | | | | | | | | | | | | | | | | | | | |
| 2. In column **B**, assign the likelihood of occurrence of the hazard:  Frequent (1-3 years): 6  Moderate (4-10 years): 5  Occasional Slight Chance (11-30 years): 4  Improbable (31 - 100 years): 3  Rare (101-200 years): 2  Very Rare (>200 years): 1 | | | | | | | | | | | | | | | | |  | | | | | | | |
| 3. Using the gathered data and maps, indicate information and values for each Lifeline Facilities exposure and vulnerability indicators, Columns **C** and **D** respectively. | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | |
| 4. In column **E**, assigning the severity of consequence score shall be based on expected magnitude of the hazard (hazard characterization), the extent of exposure  (determined through hazard exposure mapping), and the vulnerabilities of the exposed elements (compiled in the exposure database), the combination of which will be  the basis for determining the severity of consequence rating.  Very High (4):Disruption of service by lasting one week or more (for Municipalities) and one day for Highly Urbanized Areas  High (3): Disruption of service by approximately five days for municipalities and less than 18 hour disruption for highly urbanized area  Moderate (2): Disruption of service by approximately three days for municipalities and less than six hour disruption for highly urbanized areas  Low (1): Disruption of service by approximately one day for municipalities and less than six hour disruption for highly urbanized areas | | | | | | | | | | | | | | | | | | | | | | | | | | | | | |
| 5. In column **F**, compute the risk by multiplying Likelihood of Occurrence Score (Column B) and Severity of Consequences Score (Column E). Based on the derived risk scores and corresponding risk categories, reclassify the risk scores into risk categories.  Low: 1-4  Moderate: 6-10  High: 12-24 | | | | | | | | | | | | | | | | | | | | | | | | |
| 6. In Colum**G**, provide existing adaptive or preventive measures of the municipality/city. | | | | | | | | | | | | | | | | | | | | | | | | |

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| Table 10.5 **URBAN USE EXPOSURE TABLE, MUNICIPALITY OF MANGALDAN** | | | | | | | | | | | | | |  | |  | |  | |  | |  |
| **HAZARD: FLOODING** | | | | |  | |  | |  |  | |  | |  | |  | |  | |  | |  |
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| **BARANGAY** | **LIKELIHOOD OF OCCURRENCE** | **EXPOSURE** | **VULNERABILITY** | **SEVERITY OF CONSEQUENCE** | | **RISK** | | | **ADAPTIVE CAPACITY** | | | | | | | | | | | |
| **A** | **B** | **C** | **D** | **E** | | F | | | **G** | | | | | | | | | | | |
| Score | | Score | | Category | **Wealth** | | **Information** | | **Infrastructure** | | **Technology** | | **Institution and Governance** | | **Social Capital** | |
| **Anolid** | 5 | Sector: Social Area: Population (Residential Settlement) Indicator: 40 residential units belong to informal settler and makeshift housing | 29 residential units are constructed in low lying areas and made of light materials & salvaged/ makeshift materials. | 4 | | 20 | | high | **Moderate (2)** Donations, NGA, Subsidy from NGOs, IRA, BDRRM Fund, MDRRM Fund, AICS Fund, PhilHealth | | **High (1)** Brochures, Information Education Campaign, Trainings/ Seminars, Hazard Maps, Bantay Barangay, Barangay Assemblies | | **Moderate (2)** telecommunications, concreted farm to market roads, Flood control facility, drainage canals | | **High (1)** Gadgets, television, radio, Online Broadcasting, print media | | **High (1)** Contingency Plan, CLUP/Zoning Ordinance, Municipal Disaster Plan, Peace & Order Plan, Barangay Disaster Plan | | **Moderate (2)** CSO, LGU & PNP Enforcement through Trained staff, knowledgeable populace/ residents regarding hazards, | |
| 5 | Sector: Economic Area: Industry Indicator: 95 Business establish-ments | 40 out of 95 or 42.11% business establishments are located in low lying area and easily flooded. | 4 | | 20 | | high | **Moderate (2)** Donations, NGA, LGU, Subsidy from NGOs, | | **High (1)** Brochures, Information Education Campaign, Trainings/ Seminars, Hazard Maps, Bantay Barangay, Barangay Assemblies | | **High (1)** telecommu-nications & roads in good condition and public market operating continuously | | **High (1)** Gadgets, television, radio, online broadcasting, print media | | **High (1)** Contingency Plan, CLUP/Zoning Ordinance, Municipal Disaster Plan, Barangay Disaster Plan | | **Moderate (2)** LGU, Vendors’ Associations, DTI, CSO, TODA, PODA | |
| **Banaoang** | 5 | Sector: Social Area: Population (Residential Settlement) Indicator: 83 residential units belong to informal settler and makeshift housing | 65 residential units are constructed in low lying area and made of light materials and salvaged/ makeshift materials. | 4 | | 20 | | high | **Moderate (2)** Donations, NGA, Subsidy from NGOs, IRA, BDRRM Fund, MDRRM Fund, AICS Fund, PhilHealth | | **High (1)** Brochures, Information Education Campaign, Trainings/ Seminars, Hazard Maps, Bantay Barangay, Barangay Assemblies | | Moderate (2) telecommu-nications, concreted farm to market roads, Flood control facility, drainage canals | | **High (1)** Gadgets, television, radio, Online Broadcasting, print media | | **High (1)** Contingency Plan, CLUP/Zoning Ordinance, Municipal Disaster Plan, Peace & Order Plan, Barangay Disaster Plan | | **Moderate (2)** CSO, LGU & PNP Enforcement through Trained staff, knowledgeable populace/ residents regarding hazards, | |
| **Banaoang** | 5 | Sector: Economic Area: IndustryIndicator: 29 Business establish-ments | 8 out of 29 or 27.59% business establishments are located in low lying area and easily flooded. | 4 | | 20 | | high | **Moderate (2)** Donations, NGA, LGU, Subsidy from NGOs, | | **High (1)** Brochures, Information Education Campaign, Trainings/ Seminars, Hazard Maps, Bantay Barangay, Barangay Assemblies | | High (1) telecommu-nications & roads in good condition and public market operating continuously | | **High (1)** Gadgets, television, radio, online broadcasting, print media | | **High (1)** Contingency Plan, CLUP/Zoning Ordinance, Municipal Disaster Plan, Barangay Disaster Plan | | **Moderate (2)** LGU, Vendors’ Associations, DTI, CSO, TODA, PODA | |
| **Bantayan** | 5 | Sector: Social Area: Population (Residential Settlement) Indicator: 26 residential units belong to informal settler and makeshift housing | 12 residential units are constructed in low lying area and made of light materials and salvaged/ makeshift materials. | 4 | | 20 | | high | **Moderate (2)** Donations, NGA, Subsidy from NGOs, IRA, BDRRM Fund, MDRRM Fund, AICS Fund, PhilHealth | | **High (1)** Brochures, Information Education Campaign, Trainings/ Seminars, Hazard Maps, Bantay Barangay, Barangay Assemblies | | Moderate(2) telecommu- nications, concreted farm to market roads, Flood control facility, drainage canals | | **High (1)** Gadgets, television, radio, Online Broadcasting, print media | | **High (1)** Contingency Plan, CLUP/Zoning Ordinance, Municipal Disaster Plan, Peace & Order Plan, Barangay Disaster Plan | | **Moderate (2)** CSO, LGU & PNP Enforcement through Trained staff, knowledgeable populace/ residents regarding hazards, | |

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| Table 10.5 **URBAN USE EXPOSURE TABLE, MUNICIPALITY OF MANGALDAN** | | | | | | | | | | | | | | | | | | | | |  | | |  | | |  | | |  | | |  | |
| **HAZARD: FLOODING** | | | | | |  | | |  | | |  | | |  | | |  | | |  | | |  | | |  | | |  | | |  | |
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| **BARANGAY** | **LIKELIHOOD OF OCCURRENCE** | **EXPOSURE** | **VULNERABILITY** | **SEVERITY OF CONSEQUENCE** | | | **RISK** | | | | | **ADAPTIVE CAPACITY** | | | | | | | | | | | | | | | | | | |
| **A** | **B** | **C** | **D** | **E** | | | F | | | | | **G** | | | | | | | | | | | | | | | | | | |
| Score | | | Score | | Category | | | **Wealth** | | | | **Information** | | | **Infrastructure** | | | **Technology** | | | **Institution and Governance** | | | **Social Capital** | | |
| **Bantayan** | 5 | Sector: Economic Area: Industry Indicator: 12 Business establish-ments | 4 out of 12 or 33.33% business establishments are located in low lying area and easily flooded | 4 | | | 20 | | high | | | **Moderate (2)** Donations, NGA, LGU, Subsidy from NGOs, | | | | **High (1)** Brochures, Information Education Campaign, Trainings/ Seminars, Hazard Maps, Bantay Barangay, Barangay Assemblies | | | **High (1)** telecommu-nications & roads in good condition and public market operating continuously | | | **High (1)** Gadgets, television, radio, online broadcasting, print media | | | **High (1)** Contingency Plan, CLUP/Zoning Ordinance, Municipal Disaster Plan, Barangay Disaster Plan | | | **Moderate (2)** LGU, Vendors’ Associations, DTI, CSO, TODA, PODA | | |
| **Bateng** | 5 | Sector: Social Area: Population (Residential Settlement)Indicator: 20 residential units belong to informal settler and makeshift housing | 18 residential units are constructed in low lying area and made of light materials and salvaged/ makeshift materials. | 4 | | | 20 | | high | | | **Moderate (2)** Donations, NGA, Subsidy from NGOs, IRA, BDRRM Fund, MDRRM Fund, AICS Fund, PhilHealth | | | | **High (1)** Brochures, Information Education Campaign, Trainings/ Seminars, Hazard Maps, Bantay Barangay, Barangay Assemblies | | | **Moderate (2)** telecommu-nications, concreted farm to market roads, Flood control facility, drainage canals | | | **High (1)** Gadgets, television, radio, Online Broadcasting, print media | | | **High (1)** Contingency Plan, CLUP/Zoning Ordinance, Municipal Disaster Plan, Peace & Order Plan, Barangay Disaster Plan | | | **Moderate (2)** CSO, LGU & PNP Enforce-ment through Trained staff, knowledge-able populace/ residents regarding hazards, | | |
| 5 | Sector: Economic Area: Industry Indicator: 16 Business establish-ments | 4 out of 16 or 25% business establishments are located in low lying area and easily flooded | 4 | | | 20 | | high | | | **Moderate (2)** Donations, NGA, LGU, Subsidy from NGOs, | | | | **High (1)** Brochures, Information Education Campaign, Trainings/ Seminars, Hazard Maps, Bantay Barangay, Barangay Assemblies | | | **High (1)** telecommu-nications & roads in good condition and public market operating continuously | | | **High (1)** Gadgets, television, radio, online broadcasting, print media | | | **High (1)** Contingency Plan, CLUP/Zoning Ordinance, Municipal Disaster Plan, Barangay Disaster Plan | | | **Moderate (2)** LGU, Vendors’ Associations, DTI, CSO, TODA, PODA | | |
| **David** | 5 | Sector: Social Area: Population (Residential Settlement) Indicator: 150 residential units belong to informal settler and makeshift housing | 43 residential units are constructed in low lying area and made of light materials and salvaged/ makeshift materials. | 4 | | | 20 | | high | | | **Moderate (2)** Donations, NGA, Subsidy from NGOs, IRA, BDRRM Fund, MDRRM Fund, AICS Fund, PhilHealth | | | | **High (1)** Brochures, Information Education Campaign, Trainings/ Seminars, Hazard Maps, Bantay Barangay, Barangay Assemblies | | | **Moderate (2)** telecommu-nications, concreted farm to market roads, Flood control facility, drainage canals | | | **High (1)** Gadgets, television, radio, Online Broadcasting, print media | | | **High (1)** Contingency Plan, CLUP/Zoning Ordinance, Municipal Disaster Plan, Peace & Order Plan, Barangay Disaster Plan | | | **Moderate (2)** CSO, LGU & PNP Enforcement through Trained staff, knowledgeable populace/ residents regarding hazards, | | |
| **David** | 5 | Sector: Economic Area: IndustryIndicator: 17 Business establish-ments | 7 out of 17 or 41.18% business establishments are located in low lying area and easily flooded. | 4 | | | 20 | | high | | | **Moderate (2)** Donations, NGA, LGU, Subsidy from NGOs, | | | | **High (1)** Brochures, Information Education Campaign, Trainings/ Seminars, Hazard Maps, Bantay Barangay, Barangay Assemblies | | | **High (1)** telecommu-nications & roads in good condition and public market operating continuously | | | **High (1)** Gadgets, television, radio, online broadcasting, print media | | | **High (1)** Contingency Plan, CLUP/Zoning Ordinance, Municipal Disaster Plan, Barangay Disaster Plan | | | **Moderate (2)** LGU, Vendors’ Associations, DTI, CSO, TODA, PODA | | |

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| Table 10.5 **URBAN USE EXPOSURE TABLE, MUNICIPALITY OF MANGALDAN** | | | | | | | | | | | | | | | | | | | | | | |  | | |  | | |  | | |  | | |  | |
| **HAZARD: FLOODING** | | |  | | | | |  | | |  | | |  | | |  | | |  | | |  | | |  | | |  | | |  | | |  | |
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| **BARANGAY** | **LIKELIHOOD OF OCCURRENCE** | | **EXPOSURE** | **VULNERABILITY** | **SEVERITY OF CONSEQUENCE** | | | **RISK** | | | | | | **ADAPTIVE CAPACITY** | | | | | | | | | | | | | | | | | |
| **A** | **B** | | **C** | **D** | **E** | | | F | | | | | | **G** | | | | | | | | | | | | | | | | | |
| Score | | | Score | | | Category | | | **Wealth** | | | **Information** | | | **Infrastructure** | | | **Technology** | | | **Institution and Governance** | | | **Social Capital** | | |
| **Embarca-dero** | 5 | | Sector: Social Area: Population (Residential Settlement) Indicator: 30 residential units belong to informal settler and makeshift housing | 25 residential units are constructed in low lying area and made of light materials and salvaged/ makeshift materials. | 4 | | | 20 | | | high | | | **Moderate (2)** Donations, NGA, Subsidy from NGOs, IRA, BDRRM Fund, MDRRM Fund, AICS Fund, PhilHealth | | | **High (1)** Brochures, Information Education Campaign, Trainings/ Seminars, Hazard Maps, Bantay Barangay, Barangay Assemblies | | | **Moderate (2)** telecommu-nications, concreted farm to market roads, Flood control facility, drainage canals | | | **High (1)** Gadgets, television, radio, Online Broadcasting, print media | | | **High (1)** Contingency Plan, CLUP/Zoning Ordinance, Municipal Disaster Plan, Peace & Order Plan, Barangay Disaster Plan | | | **Moderate (2)** CSO, LGU & PNP Enforcement through Trained staff, knowledgeable populace/ residents regarding hazards, | | |
| 5 | | Sector: Economic Area: Industry Indicator: 20 Business establish-ments | 10 out of 20 or 50% business establish-ments are located in low lying area | 4 | | | 20 | | | high | | | **Moderate (2)** Donations, NGA, LGU, Subsidy from NGOs, | | | **High (1)** Brochures, Information Education Campaign, Trainings/ Seminars, Hazard Maps, Bantay Barangay, Barangay Assemblies | | | High (1) telecommu-nications & roads in good condition and public market operating continuously | | | **High (1)** Gadgets, television, radio, online broadcasting, print media | | | **High (1)** Contingency Plan, CLUP/Zoning Ordinance, Municipal Disaster Plan, Barangay Disaster Plan | | | **Moderate (2)** LGU, Vendors’ Associations, DTI, CSO, TODA, PODA | | |
| **Guesang** | 5 | | Sector: Social Area: Population (Residential Settlement)Indicator: 14 residential units belong to informal settler and makeshift housing | 9 residential units are constructed in low lying area and made of light materials and salvaged/ makeshift materials. | 4 | | | 20 | | | high | | | **Moderate (2)** Donations, NGA, Subsidy from NGOs, IRA, BDRRM Fund, MDRRM Fund, AICS Fund, PhilHealth | | | **High (1)** Brochures, Information Education Campaign, Trainings/ Seminars, Hazard Maps, Bantay Barangay, Barangay Assemblies | | | **Moderate (2)** telecommu-nications, concreted farm to market roads, Flood control facility, drainage canals | | | **High (1)** Gadgets, television, radio, Online Broadcasting, print media | | | **High (1)** Contingency Plan, CLUP/Zoning Ordinance, Municipal Disaster Plan, Peace & Order Plan, Barangay Disaster Plan | | | **Moderate (2)** CSO, LGU & PNP Enforcement through Trained staff, knowledgeable populace/ residents regarding hazards, | | |
| 5 | | Sector: Economic Area: Industry Indicator: 10 Business establish-ments | 3 out of 10 or 30% business establish-ments are located in low lying area and easily flooded. | 4 | | | 20 | | | high | | | **Moderate (2)** Donations, NGA, LGU, Subsidy from NGOs, | | | **High (1)** Brochures, Information Education Campaign, Trainings/ Seminars, Hazard Maps, Bantay Barangay, Barangay Assemblies | | | **High (1)** telecommu-nications& roads in good condition and public market operating continuously | | | **High (1)** Gadgets, television, radio, online broadcasting, print media | | | **High (1)** Contingency Plan, CLUPZoning Ordinance, Municipal Disaster Plan, Barangay Disaster Plan | | | **Moderate (2)** LGU, Vendors’ Associations, DTI, CSO, TODA, PODA | | |
| **Guiguilo-nen** | 5 | | Sector: Social Area: Population (Residential Settlement) Indicator: 17 residential units belong to informal settler and makeshift housing | 12 residential units are constructed in low lying area and made of light materials and salvaged/ makeshift materials. | 4 | | | 20 | | | high | | | **Moderate (2)** Donations, NGA, Subsidy from NGOs, IRA, BDRRM Fund, MDRRM Fund, AICS Fund, PhilHealth | | | **High (1)** Brochures, Information Education Campaign, Trainings/ Seminars, Hazard Maps, Bantay Barangay, Barangay Assemblies | | | **Moderate (2)** telecommu-nications, concreted farm to market roads, Flood control facility, drainage canals | | | **High (1)** Gadgets, television, radio, Online Broadcasting, print media | | | **High (1)** Contingency Plan, CLUP/Zoning Ordinance, Municipal Disaster Plan, Peace & Order Plan, Barangay Disaster Plan | | | **Moderate (2)** CSO, LGU & PNP Enforcement through Trained staff, knowledgeable populace/ residents regarding hazards, | | |

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| Table 10.5 **URBAN USE EXPOSURE TABLE, MUNICIPALITY OF MANGALDAN** | | | | | | | | | | | | | | | | | | |  | | |  | | |  | | |  | |  | |
| **HAZARD: FLOODING** | | | |  | | |  | | |  | |  | | | |  | | |  | | |  | | |  | | |  | |  | |
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| **BARANGAY** | **LIKELIHOOD OF OCCURRENCE** | **EXPOSURE** | **VULNERABILITY** | **SEVERITY OF CONSEQUENCE** | | **RISK** | | | | | **ADAPTIVE CAPACITY** | | | | | | | | | | | | | | | | | |
| **A** | **B** | **C** | **D** | **E** | | F | | | | | **G** | | | | | | | | | | | | | | | | | |
| Score | | Score | | Category | | | **Wealth** | | | | **Information** | | | **Infrastructure** | | | **Technology** | | | **Institution and Governance** | | | **Social Capital** | |
| **Guiguilo-nen** | 5 | Sector: Economic Area: IndustryIndicator: 24 Business establish-ments | 12 out of 24 or 50% business establish-ments are located in low lying area and easily flooded | 4 | | 20 | | high | | | **Moderate (2)** Donations, NGA, LGU, Subsidy from NGOs, | | | | **High (1)** Brochures, Information Education Campaign, Trainings/ Seminars, Hazard Maps, Bantay Barangay, Barangay Assemblies | | | **High (1)** telecommu-nications & roads in good condition and public market operating continuously | | | **High (1)** Gadgets, television, radio, online broadcasting, print media | | | **High (1)** Contingency Plan, CLUP/Zoning Ordinance, Municipal Disaster Plan, Barangay Disaster Plan | | | **Moderate (2)** LGU, Vendors’ Associations, DTI, CSO, TODA, PODA | |
| **Inlambo** | 5 | Sector: Social Area: Population (Residential Settlement) Indicator: 33 residential units belong to informal settler and makeshift housing | 30 residential units are constructed in low lying area and made of light materials and salvaged/ makeshift materials. | 4 | | 20 | | high | | | **Moderate (2)** Donations, NGA, Subsidy from NGOs, IRA, BDRRM Fund, MDRRM Fund, AICS Fund, PhilHealth | | | | **High (1)** Brochures, Information Education Campaign, Trainings/ Seminars, Hazard Maps, Bantay Barangay, Barangay Assemblies | | | **Moderate (2)** telecommu-nications, concreted farm to market roads, Flood control facility, drainage canals | | | **High (1)** Gadgets, television, radio, Online Broadcasting, print media | | | **High (1)** Contingency Plan, CLUP/Zoning Ordinance, Municipal Disaster Plan, Peace & Order Plan, Barangay Disaster Plan | | | **Moderate (2)** CSO, LGU & PNP Enforcement through Trained staff, knowledgeable populace/ residents regarding hazards, | |
| 5 | Sector: Economic Area: Industry Indicator: 8 Business establish-ments | 2 out of 8 or 25% business establish-ments are located in low lying area and easily flooded | 4 | | 20 | | high | | | **Moderate (2)** Donations, NGA, LGU, Subsidy from NGOs, | | | | **High (1)** Brochures, Information Education Campaign, Trainings/ Seminars, Hazard Maps, Bantay Barangay, Barangay Assemblies | | | **High (1)** telecommu-nications & roads in good condition and public market operating continuously | | | **High (1)** Gadgets, television, radio, online broadcasting, print media | | | **High (1)** Contingency Plan, CLUP/Zoning Ordinance, Municipal Disaster Plan, Barangay Disaster Plan | | | **Moderate (2)** LGU, Vendors’ Associations, DTI, CSO, TODA, PODA | |
| **Lanas** | 5 | Sector: Social Area: Population (Residential Settlement)Indicator: 21 residential units belong to informal settler and makeshift housing | 21 residential units are constructed in low lying area and made of light materials and salvaged/ makeshift materials. | 4 | | 20 | | high | | | **Moderate (2)** Donations, NGA, Subsidy from NGOs, IRA, BDRRM Fund, MDRRM Fund, AICS Fund, PhilHealth | | | | **High (1)** Brochures, Information Education Campaign, Trainings/ Seminars, Hazard Maps, Bantay Barangay, Barangay Assemblies | | | **Moderate (2)** telecommu-nications, concreted farm to market roads, Flood control facility, drainage canals | | | **High (1)** Gadgets, television, radio, Online Broadcasting, print media | | | **High (1)** Contingency Plan, CLUP/Zoning Ordinance, Municipal Disaster Plan, Peace & Order Plan, Barangay Disaster Plan | | | **Moderate (2)** CSO, LGU & PNP Enforcement through Trained staff, knowledgeable populace/ residents regarding hazards, | |
| 5 | Sector: Economic Area: Industry Indicator: 10 Business establish-ments | 4 out of 10 or 40% business establish-ments are located in low lying area and easily flooded | 4 | | 20 | | high | | | **Moderate (2)** Donations, NGA, LGU, Subsidy from NGOs, | | | | **High (1)** Brochures, Information Education Campaign, Trainings/ Seminars, Hazard Maps, Bantay Barangay, Barangay Assemblies | | | **High (1)** telecommu-nications & roads in good condition and public market operating continuously | | | **High (1)** Gadgets, television, radio, online broadcasting, print media | | | **High (1)** Contingency Plan, CLUP/Zoning Ordinance, Municipal Disaster Plan, Barangay Disaster Plan | | | **Moderate (2)** LGU, Vendors’ Associations, DTI, CSO, TODA, PODA | |

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| Table 10.5 **URBAN USE EXPOSURE TABLE, MUNICIPALITY OF MANGALDAN** | | | | | | | | | | | | | | | | |  | |  | |  |  |
| **HAZARD: FLOODING** | | | | |  | | |  | |  | |  |  | |  | |  | |  | |  |  |
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| **BARANGAY** | **LIKELIHOOD OF OCCURRENCE** | **EXPOSURE** | **VULNERABILITY** | **SEVERITY OF CONSEQUENCE** | | **RISK** | | | **ADAPTIVE CAPACITY** | | | | | | | | | | |
| **A** | **B** | **C** | **D** | **E** | | F | | | **G** | | | | | | | | | | |
| Score | | Score | Category | | **Wealth** | | **Information** | | | **Infrastructure** | | **Technology** | **Institution and Governance** | **Social Capital** | |
| **Landas** | 5 | Sector: Social Area: Population (Residential Settlement) Indicator: 4 residential units belong to informal settler and makeshift housing | 2 residential units are constructed in low lying area and made of light materials and salvaged/ makeshift materials. | 4 | | 20 | high | | **Moderate (2)** Donations, NGA, Subsidy from NGOs, IRA, BDRRM Fund, MDRRM Fund, AICS Fund, PhilHealth | | **High (1)** Brochures, Information Education Campaign, Trainings/ Seminars, Hazard Maps, Bantay Barangay, Barangay Assemblies | | | **Moderate (2)** telecommu-nications, concreted farm to market roads, Flood control facility, drainage canals | | **High (1)** Gadgets, television, radio, Online Broadcasting, print media | **High (1)** Contingency Plan, CLUP/Zoning Ordinance, Municipal Disaster Plan, Peace & Order Plan, Barangay Disaster Plan | **Moderate (2)**  CSO, LGU & PNP Enforce-ment through Trained staff, knowledge-able populace/ residents regarding hazards, | |
| **Landas** | 5 | Sector: Economic Area: IndustryIndicator: 11 Business establish-ments | 6 out of 11 or 54.55% business establish-ments are located in low lying area and easily flooded | 4 | | 20 | high | | **Moderate (2)** Donations, NGA, LGU, Subsidy from NGOs, | | **High (1)** Brochures, Information Education Campaign, Trainings/ Seminars, Hazard Maps, Bantay Barangay, Barangay Assemblies | | | **High (1)** telecommu-nications & roads in good condition and public market operating continuously | | **High (1)** Gadgets, television, radio, online broadcasting, print media | **High (1)** Contingency Plan, CLUP/Zoning Ordinance, Municipal Disaster Plan, Barangay Disaster Plan | **Moderate**  **(2)**  LGU, Vendors’ Associations, DTI, CSO, TODA, PODA | |
| **Maasin** | 5 | Sector: Social Area: Population (Residential Settlement) Indicator: 315 residential units belong to informal settler and makeshift housing | 5 residential units are constructed in low lying area and made of light materials and salvaged/ makeshift materials. | 4 | | 20 | high | | **Moderate (2)** Donations, NGA, Subsidy from NGOs, IRA, BDRRM Fund, MDRRM Fund, AICS Fund, PhilHealth | | **High (1)** Brochures, Information Education Campaign, Trainings/ Seminars, Hazard Maps, Bantay Barangay, Barangay Assemblies | | | **Moderate (2)** telecommu-nications, concreted farm to market roads, Flood control facility, drainage canals | | **High (1)** Gadgets, television, radio, Online Broadcasting, print media | **High (1)** Contingency Plan, CLUP/Zoning Ordinance, Municipal Disaster Plan, Peace & Order Plan, Barangay Disaster Plan | **Moderate (2)** CSO, LGU & PNP Enforce-ment through Trained staff, knowledge- able populace/ residents regarding hazards, | |
| 5 | Sector: Economic Area: Industry Indicator: 21 Business establish-ments | 10 out of 21 or 47.62% business establish-ments are located in low lying area and easily flooded. | 4 | | 20 | high | | **Moderate (2)** Donations, NGA, LGU, Subsidy from NGOs, | | **High (1)** Brochures, Information Education Campaign, Trainings/ Seminars, Hazard Maps, Bantay Barangay, Barangay Assemblies | | | **High (1)** telecommu-nications & roads in good condition and public market operating continuously | | **High (1)** Gadgets, television, radio, online broadcasting, print media | **High (1)** Contingency Plan, CLUP/Zoning Ordinance, Municipal Disaster Plan, Barangay Disaster Plan | **Moderate (2)**  LGU, Vendors’ Associations, DTI, CSO, TODA, PODA | |
| **Macayug** | 5 | Sector: Social Area: Population (Residential Settlement)Indicator: 8 residential units belong to informal settler and makeshift housing | 8 residential units are constructed in low lying area and made of light materials and salvaged/ makeshift materials. | 4 | | 20 | high | | **Moderate (2)** Donations, NGA, Subsidy from NGOs, IRA, BDRRM Fund, MDRRM Fund, AICS Fund, PhilHealth | | **High (1)** Brochures, Information Education Campaign, Trainings/ Seminars, Hazard Maps, Bantay Barangay, Barangay Assemblies | | | **Moderate (2)** telecommu-nications, concreted farm to market roads, Flood control facility, drainage canals | | **High (1)** Gadgets, television, radio, Online Broadcasting, print media | **High (1)** Contingency Plan, CLUP/Zoning Ordinance, Municipal Disaster Plan, Peace & Order Plan, Barangay Disaster Plan | **Moderate (2)**  CSO, LGU  & PNP Enforce-ment through Trained staff, knowledge- able populace/ residents regarding hazards, | |

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| Table 10.5 **URBAN USE EXPOSURE TABLE, MUNICIPALITY OF MANGALDAN** | | | | | | | | | | | | | | | | |  | |  | |  | |  |
| **HAZARD: FLOODING** | | | | |  | | |  | |  |  | |  | |  | |  | |  | |  | |  |
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| **BARANGAY** | **LIKELIHOOD OF OCCURRENCE** | **EXPOSURE** | **VULNERABILITY** | **SEVERITY OF CONSEQUENCE** | | **RISK** | | | **ADAPTIVE CAPACITY** | | | | | | | | | | | | |
| **A** | **B** | **C** | **D** | **E** | | F | | | **G** | | | | | | | | | | | | |
| Score | | Score | Category | | **Wealth** | | | **Information** | | **Infrastructure** | | **Technology** | | **Institution and Governance** | | **Social Capital** | |
| **Macayug** | 5 | Sector: Economic Area: Industry Indicator: 7 Business establish-ments | 3 out of 7 or 42.86% business establish-ments are located in low lying area and easily flooded. | 4 | | 20 | high | | **Moderate (2)** Donations, NGA, LGU, Subsidy from NGOs, | | | **High (1)** Brochures, Information Education Campaign, Trainings/ Seminars, Hazard Maps, Bantay Barangay, Barangay Assemblies | | **High (1)** telecommu-nications & roads in good condition and public market operating continuously | | **High (1)** Gadgets, television, radio, online broadcasting, print media | | **High (1)** Contingency Plan, CLUP/Zoning Ordinance, Municipal Disaster Plan, Barangay Disaster Plan | | **Moderate**  **(2)**  LGU,  Vendors’ Associations, DTI, CSO, TODA, PODA | |
| **Navaluan** | 5 | Sector: Social Area: Population (Residential Settlement) Indicator: 26 residential units belong to informal settler and makeshift housing | 8 residential units are constructed in low lying area and made of light materials and salvaged/ makeshift materials. | 4 | | 20 | high | | **Moderate (2)** Donations, NGA, Subsidy from NGOs, IRA, BDRRM Fund, MDRRM Fund, AICS Fund, PhilHealth | | | **High (1)** Brochures, Information Education Campaign, Trainings/ Seminars, Hazard Maps, Bantay Barangay, Barangay Assemblies | | **Moderate (2)** telecommu-nications, concreted farm to market roads, Flood control facility, drainage canals | | **High (1)** Gadgets, television, radio, Online Broadcasting, print media | | **High (1)** Contingency Plan, CLUP/Zoning Ordinance, Municipal Disaster Plan, Peace & Order Plan, Barangay Disaster Plan | | **Moderate**  **(2)**  CSO, LGU  & PNP Enforcement through Trained staff, knowledgeable populace/ residents regarding hazards, | |
| **Navaluan** | 5 | Sector: Economic Area: IndustryIndicator: 11 Business establish-ments | 5 out of 11 or 45% business establish-ments are located in low lying area | 4 | | 20 | high | | **Moderate (2)** Donations, NGA, LGU, Subsidy from NGOs, | | | **High (1)** Brochures, Information Education Campaign, Trainings/ Seminars, Hazard Maps, Bantay Barangay, Barangay Assemblies | | **High (1)** telecommu-nications & roads in good condition and public market operating continuously | | **High (1)** Gadgets, television, radio, online broadcasting, print media | | **High (1)** Contingency Plan, CLUP/Zoning Ordinance, Municipal Disaster Plan, Barangay Disaster Plan | | **Moderate**  **(2)**  LGU,  Vendors’ Associations, DTI, CSO, TODA, PODA | |
| **Nibaliw** | 5 | Sector: Social Area: Population (Residential Settlement) Indicator: 53 residential units belong to informal settler and makeshift housing | 48 residential units are constructed in low lying area and made of light materials and salvaged/ makeshift materials. | 4 | | 20 | high | | **Moderate (2)** Donations, NGA, Subsidy from NGOs, IRA, BDRRM Fund, MDRRM Fund, AICS Fund, PhilHealth | | | **High (1)** Brochures, Information Education Campaign, Trainings/ Seminars, Hazard Maps, Bantay Barangay, Barangay Assemblies | | **Moderate (2)** telecommu-nications, concreted farm to market roads, Flood control facility, drainage canals | | **High (1)** Gadgets, television, radio, Online Broadcasting, print media | | **High (1)** Contingency Plan, CLUP/Zoning Ordinance, Municipal Disaster Plan, Peace & Order Plan, Barangay Disaster Plan | | **Moderate**  **(2)**  CSO, LGU & PNP Enforcement through Trained staff, knowledgeable populace/ residents regarding hazards, | |
| 5 | Sector: Economic Area: Industry Indicator: 11 Business establish-ments | 2 out of 11 or 18.18% business establish-ments are located in low lying area and easily flooded. | 4 | | 20 | high | | **Moderate (2)** Donations, NGA, LGU, Subsidy from NGOs, | | | **High (1)** Brochures, Information Education Campaign, Trainings/ Seminars, Hazard Maps, Bantay Barangay, Barangay Assemblies | | **High (1)** telecommu-nications & roads in good condition and public market operating continuously | | **High (1)** Gadgets, television, radio, online broadcasting, print media | | **High (1)** Contingency Plan, CLUP/Zoning Ordinance, Municipal Disaster Plan, Barangay Disaster Plan | | **Moderate**  **(2)**  LGU, Vendors’ Associations, DTI, CSO, TODA, PODA | |

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| Table 10.5 **URBAN USE EXPOSURE TABLE, MUNICIPALITY OF MANGALDAN** | | | | | | | | | | | | | | | | |  | |  | |  |  |
| **HAZARD: FLOODING** | | | | |  | | |  | |  |  | |  | |  | |  | |  | |  |  |
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| **BARANGAY** | **LIKELIHOOD OF OCCURRENCE** | **EXPOSURE** | **VULNERABILITY** | **SEVERITY OF CONSEQUENCE** | | **RISK** | | | **ADAPTIVE CAPACITY** | | | | | | | | | | | |
| **A** | **B** | **C** | **D** | **E** | | F | | | **G** | | | | | | | | | | | |
| Score | | Score | Category | | **Wealth** | | | **Information** | | **Infrastructure** | | **Technology** | | **Institution and Governance** | | **Social Capital** |
| **Osiem** | 5 | Sector: Social Area: Population (Residential Settlement)Indicator: 22 residential units belong to informal settler and makeshift housing | 21 residential units are constructed in low lying area and made of light materials and salvaged/ makeshift materials. | 4 | | 20 | high | | **Moderate (2)** Donations, NGA, Subsidy from NGOs, IRA, BDRRM Fund, MDRRM Fund, AICS Fund, PhilHealth | | | **High (1)** Brochures, Information Education Campaign, Trainings/ Seminars, Hazard Maps, Bantay Barangay, Barangay Assemblies | | **Moderate (2)** telecommu- nications, concreted farm to market roads, Flood control facility, drainage canals | | **High (1)** Gadgets, television, radio, Online Broadcasting, print media | | **High (1)** Contingency Plan, CLUP/Zoning Ordinance, Municipal Disaster Plan, Peace & Order Plan, Barangay Disaster Plan | | **Moderate (2)**  CSO, LGU & PNP Enforce-ment through Trained staff, knowledge-able populace/ residents regarding hazards, |
| 5 | Sector: Economic Area: Industry Indicator: 13 Business establish-ments | 7 out of 13 or 53.85% business establish-ments are located in low lying area and easily flooded. | 4 | | 20 | high | | **Moderate (2)** Donations, NGA, LGU, Subsidy from NGOs, | | | **High (1)** Brochures, Information Education Campaign, Trainings/ Seminars, Hazard Maps, Bantay Barangay, Barangay Assemblies | | **High (1)** telecommu-nications & roads in good condition and public market operating continuously | | **High (1)** Gadgets, television, radio, online broadcasting, print media | | **High (1)** Contingency Plan, CLUP/Zoning Ordinance, Municipal Disaster Plan, Barangay Disaster Plan | | **Moderate (2)**  LGU, Vendors’ Associations, DTI, CSO, TODA, PODA |
| **Palua** | 5 | Sector: Social Area: Population (Residential Settlement) Indicator: 50 residential units belong to informal settler and makeshift housing | 24 residential units are constructed in low lying area and made of light materials and salvaged/ makeshift materials. | 4 | | 20 | high | | **Moderate (2)** Donations, NGA, Subsidy from NGOs, IRA, BDRRM Fund, MDRRM Fund, AICS Fund, PhilHealth | | | **High (1)** Brochures, Information Education Campaign, Trainings/ Seminars, Hazard Maps, Bantay Barangay, Barangay Assemblies | | **Moderate (2)** telecommu-nications, concreted farm to market roads, Flood control facility, drainage canals | | **High (1)** Gadgets, television, radio, Online Broadcasting, print media | | **High (1)** Contingency Plan, CLUP/Zoning Ordinance, Municipal Disaster Plan, Peace & Order Plan, Barangay Disaster Plan | | **Moderate (2)**  CSO, LGU  & PNP Enforce-ment through Trained staff, knowledge-able populace/ residents regarding hazards, |
| **Palua** | 5 | Sector: Economic Area: IndustryIndicator: 10 Business establish-ments | 6 out of 10 or 60% business establish-ments are located in low lying area | 4 | | 20 | high | | **Moderate (2)** Donations, NGA, LGU, Subsidy from NGOs, | | | **High (1)** Brochures, Information Education Campaign, Trainings/ Seminars, Hazard Maps, Bantay Barangay, Barangay Assemblies | | **High (1)** telecommu-nications & roads in good condition and public market operating continuously | | **High (1)** Gadgets, television, radio, online broadcasting, print media | | **High (1)** Contingency Plan, CLUP/Zoning Ordinance, Municipal Disaster Plan, Barangay Disaster Plan | | **Moderate (2)**  LGU, Vendors’ Associations, DTI, CSO, TODA, PODA |
| **Poblacion** | 5 | Sector: Social Area: Residential Settlement Indicator: 14 residential units belong to informal settler and makeshift housing | 9 residential units are constructed in low lying area and made of light materials and salvaged/ makeshift materials. | 4 | | 20 | high | | **Moderate (2)** Donations, NGA, Subsidy from NGOs, IRA, BDRRM Fund, MDRRM Fund, AICS Fund, PhilHealth | | | **High (1)** Brochures, Information Education Campaign, Trainings/ Seminars, Hazard Maps, Bantay Barangay, Barangay Assemblies | | **Moderate (2)** telecommu-nications, concreted farm to market roads, Flood control facility, drainage canals | | **High (1)** Gadgets, television, radio, Online Broadcasting, print media | | **High (1)** Contingency Plan, CLUP/Zoning Ordinance, Municipal Disaster Plan, Peace & Order Plan, Barangay Disaster Plan | | **Moderate (2)**  CSO, LGU  & PNP Enforce-ment through Trained staff, knowledge-able populace/ residents regarding hazards, |

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| Table 10.5 **URBAN USE EXPOSURE TABLE, MUNICIPALITY OF MANGALDAN** | | | | | | | | | | | | | | |  | |  | |  | |  |  |
| **HAZARD: FLOODING** | | | | |  | | |  | |  | |  |  | |  | |  | |  | |  |  |
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| **BARANGAY** | **LIKELIHOOD OF OCCURRENCE** | **EXPOSURE** | **VULNERABILITY** | **SEVERITY OF CONSEQUENCE** | | **RISK** | | | **ADAPTIVE CAPACITY** | | | | | | | | | | |
| **A** | **B** | **C** | **D** | **E** | | F | | | **G** | | | | | | | | | | |
| Score | | Score | Category | | **Wealth** | | **Information** | | | **Infrastructure** | | **Technology** | **Institution and Governance** | **Social Capital** | |
| **Poblacion** | 5 | Sector: Economic Area: Industry Indicator: 355 business establish-ments | 100 out of 355 or 28% business establish-ments. 50% are located in low lying area | 4 | | 20 | high | | **Moderate (2)** Donations, NGA, LGU, Subsidy from NGOs, | | **High (1)** Brochures, Information Education Campaign, Trainings/ Seminars, Hazard Maps, Bantay Barangay, Barangay Assemblies | | | **High (1)** telecommuni-cations & roads in good condition and public market operating continuously | | **High (1)** Gadgets, television, radio, online broadcasting, print media | **High (1)** Contingency Plan, CLUP/Zoning Ordinance, Municipal Disaster Plan, Barangay Disaster Plan | **Moderate (2)** LGU, Vendors’ Associations, DTI, CSO, TODA, PODA | |
| **Pogo** | 5 | Sector: Social Area: Residential SettlementIndicator: 12 residential units belong to informal settler and makeshift housing | 12 residential units are constructed in low lying area and made of light materials and salvaged/ makeshift materials. | 4 | | 20 | high | | **Moderate (2)** Donations, NGA, Subsidy from NGOs, IRA, BDRRM Fund, MDRRM Fund, AICS Fund, PhilHealth | | **High (1)** Brochures, Information Education Campaign, Trainings/ Seminars, Hazard Maps, Bantay Barangay, Barangay Assemblies | | | **Moderate (2)** telecommuni-cations, concreted farm to market roads, Flood control facility, drainage canals | | **High (1)** Gadgets, television, radio, Online Broadcasting, print media | **High (1)** Contingency Plan, CLUP/Zoning Ordinance, Municipal Disaster Plan, Peace & Order Plan, Barangay Disaster Plan | **Moderate (2)** CSO, LGU & PNP Enforce-ment through Trained staff, knowledgeable populace/ residents regarding hazards, | |
| 5 | Sector: Economic Area: Industry Indicator: 10 business establish-ments | 5 out of 10 or 50% business establish-ments. 50% are located in low lying area | 4 | | 20 | high | | **Moderate (2)** Donations, NGA, LGU, Subsidy from NGOs, | | **High (1)** Brochures, Information Education Campaign, Trainings/ Seminars, Hazard Maps, Bantay Barangay, Barangay Assemblies | | | **High (1)** telecommuni-cations & roads in good condition and public market operating continuously | | **High (1)** Gadgets, television, radio, online broadcasting, print media | **High (1)** Contingency Plan, CLUP/Zoning Ordinance, Municipal Disaster Plan, Barangay Disaster Plan | **Moderate (2)** LGU, Vendors’ Associations, DTI, CSO, TODA, PODA | |
| **Salaan** | 5 | Sector: Social Area: Residential Settlement Indicator: 22 residential units belong to informal settler and makeshift housing | 15 residential units are constructed in low lying area and made of light materials and salvaged/ makeshift materials. | 4 | | 20 | high | | **Moderate (2)** Donations, NGA, Subsidy from NGOs, IRA, BDRRM Fund, MDRRM Fund, AICS Fund, PhilHealth | | **High (1)** Brochures, Information Education Campaign, Trainings/ Seminars, Hazard Maps, Bantay Barangay, Barangay Assemblies | | | **Moderate (2)** telecommuni-cations, concreted farm to market roads, Flood control facility, drainage canals | | **High (1)** Gadgets, television, radio, Online Broadcasting, print media | **High (1)** Contingency Plan, CLUP/Zoning Ordinance, Municipal Disaster Plan, Peace & Order Plan, Barangay Disaster Plan | **Moderate (2)** CSO, LGU & PNP Enforce-ment through Trained staff, knowledge- able populace/ residents regarding hazards, | |
| **Salaan** | 5 | Sector: Economic Area: IndustryIndicator: 8 business establish-ments | 5 out of 8 or 62.5% business establish-ments. 50% are located in low lying area and easily flooded. | 4 | | 20 | high | | **Moderate (2)** Donations, NGA, LGU, Subsidy from NGOs, | | **High (1)** Brochures, Information Education Campaign, Trainings/ Seminars, Hazard Maps, Bantay Barangay, Barangay Assemblies | | | **High (1)** telecommuni-cations & roads in good condition and public market operating continuously | | **High (1)** Gadgets, television, radio, online broadcasting, print media | **High (1)** Contingency Plan, CLUP/Zoning Ordinance, Municipal Disaster Plan, Barangay Disaster Plan | **Moderate (2)** LGU, Vendors’ Associations, DTI, CSO, TODA, PODA | |
| **Talogtog** | 5 | Sector: Social Area: Residential Settlement Indicator: 14 residential units belong to informal settler and makeshift housing | 3 residential units are constructed in low lying area and made of light materials and salvaged/ makeshift materials. | 4 | | 20 | high | | **Moderate (2)** Donations, NGA, Subsidy from NGOs, IRA, BDRRM Fund, MDRRM Fund, AICS Fund, PhilHealth | | **High (1)** Brochures, Information Education Campaign, Trainings/ Seminars, Hazard Maps, Bantay Barangay, Barangay Assemblies | | | **Moderate (2)** telecommuni- cations, concreted farm to market roads, Flood control facility, drainage canals | | **High (1)** Gadgets, television, radio, Online Broadcasting, print media | **High (1)**Contingency Plan, CLUP/Zoning Ordinance, Municipal Disaster Plan, Peace & Order Plan, Barangay Disaster Plan | **Moderate (2)** CSO, LGU & PNP Enforce-ment through Trained staff, knowledge-able populace/ residents regarding hazards, | |

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| Table 10.5 **URBAN USE EXPOSURE TABLE, MUNICIPALITY OF MANGALDAN** | | | | | | | | | | | | | | | |  | |  | |  | |  |  |
| **HAZARD: FLOODING** | | | | | |  | | |  | |  |  | |  | |  | |  | |  | |  |  |
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| **BARANGAY** | **LIKELIHOOD OF OCCURRENCE** | **EXPOSURE** | **VULNERABILITY** | **SEVERITY OF CONSEQUENCE** | **RISK** | | | **ADAPTIVE CAPACITY** | | | | | | | | | | | | |
| **A** | **B** | **C** | **D** | **E** | F | | | **G** | | | | | | | | | | | | |
| Score | Score | | Category | **Wealth** | | **Information** | | | **Infrastructure** | | **Technology** | | **Institution and Governance** | | **Social Capital** | |
| **Talogtog** | 5 | Sector: Economic Area: Industry Indicator: 15 business establish-ments | 8 out of 15 or 53.33% business establish-ments. 50% are located in low lying area | 4 | 20 | | high | **Moderate (2)** Donations, NGA, LGU, Subsidy from NGOs, | | **High (1)** Brochures, Information Education Campaign, Trainings/ Seminars, Hazard Maps, Bantay Barangay, Barangay Assemblies | | | **High (1)** telecommuni-cations & roads in good condition and public market operating continuously | | **High (1)** Gadgets, television, radio, online broadcasting, print media | | **High (1)** Contingency Plan, CLUP/Zoning Ordinance, Municipal Disaster Plan, Barangay Disaster Plan | | **Moderate (2)** LGU, Vendors’ Associations, DTI, CSO, TODA, PODA | |
| **Tebag** | 5 | Sector: Social Area: Residential SettlementIndicator: 54 residential units belong to informal settler and makeshift housing | 50 residential units are constructed in low lying area and made of light materials and salvaged/ makeshift materials. | 4 | 20 | | high | **Moderate (2)** Donations, NGA, Subsidy from NGOs, IRA, BDRRM Fund, MDRRM Fund, AICS Fund, PhilHealth | | **High (1)** Brochures, Information Education Campaign, Trainings/ Seminars, Hazard Maps, Bantay Barangay, Barangay Assemblies | | | **Moderate (2)** telecommuni-cations, concreted farm to market roads, Flood control facility, drainage canals | | **High (1)** Gadgets, television, radio, Online Broadcasting, print media | | **High (1)** Contingency Plan, CLUP/Zoning Ordinance, Municipal Disaster Plan, Peace & Order Plan, Barangay Disaster Plan | | **Moderate (2)** CSO, LGU & PNP Enforcement through Trained staff, knowledgeable populace/ residents regarding hazards, | |
| 5 | Sector: Economic Area: Industry Indicator: 24 business establish-ments | 10 out of 24 or 41.67% business establish-ments are located in low lying area and easily flooded. | 4 | 20 | | high | **Moderate (2)** Donations, NGA, LGU, Subsidy from NGOs, | | **High (1)** Brochures, Information Education Campaign, Trainings/ Seminars, Hazard Maps, Bantay Barangay, Barangay Assemblies | | | **High (1)** telecommuni-cations & roads in good condition and public market operating continuously | | **High (1)** Gadgets, television, radio, online broadcasting, print media | | **High (1)** Contingency Plan, CLUP/Zoning Ordinance, Municipal Disaster Plan, Barangay Disaster Plan | | **Moderate (2)** LGU, Vendors’ Associations, DTI, CSO, TODA, PODA | |
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| 1. Identify in Column A the barangays affected by the hazard based on the overlay of the hazard map and the base exposure map. | | | | | | | | | | | | | | | | | | |  | |
| 2. In column B, assign the likelihood of occurrence of the hazard:  Frequent (1-3 years): 6  Moderate (4-10 years): 5  Occasional Slight Chance (11-30 years): 4  Improbable (31 - 100 years): 3  Rare (101-200 years): 2  Very Rare (>200 years): 1 | | | | | | | | | | | | | | | | | | |  | |
| 3. Using the gathered data and maps, indicate information and values for each Urban Use Facilities exposure and vulnerability indicators, Columns C and D respectively. | | | | | | | | | |  | | |  | |  | |  | |  | |
| 4. In column E, assigning the severity of consequence score shall be based on expected magnitude of the hazard (hazard characterization), the extent of exposure (determined through hazard exposure mapping), and the vulnerabilities of the exposed elements (compiled in the exposure database), the combination of which will be the basis for determining the severity of consequence rating: Very High (4): ≥40% of non-residential structures are severely damaged or≥20% of residential structures are severely damaged  High (3): >20 to <40% of nonresidential structures are severely damaged or >10-20% of residential structures are severely damaged  Moderate (2): >10 to 20% of non-residential structures are severely damaged or>5 to10% of residential structures are severely damaged  Low (1): < 10% of non-residential structures are severely damaged or ≤5% of residential structures are severely damaged | | | | | | | | | | | | | | | | | | | | |
| 5. In column F, compute the risk by multiplying Likelihood of Occurrence Score (Column B) and Severity of Consequences Score (Column E). Based on the derived risk scores and corresponding risk categories, reclassify the risk scores into risk categories.  Low: 1-4  Moderate: 6-10  High: 12-24 | | | | | | | | | | | | | | | | | | | | |
| 6. In Colum G, provide existing adaptive or preventive measures of the municipality/city. | | | | | | | | | | | | | | | | | | | | |

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| Table 11. **DISASTER RISK ASSESSMENT SUMMARY MATRIX** | | | | |  |  | |
| **SYSTEM OF INTEREST: POPULATION DRA** | |  | | |  |  | |
| **HAZARD: FLOODING** | |  | | |  |  | |
|  | |  | | |  |  | |
| **Decision Area/s** | **Technical Findings** | | **Implications** | **Policy Interventions** | | |
| **A** | **B** | | **C** | **D** | | |
| Sector: Social Area: Population (Residential Settlement), Education Indicator: Barangay Anolid | In Barangay Anolid, 1,669 households are exposed to the identified climate stimuli, of which, 15.27% of householdsliving in low lying areas and below poverty threshold. Of the 1,656 enrolled, 4.52% pupils/ students are sensitive since they belong to families beyond poverty threshold, out of the total, 50 are males & 25 are females. > The level of exposure and vulnerability of the population is characterized as moderate. The LGU's capability and adaptability measure is at an acceptable level. | | >> Onset of water borne diseases >> Increased number of morbidity/ mortality rate >> Increased number of drop-out rate >> Reduced number of school attendance >> Possible incidence of crime (looting) | >> Implementation of plans and ordinances (CLUP, CDP, MDRRMP, Zoning Ordinance) >> Conduct of medical and financial assistance >> Ensure peace and order | | |
| Sector: Economic Area: Agriculture (Farmers & Fishermen), Commerce & Industry Indicator: Barangay Anolid | In Barangay Anolid, 140 farmers are exposed to the identified climate stimuli, of which, 57.85% of farmers are sensitive since they belong to families beyond poverty threshold and live in low lying area. Out of the total, 75 are males and 25 are females. > Of the 10 fishermen, 8 are sensitive since they are living in low lying area, of which 7 are males and 1 is female. > Of the total 95 owners/ entrepreneurs, 40 of the entrepreneurs are sensitive since they are living in low lying area and 10 belong to families beyond poverty threshold. > The level of exposure and vulnerability of the farmers & business owners is characterized as moderate. The LGU's capability and adaptability measure is at an acceptable level. | | >> Decrease of production >> Loss of Income >> Loss of livelihood >> Food shortage >> Increased malnutrition  >> Price hike of various commodities | >> Conduct Livelihood Programs >> Provision of disaster resilient flood control projects >> Seed subsidy (high yield and flood resilient variety) >> Adjust planting season of various crops >> Implementation of plans and ordinances (CLUP, CDP, MDRRMP, Zoning Ordinance) >> Prioritization of Climate Change adaptive projects (slope protection, flood control system, construction of drainage system/ dike) >> provision of different livelihood trainings as alternative source of income >> Construction of communal irrigation system  >> Fingerlings dispersal >> Planting of mangroves | | |
| Sector: Social Area: Population (Residential Settlement), Education Indicator: Barangay Banaoang | >In Barangay Banaoang, 1,129 household are exposed to the identified climate stimuli, of which, 24.45% hhs are living in low lying areas and below poverty threshold. Of the 1,656 enrolled, of which 4.52% pupils/ students are sensitive since they belong to families beyond poverty threshold, out of the total, 50 are males & 25 are females. > The level of exposure and vulnerability of the population is characterized as moderate. The LGU's capability and adaptability measure is at an acceptable level. | | >> Onset of water borne diseases >>Increased number of morbidity/ mortality rate >> Increased number of drop-out rate >> Reduced number of school attendance >> Possible incidence of crime (looting) >> Unsafe living conditions | >> Implementation of plans and ordinances (CLUP, CDP, MDRRMP, Zoning Ordinance) >> Conduct of medical and financial assistance >> Ensure peace and order | | |
| Sector: Economic Area: Agriculture (Farmers), Commerce & Industry Indicator: Barangay Banaoang | > In Barangay Banaoang, 68 farmers are exposed to the identified climate stimuli, of which, 13 farmers are sensitive since they belong to families beyond poverty threshold and live in low lying area. Out of the total, 7 are males and 5 are females. > Of the 29 total owners/ entrepreneurs 8 of the entrepreneurs are sensitive since they are living in low lying area and 2 belong to families beyond poverty threshold.  > The level of exposure and vulnerability of the farmers & business owners is characterized as moderate. The LGU's capability and adaptability measure is at an acceptable level. | | >> Decrease of production >> Loss of Income >> Loss of livelihood >> Food shortage >> Increased malnutrition  >> Price hike of various commodities | >> Conduct Livelihood Programs >> Provision of disaster resilient flood control projects >> Seed subsidy (high yield and flood resilient variety) >> Adjust planting season of various crops >> Implementation of plans and ordinances (CLUP, CDP, MDRRMP, Zoning Ordinance) >> Prioritization of Climate Change adaptive projects (slope protection, flood control system, construction of drainage system/ dike) >> provision of different livelihood trainings as alternative source of income >> Construction of communal irrigation system | | |
| Sector: Social Area: Population (Residential Settlement), Education Indicator: Barangay Bantayan | > In Barangay Bantayan, 868 households are exposed to the identified climate stimuli, of which, 16.13% hhs are living in low lying areas and below poverty threshold. Of the 721 enrolled, 33 pupils/ students are sensitive since they belong to families beyond poverty threshold, of which 17 are males & 16 are females > The level of exposure and vulnerability of the population is characterized as moderate. The LGU's capability and adaptability measure is at an acceptable level. | | >> Onset of water borne diseases >> Increased number of morbidity/ mortality rate >> Increased number of drop-out rate >> Reduced number of school attendance >> Possible incidence of crime (looting) | >> Implementation of plans and ordinances (CLUP, CDP, MDRRMP, Zoning Ordinance) >> Conduct of medical and financial assistance >> Ensure peace and order | | |
| Sector: Economic Area: Agriculture (Farmers), Commerce & Industry Indicator: Barangay Bantayan | In Barangay Bantayan, 77 farmers are exposed to the identified climate stimuli, of which 15 farmers are sensitive since they belong to families beyond poverty threshold and live in low lying area. Out of the total, 10 are males and 5 are females. > Of the 12 total owners/ entrepreneurs 4 of the entrepreneurs are sensitive since they are living in low lying area and 3 belong to families beyond poverty threshold  > The level of exposure and vulnerability of the farmers & business owners is characterized as moderate. The LGU's capability and adaptability measure is at an acceptable level. | | >> Decrease of production>> Loss of Income>> Loss of livelihood >> Food shortage >> Increased malnutrition >> Price hike of various commodities | >> Conduct Livelihood Programs>> Provision of disaster resilient flood control projects>> Seed subsidy (high yield and flood resilient variety)>> Adjust planting season of various crops  >> Implementation of plans and ordinances (CLUP, CDP, MDRRMP, Zoning Ordinance) >> Prioritization of Climate Change adaptive projects (slope protection, flood control system, construction of drainage system/ dike) >> provision of different livelihood trainings as alternative source of income >> Construction of communal irrigation system | | |

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| Table 11. **DISASTER RISK ASSESSMENT SUMMARY MATRIX** | | | | |  |  | |
| **SYSTEM OF INTEREST: POPULATION DRA** | |  | | |  |  | |
| **HAZARD: FLOODING** | |  | | |  |  | |
|  | |  | | |  |  | |
| **Decision Area/s** | **Technical Findings** | | **Implications** | **Policy Interventions** | | |
| **A** | **B** | | **C** | **D** | | |
| Sector: Social Area: Population (Residential Settlement), Education Indicator: Barangay Bateng | In Barangay Bateng, 569 households are exposed to the identified climate stimuli, of which, 37.78% hhs are living in low lying areas and below poverty threshold. Of the 602 enrolled, 3.65% pupils/ students are sensitive since they belong to families beyond poverty threshold, of which 11 are males & 11 are females. > The level of exposure and vulnerability of the population is characterized as moderate. The LGU's capability and adaptability measure is at an acceptable level. | | >> Onset of water borne diseases >> Increased number of morbidity/ mortality rate >> Increased number of drop-out rate >> Reduced number of school attendance >> Possible incidence of crime (looting) | >> Implementation of plans and ordinances (CLUP, CDP, MDRRMP, Zoning Ordinance) >> Conduct of medical and financial assistance >> Ensure peace and order | | |
| Sector: Economic Area: Agriculture (Farmers & Fishermen), Commerce & Industry Indicator: Barangay Bateng | In Barangay Bateng, 31 farmers are exposed to the identified climate stimuli, of which, 10 farmers are sensitive since they belong to families beyond poverty threshold and live in low lying area. Of which, 6 are males and 4 are females. >Of the 90 fishermen, 60 are sensitive since they are living in low lying area, of which, 40 are males and 20 is female. > Of the 16 total owners/ entrepreneurs, 4 of the entrepreneurs are sensitive since they are living in low lying area and 6 belong to families beyond poverty threshold  > The level of exposure and vulnerability of the farmers & business owners is characterized as moderate. The LGU's capability and adaptability measure is at an acceptable level. | | >> Decreased of production >> Loss of Income >> Loss of livelihood >> Food shortage >> Increased malnutrition  >> Price hike of various commodities | >> Conduct Livelihood Programs >> Provision of disaster resilient flood control projects >> Seed subsidy (high yield and flood resilient variety) >> Adjust planting season of various crops >> Implementation of plans and ordinances (CLUP, CDP, MDRRMP, Zoning Ordinance) >> Prioritization of Climate Change adaptive projects (slope protection, flood control system, construction of drainage system/ dike) >> provision of different livelihood trainings as alternative source of income >> Construction of communal irrigation system  >> Fingerlings dispersal >> Planting of mangroves | | |
| Sector: Social Area: Population (Residential Settlement), Education Indicator: Barangay David | In Barangay David, 989 households are exposed to the identified climate stimuli, of which, 284.72% hhs are living in low lying areas and below poverty threshold. Of the 1,003 enrolled, 4.09 students & pupils are sensitive since they belong to families beyond poverty threshold, of which, 27 are males & 14 are females. > The level of exposure and vulnerability of the population is characterized as moderate. The LGU's capability and adaptability measure is at an acceptable level. | | >> Onset of water borne diseases >> Increased number of morbidity/ mortality rate >> Increased number of drop-out rate >> Reduced number of school attendance >> Possible incidence of crime (looting) | >> Implementation of plans and ordinances (CLUP, CDP, MDRRMP, Zoning Ordinance) >> Conduct of medical and financial assistance >> Ensure peace and order | | |
| Sector: Economic Area: Agriculture (Farmers), Commerce & Industry Indicator: Barangay David | In Barangay David, 109 farmers are exposed to the identified climate stimuli, of which, 71 farmers are sensitive since they belong to families beyond poverty threshold and live in low lying area. Out of the total, 75 are male and 25 are female. > Of the 17 total owners/ entrepreneurs, 7 of the entrepreneurs are sensitive since they are living in low lying area and 3 belong to families beyond poverty threshold  > The level of exposure and vulnerability of the farmers & business owners is characterized as moderate. The LGU's capability and adaptability measure is at an acceptable level. | | >> Decrease of production>> Loss of Income>> Loss of livelihood >> Food shortage >> Increased malnutrition >> Price hike of various commodities | >> Conduct Livelihood Programs>> Provision of disaster resilient flood control projects>> Seed subsidy (high yield and flood resilient variety)>> Adjust planting season of various crops >> Implementation of plans and ordinances (CLUP, CDP, MDRRMP, Zoning Ordinance) >> Prioritization of Climate Change adaptive projects (slope protection, flood control system, construction of drainage system/ dike) >> provision of different livelihood trainings as alternative source of income >> Construction of communal irrigation system | | |
| Sector: Social Area: Population (Residential Settlement), Education Indicator: Barangay Embarcadero | In Barangay Embarcadero, 591 households are exposed to the identified climate stimuli, of which 23.35% hhs are living in low lying areas and below poverty threshold. Of the total 615 enrolled, 36 students & pupils are sensitive since they belong to families beyond poverty threshold, of which 24 are males & 12 are females. > The level of exposure and vulnerability of the population is characterized as moderate. The LGU's capability and adaptability measure is at an acceptable level. | | >> Onset of water borne diseases >> Increased number of morbidity/ mortality rate >> Increased number of drop-out rate >> Reduced number of school attendance >> Possible incidence of crime (looting) | >> Implementation of plans and ordinances (CLUP, CDP, MDRRMP, Zoning Ordinance) >> Conduct of medical and financial assistance >> Ensure peace and order | | |
| Sector: Economic Area: Agriculture (Farmers), Commerce & Industry Indicator: Barangay Embarcadero | In Barangay Embarcadero, 19 farmers are exposed to the identified climate stimuli, of which, 19 farmers are sensitive since they belong to families beyond poverty threshold and live in low lying area. Out of the total, 17 are male and 2 are female. > Of the 20 total owners/ entrepreneurs, 10 of the entrepreneurs are sensitive since they are living in low lying area and 5 belong to families beyond poverty threshold  > The level of exposure and vulnerability of the farmers & business owners is characterized as moderate. The LGU's capability and adaptability measure is at an acceptable level. | | >> Decrease of production >> Loss of Income >> Loss of livelihood >> Food shortage >> Increased malnutrition  >> Price hike of various commodities | >> Conduct Livelihood Programs >> Provision of disaster resilient flood control projects >> Seed subsidy (high yield and flood resilient variety) >> Adjust planting season of various crops >> Implementation of plans and ordinances (CLUP, CDP, MDRRMP, Zoning Ordinance) >> Prioritization of Climate Change adaptive projects (slope protection, flood control system, construction of drainage system/ dike) >> provision of different livelihood trainings as alternative source of income >> Construction of communal irrigation system | | |

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| Table 11. **DISASTER RISK ASSESSMENT SUMMARY MATRIX** | | | | |  |  | |
| **SYSTEM OF INTEREST: POPULATION DRA** | |  | | |  |  | |
| **HAZARD: FLOODING** | |  | | |  |  | |
|  | |  | | |  |  | |
| **Decision Area/s** | **Technical Findings** | | **Implications** | **Policy Interventions** | | |
| **A** | **B** | | **C** | **D** | | |
| Sector: Social Area: Population (Residential Settlement), Education Indicator: Barangay Guesang | In Barangay Guesang, 822 households are exposed to the identified climate stimuli, of which169 hhs are living in low lying areas and below poverty threshold. Of the total 896 enrolled, 25 students & pupils are sensitive since they belong to families beyond poverty threshold, of which, 17 are males & 8 are females. > The level of exposure and vulnerability of the population is characterized as moderate. The LGU's capability and adaptability measure is at an acceptable level. | | >> Onset of water borne diseases >> Increased number of morbidity/ mortality rate >> Increased number of drop-out rate >> Reduced number of school attendance >> Possible incidence of crime (looting) | >> Implementation of plans and ordinances (CLUP, CDP, MDRRMP, Zoning Ordinance) >> Conduct of medical and financial assistance >> Ensure peace and order | | |
| Sector: Economic Area: Agriculture (Farmers), Commerce & Industry Indicator: Barangay Guesang | In Barangay Guesang, 83 farmers are exposed to the identified climate stimuli, of which 77 farmers are sensitive since they belong to families beyond poverty threshold and live in low lying area. Out of the total, 70 are male and 7 are female. > Of the 10 total owners/ entrepreneurs, 3 of the entrepreneurs are sensitive since they are living in low lying area and 5 belong to families beyond poverty threshold  > The level of exposure and vulnerability of the farmers & business owners is characterized as moderate. The LGU's capability and adaptability measure is at an acceptable level. | | >> Decrease of production >> Loss of Income >> Loss of livelihood >> Food shortage >> Increased malnutrition  >> Price hike of various commodities | >> Conduct Livelihood Programs >> Provision of disaster resilient flood control projects >> Seed subsidy (high yield and flood resilient variety) >> Adjust planting season of various crops >> Implementation of plans and ordinances (CLUP, CDP, MDRRMP, Zoning Ordinance) >> Prioritization of Climate Change adaptive projects (slope protection, flood control system, construction of drainage system/ dike) >> provision of different livelihood trainings as alternative source of income for farmers >> Construction of communal irrigation system | | |
| Sector: Social Area: Population (Residential Settlement), Education Indicator: Barangay Guiguilonen | In Barangay Guiguilonen, 676 households are exposed to the identified climate stimuli, of which, 181 hhs are living in low lying areas and below poverty threshold. Of the total 642 enrolled, 30 students & pupils are sensitive since they belong to families beyond poverty threshold, of which, 18 are males & 12 are females. > The level of exposure and vulnerability of the population is characterized as moderate. The LGU's capability and adaptability measure is at an acceptable level. | | >> Onset of water borne diseases >> Increased number of morbidity/ mortality rate >> Increased number of drop-out rate >> Reduced number of school attendance >> Possible incidence of crime (looting) | >> Implementation of plans and ordinances (CLUP, CDP, MDRRMP, Zoning Ordinance) >> Conduct of medical and financial assistance >> Ensure peace and order | | |
| Sector: Economic Area: Agriculture (Farmers), Commerce & Industry Indicator: Barangay Guiguilonen | In Barangay Guiguilonen, 83 farmers are exposed to the identified climate stimuli, of which, 77 farmers are sensitive since they belong to families beyond poverty threshold and live in low lying area. Out of the total, 70 are male and 7 are female. > Of the 24 total owners/ entrepreneurs ,12 of the entrepreneurs are sensitive since they are living in low lying area and 3 belong to families beyond poverty threshold  > The level of exposure and vulnerability of the farmers & business owners is characterized as moderate. The LGU's capability and adaptability measure is at an acceptable level. | | >> Decrease of production >> Loss of Income >> Loss of livelihood >> Food shortage >> Increased malnutrition  >> Price hike of various commodities | >> Conduct Livelihood Programs >> Provision of disaster resilient flood control projects >> Seed subsidy (high yield and flood resilient variety) >> Adjust planting season of various crops >> Implementation of plans and ordinances (CLUP, CDP, MDRRMP, Zoning Ordinance) >> Prioritization of Climate Change adaptive projects (slope protection, flood control system, construction of drainage system/ dike) >> provision of different livelihood trainings as alternative source of income >> Construction of communal irrigation system | | |
| Sector: Social Area: Population (Residential Settlement), Education Indicator: Barangay Inlambo | In Barangay Inlambo, 341 households are exposed to the identified climate stimuli, of which 120 hhsare living in low lying areas and below poverty threshold. Of the total 419 enrolled, 23 students & pupils are sensitive since they belong to families beyond poverty threshold. Out of the total, 18 are males & 5 are females. > The level of exposure and vulnerability of the population is characterized as moderate. The LGU's capability and adaptability measure is at an acceptable level. | | >> Onset of water borne diseases >> Increased number of morbidity/ mortality rate >> Increased number of drop-out rate >> Reduced number of school attendance >> Possible incidence of crime (looting) | >> Implementation of plans and ordinances (CLUP, CDP, MDRRMP, Zoning Ordinance) >> Conduct of medical and financial assistance >> Ensure peace and order | | |
| Sector: Economic Area: Agriculture (Farmers), Commerce & Industry Indicator: Barangay Inlambo | In Barangay Inlambo, 196 farmers are exposed to the identified climate stimuli, of which, 11 farmers are sensitive since they belong to families beyond poverty threshold and live in low lying area, of which, 7 are males and 4 are females. > Of the 8 total owners/ entrepreneurs, 2 of the entrepreneurs are sensitive since they are living in low lying area and 6 belong to families beyond poverty threshold > The level of exposure and vulnerability of the farmers & business owners is characterized as moderate. The LGU's capability and adaptability measure is at an acceptable level. | | >> Decrease of production >> Loss of Income >> Loss of livelihood >> Food shortage >> Increased malnutrition  >> Price hike of various commodities | >> Conduct Livelihood Programs >> Provision of disaster resilient flood control projects >> Seed subsidy (high yield and flood resilient variety) >> Adjust planting season of various crops >> Implementation of plans and ordinances (CLUP, CDP, MDRRMP, Zoning Ordinance) >> Prioritization of Climate Change adaptive projects (slope protection, flood control system, construction of drainage system/ dike) >> provision of different livelihood trainings as alternative source of income >> Construction of communal irrigation system | | |

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| Table 11. **DISASTER RISK ASSESSMENT SUMMARY MATRIX** | | | | |  |  | |
| **SYSTEM OF INTEREST: POPULATION DRA** | |  | | |  |  | |
| **HAZARD: FLOODING** | |  | | |  |  | |
|  | |  | | |  |  | |
| **Decision Area/s** | **Technical Findings** | | **Implications** | **Policy Interventions** | | |
| **A** | **B** | | **C** | **D** | | |
| Sector: Social Area: Population (Residential Settlement), Education Indicator: Barangay Lanas | In Barangay Lanas, 732 households are exposed to the identified climate stimuli, of which, 200 hhs are living in low lying areas and below poverty threshold. Out of the total 677 enrolled, 26 students & pupils are sensitive since they belong to families beyond poverty threshold, of which, 15 are male & 11 are female > The level of exposure and vulnerability of the population is characterized as moderate. The LGU's capability and adaptability measure is at an acceptable level. | | >> Onset of water borne diseases >> Increased number of morbidity/ mortality rate >> Increased number of drop-out rate >> Reduced number of school attendance >> Possible incidence of crime (looting) | >> Implementation of plans and ordinances (CLUP, CDP, MDRRMP, Zoning Ordinance) >> Conduct of medical and financial assistance >> Ensure peace and order | | |
| Sector: Economic Area: Agriculture (Farmers), Commerce & Industry Indicator: Barangay Lanas | In Barangay Lanas, 143 farmers are exposed to the identified climate stimuli, of which 49 farmers are sensitive since they belong to families beyond poverty threshold and live in low lying area. Out of the total, 40 are males and 9 are females. > Of the 30 fishermen, 20 fishermen are sensitive since they are living in low lying area, of which 15 are males and 5 are females. > Of the 10 total owners/ entrepreneurs, 4 of the entrepreneurs are sensitive since they are living in low lying area and 4 belong to families beyond poverty threshold | | >> Decrease of production>> Loss of Income>> Loss of livelihood >> Food shortage >> Increased malnutrition >> Price hike of various commodities | >> Conduct Livelihood Programs>> Provision of disaster resilient flood control projects>> Seed subsidy (high yield and flood resilient variety)>> Adjust planting season of various crops >> Implementation of plans and ordinances (CLUP, CDP, MDRRMP, Zoning Ordinance) >> Prioritization of Climate Change adaptive projects (slope protection, flood control system, construction of drainage system/ dike) >> provision of different livelihood trainings as alternative source of income >> Construction of communal irrigation system >> Fingerlings dispersal>> Planting of mangroves | | |
| Sector: Social Area: Population (Residential Settlement), Education Indicator: Barangay Landas | In Barangay Landas, 541 households are exposed to the identified climate stimuli, of which, 77 hhs are living in low lying areas and below poverty threshold. Out of the total 479 enrolled, 9 students & pupils are sensitive since they belong to families beyond poverty threshold, of which, 8 are males & 1 is female. > The level of exposure and vulnerability of the population is characterized as moderate. The LGU's capability and adaptability measure is at an acceptable level. | | >> Onset of water borne diseases >> Increased number of morbidity/ mortality rate >> Increased number of drop-out rate >> Reduced number of school attendance >> Possible incidence of crime (looting) | >> Implementation of plans and ordinances (CLUP, CDP, MDRRMP, Zoning Ordinance) >> Conduct of medical and financial assistance >> Ensure peace and order | | |
| Sector: Economic Area: Agriculture (Farmers), Commerce & Industry Indicator: Barangay Landas | In Barangay Landas, 39 farmers are exposed to the identified climate stimuli, of which, 17 farmers are sensitive since they belong to families beyond poverty threshold and live in low lying area. Out of the total, 10 are male and 7 are female. > Of the 11 total owners/ entrepreneurs, 6 of the entrepreneurs are sensitive since they are living in low lying area and 2 belong to families beyond poverty threshold | | >> Decrease of production >> Loss of Income >> Loss of livelihood >> Food shortage >> Increased malnutrition  >> Price hike of various commodities | >> Conduct Livelihood Programs >> Provision of disaster resilient flood control projects >> Seed subsidy (high yield and flood resilient variety) >> Adjust planting season of various crops >> Implementation of plans and ordinances (CLUP, CDP, MDRRMP, Zoning Ordinance) >> Prioritization of Climate Change adaptive projects (slope protection, flood control system, construction of drainage system/ dike) >> provision of different livelihood trainings as alternative source of income >> Construction of communal irrigation system | | |
| Sector: Social Area: Population (Residential Settlement), Education Indicator: Barangay Maasin | In Barangay Maasin, 741 households are exposed to the identified climate stimuli, of which, 211 hhs are living in low lying areas and below poverty threshold. Out of the total 639 enrolled, 34 students & pupils are sensitive since they belong to families beyond poverty threshold, of which, 25 are males & 9 are females. > The level of exposure and vulnerability of the population is characterized as moderate. The LGU's capability and adaptability measure is at an acceptable level. | | >> Onset of water borne diseases >> Increased number of morbidity/ mortality rate >> Increased number of drop-out rate >> Reduced number of school attendance >> Possible incidence of crime (looting) | >> Implementation of plans and ordinances (CLUP, CDP, MDRRMP, Zoning Ordinance) >> Conduct of medical and financial assistance >> Ensure peace and order | | |
| Sector: Economic Area: Agriculture (Farmers & Fishermen), Commerce & Industry Indicator: Barangay Maasin | In Barangay Maasin, 115 farmers are exposed to the identified climate stimuli, of which, 12 farmers are sensitive since they belong to families beyond poverty threshold and live in low lying area. Out of the total, 10 are males and 2 are females. > Of the 105 total fishermen, 60 fishermen are sensitive since they are living in low lying area, of which 50 are males and 10 are females.  > Of the 21 total owners/ entrepreneurs ,10 of the entrepreneurs are sensitive since they are living in low lying area and 5 belong to families beyond poverty threshold | | >> Decrease of production  >> Loss of Income  >> Loss of livelihood >> Food shortage >> Increased malnutrition >> Price hike of various commodities | >> Conduct Livelihood Programs>> Provision of disaster resilient flood control projects>> Seed subsidy (high yield and flood resilient variety)>> Adjust planting season of various crops >> Implementation of plans and ordinances (CLUP, CDP, MDRRMP, Zoning Ordinance) >> Prioritization of Climate Change adaptive projects (slope protection, flood control system, construction of drainage system/ dike) >> provision of different livelihood trainings as alternative source of income >> Construction of communal irrigation system >> Fingerlings dispersal>> Planting of mangroves | | |

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| Table 11. **DISASTER RISK ASSESSMENT SUMMARY MATRIX** | | | | |  |  | |
| **SYSTEM OF INTEREST: POPULATION DRA** | |  | | |  |  | |
| **HAZARD: FLOODING** | |  | | |  |  | |
|  | |  | | |  |  | |
| **Decision Area/s** | **Technical Findings** | | **Implications** | **Policy Interventions** | | |
| **A** | **B** | | **C** | **D** | | |
| Sector: Social Area: Population (Residential Settlement), Education Indicator: Barangay Macayug | In Barangay Macayug, 572 households are exposed to the identified climate stimuli, of which 305 hhs are living in low lying areas and below poverty threshold. Out of the total 551 enrolled, 33 students & pupils are sensitive since they belong to families beyond poverty threshold. Out of the total, 20 are males & 13 are females. > The level of exposure and vulnerability of the population is characterized as moderate. The LGU's capability and adaptability measure is at an acceptable level. | | >> Onset of water borne diseases >> Increased number of morbidity/ mortality rate >> Increased number of drop-out rate >> Reduced number of school attendance >> Possible incidence of crime (looting) | >> Implementation of plans and ordinances (CLUP, CDP, MDRRMP, Zoning Ordinance) >> Conduct of medical and financial assistance >> Ensure peace and order | | |
| Sector: Economic Area: Agriculture (Farmers), Commerce & Industry Indicator: Barangay Macayug | In Barangay Macayug, 117 farmers are exposed to the identified climate stimuli, of which, 69 farmers are sensitive since they belong to families beyond poverty threshold and live in low lying area. Out of the total, 50 are males and 19 are females. > Of the 7 total owners/ entrepreneurs, 3 of the entrepreneurs are sensitive since they are living in low lying area and 2 belong to families beyond poverty threshold > The level of exposure and vulnerability of the farmers & business owners is characterized as moderate. The LGU's capability and adaptability measure is at an acceptable level. | | >> Decrease of production >> Loss of Income >> Loss of livelihood >> Food shortage >> Increased malnutrition  >> Price hike of various commodities | >> Conduct Livelihood Programs >> Provision of disaster resilient flood control projects >> Seed subsidy (high yield and flood resilient variety) >> Adjust planting season of various crops >> Implementation of plans and ordinances (CLUP, CDP, MDRRMP, Zoning Ordinance) >> Prioritization of Climate Change adaptive projects (slope protection, flood control system, construction of drainage system/ dike) >> provision of different livelihood trainings as alternative source of income >> Construction of communal irrigation system | | |
| Sector: Social Area: Population (Residential Settlement), Education Indicator: Barangay Navaluan | In Barangay Navaluan, 762 households are exposed to the identified climate stimuli, of which,180 hhs are living in low lying areas and below poverty threshold. Out of the total 900 enrolled, 38 students & pupils are sensitive since they belong to families beyond poverty threshold. Out of the total, 25 are male & 13 are female. > The level of exposure and vulnerability of the population is characterized as moderate. The LGU's capability and adaptability measure is at an acceptable level. | | >> Onset of water borne diseases >> Increased number of morbidity/ mortality rate >> Increased number of drop-out rate >> Reduced number of school attendance >> Possible incidence of crime (looting) | >> Implementation of plans and ordinances (CLUP, CDP, MDRRMP, Zoning Ordinance) >> Conduct of medical and financial assistance >> Ensure peace and order | | |
| Sector: Economic Area: Agriculture (Farmers), Commerce & Industry Indicator: Barangay Navaluan | In Barangay Navaluan, 45 farmers are exposed to the identified climate stimuli, of which 37 farmers are sensitive since they belong to families beyond poverty threshold and live in low lying area. Out of the total, 30 are male and 7 are female. > Of the 11 total owners/ entrepreneurs, 5 of the entrepreneurs are sensitive since they are living in low lying area and 2 belong to families beyond poverty threshold  > The level of exposure and vulnerability of the farmers & business owners is characterized as moderate. The LGU's capability and adaptability measure is at an acceptable level. | | >> Decrease of production  >> Loss of Income  >> Loss of livelihood >> Food shortage >> Increased malnutrition >> Price hike of various commodities | >> Conduct Livelihood Programs>> Provision of disaster resilient flood control projects  >> Seed subsidy (high yield and flood resilient variety)  >> Adjust planting season of various crops >> Implementation of plans and ordinances (CLUP, CDP, MDRRMP, Zoning Ordinance) >> Prioritization of Climate Change adaptive projects (slope protection, flood control system, construction of drainage system/ dike) >> provision of different livelihood trainings as alternative source of income >> Construction of communal irrigation system | | |
| Sector: Social Area: Population (Residential Settlement), Education Indicator: Barangay Nibaliw | In Barangay Nibaliw, 675 households are exposed to the identified climate stimuli, of which, 335 hhs are living in low lying areas and below poverty threshold. Out of the total 750 enrolled, 39 students & pupils are sensitive since they belong to families beyond poverty threshold. Out of the total, 23 are male & 16 are female. > The level of exposure and vulnerability of the population is characterized as moderate. The LGU's capability and adaptability measure is at an acceptable level. | | >> Onset of water borne diseases >> Increased number of morbidity/ mortality rate >> Increased number of drop-out rate >> Reduced number of school attendance >> Possible incidence of crime (looting) | >> Implementation of plans and ordinances (CLUP, CDP, MDRRMP, Zoning Ordinance) >> Conduct of medical and financial assistance >> Ensure peace and order | | |
| Sector: Economic Area: Agriculture (Farmers), Commerce & Industry Indicator: Barangay Nibaliw | In Barangay Nibaliw, 35 farmers are exposed to the identified climate stimuli, of which 20 male farmers are sensitive since they belong to families beyond poverty threshold and live in low lying area. > Of the 11 total owners/ entrepreneurs, 2 of the entrepreneurs are sensitive since they are living in low lying area and 6 belong to families beyond poverty threshold  > The level of exposure and vulnerability of the farmers & business owners is characterized as moderate. The LGU's capability and adaptability measure is at an acceptable level. | | >> Decrease of production >> Loss of Income >> Loss of livelihood >> Food shortage >> Increased malnutrition  >> Price hike of various commodities | >> Conduct Livelihood Programs >> Provision of disaster resilient flood control projects >> Seed subsidy (high yield and flood resilient variety) >> Adjust planting season of various crops >> Implementation of plans and ordinances (CLUP, CDP, MDRRMP, Zoning Ordinance) >> Prioritization of Climate Change adaptive projects (slope protection, flood control system, construction of drainage system/ dike) >> provision of different livelihood trainings as alternative source of income >> Construction of communal irrigation system | | |

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| Table 11. **DISASTER RISK ASSESSMENT SUMMARY MATRIX** | | | | |  |  | |
| **SYSTEM OF INTEREST: POPULATION DRA** | |  | | |  |  | |
| **HAZARD: FLOODING** | |  | | |  |  | |
|  | |  | | |  |  | |
| **Decision Area/s** | **Technical Findings** | | **Implications** | **Policy Interventions** | | |
| **A** | **B** | | **C** | **D** | | |
| Sector: Social Area: Population (Residential Settlement), Education Indicator: Barangay Osiem | In Barangay Osiem, 809 households are exposed to the identified climate stimuli, of which, 87 hhsare living in low lying areas and below poverty threshold. Of the 741 total enrolled, 22 students & pupils are sensitive since they belong to families beyond poverty threshold. Out of the total, 15 are male & 7 are female. > The level of exposure and vulnerability of the population is characterized as moderate. The LGU's capability and adaptability measure is at an acceptable level. | | >> Onset of water borne diseases >> Increased number of morbidity/ mortality rate >> Increased number of drop-out rate >> Reduced number of school attendance >> Possible incidence of crime (looting) | >> Implementation of plans and ordinances (CLUP, CDP, MDRRMP, Zoning Ordinance) >> Conduct of medical and financial assistance >> Ensure peace and order | | |
| Sector: Economic Area: Agriculture (Farmers), Commerce & Industry Indicator: Barangay Osiem | In Barangay Osiem, 106 farmers are exposed to the identified climate stimuli, of which, 13 farmers are sensitive since they belong to families beyond poverty threshold and live in low lying area. Out of the total, 10 are male and 3 are female. > Of the 13 total owners/ entrepreneurs, 7 of the entrepreneurs are sensitive since they are living in low lying area and 3 belong to families beyond poverty threshold  > The level of exposure and vulnerability of the farmers & business owners is characterized as moderate. The LGU's capability and adaptability measure is at an acceptable level. | | >> Decrease of production  >> Loss of Income  >> Loss of livelihood >> Food shortage >> Increased malnutrition >> Price hike of various commodities | >> Conduct Livelihood Programs  >> Provision of disaster resilient flood control projects  >> Seed subsidy (high yield and flood resilient variety)  >> Adjust planting season of various crops >> Implementation of plans and ordinances (CLUP, CDP, MDRRMP, Zoning Ordinance) >> Prioritization of Climate Change adaptive projects (slope protection, flood control system, construction of drainage system/ dike) >> provision of different livelihood trainings as alternative source of income >> Construction of communal irrigation system | | |
| Sector: Social Area: Population (Residential Settlement), Education Indicator: Barangay Palua | In Barangay Palua, 446 households are exposed to the identified climate stimuli, of which, 125 hhs are living in low lying areas and below poverty threshold. Of the total 427 enrolled, 34 students & pupils are sensitive since they belong to families beyond poverty threshold. Out of the total, 22 are male & 12 are female. > The level of exposure and vulnerability of the population is characterized as moderate. The LGU's capability and adaptability measure is at an acceptable level. | | >> Onset of water borne diseases >> Increased number of morbidity/ mortality rate >> Increased number of drop-out rate >> Reduced number of school attendance >> Possible incidence of crime (looting) | >> Implementation of plans and ordinances (CLUP, CDP, MDRRMP, Zoning Ordinance) >> Conduct of medical and financial assistance >> Ensure peace and order | | |
| Sector: Economic Area: Agriculture (Farmers), Commerce & Industry Indicator: Barangay Palua | In Barangay Palua, 67 farmers are exposed to the identified climate stimuli, of which, 26 farmers are sensitive since they belong to families beyond poverty threshold and live in low lying area. Out of the total, 21 are males and 5 are females. > Of the 10 total owners/ entrepreneurs, 6 of the entrepreneurs are sensitive since they are living in low lying area and 2 belong to families beyond poverty threshold > The level of exposure and vulnerability of the farmers & business owners is characterized as moderate. The LGU's capability and adaptability measure is at an acceptable level. | | >> Decrease of production >> Loss of Income >> Loss of livelihood >> Food shortage >> Increased malnutrition  >> Price hike of various commodities | >> Conduct Livelihood Programs >> Provision of disaster resilient flood control projects >> Seed subsidy (high yield and flood resilient variety) >> Adjust planting season of various crops >> Implementation of plans and ordinances (CLUP, CDP, MDRRMP, Zoning Ordinance) >> Prioritization of Climate Change adaptive projects (slope protection, flood control system, construction of drainage system/ dike) >> provision of different livelihood trainings as alternative source of income >> Construction of communal irrigation system | | |
| Sector: Social Area: Population (Residential Settlement), Education Indicator: Barangay Poblacion | In Barangay Poblacion, 835 households are exposed to the identified climate stimuli, of which, 101 hhs are living in low lying areas and below poverty threshold. Of the 717 total enrolled, 21 students & pupils are sensitive since they belong to families beyond poverty threshold. Out of the total, 15 are male & 6 are female. > The level of exposure and vulnerability of the population is characterized as moderate. The LGU's capability and adaptability measure is at an acceptable level. | | >> Onset of water borne diseases >> Increased number of morbidity/ mortality rate >> Increased number of drop-out rate >> Reduced number of school attendance >> Possible incidence of crime(looting) | >> Implementation of plans and ordinances (CLUP, CDP, MDRRMP, Zoning Ordinance) >> Conduct of medical and financial assistance >> Ensure peace and order | | |
| Sector: Economic Area: Commerce & Industry Indicator: Barangay Poblacion | In Barangay Poblacion, of the 355 total owners/ entrepreneurs, 80 of the entrepreneurs are sensitive since they are living in low lying area and 20 belong to families beyond poverty threshold.  > The level of exposure and vulnerability of the business owners is characterized as moderate. The LGU's capability and adaptability measure is at an acceptable level. | | >> Loss of Income  >> Loss of livelihood >> Food shortage >> Increased malnutrition >> Price hike of various commodities | >> Conduct Livelihood Programs>> Provision of disaster resilient flood control projects  >> Seed subsidy (high yield and flood resilient variety)  >> Implementation of plans and ordinances (CLUP, CDP, MDRRMP, Zoning Ordinance) >> Prioritization of Climate Change adaptive projects (slope protection, flood control system, construction of drainage system/ dike) >> provision of different livelihood trainings as alternative source of income >> Construction of communal irrigation system | | |

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| Table 11. **DISASTER RISK ASSESSMENT SUMMARY MATRIX** | | | | |  |  | |
| **SYSTEM OF INTEREST: POPULATION DRA** | |  | | |  |  | |
| **HAZARD: FLOODING** | |  | | |  |  | |
|  | |  | | |  |  | |
| **Decision Area/s** | **Technical Findings** | | **Implications** | **Policy Interventions** | | |
| **A** | **B** | | **C** | **D** | | |
| Sector: Social Area: Population (Residential Settlement), Education Indicator: Barangay Pogo | In Barangay Pogo, 408 households are exposed to the identified climate stimuli, of which 53 hhs are living in low lying areas and below poverty threshold. Of the 307 total enrolled, 18 students & pupils are sensitive since they belong to families beyond poverty threshold. Out of the total, 10 are male & 8 are female. > The level of exposure and vulnerability of the population is characterized as moderate. The LGU's capability and adaptability measure is at an acceptable level. | | >> Onset of water borne diseases >> Increased number of morbidity/ mortality rate >> Increased number of drop-out rate >> Reduced number of school attendance >> Possible incidence of crime(looting) | >> Implementation of plans and ordinances (CLUP, CDP, MDRRMP, Zoning Ordinance) >> Conduct of medical and financial assistance >> Ensure peace and order | | |
| Sector: Economic Area: Agriculture (Farmers), Commerce & Industry Indicator: Barangay Pogo | In Barangay Pogo, 37 farmers are exposed to the identified climate stimuli, of which, 20 farmers are sensitive since they belong to families beyond poverty threshold and live in low lying area. Out of the total 16 are male and 4 are female. > Of the 10 total owners/ entrepreneurs, 5 of the entrepreneurs are sensitive since they are living in low lying area and 3 belong to families beyond poverty threshold  > The level of exposure and vulnerability of the farmers & business owners is characterized as moderate. The LGU's capability and adaptability measure is at an acceptable level. | | >> Decrease of production >> Loss of Income >> Loss of livelihood >> Food shortage >> Increased malnutrition  >> Price hike of various commodities | >> Conduct Livelihood Programs >> Provision of disaster resilient flood control projects >> Seed subsidy (high yield and flood resilient variety) >> Adjust planting season of various crops >> Implementation of plans and ordinances (CLUP, CDP, MDRRMP, Zoning Ordinance) >> Prioritization of Climate Change adaptive projects (slope protection, flood control system, construction of drainage system/ dike) >> provision of different livelihood trainings as alternative source of income >> Construction of communal irrigation system | | |
| Sector: Social Area: Population (Residential Settlement), Education Indicator: Barangay Salaan | In Barangay Salaan, 589 households are exposed to the identified climate stimuli, of which, 228 hhs are living in low lying areas and below poverty threshold. Of the 601 total enrolled, 17 students & pupils are sensitive since they belong to families beyond poverty threshold. Out of the total, 10 are male & 7 are female. > The level of exposure and vulnerability of the population is characterized as moderate. The LGU's capability and adaptability measure is at an acceptable level. | | >> Onset of water borne diseases >> Increased number of morbidity/ mortality rate >> Increased number of drop-out rate >> Reduced number of school attendance >> Possible incidence of crime (looting) | >> Implementation of plans and ordinances (CLUP, CDP, MDRRMP, Zoning Ordinance) >> Conduct of medical and financial assistance >> Ensure peace and order | | |
| Sector: Economic Area: Agriculture (Farmers & Fishermen), Commerce & Industry Indicator: Barangay Salaan | In Barangay Salaan, 13 farmers are sensitive since they belong to families beyond poverty threshold and live in low lying area. Out of the total, 10 are male and 5 are female.  >> Of the 8 business owners/ entrepreneurs, of which 5 are sensitive since they are living in low lying area and 2 belong to families beyond poverty threshold  >> The level of exposure and vulnerability of the farmers & business owners is characterized as moderate. The LGU's capability and adaptability measure is at an acceptable level. | | >> Decrease of production  >> Loss of Income  >> Loss of livelihood >> Food shortage >> Increased malnutrition >> Price hike of various commodities | >> Conduct Livelihood Programs  >> Provision of disaster resilient flood control projects  >> Seed subsidy (high yield and flood resilient variety)  >> Adjust planting season of various crops >> Implementation of plans and ordinances (CLUP, CDP, MDRRMP, Zoning Ordinance) >> Prioritization of Climate Change adaptive projects (slope protection, flood control system, construction of drainage system/ dike) >> provision of different livelihood trainings as alternative source of income >> Construction of communal irrigation system | | |
| Sector: Social Area: Population (Residential Settlement), Education Indicator: Barangay Talogtog | In Barangay Talogtog 570 households are exposed to the identified climate stimuli, of which, 70 hhs are living in low lying areas and below poverty threshold. Out of the 506 total enrolled, 20 pupils of Talogotg Elem. School are sensitive since they belong to families beyond poverty threshold, of which 13 are males & 7 are females. > The level of exposure and vulnerability of the population is characterized as moderate. The LGU's capability and adaptability measure is at an acceptable level. | | >> Onset of water borne diseases >> Increased number of morbidity/ mortality rate >> Increased number of drop-out rate >> Reduced number of school attendance >> Possible incidence of crime(looting) | >> Implementation of plans and ordinances (CLUP, CDP, MDRRMP, Zoning Ordinance) >> Conduct of medical and financial assistance >> Ensure peace and order | | |
| Sector: Economic Area: Agriculture (Farmers & Fishermen), Commerce & Industry Indicator: Barangay Talogtog | In Barangay Talogtog, 82 farmers are exposed to the identified climate stimuli, of which 30 farmers are sensitive since they belong to families beyond poverty threshold and live in low lying area. Of which, 25 are males and 5 are females. > Of the 96 fishermen, 38 fishermen are sensitive since they are living in low lying area, of which, 35 are males and 3 is females.  > Of the 15 total owners/ entrepreneurs, 8 of the entrepreneurs are sensitive since they are living in low lying area and 4 belong to families beyond poverty threshold  > The level of exposure and vulnerability of the farmers & business owners is characterized as moderate. The LGU's capability and adaptability measure is at an acceptable level. | | >> Decrease of production >> Loss of Income >> Loss of livelihood >> Food shortage >> Increased malnutrition  >> Price hike of various commodities | >> Conduct Livelihood Programs >> Provision of disaster resilient flood control projects >> Seed subsidy (high yield and flood resilient variety) >> Adjust planting season of various crops >> Implementation of plans and ordinances (CLUP, CDP, MDRRMP, Zoning Ordinance) >> Prioritization of Climate Change adaptive projects (slope protection, flood control system, construction of drainage system/ dike) >> provision of different livelihood trainings as alternative source of income >> Construction of communal irrigation system  >> Fingerlings dispersal >> Planting of mangroves | | |

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| Table 11. **DISASTER RISK ASSESSMENT SUMMARY MATRIX** | | | | |  |  | |
| **SYSTEM OF INTEREST: POPULATION DRA** | |  | | |  |  | |
| **HAZARD: FLOODING** | |  | | |  |  | |
|  | |  | | |  |  | |
| **Decision Area/s** | **Technical Findings** | | **Implications** | **Policy Interventions** | | |
| **A** | **B** | | **C** | **D** | | |
| Sector: Social Area: Population (Residential Settlement), Education Indicator: Barangay Tebag | In Barangay Tebag, 605 households are exposed to the identified climate stimuli, of which 185 hhs are living in low lying areas and below poverty threshold. Out of the 688 total enrolled, 39 students & pupils are sensitive since they belong to families beyond poverty threshold. Out of the total, 22 are male & 17 are female. > The level of exposure and vulnerability of the population is characterized as moderate. The LGU's capability and adaptability measure is at an acceptable level. | | >> Onset of water borne diseases >> Increased number of morbidity/ mortality rate >> Increased number of drop-out rate >> Reduced number of school attendance >> Possible incidence of crime (looting) | >> Implementation of plans and ordinances (CLUP, CDP, MDRRMP, Zoning Ordinance) >> Conduct of medical and financial assistance >> Ensure peace and order | | |
| Sector: Economic Area: Agriculture (Farmers), Commerce & Industry Indicator: Barangay Tebag | In Barangay Tebag, 23 farmers are exposed to the identified climate stimuli, of which 13 farmers are sensitive since they belong to families beyond poverty threshold and live in low lying area. Out of the total, 10 are male and 3 are female. > Of the 24 total owners/ entrepreneurs, 10 of the entrepreneurs are sensitive since they are living in low lying area and 6 belong to families beyond poverty threshold.  > The level of exposure and vulnerability of the farmers & business owners is characterized as moderate. The LGU's capability and adaptability measure is at an acceptable level. | | >> Decrease of production  >> Loss of Income  >> Loss of livelihood >> Food shortage >> Increased malnutrition >> Price hike of various commodities | >> Conduct Livelihood Programs>> Provision of disaster resilient flood control projects  >> Seed subsidy (high yield and flood resilient variety)  >> Adjust planting season of various crops >> Implementation of plans and ordinances (CLUP, CDP, MDRRMP, Zoning Ordinance) >> Prioritization of Climate Change adaptive projects (slope protection, flood control system, construction of drainage system/ dike) >> provision of different livelihood trainings as alternative source of income >> Construction of communal irrigation system | | |
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| **Instructions:** |  | |  |  | | |
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| A. Based on the risks maps generated for the various exposure units, highlight and identify decision areas or elements. Decision areas can be the barangay or specific sites in the barangay such as coastal area, mountain sides, and riverbanks. | | | | | | |
| - Identify decision areas in need of intervention based on the generated risk maps | | | | | | |
| - This can be identified as high to moderate risk areas or may pertain to a specific area in the barangay | | | | | | |
|  |  | |  |  | | |
| B. List down the significant findings/observed conditions and causes by describing the area or element in terms of the level of risk, highlighting the various contributing factors such as exposure, sensitivity, and adaptive capacity. | | | | | | |
| - Identify the hazard and how these may manifest in the identified decision area | | | | | | |
| - Expound on the exposure information (i.e. number of affected population, exposure percentage, exposed area, and cost) | | | | | | |
| - Highlight relevant sensitivities of the exposed element to the identified hazard | | | | | | |
| - Highlight relevant adaptive capacity indicators of the exposed element to the identified hazard | | | | | | |
|  |  | |  |  | | |
| C. List down the planning/development implications when the identified risks in the various decision areas are not addressed. | | | | | | |
| - Highlight potential impact as mentioned in the sectoral impact chains | | | | | | |
| - Highlight future scenario if risks are not addressed | | | | | | |
| - Identify future needs with emphasis on the spatial framework plan of the municipality | | | | | | |
| D. Identify various policy interventions that should seek to reduce the level of risks by addressing the exposure, sensitivity, with consideration to the current adaptive capacities | | | | | | |
| - Identify the various disaster risk adaptation and mitigation measures to reduce into an acceptable and tolerable level. | | | | | | |

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| Table 11. **DISASTER RISK ASSESSMENT SUMMARY MATRIX** | | |  |  | |  |
| **SYSTEM OF INTEREST: NATURAL RESOURCES DRA** | | |  |  | |  |
| **HAZARD: FLOODING** | | |  |  | |  |
|  | | |  |  | |  |
| **Decision Area/s** | **Technical Findings** | **Implications** | **Policy Interventions** | |
| **A** | **B** | **C** | **D** | |
| Sector: Economic Area: Agriculture (Farmland & Fishpond) Indicator: Barangay Anolid | In Barangay Anolid, 101 hectares or about 3,524.4 MT productions are exposed to the identified climate stimuli, of which, 60 hectares or 59% of the farmlands are submerged during flood. Decrease of production is about 2,093.70 MT. Of the 14.4 hectares or about 16.2 MT productions of fishponds, 10 hectares or 69.44% are submerged during flood. Decrease of production is about 11.25 MT. > The level of exposure and vulnerability of the Farmland and fishpond is characterized as high. The LGU's capability and adaptability measure is at an acceptable level. | >> Decrease of production >> Loss of Income >> Loss of livelihood >> Food shortage >> Increased malnutrition  >> Price hike of various commodities | >> Conduct Livelihood Programs >> Provision of disaster resilient flood control projects >> Seed subsidy (high yield and flood resilient variety) >> Adjust planting season of various crops >> Implementation of plans and ordinances (CLUP, CDP, MDRRMP, Zoning Ordinance) >> Prioritization of Climate Change adaptive projects (slope protection, flood control system, construction of drainage system/ dike) >> provision of different livelihood trainings as alternative source of income >> Construction of communal irrigation system  >> Fingerlings dispersal&Planting of mangroves | |
| Sector: Economic Area: Agriculture (Farmland) Indicator: Barangay Banaoang | In Barangay Banaoang, 25 hectares or about 105 MT productions are exposed to the identified stimuli, of which, 10 hectares or 40 % of the farmlands are submerged during flood. Decrease of production is about 42 MT. > The level of exposure and vulnerability of the Farmland is characterized as high. The LGU's capability and adaptability measure is at an acceptable level. | >> Decrease of production >> Loss of Income >> Loss of livelihood >> Food shortage >> Increased malnutrition  >> Price hike of various commodities | >> Conduct Livelihood Programs >> Provision of disaster resilient flood control projects >> Seed subsidy (high yield and flood resilient variety) >> Adjust planting season of various crops >> Implementation of plans and ordinances (CLUP, CDP, MDRRMP, Zoning Ordinance) >> Prioritization of Climate Change adaptive projects (slope protection, flood control system, construction of drainage system/ dike) >> provision of different livelihood trainings as alternative source of income >> Construction of communal irrigation system | |
| Sector: Economic Area: Agriculture (Farmland) Indicator: Barangay Bantayan | In Barangay Bantayan, 5 hectares or about 198 MT productions are exposed to the identified stimuli, of which 2 hectares or 40 % of the farmland are submerged during flood. Decreased of production about 79.2 MT. > The level of exposure and vulnerability of the Farmland is characterized as high. The LGU's capability and adaptability measure is at an acceptable level. | >> Decrease of production >> Loss of Income >> Loss of livelihood >> Food shortage >> Increased malnutrition  >> Price hike of various commodities | >> Conduct Livelihood Programs >> Provision of disaster resilient flood control projects >> Seed subsidy (high yield and flood resilient variety) >> Adjust planting season of various crops >> Implementation of plans and ordinances (CLUP, CDP, MDRRMP, Zoning Ordinance) >> Prioritization of Climate Change adaptive projects (slope protection, flood control system, construction of drainage system/ dike) >> provision of different livelihood trainings as alternative source of income >> Construction of communal irrigation system | |
| Sector: Economic Area: Agriculture (Farmland & Fishpond) Indicator: Barangay Bateng | In Barangay Bateng, 2 hectares or about 100 MT productions are exposed to the identified stimuli, of which, 1 hectare or 50 % of the farmlands are submerged during flood. Decrease of production is about 50 MT. Of the 70.58 hectares or about 79.40 MT production of fishpond, 42.35 hectares or 60% of the fishponds are submerged during flood. Decreased of production about 47.64 MT. > The level of exposure and vulnerability of the Farmland and fishpond is characterized as high. The LGU's capability and adaptability measure is at an acceptable level. | >> Decrease of production >> Loss of Income >> Loss of livelihood >> Food shortage >> Increased malnutrition  >> Price hike of various commodities | >> Conduct Livelihood Programs >> Provision of disaster resilient flood control projects >> Seed subsidy (high yield and flood resilient variety) >> Adjust planting season of various crops >> Implementation of plans and ordinances (CLUP, CDP, MDRRMP, Zoning Ordinance) >> Prioritization of Climate Change adaptive projects (slope protection, flood control system, construction of drainage system/ dike) >> provision of different livelihood trainings as alternative source of income >> Construction of communal irrigation system  >> Fingerlings dispersal&Planting of mangroves | |
| Sector: Economic Area: Agriculture (Farmland) Indicator: Barangay David | In Barangay David, 60 hectares or about 594 MT productions are exposed to the identified stimuli, of which, 45 hectares or 75 % of the farmlands are submerged during flood. Decrease of production is about 2,093.70 MT | >> Decrease of production  >> Loss of Income  >> Loss of livelihood >> Food shortage >> Increased malnutrition >> Price hike of various commodities | >> Conduct Livelihood Programs  >> Provision of disaster resilient flood control projects  >> Seed subsidy (high yield and flood resilient variety)  >> Adjust planting season of various crops >> Implementation of plans and ordinances (CLUP, CDP, MDRRMP, Zoning Ordinance) >> Prioritization of Climate Change adaptive projects (slope protection, flood control system, construction of drainage system/ dike) >> provision of different livelihood trainings as alternative source of income >> Construction of communal irrigation system | |
| Sector: Economic Area: Agriculture (Farmland) Indicator: Barangay Embarcadero | In Barangay Embarcadero, 25 hectares or about 105 MT productions are exposed to the identified stimuli, of which, 16.25 hectares or 65% of the farmlands are submerged during flood. Decrease of production is about 68.25 MT. > The level of exposure and vulnerability of the Farmland is characterized as high. The LGU's capability and adaptability measure is at an acceptable level. | >> Decrease of production >> Loss of Income >> Loss of livelihood >> Food shortage >> Increased malnutrition  >> Price hike of various commodities | >> Conduct Livelihood Programs >> Provision of disaster resilient flood control projects >> Seed subsidy (high yield and flood resilient variety) >> Adjust planting season of various crops >> Implementation of plans and ordinances (CLUP, CDP, MDRRMP, Zoning Ordinance) >> Prioritization of Climate Change adaptive projects (slope protection, flood control system, construction of drainage system/ dike) >> provision of different livelihood trainings as alternative source of income >> Construction of communal irrigation system | |

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| Table 11. **DISASTER RISK ASSESSMENT SUMMARY MATRIX** | | |  |  | |
| **SYSTEM OF INTEREST: NATURAL RESOURCES DRA** | | |  |  | |
| **HAZARD: FLOODING** | | |  |  | |
|  | | |  |  | |
| **Decision Area/s** | **Technical Findings** | **Implications** | **Policy Interventions** | |
| **A** | **B** | **C** | **D** | |
| Sector: Economic Area: Agriculture (Farmland) Indicator: Barangay Guesang | In Barangay Guesang, 68.5 hectares or about 225 MT productions are exposed to the identified stimuli, of which, 41.79 hectares or 61% of the farmlands are submerged during flood. Decrease of production isabout 137.27 MT.  The level of exposure and vulnerability of the Farmland is characterized as high.  The LGU's capability and adaptability measure is at an acceptable level. | >> Decrease of production >> Loss of Income >> Loss of livelihood >> Food shortage >> Increased malnutrition  >> Price hike of various commodities | >> Conduct Livelihood Programs >> Provision of disaster resilient flood control projects >> Seed subsidy (high yield and flood resilient variety) >> Adjust planting season of various crops >> Implementation of plans and ordinances (CLUP, CDP, MDRRMP, Zoning Ordinance) >> Prioritization of Climate Change adaptive projects (slope protection, flood control system, construction of drainage system/ dike) >> provision of different livelihood trainings as alternative source of income >> Construction of communal irrigation system | |
| Sector: Economic Area: Agriculture (Farmland) Indicator: Barangay Guiguilonen | In Barangay Guiguilonen, 10 hectares or about 5 MT productions are exposed to the identified stimuli, of which, 5 hectares or 50% of the farmlands are submerged during flood. Decrease of production is about 2.5 MT | >> Decrease of production >> Loss of Income >> Loss of livelihood >> Food shortage >> Increased malnutrition  >> Price hike of various commodities | >> Conduct Livelihood Programs >> Provision of disaster resilient flood control projects >> Seed subsidy (high yield and flood resilient variety) >> Adjust planting season of various crops >> Implementation of plans and ordinances (CLUP, CDP, MDRRMP, Zoning Ordinance) >> Prioritization of Climate Change adaptive projects (slope protection, flood control system, construction of drainage system/ dike) >> provision of different livelihood trainings as alternative source of income >> Construction of communal irrigation system | |
| Sector: Economic Area: Agriculture (Farmland) Indicator: Barangay Inlambo | In Barangay Inlambo, 65 hectares or about 638 MT productions are exposed to the identified stimuli, of which, 35 hectares or 53% of the farmlands are submerged during flood. Decrease of production is about 343.54 MT.  The level of exposure and vulnerability of the Farmland is characterized as high.  The LGU's capability and adaptability measure is at an acceptable level. | >> Decrease of production  >> Loss of Income  >> Loss of livelihood >> Food shortage >> Increased malnutrition >> Price hike of various commodities | >> Conduct Livelihood Programs  >> Provision of disaster resilient flood control projects  >> Seed subsidy (high yield and flood resilient variety)  >> Adjust planting season of various crops >> Implementation of plans and ordinances (CLUP, CDP, MDRRMP, Zoning Ordinance) >> Prioritization of Climate Change adaptive projects (slope protection, flood control system, construction of drainage system/ dike) >> provision of different livelihood trainings as alternative source of income >> Construction of communal irrigation system | |
| Sector: Economic Area: Agriculture (Farmland & Fishpond) Indicator: Barangay Lanas | In Barangay Lanas, 10 hectares or about 50 MT productions are exposed to the identified stimuli, of which, 5.2 hectares or 52% of the farmlands are submerged during flood. Decrease of production is about 26 MT. Of the 33.29 hectares or about 37.45 MT productions, 25 hectares or 75.09% of the fishponds are submerged during flood. Decrease of production is about 28.12 MT. | >> Decrease of production >> Loss of Income >> Loss of livelihood >> Food shortage >> Increased malnutrition  >> Price hike of various commodities | >> Conduct Livelihood Programs >> Provision of disaster resilient flood control projects >> Seed subsidy (high yield and flood resilient variety) >> Adjust planting season of various crops >> Implementation of plans and ordinances (CLUP, CDP, MDRRMP, Zoning Ordinance) >> Prioritization of Climate Change adaptive projects (slope protection, flood control system, construction of drainage system/ dike) >> provision of different livelihood trainings as alternative source of income >> Construction of communal irrigation system  >> Fingerlings dispersal&Planting of mangroves | |
| Sector: Economic Area: Agriculture (Farmland) Indicator: Barangay Landas | In Barangay Landas, 45 hectares or about 225 MT productions are exposed to the identified stimuli, of which, 9 hectares or 20% of the farmlands are submerged during flood. Decrease of production is about 45 MT. | >> Decrease of production >> Loss of Income >> Loss of livelihood >> Food shortage >> Increased malnutrition  >> Price hike of various commodities | >> Conduct Livelihood Programs >> Provision of disaster resilient flood control projects >> Seed subsidy (high yield and flood resilient variety) >> Adjust planting season of various crops >> Implementation of plans and ordinances (CLUP, CDP, MDRRMP, Zoning Ordinance) >> Prioritization of Climate Change adaptive projects (slope protection, flood control system, construction of drainage system/ dike) >> provision of different livelihood trainings as alternative source of income >> Construction of communal irrigation system | |
| Sector: Economic Area: Agriculture (Farmland & Fishpond) Indicator: Barangay Maasin | In Barangay Maasin, 10 hectares or about 198 MT productions are exposed to the identified stimuli, of which, 5 hectares or 50% of the farmlands are submerged during flood. Decrease of production is about 99 MT. Of the 107.27 Hectares or 120.6 MT productions, 80.45 hectares or 75% of the fishponds are submerged during flood. Decrease of production is about 90.50 MT. The level of exposure and vulnerability of the Farmland and fishpond is characterized as high. The LGU's capability and adaptability measure is at an acceptable level. | >> Decrease of production >> Loss of Income >> Loss of livelihood >> Food shortage >> Increased malnutrition  >> Price hike of various commodities | >> Conduct Livelihood Programs >> Provision of disaster resilient flood control projects >> Seed subsidy (high yield and flood resilient variety) >> Adjust planting season of various crops >> Implementation of plans and ordinances (CLUP, CDP, MDRRMP, Zoning Ordinance) >> Prioritization of Climate Change adaptive projects (slope protection, flood control system, construction of drainage system/ dike) >> provision of different livelihood trainings as alternative source of income >> Construction of communal irrigation system  >> Fingerlings dispersal&Planting of mangroves | |

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| Table 11. **DISASTER RISK ASSESSMENT SUMMARY MATRIX** | | |  |  | |
| **SYSTEM OF INTEREST: NATURAL RESOURCES DRA** | | |  |  | |
| **HAZARD: FLOODING** | | |  |  | |
|  | | |  |  | |
| **Decision Area/s** | **Technical Findings** | **Implications** | **Policy Interventions** | |
| **A** | **B** | **C** | **D** | |
| Sector: Economic Area: Agriculture (Farmland & Fishpond) Indicator: Barangay Anolid | In Barangay Macayug, 30 hectares or about 365.2 MT productions are exposed to the identified stimuli, of which, 25 hectares or 83% of the farmlands are submerged during flood. Decrease of production is about 304.33 MT. The level of exposure and vulnerability of the Farmland is characterized as high.  The LGU's capability and adaptability measure is at an acceptable level. | >> Decrease of production  >> Loss of Income  >> Loss of livelihood >> Food shortage >> Increased malnutrition >> Price hike of various commodities | >> Conduct Livelihood Programs>> Provision of disaster resilient flood control projects>> Seed subsidy (high yield and flood resilient variety)>> Adjust planting season of various crops >> Implementation of plans and ordinances (CLUP, CDP, MDRRMP, Zoning Ordinance) >> Prioritization of Climate Change adaptive projects (slope protection, flood control system, construction of drainage system/ dike) >> provision of different livelihood trainings as alternative source of income >> Construction of communal irrigation system | |
| Sector: Economic Area: Agriculture (Farmland) Indicator: Barangay Navaluan | In Barangay Navaluan, 37 hectares or about 162.8 MT productions are exposed to the identified stimuli, of which, 18 hectares or 48% of the farmlands are submerged during flood. Decrease of production is about 79.2 MT. The level of exposure and vulnerability of the Farmland is characterized as high.  The LGU's capability and adaptability measure is at an acceptable level. | >> Decrease of production >> Loss of Income >> Loss of livelihood >> Food shortage >> Increased malnutrition  >> Price hike of various commodities | >> Conduct Livelihood Programs >> Provision of disaster resilient flood control projects >> Seed subsidy (high yield and flood resilient variety) >> Adjust planting season of various crops >> Implementation of plans and ordinances (CLUP, CDP, MDRRMP, Zoning Ordinance) >> Prioritization of Climate Change adaptive projects (slope protection, flood control system, construction of drainage system/ dike) >> provision of different livelihood trainings as alternative source of income >> Construction of communal irrigation system | |
| Sector: Economic Area: Agriculture (Farmland) Indicator: Barangay Nibaliw | In Barangay Nibaliw, 36 hectares or about 162.8 MT productions are exposed to the identified stimuli, of which, 20 hectares or 55.56% of the farmlands are submerged during flood. Decrease of production is about 90.44 MT.  The level of exposure and vulnerability of the Farmland is characterized as high.  The LGU's capability and adaptability measure is at an acceptable level. | >> Decrease of production >> Loss of Income >> Loss of livelihood >> Food shortage >> Increased malnutrition  >> Price hike of various commodities | >> Conduct Livelihood Programs >> Provision of disaster resilient flood control projects >> Seed subsidy (high yield and flood resilient variety) >> Adjust planting season of various crops >> Implementation of plans and ordinances (CLUP, CDP, MDRRMP, Zoning Ordinance) >> Prioritization of Climate Change adaptive projects (slope protection, flood control system, construction of drainage system/ dike) >> provision of different livelihood trainings as alternative source of income >> Construction of communal irrigation system | |
| Sector: Economic Area: Agriculture (Farmland) Indicator: Barangay Osiem | In Barangay Osiem, 47 hectares or about 206.8 MT productions are exposed to the identified stimuli, of which, 27 hectares or 57% of the farmlands are submerged during flood. Decrease of production is about 118.8 MT. The level of exposure and vulnerability of the Farmland is characterized as high.  The LGU's capability and adaptability measure is at an acceptable level. | >> Decrease of production >> Loss of Income >> Loss of livelihood >> Food shortage >> Increased malnutrition  >> Price hike of various commodities | >> Conduct Livelihood Programs >> Provision of disaster resilient flood control projects >> Seed subsidy (high yield and flood resilient variety) >> Adjust planting season of various crops >> Implementation of plans and ordinances (CLUP, CDP, MDRRMP, Zoning Ordinance) >> Prioritization of Climate Change adaptive projects (slope protection, flood control system, construction of drainage system/ dike) >> provision of different livelihood trainings as alternative source of income >> Construction of communal irrigation system | |
| Sector: Economic Area: Agriculture (Farmland) Indicator: Barangay Palua | In Barangay Palua, 35 hectares or about 180 MT productions are exposed to the identified stimuli, of which 14 hectares or 40% of the farmlands are submerged during flood. Decrease of production is about 72 MT. The level of exposure and vulnerability of the Farmland is characterized as high.  The LGU's capability and adaptability measure is at an acceptable level. | >> Decreased of production>> Loss of Income>> Loss of livelihood >> Food shortage >> Increased malnutrition >> Price hike of various commodities | >> Conduct Livelihood Programs>> Provision of disaster resilient flood control projects>> Seed subsidy (high yield and flood resilient variety)>> Adjust planting season of various crops >> Implementation of plans and ordinances (CLUP, CDP, MDRRMP, Zoning Ordinance) >> Prioritization of Climate Change adaptive projects (slope protection, flood control system, construction of drainage system/ dike) >> provision of different livelihood trainings as alternative source of income >> Construction of communal irrigation system | |
| Sector: Economic Area: Agriculture (Farmland) Indicator: Barangay Pogo | In Barangay Pogo, 36 hectares or about 206.8 MT productions are exposed to the identified stimuli, of which 16.2 hectares or 45% of the farmlands are submerged during flood. Decrease of production is about 93.06 MT. The level of exposure and vulnerability of the Farmland is characterized as high.  The LGU's capability and adaptability measure is at an acceptable level. | >> Decrease of production >> Loss of Income >> Loss of livelihood >> Food shortage >> Increased malnutrition  >> Price hike of various commodities | >> Conduct Livelihood Programs >> Provision of disaster resilient flood control projects >> Seed subsidy (high yield and flood resilient variety) >> Adjust planting season of various crops >> Implementation of plans and ordinances (CLUP, CDP, MDRRMP, Zoning Ordinance) >> Prioritization of Climate Change adaptive projects (slope protection, flood control system, construction of drainage system/ dike) >> provision of different livelihood trainings as alternative source of income >> Construction of communal irrigation system | |

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| Table 11. **DISASTER RISK ASSESSMENT SUMMARY MATRIX** | | |  |  | |
| **SYSTEM OF INTEREST: NATURAL RESOURCES DRA** | | |  |  | |
| **HAZARD: FLOODING** | | |  |  | |
|  | | |  |  | |
| **Decision Area/s** | **Technical Findings** | **Implications** | **Policy Interventions** | |
| **A** | **B** | **C** | **D** | |
| Sector: Economic Area: Agriculture (Farmland) Indicator: Barangay Salaan | In Barangay Salaan, 25 hectares or about 105 MT productions are exposed to the identified stimuli, of which, 16.25 hectares or 65% of the farmlands are submerged during flood. Decrease of production is about 68.25 MT. The level of exposure and vulnerability of the Farmland is characterized as high.  The LGU's capability and adaptability measure is at an acceptable level. | >> Decrease of production >> Loss of Income >> Loss of livelihood >> Food shortage >> Increased malnutrition  >> Price hike of various commodities | >> Conduct Livelihood Programs >> Provision of disaster resilient flood control projects >> Seed subsidy (high yield and flood resilient variety) >> Adjust planting season of various crops >> Implementation of plans and ordinances (CLUP, CDP, MDRRMP, Zoning Ordinance) >> Prioritization of Climate Change adaptive projects (slope protection, flood control system, construction of drainage system/ dike) >> provision of different livelihood trainings as alternative source of income >> Construction of communal irrigation system | |
| Sector: Economic Area: Agriculture (Farmland & Fishpond) Indicator: Barangay Talogtog | In Barangay Talogtog, 2 hectares or about 100 MT productions are exposed to the identified stimuli, of which, 1 hectare or 50 % of the farmlands are submerged during flood. Decrease of production is about 50 MT. Of the 35.028 hectares or 39.40 MT productions, 18 hectares or 51.39% of the fishponds are submerged during flood. Decrease of production is about 28.34 MT. The level of exposure and vulnerability of the Farmland and fishpond is characterized as high. The LGU's capability and adaptability measure is at an acceptable level. | >> Decrease of production >> Loss of Income >> Loss of livelihood >> Food shortage >> Increased malnutrition  >> Price hike of various commodities | >> Conduct Livelihood Programs >> Provision of disaster resilient flood control projects >> Seed subsidy (high yield and flood resilient variety) >> Adjust planting season of various crops >> Implementation of plans and ordinances (CLUP, CDP, MDRRMP, Zoning Ordinance) >> Prioritization of Climate Change adaptive projects (slope protection, flood control system, construction of drainage system/ dike) >> provision of different livelihood trainings as alternative source of income >> Construction of communal irrigation system  >> Fingerlings dispersal >> Planting of mangroves | |
| Sector: Economic Area: Agriculture (Farmland) Indicator: Barangay Tebag | In Barangay Tebag, 30 hectares or about 365.2 MT productions are exposed to the identified stimuli, of which, 25 hectares or 83% of the farmlands are submerged during flood.  Decrease of production is about 304.33 MT The level of exposure and vulnerability of the Farmland is characterized as high.  The LGU's capability and adaptability measure is at an acceptable level. | >> Decrease of production  >> Loss of Income  >> Loss of livelihood >> Food shortage >> Increased malnutrition >> Price hike of various commodities | >> Conduct Livelihood Programs  >> Provision of disaster resilient flood control projects  >> Seed subsidy (high yield and flood resilient variety)  >> Adjust planting season of various crops >> Implementation of plans and ordinances (CLUP, CDP, MDRRMP, Zoning Ordinance) >> Prioritization of Climate Change adaptive projects (slope protection, flood control system, construction of drainage system/ dike) >> provision of different livelihood trainings as alternative source of income >> Construction of communal irrigation system | |
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| **Instructions:** |  |  |  | |
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| A. Based on the risks maps generated for the various exposure units, highlight and identify decision areas or elements. Decision areas can be the barangay or specific sites in the barangay such as coastal area, mountain sides, and riverbanks. | | | | |
| - Identify decision areas in need of intervention based on the generated risk maps | | | | |
| - This can be identified as high to moderate risk areas or may pertain to a specific area in the barangay | | | | |
| B. List down the significant findings/observed conditions and causes by describing the area or element in terms of the level of risk, highlighting the various contributing factors such as exposure, sensitivity, and adaptive capacity. | | | | |
| - Identify the hazard and how these may manifest in the identified decision area | | | | |
| - Expound on the exposure information (i.e. number of affected population, exposure percentage, exposed area, and cost) | | | | |
| - Highlight relevant sensitivities of the exposed element to the identified hazard | | | | |
| - Highlight relevant adaptive capacity indicators of the exposed element to the identified hazard | | | | |
|  |  |  |  | |
| C. List down the planning/development implications when the identified risks in the various decision areas are not addressed. | | | | |
| - Highlight potential impact as mentioned in the sectoral impact chains | | | | |
| - Highlight future scenario if risks are not addressed | | | | |
| - Identify future needs with emphasis on the spatial framework plan of the municipality | | | | |
|  |  |  |  | |
| D. Identify various policy interventions that should seek to reduce the level of risks by addressing the exposure, sensitivity, with consideration to the current adaptive capacities | | | | |
| - Identify the various disaster risk adaptation and mitigation measures to reduce into an acceptable and tolerable level. | | | | |

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| Table 11. **DISASTER RISK ASSESSMENT SUMMARY MATRIX** | | |  |
| **SYSTEM OF INTEREST: CRITICAL FACILITY DRA** | |  |  |
| **HAZARD: FLOODING** | |  |  |
|  |  |  |  |
| **Decision Area/s** | **Technical Findings** | **Implications** | **Policy Interventions** |
| **A** | **B** | **C** | **D** |
| Sector: Infrastructure Area: Health, Education & Road Indicator: Barangay Anolid | > In Barangay Anolid, Barangay Health Station is located in low lying area and has no hazard resistant design. > Anolid Elementary School is located in low lying area. School building is made of mixed materials and not hazard resilient.  > Anolid-Perlan Road is located in low lying area. Impassable during flood. > The level of exposure and vulnerability of the Facilities is characterized as low. The LGU's capability and adaptability measure is at an acceptable level. | >> Onset of water borne diseases >> Increased number of morbidity/ mortality rate >> Increased number of drop-out rate >> Reduced number of school attendance >> Possible incidence of crime (looting)  >> Inadequate medical supplies >> Delay of mobility of people, goods and services | >> Implementation of plans and ordinances (CLUP, CDP, MDRRMP, Zoning Ordinance) >> Conduct make-up classes >> Prioritization of Climate Change adaptive projects (slope protection, flood control system, construction of drainage system/ dike) |
| Sector: Infrastructure Area: Road Indicator: Barangay Banaoang | >In Barangay Banaoang, 600 meters Banaoang East Provincial Road is located in low lying and easily flooded. > The level of exposure and vulnerability of the Facilities is characterized as low. The LGU's capability and adaptability measure is at an acceptable level. | >> Increased number of drop-out rate >> Reduced number of school attendance >> Delay of mobility of people, goods and services | >> Implementation of plans and ordinances (CLUP, CDP, MDRRMP, Zoning Ordinance) >> Conduct make-up classes >> Prioritization of Climate Change adaptive projects (slope protection, flood control system, construction of drainage system/ dike) |
| Sector: Infrastructure Area: Education & Road Indicator: Barangay Bantayan | > In Barangay Bantayan, Mangaldan Integrated School is located in low lying area. And some school buildings are made of mixed materials and not hazard resilient> Barangay Road is located in low lying area and impassable during flood and made of earth. > The level of exposure and vulnerability of the Facilities is characterized as low. The LGU's capability and adaptability measure is at an acceptable level. | >> Increased number of drop-out rate >> Reduced number of school attendance >> Delay of mobility of people, goods and services | >> Implementation of plans and ordinances (CLUP, CDP, MDRRMP, Zoning Ordinance) >> Conduct make-up classes >> Prioritization of Climate Change adaptive projects (slope protection, flood control system, construction of drainage system/ dike) |
| Sector: Infrastructure Area: Health Indicator: Barangay Bateng | In Barangay Bateng, Barangay Health Station is located in low lying area and easily flooded. > The level of exposure and vulnerability of the Facilities is characterized as low. The LGU's capability and adaptability measure is at an acceptable level. | >> Onset of water borne diseases >> Increased number of morbidity/ mortality rate | >> Implementation of plans and ordinances (CLUP, CDP, MDRRMP, Zoning Ordinance) >> Conduct make-up classes >> Prioritization of Climate Change adaptive projects (slope protection, flood control system, construction of drainage system/ dike) |
| Sector: Infrastructure Area: Health, Education & Road Indicator: Barangay David | In Barangay David, Barangay Health Station is located in low lying area and easily flooded. > David Elementary School is located in low lying area. And some school buildings are made of mixed materials and not hazard resilient> 500 meters Provincial Road is located in low lying area with pothole and pavement crack. Impassable during flood. > The level of exposure and vulnerability of the Facilities is characterized as low. The LGU's capability and adaptability measure is at an acceptable level. | >> Onset of water borne diseases >> Increased number of morbidity/ mortality rate >> Increased number of drop-out rate >> Reduced number of school attendance >> Possible incidence of crime (looting) >> Inadequate medical supplies >> Delay of mobility of people, goods and services | >> Implementation of plans and ordinances (CLUP, CDP, MDRRMP, Zoning Ordinance) >> Conduct make-up classes >> Prioritization of Climate Change adaptive projects (slope protection, flood control system, construction of drainage system/ dike) |
| Sector: Infrastructure Area: Education & Road Indicator: Barangay Embarcadero | In Barangay Embarcadero,Embarcadero Elementary School is located in low lying area and easily flooded. > 110 meters Farm to market road is located in low lying area made of earth > The level of exposure and vulnerability of the Facilities is characterized as low. The LGU's capability and adaptability measure is at an acceptable level. | >> Increased number of drop-out rate >> Reduced number of school attendance >> Delay of mobility of people, goods and services | >> Implementation of plans and ordinances (CLUP, CDP, MDRRMP, Zoning Ordinance) >> Conduct make-up classes >> Prioritization of Climate Change adaptive projects (slope protection, flood control system, construction of drainage system/ dike) |
| Sector: Infrastructure Area: Health, Education & Road Indicator: Barangay Guesang | In Barangay Guesang, Guesang Elementary School is located in low lying area. School buildings are made of mixed materials and not hazard resilient. > 1.140 km Barangay road is located in low lying area made of earth  > The level of exposure and vulnerability of the Facilities is characterized as low. The LGU's capability and adaptability measure is at an acceptable level.  > The level of exposure and vulnerability of the Facilities is characterized as low. The LGU's capability and adaptability measure is at an acceptable level. | >> Increased number of drop-out rate >> Reduced number of school attendance >> Delay of mobility of people, goods and services | >> Implementation of plans and ordinances (CLUP, CDP, MDRRMP, Zoning Ordinance) >> Conduct make-up classes >> Prioritization of Climate Change adaptive projects (slope protection, flood control system, construction of drainage system/ dike) |

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| Table 11. **DISASTER RISK ASSESSMENT SUMMARY MATRIX** | | |  |
| **SYSTEM OF INTEREST: CRITICAL FACILITY DRA** | |  |  |
| **HAZARD: FLOODING** | |  |  |
|  |  |  |  |
| **Decision Area/s** | **Technical Findings** | **Implications** | **Policy Interventions** |
| **A** | **B** | **C** | **D** |
| Sector: Infrastructure Area: Road Indicator: Barangay Anolid | In Barangay Guiguilonen, Barangay road is located in low lying area and made of earth > The level of exposure and vulnerability of the Facilities is characterized as low. The LGU's capability and adaptability measure is at an acceptable level. | >> Increased number of drop-out rate >> Reduced number of school attendance >> Delay of mobility of people, goods and services | >> Implementation of plans and ordinances (CLUP, CDP, MDRRMP, Zoning Ordinance) >> Conduct make-up classes >> Prioritization of Climate Change adaptive projects (slope protection, flood control system, construction of drainage system/ dike) |
| Sector: Infrastructure Area: Education & Road Indicator: Barangay Inlambo | In Barangay Inlambo, Inlambo Elementary School is located in low lying area. School building is made of mixed materials and not hazard resistant design > 418 meters Inlambo barangay road is located in low lying area and made of earth > The level of exposure and vulnerability of the Facilities is characterized as low. The LGU's capability and adaptability measure is at an acceptable level. | >> Increased number of drop-out rate >> Reduced number of school attendance >> Delay of mobility of people, goods and services | >> Implementation of plans and ordinances (CLUP, CDP, MDRRMP, Zoning Ordinance) >> Conduct make-up classes >> Prioritization of Climate Change adaptive projects (slope protection, flood control system, construction of drainage system/ dike) |
| Sector: Infrastructure Area: Education & Road Indicator: Barangay Lanas | In Barangay Lanas, Lanas Elementary School is located in low lying area and easily flooded. > 2.350 Km Barangay road is located in low lying area made of earth  > The level of exposure and vulnerability of the Facilities is characterized as low. The LGU's capability and adaptability measure is at an acceptable level. | >> Increased number of drop-out rate >> Reduced number of school attendance >> Delay of mobility of people, goods and services | >> Implementation of plans and ordinances (CLUP, CDP, MDRRMP, Zoning Ordinance) >> Conduct make-up classes >> Prioritization of Climate Change adaptive projects (slope protection, flood control system, construction of drainage system/ dike) |
| Sector: Infrastructure Area: Road Indicator: Barangay Landas | In Barangay Landas, Riverside Road is located in low lying area and made of earth. > The level of exposure and vulnerability of the Facilities is characterized as low. The LGU's capability and adaptability measure is at an acceptable level. | >> Increased number of drop-out rate >> Reduced number of school attendance >> Delay of mobility of people, goods and services | >> Implementation of plans and ordinances (CLUP, CDP, MDRRMP, Zoning Ordinance) >> Conduct make-up classes >> Prioritization of Climate Change adaptive projects (slope protection, flood control system, construction of drainage system/ dike) |
| Sector: Infrastructure Area: Health, Education & Road Indicator: Barangay Maasin | In Barangay Maasin, Barangay Health Station is located in low lying area and easily flooded. > Maasin Elementary School is located in low lying area and easily flooded. Some of the school buildings are made of mixed materials. > Maasin barangay road is located in low lying area and easily flooded  > The level of exposure and vulnerability of the Facilities is characterized as low. The LGU's capability and adaptability measure is at an acceptable level. | >> Onset of water borne diseases >> Increased number of morbidity/ mortality rate >> Increased number of drop-out rate >> Reduced number of school attendance >> Possible incidence of crime (looting)  >> Inadequate medical supplies >> Delay of mobility of people, goods and services | >> Implementation of plans and ordinances (CLUP, CDP, MDRRMP, Zoning Ordinance) >> Conduct make-up classes >> Prioritization of Climate Change adaptive projects (slope protection, flood control system, construction of drainage system/ dike) |
| Sector: Infrastructure Area: Health, Education Indicator: Barangay Macayug | In Barangay Macayug, Barangay Health Station is located in low lying area and easily flooded. > Macayug Elementary School is located in low lying area and easily flooded. School buildings are made of mixed materials and not hazard resistant.  > The level of exposure and vulnerability of the Facilities is characterized as low. The LGU's capability and adaptability measure is at an acceptable level. | >> Onset of water borne diseases >> Increased number of morbidity/ mortality rate >> Increased number of drop-out rate >> Reduced number of school attendance >> Possible incidence of crime (looting) >> Inadequate medical supplies | >> Implementation of plans and ordinances (CLUP, CDP, MDRRMP, Zoning Ordinance) >> Conduct make-up classes >> Prioritization of Climate Change adaptive projects (slope protection, flood control system, construction of drainage system/ dike) |
| Sector: Infrastructure Area: Health, Education & Road Indicator: Barangay Navaluan | In Barangay Navaluan, Barangay Health Station is located in low lying area and easily flooded. > Navaluan Elementary School is located in low lying area. And some school buildings are made of mixed materials and not hazard resilient> 420 meters Farm to Market Road is located in low lying area and made of earth. Impassable during flood. > The level of exposure and vulnerability of the Facilities is characterized as low. The LGU's capability and adaptability measure is at an acceptable level. | >> Onset of water borne diseases >> Increased number of morbidity/ mortality rate >> Increased number of drop-out rate >> Reduced number of school attendance >> Possible incidence of crime (looting) >> Inadequate medical supplies >> Delay of mobility of people, goods and services | >> Implementation of plans and ordinances (CLUP, CDP, MDRRMP, Zoning Ordinance) >> Conduct make-up classes >> Prioritization of Climate Change adaptive projects (slope protection, flood control system, construction of drainage system/ dike) |

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| Table 11. **DISASTER RISK ASSESSMENT SUMMARY MATRIX** | | |  |
| **SYSTEM OF INTEREST: CRITICAL FACILITY DRA** | |  |  |
| **HAZARD: FLOODING** | |  |  |
|  |  |  |  |
| **Decision Area/s** | **Technical Findings** | **Implications** | **Policy Interventions** |
| **A** | **B** | **C** | **D** |
| Sector: Infrastructure Area: Health, Education & Road Indicator: Barangay Nibaliw | In Barangay Nibaliw, Barangay Health Station is located in low lying area and easily flooded. > Nibaliw Elementary School is located in low lying area. And some school buildings are made of mixed materials and not hazard resilient> 420 meters barangay Road is located in low lying area made of gravel. Impassable during flood. > The level of exposure and vulnerability of the Facilities is characterized as low. The LGU's capability and adaptability measure is at an acceptable level. | >> Onset of water borne diseases >> Increased number of morbidity/ mortality rate >> Increased number of drop-out rate >> Reduced number of school attendance >> Possible incidence of crime (looting)  >> Inadequate medical supplies >> Delay of mobility of people, goods and services | >> Implementation of plans and ordinances (CLUP, CDP, MDRRMP, Zoning Ordinance) >> Conduct make-up classes >> Prioritization of Climate Change adaptive projects (slope protection, flood control system, construction of drainage system/ dike) |
| Sector: Infrastructure Area: Road Indicator: Barangay Osiem | In Barangay Osiem , Osiem barangay road is located in low lying area and made of earth. > The level of exposure and vulnerability of the Facilities is characterized as low. The LGU's capability and adaptability measure is at an acceptable level. | >> Increased number of drop-out rate >> Reduced number of school attendance >> Delay of mobility of people, goods and services | >> Implementation of plans and ordinances (CLUP, CDP, MDRRMP, Zoning Ordinance) >> Conduct make-up classes >> Prioritization of Climate Change adaptive projects (slope protection, flood control system, construction of drainage system/ dike) |
| Sector: Infrastructure Area: Health & Road Indicator: Barangay Palua | In Barangay Palua, Barangay Health Station is located in low lying area and easily flooded. > 1.600 km barangay road is located in low lying area and made of earth. Impassable during flood. > The level of exposure and vulnerability of the Facilities is characterized as low. The LGU's capability and adaptability measure is at an acceptable level. | >> Onset of water borne diseases >> Increased number of morbidity/ mortality rate >> Increased number of drop-out rate >> Reduced number of school attendance >> Possible incidence of crime (looting) >> Inadequate medical supplies >> Delay of mobility of people, goods and services | >> Implementation of plans and ordinances (CLUP, CDP, MDRRMP, Zoning Ordinance) >> Conduct make-up classes >> Prioritization of Climate Change adaptive projects (slope protection, flood control system, construction of drainage system/ dike) |
| Sector: Infrastructure Area: Health, Education & Road Indicator: Barangay Poblacion | In Barangay Poblacion, Urgent Care Clinic is located in low lying area and easily flooded > Mangaldan Central School is located in low lying area and easily flooded > 400 meters Duyala Road is located in low lying area with pothole and pavement crack. > The level of exposure and vulnerability of the Facilities is characterized as low. The LGU's capability and adaptability measure is at an acceptable level. | >> Onset of water borne diseases >> Increased number of morbidity/ mortality rate >> Increased number of drop-out rate >> Reduced number of school attendance >> Possible incidence of crime (looting) >> Inadequate medical supplies >> Delay of mobility of people, goods and services | >> Implementation of plans and ordinances (CLUP, CDP, MDRRMP, Zoning Ordinance) >> Conduct make-up classes >> Prioritization of Climate Change adaptive projects (slope protection, flood control system, construction of drainage system/ dike) |
| Sector: Infrastructure Area: Health, Education & Road Indicator: Barangay Pogo | In Barangay Pogo, Barangay Health Station is located in low lying area and easily flooded. > Pogo-Palua Elementary School is located in low lying area. And some school buildings are made of mixed materials and not hazard resilient> 950 meters barangay road is located in low lying area and made of earth. Impassable during flood. > The level of exposure and vulnerability of the Facilities is characterized as low. The LGU's capability and adaptability measure is at an acceptable level. | >> Onset of water borne diseases >> Increased number of morbidity/ mortality rate >> Increased number of drop-out rate >> Reduced number of school attendance >> Possible incidence of crime (looting) >> Inadequate medical supplies >> Delay of mobility of people, goods and services | >> Implementation of plans and ordinances (CLUP, CDP, MDRRMP, Zoning Ordinance) >> Conduct make-up classes >> Prioritization of Climate Change adaptive projects (slope protection, flood control system, construction of drainage system/ dike) |
| Sector: Infrastructure Area: Health, Education & Road Indicator: Barangay Salaan | In Barangay Salaan Barangay Health Station is located in low lying area and easily flooded. > Salaan Elementary School is located in low lying area. And some school building is made of mixed materials and not hazard resilient> 550 meters barangay Road is located in low lying area and made of earth. Impassable during flood. > The level of exposure and vulnerability of the Facilities is characterized as low. The LGU's capability and adaptability measure is at an acceptable level. | >> Onset of water borne diseases >> Increase number of morbidity/ mortality rate >> Increase number of drop-out rate >> Reduced number of school attendance >> Possible incidence of crime (looting) >> Inadequate medical supplies >> Delay of mobility of people, goods and services | >> Implementation of plans and ordinances (CLUP, CDP, MDRRMP, Zoning Ordinance) >> Conduct make-up classes >> Prioritization of Climate Change adaptive projects (slope protection, flood control system, construction of drainage system/ dike) |

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| Table 11. **DISASTER RISK ASSESSMENT SUMMARY MATRIX** | | |  |
| **SYSTEM OF INTEREST: CRITICAL FACILITY DRA** | |  |  |
| **HAZARD: FLOODING** | |  |  |
|  |  |  |  |
| **Decision Area/s** | **Technical Findings** | **Implications** | **Policy Interventions** |
| **A** | **B** | **C** | **D** |
| Sector: Infrastructure Area: Health, Education & Road Indicator: Barangay Talogtog | In Barangay Talogtog, Barangay Health Station is located in low lying area and easily flooded. > Talogtog-Bateng Elementary School is located in low lying area. And some school buildings are made of mixed materials and not hazard resilient> 586 meters barangay Road is located in low lying area and made of earth. Impassable during flood.  > The level of exposure and vulnerability of the Facilities is characterized as low. The LGU's capability and adaptability measure is at an acceptable level. | >> Onset of water borne diseases >> Increased number of morbidity/ mortality rate >> Increased number of drop-out rate >> Reduced number of school attendance >> Possible incidence of crime (looting)  >> Inadequate medical supplies >> Delay of mobility of people, goods and services | >> Implementation of plans and ordinances (CLUP, CDP, MDRRMP, Zoning Ordinance) >> Conduct make-up classes >> Prioritization of Climate Change adaptive projects (slope protection, flood control system, construction of drainage system/ dike) |
| Sector: Infrastructure Area: Health, Education & Road Indicator: Barangay Anolid | In Barangay Tebag, Barangay Health Station is located in low lying area and easily flooded. > Tebag Elementary School is located in low lying area. And some school buildings are made of mixed materials and not hazard resilient> 260 meters barangay Road is located in low lying area and made of earth. Impassable during flood. > The level of exposure and vulnerability of the Facilities is characterized as low. The LGU's capability and adaptability measure is at an acceptable level. | >> Onset of water borne diseases >> Increased number of morbidity/ mortality rate >> Increased number of drop-out rate >> Reduced number of school attendance >> Possible incidence of crime (looting) >> Inadequate medical supplies >> Delay of mobility of people, goods and services | >> Implementation of plans and ordinances (CLUP, CDP, MDRRMP, Zoning Ordinance) >> Conduct make-up classes >> Prioritization of Climate Change adaptive projects (slope protection, flood control system, construction of drainage system/ dike) |
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| **Instructions:** |  |  |  |
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| A. Based on the risks maps generated for the various exposure units, highlight and identify decision areas or elements. Decision areas can be the barangay or specific sites in the barangay such as coastal area, mountain sides, and riverbanks. | | | |
| - identify decision areas in need of intervention based on the generated risk maps | | | |
| - This can be identified as high to moderate risk areas or may pertain to a specific area in the barangay | | | |
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| B. List down the significant findings/observed conditions and causes by describing the area or element in terms of the level of risk, highlighting the various contributing factors such as exposure, sensitivity, and adaptive capacity. | | | |
| - identify the hazard and how these may manifest in the identified decision area | | | |
| - expound on the exposure information (i.e. number of affected population, exposure percentage, exposed area, and cost) | | | |
| - highlight relevant sensitivities of the exposed element to the identified hazard | | | |
| - highlight relevant adaptive capacity indicators of the exposed element to the identified hazard | | | |
|  |  |  |  |
| C. List down the planning/development implications when the identified risks in the various decision areas are not addressed. | | | |
| - highlight potential impact as mentioned in the sectoral impact chains | | | |
| - highlight future scenario if risks are not addressed | | | |
| - identify future needs with emphasis on the spatial framework plan of the municipality | | | |
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| D. Identify various policy interventions that should seek to reduce the level of risks by addressing the exposure, sensitivity, with consideration to the current adaptive capacities | | | |
| - identify the various disaster risk adaptation and mitigation measures to reduce into an acceptable and tolerable level. | | | |

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| Table 11. **DISASTER RISK ASSESSMENT SUMMARY MATRIX** | | | |  | |  | |
| **SYSTEM OF INTEREST: LIFELINE DRA** | |  | |  | |  | |
| **HAZARD: FLOODING** | |  | |  | |  | |
|  | |  | |  | |  | |
| **Decision Area/s** | **Technical Findings** | | **Implications** | | **Policy Interventions** | |
| **A** | **B** | | **C** | | **D** | |
| Sector: Infrastructure Area: Power Bridge Indicator: Barangay Talogtog | Mangueragday Bridge is located in low lying area and need to rehabilitate/ retrofitting.  > The level of exposure and vulnerability of the Facilities is characterized as low. The LGU's capability and adaptability measure is at an acceptable level. | | >> Increased number of drop-out rate  >> Reduced number of school attendance >> Delay of mobility of people, goods and services | | >> Implementation of plans and ordinances (CLUP, CDP, MDRRMP, Zoning Ordinance) >> Conduct make-up classes >> Prioritization of Climate Change adaptive projects (slope protection, flood control system, construction of drainage system/ dike) | |
| Sector: Infrastructure Area: Power (Electric Posts (CENPELCO) & Telecommunication posts) Indicator: Anolid, Banaoang, David, Guesang, Guiguilonen, Inlambo, Lanas, Landas, Maasin, Macayug, Navaluan, Osiem, Poblacion | Electric posts & telecommunication posts are encroaching major transportation network causing great danger during flooding | | >> Slowed down economic activities >> Loss of income >> Shortage of food supply >> Higher prices of goods | | >> Implementation of plans and ordinances (CLUP, CDP, MDRRMP, Zoning Ordinance) >> Prioritization of Climate Change adaptive projects (slope protection, flood control system, construction of drainage system/ dike) >> Sturdy & modern electrical posts | |
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| **Instructions:** |  | |  | |  | |
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| A. Based on the risks maps generated for the various exposure units, highlight and identify decision areas or elements. Decision areas can be the barangay or specific sites in the barangay such as coastal area, mountain sides, and riverbanks. | | | | | | |
| - identify decision areas in need of intervention based on the generated risk maps | | | | | | |
| - This can be identified as high to moderate risk areas or may pertain to a specific area in the barangay | | | | | | |
|  |  | |  | |  | |
| B. List down the significant findings/observed conditions and causes by describing the area or element in terms of the level of risk, highlighting the various contributing factors such as exposure, sensitivity, and adaptive capacity. | | | | | | |
| - identify the hazard and how these may manifest in the identified decision area | | | | | | |
| - expound on the exposure information (i.e. number of affected population, exposure percentage, exposed area, and cost) | | | | | | |
| - highlight relevant sensitivities of the exposed element to the identified hazard | | | | | | |
| - highlight relevant adaptive capacity indicators of the exposed element to the identified hazard | | | | | | |
|  |  | |  | |  | |
| C. List down the planning/development implications when the identified risks in the various decision areas are not addressed. | | | | | | |
| - highlight potential impact as mentioned in the sectoral impact chains | | | | | | |
| - highlight future scenario if risks are not addressed | | | | | | |
| - identify future needs with emphasis on the spatial framework plan of the municipality | | | | | | |
|  |  | |  | |  | |
| D. Identify various policy interventions that should seek to reduce the level of risks by addressing the exposure, sensitivity, with consideration to the current adaptive capacities | | | | | | |
| - identify the various disaster risk adaptation and mitigation measures to reduce into an acceptable and tolerable level. | | | | | | |

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| Table 11. **DISASTER RISK ASSESSMENT SUMMARY MATRIX** | | |  | |  | |  |
| **SYSTEM OF INTEREST: URBAN USE DRA** | | |  | |  | |  |
| **HAZARD: FLOODING** | | |  | |  | |  |
|  | | |  | |  | |  |
| **Decision Area/s** | **Technical Findings** | **Implications** | | **Policy Interventions** | |
| **A** | **B** | **C** | | **D** | |
| Sector: Social Area: Population (Residential Settlement) Indicator: Barangay Anolid | >In Barangay Anolid, 40 residential units are exposed to the identified climate stimuli, of which, 29 units are constructed in low lying areas and made of light materials & salvaged/ makeshift materials. > The level of exposure and vulnerability of the residential units is characterized as high. The LGU's capability and adaptability measure is at an acceptable level. | >> Increased number of informal settlers  >> Increased poverty >> Loss of livelihood >> Slowdown economic activities >> Higher prices of goods | | >> Implementation of plans and ordinances (CLUP, CDP, MDRRMP, Zoning Ordinance) >> Prioritization of Climate Change adaptive projects (slope protection, flood control system, construction of drainage system/ dike) >> provision of different livelihood trainings as alternative source of income | |
| Sector: Economic Area: Commerce & Industry Indicator: Barangay Anolid | > In Barangay Anolid, 40 out of 95 or 42.11% business establishments are located in low lying area and easily flooded. > The level of exposure and vulnerability of the business establishments is characterized as high. The LGU's capability and adaptability measures are at an acceptable level. | >> Increased number of informal settlers  >> Increased poverty >> Loss of livelihood >> Slowdown economic activities >> Higher prices of goods | | >> Implementation of plans and ordinances (CLUP, CDP, MDRRMP, Zoning Ordinance) >> Prioritization of Climate Change adaptive projects (slope protection, flood control system, construction of drainage system/ dike) >> provision of different livelihood trainings as alternative source of income | |
| Sector: Social Area: Population (Residential Settlement) Indicator: Barangay Banaoang | >In Barangay Banaoang, 83 residential units are exposed to the identified climate stimuli, of which 65 are constructed in low lying area and made of light materials and salvaged/ makeshift materials. > The level of exposure and vulnerability of the residential units is characterized as high. The LGU's capability and adaptability measure is at an acceptable level. | >> Increased number of informal settlers  >> Increased poverty >> Loss of livelihood >> Slowdown economic activities >> Higher prices of goods | | >> Implementation of plans and ordinances (CLUP, CDP, MDRRMP, Zoning Ordinance) >> Prioritization of Climate Change adaptive projects (slope protection, flood control system, construction of drainage system/ dike) >> provision of different livelihood trainings as alternative source of income | |

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| Table 11. **DISASTER RISK ASSESSMENT SUMMARY MATRIX** | | |  | |  | |
| **SYSTEM OF INTEREST: URBAN USE DRA** | | |  | |  | |
| **HAZARD: FLOODING** | | |  | |  | |
|  | | |  | |  | |
| **Decision Area/s** | **Technical Findings** | **Implications** | | **Policy Interventions** | |
| **A** | **B** | **C** | | **D** | |
| Sector: Economic Area: Commerce & Industry Indicator: Barangay Banaoang | > In Barangay Banaoang, 8 out of 29 or 27.59% business establishments are located in low lying area and easily flooded. > The level of exposure and vulnerability of the business establishments is characterized as high. The LGU's capability and adaptability measure is at an acceptable level. | >> Increased number of informal settlers  >> Increased poverty >> Loss of livelihood >> Slowdown economic activities >> Higher prices of goods | | >> Implementation of plans and ordinances (CLUP, CDP, MDRRMP, Zoning Ordinance) >> Prioritization of Climate Change adaptive projects (slope protection, flood control system, construction of drainage system/ dike) >> provision of different livelihood trainings as alternative source of income | |
| Sector: Social Area: Population (Residential Settlement) Indicator: Barangay Bantayan | > In Barangay Bantayan, 26 residential units are exposed to the identified climate stimuli, of which 12 are constructed in low lying area and made of light materials and salvaged/ makeshift materials. > The level of exposure and vulnerability of the residential units is characterized as high. The LGU's capability and adaptability measure is at an acceptable level. | >> Increased number of informal settlers  >> Increased poverty >> Loss of livelihood >> Slowdown economic activities >> Higher prices of goods | | >> Implementation of plans and ordinances (CLUP, CDP, MDRRMP, Zoning Ordinance) >> Prioritization of Climate Change adaptive projects (slope protection, flood control system, construction of drainage system/ dike) >> provision of different livelihood trainings as alternative source of income | |
| Sector: Economic Area: Commerce & Industry Indicator: Barangay Bantayan | In Barangay Bantayan, 4 out of 12 or 33.33% business establishments are located in low lying area and easily flooded > The level of exposure and vulnerability of the business establishments is characterized as high. The LGU's capability and adaptability measure is at an acceptable level. | >> Increased number of informal settlers  >> Increased poverty >> Loss of livelihood >> Slowdown economic activities >> Higher prices of goods | | >> Implementation of plans and ordinances (CLUP, CDP, MDRRMP, Zoning Ordinance) >> Prioritization of Climate Change adaptive projects (slope protection, flood control system, construction of drainage system/ dike) >> provision of different livelihood trainings as alternative source of income | |
| Sector: Social Area: Population (Residential Settlement) Indicator: Barangay Bateng | In Barangay Bateng, 20 residential units are exposed to the identified climate stimuli, of which 18 are constructed in low lying area and made of light materials and salvaged/ makeshift materials. > The level of exposure and vulnerability of the residential units is characterized as high. The LGU's capability and adaptability measure is at an acceptable level. | >> Increased number of informal settlers  >> Increased poverty >> Loss of livelihood >> Slowdown economic activities >> Higher prices of goods | | >> Implementation of plans and ordinances (CLUP, CDP, MDRRMP, Zoning Ordinance) >> Prioritization of Climate Change adaptive projects (slope protection, flood control system, construction of drainage system/ dike) >> provision of different livelihood trainings as alternative source of income | |
| Sector: Economic Area: Commerce & Industry Indicator: Barangay Bateng | In Barangay Bateng, 4 out of 16 or 25% business establishments are located in low lying area and easily flooded > The level of exposure and vulnerability of the business establishments is characterized as high. The LGU's capability and adaptability measure is at an acceptable level. | >> Increased number of informal settlers  >> Increased poverty >> Loss of livelihood >> Slowdown economic activities >> Higher prices of goods | | >> Implementation of plans and ordinances (CLUP, CDP, MDRRMP, Zoning Ordinance) >> Prioritization of Climate Change adaptive projects (slope protection, flood control system, construction of drainage system/ dike) >> provision of different livelihood trainings as alternative source of income | |
| Sector: Social Area: Population (Residential Settlement) Indicator: Barangay David | In Barangay David, 150 residential units are exposed to the identified climate stimuli, of which 43 are constructed in low lying area and made of light materials and salvaged/ makeshift materials. > The level of exposure and vulnerability of the residential units is characterized as high. The LGU's capability and adaptability measures are at an acceptable level. | >> Increased number of informal settlers  >> Increased poverty >> Loss of livelihood >> Slowdown economic activities >> Higher prices of goods | | >> Implementation of plans and ordinances (CLUP, CDP, MDRRMP, Zoning Ordinance) >> Prioritization of Climate Change adaptive projects (slope protection, flood control system, construction of drainage system/ dike) >> provision of different livelihood trainings as alternative source of income | |
| Sector: Economic Area: Commerce & Industry Indicator: Barangay David | In Barangay David, 7 out t of 17 or 41.18% business establishments are located in low lying area and easily flooded. > The level of exposure and vulnerability of the business establishments is characterized as high. The LGU's capability and adaptability measure is at an acceptable level. | >> Increased number of informal settlers  >> Increased poverty >> Loss of livelihood >> Slowdown economic activities >> Higher prices of goods | | >> Implementation of plans and ordinances (CLUP, CDP, MDRRMP, Zoning Ordinance) >> Prioritization of Climate Change adaptive projects (slope protection, flood control system, construction of drainage system/ dike) >> provision of different livelihood trainings as alternative source of income | |
| Sector: Social Area: Population (Residential Settlement) Indicator: Barangay Embarcadero | In Barangay Embarcadero, 30 residential units are exposed to the identified climate stimuli, of which 25 are constructed in low lying area and made of light materials and salvaged/ makeshift materials. > The level of exposure and vulnerability of the residential units is characterized as high. The LGU's capability and adaptability measure is at an acceptable level. | >> Increased number of informal settlers  >> Increased poverty >> Loss of livelihood >> Slowdown economic activities >> Higher prices of goods | | >> Implementation of plans and ordinances (CLUP, CDP, MDRRMP, Zoning Ordinance) >> Prioritization of Climate Change adaptive projects (slope protection, flood control system, construction of drainage system/ dike) >> provision of different livelihood trainings as alternative source of income | |
| Sector: Economic Area: Commerce & Industry Indicator: Barangay Embarcadero | In Barangay Embarcadero, 10 out of 20 or 50% business establishments are located in low lying area. > The level of exposure and vulnerability of the business establishments is characterized as high. The LGU's capability and adaptability measure is at an acceptable level. | >> Increased number of informal settlers  >> Increased poverty >> Loss of livelihood >> Slowdown economic activities >> Higher prices of goods | | >> Implementation of plans and ordinances (CLUP, CDP, MDRRMP, Zoning Ordinance) >> Prioritization of Climate Change adaptive projects (slope protection, flood control system, construction of drainage system/ dike) >> provision of different livelihood trainings as alternative source of income | |

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| Table 11. **DISASTER RISK ASSESSMENT SUMMARY MATRIX** | | |  | |  | |
| **SYSTEM OF INTEREST: URBAN USE DRA** | | |  | |  | |
| **HAZARD: FLOODING** | | |  | |  | |
|  | | |  | |  | |
| **Decision Area/s** | **Technical Findings** | **Implications** | | **Policy Interventions** | |
| **A** | **B** | **C** | | **D** | |
| Sector: Social Area: Population (Residential Settlement) Indicator: Barangay Guesang | In Barangay Guesang, 14 residential units are exposed to the identified climate stimuli, of which 9 are constructed in low lying area and made of light materials and salvaged/ makeshift materials. > The level of exposure and vulnerability of the residential units is characterized as high. The LGU's capability and adaptability measure is at an acceptable level. | >> Increased number of informal settlers  >> Increased poverty >> Loss of livelihood >> Slowdown economic activities >> Higher prices of goods | | >> Implementation of plans and ordinances (CLUP, CDP, MDRRMP, Zoning Ordinance) >> Prioritization of Climate Change adaptive projects (slope protection, flood control system, construction of drainage system/ dike) >> provision of different livelihood trainings as alternative source of income | |
| Sector: Economic Area: Commerce & Industry Indicator: Barangay Guesang | In Barangay Guesang, 3 out of 10 or 30% business establishments are located in low lying area and easily flooded. > The level of exposure and vulnerability of the business establishments is characterized as high. The LGU's capability and adaptability measure is at an acceptable level. | >> Increased number of informal settlers  >> Increased poverty >> Loss of livelihood >> Slowdown economic activities >> Higher prices of goods | | >> Implementation of plans and ordinances (CLUP, CDP, MDRRMP, Zoning Ordinance) >> Prioritization of Climate Change adaptive projects (slope protection, flood control system, construction of drainage system/ dike) >> provision of different livelihood trainings as alternative source of income | |
| Sector: Social Area: Population (Residential Settlement) Indicator: Barangay Guiguilonen | In Barangay Guiguilonen, 17 residential units are exposed to the identified climate stimuli, of which 12 are constructed in low lying area and made of light materials and salvaged/ makeshift materials. > The level of exposure and vulnerability of the residential units is characterized as high. The LGU's capability and adaptability measure is at an acceptable level. | >> Increased number of informal settlers  >> Increased poverty >> Loss of livelihood >> Slowdown economic activities >> Higher prices of goods | | >> Implementation of plans and ordinances (CLUP, CDP, MDRRMP, Zoning Ordinance) >> Prioritization of Climate Change adaptive projects (slope protection, flood control system, construction of drainage system/ dike) >> provision of different livelihood trainings as alternative source of income | |
| Sector: Economic Area: Commerce & Industry Indicator: Barangay Guiguilonen | In Barangay Guiguilonen, 12 out of 24 or 50% business establishments are located in low lying area and easily flooded. > The level of exposure and vulnerability of the business establishments is characterized as high. The LGU's capability and adaptability measure is at an acceptable level. | >> Increased number of informal settlers  >> Increased poverty >> Loss of livelihood >> Slowdown economic activities >> Higher prices of goods | | >> Implementation of plans and ordinances (CLUP, CDP, MDRRMP, Zoning Ordinance) >> Prioritization of Climate Change adaptive projects (slope protection, flood control system, construction of drainage system/ dike) >> provision of different livelihood trainings as alternative source of income | |
| Sector: Social Area: Population (Residential Settlement) Indicator: Barangay Inlambo | In Barangay Inlambo, 33 residential units are exposed to the identified climate stimuli, of which 30 are constructed in low lying area and made of light materials and salvaged/ makeshift materials. > The level of exposure and vulnerability of the residential units is characterized as high. The LGU's capability and adaptability measure is at an acceptable level. | >> Increased number of informal settlers  >> Increased poverty >> Loss of livelihood >> Slowdown economic activities >> Higher prices of goods | | >> Implementation of plans and ordinances (CLUP, CDP, MDRRMP, Zoning Ordinance) >> Prioritization of Climate Change adaptive projects (slope protection, flood control system, construction of drainage system/ dike) >> provision of different livelihood trainings as alternative source of income | |
| Sector: Economic Area: Commerce & Industry Indicator: Barangay Inlambo | In Barangay Inlambo, 2 out of 8 or 25% business establishments are located in low lying area and easily flooded. > The level of exposure and vulnerability of the business establishments is characterized as high. The LGU's capability and adaptability measure is at an acceptable level. | >> Increased number of informal settlers  >> Increased poverty >> Loss of livelihood >> Slowdown economic activities >> Higher prices of goods | | >> Implementation of plans and ordinances (CLUP, CDP, MDRRMP, Zoning Ordinance) >> Prioritization of Climate Change adaptive projects (slope protection, flood control system, construction of drainage system/ dike) >> provision of different livelihood trainings as alternative source of income | |
| Sector: Social Area: Population (Residential Settlement) Indicator: Barangay Lanas | In Barangay Lanas, 21 residential units are exposed to the identified climate stimuli, of which 21 constructed in low lying area and made of light materials and salvaged/ makeshift materials. > The level of exposure and vulnerability of the residential units is characterized as high. The LGU's capability and adaptability measure is at an acceptable level. | >> Increased number of informal settlers  >> Increased poverty >> Loss of livelihood >> Slowdown economic activities >> Higher prices of goods | | >> Implementation of plans and ordinances (CLUP, CDP, MDRRMP, Zoning Ordinance) >> Prioritization of Climate Change adaptive projects (slope protection, flood control system, construction of drainage system/ dike) >> provision of different livelihood trainings as alternative source of income | |
| Sector: Economic Area: Commerce & Industry Indicator: Barangay Lanas | In Barangay Lanas, 4 out of 10 or 40% business establishments are located in low lying area and easily flooded. > The level of exposure and vulnerability of the business establishments is characterized as high. The LGU's capability and adaptability measure is at an acceptable level. | >> Increased number of informal settlers  >> Increased poverty >> Loss of livelihood >> Slowdown economic activities >> Higher prices of goods | | >> Implementation of plans and ordinances (CLUP, CDP, MDRRMP, Zoning Ordinance) >> Prioritization of Climate Change adaptive projects (slope protection, flood control system, construction of drainage system/ dike) >> provision of different livelihood trainings as alternative source of income | |
| Sector: Social Area: Population (Residential Settlement) Indicator: Barangay Landas | In Barangay Landas, 4 residential units are exposed to the identified climate stimuli, of which 2 houses are constructed in low lying area and made of light materials and salvaged/ makeshift materials. > The level of exposure and vulnerability of the residential units is characterized as high. The LGU's capability and adaptability measure is at an acceptable level. | >> Increased number of informal settlers  >> Increased poverty >> Loss of livelihood >> Slowdown economic activities >> Higher prices of goods | | >> Implementation of plans and ordinances (CLUP, CDP, MDRRMP, Zoning Ordinance) >> Prioritization of Climate Change adaptive projects (slope protection, flood control system, construction of drainage system/ dike) >> provision of different livelihood trainings as alternative source of income | |

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| Table 11. **DISASTER RISK ASSESSMENT SUMMARY MATRIX** | | |  | |  | |
| **SYSTEM OF INTEREST: URBAN USE DRA** | | |  | |  | |
| **HAZARD: FLOODING** | | |  | |  | |
|  | | |  | |  | |
| **Decision Area/s** | **Technical Findings** | **Implications** | | **Policy Interventions** | |
| **A** | **B** | **C** | | **D** | |
| Sector: Economic Area: Commerce & Industry Indicator: Barangay Landas | In Barangay Landas, 6 out of 11 or 54.55% business establishments are located in low lying area and easily flooded. > The level of exposure and vulnerability of the business establishments is characterized as high. The LGU's capability and adaptability measure is at an acceptable level. | >> Increased number of informal settlers  >> Increased poverty >> Loss of livelihood >> Slowdown economic activities >> Higher prices of goods | | >> Implementation of plans and ordinances (CLUP, CDP, MDRRMP, Zoning Ordinance) >> Prioritization of Climate Change adaptive projects (slope protection, flood control system, construction of drainage system/ dike) >> provision of different livelihood trainings as alternative source of income | |
| Sector: Social Area: Population (Residential Settlement) Indicator: Barangay Maasin | In Barangay Maasin, 315 residential units are exposed to the identified climate stimuli, of which 5 are constructed in low lying area and made of light materials and salvaged/ makeshift materials. > The level of exposure and vulnerability of the residential units is characterized as high. The LGU's capability and adaptability measure is at an acceptable level. | >> Increased number of informal settlers  >> Increased poverty >> Loss of livelihood >> Slowdown economic activities >> Higher prices of goods | | >> Implementation of plans and ordinances (CLUP, CDP, MDRRMP, Zoning Ordinance) >> Prioritization of Climate Change adaptive projects (slope protection, flood control system, construction of drainage system/ dike) >> provision of different livelihood trainings as alternative source of income | |
| Sector: Economic Area: Commerce & Industry Indicator: Barangay Maasin | In Barangay Maasin, 10 out of 21 or 47.62% business establishments are located in low lying area and easily flooded. > The level of exposure and vulnerability of the business establishments is characterized as high. The LGU's capability and adaptability measures are at an acceptable level. | >> Increased number of informal settlers  >> Increased poverty >> Loss of livelihood >> Slowdown economic activities >> Higher prices of goods | | >> Implementation of plans and ordinances (CLUP, CDP, MDRRMP, Zoning Ordinance) >> Prioritization of Climate Change adaptive projects (slope protection, flood control system, construction of drainage system/ dike) >> provision of different livelihood trainings as alternative source of income | |
| Sector: Social Area: Population (Residential Settlement) Indicator: Barangay Macayug | In Barangay Macayug, 8 residential units are exposed to the identified climate stimuli, of which 8 are constructed in low lying area and made of light materials and salvaged/ makeshift materials. > The level of exposure and vulnerability of the residential units is characterized as high. The LGU's capability and adaptability measure is at an acceptable level. | >> Increased number of informal settlers  >> Increased poverty >> Loss of livelihood >> Slowdown economic activities >> Higher prices of goods | | >> Implementation of plans and ordinances (CLUP, CDP, MDRRMP, Zoning Ordinance) >> Prioritization of Climate Change adaptive projects (slope protection, flood control system, construction of drainage system/ dike) >> provision of different livelihood trainings as alternative source of income | |
| Sector: Economic Area: Commerce & Industry Indicator: Barangay Macayug | In Barangay Macayug, 3 out of 7 or 42.86% business establishments are located in low lying area and easily flooded. > The level of exposure and vulnerability of the business establishments is characterized as high. The LGU's capability and adaptability measure is at an acceptable level. | >> Increased number of informal settlers  >> Increased poverty >> Loss of livelihood >> Slowdown economic activities >> Higher prices of goods | | >> Implementation of plans and ordinances (CLUP, CDP, MDRRMP, Zoning Ordinance) >> Prioritization of Climate Change adaptive projects (slope protection, flood control system, construction of drainage system/ dike) >> provision of different livelihood trainings as alternative source of income | |
| Sector: Social Area: Population (Residential Settlement) Indicator: Barangay Navaluan | In Barangay Navaluan, 26 residential units are exposed to the identified climate stimuli, of which 8 are constructed in low lying area and made of light materials and salvaged/ makeshift materials. > The level of exposure and vulnerability of the residential units is characterized as high. The LGU's capability and adaptability measures are at an acceptable level. | >> Increased number of informal settlers  >> Increased poverty >> Loss of livelihood >> Slowdown economic activities >> Higher prices of goods | | >> Implementation of plans and ordinances (CLUP, CDP, MDRRMP, Zoning Ordinance) >> Prioritization of Climate Change adaptive projects (slope protection, flood control system, construction of drainage system/ dike) >> provision of different livelihood trainings as alternative source of income | |
| Sector: Economic Area: Commerce & Industry Indicator: Barangay Navaluan | In Barangay Navaluan, 5 out of 11 or 45% business establishments are located in low lying area. > The level of exposure and vulnerability of the business establishments is characterized as high. The LGU's capability and adaptability measure is at an acceptable level. | >> Increased number of informal settlers  >> Increased poverty >> Loss of livelihood >> Slowdown economic activities >> Higher prices of goods | | >> Implementation of plans and ordinances (CLUP, CDP, MDRRMP, Zoning Ordinance) >> Prioritization of Climate Change adaptive projects (slope protection, flood control system, construction of drainage system/ dike) >> provision of different livelihood trainings as alternative source of income | |
| Sector: Social Area: Population (Residential Settlement) Indicator: Barangay Nibaliw | In Barangay Nibaliw, 53 residential units are exposed to the identified climate stimuli, of which 48 are constructed in low lying area and made of light materials and salvaged/ makeshift materials. > The level of exposure and vulnerability of the residential units is characterized as high. The LGU's capability and adaptability measure is at an acceptable level. | >> Increased number of informal settlers  >> Increased poverty >> Loss of livelihood >> Slowdown economic activities >> Higher prices of goods | | >> Implementation of plans and ordinances (CLUP, CDP, MDRRMP, Zoning Ordinance) >> Prioritization of Climate Change adaptive projects (slope protection, flood control system, construction of drainage system/ dike) >> provision of different livelihood trainings as alternative source of income | |
| Sector: Economic Area: Commerce & Industry Indicator: Barangay Nibaliw | In Barangay Nibaliw, 2 out of 11 or 18.18% business establishments are located in low lying area and easily flooded. > The level of exposure and vulnerability of the business establishments is characterized as high. The LGU's capability and adaptability measure is at an acceptable level. | >> Increased number of informal settlers  >> Increased poverty >> Loss of livelihood >> Slowdown economic activities >> Higher prices of goods | | >> Implementation of plans and ordinances (CLUP, CDP, MDRRMP, Zoning Ordinance) >> Prioritization of Climate Change adaptive projects (slope protection, flood control system, construction of drainage system/ dike) >> provision of different livelihood trainings as alternative source of income | |

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| Table 11. **DISASTER RISK ASSESSMENT SUMMARY MATRIX** | | |  | |  | |
| **SYSTEM OF INTEREST: URBAN USE DRA** | | |  | |  | |
| **HAZARD: FLOODING** | | |  | |  | |
|  | | |  | |  | |
| **Decision Area/s** | **Technical Findings** | **Implications** | | **Policy Interventions** | |
| **A** | **B** | **C** | | **D** | |
| Sector: Social Area: Population (Residential Settlement) Indicator: Barangay Osiem | In Barangay Osiem, 22 residential units are exposed to the identified climate stimuli, of which 21 are constructed in low lying area and made of light materials and salvaged/ makeshift materials. > The level of exposure and vulnerability of the residential units is characterized as high. The LGU's capability and adaptability measure is at an acceptable level. | >> Increased number of informal settlers  >> Increased poverty >> Loss of livelihood >> Slowdown economic activities >> Higher prices of goods | | >> Implementation of plans and ordinances (CLUP, CDP, MDRRMP, Zoning Ordinance) >> Prioritization of Climate Change adaptive projects (slope protection, flood control system, construction of drainage system/ dike) >> provision of different livelihood trainings as alternative source of income | |
| Sector: Economic Area: , Commerce & Industry Indicator: Barangay Osiem | In Barangay Osiem, 7 out of 13 or 53.85% business establishments are located in low lying area and easily flooded. > The level of exposure and vulnerability of the business establishments is characterized as high. The LGU's capability and adaptability measure is at an acceptable level. | >> Increased number of informal settlers  >> Increased poverty >> Loss of livelihood >> Slowdown economic activities >> Higher prices of goods | | >> Implementation of plans and ordinances (CLUP, CDP, MDRRMP, Zoning Ordinance) >> Prioritization of Climate Change adaptive projects (slope protection, flood control system, construction of drainage system/ dike) >> provision of different livelihood trainings as alternative source of income | |
| Sector: Social Area: Population (Residential Settlement) Indicator: Barangay Palua | In Barangay Palua, 50 residential units are exposed to the identified climate stimuli, of which 24 are constructed in low lying area and made of light materials and salvaged/ makeshift materials. > The level of exposure and vulnerability of the residential units is characterized as high. The LGU's capability and adaptability measure is at an acceptable level. | >> Increased number of informal settlers  >> Increased poverty >> Loss of livelihood >> Slowdown economic activities >> Higher prices of goods | | >> Implementation of plans and ordinances (CLUP, CDP, MDRRMP, Zoning Ordinance) >> Prioritization of Climate Change adaptive projects (slope protection, flood control system, construction of drainage system/ dike) >> provision of different livelihood trainings as alternative source of income | |
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| Sector: Economic Area: , Commerce & Industry Indicator: Barangay Palua | In Barangay Palua, 6 out of 10 or 60% business establishments are located in low lying area > The level of exposure and vulnerability of the business establishments is characterized as high. The LGU's capability and adaptability measure is at an acceptable level. | >> Increased number of informal settlers  >> Increased poverty >> Loss of livelihood >> Slowdown economic activities >> Higher prices of goods | | >> Implementation of plans and ordinances (CLUP, CDP, MDRRMP, Zoning Ordinance) >> Prioritization of Climate Change adaptive projects (slope protection, flood control system, construction of drainage system/ dike) >> Provision of different livelihood trainings as alternative source of income | |
| Sector: Social Area: Population (Residential Settlement) Indicator: Barangay Poblacion | In Barangay Poblacion, 14 residential units are exposed to the identified climate stimuli, of which 9 are constructed in low lying area and made of light materials and salvaged/ makeshift materials. > The level of exposure and vulnerability of the residential units is characterized as high. The LGU's capability and adaptability measures are at an acceptable level. | >> Increased number of informal settlers  >> Increased poverty >> Loss of livelihood >> Slowdown economic activities >> Higher prices of goods | | >> Implementation of plans and ordinances (CLUP, CDP, MDRRMP, Zoning Ordinance) >> Prioritization of Climate Change adaptive projects (slope protection, flood control system, construction of drainage system/ dike) >> provision of different livelihood trainings as alternative source of income | |
| Sector: Economic Area: Commerce & Industry Indicator: Barangay Poblacion | In Barangay Poblacion, 100 out of 355 or 28% business establishments. 50% are located in low lying area > The level of exposure and vulnerability of the business establishments is characterized as high. The LGU's capability and adaptability measure is at an acceptable level. | >> Increased number of informal settlers  >> Increased poverty >> Loss of livelihood >> Slowdown economic activities >> Higher prices of goods | | >> Implementation of plans and ordinances (CLUP, CDP, MDRRMP, Zoning Ordinance) >> Prioritization of Climate Change adaptive projects (slope protection, flood control system, construction of drainage system/ dike) >> provision of different livelihood trainings as alternative source of income | |
| Sector: Social Area: Population (Residential Settlement) Indicator: Barangay Pogo | In Barangay Pogo, 12 residential units are exposed to the identified climate stimuli, of which 12 houses are constructed in low lying area and made of light materials and salvaged/ makeshift materials. > The level of exposure and vulnerability of the residential units is characterized as high. The LGU's capability and adaptability measure is at an acceptable level. | >> Increased number of informal settlers  >> Increased poverty >> Loss of livelihood >> Slowdown economic activities >> Higher prices of goods | | >> Implementation of plans and ordinances (CLUP, CDP, MDRRMP, Zoning Ordinance) >> Prioritization of Climate Change adaptive projects (slope protection, flood control system, construction of drainage system/ dike) >> provision of different livelihood trainings as alternative source of income | |
| Sector: Economic Area: Commerce & Industry Indicator: Barangay Pogo | In Barangay Pogo, 5 out of 10 or 50% business establishments. 50% are located in low lying area > The level of exposure and vulnerability of the business establishments is characterized as high. The LGU's capability and adaptability measure is at an acceptable level. | >> Increased number of informal settlers  >> Increased poverty >> Loss of livelihood >> Slowdown economic activities >> Higher prices of goods | | >> Implementation of plans and ordinances (CLUP, CDP, MDRRMP, Zoning Ordinance) >> Prioritization of Climate Change adaptive projects (slope protection, flood control system, construction of drainage system/ dike) >> provision of different livelihood trainings as alternative source of income | |
| Sector: Social Area: Population (Residential Settlement) Indicator: Barangay Salaan | In Barangay Salaan, 22 residential units are exposed to the identified climate stimuli, of which 15 houses are constructed in low lying area and made of light materials and salvaged/ makeshift materials. > The level of exposure and vulnerability of the residential units is characterized as high. The LGU's capability and adaptability measure is at an acceptable level. | >> Increased number of informal settlers  >> Increased poverty >> Loss of livelihood >> Slowdown economic activities >> Higher prices of goods | | >> Implementation of plans and ordinances (CLUP, CDP, MDRRMP, Zoning Ordinance)  >> Prioritization of Climate Change adaptive projects (slope protection, flood control system, construction of drainage system/ dike) >> provision of different livelihood trainings as alternative source of income | |

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| Table 11. **DISASTER RISK ASSESSMENT SUMMARY MATRIX** | | | | |  | | |  | | |
| **SYSTEM OF INTEREST: URBAN USE DRA** | | | | |  | | |  | | |
| **HAZARD: FLOODING** | | | | |  | | |  | | |
|  | | | | |  | | |  | | |
| **Decision Area/s** | | **Technical Findings** | **Implications** | | | **Policy Interventions** | | |
| **A** | | **B** | **C** | | | **D** | | |
| Sector: Economic Area: Commerce & Industry Indicator: Barangay Salaan | | In Barangay Salaan, 5 out of 8 or 62.5% business establishments. 50% are located in low lying area and easily flooded. > The level of exposure and vulnerability of the business establishments is characterized as high. The LGU's capability and adaptability measure is at an acceptable level. | >> Increased number of informal settlers  >> Increased poverty >> Loss of livelihood >> Slowdown economic activities >> Higher prices of goods | | | >> Implementation of plans and ordinances (CLUP, CDP, MDRRMP, Zoning Ordinance) >> Prioritization of Climate Change adaptive projects (slope protection, flood control system, construction of drainage system/ dike) >> provision of different livelihood trainings as alternative source of income | | |
| Sector: Social Area: Population (Residential Settlement) Indicator: Barangay Talogtog | | In Barangay Talogtog, 14 residential units are exposed to the identified climate stimuli, of which 3 houses are constructed in low lying area and made of light materials and salvaged/ makeshift materials. > The level of exposure and vulnerability of the residential units is characterized as high. The LGU's capability and adaptability measure is at an acceptable level. | >> Increased number of informal settlers  >> Increased poverty >> Loss of livelihood >> Slowdown economic activities >> Higher prices of goods | | | >> Implementation of plans and ordinances (CLUP, CDP, MDRRMP, Zoning Ordinance) >> Prioritization of Climate Change adaptive projects (slope protection, flood control system, construction of drainage system/ dike) >> provision of different livelihood trainings as alternative source of income | | |
| Sector: Economic Area: Commerce & Industry Indicator: Barangay Talogtog | | In Barangay Talogtog, 8 out of 15 or 53.33% business establishments. 50% are located in low lying area > The level of exposure and vulnerability of the business establishments is characterized as high. The LGU's capability and adaptability measure is at an acceptable level. | >> Increased number of informal settlers  >> Increased poverty >> Loss of livelihood >> Slowdown economic activities >> Higher prices of goods | | | >> Implementation of plans and ordinances (CLUP, CDP, MDRRMP, Zoning Ordinance) >> Prioritization of Climate Change adaptive projects (slope protection, flood control system, construction of drainage system/ dike) >> provision of different livelihood trainings as alternative source of income | | |
| Sector: Social Area: Population (Residential Settlement) Indicator: Barangay Tebag | | In Barangay Tebag, 54 residential units are exposed to the identified climate stimuli, of which 50 houses are constructed in low lying area and made of light materials and salvaged/ makeshift materials. > The level of exposure and vulnerability of the residential units is characterized as high. The LGU's capability and adaptability measure is at an acceptable level. | >> Increased number of informal settlers  >> Increased poverty >> Loss of livelihood >> Slowdown economic activities >> Higher prices of goods | | | >> Implementation of plans and ordinances (CLUP, CDP, MDRRMP, Zoning Ordinance) >> Prioritization of Climate Change adaptive projects (slope protection, flood control system, construction of drainage system/ dike) >> provision of different livelihood trainings as alternative source of income | | |
| Sector: Economic Area: Agriculture (Farmers), Commerce & Industry Indicator: Barangay Tebag | | In Barangay Tebag, 10 out of 24 or 41.67% business establishments are located in low lying area and easily flooded. > The level of exposure and vulnerability of the business establishments is characterized as high. The LGU's capability and adaptability measure is at an acceptable level. | >> Increased number of informal settlers  >> Increased poverty >> Loss of livelihood >> Slowdown economic activities >> Higher prices of goods | | | >> Implementation of plans and ordinances (CLUP, CDP, MDRRMP, Zoning Ordinance) >> Prioritization of Climate Change adaptive projects (slope protection, flood control system, construction of drainage system/ dike) >> provision of different livelihood trainings as alternative source of income | | |
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| **Instructions:** |  | | |  | | |  | | |
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| A. Based on the risks maps generated for the various exposure units, highlight and identify decision areas or elements. Decision areas can be the barangay or specific sites in the barangay such as coastal area, mountain sides, and riverbanks. | | | | | | | | | |
| - identify decision areas in need of intervention based on the generated risk maps | | | | | | | | | |
| - This can be identified as high to moderate risk areas or may pertain to a specific area in the barangay | | | | | | | | | |
|  |  | | |  | | |  | | |
| B. List down the significant findings/observed conditions and causes by describing the area or element in terms of the level of risk, highlighting the various contributing factors such as exposure, sensitivity, and adaptive capacity. | | | | | | | | | |
| - identify the hazard and how these may manifest in the identified decision area | | | | | | | | | |
| - expound on the exposure information (i.e. number of affected population, exposure percentage, exposed area, and cost) | | | | | | | | | |
| - highlight relevant sensitivities of the exposed element to the identified hazard | | | | | | | | | |
| - highlight relevant adaptive capacity indicators of the exposed element to the identified hazard | | | | | | | | | |
|  |  | | |  | | |  | | |
| C. List down the planning/development implications when the identified risks in the various decision areas are not addressed. | | | | | | | | | |
| - highlight potential impact as mentioned in the sectoral impact chains | | | | | | | | | |
| - highlight future scenario if risks are not addressed | | | | | | | | | |
| - identify future needs with emphasis on the spatial framework plan of the municipality | | | | | | | | | |
|  |  | | |  | | |  | | |
| D. Identify various policy interventions that should seek to reduce the level of risks by addressing the exposure, sensitivity, with consideration to the current adaptive capacities | | | | | | | | | |
| - identify the various disaster risk adaptation and mitigation measures to reduce into an acceptable and tolerable level. | | | | | | | | | |

**STEP 6**

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| Table 12. **CLIMATE CHANGE VULNERABILITY AND DISASTER RISK ASSESSMENT SUMMARY MATRIX** | | | | | | | |
|  | |  |  |  | |  | |
| **Decision Area/s** | | **Description** | **Problems/ Hazards** | | **Impacts/ Implications** | | **Policy Interventions** | | |
| **A** | | **B** | **C** | | **D** | | **E** | | |
| **Barangay: Anolid** | | Generally, the entire town of Mangaldan is flat and leveled with 0.3% slope, this means that Mangaldan is situated in a low-lying area. Barangay Anolid is traversed by the Paldakit River. Though the aquatic resources serve and help in the economic condition of the barangay, it also becomes a threat when there is heavy and continuous rainfall resulting to flooding. The barangay has a total land area of 226.42 hectares. With a total population of 6,992, of which 3,497 males and 3,495 females. Of the total there are 1,699 households or 2,002 families. | In Barangay Anolid, Population Risk is categorized as moderate >> 1,669 households are exposed >> 15.27% of the population are below the poverty threshold >>4.52% pupils/ students are sensitive/ vulnerable because they are living in low lying area & below poverty threshold >> 57.85% farmers are sensitive/ vulnerable because they are living in low lying area &belong to below poverty threshold and about 60 hectares or 59% of farmlands are submerged or decrease of production is about 2,093.70 MT >> 8 fishermen are sensitive/ vulnerable because they are living below poverty threshold and about 10 hectares or 69.44% of fishponds overflow or decrease of production is about 11.25 MT > 40 entrepreneur/ business owners are exposed because they are living in low lying area and 10 below poverty threshold. 40 business establishments are constructed in low lying area. >> Barangay Health Station, Anolid Elementary School & Anolid Perlan Road are exposed because they are constructed in low lying area. >> Electric posts & telecommunication posts are encroaching major transportation network causing great danger during flooding >> 29 Residential Housing units are exposed because they are constructed in low lying areas and made of light materials & salvaged/ makeshift materials. | | >> Contamination of potable water source  >> Onset of epidemic diseases/ water borne diseases >> Increased number of morbidity/ mortality rate >> Increased number in drop-out rate >> Reduced number of school attendance >> Possible incidence of crime (looting) >> Permanent submergence and possible isolation of informal settler families >> Decrease of production >> Loss of Income >> Loss of livelihood >> Food shortage >> Increased malnutrition  >> Price hike of various commodities >> Unsafe living conditions | | >> Implementation of plans and ordinances (CLUP, CDP, MDRRMP, Zoning Ordinance) >> Conduct of medical and financial assistance  >> Ensure peace and order >> provision of different livelihood trainings as alternative sources of income >> identification of relocation site >> There is an immediate need to identify relocation sites to accommodate informal settler families >> Conduct Livelihood Programs >> Provision of disaster resilient flood control projects >> Seed subsidy (high yield and flood resilient variety) >> Adjust planting season of various crops >> Prioritization of Climate Change adaptive projects (slope protection, flood control system, construction of drainage system/ dike) >> Construction of communal irrigation system  >> Fingerlings dispersal >> Planting of mangroves | | |
| **Barangay: Banaoang** | | Generally, the entire town of Mangaldan is flat and leveled with 0.3% slope, this means that Mangaldan is situated in a low-lying area. Barangay Banaoang is traversed by the Paldakit River. Though the aquatic resources serve and help in the economic condition of the barangay, it also become a threat when there is heavy and continues rainfall resulting to flooding. The barangay has a total land area of 153.76 hectares. With a total population of 4,514, of which 2,303 males and 2,211 females. Of the total there are 1,129 households. | In Barangay Banaoang, Population Risk is categorized as moderate >> 1,129 households are exposed >> 24.45% of the population are below the poverty threshold >>4.52% pupils/ students are sensitive/ vulnerable because they are living in low lying area & below poverty threshold >> 13 farmers are sensitive/ vulnerable because they are living in low lying area & below poverty threshold and about 60 hectares or 59% of farmlands are submerged or decrease of production is about 2,093.70 MT > 8 entrepreneur/ business owners are exposed because they are living in low lying area and 2 below poverty threshold. 8 business establishments are constructed in low lying area. > Electric posts & telecommunication posts are encroaching major transportation network causing great danger during flooding >> 65 Residential Housing units are exposed because they are constructed in low lying areas and made of light materials & salvaged/ makeshift materials. | | >> Contamination of potable water source  >> Onset of epidemic diseases/ water borne diseases >> Increased number of morbidity/ mortality rate >> Increased number in drop-out rate >> Reduced number of school attendance >> Possible incidence of crime (looting) >> Permanent submergence and possible isolation of informal settler families >> Decrease of production >> Loss of Income >> Loss of livelihood >> Food shortage >> Increased malnutrition  >> Price hike of various commodities >> Unsafe living conditions | | >> Implementation of plans and ordinances (CLUP, CDP, MDRRMP, Zoning Ordinance) >> Conduct of medical and financial assistance  >> Ensure peace and order >> provision of different livelihood trainings as alternative sources of income >> identification of relocation site >> There is an immediate need to identify relocation sites to accommodate informal settler families >> Conduct Livelihood Programs >> Provision of disaster resilient flood control projects >> Seed subsidy (high yield and flood resilient variety) >> Adjust planting season of various crops >> Prioritization of Climate Change adaptive projects (slope protection, flood control system, construction of drainage system/ dike) >> Construction of communal irrigation system  >> Fingerlings dispersal >> Planting of mangroves | | |
| **Barangay: Bantayan** | | Generally, the entire town of Mangaldan is flat and leveled with 0.3% slope, this means that Mangaldan is situated in a low-lying area. Barangay Bantayan is traversed by the Old Mangaldan River. Though the aquatic resources serve and help in the economic condition of the barangay, it also become a threat when there is heavy and continues rainfall resulting to flooding. The barangay has a total land area of 87.75 hectares. With a total population of 3,198, of which 1,717 males and 1,481 females. Of the total there are 868 households. | In Barangay Bantayan, Population Risk is categorized as moderate >> 868 households are exposed >> 16.13% of the population are below the poverty threshold >>33 pupils/ students are sensitive/ vulnerable because they are living in low lying area & below poverty threshold >> 15 farmers are sensitive/ vulnerable because they are living in low lying area & below poverty threshold and about 60 hectares or 59% of farmlands are submerged or decrease of production is about 2,093.70 MT > 4 entrepreneur/ business owners are exposed because they are living in low lying area and 3 below poverty threshold. 4 business establishments are constructed in low lying area. >> Mangaldan Integrated School & Barangay Roads are exposed because they are constructed in low lying area. >> Electric posts & telecommunication posts are encroaching major transportation network causing great danger during flooding >> 12 Residential Housing units are exposed because they are constructed in low lying areas and made of light materials & salvaged/ makeshift materials. | | >> Contamination of potable water source  >> Onset of epidemic diseases/ water borne diseases >> Increased number of morbidity/ mortality rate >> Increased number in drop-out rate >> Reduced number of school attendance >> Possible incidence of crime (looting) >> Permanent submergence and possible isolation of informal settler families >> Decrease of production  >> Loss of Income  >> Loss of livelihood >> Food shortage >> Increased malnutrition >> Price hike of various commodities >> Unsafe living conditions | | > Implementation of plans and ordinances (CLUP, CDP, MDRRMP, Zoning Ordinance) >> Conduct of medical and financial assistance  >> Ensure peace and order >> provision of different livelihood trainings as alternative sources of income >> identification of relocation site >> There is an immediate need to identify relocation sites to accommodate informal settler families >> Conduct Livelihood Programs  >> Provision of disaster resilient flood control projects  >> Seed subsidy (high yield and flood resilient variety)  >> Adjust planting season of various crops >> Prioritization of Climate Change adaptive projects (slope protection, flood control system, construction of drainage system/ dike) >> Construction of communal irrigation system  >> Fingerlings dispersal  >> Planting of mangroves | | |
| Table 12.**CLIMATE CHANGE VULNERABILITY AND DISASTER RISK ASSESSMENT SUMMARY MATRIX** | | | | | | | |
|  | |  |  |  | |  | |
| **Decision Area/s** | | **Description** | **Problems/ Hazards** | | **Impacts/ Implications** | | **Policy Interventions** | | |
| **A** | | **B** | **C** | | **D** | | **E** | | |
|  | |  |  | |  | |  | | |
| **Barangay: Bateng** | | Generally, the entire town of Mangaldan is flat and leveled with 0.3% slope, this means that Mangaldan is situated in a low-lying area. Barangay Bateng is traversed by the Old Mangaldan River. Though the aquatic resources serve and help in the economic condition of the barangay, it also become a threat when there is heavy and continues rainfall resulting to flooding. The barangay has a total land area of 117.51 hectares. With a total population of 3,130 and with 682 households. | In Barangay Bateng, Population Risk is categorized as moderate >> 569 households are exposed >> 3.65% of the population are below the poverty threshold >>3.65% pupils/ students are sensitive/ vulnerable because they are living in low lying area & below poverty threshold >> 10 farmers are sensitive/ vulnerable because they are living in low lying area & below poverty threshold and about 1 hectare or 50% of farmlands are submerged or decrease of production is about 50 MT >> 60 fishermen are sensitive/ vulnerable because they are living below poverty threshold and about 42.35 hectares or 60% of fishpond overflow or decreased of 47.64 MT productions >> 4 entrepreneur/ business owners are exposed because they are living in low lying area and 6 below poverty threshold. 4 business establishments are constructed in low lying area. >> Barangay Health Station is exposed because it is constructed in low lying area. >> Electric posts & telecommunication posts are encroaching major transportation network causing great danger during flooding >> 43 Residential Housing units are exposed because they are constructed in low lying areas and made of light materials & salvaged/ makeshift materials. | | >> Contamination of potable water source  >> Onset of epidemic diseases/ water borne diseases >> Increased number of morbidity/ mortality rate >> Increased number in drop-out rate >> Reduced number of school attendance >> Possible incidence of crime (looting) >> Permanent submergence and possible isolation of informal settler families >> Decrease of production >> Loss of Income >> Loss of livelihood >> Food shortage >> Increased malnutrition  >> Price hike of various commodities >> Unsafe living conditions | | >> Implementation of plans and ordinances (CLUP, CDP, MDRRMP, Zoning Ordinance) >> Conduct of medical and financial assistance  >> Ensure peace and order >> provision of different livelihood trainings as alternative sources of income >> identification of relocation site >> There is an immediate need to identify relocation sites to accommodate informal settler families >> Conduct Livelihood Programs >> Provision of disaster resilient flood control projects >> Seed subsidy (high yield and flood resilient variety) >> Adjust planting season of various crops >> Prioritization of Climate Change adaptive projects (slope protection, flood control system, construction of drainage system/ dike) >> Construction of communal irrigation system  >> Fingerlings dispersal >> Planting of mangroves | | |
| **Barangay: David** | | Generally, the entire town of Mangaldan is flat and leveled with 0.3% slope, this means that Mangaldan is situated in a low-lying area. Barangay David is traversed by the Angalacan River. Though the aquatic resources serve and help in the economic condition of the barangay, it also become a threat when there is heavy and continues rainfall resulting to flooding. The barangay has a total land area of 171.51 hectares. With a total population of 4,191, of which 2,145 males and 2,046 females. Of the total there are 989 households. | In Barangay David, Population Risk is categorized as moderate >> 989 households are exposed >> 28.72% of the population are below the poverty threshold >>409 pupils/ students are sensitive/ vulnerable because they are living in low lying area & below poverty threshold >> 71 farmers are sensitive/ vulnerable because they are living in low lying area & below poverty threshold and about 45 hectares or 75% of farmlands are submerged or decrease of production is about 2,093.70 MT > 7 entrepreneur/ business owners are exposed because they are living in low lying area and 3 below poverty threshold. 7 business establishments are constructed in low lying area. >> Barangay Health Station & David Elementary School are exposed because they are constructed in low lying area. >> Electric posts & telecommunication posts are encroaching major transportation network causing great danger during flooding >> 43 Residential Housing units are exposed because they are constructed in low lying areas and made of light materials & salvaged/ makeshift materials. | | >> Contamination of potable water source  >> Onset of epidemic diseases/ water borne diseases >> Increased number of morbidity/ mortality rate >> Increased number in drop-out rate >> Reduced number of school attendance >> Possible incidence of crime (looting) >> Permanent submergence and possible isolation of informal settler families >> Decrease of production  >> Loss of Income  >> Loss of livelihood >> Food shortage >> Increased malnutrition >> Price hike of various commodities >> Unsafe living conditions | | >> Implementation of plans and ordinances (CLUP, CDP, MDRRMP, Zoning Ordinance) >> Conduct of medical and financial assistance  >> Ensure peace and order  >> provision of different livelihood trainings as alternative sources of income >> identification of relocation site >> There is an immediate need to identify relocation sites to accommodate informal settler families >> Conduct Livelihood Programs  >> Provision of disaster resilient flood control projects  >> Seed subsidy (high yield and flood resilient variety)  >> Adjust planting season of various crops >> Prioritization of Climate Change adaptive projects (slope protection, flood control system, construction of drainage system/ dike) >> Construction of communal irrigation system  >> Fingerlings dispersal  >> Planting of mangroves | | |
| **Barangay:**  **Embarcadero** | | Generally, the entire town of Mangaldan is flat and leveled with 0.3% slope, this means that Mangaldan is situated in a low-lying area. Barangay Embarcadero is traversed by the Angalacan River. Though the aquatic resources serve and help in the economic condition of the barangay, it also become a threat when there is heavy and continues rainfall resulting to flooding. The barangay has a total land area of 94.19 hectares approximately 85% plains and 15% aquatic. With a total population of 2,623, of which 1,352 male and 1,331 females. Of the total there are 591 households or 715 families. | In Barangay Embarcadero, Population Risk is categorized as moderate >> 591 households are exposed >> 23.35% of the population are below the poverty threshold >>36 pupils/ students are sensitive/ vulnerable because they are living in low lying area & below poverty threshold >> 19 farmers are sensitive/ vulnerable because they are living in low lying area & below poverty threshold and about 16.25 hectares or 65% of farmlands are submerged or decrease of production is about 68.25 MT > 10 entrepreneur/ business owners are exposed because they are living in low lying area and 5 below poverty threshold. 10 business establishments are constructed in low lying area. >> Embarcadero Elementary School & 110 meters farm to market road are exposed because they are constructed in low lying area. >> Electric posts & telecommunication posts are encroaching major transportation network causing great danger during flooding >> 25 Residential Housing units are exposed because they are constructed in low lying areas and made of light materials & salvaged/ makeshift materials. | | >> Contamination of potable water source  >> Onset of epidemic diseases/ water borne diseases >> Increased number of morbidity/ mortality rate >> Increased number in drop-out rate >> Reduced number of school attendance >> Possible incidence of crime (looting) >> Permanent submergence and possible isolation of informal settler families >> Decrease of production >> Loss of Income >> Loss of livelihood >> Food shortage >> Increased malnutrition  >> Price hike of various commodities >> Unsafe living conditions | | >> Implementation of plans and ordinances (CLUP, CDP, MDRRMP, Zoning Ordinance) >> Conduct of medical and financial assistance  >> Ensure peace and order >> provision of different livelihood trainings as alternative sources of income >> identification of relocation site >> There is an immediate need to identify relocation sites to accommodate informal settler families >> Conduct Livelihood Programs >> Provision of disaster resilient flood control projects >> Seed subsidy (high yield and flood resilient variety) >> Adjust planting season of various crops >> Prioritization of Climate Change adaptive projects (slope protection, flood control system, construction of drainage system/ dike) >> Construction of communal irrigation system  >> Fingerlings dispersal >> Planting of mangroves | | |

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| Table 12.**CLIMATE CHANGE VULNERABILITY AND DISASTER RISK ASSESSMENT SUMMARY MATRIX** | | | | | | | |
|  | |  |  |  | |  | |
| **Decision Area/s** | | **Description** | **Problems/ Hazards** | | **Impacts/ Implications** | | **Policy Interventions** | | |
| **A** | | **B** | **C** | | **D** | | **E** | | |
| **Barangay: Guesang** | | Generally, the entire town of Mangaldan is flat and leveled with 0.3% slope, this means that Mangaldan is situated in a low-lying area. Barangay Guesang is traversed by the Angalacan River. Though the aquatic resources serve and help in the economic condition of the barangay, it also become a threat when there is heavy and continues rainfall resulting to flooding. The barangay has a total land area of 205.95 hectares. With a total population of 3,740, of which 1,902 males and 1,838 females. Of the total there are 822 households. | In Barangay Guesang, Population Risk is categorized as moderate >> 822 households are exposed >> 169 of the population are below the poverty threshold >> 25 pupils/ students are sensitive/ vulnerable because they are living in low lying area & below poverty threshold >> 77 farmers are sensitive/ vulnerable because they are living in low lying area & below poverty threshold and about 41.79 hectares or 61% of farmlands are submerged or decrease of production is about 137.27 MT > 3 entrepreneur/ business owners are exposed because they are living in low lying area and 5 below poverty threshold. 3 business establishments are constructed in low lying area. >> Guesang Elementary School & 1.140 km Barangay Road are exposed because they are constructed in low lying area. >> Electric posts & telecommunication posts are encroaching major transportation network causing great danger during flooding >> 9 Residential Housing units are exposed because they are constructed in low lying areas and made of light materials & salvaged/ makeshift materials. | | >> Contamination of potable water source  >> Onset of epidemic diseases/ water borne diseases >> Increased number of morbidity/ mortality rate >> Increased number in drop-out rate >> Reduced number of school attendance >> Possible incidence of crime (looting) >> Permanent submergence and possible isolation of informal settler families >> Decrease of production  >> Loss of Income  >> Loss of livelihood >> Food shortage >> Increased malnutrition >> Price hike of various commodities >> Unsafe living conditions | | >> Implementation of plans and ordinances (CLUP, CDP, MDRRMP, Zoning Ordinance) >> Conduct of medical and financial assistance  >> Ensure peace and order >> provision of different livelihood trainings as alternative sources of income >> identification of relocation site >> There is an immediate need to identify relocation sites to accommodate informal settler families >> Conduct Livelihood Programs  >> Provision of disaster resilient flood control projects  >> Seed subsidy (high yield and flood resilient variety)  >> Adjust planting season of various crops  >> Prioritization of Climate Change adaptive projects (slope protection, flood control system, construction of drainage system/ dike) >> Construction of communal irrigation system  >> Fingerlings dispersal  >> Planting of mangroves | | |
| **Barangay: Guiguilonen** | | Generally, the entire town of Mangaldan is flat and leveled with 0.3% slope, this means that Mangaldan is situated in a low-lying area. Barangay Guiguilonen is traversed by the Old Mangaldan River. Though the aquatic resources serve and help in the economic condition of the barangay, it also become a threat when there is heavy and continues rainfall resulting to flooding. The barangay has a total land area of 74.29 hectares. With a total population of 3,211, of which 1,626 male and 1,585 females. Of the total there are 676 households or 582 families. | In Barangay Guiguilonen, Population Risk is categorized as moderate >> 676 households are exposed >> 181 of the population are below the poverty threshold >> 30 pupils/ students are sensitive/ vulnerable because they are living in low lying area & below poverty threshold >> 77 farmers are sensitive/ vulnerable because they are living in low lying area & below poverty threshold and about 5 hectares or 50% of farmlands are submerged or decrease of production is about 2.5 MT > 12 entrepreneur/ business owners are exposed because they are living in low lying area and 3 below poverty threshold. 12 business establishments are constructed in low lying area. >> Barangay Roads are exposed because they are constructed in low lying area. >> Electric posts & telecommunication posts are encroaching major transportation network causing great danger during flooding >> 12 Residential Housing units are exposed because they are constructed in low lying areas and made of light materials & salvaged/ makeshift materials. | | >> Contamination of potable water source  >> Onset of epidemic diseases/ water borne diseases >> Increased number of morbidity/ mortality rate >> Increased number in drop-out rate >> Reduced number of school attendance >> Possible incidence of crime (looting) >> Permanent submergence and possible isolation of informal settler families >> Decrease of production >> Loss of Income >> Loss of livelihood >> Food shortage >> Increased malnutrition  >> Price hike of various commodities >> Unsafe living conditions | | >> Implementation of plans and ordinances (CLUP, CDP, MDRRMP, Zoning Ordinance) >> Conduct of medical and financial assistance  >> Ensure peace and order >> provision of different livelihood trainings as alternative sources of income >> identification of relocation site >> There is an immediate need to identify relocation sites to accommodate informal settler families >> Conduct Livelihood Programs >> Provision of disaster resilient flood control projects >> Seed subsidy (high yield and flood resilient variety) >> Adjust planting season of various crops >> Prioritization of Climate Change adaptive projects (slope protection, flood control system, construction of drainage system/ dike) >> Construction of communal irrigation system  >> Fingerlings dispersal >> Planting of mangroves | | |
| **Barangay: Inlambo** | | Generally, the entire town of Mangaldan is flat and leveled with 0.3% slope, this means that Mangaldan is situated in a low-lying area. Barangay Inlambo is traversed by the Angalacan River. Though the aquatic resources serve and help in the economic condition of the barangay, it also become a threat when there is heavy and continues rainfall resulting to flooding. The barangay has a total land area of 142.39 hectares. With a total population of 1,726, of which 863 are males and 834 are females. Of the total, there are 394 households. | In Barangay Inlambo, Population Risk is categorized as moderate >> 341 households are exposed >> 120 of the population are below the poverty threshold >> 23 pupils/ students are sensitive/ vulnerable because they are living in low lying area & below poverty threshold >> 11 farmers are sensitive/ vulnerable because they are living in low lying area & below poverty threshold and about 35 hectares or 53% of farmlands are submerged or decrease of production is about 343.54 MT > 2 entrepreneur/ business owners are exposed because they are living in low lying area and 6 below poverty threshold. 2 business establishments are constructed in low lying area. >> Inlambo Elementary School & 418 Meters Barangay Road is exposed because they are constructed in low lying area. >> Electric posts & telecommunication posts are encroaching major transportation network causing great danger during flooding >> 30 Residential Housing units are exposed because they are constructed in low lying areas and made of light materials & salvaged/ makeshift materials. | | >> Contamination of potable water source  >> Onset of epidemic diseases/ water borne diseases >> Increased number of morbidity/ mortality rate >> Increased number in drop-out rate >> Reduced number of school attendance >> Possible incidence of crime (looting) >> Permanent submergence and possible isolation of informal settler families >> Decrease of production  >> Loss of Income  >> Loss of livelihood >> Food shortage >> Increased malnutrition >> Price hike of various commodities >> Unsafe living conditions | | >> Implementation of plans and ordinances (CLUP, CDP, MDRRMP, Zoning Ordinance) >> Conduct of medical and financial assistance  >> Ensure peace and order >> provision of different livelihood trainings as alternative sources of income >> identification of relocation site >> There is an immediate need to identify relocation sites to accommodate informal settler families >> Conduct Livelihood Programs  >> Provision of disaster resilient flood control projects  >> Seed subsidy (high yield and flood resilient variety)  >> Adjust planting season of various crops  >> Prioritization of Climate Change adaptive projects (slope protection, flood control system, construction of drainage system/ dike) >> Construction of communal irrigation system  >> Fingerlings dispersal>> Planting of mangroves | | |

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| Table 12.**CLIMATE CHANGE VULNERABILITY AND DISASTER RISK ASSESSMENT SUMMARY MATRIX** | | | | | | | |
|  | |  |  |  | |  | |
| **Decision Area/s** | | **Description** | **Problems/ Hazards** | | **Impacts/ Implications** | | **Policy Interventions** | | |
| **A** | | **B** | **C** | | **D** | | **E** | | |
| **Barangay: Lanas** | | Generally, the entire town of Mangaldan is flat and leveled with 0.3% slope, this means that Mangaldan is situated in a low-lying area. Barangay Lanas is traversed by the Paldakit River. Though the aquatic resources serve and help in the economic condition of the barangay, it also become a threat when there is heavy and continues rainfall resulting to flooding. The barangay has a total land area of 274.2 hectares. With a total population of 3,285, of which 1,519 males and 1,452 females. Of the total there are 732 households. | In Barangay Lanas, Population Risk is categorized as moderate >> 732 households are exposed >> 200 of the population are below the poverty threshold >> 26 pupils/ students are sensitive/ vulnerable because they are living in low lying area & below poverty threshold >> 49 farmers are sensitive/ vulnerable because they are living in low lying area & below poverty threshold and about 5.2 hectares or 52% of farmlands are submerged or decrease of production is about 26 MT > 4 entrepreneur/ business owners are exposed because they are living in low lying area and 4 below poverty threshold. 4 business establishments are constructed in low lying area. >> Lanas Elementary School & Barangay Roads are exposed because they are constructed in low lying area. >> Electric posts & telecommunication posts are encroaching major transportation network causing great danger during flooding >> 21 Residential Housing units are exposed because they are constructed in low lying areas and made of light materials & salvaged/ makeshift materials. | | >> Contamination of potable water source  >> Onset of epidemic diseases/ water borne diseases >> Increased number of morbidity/ mortality rate >> Increased number in drop-out rate >> Reduced number of school attendance >> Possible incidence of crime (looting) >> Permanent submergence and possible isolation of informal settler families >> Decrease of production >> Loss of Income >> Loss of livelihood >> Food shortage >> Increased malnutrition  >> Price hike of various commodities >> Unsafe living conditions | | >> Implementation of plans and ordinances (CLUP, CDP, MDRRMP, Zoning Ordinance) >> Conduct of medical and financial assistance  >> Ensure peace and order >> provision of different livelihood trainings as alternative sources of income >> identification of relocation site >> There is an immediate need to identify relocation sites to accommodate informal settler families >> Conduct Livelihood Programs >> Provision of disaster resilient flood control projects >> Seed subsidy (high yield and flood resilient variety) >> Adjust planting season of various crops >> Prioritization of Climate Change adaptive projects (slope protection, flood control system, construction of drainage system/ dike) >> Construction of communal irrigation system  >> Fingerlings dispersal >> Planting of mangroves | | |
| **Barangay: Landas** | | Generally, the entire town of Mangaldan is flat and leveled with 0.3% slope, this means that Mangaldan is situated in a low-lying area. Barangay Landas is traversed by the Angalacan River. Though the aquatic resources serve and help in the economic condition of the barangay, it also become a threat when there is heavy and continues rainfall resulting to flooding. The barangay has a total land area of 167.49 hectares. With a total population of 1,909, of which 975 males and 934 females. Of the total there are 541 households. | In Barangay Landas, Population Risk is categorized as moderate >> 541 households are exposed >> 77 of the population are below the poverty threshold >> 9 pupils/ students are sensitive/ vulnerable because they are living in low lying area & below poverty threshold >> 17 farmers are sensitive/ vulnerable because they are living in low lying area & below poverty threshold and about 9 hectares or 20% of farmlands are submerged or decrease of production is about 45 MT > 6 entrepreneur/ business owners are exposed because they are living in low lying area and 2 below poverty threshold. 6 business establishments are constructed in low lying area. >> Riverside Road is exposed because they are constructed in low lying area. >> Electric posts & telecommunication posts are encroaching major transportation network causing great danger during flooding >> 2 Residential Housing units are exposed because they are constructed in low lying areas and made of light materials & salvaged/ makeshift materials. | | >> Contamination of potable water source  >> Onset of epidemic diseases/ water borne diseases >> Increased number of morbidity/ mortality rate >> Increased number in drop-out rate >> Reduced number of school attendance >> Possible incidence of crime (looting) >> Permanent submergence and possible isolation of informal settler families >> Decrease of production  >> Loss of Income  >> Loss of livelihood >> Food shortage >> Increased malnutrition >> Price hike of various commodities >> Unsafe living conditions | | >> Implementation of plans and ordinances (CLUP, CDP, MDRRMP, Zoning Ordinance) >> Conduct of medical and financial assistance  >> Ensure peace and order >> provision of different livelihood trainings as alternative sources of income >> identification of relocation site >> There is an immediate need to identify relocation sites to accommodate informal settler families >> Conduct Livelihood Programs  >> Provision of disaster resilient flood control projects  >> Seed subsidy (high yield and flood resilient variety)  >> Adjust planting season of various crops  >> Prioritization of Climate Change adaptive projects (slope protection, flood control system, construction of drainage system/ dike) >> Construction of communal irrigation system  >> Fingerlings dispersal>> Planting of mangroves | | |
| **Barangay: Maasin** | | Generally, the entire town of Mangaldan is flat and leveled with 0.3% slope, this means that Mangaldan is situated in a low-lying area. Barangay Maasin is traversed by the Paldakit River. Though the aquatic resources serve and help in the economic condition of the barangay, it also become a threat when there is heavy and continues rainfall resulting to flooding. The barangay has a total land area of 239.59 hectares. With a total population of 3,971, of which 2,025 males and 1,946 females. Of the total there are 863 households. | In Barangay Bantayan, Population Risk is categorized as moderate >> 741 households are exposed >> 211 of the population are below the poverty threshold >> 12 pupils/ students are sensitive/ vulnerable because they are living in low lying area & below poverty threshold >> 12 farmers are sensitive/ vulnerable because they are living in low lying area & below poverty threshold and about 5 hectares or 50% of farmlands are submerged or decrease of production is about 99 MT >> 60 fishermen are sensitive/ vulnerable because they are living below poverty threshold and about 80.45 hectares or 75% of fishpond overflow or decreased of 90.50 MT productions > 10 entrepreneur/ business owners are exposed because they are living in low lying area and 5 below poverty threshold. 10 business establishments are constructed in low lying area. >> Barangay Health Station, Maasin Elementary School & Barangay Road are exposed because they are constructed in low lying area. >> Electric posts & telecommunication posts are encroaching major transportation network causing great danger during flooding >> 5 Residential Housing units are exposed because they are constructed in low lying areas and made of light materials & salvaged/ makeshift materials. | | >> Contamination of potable water source  >> Onset of epidemic diseases/ water borne diseases >> Increased number of morbidity/ mortality rate >> Increased number in drop-out rate >> Reduced number of school attendance >> Possible incidence of crime (looting) >> Permanent submergence and possible isolation of informal settler families >> Decrease of production >> Loss of Income >> Loss of livelihood >> Food shortage >> Increased malnutrition  >> Price hike of various commodities >> Unsafe living conditions | | >> Implementation of plans and ordinances (CLUP, CDP, MDRRMP, Zoning Ordinance) >> Conduct of medical and financial assistance  >> Ensure peace and order >> provision of different livelihood trainings as alternative sources of income >> identification of relocation site >> There is an immediate need to identify relocation sites to accommodate informal settler families >> Conduct Livelihood Programs >> Provision of disaster resilient flood control projects >> Seed subsidy (high yield and flood resilient variety) >> Adjust planting season of various crops >> Prioritization of Climate Change adaptive projects (slope protection, flood control system, construction of drainage system/ dike) >> Construction of communal irrigation system  >> Fingerlings dispersal >> Planting of mangroves | | |
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| Table 12.**CLIMATE CHANGE VULNERABILITY AND DISASTER RISK ASSESSMENT SUMMARY MATRIX** | | | | | | | |
|  | |  |  |  | |  | |
| **Decision Area/s** | | **Description** | **Problems/ Hazards** | | **Impacts/ Implications** | | **Policy Interventions** | | |
| **A** | | **B** | **C** | | **D** | | **E** | | |
| **Barangay: Macayug** | | Generally, the entire town of Mangaldan is flat and leveled with 0.3% slope, this means that Mangaldan is situated in a low-lying area. Barangay Macayug is traversed by the Angalacan River. Though the aquatic resources serve and help in the economic condition of the barangay, it also become a threat when there is heavy and continues rainfall resulting to flooding. The barangay has a total land area of 209.67 hectares. With a total population of 2,633, of which, 1,339 are males and 1,294 are females. Of the total there are 527 households. | In Barangay Macayug, Population Risk is categorized as moderate >> 572 households are exposed >> 305 of the population are below the poverty threshold >>33 pupils/ students are sensitive/ vulnerable because they are living in low lying area & below poverty threshold >> 69 farmers are sensitive/ vulnerable because they are living in low lying area & below poverty threshold and about 25 hectares or 83% of farmlands are submerged or decrease of production is about 304.33 MT > 3 entrepreneur/ business owners are exposed because they are living in low lying area and 2 below poverty threshold. 3 business establishments are constructed in low lying area. >> Barangay Health Station, Macayug Elementary School are exposed because they are constructed in low lying area. >> Electric posts & telecommunication posts are encroaching major transportation network causing great danger during flooding >> 8 Residential Housing units are exposed because they are constructed in low lying areas and made of light materials & salvaged/ makeshift materials. | | >> Contamination of potable water source  >> Onset of epidemic diseases/ water borne diseases >> Increased number of morbidity/ mortality rate >> Increased number in drop-out rate >> Reduced number of school attendance >> Possible incidence of crime (looting) >> Permanent submergence and possible isolation of informal settler families >> Decrease of production  >> Loss of Income  >> Loss of livelihood >> Food shortage >> Increased malnutrition >> Price hike of various commodities >> Unsafe living conditions | | >> Implementation of plans and ordinances (CLUP, CDP, MDRRMP, Zoning Ordinance) >> Conduct of medical and financial assistance  >> Ensure peace and order >> provision of different livelihood trainings as alternative sources of income >> identification of relocation site >> There is an immediate need to identify relocation sites to accommodate informal settler families >> Conduct Livelihood Programs  >> Provision of disaster resilient flood control projects  >> Seed subsidy (high yield and flood resilient variety)  >> Adjust planting season of various crops  >> Prioritization of Climate Change adaptive projects (slope protection, flood control system, construction of drainage system/ dike) >> Construction of communal irrigation system  >> Fingerlings dispersal  >> Planting of mangroves | | |
| **Barangay: Navaluan** | | Generally, the entire town of Mangaldan is flat and leveled with 0.3% slope, this means that Mangaldan is situated in a low-lying area. Barangay Navaluan is traversed by the Angalacan River. Though the aquatic resources serve and help in the economic condition of the barangay, it also become a threat when there is heavy and continues rainfall resulting to flooding. The barangay has a total land area of 110.19 hectares. With a total population of 1,753, of which 890 males and 863 females. Of the total there are 762 households. | In Barangay Navaluan, Population Risk is categorized as moderate >> 762 households are exposed >> 180 of the population are below the poverty threshold >> 38 pupils/ students are sensitive/ vulnerable because they are living in low lying area & below poverty threshold >> 37 farmers are sensitive/ vulnerable because they are living in low lying area & below poverty threshold and about 18 hectares or 48% of farmlands are submerged or decrease of production is about 79.2 MT > 5 entrepreneur/ business owners are exposed because they are living in low lying area and 2 below poverty threshold. 5 business establishments are constructed in low lying area. >> Barangay Health Station, Navaluan Elementary School is exposed because they are constructed in low lying area. >> Electric posts & telecommunication posts are encroaching major transportation network causing great danger during flooding >> 8 Residential Housing units are exposed because they are constructed in low lying areas and made of light materials & salvaged/ makeshift materials. | | >> Contamination of potable water source  >> Onset of epidemic diseases/ water borne diseases >> Increased number of morbidity/ mortality rate >> Increased number in drop-out rate >> Reduced number of school attendance >> Possible incidence of crime (looting) >> Permanent submergence and possible isolation of informal settler families >> Decrease of production >> Loss of Income >> Loss of livelihood >> Food shortage >> Increased malnutrition  >> Price hike of various commodities >> Unsafe living conditions | | >> Implementation of plans and ordinances (CLUP, CDP, MDRRMP, Zoning Ordinance) >> Conduct of medical and financial assistance  >> Ensure peace and order >> provision of different livelihood trainings as alternative sources of income >> identification of relocation site >> There is an immediate need to identify relocation sites to accommodate informal settler families >> Conduct Livelihood Programs >> Provision of disaster resilient flood control projects >> Seed subsidy (high yield and flood resilient variety) >> Adjust planting season of various crops >> Prioritization of Climate Change adaptive projects (slope protection, flood control system, construction of drainage system/ dike) >> Construction of communal irrigation system  >> Fingerlings dispersal >> Planting of mangroves | | |
| **Barangay: Nibaliw** | | Generally, the entire town of Mangaldan is flat and leveled with 0.3% slope, this means that Mangaldan is situated in a low-lying area. Barangay Nibaliw is traversed by the Angalacan River. Though the aquatic resources serve and help in the economic condition of the barangay, it also become a threat when there is heavy and continues rainfall resulting to flooding. The barangay has a total land area of 76.15 hectares. With a total population of 2,987, of which 1,536 male and 1,451 females. Of the total there are 675 households. | In Barangay Nibaliw, Population Risk is categorized as moderate >> 675 households are exposed >> 335 of the population are below the poverty threshold >> 39 pupils/ students are sensitive/ vulnerable because they are living in low lying area & below poverty threshold >> 20 farmers are sensitive/ vulnerable because they are living in low lying area & below poverty threshold and about 20 hectares or 55.56% of farmlands are submerged or decrease of production is about 90.44 MT > 2 entrepreneur/ business owners are exposed because they are living in low lying area and 6 below poverty threshold. 2 business establishments are constructed in low lying area. >> Barangay Health Station, Nibaliw Elementary School & 420 Meters Barangay Road are exposed because they are constructed in low lying area. >> Electric posts & telecommunication posts are encroaching major transportation network causing great danger during flooding >> 48 Residential Housing units are exposed because they are constructed in low lying areas and made of light materials & salvaged/ makeshift materials. | | >> Contamination of potable water source  >> Onset of epidemic diseases/ water borne diseases >> Increased number of morbidity/ mortality rate >> Increased number in drop-out rate >> Reduced number of school attendance >> Possible incidence of crime (looting) >> Permanent submergence and possible isolation of informal settler families >> Decrease of production  >> Loss of Income  >> Loss of livelihood >> Food shortage >> Increased malnutrition >> Price hike of various commodities >> Unsafe living conditions | | >> Implementation of plans and ordinances (CLUP, CDP, MDRRMP, Zoning Ordinance) >> Conduct of medical and financial assistance  >> Ensure peace and order >> provision of different livelihood trainings as alternative sources of income >> identification of relocation site >> There is an immediate need to identify relocation sites to accommodate informal settler families >> Conduct Livelihood Programs>> Provision of disaster resilient flood control projects  >> Seed subsidy (high yield and flood resilient variety)  >> Adjust planting season of various crops  >> Prioritization of Climate Change adaptive projects (slope protection, flood control system, construction of drainage system/ dike) >> Construction of communal irrigation system  >> Fingerlings dispersal  >> Planting of mangroves | | |

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| Table 12. **CLIMATE CHANGE VULNERABILITY AND DISASTER RISK ASSESSMENT SUMMARY MATRIX** | | | | | | | |
|  | |  |  |  | |  | |
| **Decision Area/s** | | **Description** | **Problems/ Hazards** | | **Impacts/ Implications** | | **Policy Interventions** | | |
| **A** | | **B** | **C** | | **D** | | **E** | | |
|  | |  |  | |  | |  | | |
| **Barangay: Osiem** | | Generally, the entire town of Mangaldan is flat and leveled with 0.3% slope, this means that Mangaldan is situated in a low-lying area. Barangay Osiem is traversed by the Angalacan River. Though the aquatic resources serve and help in the economic condition of the barangay, it also become a threat when there is heavy and continues rainfall resulting to flooding. The barangay has a total land area of 167.07 hectares. With a total population of 2,846, of which 1,441 males and 1,405 females. Of the total there are 809 households. | In Barangay Osiem, Population Risk is categorized as moderate >> 809 households are exposed >> 87 of the population are below the poverty threshold >> 22 pupils/ students are sensitive/ vulnerable because they are living in low lying area & below poverty threshold >> 13 farmers are sensitive/ vulnerable because they are living in low lying area & below poverty threshold and about 27 hectares or 57% of farmlands are submerged or decrease of production is about 118.8 MT > 7 entrepreneur/ business owners are exposed because they are living in low lying area and 3 below poverty threshold. 7 business establishments are constructed in low lying area. >> Barangay Road is exposed because they are constructed in low lying area. >> Electric posts & telecommunication posts are encroaching major transportation network causing great danger during flooding >> 21 Residential Housing units are exposed because they are constructed in low lying areas and made of light materials & salvaged/ makeshift materials. | | >> Contamination of potable water source  >> Onset of epidemic diseases/ water borne diseases >> Increased number of morbidity/ mortality rate >> Increased number in drop-out rate >> Reduced number of school attendance >> Possible incidence of crime (looting) >> Permanent submergence and possible isolation of informal settler families >> Decrease of production >> Loss of Income >> Loss of livelihood >> Food shortage >> Increased malnutrition  >> Price hike of various commodities >> Unsafe living conditions | | >> Implementation of plans and ordinances (CLUP, CDP, MDRRMP, Zoning Ordinance) >> Conduct of medical and financial assistance  >> Ensure peace and order >> provision of different livelihood trainings as alternative sources of income >> identification of relocation site >> There is an immediate need to identify relocation sites to accommodate informal settler families >> Conduct Livelihood Programs >> Provision of disaster resilient flood control projects >> Seed subsidy (high yield and flood resilient variety) >> Adjust planting season of various crops >> Prioritization of Climate Change adaptive projects (slope protection, flood control system, construction of drainage system/ dike) >> Construction of communal irrigation system  >> Fingerlings dispersal >> Planting of mangroves | | |
| **Barangay: Palua** | | Generally, the entire town of Mangaldan is flat and leveled with 0.3% slope, this means that Mangaldan is situated in a low-lying area. Barangay Palua is traversed by the Old Mangaldan River. Though the aquatic resources serve and help in the economic condition of the barangay, it also become a threat when there is heavy and continues rainfall resulting to flooding. The barangay has a total land area of 167.07 hectares. With a total population of 2,846, of which 1,441 males and 1,405 females. Of the total there are 809 households. | In Barangay Palua, Population Risk is categorized as moderate >> 446 households are exposed >> 125 of the population are below the poverty threshold >> 34 pupils/ students are sensitive/ vulnerable because they are living in low lying area & below poverty threshold >> 26 farmers are sensitive/ vulnerable because they are living in low lying area & below poverty threshold and about 14 hectares or 40% of farmlands are submerged or decrease of production is about 72 MT > 6 entrepreneur/ business owners are exposed because they are living in low lying area and 2 below poverty threshold. 6 business establishments are constructed in low lying area. >> Barangay Health Station & Barangay Roads are exposed because they are constructed in low lying area. >> Electric posts & telecommunication posts are encroaching major transportation network causing great danger during flooding >> 24 Residential Housing units are exposed because they are constructed in low lying areas and made of light materials & salvaged/ makeshift materials. | | >> Contamination of potable water source  >> Onset of epidemic diseases/ water borne diseases >> Increased number of morbidity/ mortality rate >> Increased number in drop-out rate >> Reduced number of school attendance >> Possible incidence of crime (looting) >> Permanent submergence and possible isolation of informal settler families >> Decrease of production  >> Loss of Income  >> Loss of livelihood >> Food shortage >> Increased malnutrition >> Price hike of various commodities >> Unsafe living conditions | | >> Implementation of plans and ordinances (CLUP, CDP, MDRRMP, Zoning Ordinance) >> Conduct of medical and financial assistance  >> Ensure peace and order >> provision of different livelihood trainings as alternative sources of income >> identification of relocation site >> There is an immediate need to identify relocation sites to accommodate informal settler families >> Conduct Livelihood Programs  >> Provision of disaster resilient flood control projects  >> Seed subsidy (high yield and flood resilient variety)  >> Adjust planting season of various crops  >> Prioritization of Climate Change adaptive projects (slope protection, flood control system, construction of drainage system/ dike) >> Construction of communal irrigation system  >> Fingerlings dispersal  >> Planting of mangroves | | |
| **Barangay: Poblacion** | | Generally, the entire town of Mangaldan is flat and leveled with 0.3% slope, this means that Mangaldan is situated in a low-lying area. Barangay Poblacion is traversed by the Old Mangaldan River. Though the aquatic resources serve and help in the economic condition of the barangay, it also become a threat when there is heavy and continues rainfall resulting to flooding. The barangay has a total land area of 68.65 hectares. With a total population of 3,628 with 835 households. | In Barangay Poblacion, Population Risk is categorized as moderate >> 835 households are exposed >> 101 of the population are below the poverty threshold >> 21 pupils/ students are sensitive/ vulnerable because they are living in low lying area & below poverty threshold > 80 entrepreneurs/ business owners are exposed because they are living in low lying area and 20 below poverty threshold. 80 business establishments are constructed in low lying area. >> Urgent Care Clinic, Mangaldan Central School, 400 meters Duyala Road are exposed because they are constructed in low lying area. >> Electric posts & telecommunication posts are encroaching major transportation network causing great danger during flooding >> 9 Residential Housing units are exposed because they are constructed in low lying areas and made of light materials & salvaged/ makeshift materials. | | >> Contamination of potable water source  >> Onset of epidemic diseases/ water borne diseases >> Increased number of morbidity/ mortality rate >> Increased number in drop-out rate >> Reduced number of school attendance >> Possible incidence of crime (looting) >> Permanent submergence and possible isolation of informal settler families >> Decrease of production >> Loss of Income >> Loss of livelihood >> Food shortage >> Increased malnutrition  >> Price hike of various commodities >> Unsafe living conditions | | >> Implementation of plans and ordinances (CLUP, CDP, MDRRMP, Zoning Ordinance) >> Conduct of medical and financial assistance  >> Ensure peace and order >> provision of different livelihood trainings as alternative sources of income >> identification of relocation site >> There is an immediate need to identify relocation sites to accommodate informal settler families >> Conduct Livelihood Programs >> Provision of disaster resilient flood control projects >> Seed subsidy (high yield and flood resilient variety) >> Adjust planting season of various crops >> Prioritization of Climate Change adaptive projects (slope protection, flood control system, construction of drainage system/ dike) >> Construction of communal irrigation system  >> Fingerlings dispersal >> Planting of mangroves | | |

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| Table 12. **CLIMATE CHANGE VULNERABILITY AND DISASTER RISK ASSESSMENT SUMMARY MATRIX** | | | | | |
|  | |  |  |  |  |
| **Decision Area/s** | | **Description** | **Problems/ Hazards** | **Impacts/ Implications** | **Policy Interventions** |
| **A** | | **B** | **C** | **D** | **E** |
| **Barangay: Pogo** | | Generally, the entire town of Mangaldan is flat and leveled with 0.3% slope, this means that Mangaldan is situated in a low-lying area. Barangay Pogo is traversed by the Old Mangaldan River. Though the aquatic resources serve and help in the economic condition of the barangay, it also become a threat when there is heavy and continues rainfall resulting to flooding. The barangay has a total land area of 89.99 hectares. With a total population of 1,527, of which 794 males and 733 females. Of the total there are 408 households or 543 families. | In Barangay Pogo, Population Risk is categorized as moderate >> 408 households are exposed >> 53 of the population are below the poverty threshold >> 18 pupils/ students are sensitive/ vulnerable because they are living in low lying area & below poverty threshold >> 20 farmers are sensitive/ vulnerable because they are living in low lying area & below poverty threshold and about 6.2 hectares or 45% of farmlands are submerged or decrease of production is about 93.06 MT > 5 entrepreneur/ business owners are exposed because they are living in low lying area and 3 below poverty threshold. 5 business establishments are constructed in low lying area. >> Barangay Health Station, Pogo-Palua Elementary School are exposed because they are constructed in low lying area. >> Electric posts & telecommunication posts are encroaching major transportation network causing great danger during flooding >> 12 Residential Housing units are exposed because they are constructed in low lying areas and made of light materials & salvaged/ makeshift materials. | >> Contamination of potable water source  >> Onset of epidemic diseases/ water borne diseases >> Increased number of morbidity/ mortality rate >> Increased number in drop-out rate >> Reduced number of school attendance >> Possible incidence of crime (looting) >> Permanent submergence and possible isolation of informal settler families >> Decrease of production  >> Loss of Income  >> Loss of livelihood >> Food shortage >> Increased malnutrition >> Price hike of various commodities >> Unsafe living conditions | >> Implementation of plans and ordinances (CLUP, CDP, MDRRMP, Zoning Ordinance) >> Conduct of medical and financial assistance  >> Ensure peace and order >> provision of different livelihood trainings as alternative sources of income >> identification of relocation site >> There is an immediate need to identify relocation sites to accommodate informal settler families >> Conduct Livelihood Programs  >> Provision of disaster resilient flood control projects  >> Seed subsidy (high yield and flood resilient variety)  >> Adjust planting season of various crops  >> Prioritization of Climate Change adaptive projects (slope protection, flood control system, construction of drainage system/ dike) >> Construction of communal irrigation system  >> Fingerlings dispersal>> Planting of mangroves |
| **Barangay: Talogtog** | | Generally, the entire town of Mangaldan is flat and leveled with 0.3% slope, this means that Mangaldan is situated in a low-lying area. Barangay Talogtog is traversed by the Old Mangaldan River. Though the aquatic resources serve and help in the economic condition of the barangay, it also become a threat when there is heavy and continues rainfall resulting to flooding. The barangay has a total land area of 161.3 hectares. With a total population of 2,530. Of the total there are 570 households. | In Barangay Talogtog, Population Risk categorized as moderate >> 570 households are exposed >> 70 of the population are below the poverty threshold >> 20 pupils/ students are sensitive/ vulnerable because they are living in low lying area & below poverty threshold >> 30 farmers are sensitive/ vulnerable because they are living in low lying area & below poverty threshold and about 1 hectare or 50% of farmlands are submerged or decrease of production is about 50 MT >> 38 fishermen are sensitive/ vulnerable because they are living below poverty threshold and about 18 hectares or 51.39% of fishponds overflow or decrease of production is about28.34 MT > 8 entrepreneur/ business owners are exposed because they are living in low lying area and 4 below poverty threshold. 8 business establishments are constructed in low lying area. >> Barangay Health Station, Talogtog-Bateng Elementary School &86 meters Barangay Road are exposed because they are constructed in low lying area. >> Electric posts & telecommunication posts are encroaching major transportation network causing great danger during flooding >> 3 Residential Housing units are exposed because they are constructed in low lying areas and made of light materials & salvaged/ makeshift materials. | >> Contamination of potable water source  >> Onset of epidemic diseases/ water borne diseases >> Increased number of morbidity/ mortality rate >> Increased number in drop-out rate >> Reduced number of school attendance >> Possible incidence of crime (looting) >> Permanent submergence and possible isolation of informal settler families >> Decrease of production  >> Loss of Income  >> Loss of livelihood >> Food shortage >> Increased malnutrition >> Price hike of various commodities >> Unsafe living conditions | >> Implementation of plans and ordinances (CLUP, CDP, MDRRMP, Zoning Ordinance) >> Conduct of medical and financial assistance  >> Ensure peace and order >> provision of different livelihood trainings as alternative sources of income >> identification of relocation site >> There is an immediate need to identify relocation sites to accommodate informal settler families >> Conduct Livelihood Programs  >> Provision of disaster resilient flood control projects  >> Seed subsidy (high yield and flood resilient variety)  >> Adjust planting season of various crops >> Prioritization of Climate Change adaptive projects (slope protection, flood control system, construction of drainage system/ dike) >> Construction of communal irrigation system  >> Fingerlings dispersal  >> Planting of mangroves |
| **Barangay: Tebag** | | Generally, the entire town of Mangaldan is flat and leveled with 0.3% slope, this means that Mangaldan is situated in a low-lying area. Barangay Tebag is traversed by the Old Mangaldan River. Though the aquatic resources serve and help in the economic condition of the barangay, it also become a threat when there is heavy and continues rainfall resulting to flooding. The barangay has a total land area of 76.19 hectares. With a total population of 2,622, of which 1,302 males and 1,320 females. Of the total there are 605 households. | In Barangay Tebag, Population Risk is categorized as moderate >> 605 households are exposed >> 185 of the population are below the poverty threshold >> 39 pupils/ students are sensitive/ vulnerable because they are living in low lying area & below poverty threshold >> 13 farmers are sensitive/ vulnerable because they are living in low lying area & below poverty threshold and about 25 hectares or 83% of farmlands are submerged or decrease of production is about 304.33 MT > 10 entrepreneur/ business owners are exposed because they are living in low lying area and 6 below poverty threshold. 10 business establishments are constructed in low lying area. >> Barangay Health Station, Tebag Elementary School & 260 meters Barangay Road are exposed because they are constructed in low lying area. >> Electric posts & telecommunication posts are encroaching major transportation network causing great danger during flooding >> 10 Residential Housing units are exposed because they are constructed in low lying areas and made of light materials & salvaged/ makeshift materials. | >> Contamination of potable water source  >> Onset of epidemic diseases/ water borne diseases >> Increased number of morbidity/ mortality rate >> Increased number in drop-out rate >> Reduced number of school attendance >> Possible incidence of crime (looting) >> Permanent submergence and possible isolation of informal settler families >> Decrease of production >> Loss of Income >> Loss of livelihood >> Food shortage >> Increased malnutrition  >> Price hike of various commodities >> Unsafe living conditions | >> Implementation of plans and ordinances (CLUP, CDP, MDRRMP, Zoning Ordinance) >> Conduct of medical and financial assistance  >> Ensure peace and order >> provision of different livelihood trainings as alternative sources of income >> identification of relocation site >> There is an immediate need to identify relocation sites to accommodate informal settler families >> Conduct Livelihood Programs >> Provision of disaster resilient flood control projects >> Seed subsidy (high yield and flood resilient variety) >> Adjust planting season of various crops >> Prioritization of Climate Change adaptive projects (slope protection, flood control system, construction of drainage system/ dike) >> Construction of communal irrigation system  >> Fingerlings dispersal >> Planting of mangroves |

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| **Instructions:** |  |  |  |  |
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| A. Based on the risks and vulnerability maps generated for the various exposure units, highlight and identify decision areas or elements. Decision areas can be the barangay or specific sites in the barangay such as coastal area, mountain sides, and riverbanks. | | | | |
| - Identify decision areas in need of intervention based on the generated risks and vulnerability maps | | | | |
| - This can be identified as high to moderate risk areas or may pertain to a specific area in the barangay | | | | |
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| B. Describe the identified decision areas | | | | |
| - Identified decision areas can be described based on their land uses or their strategic location | | | |  |
|  |  |  |  |  |
| C. List down the significant problems/hazards and causes by describing the area or element in terms of the level of vulnerable and risk, highlighting the various contributing factors such as exposure, sensitivity, and adaptive capacity. | | | | |
| - Identify the hazards identified from step 4 and 5 and how these may manifest in the identified decision area | | | | |
| - Expound on the exposure information (i.e. number of affected population, exposure percentage, exposed area, and cost) | | | | |
| - Highlight relevant sensitivities of the exposed element to the identified climate stimulus and hazard | | | | |
| - Highlight relevant adaptive capacity indicators of the exposed element to the identified climate stimuli and hazard | | | | |
| D. List down the planning/development implications when the identified risks and vulnerabilities in the various decision areas are not addressed. | | | | |
| - Highlight potential impact as mentioned in the sectoral impact chains | | | | |
| - Highlight future scenario if risks and vulnerabilities are not addressed | | | | |
| - Identify future needs with emphasis on the spatial framework plan of the municipality | | | | |
|  |  |  |  |  |
| E. Identify various policy interventions that should seek to reduce the level of risks and vulnerabilities by addressing the exposure, sensitivity, with consideration to the current adaptive capacities | | | | |
| - Identify the various disaster risk and climate change adaptation and mitigation measures to reduce into acceptable and tolerable levels. | | | | |

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