Chapter 1

**Demography**

**DEMOGRAPHY**

***Situational Analysis***

Demography is the branch of social sciences concerned with the study of human populations, their structure and change such as births, deaths and migration, and their relationship with the natural environment and with the social and economic change.

Demographic statistics could include population size, population growth rate, crude birth rate, crude death rate, total fertility rate, life expectancy and infant mortality. It also includes estimated and projected gender and age distributions according to medium, low and constant fertility variations. In short, demographic changes affect all areas of human activity such as economic, social, cultural and political.

Studies and projections on demography can play a vital role in understanding present and past trends in preparing for future developments and policies. Understanding demographic developments can provide important explanations of observed economic and social trends. Consequently, demography becomes an important ingredient in public policy analysis and development.

***Urban Household Population***

As early as 1980, all the 30 barangays of the municipality are already considered urban. Of the total household population recorded in 2015, 100% or 19,056 projected households live in an urban area.

The average urban household size for the same year is determined at 5.58. This is also the municipal average household size as shown in Table 1.

**Table 1: Urban Population, No. of Household**

**and Average Household Size, 2015**

|  |  |  |  |
| --- | --- | --- | --- |
| **Barangay** | **Population** | **Household**  (projection) | **Average HH size**  (projection) |
| ALL URBAN | | | |
| Alitaya | 4,378 | 789 | 5.55 |
| Amansabina | 2,609 | 492 | 5.30 |
| Anolid | 7,393 | 1311 | 5.64 |
| Banaoang | 5,267 | 913 | 5.77 |
| Bantayan | 3,633 | 634 | 5.73 |
| Bari | 6,044 | 1054 | 5.73 |
| Bateng | 2,715 | 465 | 5.84 |
| Buenlag | 3,787 | 685 | 5.53 |
| David | 4,389 | 775 | 5.66 |
| Embarcadero | 3,021 | 575 | 5.25 |
| Gueguesangen | 2,551 | 479 | 5.33 |
| Guesang | 3,935 | 687 | 5.73 |
| Guiguilonen | 2,945 | 513 | 5.74 |
| Guilig | 3,491 | 620 | 5.63 |
| Inlambo | 1,673 | 319 | 5.24 |
| Lanas | 3,285 | 584 | 5.63 |
| Landas | 2,023 | 351 | 5.76 |
| Maasin | 3,862 | 711 | 5.43 |
| Macayug | 2,485 | 420 | 5.92 |
| Malabago | 5,095 | 907 | 5.62 |
| Navaluan | 3,678 | 603 | 6.10 |
| Nibaliw | 3,105 | 556 | 5.58 |
| Osiem | 3,437 | 586 | 5.87 |
| Palua | 2,013 | 348 | 5.78 |
| Poblacion | 4,639 | 866 | 5.36 |
| Pogo | 1,631 | 299 | 5.45 |
| Salaan | 2,598 | 483 | 5.38 |
| Salay | 5,331 | 1015 | 5.25 |
| Talogtog | 2,486 | 463 | 5.37 |
| Tebag | 2,832 | 553 | 5.12 |
| **TOTAL** | **106,331** | **19,056** | **5.58** |

*Source: 2015 Census of Population & Housing (PSA) & MPT Computation*

***Urbanization and Population Distribution***

Table 2 shows the population density per barangay of the municipality of Mangaldan in 2015. It can be gleamed that Barangay Poblacion has the greatest density of 67.57 or 68 persons per hectare. Population concentration in this area can be rationalized by the fact that the central business district of the municipality is located therein and it is very near Dagupan City, where major economic activities in the region also take place. Major training and commercial activities, including socio-cultural activities are being held along the national highway presenting a linear development pattern. These factors plus the presence of the road network make it attractive to migration.

From the same table, it can be determined that the urban density of the municipality registered 21.93 or 22 persons per hectare which is the same as the gross municipal density. Mangaldan is the highest in population density in municipalities in the 4th district of Pangasinan.

**Table 2: Population Density by Barangay, 2015**

|  |  |  |  |  |
| --- | --- | --- | --- | --- |
| **Barangay** | **Population** | **Land Area (has.)** | **Average HH size** | **Density** |
| Alitaya | 4,378 | 540.41 | 5.55 | 8.101 |
| Amansabina | 2,609 | 161.03 | 5.3 | 16.20 |
| Anolid | 7,393 | 226.43 | 5.64 | 32.65 |
| Banaoang | 5,267 | 153.76 | 5.77 | 34.25 |
| Bantayan | 3,633 | 87.75 | 5.73 | 41.40 |
| Bari | 6,044 | 107.95 | 5.73 | 55.99 |
| Bateng | 2,715 | 117.51 | 5.84 | 23.10 |
| Buenlag | 3,787 | 248.17 | 5.53 | 15.26 |
| David | 4,389 | 171.51 | 5.66 | 25.59 |
| Embarcadero | 3,021 | 94.19 | 5.25 | 32.07 |
| Gueguesangen | 2,551 | 112.43 | 5.33 | 22.69 |
| Guesang | 3,935 | 205.95 | 5.73 | 19.11 |
| Guiguilonen | 2,945 | 74.79 | 5.74 | 39.38 |
| Guilig | 3,491 | 127.55 | 5.63 | 27.37 |
| Inlambo | 1,673 | 142.39 | 5.24 | 11.75 |
| Lanas | 3,285 | 274.20 | 5.63 | 11.98 |
| Landas | 2,023 | 167.79 | 5.76 | 12.06 |
| Maasin | 3,862 | 239.59 | 5.43 | 16.12 |
| Macayug | 2,485 | 209.67 | 5.92 | 11.85 |
| Malabago | 5,095 | 230.75 | 5.62 | 22.08 |
| Navaluan | 3,678 | 82.47 | 6.1 | 44.60 |
| Nibaliw | 3,105 | 76.15 | 5.58 | 40.77 |
| Osiem | 3,437 | 167.07 | 5.87 | 20.57 |
| Palua | 2,013 | 110.19 | 5.78 | 18.27 |

*Continuation of Table 2…..*

|  |  |  |  |  |
| --- | --- | --- | --- | --- |
| Poblacion | 4,639 | 68.65 | 5.36 | 67.57 |
| Pogo | 1,631 | 89.99 | 5.45 | 18.12 |
| Salaan | 2,598 | 65.47 | 5.38 | 39.68 |
| Salay | 5,331 | 164.97 | 5.25 | 32.31 |
| Talogtog | 2,486 | 252.81 | 5.37 | 9.83 |
| Tebag | 2,832 | 76.19 | 5.12 | 37.17 |
| **TOTAL** | **106,331** | **4,847.78** | **5..58** | **21.93** |

*Source: 2015 Census of Population & Housing (PSA)*

***Urbanization Level***

For the past twenty years, the urbanization level of the municipality of Mangaldan remains 100% and its population continuously increases. It is noted that the Philippine Statistics Authority (PSA) Reports show that all barangays in the municipality are already considered urban, so no data on rural population is presented as shown in Table 3.

**Table 3:** **Urbanization Levels for the past 20 Years**

|  |  |  |  |  |
| --- | --- | --- | --- | --- |
| YEAR | Barangay Population | | | Tempo of Urbanization (%) |
| Urban | Rural | Total |
| 1990 | 65,947 | - | 65,947 | 100% |
| 2000 | 82,132 | - | 82,132 | 100% |
| 2010 | 98,905 | - | 98,905 | 100% |
| 2015 | 106,331 | - | 106,331 | 100% |

*Data Source: PSA Reports 1990, 2000, 2010 and 2015*

***Population Density***

The total land area of the municipality is 4,847.78­ hectares distributed in the thirty barangays.

The Municipality of Mangaldan has an average population density of 21.93 or around 22 persons per hectare. Brgy. Anolid had the highest number of households at 1,193 with an average household size of 5.67 while Brgy. Pogo had the lowest number of households at 259 with an average household size of 5.47 as presented in Table 2.

***Age and Sex Structure of the Household Population, Sex Distribution/ Composition***

In 2010, the NSO Census of Population in Mangaldan registered a total male population of 50,174 against female population of 48,731. This shows that there are at least 103 males per 100 females, indicating a slight predominance of the male population in the municipality. However, in 2015 National Statistics Board Census records show that, the Population of Mangaldan has reached to 106,331, and registered a total male population of 53,941 against female population of 52,390, this show that male predominance of female is about 1,551.

**Age Distribution/Composition**

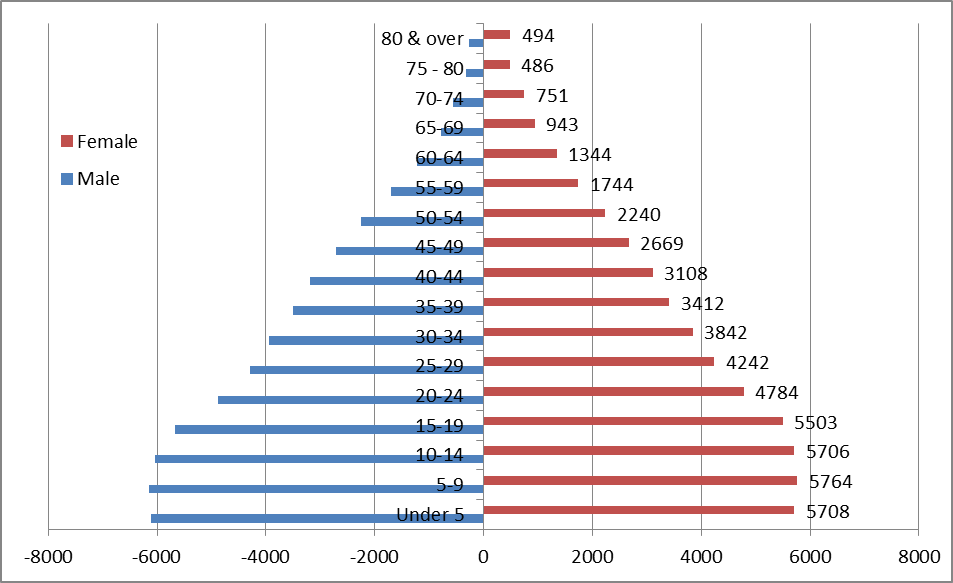
Table 4 and Figure 1 present the population count of Mangaldan by age group and sex while Table 5 and Figure 2 in the following page show most of the people residing in the municipality as of 2015 belong to the working age group (15-64 years old). This constitutes 66,240 persons or approximately 62.30 percent of the total population. Persons aged 0-14 years (young dependents) has a total of 35,464 or roughly 33.35 percent of the total population and persons aged 65 years and over (old dependents) of 4,627 or 4.35 percent, putting the total dependency percentage to 37.70 percent.

**Table 4: Population by Age Group & Sex, 2015**

|  |  |  |  |  |  |  |
| --- | --- | --- | --- | --- | --- | --- |
| **Age Group** | **Both Sexes** | **% Both Sexes** | **Male** | **%** | **Female** | **%** |
| Under 5 | 11812 | 11.11% | 6104 | 11.39% | 5708 | 10.82% |
| 5-9 | 11912 | 11.20% | 6148 | 11.47% | 5764 | 10.93% |
| 10-14 | 11740 | 11.04% | 6034 | 11.26% | 5706 | 10.82% |
| 15-19 | 11172 | 10.51% | 5669 | 10.58% | 5503 | 10.43% |
| 20-24 | 9663 | 9.09% | 4879 | 9.10% | 4784 | 9.07% |
| 25-29 | 8532 | 8.02% | 4290 | 8.01% | 4242 | 8.04% |
| 30-34 | 7786 | 7.32% | 3944 | 7.36% | 3842 | 7.28% |
| 35-39 | 6916 | 6.50% | 3504 | 6.54% | 3412 | 6.47% |
| 40-44 | 6293 | 5.92% | 3185 | 5.94% | 3108 | 5.89% |
| 45-49 | 5385 | 5.06% | 2716 | 5.07% | 2669 | 5.06% |
| 50-54 | 4484 | 4.22% | 2244 | 4.19% | 2240 | 4.25% |
| 55-59 | 3441 | 3.24% | 1697 | 3.17% | 1744 | 3.31% |
| 60-64 | 2568 | 2.42% | 1224 | 2.28% | 1344 | 2.55% |
| 65-69 | 1726 | 1.62% | 783 | 1.46% | 943 | 1.79% |
| 70-74 | 1318 | 1.24% | 567 | 1.06% | 751 | 1.42% |
| 75 - 80 | 816 | 0.77% | 330 | 0.62% | 486 | 0.92% |
| 80 & over | 767 | 0.72% | 273 | 0.51% | 494 | 0.94% |
| **ALL AGES** | **106,331** | **100.00%** | **53,591** | **100.00%** | **52,740** | **100.00%** |

*Data Source: PSA& MPT Projections*

**Figure 1: Population by Age Group & Sex, 2015**



6104

6148

6034

5669

4879

3944

4290

273

3185

2716

2244

1697

1224

783

567

330

3504

|  |  |  |  |
| --- | --- | --- | --- |
| **Table 5: Working Age Population by Age Group & Sex, 2015** | | | |
| **Age Group** | **Both Sexes** | **Male** | **Female** |
| 15-19 | 11172 | 5669 | 5503 |
| 20-24 | 9663 | 4879 | 4784 |
| 25-29 | 8532 | 4290 | 4242 |
| 30-34 | 7786 | 3944 | 3842 |
| 35-39 | 6916 | 3504 | 3412 |
| 40-44 | 6293 | 3185 | 3108 |
| 45-49 | 5385 | 2716 | 2669 |
| 50-54 | 4484 | 2244 | 2240 |
| 55-59 | 3441 | 1697 | 1744 |
| 60-64 | 2568 | 1224 | 1344 |
| TOTAL | 66240 | 33352 | 32888 |

*Data Source: PSA& MPT Computation*

5503

4784

4242

3842

3412

3108

2669

1344

2240

1744

1224

1697

2244

2715

3185

3504

3944

4879

4290

5669

**Dependent Population**

Dependent population ages 0-14 and 65 and over has a total of 40,091. There are 20,616 males and 19,475 females. This indicates a dependency count of 40, or for every 100 population there are 40 dependent population supported by the economically active persons in the Municipality of Mangaldan.

**Table 6: Dependent Population by Age Group and Sex, 2015**

|  |  |  |  |
| --- | --- | --- | --- |
| All Ages | Both Sexes | Male | Female |
| Under 5 | 11812 | 6104 | 5708 |
| 5-9 | 11912 | 6148 | 5764 |
| 10-14 | 11740 | 6034 | 5706 |
| 65-69 | 1726 | 783 | 943 |
| 70-74 | 1318 | 567 | 751 |
| 75-79 | 816 | 486 | 330 |
| 80 years & Over | 767 | 494 | 273 |
| Total | 40,091 | 20,616 | 19,475 |

*Data Source: MPT Projections based on NSO 2010*

**Figure 3: Dependent Population by Age Group & Sex, 2015**

***Historical Growth of Population***

The population of the Municipality of Mangaldan in censal year 2015 is 106,331 persons. It increased by 7,426 persons from the recorded population of 98,905 persons in the 2010 Census of Population and Housing. In 1939 to 1948, the highest growth rate of the municipality’s population registered at 3.59 percent. The second highest is in 1995-2000 growth rate recorded was 2.29 percent.

Table 7 shows the historical population growth and the corresponding growth rates in the municipality from 1903 to 2015.

**Table 7: Historical Growth of Population**

|  |  |  |  |  |
| --- | --- | --- | --- | --- |
| Year | Census Interval | Population | Increase/Decrease | Growth Rate |
| 1903  1918  1939  1948  1960  1970  1975  1980  1990  1995  2000  2007  2010  2015 | 15  21  9  12  10  5  5  10  5  5  7  3  5 | 15,841  16,761  18,997  26,102  33,422  41,667  46,230  50,434  65,947  73,351  82,132  90,391  98,905  106,331 | 920  2,236  7,105  7,320  8,445  4,363  4,204  15,513  7,404  8,781  8,259  8,514  7,426 | 0.38  0.63  3.59  2.08  2.28  2.00  1.76  2.72  2.05  2.29  1.38  1.33  1.46 |

*Data Source: NSO*

***Crude Birth Rate (CBR) and Crude Death Rate (CDR) For the Last Five Years***

**Fertility** refers to the live birth that occur within a population. The production of live birth is connected with many factor like the start of cohabitation, use of contraception, infant and child mortality and cessation of pregnancy. Fertility varies with the characteristics of the mother like educational or occupational status and the like.

**Mortality** refers to the number of death in a population. The incidence of death is related to many factors like age, sex, occupation, economic and social class.

**Table 8: Crude Birth Rate & Crude Death Rate for the Last Five Years/ Planning Period**

|  |  |  |  |  |  |
| --- | --- | --- | --- | --- | --- |
| **Health Indicator** | **2010** | **2011** | **2012** | **2013** | **2014** |
| **Fertility** |
| Crude Birth Rates (CBR) | *20.38* | *17.31* | *19.62* | *21.44* | *17.5* |
| **Mortality** |  |  |  |  |  |
| Crude Death Rate (CDR) | *3.33* | *5.12* | *5.29* | *5.06* | *5.1* |

*Source: MHO*

For the last five years, crude birth rate and death rate fluctuate every year. Year 2013 has recorded the highest crude birth rate with 21.44, while in year 2011 it is recorded the lowest rate of 17.31. On the other hand, year 2012 has 5.29 crude death rate which marks as the highest rate, while the lowest crude death rate is in 2010 with 3.33.

***Other Population Characteristics***

**Household Population by Mother Tongue**

The Pangasinan language is predominantly spoken in the Municipality of Mangaldan at about 95.15 percent or 101,174 persons. Tagalog speaking people come next numbering 3,551 or 3.34 percent, followed by Ilocano with 1085 or 10.20 percent and Bikol with 117 or 0.11 percent. A few people speak foreign languages.

Immigration and intermarriages have contributed to the increasing presence of other dialects in the locality.

**Table 9: Household Population by Mother Tongue, 2015**

|  |  |  |  |
| --- | --- | --- | --- |
| **Mother Tongue** | **Both Sexes** | **Male** | **Female** |
| Batak | 11 | 6 | 5 |
| Bikol | 117 | 59 | 58 |
| Cebuano | 62 | 31 | 31 |
| Cotabateño-Chavacano | 11 | 6 | 5 |
| Hiligaynon, Ilonggo | 20 | 10 | 10 |
| Ilanum | 11 | 6 | 5 |
| Ilocano | 1085 | 549 | 536 |
| Ilongot | 11 | 6 | 5 |
| Kapampangan | 43 | 22 | 21 |
| Mangyan | 11 | 6 | 5 |
| Manobo | 11 | 6 | 5 |
| Molbog | 11 | 6 | 5 |
| Palawan | 11 | 6 | 5 |
| Pangasinan | 101174 | 51231 | 49943 |
| Paranan | 11 | 6 | 5 |
| Sambal | 11 | 6 | 5 |
| Tagalog | 3551 | 1798 | 1753 |
| Waray | 52 | 26 | 26 |
| Chinese | 11 | 6 | 5 |
| English | 11 | 6 | 5 |
| Other Dialects | 11 | 6 | 5 |
| Other Foreign Language | 11 | 6 | 5 |
| Not Stated | 73 | 37 | 36 |
| TOTAL | 106,331 | 53842 | 52489 |

**Household Population by Religious Affiliation**

Similar to other municipalities in Pangasinan, Mangaldan is a predominantly Catholic community. The Roman Catholic has a follower of 17,726 persons or 66.44 percent of the total population in 2015. This condition is brought about by the influence of the Spanish colonizers who conquered nations in the guise of spreading Christianity. Three hundred years of Spanish rule has not spared the municipality and has left its mark in the form of religious legacy. Aglipayan comes next with a total to 3,268 or 12.25 percent, followed by Iglesia ni Cristo with 1,860 or 6.97 percent.

**Table 10: Household Population by Religious Affiliation, 2015**

|  |  |  |
| --- | --- | --- |
| **Religion** | **Number** | **Percentage** |
| Roman Catholic  Aglipayan  Iglesia ni Cristo  Evangelicals  United Methodist  Jehovah’s Witnesses  United Church of Christ  in the Philippines  Other Protestant  Islam  Others  Unknown/None | 86,724  5,869  4,147  3,211  2,935  968  957  744  372  287  117 | 81.56  5.52  3.90  3.02  2.76  0.91  0.90  0.75  0.35  0.27  0.06 |
| TOTAL | 106,331 | 100.00 |

**Literacy Rate**

As presented in the 2015 Social Protection and Development Report (SPDR) of the Municipality of Mangaldan, for Simple Literacy Rate, there were 77.62% or 78,821 individuals in 2.012 while there were 79,954 individuals or 77.70% in 2013. There is a slight increase in Simple Literacy Rate by 0.03% or 81,027 individuals at 77.73% in 2014.

In terms of Functional Literacy Rate, Mangaldan posted 73.24% or 74,375 individuals in 2012 as against the total population and 73.35% or 75,477 individuals in 2013. A slight decrease on the other hand was recorded at 73.08% or 76,120 individuals in 2014.

**Table 11: Population 10 years and over by Type of Literacy, 2012-2014**

|  |  |  |  |  |  |  |
| --- | --- | --- | --- | --- | --- | --- |
|  | **Simple Literacy** | | | **Functional Literacy** | | |
|  | 2012 | 2013 | 2014 | 2012 | 2013 | 2014 |
| Population 10 years old and over | 78,950 | 80,000 | 81,064 | 78,950 | 80,000 | 81,064 |
| No. of Literates | 78,821 | 79,954 | 81,027 | 74,375 | 75,477 | 76,120 |
| No. of Illiterates | 129 | 46 | 37 | 4,575 | 4,523 | 4,944 |

*Source: MPT Computations*

**Broad-Age Group**

The Municipality of Mangaldan based on the Philippine Statistics Authority (PSA) Census of 2015, there are a total Productive or working age group population belonging to 15-64 years old representing 66,240 the locality’s potential labor force. Dependent population, is made up of young persons belonging to age range 0-14 and those who are 65 years old and over with a total of 40,091 or 37.70% from the total 106,331 household population. The young dependent population constituted 33.35 percent while the old dependent population constituted 4.35 percent.

As of 2015, 66,240 or 62.30 percent of the population belonged to the productive or working age group or the potential labor force. The ratio of young dependent to working age group is 2:1 and the old dependent ratio is 14:1 (refer to table 4).

**School Going Age Population**

The National Statistics Board census in 2015 shows that there are a total of 44,487 or 41.84 percent of the total municipal population belongs to school-going ages. Aggregating the total 9,470 or 8.91 percent population for the pre-school (3-5 years), 16,573 or 15.59 percent for the elementary population (6-12 years), 14.92 percent or 15,868 population for the high school (13-19 years) and 9.09 percent or 9,663 population for tertiary level (20-24). The male population dominates than the female in terms of school-going age population. Male also has the higher rate in the working age group rather than the female group. Females are more dependent than male of about 97 populace.

The school-going age population refers to persons aged 5 to 24 years old in the Municipality of Mangaldan. Residents have literacy rate of 77.73% (Simple Literacy Rate) percent and 73.00% (Functional Literacy Rate). Like all Filipino children, Mangaldan residents may enter school at about age three to six years for day care, up to kindergarten. At about six or seven years of age, children enter elementary school. This is followed by secondary school, also called as high school, for four years. Since the K-12 Program of the Department of Education has already been implemented, the K-12 Program covers Kindergarten and 12 years of basic education (six years of primary education, four years of Junior High School and two years of Senior High School to provide sufficient time for mastery of concepts and skills, develop lifelong learners, and prepare graduates for tertiary education.

**Labor Force Population by Sex and Employment Status**

Out of the municipality’s workers in 2015, males slightly dominated the females in a 1:1.03 ratio which is also reflective of the overall municipal situation. The labor force that are gainfully employed belong to the 15-64 categories. Most of the labor force belongs to 25-64 workers with an average of 68.55% or 45,405 economically active population. This comprises all persons of either sex who furnish the supply of labor for the production of economic goods and services of the local government unit of Mangaldan during the 2015 Philippine Statistics Authority Census, national accounts during a specified time-reference period. There were 20,835 identified number of unemployed in the municipality with 31.45 % of the total populace recorded in the year 2015.

**Table 12: Labor Force Population by Sex and Employment Status, 2015**

|  |  |  |  |  |  |
| --- | --- | --- | --- | --- | --- |
| **Municipality** | **Population**  **15 – 64 years old** | **Labor Force** | | | |
| **Employed** | **%** | **Unemployed** | **%** |
| Male | 33,352 | 22,862 | 34.52 | 10,489 | 15.83 |
| Female | 32,888 | 22,543 | 34.03 | 10,343 | 15.62 |
|  |  |  |  |  |  |
| TOTAL | 66,240 | 45,405 | 68.55 | 20,832 | 31.45 |

*Source: MPT Computation*

***Future Needs/ Projections***

**Population and Household Projections**

Using the geometric growth formula, and considering 2015 as the base year, the population of Mangaldan is expected to increase by year 2016 at 1,552 or a total of 107,883 and by year 2026 it is projected that population would reach 124,711 with annual growth rate of 1.46 or an increase of eighteen thousand three hundred eighty (18,380) population from censal year 2015. Table below gives the future population values in Calendar Year 2015-2026.

These projections, although purely theoretical, may be validly used in estimating the future requirements of the population within the planning period. While it is assumed that the growth of population in Mangaldan will substantially follow past trends, the on-going and planned development in the municipality are expected to slightly affect the population growth.

**Table 13: Projected Population & Household**

|  |  |  |
| --- | --- | --- |
| **YEAR** | **POPULATION** | **HOUSEHOLD** |
| 2015 (base year) | 106,331 | 19,506 |
| 2016 | 107,883 | 19,334 |
| 2017 | 109,549 | 19,616 |
| 2018 | 111,057 | 19,903 |
| 2019 | 112,678 | 20,193 |
| 2020 | 114,303 | 20,488 |
| 2021 | 115,992 | 20,787 |
| 2022 | 117,686 | 21,091 |
| 2023 | 119,404 | 21,399 |
| 2024 | 121,147 | 21,711 |
| 2025 | 122,916 | 22,028 |
| 2026 | 124,711 | 22,350 |
| *Data Source: MPT Projections using 1.46% Growth Rate* | | | |

Household population of the municipality will reached to 22,350 households for a 124,711 population that would give a household density of 26 by year 2026.

**Population Projection and Household by Barangay, 2015-2026**

It is important to have high quality statistics on the population and projections for policy development and for planning and providing public services in different geographic areas. They are used for informing the provision of nurseries or day care centers, informing the local and national policy, housing and land use planning, health care planning, teacher work force, police work force and many more.

The government policy makers and planners around the world use population projections to gauge demand for food, water, energy and services and to forecast future demographic characteristics. Population projections can alert policy makers to major trends that may affect adapted for various projection scenarios.

With the fast pace of urbanization in the municipality, urban population is expected to reach 124,711 by year 2026. Among the thirty barangays, Poblacion recorded the most populated totaling to 8,662by the end of ten year planning period. Next to Anolid is barangay Bari with 7,082 and Salay with 6,246 population.

By the end of ten year planning period, the household population of the municipality will be 22,325. Using the household growth rate with base years 2010 and 2015 censal years, the number of population in the Municipality of Mangaldan by year 2026 would reached to 124,575.

The table below presents population projections by barangay.

|  |  |  |  |  |  |  |  |
| --- | --- | --- | --- | --- | --- | --- | --- |
| **Barangays** | **Base Year**  **(2015)** | **Land Area**  **(in hectares)** | **2016** | **2017** | **2018** | **2019** | **2020** |
| **Alitaya** | 4,378 | 540.41 | 4442 | 4507 | 4573 | 4639 | 4,707 |
| **Amansabina** | 2,609 | 161.03 | 2647 | 2686 | 2725 | 2765 | 2,805 |
| **Anolid** | 7,393 | 226.43 | 7501 | 7610 | 7722 | 7834 | 7,949 |
| **Banoang** | 5,267 | 153.76 | 5344 | 5422 | 5501 | 5581 | 5,663 |
| **Bantayan** | 3,633 | 87.75 | 3686 | 3740 | 3794 | 3850 | 3,906 |
| **Bari** | 6,044 | 107.95 | 6132 | 6222 | 6313 | 6405 | 6,498 |
| **Bateng** | 2,715 | 117.51 | 2755 | 2795 | 2836 | 2877 | 2,919 |
| **Buenlag** | 3,787 | 248.17 | 3842 | 3898 | 3955 | 4013 | 4,072 |
| **David** | 4,389 | 171.51 | 4453 | 4518 | 4584 | 4651 | 4,719 |
| **Embarcadero** | 3,021 | 94.19 | 3065 | 3110 | 3155 | 3201 | 3,248 |
| **Gueguesangen** | 2,551 | 112.43 | 2588 | 2626 | 2664 | 2703 | 2,743 |
| **Guesang** | 3,935 | 205.95 | 3992 | 4051 | 4110 | 4170 | 4,231 |
| **Guiguilonen** | 2,945 | 74.79 | 2988 | 3032 | 3076 | 3121 | 3,166 |
| **Guilig** | 3,491 | 127.55 | 3542 | 3594 | 3646 | 3699 | 3,753 |
| **Inlambo** | 1,673 | 142.39 | 1697 | 1722 | 1747 | 1773 | 1,799 |
| **Lanas** | 3,285 | 274.20 | 3333 | 3382 | 3431 | 3481 | 3,532 |
| **Landas** | 2,023 | 167.79 | 2053 | 2083 | 2113 | 2144 | 2,175 |
| **Maasin** | 3,862 | 239.59 | 3918 | 3976 | 4034 | 4093 | 4,152 |
| **Macayug** | 2,485 | 209.67 | 2521 | 2558 | 2595 | 2633 | 2,672 |
| **Malabago** | 5,095 | 230.75 | 5169 | 5245 | 5321 | 5399 | 5,478 |
| **Navaluan** | 3,678 | 82.47 | 3732 | 3786 | 3841 | 3898 | 3,954 |
| **Nibaliw** | 3,105 | 76.15 | 3150 | 3196 | 3243 | 3290 | 3,338 |
| **Osiem** | 3,437 | 167.07 | 3487 | 3538 | 3590 | 3642 | 3,695 |
| **Palua** | 2,013 | 110.19 | 2042 | 2072 | 2102 | 2133 | 2,164 |
| **Poblacion** | 4,639 | 68.65 | 4707 | 4775 | 4845 | 4916 | 4,988 |
| **Pogo** | 1,631 | 89.99 | 1655 | 1679 | 1703 | 1728 | 1,754 |
| **Salaan** | 2,598 | 65.47 | 2636 | 2674 | 2713 | 2753 | 2,793 |
| **Salay** | 5,331 | 164.97 | 5409 | 5488 | 5568 | 5649 | 5,732 |
| **Talogtog** | 2,832 | 252.81 | 2873 | 2915 | 2958 | 3001 | 3,045 |
| **Tebag** | 2,486 | 76.19 | 2522 | 2559 | 2596 | 2634 | 2,673 |
| **TOTAL** | **106,331** | **4,847.78** | **107,883** | **109,549** | **111,057** | **112,678** | **114,323** |

**Table 14: Population Projection by Barangay, 2016-2026**

*Source of Basic Data: PSA & MPT Computations*

|  |  |  |  |  |  |  |  |
| --- | --- | --- | --- | --- | --- | --- | --- |
| **Barangays** | **Base Year**  **(2015)** | **2021** | **2022** | **2023** | **2024** | **2025** | **2026** |
| **Alitaya** | 4,378 | 4,776 | 4,846 | 4,916 | 4,988 | 5,061 | 5,135 |
| **Amansabina** | 2,609 | 2,846 | 2,888 | 2,930 | 2,973 | 3,016 | 3,060 |
| **Anolid** | 7,393 | 8,065 | 8,182 | 8,302 | 8,423 | 8,546 | 8,671 |
| **Banoang** | 5,267 | 5,746 | 5,829 | 5,915 | 6,001 | 6,089 | 6,177 |
| **Bantayan** | 3,633 | 3,963 | 4,021 | 4,080 | 4,139 | 4,200 | 4,261 |
| **Bari** | 6,044 | 6,593 | 6,689 | 6,787 | 6,886 | 6,987 | 7,089 |
| **Bateng** | 2,715 | 2,962 | 3,005 | 3,049 | 3,093 | 3,138 | 3,184 |
| **Buenlag** | 3,787 | 4,131 | 4,191 | 4,253 | 4,315 | 4,378 | 4,442 |
| **David** | 4,389 | 4,788 | 4,858 | 4,929 | 5,001 | 5,074 | 5,148 |
| **Embarcadero** | 3,021 | 3,295 | 3,344 | 3,392 | 3,442 | 3,492 | 3,543 |
| **Gueguesangen** | 2,551 | 2,783 | 2,823 | 2,865 | 2,906 | 2,949 | 2,992 |
| **Guesang** | 3,935 | 4,293 | 4,355 | 4,419 | 4,483 | 4,549 | 4,615 |
| **Guiguilonen** | 2,945 | 3,213 | 3,259 | 3,307 | 3,355 | 3,404 | 3,454 |
| **Guilig** | 3,491 | 3,808 | 3,864 | 3,920 | 3,977 | 4,036 | 4,094 |
| **Inlambo** | 1,673 | 1,825 | 1,852 | 1,879 | 1,906 | 1,934 | 1,962 |
| **Lanas** | 3,285 | 3,583 | 3,636 | 3,689 | 3,743 | 3,797 | 3,853 |
| **Landas** | 2,023 | 2,207 | 2,239 | 2,272 | 2,305 | 2,339 | 2,373 |
| **Maasin** | 3,862 | 4,213 | 4,274 | 4,337 | 4,400 | 4,464 | 4,530 |
| **Macayug** | 2,485 | 2,711 | 2,750 | 2,791 | 2,831 | 2,873 | 2,915 |
| **Malabago** | 5,095 | 5,558 | 5,639 | 5,721 | 5,805 | 5,890 | 5,976 |
| **Navaluan** | 3,678 | 4,012 | 4,071 | 4,130 | 4,190 | 4,252 | 4,314 |
| **Nibaliw** | 3,105 | 3,387 | 3,437 | 3,487 | 3,538 | 3,589 | 3,642 |
| **Osiem** | 3,437 | 3,749 | 3,804 | 3,860 | 3,916 | 3,973 | 4,031 |
| **Palua** | 2,013 | 2,196 | 2,228 | 2,260 | 2,293 | 2,327 | 2,361 |
| **Poblacion** | 4,639 | 5,061 | 5,134 | 5,209 | 5,285 | 5,363 | 5,441 |
| **Pogo** | 1,631 | 1,779 | 1,805 | 1,832 | 1,858 | 1,885 | 1,913 |
| **Salaan** | 2,598 | 2,834 | 2,875 | 2,917 | 2,960 | 3,003 | 3,047 |
| **Salay** | 5,331 | 5,815 | 5,900 | 5,986 | 6,074 | 6,163 | 6,252 |
| **Talogtog** | 2,832 | 3,089 | 3,134 | 3,180 | 3,227 | 3,274 | 3,322 |
| **Tebag** | 2,486 | 2,712 | 2,751 | 2,792 | 2,832 | 2,874 | 2,916 |
| **TOTAL** | ***106,331*** | ***115,992*** | ***117,686*** | ***119,404*** | ***121,147*** | ***122,916*** | ***124,711*** |

*Continuation of Table 14….*

*Source of Basic Data: MPT Computations*

By the end of the planning period in 2026, Mangaldan will have a population of 124,711.

**Projected School Going Age Population, Labor Force and Dependent Population**

The Municipality of Mangaldan recorded a total of 19,056 household population in 2015 census on population by the Philippine Statistics Authority wherein 3.33 percent were under 15 years of age or 35,464 population. Children below 5 years old comprised 11,812 or 11.11 percent of the household population. Children aged 5 to 9 years old accounted for 11,912 or 11.20 percent of the household population and those aged 10-14 years, another 11,740 or 11.04 percent. There are a total of 44,487 aged 5-24 years old (school-going age) in the 2015 censal year which accounts for 41.84 percent of the total population.

**Table 15: School-Going Age Population, 2015**

|  |  |  |  |  |  |
| --- | --- | --- | --- | --- | --- |
| **Age Group** | **Both Sexes** | **Male** | **Percent** | **Female** | **Percent** |
| 5 | 2383 | 1230 | 51.62% | 1153 | 48.38% |
| 6 | 2383 | 1230 | 51.62% | 1153 | 48.38% |
| 7 | 2382 | 1230 | 51.64% | 1152 | 48.36% |
| 8 | 2382 | 1229 | 51.60% | 1153 | 48.40% |
| 9 | 2382 | 1229 | 51.60% | 1153 | 48.40% |
| 10 | 2348 | 1207 | 51.41% | 1141 | 48.59% |
| 11 | 2348 | 1207 | 51.41% | 1141 | 48.59% |
| 12 | 2348 | 1206 | 51.36% | 1142 | 48.64% |
| 13 | 2348 | 1206 | 51.36% | 1142 | 48.64% |
| 14 | 2348 | 1206 | 51.36% | 1142 | 48.64% |
| 15 | 2235 | 1134 | 50.74% | 1101 | 49.26% |
| 16 | 2235 | 1134 | 50.74% | 1101 | 49.26% |
| 17 | 2234 | 1134 | 50.74% | 1100 | 49.26% |
| 18 | 2234 | 1134 | 50.74% | 1100 | 49.26% |
| 19 | 2234 | 1133 | 50.72% | 1101 | 49.28% |
| 20-24 | 9663 | 4879 | 50.49% | 4784 | 49.51% |
| **TOTAL** | **44,487** | **22,728** | **51.09%** | **21,759** | **48.91%** |

In terms of the distribution by age and sex, there were more males than females in age groups 5-24 years in 2015, with the males comprising 51.09 percent of these groups. In contrast, there were less females than males in the said age group. The females in these groups made up 48.91 percent.

By comparison in 2015 censal year there are a total of 44,487 school age population of which children under 15 years old accounted for 23,652 or 22.24 percent of the household population. Children below 5 years of age comprised 11,812.

**Table 16: Population by Sex, Age Group, 2010 and 2015**

|  |  |  |  |  |  |  |  |  |  |
| --- | --- | --- | --- | --- | --- | --- | --- | --- | --- |
|  | **2010** | | | | **2015** | | | | 2015  % Change |
| **Age Group** | **Both**  **Sexes** | **Male** | **Female** | **Sex Ratio** | **Both**  **Sexes** | **Male** | **Female** | **Sex Ratio** |
|  |
| Under 5 | 10988 | 5678 | 5309 | 106.95 | 11812 | 6104 | 5708 | 106.95 | 1.46 |
| 5-9 | 11082 | 5720 | 5362 | 106.68 | 11912 | 6148 | 5764 | 106.68 | 1.46 |
| 10-14 | 10920 | 5613 | 5307 | 105.77 | 11740 | 6034 | 5706 | 105.77 | 1.46 |
| **Sub-Total** | **32990** | **17011** | **15978** | **106.47** | **35464** | **1826** | **17178** | **106.47** | **1.46** |
| 15-19 | 10391 | 5273 | 5118 | 103.03 | 11172 | 5669 | 5503 | 103.03 | 1.46 |
| 20-24 | 8989 | 4539 | 4450 | 102.00 | 9663 | 4879 | 4784 | 102.00 | 1.46 |
| 25-29 | 7936 | 3991 | 3945 | 101.17 | 8532 | 4290 | 4242 | 101.17 | 1.46 |
| 30-34 | 7242 | 3669 | 3574 | 102.66 | 7786 | 3944 | 3842 | 102.66 | 1.46 |
| 35-39 | 6433 | 3259 | 3173 | 102.71 | 6916 | 3504 | 3412 | 102.71 | 1.46 |
| 40-44 | 5854 | 2963 | 2890 | 102.53 | 6293 | 3185 | 3108 | 102.53 | 1.46 |
| 45-49 | 5009 | 2527 | 2483 | 101.77 | 5385 | 2716 | 2669 | 101.77 | 1.46 |
| 50-54 | 4171 | 2087 | 2083 | 100.19 | 4484 | 2244 | 2240 | 100.19 | 1.46 |
| 55-59 | 3201 | 1578 | 1622 | 97.29 | 3441 | 1697 | 1744 | 97.29 | 1.46 |
| 60-64 | 2389 | 1139 | 1250 | 91.12 | 2568 | 1224 | 1344 | 91.12 | 1.46 |
| **Sub-Total** | **61615** | **31025** | **30588** | **101.43** | **66240** | **33352** | **32888** | **101.43** | **1.46** |
| 65-69 | 1606 | 728 | 877 | 83.01 | 1726 | 783 | 943 | 83.01 | 1.46 |
| 70-74 | 1225 | 527 | 698 | 75.50 | 1318 | 567 | 751 | 75.50 | 1.46 |
| 75 & over | 1469 | 558 | 911 | 61.25 | 1583 | 603 | 980 | 61.25 |  |
| **Sub-Total** | **4300** | **1813** | **2486** | **72.93** | **4627** | **1953** | **2674** | **72.93** | **1.46** |
| **ALL AGES** | **98,905** | **49,849** | **49,052** | **101.62** | **106,331** | **53,591** | **52,740** | **101.62** | **1.46** |

*Source: MPT Projection using 1.46% growth rate and 103:100 Male-Female Ratio*

**Projected School-going Age Population**

In year 2015, out of 106,331 total population, there are 44,487 school going-age population aged 5 years old up to 24 years old comparing to the 2010 census of NSCB with a total of 41,382. The annual growth rate used in projecting is 1.46% and, it is projected that by the end of the planning period CY 2026 the school going age population would increase to 52,176.

**Table 17: Projected School-going Age Population by Educational Level, 2015-2026**

|  |  |  |  |  |  |  |
| --- | --- | --- | --- | --- | --- | --- |
| **Year** | **Total Population** | **AGE GROUP** | | | | |
| **Pre-school**  **(3-5)** | **Elementary**  **(6-11)** | **Secondary/**  **Junior HS**  **(12-15)** | **Senior High School**  **(16-17)** | **Tertiary**  **(18-24)** |
| **2015** | 106,331 | 7108 | 14225 | 9279 | 4469 | 14131 |
| **2016** | 107,883 | 7212 | 14433 | 9414 | 4534 | 14337 |
| **2017** | 109,459 | 7317 | 14643 | 9552 | 4600 | 14547 |
| **2018** | 111,057 | 7424 | 14857 | 9691 | 4668 | 14759 |
| **2019** | 112,678 | 7532 | 15074 | 9833 | 4736 | 14974 |
| **2020** | 114,323 | 7642 | 15294 | 9976 | 4805 | 15193 |
| **2021** | 115,992 | 7754 | 15517 | 6122 | 4875 | 15415 |
| **2022** | 117,686 | 7867 | 15744 | 10270 | 4946 | 15640 |
| **2023** | 119,404 | 7982 | 15974 | 10420 | 5018 | 15868 |
| **2024** | 121,147 | 8098 | 16207 | 10572 | 5092 | 16100 |
| **2025** | 122,916 | 8217 | 16444 | 10726 | 5166 | 16335 |
| **2026** | 124,711 | 8337 | 16684 | 10883 | 5241 | 16574 |

**Projected Labor Force, and Dependent Population**

In 2015 censal year, the total population of 15 years old to 64 years old age group reached 66,240 who belong to the economically active population. Given the growth rate from 2015 Census at 1.46%, the Municipality is projected to have a total labor force of 77,690 by year 2026. A dependent population is projected to increase at 4,721 by 2026 given a growth rate of 1.46% using base years 2010 & 2015 census data.

**Table 18: Projected Labor Force**

|  |  |  |  |
| --- | --- | --- | --- |
| **Year** | **Age Group** | | |
| **Labor Force (15-64)** | **Dependent Population** | |
| **Young (0-14)** | **Old (65-over)** |
| **2015** | 66,240 | 35,464 | 4,627 |
| **2016** | 67,207 | 35,982 | 4,695 |
| **2017** | 68,188 | 36,507 | 4,763 |
| **2018** | 69,184 | 37,040 | 4,833 |
| **2019** | 70,194 | 37,581 | 4,903 |
| **2020** | 71,219 | 38,130 | 4,975 |
| **2021** | 72,259 | 38,686 | 5,047 |
| **2022** | 73,314 | 39,251 | 5,121 |
| **2023** | 74,384 | 39,824 | 5,196 |
| **2024** | 75,470 | 40,406 | 5,272 |
| **2025** | 76,572 | 40,996 | 5,349 |
| **2026** | 77,690 | 41,594 | 5,427 |