POPULATION PROJECTION ANALYSIS IN MLANDINGAN DISTRICT

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Abstract

This research aims toanalyze the Population Projection of Mlandingan Sub-district in 2020. The focus of this study is the Birth, Death, and Population Migration Data that occurred in Mlandingan District which is then projected into a map. The research method used in this study is a quantitative qualitative method. Sources of data were obtained through the Regional Statistics Center Bada Data, books, journals, and web pages related to the topic of discussion, namely the 2020 Mlandingan District Population Projection. The data collection technique used was a literature study, namely reading data from the regional statistical center agency, journals. previous journals, books, and related web pages as well as component methods in determining population projections. While the data analysis technique used qualitative analysis. The results showed that the population projection of MlandinganSubdistrict was divided into 3 types, namely Low Population Projection for villages in mountainous areas, Medium for villages in the middle of the sub-district, and High for coastal villages. Based on this research, the government should be able to determine the appropriate regional development planning in accordance with the population projection data that has been obtained.

Keywords: Population Projection, Demographic Data, Regional Development Planning

1. Introduction

Mlandingan District is one of the sub-districts in Situbondo Regency which is located at the eastern tip of the northern part of Java Island with a position between 7°35' – 7°44' South Latitude and 113°30' – 114°42' East Longitude. The administrative boundaries of the Mlandingan sub-district include the north bordering the Madura Strait, the east bordering the Bungatansubdistrict, the south bordering the Bondowoso Regency and the west bordering the Subohsubdistrict. The area of Mlandingan District is 39.60 Km2, its shape extends from west to east of approximately 140 Km. The North coast is generally low-lying and in the south it is high-lying.

Mlandingan sub-district is one of the 13 sub-districts in Situbondo Regency which has a beach. This is because some areas of the Mlandingan District are in direct contact with the beach, including Selomukti Village and MlandinganKulon. Based on the 2015-2045 Indonesian Population Projection in the Central Bureau of Statistics of the Mlandingan District (2020), the total population of Mlandingan District is 22,338 people with a ratio of 10,825 males and 11,513 females.

Based on this background, the authors intend to analyze data from the Central Bureau of Statistics of the Mlandingan District to be used as Population Projections for 2020. The data to be used are Birth, Death, and Migration data for the Mlandingan Population during 2018-2019. This research is important to do in order to know the projected level of population in

Mlandingan District in 2020 and to know the factors causing Birth, Death, and Migration that occurred in Mlandingan District.

The formulation of the problem that will be discussed in this article is the result of the population projection of the Mlandingan District in 2020 based on the demographic data obtained.

2. Research Methods

This research was conducted virtually on April 8-11, 2020. The method used is a quantitative qualitative research method, where the data tables and maps that have been presented will be described and analyzed descriptively or descriptions. In addition, the component method is also used in determining the projected level of the population of the Mlandingan District. By using this method, the researcher will get the data in its entirety and can be described clearly so that the research results are truly in accordance with the conditions in the field.

This research uses literature study in collecting the data. Therefore, research data sources are mostly obtained through related journals, books, and web pages. In the research book, the data sources used by the researchers are included in the secondary data sources. The analysis technique used by the researcher in this article is a qualitative data analysis technique. The data obtained through the literature study will be explained more fully with the coherent description method in this article.

3. Results and Discussion
Born in the District of Mlandingan

Table 1. Mlandingan District Birth Data (6)

Tabel 5.4	Jumlah Kelahiran, Migrasi Masuk dan Migrasi Keluar Menurut Desa di Kecamatan Mlandingan, 2019				
No	Desa	Migrasi Masuk	Migrasi Keluar	Jumlah Kematian	Jumlah Kelahiran
(1)	(2)	(3)	(4)	(5)	(6)
1	Selomukti	86	113	11	100
2	Sumber Pinang	52	50	16	61
3	Alas Bayur	11	31	1	17
4	Sumber Anyar	54	32	7	72
5	Campoan	28	26	-	78
6	Trebungan	56	58	7	83
7	Mlandingan Kulon	79	74	6	89
	Kecamatan Mlandingan	366	384	48	500

Sumber : Dinas Kependudukan dan Pencatatan Sipil Kabupaten Situbondo

Source: BPS Mlandingan District in 2020

Based on the data above, Selomukti Village has a fairly high birth rate, while Alas Bayur Village is a village with a low birth rate. The first factor in this difference in birth rates is "the ease of reaching the nearest health facility". Based on BPS data, all villages in Mlandingan Sub-district until now still do not have a hospital that is adequate enough to carry out childbirth. The available Health Center is in the village of MlandinganKulon. The location of Alas Bayur Village, which is far from the Puskesmas and facilities and infrastructure that are still difficult, causes the number of births in this village to tend to be low. On the other hand, access to the Puskesmas from Selomukti Village is relatively easy so that the birth rate is

getting higher. This is in accordance with research conducted by (Putro, 2013) that the location of the health center has a positive effect on the population's birth rate. The following is Table 2. Ease of access to health centers in Mlandingan District in 2019.

Tabel 2.2.2	Kemudahan Mencapai Sarana Kesehatan Terdekat Bagi Desa/Kelurahan yang Tidak ada Sarana Kesehatan Menurut Desa/Kelurahan dan Jenis Sarana Kesehatan di Kecamatan Mlandingan, 2019		
Desa/Kelurahan	Rumah Sakit	Rumah Sakit Bersalin	Poliklinik/Balai Pengobatan
(1)	(2)	(3)	(4)
1. Selomukti	Mudah	Mudah	Mudah
2. Sumber Pinang	Mudah	Mudah	Mudah
3. Alas Banyur	Sulit	Sulit	Mudah
4. Sumberanyar	Mudah	Mudah	Mudah
5. Campoan	Mudah	Mudah	Mudah
6. Trebungan	Mudah	Sangat sulit	Mudah
7. Mlandingan Kulon	Sangat mudah	Mudah	Mudah

Source: BPS Mlandingan District in 2020

Culturally, Situbondo Regency is a pandalungan area, meaning a blend of Javanese and Madurese cultures, even some residents use the Madurese language. In such a society, obedience to the leader or Kyai or the owner of the Islamic boarding school is very high. The level of trust of pregnant women in checking pregnancy, delivery assistance and postpartum examinations is still high to health workers, especially midwives. This causes the birth rate to be relatively high, such as in Mlandingan District reaching 500 births a year.

Furthermore, based on the level of education, the number of schools available in Mlandingan District is still minimal, where the availability of schools is still very small. The number of schools owned by the Mlandingan District as of 2019 include: SD 22 schools, SMP 3 schools, SMA 0 schools, PT 0 schools. In addition, access to schools in some areas tends to be difficult. Especially to access high school and college. This indicates that the level of education in Mlandingan District is still relatively low, causing the community's mindset to not develop. The mindset of "many children, lots of sustenance" is still very high in this sub-district, so the birth rate is also high. This also affects the level of early marriage in Mlandingan District which is also still high (Kartikawati, 2014). Next is the level of population density. A high level of population density causes high fertility, when the condition of health services is still not well-reached (Nurrizka&Wahyono, 2018). Based on BPS data, Selomukti Village is the village with the highest population density (6,316 people) while Alas Bayur Village is the village with the lowest population density (1,443 people), this shows a positive influence on the birth rate in the village.

Death in Mlandingan District

Table 3. Mlandingan District Death Data in 2019 (5)

Tabel 5.4	Jumlah Kelahiran, Migrasi Masuk dan Migrasi Keluar Menurut Desa di Kecamatan Mlandingan, 2019				
No	**Desa**	**Migrasi Masuk**	**Migrasi Keluar**	**Jumlah Kematian**	**Jumlah Kelahiran**
(1)	(2)	(3)	(4)	(5)	(6)
1	Selomukti	86	113	11	100
2	Sumber Pinang	52	50	16	61
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Sumber : Dinas Kependudukan dan Pencatatan Sipil Kabupaten Situbondo

Source: BPS Mlandingan District in 2020

Based on the data from the Central Statistics Agency (2020) above, it can be seen that the mortality rate in Mlandingan District is low. The average death per village is only 7 cases a year. The main cause of death in Sumber Pinang Village (as the village with the highest mortality rate) is the presence of people with malnutrition in the village (BPS, 2020). The following is Table 4. Number of Residents with Malnutrition by Village in Mlandingan District:

SOSIAL DAN KESEJAHTERAAN

Tabel 2.2.3	Banyaknya Warga Penderita Gizi Buruk Menurut Desa/Kelurahan di Kecamatan Mlandingan, 2017 dan 2018		
	Desa/Kelurahan	**2017**	**2018**
	(1)	(2)	(3)
1.	Selomukti	0	0
2.	Sumber Pinang	0	4
3.	Alas Bayur	0	0
4.	Sumberanyar	0	0
5.	Campoan	0	0
6.	Trebungan	0	0
7.	Mlandingan Kulon	0	0
	Mlandingan	**0**	**4**

Source: BPS Mlandingan District in 2020

Furthermore, the low mortality factor in Mlandingan District is also influenced by the family planning program, where the community regularly checks their health regularly to the doctor to control their health condition as well as know the progress of the family planning program they are following (Segoro et al, 2013). With this family planning program, it can help the community to find out early on the disease they are suffering so that treatment can be

done immediately. Therefore, the family planning program also indirectly reduces the mortality rate in Mandlingan District.

Migration in MlandinganKecamatan

Table 5. Mlandingan District Migration Data in 2019 (3 & 4)

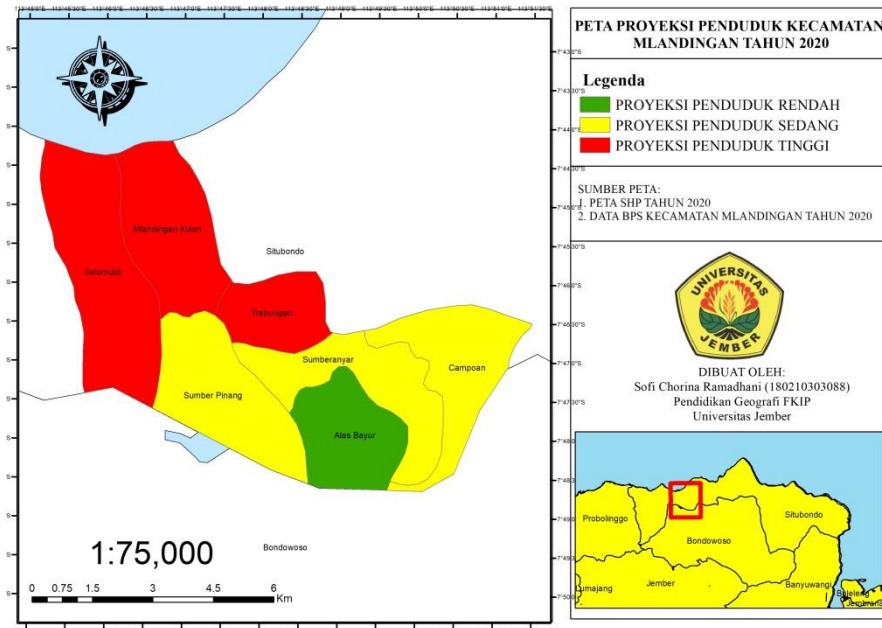| Tabel 5.4	Jumlah Kelahiran, Migrasi Masuk dan Migrasi Keluar Menurut Desa di Kecamatan Mlandingan, 2019				
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(1)	(2)	(3)	(4)	(5)	(6)
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	Kecamatan Mlandingan	366	384	48	500

Sumber : Dinas Kependudukan dan Pencatatan Sipil Kabupaten Situbondo

Source: BPS Mlandingan District in 2020

The main reason for the large number of migrations into Mlandingan District is because as is well known, Situbondo Regency has the title of City of Santri, namely the Regency with a lot of Islamic Boarding Schools. One of the large Islamic boarding schools in Mlandingan District is the NurulJadid Islamic Boarding School which is located in SumberAnyar Village. This is the main attraction for outsiders to migrate to Mlandingan District, namely to pursue religious education. Alas Bayur and Campoan villages are the southernmost villages of Mlandingan District. These two villages are still classified as mountains because they are at the foot of Mount Argopuro. Based on research conducted by (Muthahharah&Adiwibowo, 2017),

Selomukti and MlandinganKulon villages are close to the tourism area, namely the White Sand Beach of Situbondo. Zulhilmi&Maulana (2018) describe the existence of the White Sand Beach Tourism Object which has created jobs for local residents. The various jobs created by the local people are well utilized. This can be seen from the large number of local residents who master several types of tourism work such as: accommodation (lodging and hotels), transportation (boat taxis), culinary services (restaurants), street vendors around the beach, and traders who open kiosks on the beach. . The existence of the tourism sector in this area causes migration flows both in and out (Utami, 2013).

Mlandingan District Population Projection in 2020

Map 1. Mlandingan District Population Projection Map 2020

The map above is an overlay result of the calculation of the number of births, deaths, and migrations that occurred in Mlandingan District in 2019. In addition, there is also a population projection calculation using the component method (BPS, 2010) with the following formula:

$$P1 = P0 + (LM) + (MigIn - MigOut)$$

Description:

P1	= Total Population in Year T
P0	= Number of Initial Population
L	= Number of Births
M	= Number of Deaths
MigIn	= Number of Inbound Migrations
MigOut	= Number of Outgoing Migration

1) **Alas BayurDesa Village**

$$P2020 = 1443 + (17\text{-}1) + (11\text{-}31)$$
$$= 1439 \text{ souls}$$

2) **Sumber Pinang Village**

$$P2020 = 2894 + (61\text{-}16) + (52\text{-}50)$$
$$= 2941 \text{ souls}$$

3) **New Source Village**

$$P2020 = 3203 + (72\text{-}7) + (54\text{-}32)$$
$$= 3290 \text{ souls}$$

4) **Campoan Village**

$$P2020 = 1643 + (78\text{-}0) + (28\text{-}26)$$
$$= 1723 \text{ souls}$$

5) **Selomukti Village**

$$P2020 = 6316 + (100\text{-}11) + (86\text{-}113)$$
$$= 6378 \text{ souls}$$

6) **Trebungan Village**

$$P2020 = 3382 + (83\text{-}7) + (56\text{-}58)$$
$$= 3456 \text{ souls}$$

7) MlandinganKulon Village

$$P2020 = 3457 + (89\text{-}6) + (79\text{-}74)$$
$$= 3545 \text{ souls}$$

Furthermore, to determine regional projections based on their level, the following formula is used:

(Large N – Small N) : 3

Returns the following values:

$$(6378 \text{ souls} - 1439 \text{ souls}) : 3$$
$$= 1646 \text{ souls}$$

This means that villages with a projected population of <1646 people are classified as villages with the lowest population projections, then villages with a projected population of <3232 people are classified as villages with a projected population of medium, and villages with a projected population of >3232 people are classified as villages with high population projections. Based on the results of these calculations, it can be seen that the Population Projection of the Mlandingan District in 2020 is divided into 3 groups, namely the Low Population Projection, namely Alas Bayur Village, the Medium Population Projection centered in the middle village of Mlandingan District, namely Campoan, SumberAnyar, and Sumber Pinang villages, and the Projection The residents of Tinggi are concentrated in the northern part of the Mlandingan sub-district, namely Trebungan, Selomukti, and MlandinganKulon villages.

Judging from its position, the appropriate regional development planning based on the results of the projection map above are: Villages with high population projections are suitable for use as tourism development villages, because of their location close to the coast. Next is a village with a moderate population projection, suitable to be developed as an educational area because in this area there are many Islamic boarding schools scattered and become the flow of population mobility/migration. Finally, the village with a low population projection, namely Alas Bayur Village, should be developed into a village for agricultural production. Due to its location near the mountains, the land in this area is classified as fertile soil, making it suitable for use as agricultural land.

4. Conclusion

Based on the results of the discussion above, it can be concluded that the Population Projection of the Mlandingan District in 2020 is divided into 3 groups, namely the Low Population Projection, namely Alas Bayur Village, the Medium Population Projection centered in the central village of Mlandingan District, namely Campoan, SumberAnyar, and Sumber Pinang villages. and the Projection of High Population is centered in the villages in the northern part of Mlandingan District, namely Trebungan, Selomukti, and MlandinganKulon villages.

5. Suggestion

Suggestions that the author can give related to the development of the Mlandingan District in 2020 based on the results of the projection map analysis above are: Villages with high population projections are suitable for use as tourism development villages, because of their location close to the beach. Next is a village with a moderate population projection, suitable to be developed as an educational area because in this area there are many Islamic boarding schools and become the flow of population mobility/migration. Finally, villages with low population projections should be developed into agricultural production villages.

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