

Spatial Analysis Of Transmigran Settlements and Service Facilities in Timpeh Subdistrict, Dharmasraya Regency

Nurul Fitroh^{1*}, Elvi Zuriyani¹, Arie Zella Putra Ulmi¹

¹Universitas PGRI Sumatera Barat, Indonesia

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ABSTRACT

This research is motivated by factors to analyze transmigrant settlements and service facilities in the Timpeh Subdistrict, Dharmasraya Regency using a geographic information system. The results of the research are expected to explain how transmigrant settlements and service facilities in the Timpeh Subdistrict, Dharmasraya Regency. The type of research used in this research is spatial descriptive. The population in this study is the area where there are migrant communities in Timpeh Subdistrict, Dharmasraya Regency, West Sumatra Province. In this study using total sampling with a sample of all areas where there are transmigrant people in Timpeh Subdistrict, Dharmasraya Regency, West Sumatra Province. Based on the results of the study, it can be concluded that first, the distribution of transmigrant settlements in Timpeh Subdistrict is uneven and different. There are 4 villages with different numbers of settlements in each village. In *Nagari* Panyubarangan there are 7 settlements, *Nagari* Ranah Palabi with 8 settlements, *Nagari* Tabek with 8 settlements, *Nagari* Taratak Tinggi with 12 settlements. Second, education and health service facilities in Timpeh Subdistrict, Dharmasraya Regency are unevenly distributed in each *Nagari*. The distribution of educational facilities in this Subdistrict with a total of 15 schools and health service facilities has 7 main health centres and auxiliary health centres (Pustu). Third, *Nagari* Taratak Tinggi there are 6 educational service facilities and 2 health service facilities that can be reached by transmigrant settlement communities, *Nagari* Tabek has 4 educational service facilities and 2 health service facilities that can be reached by transmigrant settlement communities. *Nagari* Ranah Palabi has 5 educational service facilities and 2 health service facilities that can be reached by transmigrant settlement communities, but the *Nagari* in Panyubarangan has 2 educational service facilities that can be reached by transmigrant residential communities and does not have health service facility coverage areas.

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* Corresponding author.

E-mail addresses: elvizuriyani@upgrisba.ac.id

1. Introduction

One of the aspects studied in human geography is the earth as a place to live or often called a settlement. According to Hadi Sabari Yunus (1987), the definition of settlement in geography is a natural form (natural) and a physical form (artificial) with all its accessories which are used by humans, both individually and in groups, to live, either temporarily or permanently, in order to carry out life.

A settlement is part of a housing environment which consists of more than one housing unit which has infrastructure, facilities, public utilities and supports other functional activities in urban areas or in rural areas (UU No. 1 of 2011 concerning Housing and Settlement Areas). The distribution of settlements talks about where there are settlements and/or where there are no settlements in an area, while the pattern of settlements is the nature of its distribution, more related to the consequences of economic, historical, and cultural factors (Sumaatmadja, 2001).

Settlements are also part of the living environment outside protected forest areas, both in the form of urban and rural areas that function as residential or residential environments and places of activities that support life and livelihoods (Dylan Trotsek, 2017). Settlement is also an action to settle someone in a certain location or place of residence (Pelambi et al., 2016).

The history of transmigration can be seen from the colonization program implemented during the Dutch colonial era. The basic idea of the colonization program was to reduce population pressure and also reduce poverty, especially on the island of Java, by moving the population from Java to outside Java (Hardjono, 1977:16).

Transmigration is one of the government's programs in solving population problems, equitable development and welfare (Hardjono, 1982). Transmigration is part of population movement within an area that has been determined by the government with the aim of equalizing the population and improving community welfare (Danilo Gomes de Arruda, 2021). Transmigration can be understood as the movement of people from densely populated areas to other island areas where the population is still small or unpopulated. This population transfer has been carried out since the colonial era. The Indonesian government only started to continue this program from 1950. The transmigration program is a way to overcome population imbalance and inequality. The transmigration program is considered as an important means of development (Mochtar, 1978). The implementation of the transmigration program is one of the supports for the success of national development. Apart from reducing population density, the transmigration program also expands development activities in other sectors, including expanding employment opportunities, regional development, fostering national unity and integrity and strengthening national resilience (Sofyan, 2013).

Transmigration can be understood as the movement of people from a densely populated area to another island area where the population is still small or not yet populated. Transmigration in Indonesia is usually regulated and funded by the government for citizens who are generally lower middle class. Arriving at the transmigration site, the transmigrants were given a plot of land or agricultural land to support life in their new location of residence (Nova, 2016).

In line with the fairly rapid development in the regions, and also the financial balance between the center and the regions through regional policies, the islands which were previously the destination of the transmigration program have developed and must limit the acceptance of transmigrants. In fact, what is developing is that the residents of the island of Sumatra are now objects that will take part in the transmigration program. The choice of transmigration location must also be based on environmental sustainability (especially forests) (Asril, 2009).

Transmigration is carried out not only because it is a government program that must be carried out, but there are certain factors that cause transmigration to occur. These factors include driving factors, namely population factors, economic factors, other factors (natural disasters, disaster-prone areas, employment, disturbed security). In addition, there are pull factors, namely the availability of employment and wider land ownership which can increase income (Munir, 1981).

In addition to transmigration carried out because there are factors that encourage and attract factors, transmigration that is carried out also has an impact on these transmigrants (Yudohusodo, 1988: 78).

The term migrating is a culture that is associated with the movement of people from their place of origin to another area, in order to gain success and gain self-confidence. From 1960 to 2013, the average migration growth in Indonesia was around 4.4%, much higher than in China, India and the Philippines. Migration has become a habit for the people of Indonesia. These habits form an institutionalized system and eventually become a culture (Sholik, et al., 2016). Migration can be interpreted as people leaving their original territory and occupying a new territory. In overseas they seek new livelihoods to meet their needs. Every ethnic group has a culture of migrating, such as the Batak, Javanese, Bugis, Madurese and Minangkabau tribes. Factors that support the transmigration community in West Sumatra are linguistic characteristics, customs, cultural and economic factors that are convincing (Giyarsih, 2013: 2).

Transmigration is part of the population movement. The term migrating is a culture associated with the movement of people from their home regions to other regions, in order to gain success, and gain self-confidence. From 1960 to 2013, the average growth of migration in Indonesia was around 4.4%, much higher than in China, India and the Philippines. Migrating has become a habit for Indonesians. This habit forms an institutionalised system and eventually becomes a culture (Sholik, et al., 2016). Migrating can be interpreted as people who leave their original territory and occupy new territories. In the overseas land they look for new livelihoods to fulfil their needs. Every ethnic group has a culture of migrating, such as the Batak, Javanese, Bugis, Madurese and Minangkabau tribes. Of the many migrating cultures carried out by various ethnic groups in Indonesia, the migrating culture of the Minangkabau tribe has its own character (Zuriyani, et al., 2021).

Based on the result of field observations that the author conducted at the Timpeh and wali nagari taratak tinggi district offices. it was obtained from interviews that the tinpeh district consists of 5 kenagarian and only 4 (four) kenagarian which have transmigrant settlement areas and 4 (four) kenagarian which has transmigrant residential areas and 1 (one) kenagarian village with original residential areas.

Communities need service facilities to meet various kinds of needs cannot be fulfilled alone. Self-service facility is a tool and/or place that is used to carry out service efforts, both promotive, preventive, curative and rehabilitative carried out by the central government, local government and/or the community (Laksono & Sandra, 2020). Service facilities must be considered to meet community needs. In addition, the provision of service facilities will affect service quality (Bakhtiar and Gadi 2020). The availability of adequate and appropriate facilities will provide comfort felt by service recipients or the community. Accessible services that are easy to understand and adequate as well as services without discriminating are the goals of service facility providers (Rahmani, 2019) whereas according to Irfadar and Nurlaila (2021) states that "Facilities are supporting or access in providing services so that providers are connected to recipients service".

Services in the form of public services include health administration services and education administration. According to the Regulation of the Indonesian Minister of Health, a health service facility is a tool or place used to provide health service efforts, whether promotive, preventive, curative or rehabilitative, carried out by the government, regional government or community. The problem currently being faced in health development in Indonesia is the lack of optimal access, affordability and quality of health services (Bappenas, 2018).

The government seeks to provide the best service by providing adequate and optimal facilities and services to the community, so that people feel satisfied with the service they experience and are satisfied and comfortable in their activities. Service facilities really help the community in meeting all their needs in the form of public services. Every human being needs education and health worker services, because education is very important for human development and health

workerservices are very important in improving the quality of human resources, poverty alleviation and economic development.

Through education, humans not only obtain special skills but also something deeper, namely the provision of knowledge, judgment and wisdom. Service facilities in the form of public services such as education and health are very important needs in people's lives, because these facilities have important benefit components. In an effort to improve the quality of human resources. Quality human resources will increase productivity and the economy which will ultimately increase the nation's competitiveness.

This study aims to analyze transmigrant settlements and service facilities in Timpeh Subdistrict, Dharmasraya Regency, using a geographic information system. It is hoped that the results of the research will explain how transmigrant settlements and service facilities are in Timpeh Subdistrict, Dharmasraya Regency.

Seeing these problems, the authors are interested in conducting research on the analysis of transmigrant settlements. For this reason, the author wants to conduct a study entitled "Spatial Analysis of Transmigrant Settlements and Service Facilities in Timpeh Subdistrict, Dharmasraya Regency".

2. Method

The type of research used in this research is spatial quantitative descriptive. Quantitative descriptive with a spatial approach is a type of research that is used to search for information related to existing symptoms, explain clearly the objectives to be achieved, plan how to approach it, and collect various kinds of spatial aspect data as material for making reports. The population in this study is an area where there is a migrant community in Timpeh Subdistrict, Dharmasraya Regency, West Sumatra Province. In this study, total sampling was used with samples from all areas where there were transmigrants in Timpeh Subdistrict, Dharmasraya Regency, West Sumatra Province.

3. Results and Discussion

Results

1. Distribution of transmigrant settlements in Timpeh Subdistrict, Dharmasraya Regency

The number of points for each solution is clearly visible with different numbers. Transmigrant settlements are developing very rapidly in Timpeh Subdistrict, Dharmasraya Regency. Transmigrant settlements can be seen from the location points supported by the number of residents and accessibility that connects with transmigrant areas. From the results of field research conducted to determine the number of transmigrant settlement points, there were 4 settlements with different locations and points. Such as *Nagari* Panyubarangan, 7 settlements with 65 locations, *Nagari* Ranah Palabi, 8 settlements with 90 locations, *Nagari* Tabek, 8 settlements with 92 locations, *Nagari* Taratak Tinggi with 12 settlements. With a total of 98 location points.

Timpeh Subdistrict, Dharmasraya Regency has an uneven and varied number of settlements. There are 4 nagari in Timpeh Subdistrict, Dharmasraya Regency with different numbers of settlements in each *Nagari*. In *Nagari* Panyubarangan there are 7 settlements, in *Nagari* Palabi 8 settlements, *Nagari* Tabek 8 settlements, *Nagari* Taratak Tinggi 12 settlements and a total of 35 settlements.

2. Distribution of service facilities in Timpeh Subdistrict Dharmasraya Regency

The number of educational service facilities in Timpeh Subdistrict, Dharmasraya Regency is 15 educational service facilities. Among them, in *Nagari* Ranah Palabi there are 2 elementary schools (SD) and 1 junior high school (SMP), in *Nagari* Panyubarangan there is 1 elementary school (SD) and 1 high school (SMA), in *Nagari* Tabek there are 3 elementary schools (SD).) and 1 Junior High School (SMP), in *Nagari* Taratak Tinggi there are 3 Elementary Schools (SD), 2 Junior High Schools (SMP), and 1 Vocational High School (SMK).

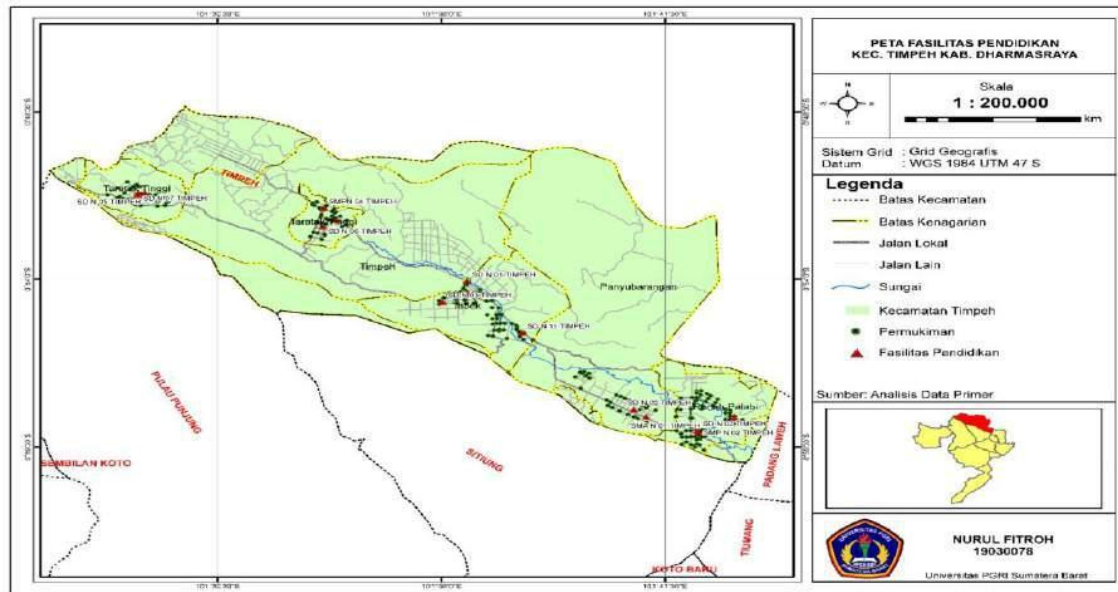


Figure 1. Map of the distribution of educational service facilities in Timpeh Subdistrict

The number of health service facilities in Timpeh Subdistrict, Dharmasraya Regency is 7 medical facility. Among them are 2 Main Health Centers and 5 Supporting Community Health Centers (PUSTU). In *Nagari* Ranah Palabi there are 2 Assistant Community Health Centers (PUSTU). In *Nagari* Tabek there is 1 Community Health Center (PUSTU) and 1 Community Health Center. In *Nagari* Taratak Tinggi there are 2 health centers (PUSTU) and 1 community health center. And in *Nagari* Panyubarangan there are no health service facilities.

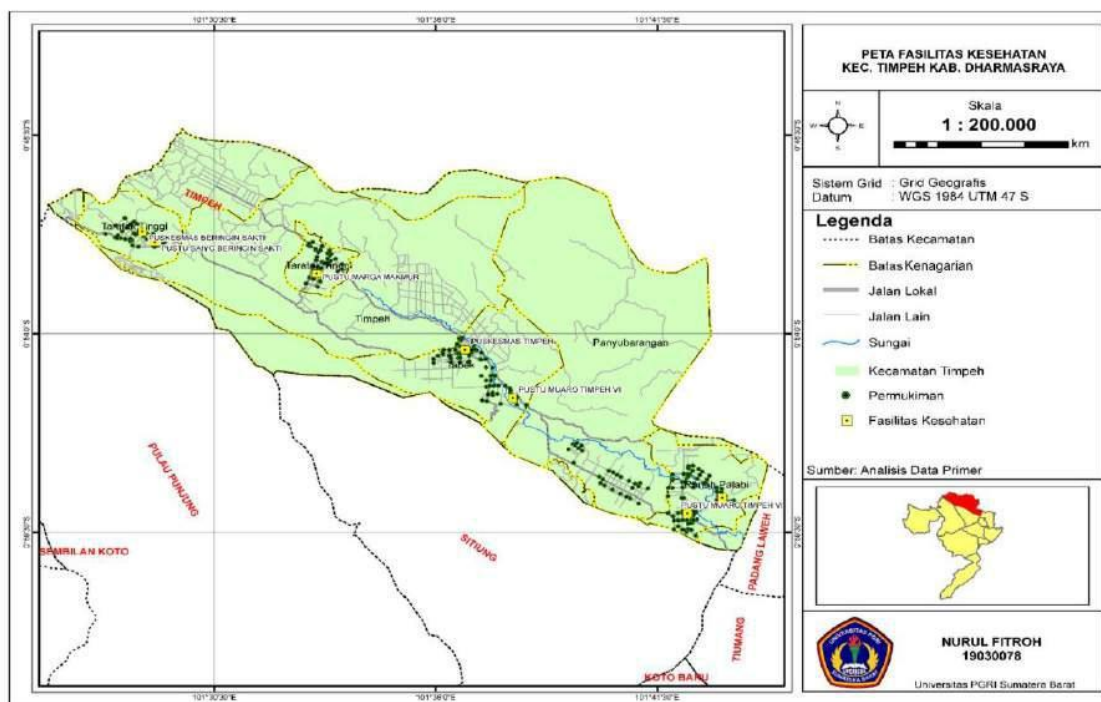


Figure 2. Map of health service facilities in Timpeh Subdistrict

3. Affordability of Service Facilities for Transmigrant Settlements in Timpeh Subdistrict, Dharmasraya Regency

To find out the affordability of service facilities, use interviews at each service facility and then process them using the Buffering Zone Analysis method. This analysis is used to determine the reachability radius of transmigrant community service facilities using the neighborhood concept.

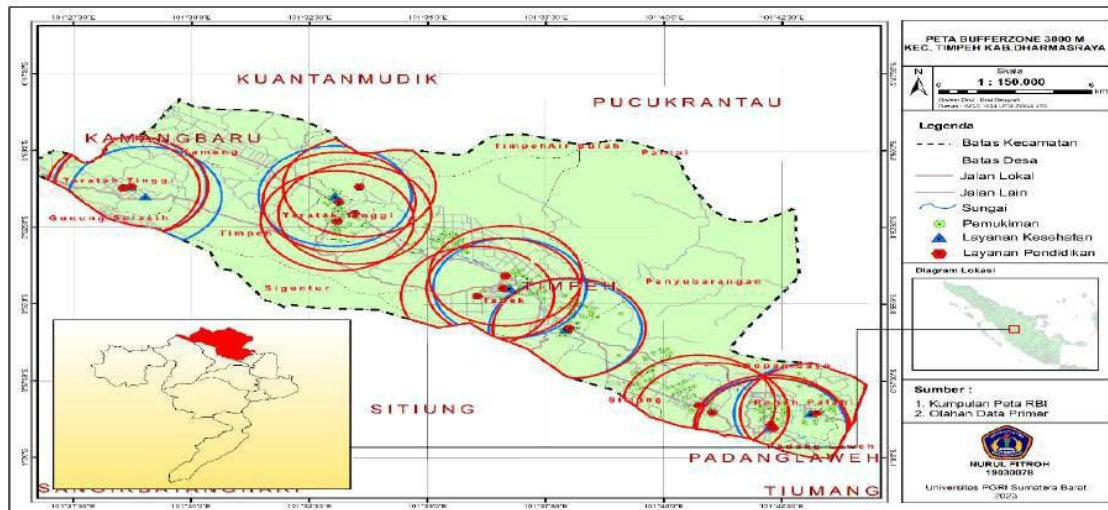


Figure 3. Map of the affordability of service facilities to transmigrant settlements in the Subdistrict Timpeh

Seen in Figure 3, it can be seen the range of service facilities in Timpeh Subdistrict in the applicable standard regulations there are rules regarding the optional distance or radius for service of 3000 meters. In general, the affordability of service facility distance in Timpeh Subdistrict covers the range 0-300 m, 300-600m, 600-1200m, 1200-3000m. This range provides an overview of the extent to which residents can reach these service facilities. The distance between educational facilities and health facilities in Timpeh Subdistrict is even, but there are still several *Nagari* that are less accessible.

In *Nagari* Taratak Tinggi there are 6 educational service facilities and 3 health service facilities which can be reached by the transmigrant settlement community, in *Nagari* Tabek there are 4 educational service facilities and 2 health service facilities which can be reached by the transmigrant settlement community, *Nagari* Ranah Palabi has 3 educational service facilities and 2 health service facilities that can be reached by the transmigrant settlement community, *Nagari* Panyubarangan has 2 educational service facilities that can be reached by the transmigrant settlement community and does not yet have a health service facility coverage area.

Discussion

When viewed from the distance analysis, it is used to measure the distance from a residential area to certain service centers, both for service centers in the same area or in other areas. The distance from transmigration settlements to service facilities is limited to only 3 km because it will be more effective if the affordability limit is within a 3 km radius. The affordability of transmigrant settlements to service facilities is that there are several factors that cause people to come to a place of service, including the ease of reaching a community service center, such as distance, travel time, and transportation costs and the means of transportation used determines the number of consumers who will come to that place.

If the distance to reach service facilities is too far from settlements, it can make it difficult for people in settlements to access existing service facilities. On the other hand, if the distance to reach service facilities is close to food settlements, it will make it easier for people living in settlements to access these service facilities.

This will certainly have an impact on the accessibility of transmigrant settlement communities who will go to service facilities. The distance between service facilities and residential areas will of course affect the use of transportation. The more transportation you use, the higher the accommodation costs you will incur.

Distribution of transmigrant settlements in Timpeh Subdistrict, Dharmasraya Regency. To find out the distribution of transmigrant settlements in this sub-district, examiners conducted direct field studies by examining the places and locations of transmigrant settlements. The distribution of transmigrant settlements in Timpeh Subdistrict, Dharmasraya Regency has an uneven and varied number of settlements. There are 4 *nagari* in Timpeh Subdistrict, Dharmasraya Regency with different numbers of settlements in each *Nagari*. In *Nagari* Panyubarangan there are 7

settlements, *Nagari* Palabi 8 settlements, *Nagari* Tabek 8 settlements, *Nagari* Taratak Tinggi 12 settlements.

Distribution of service facilities to transmigrant settlements in Timpeh Subdistrict, Dharmasraya Regency. The distribution of service facilities examined in this study is education services and health services. To assess the distribution, examiners carry out direct visits to the field by obtaining the number and location of the service facilities. Education and health service facilities in the district. Timpeh of Dharmasraya Regency is spread unevenly in every nagari. The distribution of educational facilities in this Subddistrict is 15 schools and health service facilities have 7 main health centers and supporting health centers (PUSTU).

Affordability of Transmigrant Settlement Service Facilities in Timpeh Subdistrict, Dharmasraya Regency. In *Nagari* Taratak Tinggi there are 6 educational service facilities and 3 health service facilities which can be reached by the transmigrant settlement community, in *Nagari* Tabek there are 4 educational service facilities and 2 health service facilities which can be reached by the transmigrant settlement community, *Nagari* Ranah Palabi has 3 educational service facilities and 2 health service facilities that can be reached by the transmigrant settlement community, *Nagari* Panyubarangan has 2 educational service facilities that can be reached by the transmigrant settlement community and does not yet have a health service facility coverage area.

4. Conclusion

Based on the results of the research and discussion that have been described, it can be concluded that:

1. It is known that the distribution of transmigrant settlements in Timpeh Subdistrict, Dharmasraya Regency has a different number of settlements in each Nagari. There are 5 Nagari in Timpeh Subdistrict, Dharmasraya Regency and only 4 *Nagari* have transmigration settlements with a different number of settlements in each *Nagari*. In *Nagari* Panyubarangan there are 7 settlements, *Nagari* Palabi 8 settlements, *Nagari* Tabek 8 settlements, *Nagari* Taratak Tinggi 12 settlements.
2. It is known that the distribution of service facilities examined in this research is education services and health services. Education and health service facilities in the Subddistrict. The Timpeh of Dharmasraya Regency is spread unevenly in each *nagari*. The distribution of educational facilities in this Subddistrict is 15 schools and health service facilities have 7 main health centers and supporting health centers (PUSTU).
3. It is known that the affordability of Transmigrant Settlement Service Facilities in Timpeh Subdistrict, Dharmasraya Regency is within a radius of 3000 m/ 3 km. In *Nagari* Taratak Tinggi there are 6 educational service facilities and 3 health service facilities which can be reached by the transmigrant settlement community, in *Nagari* Tabek there are 4 educational service facilities and 2 health service facilities which can be reached by the transmigrant settlement community, *Nagari* Ranah Palabi has 3 educational service facilities and 2 health service facilities that can be reached by the transmigrant settlement community, *Nagari* Panyubarangan has 2 educational service facilities that can be reached by the transmigrant settlement community and does not have a health service facility coverage area.

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