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# GAPS AND NEEDS OF EDUCATION FACILITIES IN MAJENE REGENCY

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#### ABSTRACT

Majene Regency is located in West Sulawesi Province and is designated as a provincial education area causing the population to increase, the increase in population is not accompanied by an increase in the number of educational facilities which causes a lack of access to education. This study aims to determine and analyze the gap in educational facilities in Majene Regency and analyze the needs of ideal educational facilities in Majene Regency. This research is descriptive quantitative research, namely research that describes variables as they are supported by data in the form of numbers generated from actual circumstances. The result of this research is that most districts have educational facilities such as kindergarten, elementary school, junior high school, and high school. Only Banggae district and Tubu Sendana district and Ulumanda district do not have high school facilities. The educational facilities compared to other districts. This is not correlated with the status of the urban center which in fact provides and has more facilities and services than other districts. Efforts are needed to improve and develop educational facilities by adding educational facilities, especially high school education facilities, which have the highest demand.

Keyword: facilities, distribution, needs, education.

#### **1. INTRODUCTION**

Education is an important component in society that can be used as a measure to determine human quality [1]. Education is one of the main pillars in a country's social and economic development. Equitable access to educational facilities is essential to improve the quality of human resources. In the urban context, the spatial distribution and reach of education facilities are crucial factors in determining people's ability to get proper education. Good and affordable education facilities contribute to the development of individual competencies and the improvement of quality of life. Schools, colleges and non-formal education institutions have a central role in shaping a generation that is educated and ready to compete in the global era. Social inequality in education is a serious problem faced by many countries in the world [4]. This problem occurs when there are groups of people who do not have equal access to education, making it difficult for them to achieve equal opportunities in life. Social disparities in education can affect the quality of a country's human resources and impact on the progress of a region. The factors that most influence the need for school facilities are population and the availability of educational facilities. As the population increases, there is an increase in the need for educational facilities [7]. The condition of facility availability is said to be good if it exceeds the minimum service standard [5]. One of the causes of the education gap is that the funds allocated to each region vary greatly. The uneven allocation of education funds leads to uneven educational development in each region. Equitable budget allocation can be used to build educational infrastructure, both in rural and

urban areas. Furthermore, the more development of educational infrastructure signifies the more access to education available to the community [3]. the fundamental problem of educational facilities lies in the uneven provision and distribution between regions [10]. Majene Regency is located in West Sulawesi Province and is designated as a provincial education development area which is a magnet for the people of West Sulawesi to become a reference place in the field of education, causing the population to increase, the increase in population is not accompanied by an increase in the number of educational facilities which causes a lack of access to education. This study aims to determine and analyze the gap in educational facilities in Majene Regency and analyze the needs of ideal educational facilities in Majene Regency.

# 2. RESEARCH METHODOLOGY

The research method is basically a scientific way to get data with specific purposes and uses". Thus, in conducting research, it is necessary to have an appropriate research method to obtain data that will be examined in a study. This research is quantitative descriptive research, namely research that describes variables as they are supported by data in the form of numbers generated from actual circumstances. Sugiyono (2016: 7). Data collection uses secondary data, according to (Ahyar et al., 2020) Secondary data is data that is available in various forms. Usually in the form of evidence, records, and historical reports that have been arranged in published or unpublished archives (documentary data). In this study, secondary data was obtained from the data report of the Central Bureau of Statistics (BPS) of Majene Regency. Data analysis techniques in research using:

#### a) location quotient (LQ)

In general, LQ analysis is used to determine the base sector of the economy. LQ is a ratio that indicates the extent to which an area has a concentration of a particular occupation or activity compared to the national or regional average. LQ is often used in economic analysis to identify the strength of industry specialization within a region. However, it can also be used to analyze facility gaps or show the distribution of facilities by comparing with the population by modifying the formula. (Parvez, 2020) [6]. with the following formula:

$$LQ \frac{(\frac{xi}{ni})}{(\frac{x}{n})}$$

Where

Xi = number of facilities in district

Ni = total population of a district

x = total number of facilities

n = total population.

Interpretation of Results

- LQ > 1: Indicates that the region has a high concentration of facilities compared to other regions, indicating a competitive advantage.

- LQ = 1: Indicates that the region has an average or sufficient concentration of facilities compared to other regions.

- LQ < 1: Indicates that the region has a low concentration of facilities compared to other regions.

#### b) Minimum facility requirements

The basis for meeting the needs of each unit of government administration, whether informal (RT, RW) or formal (Kelurahan, Kecamatan), the provision of education facilities is not based on the number of residents to be served. In addition, the basis for the provision of educational facilities considers the spatial design approach of existing neighborhood units or groups, which is certainly related to the formation of building groups or blocks that will be formed in accordance with their environmental context. On the other hand, the placement of the provision of these facilities will consider the radius

coverage of the service area, which is related to the basic needs of the facilities required to serve in a particular area. SNI 03-1733-2004 Planning procedures for residential neighborhoods in urban areas. The educational facilities described in this standard only concern the field of formal / general education, which includes pre-school level (Kindergarten); primary level (SD / MI); secondary level (SLTP / MTs and SMU).

| No | Education Facilities | Number of supporting<br>population<br>(Minimum) |
|----|----------------------|---|
| 1  | pre-school           | 1.250   |
| 2  | elementary school    | 1.600   |
| 3  | junior high school   | 4.800   |
| 4  | senior high school   | 4.800   |

| Table | 1. Minimum | <b>Education</b> | Facility | Requirement |
|-------|------------|------------------|----------|-------------|
|-------|------------|------------------|----------|-------------|

Source: SNI 03-1733-2004

#### 3. ANALYSIS AND RESULT

#### **3.1.** Concentration of education facilities in Majene Regency

The concentration of educational facilities in an area refers to the number and distribution of educational institutions, such as kindergartens, primary and secondary schools. This concentration analysis is important for understanding education accessibility, education quality and education development planning. Educational facilities are an important aspect in supporting people's lives and producing human resources that are superior and can compete in the future. Educational facilities in the study include: Kindergarten, elementary school, junior high school and senior high school. The number of kindergartens is 129 units, the number of elementary schools is 172 units, the number of junior high schools is 39 units and the number of high schools is 7 units. Educational facilities in Majene Regency can be seen in the table below.

|    |              |         | pre-   | elementary | junior | senior |
|----|--------------|---------|--------|------------|--------|--------|
| No | District     |         | school | school     | high   | high   |
|    |              |         |        |            | school | school |
| 1  | Banggae      | Number  | 16     | 31         | 3      | 0      |
|    |              | Percent | 12,40  | 18,02      | 7,69   | 0,00   |
| 2  | East Banggae | Number  | 22     | 26         | 8      | 3      |
|    |              | Percent | 17,05  | 15,12      | 20,51  | 42,86  |
| 3  | Pamboang     | Number  | 24     | 28         | 8      | 1      |
|    |              | Percent | 18,60  | 16,28      | 20,51  | 14,29  |
| 4  | Sendana      | Number  | 23     | 25         | 6      | 1      |
|    |              | Percent | 17,83  | 14,53      | 15,38  | 14,29  |
| 5  | Tammerodo    | Number  | 14     | 13         | 2      | 1      |
|    |              | Percent | 10,85  | 7,56       | 5,13   | 14,29  |
| 6  | Tubu Sendana | Number  | 10     | 9          | 2      | 0      |
|    |              | Percent | 7,75   | 5,23       | 5,13   | 0,00   |
| 7  | Malunda      | Number  | 12     | 20         | 5      | 1      |
|    |              | Percent | 9,30   | 11,63      | 12,82  | 14,29  |
| 8  | Ulumanda     | Number  | 8      | 20         | 5      | 0      |
|    |              | Percent | 6,20   | 11,63      | 12,82  | 0,00   |

**Table 2**. Number of Education Facilities in Majene Regency in 2024

Source: BPS, Kabupaten Majene Dalam Angka Tahun 2024

The data shows that:

- 1. Banggae District has the highest number of facilities, namely primary schools with 31 units. Meanwhile, high school education facilities are not available.
- 2. Banggae Timur District has the highest number of facilities, namely primary schools with 26 units. Meanwhile, senior high school education facilities have the lowest number, namely 3 units.
- 3. Pamboang District has the highest number of primary schools with 28 units. Meanwhile, the lowest number of senior high school education facilities is 1 unit.
- 4. Sendana District has the highest number of primary schools with 25 units. Meanwhile, the lowest number of senior high school education facilities is 1 unit.
- 5. Tammerodo District has the highest number of facilities, namely kindergartens with 14 units. Meanwhile, high school education facilities have the lowest number, namely 1 unit.
- 6. Tubu Sendana District has the highest number of facilities, namely elementary schools with 10 units. Meanwhile, high school education facilities are not available.
- 7. Malunda District has the highest number of facilities, namely elementary schools with 20 units. Meanwhile, high school education facilities have the lowest number, namely 1 unit.
- 8. Ulumanda District has the highest number of facilities, namely primary schools with 20 units. Meanwhile, high school education facilities are not available.

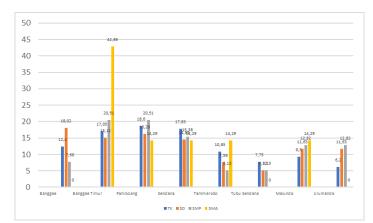


Figure 1. Percentage of Total Education Facilities in Majene Regency in 2024

The distribution of education facilities in Kabupaten Majene can be seen from the percentage of achievement presented in the form of the data above as follows:

1. Kindergarten Facilities

The sub-district with the highest percentage, Pamboang (18.60%), has the highest percentage of kindergarten facilities. The district with the lowest percentage, Ulumanda (6.20%), has the lowest percentage of kindergarten facilities. Sub-districts that are close to the average of several sub-districts such as Sendana and Banggae Timur have quite high percentages, indicating better availability of facilities compared to other districts.

2. Elementary School Facilities

The district with the highest percentage, Banggae (18.02%), has the highest percentage of primary school facilities. The district with the lowest percentage, Tubu Sendana (5.63%), has the lowest percentage of primary school facilities. Sub-districts with an Intermediate Percentage i.e. Districts such as Pamboang and East Banggae have a fairly good percentage, indicating a better availability of facilities compared to other districts.

# 3. Junior High School (SMP)

The districts with the highest percentage of junior high school facilities are Banggae Timur and Pamboang (20.51%). The sub-district with the lowest percentage, Tubu Sendana (3.77%), has the lowest

percentage of junior high school facilities. Districts with an Intermediate Percentage, namely districts such as Sendana and Ulumanda, show better availability of facilities compared to other districts.

4. Senior High School (SMA)

The Districts with the highest percentage, namely East Banggae (42.86%), have the highest percentage of senior high school facilities. Districts with the lowest percentage, namely Banggae, Tammerodo, and Ulumanda (0.00%), do not have senior high school facilities. Each district in the district has a variation in the number of facilities, indicating differences in access and completion of education in the area. Factors Affecting Concentration:

- Demographics: The total population in an area, including age and population distribution.
- Economy: Income levels and people's ability to finance education.
- Government Policy: Government support in the development and provision of educational facilities.
- Accessibility: Distance and ease of transportation to education facilities.

The concentration of education facilities is an important factor in determining the accessibility and quality of education in an area. A comprehensive analysis can help in better planning and decision-making to improve the education system.

# **3.2.** Gaps in education facilities

In many areas, especially in remote and less developed regions, the number of schools and educational facilities is often inadequate to meet the needs of the student population. This results in many children not having access to proper education, while in urban areas, schools are numerous with more complete facilities. This gap creates disparities between urban and rural education facilities. To measure the gaps of education facilities in Majene regency, LQ analysis was used with the following results:

|    |              | Education Facility |                      |                          |                          |  |  |  |  |
|----|--------------|--------------------|----------------------|--------------------------|--------------------------|--|--|--|--|
| No | District     | pre-<br>school     | elementary<br>school | junior<br>high<br>school | senior<br>high<br>school |  |  |  |  |
| 1  | Banggae      | 0,50               | 0,73                 | 0,31                     | 0,00                     |  |  |  |  |
| 2  | East Banggae | 0,99               | 0,88                 | 1,20                     | 2,50                     |  |  |  |  |
| 3  | Pamboang     | 1,35               | 1,18                 | 1,48                     | 1,03                     |  |  |  |  |
| 4  | Sendana      | 1,27               | 1,03                 | 1,09                     | 1,02                     |  |  |  |  |
| 5  | Tammerodo    | 1,48               | 1,03                 | 0,70                     | 1,95                     |  |  |  |  |
| 6  | Tubu Sendana | 1,37               | 0,93                 | 0,91                     | 0,00                     |  |  |  |  |
| 7  | Malunda      | 0,81               | 1,02                 | 1,12                     | 1,25                     |  |  |  |  |
| 8  | Ulumanda     | 1,09               | 2,04                 | 2,25                     | 0,00                     |  |  |  |  |

**Table 3.** Education Facility Gaps in Majene Regency in 2024

Source: Analysis Results, 2024

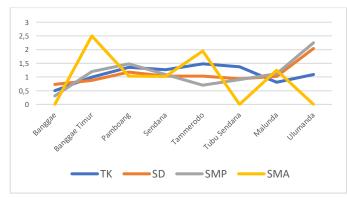


Figure 2. Gaps in Education Facilities

The data shows an analysis of education facilities in several sub-districts, focusing on different levels of education, namely kindergarten, primary school, junior secondary school and senior secondary school. From the data presented, it can be seen that:

- Banggae District has inadequate education facilities (>1) in kindergarten, primary school, junior 1) high school with values of 0.50 and 0.73, and 0.31 respectively. Meanwhile, the district does not have any senior high school facilities.
- East Banggae District shows inadequate facilities such as kindergarten and primary school with 2) values of 0.99 and 0.88 respectively. However, it has very adequate facilities for junior and senior high school facilities with values of 1.20 and 2.50 respectively.
- Pamboang District and District Sendana scored better, with all facilities such as kindergarten, 3) primary school, junior secondary school and senior secondary school being adequate.
- Tammerodo Distric tonly has inadequate junior high school facilities with a score of 0.70 and the 4) rest of the facilities such as kindergarten, primary school, and senior high school are adequate.
- 5) Tubu Sendana District has adequate facilities only for kindergarten with a score of 1.37. While the rest are still inadequate such as elementary, junior high, and high school.
- 6) Malunda district has inadequate facilities, only kindergarten facilities with a score of 0.81. While the rest are very adequate such as elementary, junior high, and senior high schools.
- Ulumanda District has adequate facilities such as kindergarten, primary school, and junior high 7) school. Meanwhile, there are no high school facilities.

This analysis indicates that there are gaps in the provision of education facilities in different district, with some areas showing an urgent need for improvement and development of education facilities, especially at the primary level. Efforts to distribute education facilities equitably are needed so that every child, regardless of geographical location, can enjoy the right to quality education.

# 3.3. Education facility needs

Educational facility needs as an effort to see the ideal condition of facilities in a particular sub-district, educational facilities are very influential on the population in a particular area, the higher the population will be accompanied by the number of educational facilities. To see the need for educational facilities in 2024, researchers compared with the provisions of the SNI 03-1733-2004 standard. The following are the results:

|     | Table 4. Education Facility Needs in Majene Regency in 2024 |                    |        |            |        |        |  |  |  |  |  |
|-----|---|--------------------|--------|------------|--------|--------|--|--|--|--|--|
|     |   | Education Facility |        |            |        |        |  |  |  |  |  |
| No  | District  | Total              | pre-   | elementary | junior | senior |  |  |  |  |  |
| INU | District  | Population         | school | school     | high   | high   |  |  |  |  |  |
|     |   |                    |        |            | school | school |  |  |  |  |  |
| 1   | Banggae   | 45080              | 36     | 28         | 9      | 9      |  |  |  |  |  |
| 2   | East Banggae  | 31110              | 25     | 19         | 6      | 6      |  |  |  |  |  |
| 3   | Pamboang  | 25070              | 20     | 16         | 5      | 5      |  |  |  |  |  |
| 4   | Sendana   | 25500              | 20     | 16         | 5      | 5      |  |  |  |  |  |
| 5   | Tammerodo   | 13280              | 11     | 8          | 3      | 3      |  |  |  |  |  |
| 6   | Tubu Sendana  | 10230              | 8      | 6          | 2      | 2      |  |  |  |  |  |
| 7   | Malunda   | 20770              | 17     | 13         | 4      | 4      |  |  |  |  |  |
| 8   | Ulumanda  | 10320              | 8      | 6          | 2      | 2      |  |  |  |  |  |
|     | Jumlah  | 181360             | 145    | 113        | 38     | 38     |  |  |  |  |  |
| a   | 1 1 1 D 1 0001  |                    |        |            |        |        |  |  |  |  |  |

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Source: Analysis Results, 2024

|    |              | Fasilitas Pendidikan |     |                      |     |                       |     |                       |     |  |
|----|--------------|----------------------|-----|----------------------|-----|-----------------------|-----|-----------------------|-----|--|
| No | Sub-District | pre-school           |     | elementary<br>school |     | junior high<br>school |     | senior high<br>school |     |  |
|    |              | (-)                  | (+) | (-)                  | (+) | (-)                   | (+) | (-)                   | (+) |  |
| 1  | Banggae      | 20                   | 0   | 0                    | 3   | 6                     | 0   | 9                     | 0   |  |
| 2  | East Banggae | 3                    | 0   | 0                    | 7   | 0                     | 2   | 3                     | 0   |  |
| 3  | Pamboang     | 0                    | 4   | 0                    | 12  | 0                     | 3   | 4                     | 0   |  |
| 4  | Sendana      | 0                    | 3   | 0                    | 9   | 0                     | 1   | 4                     | 0   |  |
| 5  | Tammerodo    | 0                    | 3   | 0                    | 5   | 1                     | 0   | 2                     | 0   |  |
| 6  | Tubu Sendana | 0                    | 2   | 0                    | 3   | 0                     | 0   | 2                     | 0   |  |
| 7  | Malunda      | 5                    | 0   | 0                    | 7   | 0                     | 1   | 3                     | 0   |  |
| 8  | Ulumanda     | 0                    | 0   | 0                    | 14  | 0                     | 3   | 2                     | 0   |  |

| Table | 5.0 | deficit | surplus | of ed | lucation | facilities | in l | Majene | Regence | y in 2024 |
|-------|-----|---------|---------|-------|----------|------------|------|--------|---------|-----------|
|       |     |         |         |       |          |            |      |        |         |           |

Source: Analysis Results, 2024

As an equalisation effort, there needs to be an adequate distribution of education facilities in Majene Regency. Education facilities such as kindergartens in districtthat require additional facilities are in Banggae, East Banggae, and Malunda district. The absence of shortages in primary school facilities shows that the distribution of primary school facilities is very good. Whereas junior high school education facilities, there are 2 district, namely Banggae District and Tammerodo District, which still require the addition of these facilities.

#### 4. CONCLUSSION

Based on the results of the analysis and discussion, it can be concluded as follows:

- a) Most district have education facilities such as kindergarten, primary school, junior high school, and senior high school. Only Banggae District and Tubu Sendana District and Ulumanda District do not have high school facilities.
- b) Disparities in education distribution occur in Majene Regency, Majene Urban Area is most dominant in lacking education facilities compared to other districts. This is not correlated with the status of the urban centre which in fact provides and has more facilities and services than other district.
- c) Efforts are needed to improve and develop educational facilities by adding educational facilities, especially high school education facilities, which have the highest demand.

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