

Analysis of Urban Facility Needs in Allu City, Bangkala District, Jeneponto Regency

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Abstract

The development of regions continues to increase over time, including in Allu City, which is marked by rapid population growth, leading to high demands for facilities. Facilities play a crucial role in economic development and community activities. Consequently, challenges arise in the unequal distribution of infrastructure services, particularly in Allu City. This study aims to determine the level of availability and needs of urban facilities in Allu City, the capital of Bangkala District, Jeneponto Regency. The research employs a descriptive qualitative method, measuring public perceptions and the needs for urban facilities in Allu City over the next 20 years. This study utilizes two analytical tools: a Likert scale to assess public perception and an analysis of facility needs and fulfillment based on SNI 03-1733-2004. The Likert scale analysis results indicate that public perception categorizes the service quality as highly appropriate. Based on population projections for the next 20 years, Allu City's population is expected to reach 9,195 people. For government and public service facilities, no additional facilities are required. In terms of healthcare facilities, three additional integrated healthcare posts (*posyandu*) and two community health centers (*balai pengobatan warga*) are needed. For religious facilities, 28 additional prayer rooms (*musholla*) are required. Trade and service facilities require an additional 17 shops or small stores. Cultural and recreational facilities need three additional community halls (*balai warga*). Open space facilities require an additional 37 parks or playgrounds to support Allu City's needs by 2043. In the education sector, 74 additional kindergarten (TK) units and four reading parks (*taman baca*) are necessary.

Keywords: Urban Facilities, Infrastructure Development, Public Services, Population Growth

1. Introduction

The development of Indonesia's regions is marked by an increasing population, similar to other developing countries that can experience rapid growth. The significant population growth has implications, including rising demands for the provision or improvement of facilities in terms of both quality and quantity (Dharmasanti & Ritohardoyo, 2016; Irfan, 2022). Infrastructure plays a crucial role as one of the driving forces behind development and economic growth (Adisasmita, 2006; Farawowan et al., 2020). Adequate infrastructure is essential and serves as a vital component of public service systems. Various physical facilities are critical to supporting governmental, economic, industrial, and social activities within communities and administrations (Hariyono & Indriani, 2010; Soemardi, 2009).

Jeneponto Regency is one of the regencies in South Sulawesi Province, situated at an elevation of 500–1,400 meters above sea level and established through regional expansion. Bangkala District is one of the urban areas included in the Spatial Plan (RTRW) of Jeneponto Regency for 2012–2032. The district covers a land area of 121.81 km² and consists of 14 villages/sub-districts, with Allu City as its primary urban center. This urban area has experienced rapid development, as indicated by its population of 60,670, according to Bangkala District in Figures (2023).



The population growth in Bangkala District is naturally accompanied by an increasing need for facilities that support residents' daily activities. In the process of adding and positioning these facilities, it is essential to comply with existing criteria and regulations to ensure equitable service distribution across Bangkala District. Therefore, it is necessary to enhance the facilities that characterize Allu City in its role as a service center.

Allu City is one of the urban centers in Jeneponto Regency, located in Bangkala District, with a population of 7,502 residents across two sub-districts: Pallengu and Benteng. It plays a crucial role in providing essential services and facilities for local residents. As a hub of activity, Allu City accommodates facilities in various sectors, including government, education, health, religious services, commerce, and green spaces. Government facilities consist of the district office, village offices, and the Agricultural Extension Office (BPP). Educational facilities include schools at various levels, complemented by library and laboratory facilities. Health facilities comprise community health centers (puskesmas), clinics, integrated health posts (posyandu), and pharmacies, with sufficient medical personnel available. Religious facilities include several mosques and prayer rooms (musholla), catering to the predominantly Muslim population. Commercial facilities encompass minimarkets, grocery stores, retail shops, kiosks, restaurants, and small eateries. Green space facilities in Allu City include sports facilities such as soccer fields, which are adequately maintained.

Essentially, a district capital serves two primary functions: as a service center for the entire district population and as a local service hub for the urban population (Noveri, 2021). Urban facilities play a critical role in supporting districts classified as urban areas, as they provide essential support for district-level administration and development. Based on this description, facilities are an integral part of both the region and its communities. Therefore, it is crucial to assess the availability of urban facilities in Allu City to reinforce its function as the capital of Bangkala District. This study focuses on analyzing the "Urban Facility Needs of Allu City as the Capital of Bangkala District, Jeneponto Regency."

2. Methods

2.1. Time and Place of Research

The research was conducted in mid-December to January in Allu Urban Village, Bangkala District, Jeneponto Regency with the aim of assessing the facility needs of Allu Urban Village which consists of 2 urban villages, namely Benteng Village and Pallengu Village.

2.2. Types and Sources of Data

The data obtained in this study according to the types of qualitative data and quantitative data are as follows:

- a. Qualitative data is data that is not in the form of numbers or describes descriptively about the general research location, the type of data in question is data on the physical condition of facilities, geographical location and basic physical aspects (Haryono, 2012).
- b. Quantitative data is data that explains the condition of the research location using tabulated numbers that can be calculated to determine the desired weight. Quantitative data referred to in this study are demographic data and data on the availability of facilities, the number of facilities, the area of facilities and the condition of facilities at the research location (Umar, 1996).

The data sources used in this study are divided into 2, namely:

- a. Primary data by conducting surveys which include field observation techniques to the research location directly and documenting the facilities available at the research location. This data includes: the condition of government facilities and public services, education facilities, health

facilities, worship facilities, trade facilities, as well as green open spaces, parks and sports fields and interviews regarding community satisfaction related to existing facility services.

- b. Secondary data, in this research secondary data is obtained from literature related to this research and from government agencies such as the Central Bureau of Statistics. While secondary data in the form of RTRW, BPS and Musrenbang data obtained from relevant agencies are used to identify the needs of Allu Urban facilities such as the number and structure of population, number of facilities, direction of regional development and land use area.

2.3. Data Collection Methods

To obtain the data needed for this study, the following methods were used:

- a. Field survey: In this study a field survey was conducted to find out directly about the condition, area and number of facilities in Allu Urban.
- b. Literature review: In this study, the literature review used to determine the urban area concerns the 2012-2031 Jeneponto Regency RTRW document and population data listed in the 2023 Bangkala District BPS.
- c. Questionnaires: In this study conducted to listen and write responses or important information about the survey area such as public satisfaction regarding facilities in Allu Urban.

2.4. Population and Sample

- a. Population is a limited number of individuals based on this understanding, then what will be the population in this study is the urban community of Allu, Bangkala District, Jeneponto Regency.
- b. The sample is part of the number of characteristics possessed by the population. The sample measurement observed in carrying out research on a research object The sampling amount is determined using the Slovin formula (Husein Umar, 2019), which is as follows:

$$n = \frac{N}{1 + Ne^2}$$

Where:

n = Number of samples

N = Total population

e = Percentage allowance for sampling error accuracy (0.01) or 10%.

Based on data obtained from the Central Bureau of Statistics (2023), it was recorded that the population of Allu Urban in 2022 was 7,502 people. So that the number of residents sampled is as follows:

$$n = \frac{7.502}{1 + 7.502(10\%)^2}$$

$$n = \frac{7.502}{1 + 7.502(0,1)^2}$$

$$n = \frac{7.502}{1 + 7.502 (0.01)}$$

$$n = \frac{7.502}{1 + 7.502 (0,01)}$$

$$n = \frac{7.502}{1 + 75,02}$$

$$n = \frac{7.502}{76,02}$$

n = 98,68 (The sample was rounded to 99)

In this study there were 99 samples (respondents) divided evenly in 7 each facility in Allu Urban Village, Bangkala District, Jeneponto Regency with sample calculation calculations as below.

$$\frac{1 \times 99}{7} = 14,14$$

So from the description above, it is known that the sample distribution of each facility is 14.14 so that it is rounded up to 14 samples (respondents) per facility with consideration of location and existing conditions.

2.5. Analysis Method

The analysis method used is based on the formulation of the problems previously described, including:

a. Identifying the Availability of Facilities

This method involves the use of descriptive statistics, percentages, and the decomposition of information in the form of words or sentences. This type of analysis is used to explain the availability of certain facilities in Allu Urban Area so as to identify the types of facilities that exist in the area.

To determine the distribution of Allu Urban facilities using spatial analysis to determine the radius of distribution of service facilities that refer to the results of the analysis of the projected needs of Allu Urban facilities. The results of the analysis are in the form of buffering the needs of Allu Urban facilities.

Furthermore, to determine the level of availability of Allu Urban Area in order to support its function as a service center in Allu Urban Area. The level of assessment is assessed based on the standardization of SNI 03-1733-2004 by giving weight to each facility based on its level of availability so as to obtain the function of Allu Urban as a service center for the region and its hinterland areas can be optimal through the completeness of urban facilities. Assessment for urban facilities is carried out with 5 assessment categories. The assessment categories are Strongly Inappropriate (1), Inappropriate (2), Fairly Appropriate (3), Appropriate (4), Strongly Appropriate (5)

This assessment is carried out to determine the availability of urban facilities based on the community's perspective which is carried out by looking at each facility using scoring with the weight value of each facility.

b. Allu Urban Facilities Needs Analysis for the Next 20 Years

In order to get the results of the need for Allu Urban Facilities for the next 20 years the author uses the Indonesian National Standard (SNI) 03-1733 of 2004 concerning Procedures for Planning Residential Environments using the following calculations.

$$S(n) = \frac{P}{S_m}$$

Where:

S(n) = Type of facility based on standard

Pn = Projected population (2022)

S_m = Minimum Standard

The result of the calculation is reduced by the existing number of facilities.

3. Results and Discussion

3.1. Overview of the Research Location

Allu Urban Village consists of 2 villages, namely Benteng Village and Pallengu Village which are coastal areas with a total population of 7,502 people spread across Allu Urban Village with administrative boundaries including:

- a) North: Kapita Subdistrict
- b) East: Bontorannu Subdistrict
- c) West: Bangkala Barat District
- d) South: Pantai Bahari Subdistrict

3.2. Availability of Urban Facilities in Allu

3.2.1. Government and Public Service Facilities

In supporting public service activities for the people of an area, the availability of office or government facilities and public services is needed. The government facilities and public services of Allu Urban can be seen in the following table.

Table 1. Government and Public Service Facilities in Allu Urban Area

No.	Government and Public Service Facilities	Location	Land Area (m ²)	Building Area	Building Condition
1.	District Office	Mallombasang Street	276	219	Good
2.	Pallengu Urban Village Office	Pelabuhan Street	82	52	Good
3.	Benteng Urban Village Office	Mallombasang Street	103	25	Good
4.	Police Station	Jaelani Street	976	725	Good
5.	Military Command (Koramil)	Mallombasang Street	828	284	Good
6.	Religious Affairs Office	Reformasi Street	91	63	Good
7.	State Electricity Company (PLN) Office	Jaelani Street	53	12	Good

Source: Survey Results and Analysis, 2024

3.2.2. Education Facilities

Educational facilities play a very important role in the development of individuals and society at all levels. The Allu Urban Education Facilities can be seen in the following table.

Table 2. Allu Urban Education Facilities

No.	Village/ District	Type of Education Facilities			
		Kindergarten (TK)	Elementary School (SD/MIS)	Junior High School (MTS/SMP)	Senior High School/Vocational School (SMA/SMK/MA)
1.	Benteng		2	1	1
2.	Pallengu	3	4	-	-

Source: Survey Results and Analysis, 2024

3.2.3. Health Facilities

Health facilities play an important role in improving the health of urban communities (Fanly A. Rotinsulu et al., 2017). The health service distribution system is determined by the number of health facilities available in detail data on the number and type of worship facilities are described in the following table.

Table 3. Health Facilities in Allu Urban Area

No.	Village/ District	Type of Health Facilities				
		Auxiliary Community Health Center (<i>Puskesmas Pembantu</i>)	Community Health Center (<i>Puskesmas</i>)	Integrated Health Post (<i>Posyandu</i>)	Pharmacy (<i>Apotek</i>)	Doctor's Practice (<i>Praktek Dokter</i>)
1.	Benteng		1	4	2	2
2.	Pallengu	1	-	6	3	

Source: Survey Results and Analysis, 2024

3.2.4. Worship Facilities

Allu Urban Worship Facilities are dominantly filled with worship for Islam because the majority of the population is Muslim. For more details can be seen in the following table 4.

Table 4. Worship Facilities in Allu Urban Area

No.	Village/ District	Type of Worship Facilities			
		District Mosque	Urban Village Mosque	Musholla	Community Mosque
1.	Benteng	-	1	2	3
2.	Pallengu	1	1	7	4

Source: Survey Results and Analysis, 2024

3.2.5. Trade and Service Facilities

The role of trade facilities is directly connected to the needs of the community, and their presence greatly supports the development of the city. Based on the evaluation and data obtained, it can be concluded that Allu Urban has various trade facilities, such as markets, shop stalls, and minimarkets. Details can be found in the following table 5.

Table 5. Trade and Service Facilities in Allu Urban Area

No.	Village/ District	Type of Trade and Service Facilities		
		Shop/ Stall	Market	Minimarket
1.	Benteng	20	-	4
2.	Pallengu	35	1	-

Source: Survey Results and Analysis, 2024

3.2.6. Culture and Recreation Facilities

The role of trade facilities is directly connected to the needs of the community, and their presence greatly supports the development of the city. Based on the evaluation and data obtained, it can be concluded that Allu Urban has various trading facilities, such as markets, shop stalls, and minimarkets. Details can be found in the following table 6.

Table 6. Distribution of Culture and Recreation Facilities in Allu Urban Area

No.	Facilities	Location	Existence		Building Condition
			Land Area (m ²)	Building Area (m ²)	
1.	Community Hall/Meeting Hall	7502	1	3	450.1

Source: BPS Bangkala District, 2023

3.2.7. Green Open Space Facilities

Open space facilities, parks and sports fields play a very important role in urban areas and have a positive impact on people's lives. For more details can be seen in the table Distribution of Green Open Space Facilities can be seen as follows.

Table 7. Distribution of Open Space Facilities, Parks and Sports Fields

No.	Open Space	Location	Existing Land Area	Condition	Land Area Based on SNI	Additions
1	Allu Field	Mangape Street	32	Good	9.000	8.968
2	Pahlawan Public Cemetery	Mallombasang Street	32	Good	-	-
3	Polis Public Cemetery	Hamzah Street	28	Good	-	-

Source: BPS Bangkala District, 2023

3.3. Availability of Facilities in Supporting Their Functions Based on Community Perspectives

Based on the results of the study, conclusions can be drawn regarding the availability of Allu Urban facilities in 2023. for more details can be seen as follows:

Table 8. Allu Urban Facilities Availability Level

No.	Service Sector	Population	Existing Facilities	Supporting Population	Needs Based on SNI	Result
1	Government and Public Service Facilities					
	District Office	7.502	1	120.000	0	Fulfilled
	Police Post		2	120.000	0	Fulfilled
	Fire Station		0	120.000	0	Fulfilled
	Auxiliary Post Office		1	12.000	1	Not Fulfilled
	Automatic Telephone Station and Telephone Service Agent		0	12.000	1	Not Fulfilled
	KUA/BP4 Marriage Hall		1	120.000	0	Fulfilled
	Public Telephone, Mailbox, Large Trash Bin		1	120.000	0	Fulfilled
Public Parking	0		120.000	0	Fulfilled	
2	Educational Facilities					
	Kindergarten	7.502	4	1.250	6	Not Fulfilled
	Elementary School		4	1.600	5	Not Fulfilled
	Junior High School		1	4.800	2	Not Fulfilled
	Senior High School		1	4.800	2	Not Fulfilled
Reading Park			2.500	3	Not Fulfilled	
3	Health Facilities					
	Integrated Health Post (Posyandu)	7.502	4	1.250	6	Not Fulfilled
	Community Health Treatment Center		0	2.500	3	Not Fulfilled
	Maternity Clinic		1	30.000	0	Fulfilled
	Auxiliary Community Health Center		1	30.000	0	Fulfilled
	Community Health Center (Puskesmas)		1	120.000	0	Fulfilled
	Doctor's Practice		2	5.000	2	Fulfilled
Pharmacy	5		30.000	0	Fulfilled	
4	Worship Facilities					
	District Mosque	7.502	1	120.000	0	Fulfilled
	Urban Village Mosque		2	30.000	0	Fulfilled
	Musholla (Prayer Room)		9	250	30	Not Fulfilled
Community Mosque	7		2.500	3	Not Fulfilled	
5	Trade and Service Facilities					
	Shops/Stalls	7.502	20	250	30	Fulfilled
Shopping Complex	55		6.000	1	Fulfilled	

	Small Community Market		4	30.000	0	Not Fulfilled
	Commercial Center (Shops, Market, Bank, Offices, Industry)		2	120.000	0	Not Fulfilled
6	Cultural and Recreational Facilities					
	Community Hall/Meeting Hall	7.502	1	2.500	3	Not Fulfilled
	Multipurpose Hall/Karang Taruna Hall		0	30.000	0	Fulfilled
	Multipurpose Building		0	120.000	0	Fulfilled
	Shopping and Trade Center		7	120.000	0	Fulfilled
7	Green Open Space, Parks, and Sports Fields					
	Park/Playground	7.502	0	250	30	Not Fulfilled
	Park/Playground		0	2.500	3	Not Fulfilled
	Park and Sports Field		1	30.000	0	Fulfilled
	Park and Sports Field		0	120.000	0	Fulfilled
	Green Belt		0	-	-	Fulfilled
	Public Cemetery		2	120.000	0	Fulfilled

Source: Author's Analysis, 2024

Based on the table 8 above, it can be concluded that the availability of Allu Urban facilities is dominantly fulfilled for several fields, such as government facilities and public services, health facilities, and worship facilities. However, there are some unmet needs, such as educational facilities, cultural and recreational facilities, and trade and service facilities. Open space facilities, parks, and sports fields also require additional facilities.

3.4. Identifying Allu Urban Facilities Needs

3.4.1. Population Projection Analysis for the Next 20 Years

The projected population of Allu Urban can be seen in the following table 9.

Table 9. Population projection 2023-2024

No.	District/ Village	Existing Population		Ratio (%)	Population Projection (People)				
		2021	2022		2023	2028	2033	2038	2043
1	Pallengu	3.739	4.308	0.0287	4.369	4.690	5.034	5.404	5.801
2	Benteng	3.182	3.194	0.0029	3.203	3.250	3.298	3.346	3.395
Total		6.921	7.502	0.0316	7.635	7.940	8.332	8.750	9.195

Source: Analysis Results, 2024

Based on the results of population projections obtained, the estimated population in Allu Urban Area until 2043 reached 9,195 people. Although the estimated population in the projection is not an absolute number, it is an estimate that is used to predict the need for the provision of urban facilities based on the size of the city service scale. The results of this population projection will be analyzed for the needs of government facilities, trade facilities, cultural and recreational facilities, health facilities, worship facilities and green open space facilities. As for education facilities using population projections based on age which can be seen in the following table 10.

Table 10. Population projection for education sub-sector 2023-2024

No.	Education	Age	Population		Ratio (%)	Population Projection (People)				
			2021	2022		2023	2028	2033	2038	2043
1	Kindergarten	4-6	317	346	0.09148	378	585	906	1.404	2.175
2	Elementary School	7-12	424	549	0.29481	711	2.587	9.416	34.267	124.712
3	Junior Highschool	13-15	717	728	0.01534	739	798	861	929	1.002
4	Senior Highschool	16-18	728	804	0.10440	888	1.459	2.397	3.938	6.470

Source: Analysis Results, 2024

Based on the results of population projections obtained, the estimated population in Allu Urban until 2043 for kindergarten reached 2,175 people, elementary school 124,712 people, junior high school 1,002 people and high school 6,470 people.

3.4.2. Urban Facilities Needs and Their Fulfillment in the Next 20 Years

a) Government and Public Service Facilities

Government facilities and public services are related aspects in the context of governance and community services. Government facilities play an important role in a region or city because it is a place that organizes services to the community. More details can be seen in the following table:

Table 11. Projected Needs for Government Facilities and Public Services in Allu Urban Area 2043

Government Facilities and Public Services	Population	Number of Government Facilities	Supporting Population	Needs Based on SNI	Additional Needs
District Office		1	120.000	0	0
Police Post		2	120.000	0	0
Auxiliary Post Office		1	12.000	1	0
Automatic Telephone Station and Service Disruption Agency	9.195	0	12.000	0	0
KUA/BP4 Marriage Hall		1	120.000	0	0
Public Telephone, Mailbox, Large Trash Bin		1	120.000	0	0
Public Parking		0	120.000	0	0

Source: Analysis Results, 2024

Based on the projection results obtained, it shows that office facilities in Allu Urban Area do not need additional government facilities and public services. The comparison of land area and building area should be for the year 2043 can be seen as follows.

Table 12. Land Area Requirement and Building Area of Government Facilities in 2022

Government Facilities	2022				Requirement per unit of facility		
	Population	Existing Facilities	Required Facilities	Land Area (m ²)	Building Area (m ²)	Minimum Floor Area (m ²)	Minimum Land Area (m ²)
District Office		1	1	1.000	2.500	1.000	2.500
Police Post		2	2	1.000	2.000	500	1.000
Fire Station		0	0	31.258	62.516	500	1.000
Auxiliary Post Office	7.502	1	1	156.291	312.583	250	500
Automatic Telephone Station and Service Disruption Agency		0	1	312.583	625.166	500	1.000
Marriage Hall KUA/BP4		1	1	250	750	250	750

Government Facilities	2022				Requirement per unit of facility		
	Population	Existing Facilities	Required Facilities	Land Area (m ²)	Building Area (m ²)	Minimum Floor Area (m ²)	Minimum Land Area (m ²)
Public Telephone, Mailbox, Large Trash Bin		1	1	-	80	-	80
Public Parking		0	0	-	125.033	-	2000

Source: Analysis Results, 2024

Table 13. Land Area Requirement and Building Area of Government Facilities in 2043

Government Facilities	2043				
	Population	Existing Facilities	Required Facilities	Land Area (m ²)	Building Area (m ²)
District Office		1	1	1.000	2500
Police Post		2	2	1.000	2000
Fire Station		0	0	37.087	74.175
Auxiliary Post Office		1	0	0	0
Automatic Telephone Station and Service Disruption Agency	9195	1	1	370.875	741.75
Marriage Hall KUA/BP4		1	1	250	750
Public Telephone, Mailbox, Large Trash Bin		1	1	-	80
Public Parking		0	0	-	148.35

Source: Analysis Results, 2024

Based on the projection results obtained, it shows that office facilities in Allu Urban, need to be added in every aspect that requires additional facilities.

b) Educational Facilities

Educational facilities have a very important role in the development and progress of cities so that the results of projected urban needs are very important to study. For more details, the results of the projection of educational facilities needs for Allu Urban Area can be seen in the following table.

Table 14. Projected demand for education facilities in Allu Urban Area 2043

Educational Facilities	Population	Existing Facilities	Supporting Population	Needs Based on SNI	Additional Needs
Kindergarten (TK)	2.175	4	1.250	2	0
Elementary School (SD)	124.712	4	1.600	78	74
Junior High School (SMP)	1.002	1	4.800	0	0
Senior High School (SMA)	6.470	1	4.800	1	0
Public Reading Park (Taman Bacaan)	9.195	0	2.500	4	4

Source: Analysis Results, 2024

Based on the results of the projection of educational facilities needs in Allu Urban, additions are needed in every aspect of educational facilities such as 74 elementary schools and reading parks because Allu Urban does not yet have a reading park so that the next 20 years require 4 reading park units. The comparison of land area and building area should be for the year 2043 can be seen as follows.

Table 15. Land Area and Building Area Requirements for Educational Facilities in 2022

Education Facilities	2022				Need for unity Facilities		
	Population	Existing Facilities	Required Facilities	Land Area (m ²)	Building Area (m ²)	Minimum Floor Area (m ²)	Minimum Land Area (m ²)
Kindergarten (TK)	346	4	6	1.296	3.001	216	500
Elementary School (SD)	549	3	5	2.968	9.378	633	2.000
Junior High School (SMP)	728	1	2	3.567	14.066	2.282	9.000
Senior High School (SMA)	804	1	2	5.994	19.536	3.835	12.500
Public Reading Park (Taman Bacaan)	7502	0	3	216	450	72	150

Source: Analysis Results, 2024

Table 16. Land Area and Building Area Requirements for Educational Facilities in 2043

Education Facilities	Tahun 2043				
	Population	Existing Facilities	Required Facilities	Land Area (m ²)	Building Area (m ²)
Kindergarten (TK)	2.175	6	6	1.296	3.000
Elementary School (SD)	124.712	5	74	46.807	147.890
Junior High School (SMP)	1.002	2	2	4.564	18.000
Senior High School (SMA)	6.470	2	2	7.670	25.000
Public Reading Park (Taman Bacaan)	9.195	3	4	265	552

Source: Analysis Results, 2024

Based on the results of the projected needs for educational facilities in Allu Urban, it is necessary to increase the land area and building area of almost every educational facility.

c) Health Facilities

The distribution of health services to the population is determined by the availability of health facilities, both in terms of quality and quantity. The following are the results of the projection of health facility needs in Allu Urban.

Table 17. Projected Health Facility Needs in Allu Urban Area 2043

Health Facilities	Population	Number of Health Facilities	Number of Supporting Population	Needs Based on SNI	Additional Needs
Integrated Health Post (Posyandu)	9.195	4	1.250	7	3
Community Health Treatment Center		2	2.500	4	2
Maternity Clinic Auxiliary		1	30.000	0	0
Community Health Center		1	30.000	0	0
Community Health Center (Puskesmas)		1	120.000	0	0
Doctor's Practice		2	5.000	2	0
Pharmacy		5	30.000	0	0

Source: Analysis Results, 2024

Based on the results of the analysis, 3 Integrated Health Post (Posyandu) and 2 community treatment centers are needed for the next 20 years, while for other aspects of health facilities no further

additions are needed because it is believed that they can meet the needs of the population until 2043. The comparison of land area and building area should be for the year 2043 can be seen as follows.

Table 18. Land Area Requirement and Building Area for Health Facilities in 2022

Health Facilities	2022				Need for Unity Facilities		
	Population	Existing Facilities	Required Facilities	Land Area (m ²)	Building Area (m ²)	Minimum Floor Area (m ²)	Minimum Land Area (m ²)
Integrated Health Post (Posyandu) Community Health Treatment Center	7502	4	6	216.06	360.096	36	60
Maternity Clinic		2	3	450.12	900.24	150	300
Auxiliary Community Health Center		1	0	3751.00	750.2	15000	3000
Community Health Center (Puskesmas)		1	0	37.51	75.02	150	300
Doctor's Practice		1	0	26.26	62.517	420	1000
Pharmacy		2	2	27.01	-	18	-
		5	0	30.01	62.517	120	250

Source: Analysis Results, 2024

Table 19. Land Area Requirement and Building Area for Health Facilities in 2043

Health Facilities	2043				
	Population	Existing Facilities	Required Facilities	Land Area (m ²)	Building Area (m ²)
Integrated Health Post (Posyandu) Community Health Treatment Center	9195	6	7	264.81	441.36
Maternity Clinic		3	4	551.7	1103.4
Auxiliary Community Health Center		0	0	4597.5	919.5
Community Health Center (Puskesmas)		0	0	45.975	91.95
Doctor's Practice		0	0	32.18	76.625
Pharmacy		2	2	33.102	-
		0	0	36.78	76.625

Source: Analysis Results, 2024

d) Worship Facilities

Places of worship have a very important role in the urban context in providing spiritual, social, and cultural dimensions for city residents and helping to create a balanced and meaningful environment, promoting positive values, and providing space for individual and community growth and development.

Table 20. Projected Demand for Facilities of Worship in Allu Urban Area in 2043

Worship Facilities	Population	Number of Health Facilities	Number of Supporting Population	Needs Based on SNI	Additional Needs
District Mosque	9.195	1	120.000	0	0
Urban Village Mosque		2	30.000	0	0
Musholla (Prayer Room)		9	250	37	28
Community Mosque		7	2.500	4	0

Source: Analysis Results, 2024

Based on the results of the analysis, it can be seen that Allu Urban worship facilities require the addition of 28 musholla units. and for sub-district mosques, village mosques and community mosques are considered fulfilling and do not need additions for 2043. The comparison of land area and building area should be for the year 2043 can be seen as follows.

Table 21. Land Area Requirement and Building Area of Worship Facilities in 2022

Worship Facilities	2022					Need for Unity Facilities	
	Population	Existing Facilities	Required Facilities	Land Area (m ²)	Building Area (m ²)	Minimum Floor Area (m ²)	Minimum Land Area (m ²)
District Mosque		1	1	45	100	45	100
Urban Village Mosque							
Musholla (Prayer Room)	7.502	2	2	600	1.200	300	600
Community Mosque		9	30	54.014	108.02	1.800	3.600
		7	3	10.803	16.204	3.600	5.400

Source: Analysis Results, 2024

Table 22. Land Area Requirement and Building Area of Worship Facilities in 2043

Worship Facilities	2043				
	Population	Existing Facilities	Required Facilities	Land Area (m ²)	Building Area (m ²)
District Mosque		0	0	3.45	7.66
Urban Village Mosque		0	0	91.95	183.90
Musholla (Prayer Room)	9.195	30	37	66,204	132.40
Community Mosque		3	4	13,240	198.61

Source: Analysis Results, 2024

e) Trade and Service Facilities

Table 23. Projected Needs for Trade and Service Facilities in Allu Urban Area 2043

Trade and service facilities	Population	Number of Health Facilities	Number of Supporting Population	Needs Based on SNI	Additional Needs
Shops/Stalls		20	250	37	17
Shopping Complex		55	6.000	2	0
Small Community Market	9.195	4	30.000	0	0
Commercial Center (Shops, Market, Bank, Offices, Industry)		1	120.000	0	0

Source: Analysis Results, 2024

Based on the results of the analysis, it is known that Allu Urban 20 years in the future requires the addition of shops / stalls, shopping centers and markets do not need to be added because they are considered to be able to meet the needs of the community in 2043. The comparison of land area and building area should be for the year 2043 can be seen as follows.

Table 24. Land Area Requirements and Building Area for Trade Facilities in 2022

Trade and service facilities	2022					Need for Unity Facilities	
	Population	Existing Facilities	Required Facilities	Land Area (m ²)	Building Area (m ²)	Minimum Floor Area (m ²)	Minimum Land Area (m ²)
Shops/Stalls	7502	20	30	1500.4	3000.8	50	100
Shopping Complex	7502	55	1	1500.4	3751	1200	3000
Small Community Market	7502	4	0	3375.9	2501	13500	10000
Commercial Center (Shops, Market, Bank, Offices, Industry)	7502	1	0	2250.6	2250.6	36000	36000

Source: Analysis Results, 2024

Table 25. Land Area Requirements and Building Area for Trade Facilities in 2043

Trade and service facilities	2043				
	Population	Existing Facilities	Required Facilities	Land Area (m ²)	Building Area (m ²)
Shops/Stalls	9.195	30	37	1839	3.678
Shopping Complex	9.195	1	2	1839	4.597.5
Small Community Market	9.195	0	0	4137.75	3.065
Commercial Center (Shops, Market, Bank, Offices, Industry)	9.195	0	0	2758.5	2.758.5

Source: Analysis Results, 2024

f) Cultural and Recreational Facilities

Cultural and recreational facilities involve facilities and activities that support cultural development and provide entertainment and enjoyment to the community. The projected cultural and recreational facilities for Allu Urban are as follows.

Table 26. Projected Needs for Cultural and Recreational Facilities in Allu Urban Area 2043

Cultural and recreational facilities	Population	Number of Health Facilities	Number of Supporting Population	Needs Based on SNI	Additional Needs
Community Hall/Meeting Hall		1	2.500	4	3
Multipurpose Hall/Karang Taruna Hall	9.195	0	30.000	0	0
Multipurpose Building		0	120.000	0	0

Source: Analysis Results, 2024

The need for cultural and recreational facilities in Allu Urban in 2043 requires the addition of a community hall or community meeting of 3 units, while for other aspects of cultural facilities no addition is needed because the supporting population is only 9,195 people. The comparison of land area and building area should be for the year 2043 can be seen as follows.

Table 27. Land Area Requirement and Building Area of Worship Facilities in 2022

Cultural and recreational facilities	2022					Need for Unity Facilities	
	Population	Existing Facilities	Required Facilities	Land Area (m ²)	Building Area (m ²)	Minimum Floor Area (m ²)	Minimum Land Area (m ²)
Community Hall/Meeting Hall		1	3	450.1	900.24	150	300
Multipurpose Hall/Karang Taruna Hall	7502	0	0	62.5	125.03	250	500
Multipurpose Building		0	0	93.8	187.55	1500	3000
Shopping and Trade Center		0	0	62.5	125.033	1000	2000

Source: Analysis Results, 2024

Table 28. Land Area Requirement and Building Area of Worship Facilities in 2043

Cultural and recreational facilities	2043				
	Population	Existing Facilities	Required Facilities	Land Area (m ²)	Building Area (m ²)
Community Hall/Meeting Hall		3	4	551.7	1103.4
Multipurpose Hall/Karang Taruna Hall		0	0	76.625	153.25
Multipurpose Building	9.195	0	0	114.937	229.875
Shopping and Trade Center		0	0	76.625	153.25

Source: Analysis Results, 2024

g) Green Open Space, Parks, and Sports Fields

Open space facilities, parks and sports fields are important elements in urban development and community development. The projected cultural and recreational facilities in Allu Urban are as follows.

Table 29. Projected need for open space facilities, parks and fields in Allu Urban Area 2043

Open Space Facilities	Population	Number of Health Facilities	Number of Supporting Population	Needs Based on SNI	Additional Needs
Park/Playground		0	250	37	37
Park/Playground		0	2.500	4	4
Park/Playground		1	30.000	0	0
Park and Sports Field	9.195	0	120.000	0	0
Green Belt			-		
Public Cemetery			120.000	0	0

Source: Analysis Results, 2024

Based on the results of the analysis, it is known that additional parks/playgrounds are needed for both the supporting population of 250 people and 2,500 people and for other aspects are not needed for the next 20 years. The comparison of land area and building area should be for the year 2043 can be seen as follows.

Table 30. Land Area Requirement and Building Area of Worship Facilities in 2022

Open Space Facilities	2022				Requirement of Unity Facilities Based on SNI
	Population	Existing Facilities	Required Facilities	Land Area (m ²)	
Park/Playground			30	7.502	250
Park/Playground			3	37.510	12.500
Park and Sports Field	7.502	1	1	9.000	9.000
Park and Sports Field			0	1.500.4	24.000
Green Belt			-	-	-
Public Cemetery		2	2	-	-

Source: Analysis Results, 2024

Table 31. Land Area Requirement and Building Area of Worship Facilities in 2043

Open Space Facilities	2043			
	Population	Existing Facilities	Required Facilities	Land Area (m ²)
Park/Playground		30	37	9,195
Park/Playground		3	4	45,975
Park and Sports Field		0	0	27,58.5
Park and Sports Field	9.195	0	0	1,839
Green Belt		-	-	-
Public Cemetery			0	-

Source: Analysis Results, 2024

4. Conclusion

The urban area of Allu is one of the urban centers in Jeneponto Regency, where the availability of urban facilities is generally sufficient. In terms of government and public service facilities, the area has a district office, sub-district office, religious affairs office (KUA), and a PLN office. Educational facilities include three kindergartens, six elementary schools, one junior high school, and one senior high school. Healthcare facilities consist of one auxiliary public health center, one public health center, ten integrated health posts (Posyandu), five pharmacies, and two doctor's practices. Religious facilities include one district mosque, two sub-district mosques, nine prayer rooms (musholla), and seven community mosques. Commercial and service facilities comprise a market, two shopping centers, six supermarkets, and 55 shops or stalls. Additionally, the area has green open spaces, cultural facilities, and recreational facilities.

The urban facilities in Allu, based on community satisfaction levels, indicate a generally positive response. Regarding government and public service facilities, the majority of responses reflect a moderate level of satisfaction, with 37% rating them as adequate. Educational facilities received a satisfaction rating of 28%, indicating that they are considered sufficient by the community. Healthcare facilities were rated as satisfactory by 36% of respondents. Religious facilities were well-received, with most respondents feeling comfortable in mosques and prayer rooms, and 29% expressing an intention to visit again. Cultural and recreational facilities were considered inadequate, mainly due to the limited number of available spaces, although service quality was rated as satisfactory by 28% of respondents. As for green open spaces, the majority of the community found them comfortable, with a satisfaction rating of 29%.

In the next 20 years, the projected population of Allu is expected to reach 9,195 people. Regarding government and public service facilities, no additional infrastructure is deemed necessary. However, in the healthcare sector, three additional integrated health posts (Posyandu) and two community health centers are needed. Religious facilities require an additional 28 prayer rooms (musholla). In the commercial sector, 17 additional shops or stalls are needed. Cultural and recreational facilities should be improved by adding three community halls for gatherings. Green open spaces require the addition of 37 new parks or playgrounds to support the needs of Allu in 2043. In terms of education, an increase of 74 kindergartens and four reading parks is necessary.

Based on these findings, several recommendations are proposed. First, cultural and recreational facilities, particularly community halls, need to be expanded, as there is currently only one unit with inadequate space to accommodate the needs of Allu. Additionally, this study is limited to the availability and demand for urban facilities in Allu. Therefore, future research is recommended to examine the availability and demand for urban infrastructure as part of the effort to develop Allu as a service center for its surrounding hinterland.

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