

# Strategies for Creating Settlements for the Slum Fisherman of Tallo Village, Indonesia

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## Abstract

Tallo Village, Agampacayya area is one of the slum areas in Makassar City, South Sulawesi Province, Indonesia. The District Government categorizes the area as a slum area following regional regulations from 2015 to 2020. Over time, the area has increased because Tallo Village is located in a strategic economic area, the Center for Trade, Trade and Services Economy, Makassar City, South Sulawesi. Physical developments have taken place in this area without any planning process. This impacts the deviation of the use of space, resulting in the inadequate arrangement of buildings. However, the response from stakeholders such as the government, community and private sector has been slow. It will have a massive environmental degradation impact on the coastal area of Agampacayya, Tallo Village.

This study formulates a strategy for developing the slum settlements in Tallo Village, Kampung Nelayan. This descriptive research used two analytical methods: quantitatively to answer the first problem about how to analyze the slums in the tallo sub-district fishing village residential area and the second problems to qualitatively answer about strategy for handling slum areas in the fishing village settlements of Tallo sub-district.

The findings show that the settlement of Kampung Nelayan, Tallo Village is included in the village typology with a medium to high category of slums. The SWOT analysis shows that handling slum settlements in Kampung Nelayan Tallo Village can be done through strategic combinations of strengths and opportunities to overcome existing weaknesses and threats. This strategy shows that handling the treatment of Kampung Nelayan slums prioritizes strategies from a combination of strengths and opportunities for the development of slum settlements in Kampung Nelayan Tallo Village.

**Keywords:** Tallo Village, Kampung Nelayan, Slums, SWOT Analysis, Management

## Introduction

The environmental development of urban areas of Indonesia is generally determined by population growth, which has an impact on increasing the need for residential areas, infrastructure, facilities and utilities (Dzulqarnain, 2018). Urbanization is one of the triggers of the population explosion in urban areas, resulting in the accumulation of labor in big cities in Indonesia (Surtiani, 2016). It tends to cause settlement behavior that is difficult to control and leads to slums (Putri and

Ridlo, 2023). This is no different from the conditions that prevail in Makassar City, especially Tallo Village, Kampung Nela+ 45-yan.

Tallo Village is one of the areas in Makassar City, South Sulawesi, which is geographically located in the coastal area. It can thus be used as a place to live since it has its own attraction for the urban communities. The direction of urban development also tends to be in the coastal areas, both the development of population aspects (non-physical) and the built environment (settlements). If special attention is not given in controlling its development, it is feared that various problems will arise, such as deviations in urban space utilization that are not in accordance with its designation.

The negative impacts of uncontrolled deviation of space utilization in coastal areas include: destruction of coastal vegetation, the emergence of puddles, decreased water quality, reduced non-built-up land and changes in the structure of indigenous livelihoods and flooding. This is undeniable and occurs in coastal areas in Makassar City as can be found in Kampung Nelayan, Agampacayya area, Tallo Urban Village District.

Kampung Nelayan in Agampacayya area, Tallo Urban Village District is one of the many coastal residential areas that has grown and developed without a planning process. One of the factors for the increased development of the coastal residential environment its strategic location as a center of commerce, trade and services. This causes a high number of migrants from outside the Makassar City to live in Kampung Nelayan which will eventually have a certain impact. The occurrence of an excessive increase in population in urban areas can result in the expansion of settlements (Koestoe et al.,2001). Slum conditions are caused by socio-cultural characteristics, the level of urbanization, limitations accessibility, facilities and infrastructure, and weak government policies. In response to these conditions, the Makassar City Government has taken various steps in order to reduce the level of urban slum development. One of the efforts that has been made is the issuance of Governor Decree Number: 956/III/2020 concerning the Determination of the Location of Slum Housing and Slum Settlements under the Provincial Authority in South Sulawesi Province. The realization of this handling is through collaboration between the Makassar City Government and the Ministry of PUPR, Directorate of Cipta Karya by utilizing the Kota Tanpa Kumuh (KOTAKU) Program.

The realization of the KOTAKU program has been successfully implemented in 2018, but it has only covered part of the area of Kampung Nelayan, Tallo Village, precisely in the scope of the RT area (001/RW.005) The overall Kampung Nelayan, Tallo Village is still categorized as a slum area and still needs assistance. The condition of the neighborhood drainage network in Tallo Village has been partially integrated with the city drainage network. However, in RW 005 slum area, especially RT 001 which is a fishing village, the condition of the environmental drainage is very poor, including the land area occupied by the residents. Most of the Drainage conditions experience sedimentation and piles of garbage which result in drainage flow not functioning properly.

Based on the description above, a study is needed to analyze the slum management strategy in the Kampung Nelayan of Agampacayya Area, Tallo Urban Village District, Makassar City. In this context, this paper examines the slums in the Kampung Nelayan. Its aim is to enable it to become an independent village that is responsive to the problem of slums, and complies with applicable regulations.

Its objectives are:

1. To formulate a slum development strategy in Kampung Nelayan and
2. To produce a sustainable slum management strategy in Kampung Nelayan

## Theoretical Framework

Kuswartojo (2005) explains that slum settlements are dense settlements, have low construction quality and have minimal infrastructure and settlement services. Factors causing the emergence of slum settlements are high population growth rates, limited open space, low informal sector income, limited residential land, government firmness in dealing with slum settlements, and relatively low public awareness in maintaining the environment (Felasari, 2019).

Suparlan (1997), emphasizes that the causes of slums are divided into two, namely economic factors and environmental factors. Economic factors such as poverty and the economic crisis

encourage immigrants to move to cities in search for a better life. However, with limited knowledge, skills and capital as well as very tight competition among the fellow immigrants, they can only live and build houses in the city with minimal resources. Meanwhile, the environmental factor in question is disasters. Both natural disasters and other disasters such as wars or inter-tribal clashes also cause the rapid development of slum settlements.

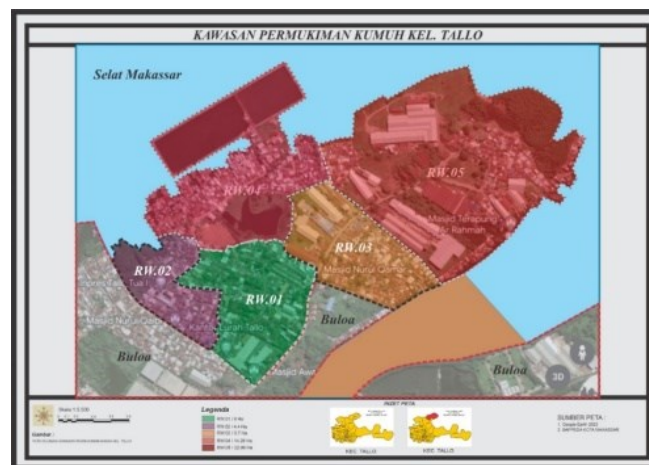
### Review of Literature

Many have examined this issue specifically related to Indonesia before. For example, Asa (2015) has found that participatory prospective analysis shows the five driving variables that most affect slums in Kelurahan Panggungrejo. They are variables of education level, population density level, building density level, income and poverty level, improving the quality of human resources, community economic empowerment, improving public infrastructure, and managing coastal boundary areas. Similarly, Damayanti (2018) has found that many slum areas are located in the sub-districts of Malang City such as Lowokwaru due to its dense population with a high population growth rate. From the condition of the informal elements in each sub-district, it can be concluded that the sub-districts in Malang city have slum areas. This is clearly seen in the condition of the settlements, road access and the condition of public infrastructure that is not feasible. In addition, land use is mostly used for housing, and only a small portion of the land is used according to its function.

Further research by Putra (2020) points out that the Kotaku Program by the Housing, Settlement and Land Agency of Bantaeng Regency has not been implemented properly, in accordance with the standard operating procedures. This is based on the provision of infrastructure such as sanitation, water supply consumption, and the structuring of environment with the aim of empowering the Letta's coastal community.

### Research Method

This study employs a quantitative descriptive approach to research design. In order to obtain accurate results that meet the expectations, it is necessary to obtain the appropriate types of data and data sources to be used in the research. The study was carried out in Makassar City, South Sulawesi Province's Agampacayya Kampung Nelayan, Tallo Urban Village District in February and March of 2023, for a period of two months.



**Fig. 1:** Research Location Map  
Source: Google Maps, 2023

## Research Respondents

Respondents were residents in the Agampacayya area in the coastal settlements of Kampung Nelayan which are categorized as slums in the Tallo Village, Makassar City. It houses 95 people. The number of the respondents were obtained from the calculation of the Taro Yamane as follows:

$$n = \frac{N}{N(d)^2 + 1}$$

Information :

n = Number of samples

N = Number of population

d = The standard error used is (0.1), with the expected error rate in research being 10, then:

$$n = \frac{1977}{1977(0,1)^2 + 1}$$

$$n = \frac{1977}{1977(0,01) + 1}$$

$$n = \frac{1977}{20,77}$$

$$n = 95 KK.$$

## Data Collection Technique

The data collection employed a combination approach: observations and interviews using questionnaires.

## Data Analysis

Data was descriptively and qualitatively analyzed using SWOT analysis, which produced a comprehensive sustainable coastal slum development strategy by assessing the strengths, weaknesses, opportunities, and threats. By contrasting opportunities and threats (external) with strengths and weaknesses (internal), SWOT analysis is a tool for strategic planning (Boone & Kurt, 2008). Examining internal and external factors and formulating suitable strategies based on elements of strengths, weaknesses, opportunities, and threats is known as a SWOT analysis.

Qualitatively, the SWOT analysis is determined after the current elements of strengths, weaknesses, opportunities, and threats are known and descriptively analyzed. Additionally, the factor analysis strategy and the analysis of the location assessment formula based on slum parameters, indicators, and criteria. Four strategic priorities are produced by strategic factor analysis (I: S-O strategy priority, II: W-O strategy, III: W-T strategy, and IV: S-T strategy).

## Findings and the Discussion

There are seven variables related to settlement infrastructure: building conditions, environmental roads, drainage, drinking water supply, environment, waste water management, waste management, and fire protection. It is evident from the variables that Kampung Nelayan's Village falls into the moderate-heavy slum category. Therefore, a strategy for managing the slums in the Kampung Nelayan of Agampacayya Area, Tallo Urban Village District, Makassar City, is required in order to handle Kampung Nelayan in a comprehensive and sustainable manner.

This study derived the internal and external factors for the SWOT analysis from the results of interviews conducted by selecting informants who are considered to know the most about slum management. The informants are the Chair of the Makassar City Bappeda Working Group for Plans for Prevention and Improvement of the Quality of Urban Slum Settlements (Pokja RP2KPKP), the Head of the Cipta Karya Division of the Makassar City Public Works and Spatial Planning Service, and a settlement expert.

Then, field observations were carried out collecting data by direct observation at the research location. This includes ascertaining the condition of the availability of environmental infrastructure at the research location, slum settlements, both in quality and quantity and literature studies.

**Table 1:** Internal and External Factors

Source: Author

Internal Factors	
Strengths (S)	Weaknesses (W)
<ol style="list-style-type: none"> <li>1. The nearby fishing sector</li> <li>2. In close proximity to the operational port area</li> <li>3. Near popular tourist destination</li> <li>4. Possess the ability to grow the tourism industry.</li> </ol>	<ol style="list-style-type: none"> <li>1. Drainage channels are not patterned.</li> <li>2. Some areas do not have drainage channels.</li> <li>3. Not yet served by waste facilities.</li> <li>4. People throw garbage directly into the sea.</li> <li>5. Does not yet have a restroom.</li> <li>6. Solid waste, or faeces, are dumped into the sea by people.</li> <li>7. Environmental pollution and the deterioration of coastal areas.</li> <li>8. Lacks fire safety infrastructure at this time.</li> <li>9. Illegal land is occupied by the dominant community.</li> <li>10. Lack of awareness about keeping the environment clean.</li> <li>11. A community that modifies its behaviour to protect coastal areas.</li> <li>12. Lack of community concern for upkeep of settlement infrastructure</li> </ol>
Internal Factors	
Opportunities (O)	Threats (T)
<ol style="list-style-type: none"> <li>1. Make environmentally sustainable urban development possible.</li> <li>2. The growth of urban settlements with an emphasis on sustainable management of coastal areas</li> <li>3. The construction of new communities and the integration of environmental management systems with urban infrastructure.</li> </ol>	<ol style="list-style-type: none"> <li>1. The weak control of spatial utilization resulting from the implementation of ineffective development policies has led to the development of slum areas along the coastal boundary.</li> <li>2. The dominant settlements in the fishing village of Tallo urban village occupy illegal land (squatter settlements). The management of the slum area in the Agampacayya area impacts on high social risks.</li> <li>3. Funding from district, provincial, and federal governments for the wastewater sub-sector indicates a lack of support for wastewater management.</li> <li>4. Lacks Waste management sub-sector institutionalization is still</li> <li>5. The Makassar City budget for Tallo urban village has a limited funding capacity: that there is a limited budget set aside for waste management, forcing the budgeting process to use a priority system.</li> <li>6. A drainage master plan is not in place for the Macro Tallo subdistrict.</li> <li>7. The drainage sub-sector's macrobudgetary constraints stem from the challenge of putting up initiatives for the creation and administration of environmental drainage.</li> </ol>

Identification, selection and evaluation resulted in strengths, weaknesses, opportunities and threats (Table 1). The evaluation formula for establishing the Area Handling Priority Scale for the Tallo Village slum area, Makassar urban slums, Agampacayya area is seen in the tables 2 and 3 below.

**Table 2:** The List of Slum Area Assessment

Source: Author

Variables	Parameters	Value
<b>Condition Identification of Physical Squalor</b>		
1. Building Condition Building	76% - 100% of the buildings on the site have no regulations.	5
	76% - 100% of buildings have a density that does not meet the requirements	5
	76% - 100% of buildings on site do not meet technical requirements	5
2. Road Condition Environment	76% - 100% area not served by neighborhood road network	5
3. Drinking Water Condition	76% - 100% area Has poor road surface quality	3

	51% - 75% of the population cannot access safe drinking water	5
4. Drainage Condition Environment	76% - 100% of the population does not have their minimum drinking waterneeds met	5
	76% - 100% Area no neighborhood drainage available	5
	76% - 100% of areas inundated > 30cm, > 2 hours and > 2 x a year	5
5. Water Management Condition Waste	76% - 100% of the area has poor quality environmental drainage construction	5
	76% - 100% of areas have wastewater infrastructure that does not meet technical requirements	5
6. Processing Conditions Garbage	51% - 75% of the area has a non-standard waste system	3
	76% - 100% of the area has waste infrastructure that is not maintained	5
7. Protection Condition Fire	76% - 100% of area has no fire protection infrastructure	5
	76% - 100% of the area does not have fire protection facilities	5
Value		86
<b>Identification of other Considerations</b>		
8. Other	Located in a unity of port functions and tourism areas	5
	Population density at the site is <151 people/Ha	1
	The location has the social, economic and cultural potential to be developed or maintained	5
Value		11
<b>Identification of Legality of Land</b>		
9. Land Legality	Some or all of the sites do not have clear land tenure status, either owned or co-owned by other parties.	(-)
	Not located in a zone designated for housing / settlement according to the RTR	(-)

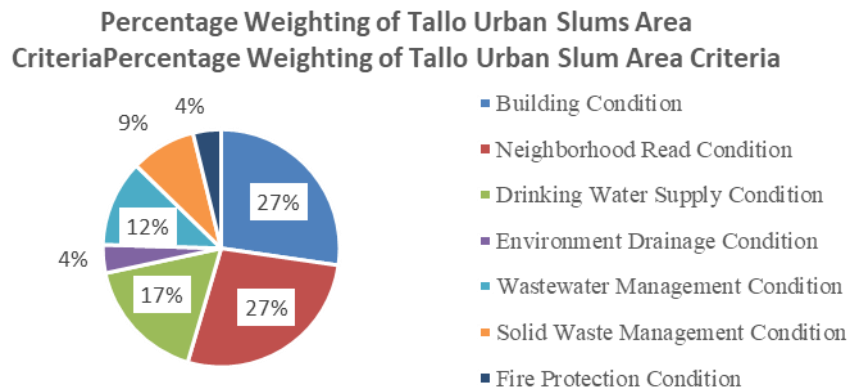
**Table 3:** Assessment Formula in Determining Priority Scale

Source: Minister of Public Works and Housing Regulation No. 14/2018

VALUE	DESCRIPTION	VARIOUS POSSIBLE CLASSIFICATIONS																	
		A1	A2	A3	A4	A5	A6	B1	B2	B3	B4	B5	B6	C1	C2	C3	C4	C5	C6
Rundown Level (Total Value A)																			
71-95	Heavy Slum	X	X	X	X	X	X												
45-70	Medium Slum							X	X	X	X	X	X						
19-44	Slum Light													X	X	X	X	X	X
Other Considerations (Total Value B)																			
7 - 9	Other considerations High	X	X					X	X					X	X				
4 - 6	Other considerations Medium			X	X					X	X					X	X		
1 - 3	Other considerations low					X	X					X	X					X	X
Land Legality (Total C Value)																			
(+)	Legal land status	X		X		X		X		X		X		X		X		X	
(-)	Land status No legal		X		X		X		X		X		X		X		X		X
PRIORITY SCALE HANDLING		1	1	4	4	7	7	2	2	5	5	8	8	3	3	6	6	9	9

From the tables 2 and 3, the analysis of the location assessment based on the standards, parameters, and slum area of Tallo village, are derived. The degree of slum, additional factors, and the land legality of the Agampacayya area specifically are as follows.

- Slums Level: Severe Slums  
(Total Score 86)
- Other Considerations: High  
(Total Score 11)
- Land Legality: Illegal



**Fig. 2:** Slum Level  
Source: Author, 2023

Based on the Figure 2, the physical characteristics of the slum housing and the slums can be formulated as follows: (a) It is an entity unit for housing and settlement. (b) The building is in irregular condition, has a high density, and does not meet the required standards. (c) Infrastructure and facilities are not in acceptable condition. The following are the facilities and infrastructure limitations specifically for the field of keciptakaryaan: Building regularity ranks first (27%) followed by roads and environments (27% and 4%), drainage environments (4%), clean/drink water supply (17%), management waste (9%), water management waste (12%), and fire safety (4%). In order to identify slum housing and slum settlement locations, these physical characteristics are then used as the foundation for the development of criteria and indicators of slum symptoms. The causes of slums from non-physical aspects, such as community behavior, certainty of residence, certainty of business, etc., must be complemented by the identification of non-physical characteristics in addition to physical ones.

The findings are consistent with earlier research by Usman (2021), entitled Slum Area Handling Strategy in Pancor Village Settlement, Selong District, which has yielded the findings that the Jorong neighborhood had a moderate level of slums with suggestions for managing the revitalization of the regional scale environment. The research location's slum area has been divided according to the number of neighborhoods. Another study by Asa (2015), entitled Handling slums in Kelurahan Panggungrejo, Pasuruan City, has also found that the five driving variables that most influence slums in Kelurahan Panggungrejo are variables of education level, population density level, building density level, income and poverty level, improving the quality of human resources, empowering the community's economy, improving public infrastructure, and managing coastal border areas. Another study by Damayanti (2018), entitled Identification of Slum Areas in Malang City, has also found that many slum areas are due to poor road access and public infrastructure conditions. In addition, land is mostly used for housing, and only a small portion of the land is used according to its function.

## Conclusions

This study concludes that:

- There are several approaches that can be used to manage Kampung Nelayan in the Tallo Urban Village District of Makassar City's Agampacayya neighborhood.
- The approach to managing the Kampung Nelayan slums prioritizes the strategies based on a combination of opportunities (O) and strengths (S). The S-O combination in the community involve socializing and awareness of the importance of sanitation and environmental hygiene, as well as utilizing the support of the government. It also engages city government support, coordinating with community organizations (NGOs) in training programs, skills and economic development programs, integrated settlement and infrastructure development and establishing cooperative relationships with investors to develop tourism.

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