

Sustainable Strategies for Post-Upgrading Slum Interventions: Insights from Banjarbaru Mentaos Area Case

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Abstract. Among the many slum settlement arrangements and planning initiatives undertaken by the Banjarbaru City Council, the Mentaos region in South Kalimantan ranks high. One of the city's top priorities is addressing the slum setup, which includes fixing up the infrastructure of slum settlements and working towards the realisation of the area's design in the hopes of changing people's attitudes and behaviours towards slum settlements and boosting the economy there. Based on the findings from the field observations, there has been an improvement in the public's access to urban services and infrastructure in slums, as well as in the management of existing slums and efforts to prevent the formation of new ones. The infrastructure that the community built is still operational and well-managed. This study employs a descriptive quantitative method complemented by qualitative analysis to produce effective and sustainable strategies for the management for Post-Upgrading slum settlements. The sample for this study consists of stakeholders who are experts in the field of slum settlement policy development. In the preliminary stage, a literature review is conducted to understand the theoretical foundations, basic knowledge, and insights related to slum settlements. Observations of the research object are also carried out during this stage.

Keywords: Post-Slum-Upgrading Policies; Slum Settlements; Sustainable Development; Urban Areas.

1 Introduction

Slum settlements with irregular building structures and low-quality housing remain a classic issue, particularly in urban areas of developing countries, including Indonesia. The allure of urban areas, unbalanced with the financial accessibility of the urban poor to formal housing, is one of the main causes of slum emergence. These areas not only affect spatial planning and contribute to environmental degradation but also illustrate conditions of inequality, poverty, and low levels of community welfare. Therefore, the global forum targets the achievement of the Sustainable

Development Goals (SDGs) 2030, In regard to Goal 11, the objective being the creation of human communities and cities that are welcoming, secure, resilient, and environmentally friendly.

Slum settlements are a common issue faced by almost all major cities in Indonesia and other developing countries. According to Law No. 1 of 2011, “slum settlements are those that are unfit for habitation due to irregular building structures, high building density, poor building quality, and inadequate infrastructure and facilities”. Slums emerge for several reasons, but one of the most important is the spread of unplanned urban areas, which leads to increased poverty rates in urban areas. High urban population growth results in the expansion of built-up areas and creates pockets of slum settlements in cities [1].

Floating communities in the Barito Basin evolved as a result of adjusting to the region's unique topography, which include rivers, marshes, and mountain ranges. Living off the land and drawing on their own experiences, the community builds shelters for others who live in the sea. This leads to the construction of buildings and floating communities, where the materials are left to float on the sea. Everything in this physical community is built using materials that may be found in the Barito Basin's natural environment. The two most common types of wood, derived from different tree species, are dipterocarp (kayu kapur naga) and eusidroxylon zwageri (ironwood) [2].

In order to maximise the cooling effect of bodies of water, the composition and arrangement of urban structure and urban properties (such as building density, river geometry, regional orientation, building placement patterns, vegetation placement patterns, and the ratio of building height to street width) influence the microclimate through the horizontal influence of urban river landscape [3].

There are planning tools that may be used to regulate development in the setting of cities. Each city area's development plan shall adhere to the standards laid out in the Zoning Regulations and Guidelines for the Preparation of Spatial Plans. Actually, planning papers can't regulate space usage as they can't differentiate between riverside features—which are distinct from metropolitan areas in general—and other types of land. Limits, purposes, closures, and usage all contribute to the uniqueness of the riverbanks [4].

If the patterns of settlement can be reorganised, lost areas can be revitalised into positive and useful spaces for social and communal activity. One of the ideas that might be used is the land adjustment system. Information on vanishing areas is vital because it may inform city planners and designers, and because both the public and commercial sectors must recognise its significance. Land ownership and its role in determining settlement patterns may be explored in depth through lost space research [5].

The increasing population and high urbanization rates make the provision of housing facilities increasingly urgent, especially in urban areas. High land prices in urban core and low per capita income drive people to seek housing in the city outskirts with inadequate facilities. Slum settlements often suffer from poor sanitation, inadequate hygiene practices, high population density, and contaminated water, leading to unhealthy living conditions. “Diseases associated with these conditions include dysentery, cholera, diarrhea, typhoid, hepatitis, leptospirosis, malaria, dengue fever, scabies, chronic respiratory diseases, and intestinal parasitic infections” [1] [6].

The issues of slums have led to the development of new methods. Policies introduced by UNCHS and the World Bank since the late 1980s focus on improving the quality of slum settlements. The goal is to enhance living conditions in existing slums by providing public services, roads, and infrastructure. Slum settlements are currently one of the main challenges for the development of most cities in developing countries, due to the high population density that is not

matched by the city's capacity to provide adequate services and housing. Many residents live in slum areas under deplorable conditions, with substandard energy supply and infrastructure. Poor sanitation in urban slums results in increased prevalence of diseases and pollution of the environment. Excreta, grey water and solid wastes are the major contributors to the pollution load into the slum environment and pose a risk to public health. The high rates of urbanization and population growth, poor accessibility and lack of legal status in urban slums make it difficult to improve their level of sanitation. Diseases are more common and environmental pollution is worse in urban slums because of the lack of sanitary facilities. The majority of the pollution in slum areas comes from human excrement, which is a threat to public health. Other pollutants include grey water and solid trash. It is challenging to increase the sanitation level in urban slums because of the high rates of urbanisation and population expansion, inadequate accessibility, and lack of legal status. In order to guarantee environmental sustainability and reach the sanitation objective of Millennium Development Goal (MDG) 7, new measures may be necessary. [6], [7], [8].

2 Methods

This study employs a descriptive quantitative method complemented by qualitative analysis to produce effective and sustainable strategies for the management for Post-Upgrading slum settlements. The sample for this study consists of stakeholders who are experts in the field of slum settlement policy development. In the preliminary stage, a literature review is conducted to understand the theoretical foundations, basic knowledge, and insights related to slum settlements. Observations of the research object are also carried out during this stage.

The core process of this research involves three main phases:

- a. Efforts to Manage Slum Settlements
In this phase, the research focuses on identifying and analysis efforts to prevent and improve the quality of slum settlements, including physical development, economic development, and socio-cultural development of the community. The data obtained is analysis descriptively in the form of tabulations and graphical representations.
- b. Designing Slum Settlement Management Policies
Data collection is conducted through in-depth interviews with experts and several respondents. These respondents consist of key stakeholders, including academics, business practitioners, government officials, and community leaders.
- c. Integrated Analysis
The final phase involves integrated analysis of the research findings. The results are analysis by linking the findings with theories, policies, and technical applications related to slum settlement management. From this analysis, strategies are developed into a policy model. This scientifically formulated model will be proposed as a recommendation for the Banjarbaru City Government to guide policy formulation in slum settlement management strategies. By utilizing this methodology, it is expected that the research will provide significant contributions to the improvement and management of slum settlements in Banjarbaru in an effective and sustainable manner.

Some crucial industries may have an effect on the deteriorating income distribution, thus policy actions should take this into account. Accordingly, the government should support the information and communication technology (ICT) industries as they are the engine that keeps the economy growing. Nevertheless, the government should prioritise the information and communication technology industry by examining several policy approach choices, including A policy plan that heavily promotes the use of information and communication technologies by micro, small, and medium-sized businesses can help alleviate income inequality, which is a problem caused by the information and communication technology industry [9].

2.1 Location And Slum Conditions

Among the many slum settlement arrangements and planning initiatives undertaken by the Banjarbaru City Council, the Mentaos region in South Kalimantan ranks high. These endeavours try to fix the infrastructure of slum settlements, but they also want to make the area design a reality so that people in slum settlements may modify their attitude and lifestyle, which will in turn boost the economy of the community. A somewhat densely populated hamlet, Mentaos Urban Village serves as both a northern gateway to Martapura and an outpost of the Banjarbaru City administrative region, where it is located. The Mentaos Urban Village slum area was 1,13 hectares in 2022 and will be zero hectares in 2023, according to the Banjarbaru Housing and Settlement Department. Slums still cover a significant portion of Banjarbaru City, with an estimated 74,30 hectares of land categorised as such. According to Figure 1 The Distribution And Coverage Of Slumming Permits In 2022 and Figure 2 Distribution and Extent Of Slums In 2023.

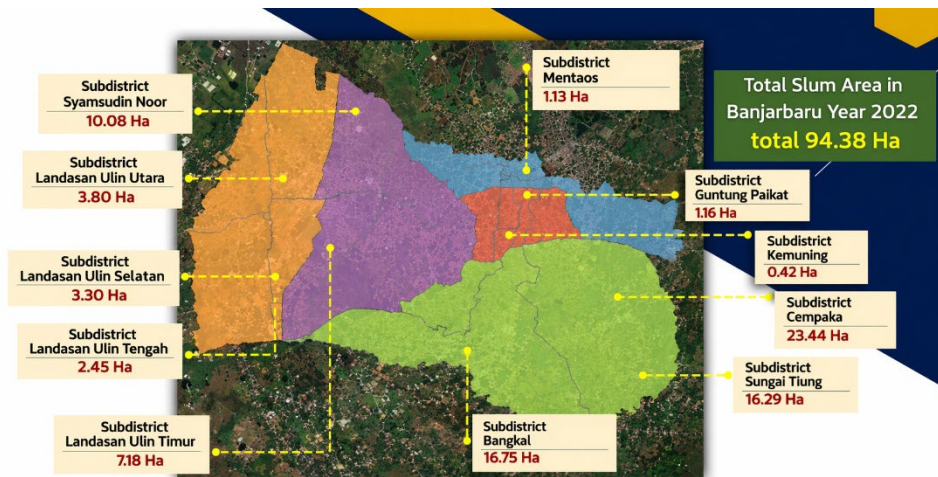


Fig. 1. Distribution And Coverage Of Slumming Permits In 2022

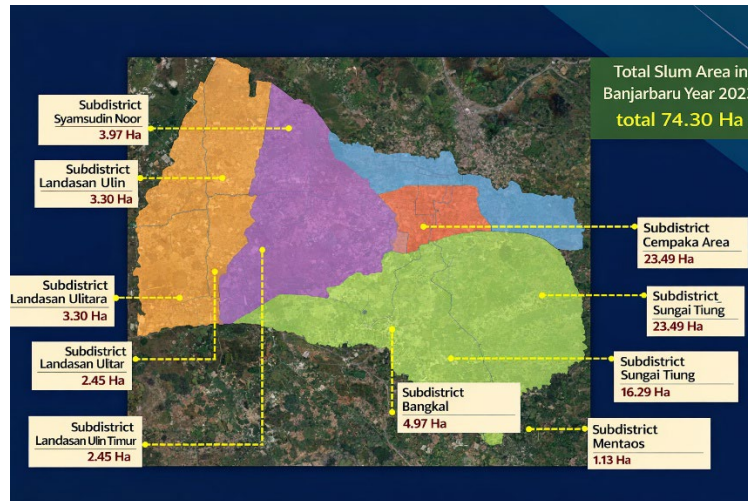


Fig. 2. Distribution And Extent of Slums In 2023

3 Results and Discussion

City dwellers in low- and middle-income countries (LMICs) tend to congregate in economically depressed neighbourhoods. Unfortunately, statistical and geographical data at metropolitan, city, and sub-city sizes are not readily available, which impedes policy initiatives and the monitoring of global agendas and goals like the UN Sustainable Development Goals (SDGs) and the UN-Habitat New Urban Agenda. Although there are many different aspects to the concept of deprivation, the current body of literature primarily addresses deprivation at the household level (including individual levels) and pays little attention to deprivation at the area level. This is problematic because it is well-established that deprivation at both the household and area levels interacts with one another, posing various challenges to both individuals and communities. In this scoping review, we synthesise the definition of urban deprivation as it pertains to low- and middle-income cities by drawing on previous research that has focused on deprivation at the household or area level [10]. Examines the Comprehensive Kampung Improvement Project (CKIP), an initiative in Surabaya, Indonesia, that aims to improve slum conditions through microfinance. “CKIP marked a progressive planning turn in post-decentralization Indonesia, providing communities unprecedented autonomy in designing and implementing projects” [11].

It will take decades for Indonesia to complete its transition to democracy. One approach to democratisation at the local level is decentralisation, which may be achieved by national policies on regional autonomy. This allows people to have their opinions heard and participate in participatory regional development. How much citizen engagement is there in South Kalimantan's local government communication [12].

Based on interviews and literature reviews conducted by the Banjarbaru City housing and settlement department, this research presents a model of the handling efforts pertaining to the post-upgrading slum settlement in Mentaos Urban Village. The model takes into account input from

stakeholders and related parties, and emphasises the need to prioritise the socio-ecological arrangement in these efforts, the environmental treatment principle is expected to have a positive impact on the area's commercial value and public perception. Taking into account the current conditions, problems, and potential development, this study aims to optimise the management of the slums in Mentaos Urban Village Banjarbaru City alongside the Gotong Royong River. The goal of the planning is to make the river the region's homepage or face, and its integrated management is expected to facilitate better social and economic sustainability for the slum dwellers. According to Figure 3 and Figure 4, the Investment Activities Slum Area and then Figure 5 End-Of-2023 Slum Reduction Diagram.



Fig. 3. Investment Activities



Fig. 4. Investment Activities

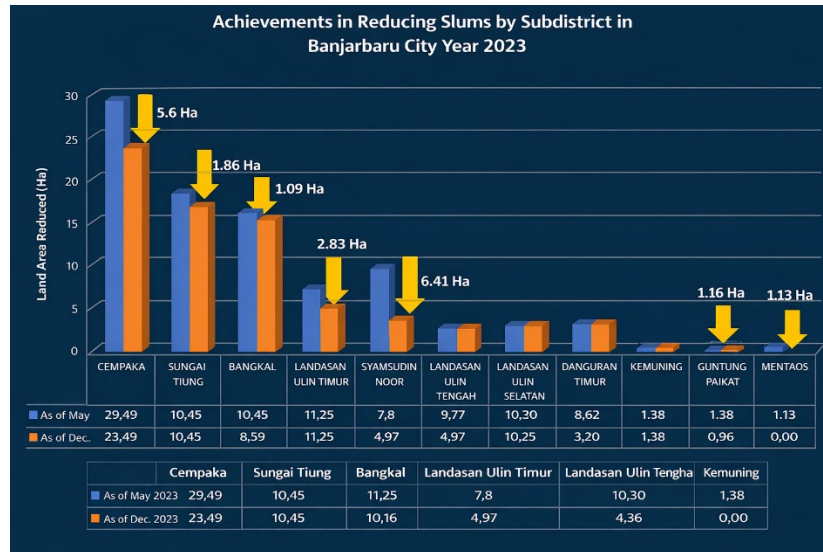


Fig. 5. End-Of-2023 Slum Reduction Diagram

4 Conclusions

Slum settlements remain a classic issue in urban areas, particularly in developing countries like Indonesia. Various mitigation efforts have been made, but this problem remains unresolved. One of the primary causes is the lack of post-upgrading policies for slum settlements. This research aims to provide effective and sustainable policy recommendations for post-upgrading interventions in slum settlements. Various studies have shown that post-upgrading policies in the study area are still minimal and suboptimal, leading to the recurrence of slum conditions, program unsustainability, and low community participation. These findings indicate the need for comprehensive and sustainable post-upgrading policies that consider physical, social, economic, and environmental aspects.

It is possible to witness and feel the effects of the modifications made to the communities of the Mentaos region locals through direct observation. When conducting the survey, it is essential to pay close attention to the recipients' programme utilisation. The community seems to be handling the redevelopment of slum settlements and the installation of infrastructural amenities rather well. According to the plans drawn out by the Banjarbaru City Government, the Mentaos region may accommodate a spatial layout that is compatible with the Neighbourhood (RT) and Hamlet (RW) City. A number of essential services, including better drainage and access roads to the environment, have already been established in The Mentaos, allowing for easier transportation between the city's villages and its service centres.

Future research is planning a post-upgrading policy design and strengthen local government capacity to develop collaboration with stakeholders, maintain existing infrastructure, and improve community welfare through sustainable livelihood development.

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