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ANALYSIS OF LEVEL OF SLUM AND UPGRADING STRATEGY OF SLUM SETTLEMENT IN TANJUNG BERINGIN SUBDISTRICT, SERDANG BEDAGAI REGENCY

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ABSTRACT

The aim of this study is to analyze upgrading strategies in Serdang Bedagai regency, especially in Tanjung Beringin subdistrict as a coastal village. This research is a descriptive study with qualitative analysis, which analyze and present facts systematically to facilitate understanding and drawing conclusions. Based on the results of the study, in Tanjung Beringin sub-district requires upgrading resettlement and rejuvenation strategies, the results of the analysis for the slum level of settlements in Tanjung Beringin Subdistrict are moderate vulnerable slum, and the results of upgrading plan analysis are by land consolidation and village improvement.

KEYWORDS: *Level of slum; Upgrading strategy*

INTRODUCTION

Slum-free and livable areas are still a dream for many people in Indonesia. Likewise for the Indonesian government, so through the 2015-2019 National Medium Term Development Plan (RPJMN) III the Government of Indonesia has set a target named "Movement 100-0-100". Where the achievement of 100% drinking water access, reducing slums up to 0%, and providing 100% decent sanitation access for Indonesian people in 2019. Serdang Bedagai Regency as a new regency whose population growth has increased coupled with a high

level of migration has resulted in most non-standard settlement so that problems arise such as the growth of slums along the riverbanks and along the railroad tracks or the location of state land that is not well maintained.

In accordance with the Serdang Bedagai Regent Decree Number 484/050 of 2014 concerning the Determination of Slum and Slum Settlement Locations in Serdang Bedagai Regency, it shows that the area of slums in Pekan Tanjung Beringin Village, Tanjung Beringin District is 6.99 hectare.

The researcher in determining the analysis of the slum level of settlements is to determine the priority of the criteria that affect slums using seven slum indicators (PUPR ministerial regulation no. 2 of 2016). In this study the slum mapping was carried out and then classified the slum level to identify the slum typology and the legality of the land along with upgrading strategies that were appropriate for the location of the slums in the subdistrict of Tanjung Beringin, Serdang Bedagai Regency.

OBJECTIVES OF THE STUDY

To analyze upgrading strategy according to the level of slums, typology and legality of the land in Tanjung Beringin subdistrict, Serdang Bedagai Regency.

RESEARCH METHODOLOGY

This research is descriptive qualitative, by conducting observations (primary data sources), interviews and documentation, and maps of satellite imagery as supporting media. This research was conducted using a survey approach. The researcher only records what happened to the object as it is, then describes the condition in the research report.

Primary data is collected through observation and direct measurement in Tanjung Beringin District. Review literature to obtain Spatial Planning and administrative data, as well as other supporting data sourced from books or literature related to research and report documents from previous research results. Secondary data collection is carried out to several agencies, such as:

- a. Regional Development Planning Agency of Serdang Bedagai Regency, data needed: Administrative Map of Serdang Bedagai Regency, Administrative Map of Tanjung Beringin District, Profile of Serdang Bedagai Regency, Serdang Bedagai Regency Spatial Plan Document and Decree on the Slum of Serdang Bedagai Regent.
- b. The Office of Public Works and Spatial Planning of Serdang Bedagai Regency, data needed: School Building Data, Health Service Buildings and Public Facilities and Places of Worship.
- c. Housing and Settlement Agency of Serdang Bedagai Regency, data needed: Housing Data (RTLH), Environmental Road Data and Environmental Drainage Data, Drinking Water Data and Environmental Sanitation Data.
- d. Serdang Bedagai Regency Central Bureau of Statistics, data needed: Data from Serdang Bedagai Regency in Figures and Tanjung Beringin Subdistrict Data in Figures 2017.
- e. Tanjung Beringin Subdistrict Office, Serdang Bedagai Regency, data needed: Subdistrict Profile Data, Village Profile Data and Subdistrict Administration Map.
- f. Village head's office in Tanjung Beringin subdistrict, data needed: Village Profile data, Village Administration Map and

Village Medium Term Development Plan Data.

LITERATURE REVIEW

Under Law No. 1 of 2011 concerning Housing and Settlements there are notions as follows:

- a. The definition of a house is a building that functions as a habitable residence, a means of fostering a family, a reflection of the dignity of its inhabitants, as well as assets for its owner.
- b. Housing is defined as a collection of houses as part of settlements, both urban and rural, which are equipped with infrastructure, facilities, and public utilities as a result of efforts to fulfill livable houses.
- c. Whereas settlements are part of a residential environment consisting of more than one housing unit that has infrastructure, facilities, public utilities, and has support for other functional activities in urban or rural areas.

According to Sinulingga (2005) slum settlements are residential or living environments and their environments, which function as houses and as a means of fostering families, but are not habitable in terms of population density, facilities and infrastructure, educational facilities, health and social facilities and infrastructure community culture.

Slum settlements are uninhabitable settlements because of building irregularities, high levels of building density and the quality of buildings and facilities and infrastructure that do not meet residential requirements (Housing and Settlement Law No. 1 of 2011).

Factors that cause the growth of slums according to Yudohusodo (1991):

- a. Rapid population urbanization, especially in big cities, has an impact on the emergence of a population explosion.
- b. The informal sector is a field of work without fixed income. This field of work arises because of the influence of economic pressure that is not supported by adequate expertise.
- c. The socio-cultural conditions of the community also trigger the slums, which are meant here concerning the lifestyle or habits of the urban community.

According to Khomaruddin (1997), the main causes of the growth of slums are as follows:

- a. Urbanization and migration are high especially for low income groups,
- b. It's hard to find work,
- c. The difficulty of repaying or renting a house,
- d. Lack of strict enforcement of legislation,
- e. Environmental improvements that are only enjoyed by homeowners and low citizen discipline,
- f. Less settlement area and high land prices.

RESULTS

Table 1
Planning Matrix of Slum Settlement Upgrading Strategy in Tanjung Beringin Subdistrict

Slum Settlement	Observed	Problem	Upgrading Strategy		Regional Enforcer and Practitioner Organizations
			Prevention	Upgrading	
Tanjung Beringin subdistrict	Buildings	<ul style="list-style-type: none"> ○ Haphazard construction ○ Located in the river border area ○ The building does not meet the building technical requirements 	<ul style="list-style-type: none"> ○ Supervision and control of licensing suitability, conformity with spatial plans ○ Control of housing and settlement growth ○ Supervision and control of space utilization, enforcement of river border rules ○ Community empowerment in the management and maintenance of settlement environments 	<ul style="list-style-type: none"> ○ Normalization of river border areas ○ Planning and construction of river dikes ○ Gradual relocation of buildings in the river border area ○ Livable house assistance program for low income families (MBR) ○ Planning and construction of Infrastructure Facilities and Utilities (PSU) in settlements 	<ul style="list-style-type: none"> ○ Service of the Regional Development Planning Agency (BAPPEDA) ○ Public Works and Public Housing Agency (PUPR) ○ Housing and settlement services (PKP) ○ Integrated Investment Service and Licensing Service ○ Environment Agency (LH) ○ Civil Service police unit
	Road environment	<ul style="list-style-type: none"> ○ Damaged road 	<ul style="list-style-type: none"> ○ Monitoring ○ Road maintenance 	<ul style="list-style-type: none"> ○ Improving the quality of slum neighborhood roads ○ Planning and construction of Infrastructure Facilities and Utilities (PSU) in settlements 	<ul style="list-style-type: none"> ○ Public Works and Public Housing Agency (PUPR) ○ Housing and settlement services (PKP)
	Drinking water	<ul style="list-style-type: none"> ○ No protected drinking water source ○ 60 liter air bersih per kapita per hari tidak terpenuhi 	<ul style="list-style-type: none"> ○ Monitoring ○ Maintenance of drinking water supply systems 	<ul style="list-style-type: none"> ○ Increased production capacity of Drinking Water Supply (SPAM) systems ○ Expansion of services for drinking water services (SPAM) ○ Home connection planning (SR) SPAM ○ Planning and construction of the National Water Supply Program (PAMSIMAS) 	<ul style="list-style-type: none"> ○ Drinking water technical support ○ Housing and settlement agency (PKP)
	Drainage	<ul style="list-style-type: none"> ○ Many puddles around the settlement when it rains ○ There are still settlements that do not have drainage 	<ul style="list-style-type: none"> ○ Monitoring ○ Maintenance of drainage 	<ul style="list-style-type: none"> ○ Improvement of environmental drainage channels ○ Planning and construction of environmental drainage 	<ul style="list-style-type: none"> ○ Public Works and Public Housing Agency (PUPR) ○ Housing and settlement services (PKP)

Slum Settlement	Observed	Problem	Upgrading Strategy		Regional Enforcer and Practitioner Organizations
			Prevention	Upgrading	
		<ul style="list-style-type: none"> ○ Drainage sedimentation 			
	Waste Water Treatment	<ul style="list-style-type: none"> ○ Settlement does not have waste water collection system which do not meet the technical requirements 	<ul style="list-style-type: none"> ○ Share information and counseling on health and environmental issues ○ Monitoring 	<ul style="list-style-type: none"> ○ Development (Communal WWTP wastewater treatment plant) ○ Construction of Communal Integrated installation of Bath, Wash, Toilet (MCK) ○ Construction of Integrated installation of Bath, Wash, Toilet (MCK) and Wastewater Treatment (IPAL). ○ Planning and development of community-based sanitation (SANIMAS) 	<ul style="list-style-type: none"> ○ Housing and settlement services (PKP) ○ Environment Agency (LH)
	Waste Management	<ul style="list-style-type: none"> ○ Waste is not managed 	<ul style="list-style-type: none"> ○ Share information and counseling on health and environmental issues ○ Impose sanction ○ Monitoring 	<ul style="list-style-type: none"> ○ Improvement of waste facilities and infrastructure ○ Improved waste treatment ○ Provision of temporary/integrated waste disposal Site 	<ul style="list-style-type: none"> ○ Housing and settlement services (PKP) ○ Environment Agency (LH)
	Fire Protection System	<ul style="list-style-type: none"> ○ The areas do not have a fire protection system 	<ul style="list-style-type: none"> ○ Dissemination of fire hazards ○ Neighbourhood planning 	<ul style="list-style-type: none"> ○ Provision of fire protection facilities and infrastructure ○ Increased fire fighting vehicles access 	<ul style="list-style-type: none"> ○ Housing and settlement services (PKP) ○ Environment Agency (LH)

The researcher in determining the analysis of the slum level of settlements is to determine the priorities of the criteria that affect slums using seven

slum indicators (Ministerial Regulation of Public Works and Public Housing Agency (PUPR) No. 2 of 2016).

Table 2
Determination of slums aspects of settlements in Tanjung Beringin Subdistrict

No.	ASPECT	VALUE
1.	Buildings	5,5,5
2.	Environmental road	0,3
3.	Drinking water supply	5,5
4.	Drainage	3,3,1,1,3
5.	Waste water treatment	5,5
6.	Waste management	5,5,1
7.	Fire protection system	3,1

The slums in the Tanjung Beringin subdistrict include buildings, drinking water supply and waste water management with conditions of high vulnerable slums, Solid Waste Management and fire protection with moderate vulnerable slums, aspects of environmental roads and drainage with low vulnerable slums.

DISCUSSION

Analysis of Slum Settlement Upgrading Strategy in Tanjung Beringin Subdistrict

The slum settlement upgrading strategy is the implementation of the mission of the Housing and Settlement Working Group of Serdang Bedagai Regency, namely the Regional Development Planning Agency (Bappeda) and the Housing and Settlement Agency (PKP) of Serdang Bedagai Regency in order to achieve the stated vision. Implementation of upgrading of slum areas is not optimal. The concept of good upgrading slums does not guarantee the success of upgrading slum areas, because there are still many obstacles such as lack of budget, community mindset that tends to be money oriented when given assistance, and so on. Various programs and activities that have been implemented and from the large amount of funding that has been spent but slums are still a problem that is not easy to overcome even though the number of poor people has diminished. Efforts to upgrade slum areas are integrated efforts that must be carried out by all parties including the poor themselves with strong commitment from the government, community organizations and community groups.

Internal and external factors that influence the organization need to be established before making the strategy formulation. Internal factors such as organizational strengths and weaknesses, while external factors such as opportunities and threats to the organization. Based on the research that has been done, the internal and external factors that affect the upgrading of slum areas are as follows:

a. Internal factors

- Strength:

- Conformity with the vision and mission of the regional government.

- Implementation of mission to achieve vision.
- Bappeda's and PKP Service Serdang Bedagai's commitment in providing optimal service.
- Sufficient quantity and quality of human resources.
- The function of the agency concerned as a provider of accessibility is one of the efforts to cover the lack of funds in the implementation of the program.

- Weakness:

- Lack of official budget
- Inadequate service facilities and infrastructure.
- Related agencies are less active in providing counseling and approaches to communities living in slum areas.
- The housing and settlement office (PKP) Serdang Bedagai lacks supervision over slums settlement
- There is no dynamic data for setting targets for upgrading slum areas

b. External factor

- Opportunity:

- Stimulant funds from the Ministry of Public Works and Public Housing (PUPR) for home repair.
- Training from the Ministry of PUPR for the development of related official human resources.
- Law No.1 of 2011 which regulates Housing and Settlements.
- The geographical location of Serdang Bedagai Regency is strategic.
- Cooperation with the private sector and investors in providing housing and settlement funds
- Characteristics of local communities that are strong in terms of socio-cultural values

- Threat:

- Demands for the achievement of the Government Program 100-0-100
- Many settlement facilities and infrastructure are damaged.
- The crisis of public confidence in the management of stimulant funds from the department
- The community still does not participate in the revitalization of slums
- The mindset of the people who tend to prefer the help of money rather than material.

After identifying the strengths and weaknesses of internal factors, opportunities and threats of external factors, then identified factors that support and inhibit in upgrading slums. The factors that support the upgrading of slums are strengths and opportunities, as follows:

- a. Conformity with the vision and mission of the local government
- b. Implementation of the mission to achieve vision
- c. Commitment of the Regional Planning and Development Agency (Bappeda) and the Housing and Settlement Agency (PKP) of Serdang Bedagai Regency in providing optimal services.
- d. Sufficient quantity and quality of human resources.
- e. The function of the agency concerned as a provider of accessibility is one of the efforts to cover the lack of funds in the implementation of the program.
- f. Stimulant funds from the Ministry of Public Works and Public Housing (PUPR) for home repair.
- g. Training from the Ministry of PUPR for the development of related official human resources.
- h. Law No.1 of 2011 which regulates Housing and Settlements.
- i. Economy of Serdang Bedagai Regency is well growth
- j. The geographical location of Serdang Bedagai Regency is strategic.
- k. Cooperation with the private sector and investors in providing housing and settlement funds
- l. Characteristics of local communities that are strong in terms of socio-cultural values

While the factors that become obstacles in slum settlement upgrading are from organizational weaknesses and threats, as follows:

- a. Lack of official budget
- b. Inadequate service facilities and infrastructure.
- c. Related agencies are less active in providing counseling and approaches to communities living in slum areas.
- d. The housing and settlement office (PKP) Serdang Bedagai lacks supervision over slums settlement
- e. There is no dynamic data for setting targets for upgrading slum areas
- f. Demands for the achievement of the Government Program 100-0-100
- g. Many settlement facilities and infrastructure are damaged.
- h. The crisis of public confidence in the management of stimulant funds from the department
- i. The community still does not participate in the revitalization of slums
- j. The mindset of the people who tend to prefer the help of money rather than material.

After identifying the supporting and inhibiting factors regarding upgrading slums, then determining strategic issues in upgrading slum areas. Strategic issues derived from the results of interactions between internal and external factors. The following are the results of the identification of strategic issues of slum settlement upgrading, as follows:

- Optimizing HR in upgrading slum areas.
- Development of settlements by utilizing local / regional potential in order to accommodate the development of multi-cultures that support the implementation of housing and settlement laws
- Increased collaboration and the role of the private sector in the implementation of integrated infrastructure development and management of settlement infrastructure.
- Increased revitalization of housing and settlement facilities and infrastructure to meet public access and adequate facilities and settlement infrastructure services.
- Strengthening housing and settlement financing institutions
- Improvement of official infrastructure as a support for slum upgrading.
- Optimization of monitoring and evaluation of the results of programs for slum settlement upgrading activities with community participation.
- Optimization in the preparation of an integrated database of slum settlement upgrading programs
- Increased socialization of slum settlement upgrading programs as an effort to build community self-help and participation

The results of evaluating the upgrading strategy resulted in two categories:

a. Moderate:

- Increased revitalization of settlement facilities and infrastructure to meet public access to adequate housing facilities and infrastructure services.
- Improvement of facilities and infrastructure of the Regional Working Unit (OPD) as a supporter of slum settlement upgrading.

b. Strategic:

- Optimizing HR in upgrading slums
- Improvement in settlement construction in accordance with the local situation to support the implementation of the Law on housing and settlement
- Optimizing cooperation and the role of the private sector in the implementation of development and management of integrated, synergetic and sustainable settlement infrastructure.
- Optimization of monitoring and evaluation of programs for slum settlement upgrading activities with community participation
- Optimization in the preparation of an integrated database of slum settlement upgrading programs
- Dissemination of slum settlement upgrading programs about the importance of community participation and self-help

While slum settlement upgrades are formulated based on factual conditions and strategic issues as well as slum settlement upgrading policies, the results of an overview of the spatial data of each indicator of slum settlements have been identified in the previous stage.

The typology of housing and slum settlements, slum levels and land legality are considerations in determining how to upgrade quality and design planning for slum settlements.

Based on the slum level of housing and slum settlements in the location of the study is moderate vulnerable slum. Then the way to upgrade the quality of slum settlements at the research location is planned with consideration (Permen PUPR no. 2 of 2016):

- a. In the classification of high vulnerable slums with the status of legal land, upgrading strategy is rejuvenation;
- b. In the classification of high vulnerable slums with the status of illegal land, upgrading strategy is resettlement;
- c. In the class of moderate vulnerable slums with the status of legal land, upgrading strategy is rejuvenation;
- d. In the classification of moderate vulnerable to illegal land status, upgrading strategy is resettlement;
- e. In the classification of low vulnerable slums with the status of legal land, upgrading strategy is restoration;

- f. In the classification of low vulnerable slums with illegal land status, upgrading strategy is resettlement;

The results of the physical identification of the area, slum level, typology and legality of land and slum upgrading patterns and strategies in Tanjung Beringin Subdistrict, Serdang Bedagai Regency can be determined that planning slum settlement in Tanjung Beringin subdistrict is Land Consolidation and Village Improvement Program (KIP).

Land consolidation is a land use activity by rearranging land use and land tenure. The goal of land consolidation itself is to restructure the use and control of land in an area whose conditions are considered to be less than qualified to become a better area (Indra, 2012). (Indra, 2012).

Land consolidation is an integrated activity rearranging an irregular area, providing the necessary infrastructure and facilities, in order to achieve optimal land use carried out by the community itself.

The village improvement program (KIP) program aims to improve the quality of community life and reforestation through physical environmental improvements. The main objective is to improve the health of the village environment. The basic component is the improvement of regional infrastructure such as public roads, walkways, drainage, MCK (bath, wash and toilet) (Budi Prayitno, 2015).

Based on the results of the study that the location of the slums in the subdistrict of Tanjung Beringin consists of two locations:

1. Slum areas on the river border with an area of 2.76 ha with moderate vulnerable slums, typology of slums and slums in stilts above water, illegal land status, then how to upgrade according to Minister of Public Works and Public Housing Regulation No. 2 of 2016 is resettlement.
2. Slum areas outside the river border with an area of 20.77 ha with moderate vulnerable slums, slum housing typologies and slums in banks, the status of land is legal, then how to upgrade according to Minister of Public Works and Public Housing Regulation No. 2 of 2016 is rejuvenation.

CONCLUSION AND SUGGESTION

Conclusion

Planning for upgrading the slum settlement strategy in Tanjung Beringin Subdistrict covering an area of 23.53 ha is the improvement of 2.76 ha slum area with Illegal land status through a Land Consolidation Program and structuring a 20.77 ha slum area with legal land status, through the Village Improvement Program (KIP).

Suggestion

The Serdang Bedagai District Government needs to develop a slum master plan comprehensively with the participation of relevant agencies, the private sector and the community with

a Land Consolidation model and a plan for the village improvement program (KIP).

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