

Hierarchy model of Tambak Lorok slum area transformation to support marine tourism kampong

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Abstract. Tambak Lorok is a fishermen residential area in Semarang which is declared as slums in Mayor regulation No.050/801/2014. Tambak Lorok is now a national development priority as Marine Tourism Kampong. Government has provided several environmental improvement programs but settlements still in slum condition. Research aim is to study the Tambak Lorok settlement transformation in supporting the development of Marine Tourism Kampong. Research method used is mix method. The results obtained that the transformation that occurred is a partial transformation that is only on the infrastructure to support the development of Marine Tourism Kampong.

Keywords: *Slums, Transformation, Infrastructure, Marine Tourism*

1. Introduction

Slums are a crucial issue that remains a challenge for developing country governments, one of them in Indonesia. Slum settlement is a residential environment where physical condition with unfit quality, unavailability of all facilities and infrastructure, limited area, high density, prone to social diseases and environmental diseases and endanger the survival and livelihood of the inhabitants [1]. The occurrence of slums can not be separated from the increase in population density resulting from the urbanization. Based on data presented by UNDP, the average slum area in Indonesia has increased by 1.37% per year. Slum areas are often found in urban areas along with population growth due to urbanization [2].

Needed an agenda of acceleration of slum arrangements as set forth in the MDGs and its implementation in the national agreement in the form of agenda of "Indonesia Bebas Kumuh 2020" to deal with slums in Indonesia [2]. Currently the government is working on the handling of slums through various poverty alleviation programs and slum areas. One of the slum areas that get government handling program is Tambak Lorok area. Tambak Lorok is a slum of fishermen located on the north coast of Semarang City. In the last five years getting help from the PLPBK program for uninhabitable houses improvement, road and drainage improvement also construction of public toilets. The program has a goal to rejuvenate and improve the quality of the area, so that the area is expected to be able to change for the better. The latest rejuvenation program in the continued effort of slum handling this year is the development of Marine Tourism Kampong. In addition to the continued efforts of slum handling, the development program of Marine Tourism Kampong also aims to develop the potential owned by Tambak Lorok. As a fishing village in coastal areas, Tambak Lorok has the potential of marine fishery and ponds, natural scenery off to the sea, fishermen's life, and fishermen's culture [3]. With the existance of planned development of Tambak Lorok Marine Tourism Kampong,



this becomes a challenge for the government and the community so that the fishermen's settlement area can support and integrated with marine tourism activities planned by the government.

Some of the slum environment improvement programs provided by the government still have not made the Tambak Lorok settlement area underwent a transformation that could support the development of marine tourism kampong. The settlement environment condition is still in the slum category because the houses condition is still a lot that is not feasible and the infrastructure is not adequate. Based on the problem, the aim of this research is to study the Tambak Lorok settlement transformation in supporting the development of Marine Tourism Kampong.

2. Research Method

Research method used in this research is mix method that is by quantitative method and also qualitative method. Methods of data collection is done through primary data collection (observation, interview and questionnaire) and secondary data collection that is data related program marine tourism area. The research stages were conducted by identifying the existing physical and non-physical conditions in Tambak Lorok area, identification of slum handling program, identification of conditions before and after the slum handling program and analyzing the changes in the slums to support the development of the Tambak Lorok Marine Tourism Kampong.

3. Literature Review

3.1 Slum Settlement

Settlement is a physical element that can not be separated from a city. Settlements are places where people live [4]. Settlements that appear in a city spread to downtown areas and suburbs, not infrequently the settlement grows not according to plan, resulting in the impression of slums. Slums are settlements that do not have clear and secure basic services and ownership [5]. Slums are very poor environmental conditions inhabited by humans, but unfulfilled eligible elements for life and livelihood processes. Slums are depicted in high-density settlement conditions, growing illegal settlements without legal recognition, and poor living conditions [6]. Slums typically appear in the central and suburban areas. Slums are classified into two types namely, slum and squatter settlement categories [7]. Slum is a slum area but legally recognized as a residential area. While squatter settlement is a slum settlement that occupies land that is not assigned for residential areas.

3.2 Transformation

Transformation is a change of form or shape that undergoes metamorphosis, which becomes completely new along with changes in structure and function that will shape the cultural shift, behavior and mindset [8–12]. Residence transformation is a change of building that accompanied by behavior change, action and mindset of the residents to their residence. Transformation occurred in slum areas due to intervention of government rejuvenation program. There are nine elements of residence transformation [13], namely the form of rejuvenation, land status, motivation and citizens response, building shape, residence function, emotional ties, economic opportunities, mindset and actions undertaken by the community to their residence. The residence transformation is divided into two: partial transformation and integral transformation [13].

Partial transformation is a change in some specific elements in the slums followed by behavioral changes but not accompanied by changes in mindset, perspective, culture and norms. Partial transformation does not change the structure and location of the residence. Activity in rejuvenation on each part is different according to the existing damage, takes time faster and the required fund is not big. In this transformation there is little participation from the community and is rapidly re-degraded if it is not accompanied by changes in action to achieve something better, so it requiring further intervention [13]. Integral transformation is a comprehensive change in the region accompanied by changes in mindset, behavior and actions. In the integral transformation, the changes occur gradually in accordance with the stages of activities undertaken in the process of rejuvenation. Each stage of the activity undergoes a change that increases the value of the residence. In the implementation of

activities requires the cooperation of all stakeholders. The location of the settlement do not change but the layout of residential buildings changed [13].

3.3 Marine Tourism

Marine tourism means traveling activities aimed to enjoy the marine environment [14]. The Marine Tourism development is an effort to utilize environmental services and aesthetic value of the region for marine tourism development in order to get alternative income source and diversification of economic activity of local community [15]. Marine tourism activity is a tour that leads to the beach to enjoy the natural surroundings such as swimming, cruising / extended boat tour, surfing, diving, water sky and sailing [16]. Some marine tourism attractions as well as the potential of the sea as a tourist medium is a marine park (coral reefs and marine biota), Artificial reef, ancient objects, fish and beautiful beaches, the utilization of the sea as a tourist attraction requires certain requirements, namely, weather conditions are pretty good throughout the year, clean sea environment, pollution free, a clean and natural beachfront with certain rules on buildings and activities, seabed with natural condition, such as marine parks that are habitat of various flora and fauna, waves and currents are relatively not too large and accessibility is high [16].

4. Result and Discussion

4.1 Overview of Tambak Lorok Area

4.1.1 Physical and Non Physical Overview

Tambak Lorok is located in Tanjung Mas Subdistrict, North Semarang District, divided into 5 RW, which covers RW 12 to RW 16, with an area of approximately 21 Ha. This location is a location that has received program intervention from the government and has undergone a transformation, and also as a priority of national development by the government which will be planned development as Marine Tourism Kampong. The boundaries of the area of Tambak Lorok can be seen in Figure 1.

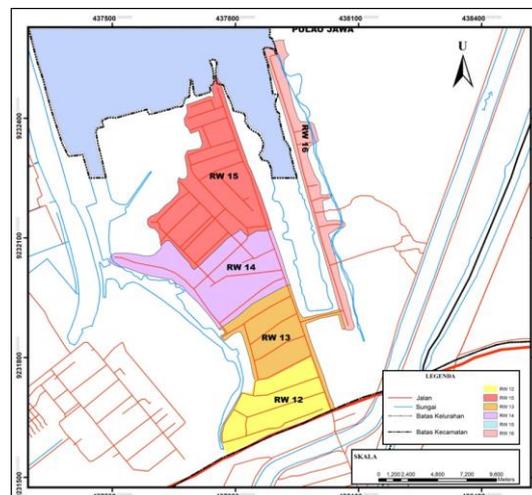


Figure 1. Administrative Boundary Map of Tambak Lorong Area

Source: [17]

The population of Tambak Lorok is 8,377 people, and most of the people work as traders and fishermen. The main economy drivers in the Tambak Lorok area are marine product trading, aquaculture and fish processing. The daily activities that are commonly seen in Tambak Lorok area are fisherman's activities such as drying fish, repairing fish net, repairing boats and selling various types of sea catch. The physical condition of Tambak Lorok can be seen from the condition of road, drainage, environmental cleanliness, housing condition and other supporting facilities. Road conditions in Tambak Lorok in the south are good and made of paving stone, while in the north there are still some damaged roads both main roads and roads in alleys. The road damage is also influenced by the coastal flooding that soaked the Tambak Lorok area.



Figure 2. Fishermen Community activities in Tambak Lorok



Figure 3. The Road condition as the main access in Tambak Lorok



Figure 4. Clogged Drainage conditions in Tambak Lorok

The sanitation condition in Tambak Lorok area is still poor, that is the minimum of public and private toilets plus the habit of people who perform the activity of defecation and urinate directly over the sea. The condition of garbage in Tambak Lorok area is still worrisome, where there is not yet an integrated waste network, garbage strewn on vacant land, floating above the sea, in drainage channel and in uninhabited homes. Besides disturbing the scenery, the garbage piles also result in the appearance of unpleasant odors in the neighborhood.

4.1.2 Marine Tourism Kampong Plan

The marine tourism concept in Tambak Lorok emphasizes on three key words: Urban Community, Unique Settlement and Sea Front Landscaping Scheme. In the planned development of Marine Tourism Kampong, Tambak Lorok is divided into six zones. The first zone is the existing settlement zone that already exists in Tambak Lorok. The second zone is a vertical settlement zone that is directed to be developed in the reclamation area on the south side. The third zone is a trade and service zone that is directed to be developed along the corridor of Tambak Mulyo Street. The fourth zone is a marine and culinary tourism zone that is directed to be developed in Tambak Rejo area. The fifth zone is the zone of fishery port and maritime economy as the center of maritime activity with PPI, TPI (fish auction place) and market as the center of marine product distribution, then developed also maritime industry as supporting of marine activity. The sixth zone is a mangrove conservation zone developed at some point in the planning area especially at the eastern end of the maritime industry area or in the area near the former TPI (fish auction place) [18]. Zoning of Marine Tourism Area of Kampung Tambak Lorok can be seen in the following picture:



Figure 5. Zoning Marine Tourism Area Tambak Lorok.

- 1) settlement zone,
- 2) vertical settlement zone,
- 3) trade and service zone,
- 4) marine and culinary tourism zone,
- 5) fishery port zone and maritime economy and
- 6) mangrove conservation zone

Source: [18]

4.2 Government Programs in Tambak Lorok

Tambaklorok as one of the slums in Semarang City, has received several environmental improvement programs including the latest is a marine tourism development program that became a national pilot project. Some of the rejuvenation programs that have been implemented by the government include the repair of uninhabitable houses and the improvement of facilities and infrastructure which include

roads, drainage and communal toilets. Here are the environmental improvement programs that have been done in the slum area of Tambaklorok:

Table 1. Programs that have been Implemented in Tambak Lorok

No	Aspect	Program	Year	Explanation
1	Housing	RTLH	2015-2016	Uninhabitable houses
2	Road	PLPBK	2015-2017	Tambakmulyo Street, Tambakrejo street, dan kampong road
3	Drainage	PLPBK	2015-2017	Widening and repair of drainage into a closed drainage
4	Public Toilets	PLPBK	2014-2015	Build public toilets in RW 14 dan RW 15

House improvement program in Tambak Lorok area is not done for all existing houses in slums. House repairs are made only on some uninhabitable houses with certain conditions, one of which is that the owner has additional funds to continue the renovation of the house, because basically this program is only as a trigger so that owners can improve the house to be habitable. This home improvement program is provided in the form of building materials and manpower with a value of 10 million rupiah for each house. With these funds that are only as stimulants, if the owner requires additional repairs then the cost or building material will be borne by the owner himself.

In addition to the quality improvement program, Tambak Lorok also receives road and drainage improvement program in 2015 - 2017. In its implementation, infrastructure development is carried out by contractors as a third party appointed by the government. Communities in infrastructure development are not directly involved, but in the early stages have been socialized by the government on infrastructure development that will be done in Tambak Lorok area. Although it does not involve the community directly in road works and drainage works, some communities participate in the development process in the form of manpower and provide snacks for the builders.

4.3 Before and After Rejuvenation Program in Tambak Lorok

After the environmental quality improvement program, Tambak Lorok slum area experienced several changes both physical and non physical change. Physical changes that are clearly visible are improvements in road quality and drainage. The previous condition on the main road is Jalan Tambak Mulyo in the form of paving and only has a width of 3.5 meters, while the condition of the road inside the kampong in the form of paving that has been damaged, uneven, wavy and inundated when rain and when coastal flooding. But now the main road of Jalan Tambak Mulyo has been widened to 7 meters with concrete pavement although only a quarter of the total length, while for the road inside the kampong still with paving pavement but paving has been renewed, not bumpy and flat.

Improved road quality is also accompanied by improved drainage quality on the right and left side of the kampong road. The condition before the improvement program is open drainage, small, inundated and clogged by garbage, whereas the present condition, drainage channel has been widened and closed. In addition to road and drainage, the government also provides public facilities improvement programs in the form of public toilets and playgrounds. Previous playgrounds are vacant lands with soil pavement which turns muddy when it rains or after coastal flooding, whereas in the present conditions, the field has been hardened with concrete cast and has a flat, smooth surface. The housing improvement program for uninhabitable houses also contributed to the physical changes that occurred in Tambak Lorok. Some of the houses that received improvement program, previously had a worrying condition that the house affected by land subsidence so that the roof becomes very low. The form of physical changes to the house through government program is the heightening of the roof and walls, there are also some homeowners who expand the building and add the room with their personal funds. Here is the condition before and after the existence of the program from the government, in following figure:



Figure 6. Physical Changes in Tambak Lorok Slum Area

In the picture above are the condition of housing and infrastructure before and after there are programs from the government. The rejuvenation program for the handling of slums in Tambak Lorok is still in physical form and handled only part of the environmental infrastructure and is still not resolved thoroughly. Other infrastructure such as trash management have not been handled, where the condition is still there trash that buildup in the middle of settlements and floating in drainage and at the shore. Non-physical aspects such as social, cultural, economic, and community capacity have not been addressed as well.

The handling program for the rejuvenation of slum areas in Tambak Lorok still has not caused much change and still requires handling for all aspects. The handling of slums is only done in some aspects, if there is no sustainability in handling it for all aspects comprehensively, then it will quickly become slum again [13]. Changes that occur from the settlement arrangement program that has been done in Tambak Lorok is still small and has not touched all aspects also not yet in all areas so it is still in slum category.

4.4 Linkages Analysis of Settlements and Marine Tourism Kampong Tambak Lorok

Tambak Lorok Settlement Area becomes part of Marine Tourism Kampong development plan, because to get to marine tourism kampong must go through slum settlement of Tambak Lorok as its main access. The face of the slums in Tambak Lorok is part of the scenery which will be enjoyed by tourists who will visit the marine tourism village. At present, the condition of Tambak Lorok residential area although some programs have been done, but still classified in slum category. The road quality improvement program on the main access to the marine tourism kampong is still on the front part only and still more than 80% which is not yet suitable to be used as access to marine tourism kampong. The improving program of drainage channel quality and sanitation is still inadequate, as well as for the housing quality, where there are still many houses are not suitable for habitation. Thus programs for quality improvement and arrangement of slums are still far from expectations to improve the welfare of Tambak Lorok community. The program provided by the government for the Tambak Lorok community is only a few aspects and has not touched all aspects to make the settlements no longer slum. Some changes that occur from the government program only improve the quality of some of settlement infrastructure, namely roads and drainage. While the waste network or trash management that became the main problem in Tambak Lorok still has not been handled.

4.5 Transformation form analysis of Tambak Lorok slum area to support Kampung Wisata Bahari

Transformation is a change accompanied by a change in physical form accompanied by changes in action, behavior and mindset [11]. While the transformation that occurred in the Tambak Lorok settlement only some aspects that are physically changed. Several aspects that have undergone changes that are directly related to the development of Marine Tourism Kampong are the environmental infrastructure in the form of roads and drainage. The previous main road is still narrow with paving stone pavement with hollow everywhere and waterlogged conditions, now on the main road has been widened and in south part already in the form of concrete pavement, while on the residential/kampong road, the paving stone has been replaced with the new one and reorganized. This makes access to the Marine Tourism Kampong become more comfortable. Repair of drainage which was originally a lot of garbage piles, built into a closed and can reduce the coastal flooding that occurred in Tambak Lorok so that the coastal flooding to the marine tourism kampong can be reduced. While other physical changes in the form of houses, toilets and waste management is not much changed and does not directly support the development of Marine Tourism Kampong.

The handling form of slum settlement in Tambak Lorok by the government is still not comprehensive, only some aspects and not done routinely. This causes the area to become a slum again soon. This is based on the theory of slum settlements transformation according to Sunarti [13], that the handling of slums is not done on all aspects as a whole, it will become slums again. It can be described as follows:

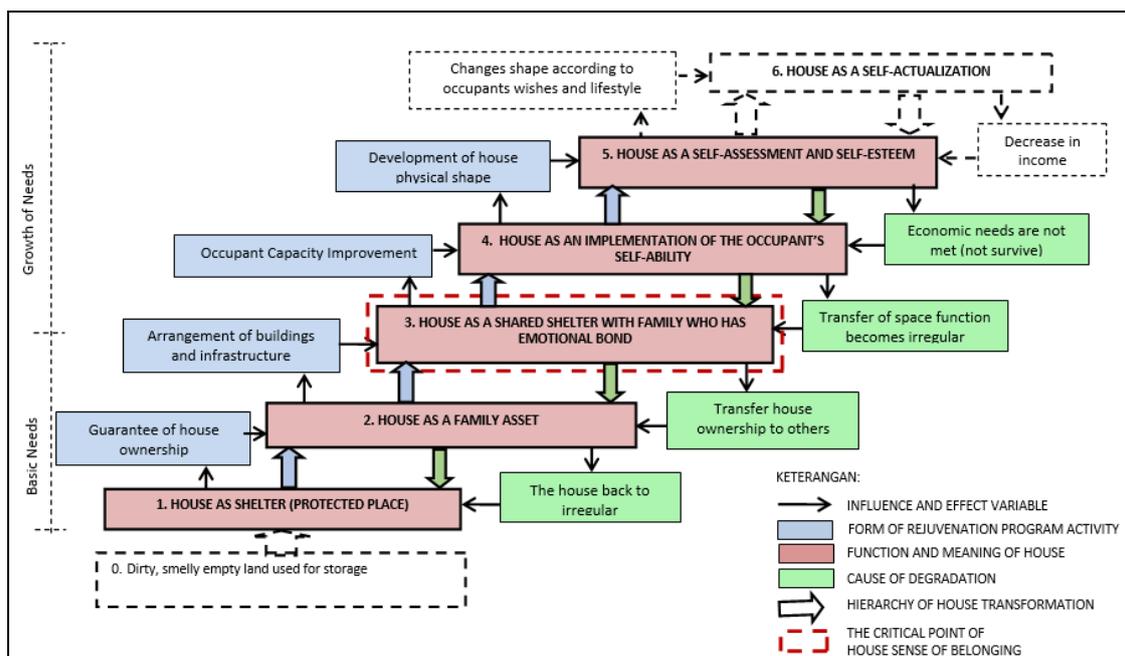


Figure 7. Hierarchy Model of Slums Transformation

Source: [13]

The picture above is an integral slum transformation form, which is a slum settlement arrangement that is done for all aspects both physical and non physical. If the handling of slum settlements are only on a few aspects, then the transformation is a partial transformation. Whereas in the slums of Tambak Lorok in the Marine Tourism Kampong neighborhood only done a small part of the physical construction of infrastructure and uninhabitable houses. When associated with the above diagram form, the transformation that occurred in Tambak Lorok is at the second level to the third level, namely the house (house as a family asset) used as a shelter and as a place for shelter with a family that has emotional bond. Houses in the neighborhood Tambak Lorok settlement have not reached the level that can to actualize themselves. Handling slum settlements that are still just as a place to take shelter, can not support for the development of marine tourism Kampong.

5. Conclusion

The transformation form of slum settlements in Tambak Lorok is a partial transformation, because the handling of slums is done only on some aspects and only partially that support for the development of Marine Tourism Kampong. Handling that can make the Kampong easier to be reached comfortably is the handling of road and drainage improvement, while for houses and other physical aspects are still unfit for habitation and not yet adequate. The handling form that is not done thoroughly for all aspects, then it can quickly become slum again. The form of integral transformation requires the handling of all aspects of the whole that can make slum areas habitable, safe and comfortable in a sustainable manner.

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