

Improvement Strategy for KOTAKU program in Slum Settlements Area in Sidoarjo

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ABSTRACT

KOTAKU (City Without Slums) program has been implemented in numerous areas identified as slums settlements, including in Sidoarjo, a city adjacent to Surabaya that has given many services in housing provision including for people who commute from Surabaya city. One of the efforts that must be done to handle the slums is to prevent and improve the quality of life and environment in a slum area to develop sustainable settlements to reach the objectives of Sustainable development (SDGs). One of the cases in this program happened in Tambak Cemandi, Sidoarjo where the slums area consists of 9.75 hectares widespread. The settlement area is located in the coastal area where it experienced a decrease in environmental quality due to a lack of public awareness in maintaining the cleanliness of the environment, most people dispose of garbage and defecation in rivers or ponds, and river conditions are filled with garbage, and not yet provided adequate infrastructure facilities. The article aims to formulate a strategy for improving the quality of slums in Tambak Cemandi, Sidoarjo. The first stage in this research is identifying factors that influence the quality improvement of slum settlements in the case study area using the content analysis method, continued by formulating strategies related to the influenced factors through a qualitative descriptive analysis method. The results showed in this article are strategies considering the influenced factors that are community behaviors, community participation, waste management facilities, sanitation infrastructure provision, road conditions, and population income.

Keywords: KOTAKU program, slum settlements, slum improvements

INTRODUCTION

Slums can grow from a settlement that is urbanized, generally, a settlement whose density is relatively high does not have a regular network structure of services or minimal residential infrastructures, even in Indonesia settlements This slum grows mainly because of the weak control and the community tends to be poor [1]. Sidoarjo has a major influence on housing and settlement Development because its strategic position is likely to increase the economic development of the region resulting in population mobility. It is also along with the emergence of the desire to find residential in the suburbs, one of them in the Sedati subdistrict. In the RPJPD District Sidoarjo 2005-2025, one of the problems that arise is the increase in land needs for the development of settlements and their supporting facilities as a result of urbanization of influences from the Surabaya Metropolitan Area. Realizing the development of residential and habitable settlements is one of the instructions for development policy in the Sidoarjo Regency.

Along with the implementation of the city without slum Program (KOTAKU) Sidoarjo, Tambak Cemandi Village belongs to the category of mild slum with an area of 9.75 Hectar,

including the area of Gisik Kidul including RW 01 and 02 (RT 01 S/d 08) and Sari Temple area 1 including RW 03 (RT 09 S/d 11), among them because of the condition of the river beside the irrigation river used by the community for the disposal of garbage so that the river becomes polluted, many of the wild buildings erected around the river, also interfere with the aesthetics Environmental areas, there has been no means of garbage shelters (TPS) and garbage carriers so that people throw garbage in rivers, in the burn or in the yard at home, 54% of road conditions are not fully adequate, sanitation conditions are also still Bad because the majority of people throw household waste mixed with drainage so that it becomes dirty and smelly, there are still many households who do not have private latrines and have no or are not connected with Septictank, 60% of the population Revenue Rp. 1 million,-S/d Rp. 1.5 million,-, other than that public awareness of environmental hygiene is still low [2].

Based on the condition supported by direct observation, the residential environment in Tambak Cemandi village looks bad, especially the garbage problem, the condition of the river body is not laid out optimally and many buildings occupy the Borders of The river so that the area's irritation and aesthetic functions are interrupted, and cause the risk of being stuck in the garbage because of the many feet of the buildings that are in the river's body. So far there have been no handling efforts that can resolve the issue so the KOTAKU program this year is expected to reduce the loss in the region [3]-[4]. One of the efforts that must be done to handle the slums is to prevent and improve the quality of slums to improve the quality of people's lives [5]. Research is assessed as important research because the sustainable city is one of 17 global objectives on the 2030 Agenda for Sustainable development where access to all basic housing and services is adequate, safe, and affordable, and Increase slums (upgrade slums) so that the goal of sustainable development (Sustainable development goals) for the city without slum in agenda 2030 reached.

Therefore, this research is expected to find solutions or problem-solving slum that occurred in the research area to provide efforts in the improvement of the quality of slums and can help the government Area in the liberation of slums so that the rights of society in settling worthily can be fulfilled.

RESEARCH METHODS

Research types and approaches

The approach used in this study is a rationalistic approach to research, a rationalistic approach sourced to the truth of Empiric theory or fact empiric such a rationalistic approach is a science built from Sensory observation or reasoning which is then supported by the foundation of the theory [6]. The type of research used is descriptive – qualitative research.

Research variables

The variables used in this study are as follows :

Table 1. Variable Research

Indicator	Variable
Physical Building	<ul style="list-style-type: none"> • Irregularities Buildings • Building Construction Conditions
Infrastructure	<ul style="list-style-type: none"> • Road Conditions • Drainage • Sanitation • Waste • Clean Water • Fire Protection • RTH Availability
Land Status	<ul style="list-style-type: none"> • Land Tenure
Economy	<ul style="list-style-type: none"> • Appropriateness • Job Type • Population Income
Social	<ul style="list-style-type: none"> • Community Participation • Community Behaviour

Data Collection Methods

This data collection is done in two ways namely primary and secondary data. The primary data collection method is done by observing the field in the condition of slums in Tambak Cemandi village, and interviews while the secondary data collection method is done by collecting data from government agencies.

Population and Sampling

The population in this research is a resource from experts and parties who have the influence and interest in improving the quality of slums in Tambak Cemandi village, while the samples used in this research are purposive Sampling. The next sample of the respondent to this study was that of an influential party to improve the quality of settlements and communities living in slums in Tambak Cemandi village. To determine the research respondents conducted stakeholder analysis.

Table 2. The respondent who Become Research Stakeholders

Stakeholders	Position Stakeholder
Government Groups	
Bappeda Sidoarjo	Kasubbid Housing and environment
Residential Housing agency and District layout Sidoarjo	Development of housing and settlement infrastructure
KOTAKU Sidoarjo	City Coordinator and Program facilitator KOTAKU
Community Groups	
Device of Tambak Cemandi village	Village device of the village head of Tambak Cemandi
The people of Slum Village Tambak Cemandi	Residents of the slums of Tambak Cemandi village
Academic Groups	
Housing and settlement specialists	Lecturer in housing and settlement

Analysis of factors impacting the quality of slum settlements in Tambak Cemandi village

Analyzing the factors that affect the improvement of the quality of slums in Tambak Cemandi village is done using an analysis process namely Content Analysis. Based on the interview transcripts, some codes indicate what factors affect the quality of slums in the village of Tambak Cemandi. The encoding is adjusted to the research variables previously studied. After the grouping was done the next encoding by the quotation of the sentence of the interview taken from the transcript. The following components in Content Analysis process the text into results.

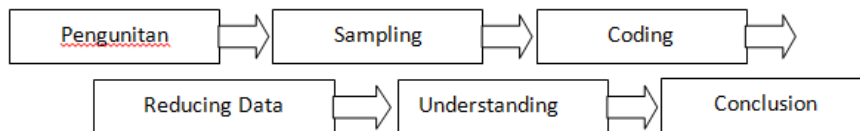


Figure 1. The Content Analysis process

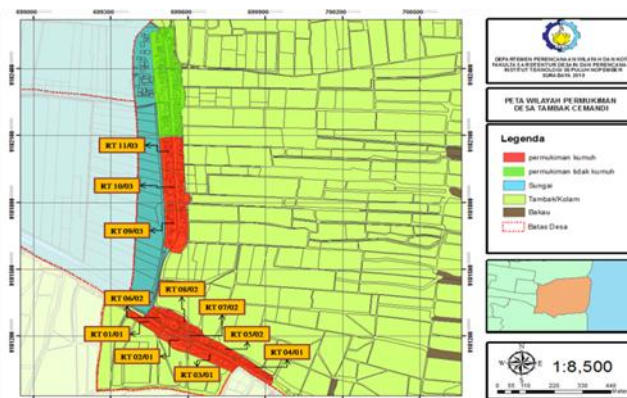
The strategy of quality improvement of slums in Tambak Cemandi village

The last stage is to make a descriptive direction of improving the quality of slums in Tambak Cemandi village which is based on the factors that affect the quality of slums in Tambak Cemandi village.

Results and Discussion

Overview of the research area

The location of the research study is a residential area in Tambak Cemandi village, Sedati District, Sidoarjo Regency. It is located in the northern coastal village of East Java, which is directly adjacent to the Madura Strait. With a total area of 4.43 km², the majority of the population is the livelihood of private workers and peasants, i.e. farmer farms and fishermen farmers. Tambak Cemandi Village is divided into Gisikkidul Hamlet and Candisari Hamlet.



Picture 2. Location of research Area Map

Based on the decree of Bupati Sidoarjo number: 188/452/404.1.3/2015 on the location of residential and slum environment in Sidoarjo Regency, Tambak Cemandi Village is one of the locations that belong to the location of the slums with an area of 9.75 Ha, Among them, are Gisik Kidul area including RW 01 and 02 (RT 01 S/d 08) and Sari I temple area including RW 03 (RT 09 S/d 11). In the identification rate of the village of Tambak Cemandi, the total amount value of 35 with the average amount of slums by 43.35% so Tambak Cemandi village belongs to the category of mild slum [2].

Analysis of factors affecting the quality improvement of the slum in Tambak Cemandi village

In identifying the factors that affect improving the quality of slums in the village of Tambak Cemandi used content analysis. This Content analysis is obtained through the results of interviews that have been transcribed and then done the recording. The recording is done by observing the number of respondents supporting the research variables, resulting in the frequency of the number of respondents. The frequency is obtained by observing how many respondents were counted towards the research variable.

Table 4. Variable coding results in interview transcripts

Variable	Variable Frequency Effect
Irregularities Buildings (V1)	16
Building Construction Conditions (V2)	15
Road Conditions (V3)	23
Drainage (V4)	16
Sanitation (V5)	28
Waste (V6)	38
Clean Water (V7)	17
Fire Protection (V8)	16
RTH Availability (V9)	16
Land Tenure (V10)	15
Appropriateness (V11)	17
Job Type (V12)	12
Population Income (V13)	22
Community Participation (V14)	37
Community Behaviour (V15)	39
New Variable Findings	
Institutional (Vn.1)	5
Flood Disaster (Vn.2)	1

A variable reduction is then based on the number of frequency variables that affect the variables that have an average value of less than equal to 19 (nineteen).

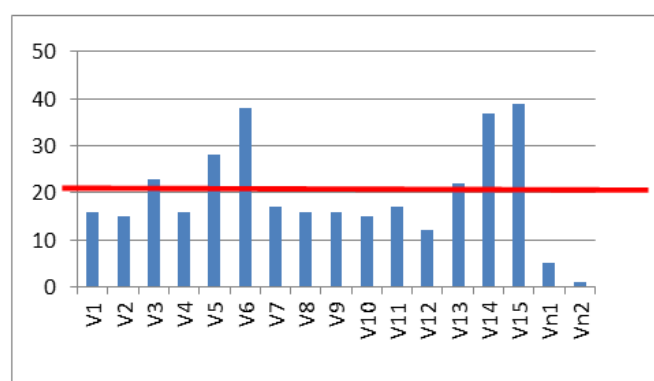


Figure 3. Influential Variables Reduction Chart

Based on the results of the analysis that has been reduced, the variables expressed as selected variables that affect the increase in the quality of slums in Tambak Cemandi village are the road condition variables (V3), sanitary variables (V5), The sampling variables (V6), population revenue Variables (V13), Community participation variables (V14), and Community behavior variables (V15). Therefore, the factors that affect the quality of slums in

Tambak Cemandi village are road conditions, sanitation, waste, population income, community participation, and community behavior.

The strategy of improvement of the quality of slums in Tambak Cemandi village

In formulating the direction of improving the quality of the neighborhood slum in the village Cemandi is based on the first target of the factor or variables that affect the increase of the quality of slums.

1. Road conditions

A good environmental road condition is one of the things to be considered in improving the quality of slums in the area of study. Environment Road condition in Tambak Cemandi Village is not fully adequate because there is still a road condition that has not been hardened (the surface of the land) so that it affects the users of the road, especially the surrounding community that each day doing Various activities in the region. In improving the quality of slums in the area of study, adequate road access is needed to support economic activities and existing tourism potentials, as well as to access vehicles such as firefighters' cars.

Therefore, the direction of improvement of slum quality in this variable is to increase the quality of environmental roads that have not been under technical requirements, especially in RW 02 (RT 06, RT 07, RT 08), and RW 03 (RT 9, RT 11), with the improvement of the road Of damaged roads, widening of roads, improving road pavement by paving and providing road complementary facilities such as street lighting and greenery, and the maintenance of existing environmental road networks through socialization to Community.

2. Sanitation

Availability of MCK/Jamban/Septic tank that is not owned by every household to trigger some people in the area of study is still defecating in rivers or ponds. In addition, the surrounding community also makes use of secondary or tertiary channels as a place where sanitary waste is mixed with households. Therefore, the provision of adequate sanitation facilities influences the improvement of the quality of settlements in the area of study to reduce the score of slums.

Then the direction of improvement of the quality of slums in this variable is the procurement of the means of MCK/Jamban in RT 01, RT 02, RT 03, RT 04, RT 07, RT 08, and RT 09 which most do not have MCK/bathroom, provision of integrated sanitation system based system Personal sanitation (for those with land) or communal sanitation systems (for those who do not land) and improve the knowledge of society by providing counseling on the importance of good sanitation systems.

3. Waste

The waste condition is the main problem in the area of study, not yet the availability of the TPS (garbage shelter) and lack of public awareness in maintaining the cleanliness of the environment in the area of study becomes a community trigger waste carelessly, either in the river, in the pond, in front of or next to the house. The samples have a high score in the identification of reliability. In addition, the absence of a good garbage processing system is also the cause of the pile of garbage in the area of study so the provision of a good supply of processing systems is a priority in reducing the loss score itself. So, the direction to increase the quality of slums in this variable is :

- Socialize and training on the community in the study area on the importance of PHBS (clean and healthy lifestyle).
- Build a management system independently through 3R (Reduce, Reuse, Recycle) by sorting and processing garbage that can be coordinated by each RT by involving the surrounding community. Processing waste is expected to have an economical value

as well as an effort to reduce the amount of garbage in the area of study. Provision of adequate waste facilities in every household throughout the study area, garbage carts in each RW, and TPS, and management of residents for the transportation of routine waste at least 2x a week.

4. Population income

Most of the community in the area of the study is living as farm workers, namely farmers farms and fishermen farmers so the majority of people in the area of study hung their life with the catch for the fishermen and the cultivation by Farmers with an erratic income so that most people in the study area are still low-income. Public income influences improving the quality of settlements in the area of study, if the community has better income then indirectly they can improve the quality of its rights, such as improving the condition of the house without waiting for government assistance. The area of study has the potential of pond yield to improve the economic community in the area of study. So, the direction to increase the quality of slums in this variable is :

- Procurement of Community empowerment programs or business skills training from the Government and institutions through community groups such as PKK and BKM Mothers (Society of Community participation) in the study area to improve the condition By utilizing local potential, especially in RT 07 and RT 11 There is a potential for processed fish that can be a big potential if managed optimally and in RT 02 and RT 05 There is also the potential of pond tourism and fishing so that Communities can be independent to improve their surface conditions in reducing the undoing. One of the things that can be done when the community has sufficient income that is the procurement of dues for the management of the waste together.
- Capital assistance for business through cooperatives so that people can develop their business through small-scale business activities/households that could be done by individuals or groups.

5. Community participation

The lack of support and awareness from the community to cleanse its environment becomes one of the causes of declining environmental quality in the area of study, the participation of the community itself is needed because People are still many who are less concerned about the surface environment so that socialization activities, or counseling how clean, healthy and not rundown settlements continue to be done to increase community participation In improving the quality of slums in the region. Before physical improvement, the community's support and involvement were needed so that any environmental improvement program would be optimal. So, the direction to increase the quality of slums in this variable is :

- Conducting coaching and educational communities to be environmentally conscious. The existence of environmental conscious coaching and education is expected for the community to have a high awareness of the importance of a a clean and healthy environment and the community can independently create a clean and healthy village environment.
- Establishment of a non-governmental group or KPP team (utilization and Maintenance Group) for waste management as an effort to optimize the role of the community in the implementation of the program to improve the quality of the settlement environment. In addition, non-governmental groups are expected to make an invitation to discuss the environment of the surface, such as an invitation to conduct mutual assistance or work that can be done every week.

6. Community behavior

The existence of bad behavior or habits in the area of study that used to dispose of garbage in the river, in the pond, in addition to or behind the house becomes one cause

of the loss due to lack of public awareness of hygiene Environment. The community in the study area is also less involved in maintaining the cleanliness of the environment for healthy living. In improving the quality of the neighborhood slum, the existence of public behavior of not disposing of garbage carelessly influence to reduce the slums that exist. The change in the behavior of the community itself to not dispose of the garbage and behavior to be able to live clean and healthy becomes very important in improving the quality of slum, if people are conscious and apply Clean and healthy living patterns have been felt to reduce the loss even though the infrastructure has not yet support. So, the direction to increase the quality of slumsslums in this variable is :

- Conducting counseling and socialization to the community to dispose of garbage in place by controlling for the transport of garbage regularly, ensuring the fulfillment of waste transport and waste transport officers, and Waste sorting for recycling. Another alternative if you can not take the time to manage the garbage can be done per household dues to pay the services of people transporting such garbage.
- Improve public knowledge about the importance of implementing a clean and healthy life to not defecation in rivers or ponds with education to the public on the importance of good sanitation so that there is expected change in Community behavior to improve the environmental quality of settlements.
- Law enforcement efforts in the form of restrictions on the prohibition of throwing garbage in rivers so that garbage does not accumulate and does not interfere with the aesthetics of the region. In addition, social sanction or reward efforts may also be possible to improve the character of the community.

CONCLUSION

Based on the results of the analysis that has been done on the slums in Tambak Cemandi village, it can be concluded.

Factors that impact the improvement of the quality of slums in Tambak Cemandi Village of the overall iteration of the stakeholders obtained influential variables that has no effect in improving the quality of slums In Tambak Cemandi village, so obtained 6 variables that affect the improvement of slums in Tambak Cemandi village including road conditions, sanitation, waste, population income, community participation, and Community behavior.

The formula for improving the quality of settlements in Tambak Cemandi village includes:

1. Road condition factors: To improve the quality of environmental roads that have not been following technical requirements.
2. Sanitation factors: the provision of MCK/toilet means in person for people who do not have and provide an integrated system of sanitation
3. Waste factor: the provision of waste facilities in every household, trash carts per RW, and TPS, and building a 3R management system.
4. Community income factor: holding community empowerment programs in the form of business training skills and assistance through cooperatives.
5. Factors for community participation: the establishment of community NGOs and the development and education of the community to be environmentally conscious.
6. Factors of public behavior: conducting counseling and socialization with the community as well as the efforts of awareness, enforcement, sanctions, or reward.

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