

The Determinants of The Sustainable Slum Beautification Program. Case Study Kampung Warna-Warni Jodipan, Malang

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Abstract—This study aims to understand the determinants of the sustainable slum beautification (SB) program in Indonesia. The SB program has emerged as one of the successful slum improvement programs. However, many slum settlements in Indonesia failed to achieve the expected result. This indicates that the issue is the sustainability of the program, which demands the active participation of the residents, as a form of reproduction of the social system. This study employs a case study research method. Kampung Warna-Warni Jodipan (KWWJ) in Malang (East Java) is selected as the research location, because of its reputation as an example of best practice in the sustainable SB program in Indonesia. The primary data encompasses the social system and practices, and the physical condition before and after the SB program. It is obtained by observation, semi-structured interview and participatory mapping of the physical condition of the neighborhood, as the source for descriptive analysis. The finding demonstrates that the SB program, as an external intervention, is required to thrive agents to produce agencies for the reproduction of the social system and practice. However, it has to be supported by the active participation and support of other residents. As a collective, it is of urgent interest, which holds a pivotal role in the production of the agency. This result contributes to refining the sustainable SB program in the future, especially in Indonesia.

Keywords: *structuration, beautification, sustainability, kampung*

I. INTRODUCTION

The transition of population from villages to cities has had the effect of shifting the need for shelter. The uncontrolled nature of urbanization has caused increasing numbers of slums and squatters because the migrant population lacks knowledge about the environment, health and the limitations of the economy. Basically, the appearance of the slum embodies the government's unwillingness to provide inhabitants with proper shelter [1]. The government has attempted to resolve this situation by means of eviction because the settlement was interrupting the city's scenery. The primary aspects which go unresolved would be transform the different problems [2]. The vision of housing policy is creating a beautiful city, but by demolishing the slum, it fails to solve the complicated housing problem [3].

In Indonesia, the slum settlement problem came to the government's attention through the Kampung Improvement Program (KIP) since 1969. However, the implementation of KIP was found to be ineffective because the program was oriented toward a physical approach [4]. Now, the same approach is still found and one of the government's strategies is the Slum

Beautification (SB) program. Due to constant failures, SB emerges as one of the most popular KIPs since 2016.

Etymologically, the word "beautification" is derived from a combination of the word "beauty" and the suffix "fication" which means the act of making beautiful. This concept was adopted by urban planners in the 19th century for creating a more aesthetically pleasing living environment of the deteriorated part of the city [5]. Although it has been implemented extensively worldwide, it has never been aimed at slum settlements, due to issues of legality, and this has led to a regime of eviction programs.

Slum beautification (SB) has captured attention since the astonishing, six-year mural intervention in a high-density favela in Rio de Janeiro (Brazil) for the 2006 Olympics. This intervention is considered successful due to the convincing physical improvement which has led to it becoming a significant visitor attraction and to the establishment of a 50-year land tenure policy for the residents [6]. The beautification emerged as one of the most popular urban slum interventions worldwide. It transformed the favela from a demonized part of a modern urban development area into world-renowned tourist destination.

Meanwhile, in Indonesia, the first SB was in Kampung Kali Code, Yogyakarta in 2015. It succeeded in changing the municipal government's opinion of it as a slum neighborhood deserving of eviction, to a well-preserved artifact of the spirit of self-help neighborhood improvement and an acknowledged tourist destination. The aforementioned best practice examples have earned the SB limelight for an effective strategy of averting eviction threats by turning demonized leftover urban space to one of the potential goldmines of modern urban development for tourism.

The number of slums that have received beautification programs in Indonesia has increased significantly since 2016. However, many of them have failed to achieve similar success, such as Kampung Kelir (Gresik city, East Java) and Kampung Muara (North Jakarta). The brightly colored slums deteriorate gradually back to their previous condition, which fails to achieve the objective of sustainable SB. Therefore, it is crucial to distinguish the different results of the same intervention program.

This study attempts to understand the determinants of the sustainable SB program. The finding contributes to complementing the most substantial component of the sustainable SB program, especially in Indonesia.

II. LITERATURE REVIEW

The concept of sustainability entered the worldwide framework of development discourse in the late 20th century, because of the threat of global warming. Sustainable development is a calling for development to maintain the provision of basic needs in the present time and in the future [7]. The success of this program demands a total change and improvement of all aspects, comprehensively and concurrently. Therefore, these aspects need to be moving at the same speed, but the social aspect is falling behind the economic and environmental aspects. This is understandable, in that it requires change to take place gradually due to its connection with the ability of the people to change their activities, from disrespecting to nurturing the quality of their neighborhood and surrounding built environment.

One of the prominent figures in sociology, who is central to the discussion on this topic, is Antony Giddens. His seminal work, structuration theory (ST), posits the reciprocation of agent and structure to constitute society. Giddens defines an agent as an individual who has reflexive rationalizing, monitoring and evaluating of a continuous flow of conduct, or agency. Agency is the fundamental element to reproduce the structure, which he refers to the organic basis of human knowledgeability as instantiated in action, which exists only as memory traces of the agent [8].

The structure consists of rules and resources. The first corresponds to the generalizable procedures in the production and reproduction of social life, while the latter is the media or sources of power in recursive social interactions to enable the production or reproduction of social life. There are two types of resource, which are authoritative and allocative. The first relates to the capabilities which generate command over persons, and the second corresponds to the capabilities which generate command over objects or other material phenomena.

The reciprocal relationship between agent and structure is the pivotal determinant of the production and reproduction of the social system, which is the empirical observable social practices with particular order across space and time. Within the social practices, the structure is the elementary principle that has patterned the social practices of the agent, and the agent produces agency to reproduce the structure, social systems, and practices. Based on the Giddensian view, this study attempts to understand the production and reproduction of the social system that implicates the transformation of the slum settlement before and after receiving the beautification program. It also refers to the study of Graves [9], which attempts to understand the architectural space of the medieval church in England by examining the interrelationship of the social system and the spatial organization and properties of the building. Giddens provides guidance to understand how an agent produces or reproduces the social system, which is: 1) the complex skills of the agents to coordinate the contexts of their everyday life; and 2) the time-space of social practices. This guidance becomes the reference for this study to meet the aforementioned attempt [8]-[10].

Learning from the previous studies, aspects such as an equitable allocation of resources and the presence of respected authority are also the factors that determine the formation of willingness of the community to participate. It is the unremitting reproduction of the social system by the agent in the neighborhood that plays an essential role in creating a sustainable SB program. Therefore, does any other beautified slum share similar determinants for its sustainable SB program? Or are there any different determinants of the sustainable SB program?

III. METHODS AND LOCATION BACKGROUND

A. Location Background

Malang is the second-highest-density city in East Java province and has a total population of 861,414 by 2018. Based on the Badan Pusat Statistik, Malang city has five districts, Klojen, Blimbing, Kedung stalls, Sukun and Lowokwaru. The Brantas River, which crosses this city, is one of the longest rivers in Indonesia. Most of the Brantas riverbank area has been used for slum settlements. One of them is Jodipan sub-district (Blimbing). Jodipan sub-district consists of eight Community Associations (CA) and 50 Neighborhood Associations (NA) with a total population of approximately 11,374 people, who live in 0.49 km² area.

Kampung Warna-Warni Jodipan (KWWJ) is selected to be the location of this study. This example of global best practice in SB is suitable for further investigation of the determinants of the sustainable SB program. KWWJ only consists of 1 CA (CA 2) and 3 NA of CA 2 (NA 6, 7, 9). The total population in KWWJ is approximately 314 people, who live in 1.07 HA land area. KWWJ is situated by the riverbank and experiences regular flooding. Its location and unsightly appearance have sparked eviction threats from the city government.



Figure 1. Kampung Jodipan Location

Source: Google Maps, Badan Pusat Statistik Malang 2017



Figure 2. KWWJ before and after beautification

Source: Google Maps, GuysPro (2016), & Authors (2019)

In 2016, a community engagement team from Merdeka Malang University (UM) launched the SB in KWWJ, with the active collaboration of the residents. The pleasing result has attracted domestic tourists, who excitedly shared

their pictures through various social media. Ever since, it has been successfully maintaining its attractiveness by means of self-help neighborhood improvement

B. Research Methods

Due to the nature of this study, a case study method is a suitable approach to understand the determinants of the sustainable SB program. This study investigates the transformation of the social system and physical space of the neighborhood before and after the SB in KWWJ.

According to the historical background, there are four phases of transformation, which are: 1) pre-SB; 2) SB (2016); 3) post-SB (2016–2018); and 4) its culmination as a city icon (2019). In each phase, the primary data encompasses the transformation of physical space of KWWJ and social systems. Due to the absence of written or visual documentation in phase 1, participatory mapping is employed through a semi-structured interview with the Head of CA 2, the Head of NA 6, the descendant of the KWWJ first residents. The documentation of physical space of KWWJ in phases 2 and 3 is obtained from the Head of CA 2, the Head of NA 9, the Head of GuysPro, and a non-government organization that supervises the SB in Malang city. The documentation of physical space of the neighborhood in phase 4 is recorded by the team during data collection in January-March 2019.

The transformation of the social system is taken by a semi-structured interview. It is essential to identify the key agents, agency, rules, and resources (authoritative and allocative) to understand the perpetual reproduction of the social system that sustains the SB program in Kampung Warna-Warni Jodipan.

IV. RESULTS & ANALYSIS

A. Phase 1: Pre-SB Program

Most of the residents' houses in the year 2000 were semi-permanent buildings. At that time, the number of immigrants multiplied significantly. Due to the limitation of land, they encroached on the Brantas riverbank and built semi-permanent houses. These houses also provided rooms for rent for refugees from flooding, who were searching for work in the heart of Malang city. Then, they gradually upgraded the house to a permanent house, by combining one-meter-high brick with the woven bamboo as the wall and metal sheets for the rooftop. These physical characteristics meet the slum settlement criteria, according to the Housing and Settlement Act 1/2011. This regulation states explicitly that resettlement through eviction is the only policy for dealing with slum settlement.

According to Badan Pusat Statistik (2018), female residents make up 38% of the total population of KWWJ and all of them are housewives. The total of unemployed KWWJ residents reached approximately 21% of the total population. Unhygienic behavior worsens the condition of the built environment in the neighborhood. The residents usually used the river for domestic activities such as for laundry and disposal of garbage. Consequently, it regularly experienced floods, especially during the rainy season. This socio-economic condition shares a similar vision with Davis, who depicts slum as a physically degraded settlement with poor residents [11].



Figure 3. The Pre-SB phase
Source: GuysPro (2016)

This demographic condition came to be used as a strong justification to wipe KWWJ from the face of Malang city. However, the inhabitants think the image of the slum has come about because of the image of the Brantas River as a polluted river.

Based on the environment conditions, the Head of CA 2 demanded that the city government continue to upgrade the neighborhood KWWJ because it had been slow to respond. Although KWWJ was led by several Heads of NA, none of them was willing to change the situation by creating a self-help hazard management system for occurrences such as flood or fire, or an integrated micro-economic system among residents. According to the Heads of NA, they have been trapped by their poor economic conditions and low educational level into accepting their destiny to live in a degraded neighborhood. This description shows the absence of an agent in the first phase to change the structure, which degrades the social, physical and economic condition.

B. Phase 2: SB Program With The UM Team

In the middle of 2015, KWWJ was named in a mayoral decree as a slum settlement with high priority for eviction. Consequently, the KWWJ residents united to fight against the program. However, they realized that, without neighborhood improvement, the fight was futile



Figure 4. SB in the second phase
Source: GuysPro (2016)

In early 2016, a proposal from Merdeka Malang University (UM), containing SB which shared the same approach as in Rio's favela, came to the neighborhood. The Head of CA welcomed the proposal as an effective means of avoiding eviction. With the support of a CSR program from several companies, the UM team and residents participated in the design and accomplished the SB program. This activity was noticed by the city government, who were surprised by the astonishing result and eventually concede KWWJ as a model of kampung improvement in Malang. The threat of eviction was no longer heard from the city government.

As this strategy succeeded in meeting the aim, the social system gradually changed. A flood of local tourists have visited the KWWJ during the SB program. Their arrival was initiated by the viral pictures on the various social media. Due to the unpredicted attraction, the residents began to organize the social system under the

supervision of Head of CA, including ticketing and tourist trails.

This description demonstrates the agents and agency emerging from outside intervention, in this case, the community engagement from the UM team. It was also ignited by the collective urgent interest to avoid eviction. It indicates the complex external conditions, which provide hope and interest, prompting the emergence of the agency. As it emerges, the agent reproduces the structure by the enactment of new rules such as collecting fees by selling tickets to those who visit their neighborhood and designating the tourist path. The supervision by the Head of CA in making and executing the rule is evidence of the utilization of the authoritative and the allocated resources.

C. Phase 3: Self-help SB After The Program (2016–2018)

The escalating number of visitors to their neighborhood surprised the residents with a huge amount of profit from the ticket sales. The unprecedented experience, from the quite degraded to the eye-pleasing and colorful neighborhood, demands a comprehensive social system to maintain and develop this delightful condition. However, it initiated a suspicion of corruption to the Head of NA. The residents held the meeting and established KWWJ organization. The members were selected by voting, with a definitive job description and authority, as shown in Figure 5.

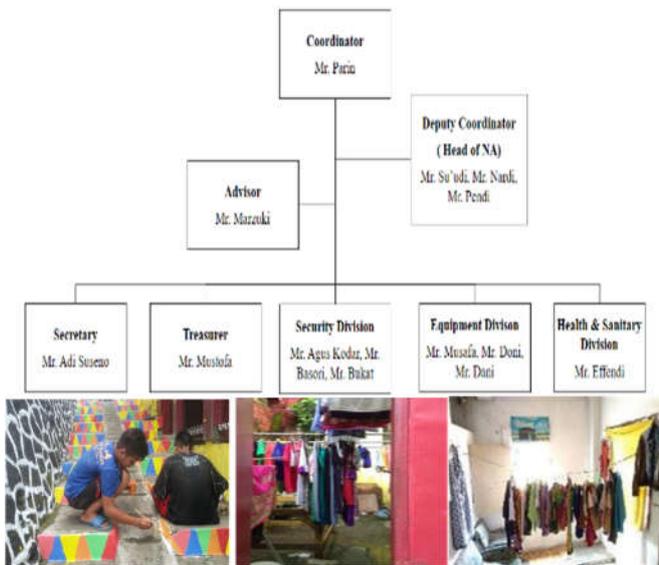


Figure 5. Structure of the KWWJ organization (top), self-help SB (bottom left) and the location of the communal laundry room (bottom right)

It was established to maintain the physical quality of the neighborhood, and to manage the earnings to increase the income of the residents and deliver neighborhood improvement. Moreover, the residents receive some amount of basic needs (such as rice, sugar, etc.) as the incentive to keep and maintain the cleanliness of the neighborhood and river and also to participate actively in tourism activities.

The residents were allowed to share their ideas for increasing tourist numbers, for instance, the idea to place more decoration and murals in various photo spots and to add several culinary locations. These inputs have been

realized and proven to increase the income of the residents.

In this phase, some changes in physical space occurred. The laundry room of every house on the tourist track was moved out of sight, for instance on the second floor or hidden communal space, as shown in Figure 5. The housewives became the pivotal members of the organization as the ticket officers, as they are available during the day in the neighborhood. Their participation increases their income to improve the living condition of the family.

D. Phase 4: The Coronation Of The City Icon

This staggering achievement has placed KWWJ as one of the city icons. The physical and management improvements, such as the bi-monthly repainting of the murals, are delivered continuously with the participation of the residents. Each organizer in KWWJ reminds the residents to maintain their neighborhood and to be friendly and polite to the visitors. Nowadays, there is an English course to improve communication with foreign tourists, especially for housewives, who are in charge during the day.

In Table 1, The number of facilities increased by approximately 300% since the second phase. These included a glass bridge, a warehouse, a communal space for laundry, a bathroom for visitors, a bathroom for the residents, a security room for CCTV, and a house for rent. The food kiosks and service providers of commodities such as souvenirs and mobile phones are mushrooming in the form of home-based enterprises.

Table 1. The Quantity of Facilities before and after beautification

The KWWJ facilities	NA 09		NA 07		NA 06		Total Unit	
	2016–2019	2013–2000	2016–2019	2013–2000	2016–2019	2013–2000	2016–2019	2013–2000
Units	2	0	6	3	1	0	9	3

According to the primary data in Table 2, the number of home-based enterprises (HBE) has increased by 193% in KWWJ. The increase in the number of food stalls is 500% and all of them are located in the field NA 7 as the center of tourist activity.

Table 2. The Quantity of the economic activities before and after beautification

Economic Activities	NA 09		NA 07		NA 06		Total Unit	
	2016–2019	2013–2000	2016–2019	2013–2000	2016–2019	2013–2000	2016–2019	2013–2000
HBE	11	4	8	5	9	10	28	19
Merchant	1	1	5	1	3	2	9	4

Source: Authors (2019)

The description of the fourth phase indicates a finding similar to the current one. The reciprocation of the agents and structure has caused the improvement of the social system to flourish for the betterment of the neighborhood. The agents, who are members of the established organization, reproduce the social system, with the enacted and practiced new rules through the firm utilization of authoritative and allocated resources. It is a success to

maintain and develop the initial SB program through the flourishing agents, who created an agency that reproduces the social system. The social system leads to social practices, which create better physical space of the neighborhood through sustainable improvement.

E. Discussion

• Agency By External Intervention To Meet Collective Urgent Interest

The experience of KWWJ demonstrates two pivotal determinants of the transformation of a social system which implicates the spatial transformation, which is external intervention and collective urgent interest.

The external intervention, which is the community engagement program by a UM team, initiated the agency to reproduce the existing structure. The intervention provides additional information, ideas, knowledge, labor, funding, and hope for better living conditions. It illustrates that the agency is initiated not only by the residents inside the neighborhood, but also from the outside. It recognizes the limitations of the residents. The motivation to change is also determined by the collective urgent interest. In this case, the eviction threats brought the residents to their senses to become agents and produce agency for transforming the social system to deliver the practice of neighborhood improvement.

proposal of the UM team for the SB program and established the rules with the consent of the residents. This is the initial production and reproduction of the social system in KWWJ, where the agency of the agents transforms the existing structure.

In the following phases, the reciprocation of the agent and structure begins to emerge. After eviction threats were revoked by the city government, the increasing monthly income of the residents to improve their living conditions and neighborhood motivated the ensuing reproduction of the social system. The organization, as the eligible party to enact the rules through the authoritative resource to manage the allocated resources, is established. More agents flourish in KWWJ to refine the rules and social system for increasing the numbers of visiting tourists and income. The rules do not cover only the social system and practice but also physical transformation. This finding may complement the ST by Giddens, in terms of how the agency ignites, which is still obscurely explained [8].

As in this case, external intervention is required to supplement the limitation of the community to create an agency and transform the structure. However, it is the collective urgent interest that makes the agents keep producing agency to reproduce the structure, social system and practice for a sustainable SB program. This finding has not been covered by the aforementioned studies, such as Leh (India) or Kali Code (Indonesia).

• The Equitable Allocation of Resources and the Respected Authority in the Production of Agency

A study was done by Muller about the restructuring small town with the beautification program to upgrade the residents economic [5]. The inequitable system caused social conflict among residents. In the case of KWWJ, the community participates in operating the system to upgrade their physical space of the neighborhood. The system meets the needs all of the agents to reduce the possibility of gaps.

A study by Hanum at Kali Code (Indonesia) is about the result of the reproduction of social life to maintain the beautification result and to improve tourism activity [12]. The leader of a community has an essential role in fostering the community to encourage agency. The findings are also found in the case of KWWJ. The Head of CA is the respected authority in leading the community. The residents, as the agency, produce and reproduce their social system and practice due to the leader.

V. CONCLUSION & RECOMMENDATION

A. Conclusion

The SB program has captured worldwide attention for slum improvement, replacing the inhuman eviction. It beautifies the living space of the underprivileged in the city and prevents gentrification by modern development programs. It also promises the improvement of living conditions by providing job opportunities in tourism

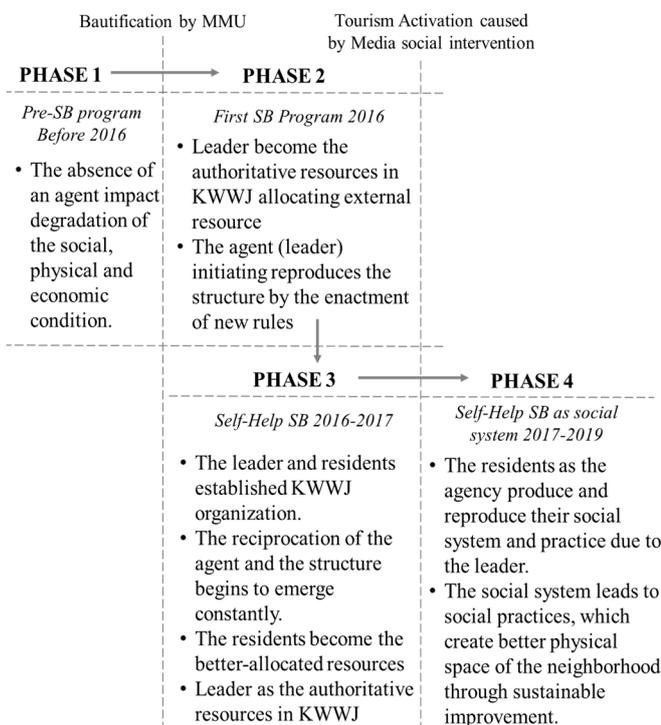


Figure 6. The Social Structure Transformation
Source: Authors (2019)

Once the agent produces the agency, the structure begins to transform with the changing rules by utilizing the authoritative of leader for managing the allocated resources. The agents, in this case, the Head of CA and all Heads of NA, accepted the

activity. However, many SB programs in various slum settlements in Indonesia fail to achieve their promise. The promising result only lasts for a matter of months before deteriorating back to the previous condition. It depicts the sustainability of the SB program as the main issue.

Different from other villages, KWWJ is a unique case because the SB program brought about the transformation of the residents' conception of their living space. The agent initiates the social system reproduction continually with the respected authority control monitoring the KWWJ development.

Although it is a favorable approach for urban revitalization and as a slum improvement program, the SB program is recommended to be delivered with a participatory approach. Finding the collective urgent interest in fitting to the SB program is essential. It is effectively obtained with a participatory approach, working together with the community as a partner rather than a beneficiary. During the process, the motivation of the community to become agents and create agency will grow, then the better transformation of the social system and practice can be cultivated gradually in the future.

B. Recommendations

The SB program not only improves and beautifies the physical built environment, but must substantially change the social system and practice of the residents. As one of the favorable government-based development programs, SB must integrate physical improvement with community empowerment to maintain its sustainability.

However, this study has many limitations. It focuses only on one particular slum neighborhood, which cannot extend to a generalization on the transformation of the social system and practice for the sustainable SB program. Therefore, extensive research is required to examine the various successful and unsuccessful results, as a basis for the refinement of the SB program in the future. A series of longitudinal studies of the sustainable SB program in KWWJ and other locations is required to gain an understanding of the dynamicity of the physical, social system and practices on developing the SB program. Therefore, thorough investigation of the utilization of community capital needs further investigation, as it plays an essential role in maintaining and developing the SB program. Self-help incremental housing after receiving an SB program is worth looking into as a topic for future study for understanding the implications of the SB program for micro-scale physical transformations.

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