

Community Initiatives in Developing Sustainable Settlements, Case Study Kampung in Surabaya Indonesia

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Abstract— Settlements in developing country faces great challenge in solving problems of poverty, unhealthy environmental conditions and pollution. Transformation is a must in combating the challenges of sustainable settlements. This study will explore community initiatives in the transformation towards sustainable settlements. The study conducted with qualitative methods that support both primary and secondary data. Surabaya city was chosen as case study because it is one of the cities that is consistent in the effort to promote sustainable settlement in local context and because it's ability in the transformation holistically. *Kampung Margorukun 7* can be transformed into an environmental friendly settlement. Significantly *kampung* environmental management activities have an impact on improving the quality of life. Guarantee of good quality of life can be felt through *kampung* capacity in support healthy living, comfortable and prosperous for all the inhabitants.

Keywords—community initiative; sustainable settlement; kampung

I. INTRODUCTION

Self-help housing is the dominant housing delivery system in many developing countries which account for 30% -70% of the total housing stock [1]. According to [2] house is an expression of the value of life, which is implemented on the principle of freedom to build. Housing is a process (housing as a verb) in which participation is an important component [3]. The theory in 1983-1998 not only implemented on low-income housing community but also the entire construction sector housing [1].

In line with the issue of sustainable development self-help housing have transform itself in solving problems of poverty, unhealthy environmental conditions and pollution through human approach as the main focus. This study will explore community initiatives in the transformation towards sustainable settlements. Surabaya city was chosen as case study because it is one of the cities that consistent in the effort to promote sustainable settlement development in local context.

This study needs both primary and secondary data. Secondary data was obtained through the compilation of statistics data, results of studies and related literature. Primary

data were collected through observation and interviews. Qualitative methods was applied in identifying the initiative of community on environmental management process.

II. CHALLENGE IN THE SUSTAINABLE SETTLEMENTS DEVELOPMENT

Along with the challenge of realizing sustainable cities, housing development in developing countries are required to be able to improve the environment quality to meet the needs of present and future generations. The issue of sustainable development has a strong local context because of the complexity of the issues, socio-cultural characteristics and physical conditions of different regions [3], [1], [4], so that the settlement should be formulated in local context.

According to [4] the issue of sustainable development in developed countries in contrast to the issues in developing countries that focused on issues of poverty, unhealthy environmental conditions and pollution. These problems must be understood in an integrated way in which human beings must be the main focus of sustainable development that becomes part of the city as a whole [4]. The opinion is consistent with [5] which states that increase in the quality of the environment should be based on human characteristics and as needed as well as an understanding of how humans and the environment related each other.

III. THE DEVELOPMENT OF KAMPUNG IN SURABAYA

Kampung is a form of self-help housing in urban Indonesia. Self-help housing construction is done in stages by the popole is one of the characteristics of the village [6], [7], [8]. The concept of *kampung* has been formulated long before Geertz formulated *kampung* as part of the city in the metropolitan city of Indonesia, which is associated with poor environmental conditions, poor with chaotic settlements [9]. Another opinion formulated by [6] that states *kampung* as the most appropriate form of housing for low income people and a place to preserve culture. In the urban context, *kampung* represents the concept of autonomy housing where the inhabitants have freedom and authority to determine their own lives and the environment [10]. *Kampungs* play an

important role in the development of villages in Indonesia because they are very dominant in each region.

A. Surabaya in General

Surabaya is Indonesia's second metropolitan city with a population of over 3.1 million, and the capital of East Java province [11]. It is located on the northern shore of eastern Java along the edge to Madura Strait. Surabaya is known as "the city of heroes" due to the importance of the Battle in galvanizing Indonesian independence and international support.

Surabaya is one of the cities that are consistent in developing the *kampung* as an integral part of urban development. Globally, the *kampung* in Surabaya had been known through the successful implementation of the Kampung Improvement Program (KIP). Many awards have been obtained from *kampung* improvement efforts by the Aga Khan Award for Architecture (1986), The UNEP Award (1990), and The Habitat Award (1991). With this success, a reference to the Comprehensive KIP implemented in other regions (Solo, Pekalongan, etc.). Thailand at Baan Mankong program administered by CODI (Community Organization Development Institute) also adopted the approach of KIP in Surabaya. The success is supported by a community organization that is able to negotiate to improve the quality of the environment through good cooperation with the government and other development stakeholders [6].

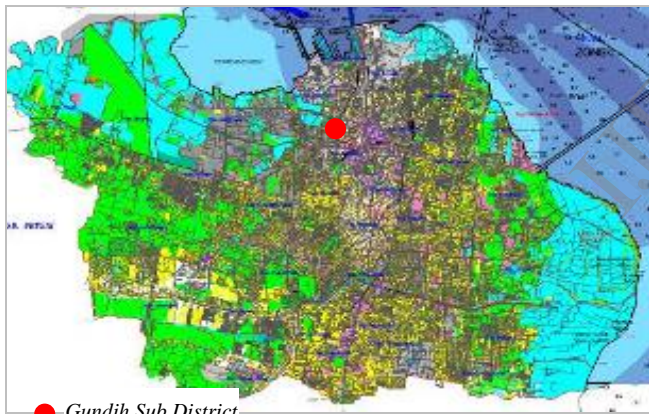


Fig 1 Surabaya City Map

B. Kampung Margorukun 7 as Focus of The Research

Kampung Margorukun 7 was part of Gundih Sub District and located in the heart of Surabaya City. Surrounded by industrial and trading area this *kampung* was established in 1960s. The inhabitant's characteristic was divers on economic, education and cultural background.

Before 2005, *Kampung Margorukun 7* was a slum and earned the nickname "red kampung" (the area of many thugs and criminals). Through the approach of improving the quality of the environment by community leaders, gradually changes occurred in those *kampung*. Physically, *Kampung Margorukun 7* showed significant changes in the field of environmental management (waste management, waste water, reforestation), economic development (trash bank, urban farming, eco-tourism village), and social (community cohesion). Influence on people's behavior is perceived in the growing awareness of healthy living, environmental

awareness and improving social awareness. Not only by the local community, the change is recognized by the United Cities and Local Governments (UCLG) Committee (2009) which states that through environmental management programs in the city of Surabaya, the *kampung* was able to provide a better place to live and improving social and economic conditions which is an important dimension of sustainable settlement.

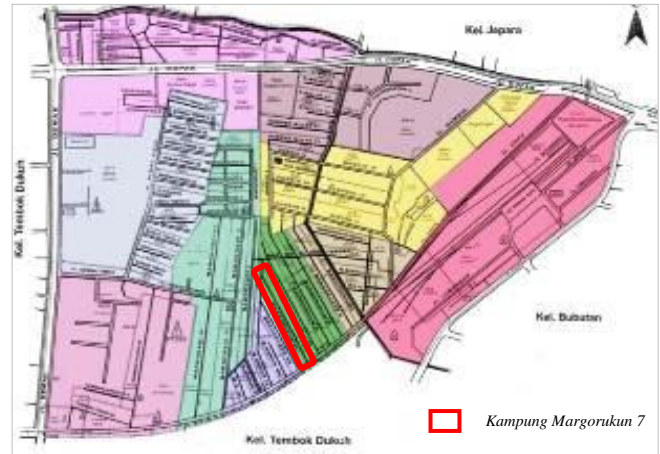


Fig 2 Kampung Margorukun 7 as Research Focus.

IV. COMMUNITY INITIATIVE IN KAMPUNG DEVELOPMENT

Kampung Margorukun 7 has been transform holistically in the fields of environment, economic and social elements. Next are is a descriptions of the community initiatives in many fields.

A. Environment Activity Initiative

Implementing environmental management initiatives was conducted since 2007 through the movement of Merdeka Dari Sampah (MDS). *Kampung Margorukun 7* pioneered on greening activities and management of hygiene that motivated other regions conducted the same activities. Environment management activity was conduct regularly in *kampung* through physical maintenance dissemination and meeting. Community empowerment in environmental management is done in several stages, as illustrated in the following diagram.

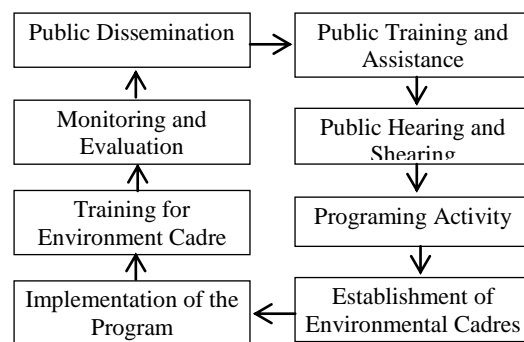


Fig. 3 The Stages of Environment Management in *Kampung Margorukun 7* Surabaya

Greening activities are a collective initiative that was agreed by the entire kampung's inhabitant. Greening in *Kampung Margorukun 7* has been done by each family and by using their own fund. Greening and hygiene monitoring activities carried out within the scope of *Dasawisma* where every cadre has a responsibility to keep reminding each household regularly. Environment cadre plays an important role in fostering and overseeing the environmental conditions of each home and reported in the monitoring book.



Fig 4 Greening Impact in Kampung Margorukun 7

In addition to greening activities, environmental managements are also conducted through waste and water management. Since 2007 residents of *Kampung Margorukun 7* started waste sorting done by every household. Each family is required to sort waste into three categories namely; wet waste, dry waste and B3 waste (hazardous waste). Wet waste is processed into compost that the results are used by people who needed or sold by the trash bank. Dry waste is separated monthly. Some part of dry waste is processed into handicrafts and the rest sold to the trash bank. Hazardous waste is routinely dumped into the landfill through the officer who took the garbage bins once every three days. With waste management which is done routinely in *Kampung Margorukun 7*, is able to reduce 90% of waste disposed to landfill.



Fig 5 Innovation on Waste Treatment Tools (Composter & Water Treatment Plant)

Initiatives in the management of waste water is done by developing waste treatment plant. Domestic wastewater is processed into raw water used for watering plants. Development of wastewater treatment tool in addition to reduce water consumption also keep the environment healthier and safer from the threat of flooding.

B. Economic Activity Initiative

Kampung Margorukun 7 develops business groups based on environmental management by forming a cooperative of trash bank named "*Rukun Karya*". The formation of the cooperative was aimed to empower and enhance the community based on the potential and the resources they have, so they can be self-sufficient. The cooperative has been incorporated and has a membership of about 70% (186 people) of the inhabitant. Primary challenge which was faced in the development is the limited scope of service due to capital constraints. This cooperative is hoping to reach all areas in Gundih Sub District, thus helping to improve the overall environmental quality.



Fig 6 Economic Activity in Kampung Margorukun 7

In addition to processing of waste, *kampung* economic activities are conducted in the form of urban farming. The inhabitants cultivate food crops (vegetables and medicinal plants) and fish farming. The results of urban farming managed to help people with low economic, and the rest is sold to another kampung communities.

C. Social Activity Initiative

Empowerment activities in *Kampung Margorukun 7* provide significant impact on the social life of the community. Social activity initiatives are carried out in the form of education, health and poverty alleviation.

Public awareness is embodied in an effort to help others. The high participation also showed conducive social life. Each activity in the village communities obtain a positive response, so that mobilization in improving the quality of *kampung* become easier. Figure 5 shows the *kampung* social activities (sports and mutual assistance).



Fig 7 Community Social Activity

V. DISCUSSION

Based on the identification of community initiatives in environmental management, economic and social field can be concluded that *kampung* development is a joint effort of all elements of the *kampung* with government support. With strong determination, *Kampung Margorukun 7* can be transformed into an environmental friendly settlement. Environmental management activities have sown a significant impact in improving the quality of life both physically and non-physically. Physical impact of environmental management including; *kampung* that become more clean and beautiful, the people are motivated and housing quality improve. Improving the quality of health, comfort, and social life have been non-physical impacts of environmental management.

In an effort to increase social welfare, environmental management activities can provide a huge economic impact; additional sources of revenue through waste sorting and saving water and electricity consumption. The development of eco-tourism *kampung* provided high economic impact for business opportunities (guest house, culinary, souvenirs, etc.).

Significantly *kampung* environmental management activities have an impact on improving the quality of life. Guarantee of good life can be felt through *kampung* capacity in support healthy living, comfortable and prosperous for all the inhabitants.

VI. CONCLUSION

By integrating environmental management initiatives, economic and social in *Kampung Margorukun 7*, sustainable residential development shows great potential, that can be realized. System and organization structure with strong commitment become a major instrument for maintaining the sustainability of *kampung* development. Communities should be the main focus in the development of the *kampung*. Engaging in any stages of development are important for recognition of the inhabitants in the *kampung*s. Diverse community culture accommodated when formulating commitment that is mutually agreed will increase awareness and sense of belonging through the *kampung*. *Kampung*

Margorukun 7 development pattern shows the ability to face the challenges of sustainable settlements facing issues of poverty, poor environmental quality and pollution. The pattern is expected to be an inspiration for other *kampung*s in developing sustainable settlements for present and future generations. It needs a more in-depth studies related to the process of transforming the *kampung* to get basic essence that motivates the inhabitants to make the *kampung* as a better place to live.

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