

# Building Community Resilience in an Informal Settlement:

## Analyzing the role of quadruple helix in the transformation of Jodipan Hamlet Slum in Malang City, Indonesia

Oscar Radyan Danar  
Faculty of Administrative Science  
University of Brawijaya  
Malang, Indonesia  
oscar@ub.ac.id

**Abstract**—This research analyzes the role of quadruple helix, hereafter called by QH, namely academician, private sector, community and government, in the transformation process of urban slum area in “*Kampung Warna-Warni (KWW)*” in Jodipan Hamlet, Malang City, Indonesia. Semi-structured interview, focus group discussion (FGD) and observations were conducted to collect the data. The results of this study show that each actor in the QH has different important role in the transformation process. Academia has an important role in this transformation process because could act as drivers and triggers in the transformation process. Private sector has a role as a party that provides various needs, such as wall paint and financial needs. The government, especially the local government, becomes an important actor to become a ‘bridge’ for other actors; while the community’s role is to develop openness to change. Another interesting finding is the process of transformation that becoming a dilemma. First, in accordance with the legislation, the colourful hamlet is an area that prohibited to be built as residential area. Second, the assistance provided by the private sector only lasts for a certain period in accordance with the contract.

**Keywords**—community resilience; informal settlement; quadruple helix; urban slum transformation

### I. INTRODUCTION

Slum areas are one of the fundamental problems in urban area. In Indonesian Mid-Term Development Plan (RPJMN) target, it is stated that urban slum areas in Indonesia amount to 38,431 ha and the target in 2019 decreases to 0 ha, or it is expected that there will be no urban slums in Indonesia [1]. Malang City in East Java, Indonesia also has some slum areas, which one of them is Jodipan Hamlet that later transformed into KWW. According to Malang City Local Development Plan, the criteria for determining this slum area are inadequate facilities, infrastructure and building conditions (temporary/semi-majority), solid and irregular (due to unplanned growth), low environmental health and sanitation, low education level, low income level and high social vulnerability [2]. The aim of the study is to analyse how to build community resilience in urban informal settlement. In addition, this research will analyze the role of quadruple helix (QH) in the transformation process of urban slum area in

“Kampung Warna-Warni” or colorful hamlet, in Malang City, Indonesia.

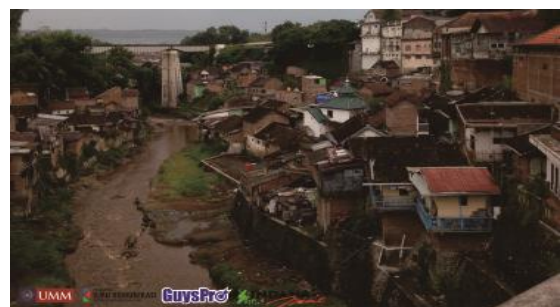
### II. LITERATURE REVIEW

This study uses qualitative method with descriptive approach. A qualitative approach provides the freedom to view social phenomena holistically [3]. Semi structured interview, focus group discussion and observation were conducted to collect the data. Semi-structured interview was conducted with key informants that represent local government official, private sector, academician and the Jodipan Hamlet community. Focus group discussion is carried out by inviting various parties especially the Jodipan community. Observations were made by visiting KWW three times. The entire process is carried out within the June-December 2017 period.

### III. DISCUSSION

#### A. KWW before the Transformation

Environmental conditions in KWW before the transformation, included into slum area. This situation also described in the explanation of RPJMD of Malang City which mentioned that KWW categorized as slum area. This hamlet which located around the Brantas River bank has long been known as a slum area. The stigma existed before KWW become tourist hamlet.



Source: Guyspro Team of UMM, 2016

Fig. 1. Jodipan Hamlet before the transformation.

From the pictures taken by the Guys Pro team on April 26, 2016, it can be seen that at that time the condition of Jodipan hamlet looked shabby. The cause of a village to be a slum cannot be separated from the habits of the people who pay less attention to the cleanliness and beauty of the surrounding environment. The habit of littering has in fact been attached to some KWW people. In addition, there is a habit of the people in KWW who often throw garbage directly into the river. Low public awareness of the importance of protecting the environment has become a habit of society that is difficult to eliminate. This is as stated by one of community member:

*“The community throwing garbage in the river, even though it has been given a prohibited sign”*

The habit of disposing garbage directly in the Brantas River, the river near the KWW, causes environmental pollution and degradation. When the river is filled with garbage from the community it is not impossible to cause flooding. Besides, caused by the lack of sanitation, pooping in the river also became a habit of the hamlet community. The habit of pooping in the river cause more environmental degradation.

Although has a bad environmental and sanitation condition, the Jodipan hamlet community tend to has a good social life. Most of Jodipan’s community is native inhabitant who has been living there for a long time. Apart from having lived in Jodipan hamlet since childhood, the Jodipan’s hamlet that located in the center of the city is the reason why the community tend to live there. Jodipan hamlet community still has social and cultural values that reflected in the structure of the community which still has community assemblies, congregations and community associations that engaged in social affairs. It is also supported by the people who want to work together in every citizen activity. The habit of mutual cooperation that has been going on for a long time certainly reflects the harmony that exists in the community of Jodipan village. Every time a community activity takes place, community participation is very high.



Fig. 2. Toilet of Jodipan Hamlet before the transformation.

Source: Guyspro Team of UMM, 2016

**B. KWW after the Transformation**

In the picture taken by the researcher, it can be seen that Jodipan hamlet looks cleaner and beautiful which has managed to eliminate the impression of slum after becoming KWW. The transformation of Jodipan hamlet, certainly have an impact on the environmental, social and economic conditions of the people in KWW. From an environmental aspect, there are several changes in the habits of the community in protecting the environment. If before becoming KWW, Jodipan’s community tend to have a low level of environmental awareness, then after the formation of KWW, the community is more aware in maintaining environmental cleanliness. As stated by one of community member:

*“After the existence of KWW, there is fund that can be used to pay officers who carry garbage. We are now routinely pay Rp. 15,000 (around 1 US \$) per month for cleaning garbage. Before the existence of KWW, no one planned it, so people dumped their garbage into the river.”*



Source: Researcher Documentation

Fig. 3. Jodipan Hamlet after the transformation.

The presence of KWW not only change community’s habits regarding environmental aspect; but also changes the social aspects such as the harmony and mutual cooperation of community. However, the transformation of Jodipan village into a tourist village, not only has a positive impact on the community, but also a negative impact. Sometime the community disturbed by the noise of the visitors which makes them difficult to rest.

The presence of KWW also has a good impact on community welfare. This is because people who have worked can create a small store to serve the tourist. The unemployed community now have jobs to support their families. As stated by S (48 years old) who claimed the positive impact of KWW was that his family could open small businesses, such as selling, so that they were able to contribute to the income of the community.

*1) Quadruple helix in the transformation of urban Slum area*

*a) Academician as a trigger of transformation:* The role of academician as a trigger to change the slum area of Jodipan

was carried out by the University of Muhammadiyah Malang (UMM), as the initial initiator of the transformation of KWW, both from students and lecturer. Based on the history of KWW, it was written that KWW was triggered by activities initiated by eight students of the Department of Communication, UMM. The students got a practicum assignment from the lecturers. The students, named themselves by “Guys Pro” team, have a bright idea to transform this slum area into a colorful village. Based on this idea the team then conducted research on prospective clients who would be invited together to realize the idea. The idea was then communicated to all administrators (RW) and neighborhood units (RT) for joint implementation. This invitation lists admissions by citizens and is held in April 2016. To support the implementation of the concept, the team tried to build a network with paint companies in Malang city. The idea finally got the opportunity when one of paint companies, PT. Indiana paints, accepts the proposal.

From this point, it can be seen that the role of academician is quite maximal in an effort to change the slum area of the city to become habitable and environmentally friendly. In the community-centered quadruple helix model, Arnkil mentions that academician has an important role to realize cooperation and development [4]. The role of universities and polytechnics is to provide various kinds of innovation and creativity carried out by the community.

The triple helix concept was initially based on the fact that innovation and development in knowledge-based societies can be reflected in the importance of the role of universities, industry and government in the framework of production, transfer and implementation of knowledge [5,6]. Universities have an important role in innovation equivalent to industry and government in society. Academician plays a key role in the development of innovation and technology that will be transferred to society.

*b) Financial capital (Peran private sector):* In the QH concept the role of the private sector, in this case the paint company is to develop a commercial product and service that resulted from community innovation. In addition, the company can support activities carried out by the community through corporate programs such as Corporate Social Responsibility (CSR) program. Guidance and standardization of ISO 26000 emphasizes that CSR companies must be sustainable in nature, to carry out sustainable development and be endeavored to be independent.

PT INDANA, as a company that supports the development of KWW has a focus on changing the behavior of the Jodipan community which initially was bad habit to be a good habit. INDANA's involvement in collaboration with “Guys Pro” team, create an effort to change the slums by cooperating with one of the paint companies in Malang. Through CSR program, INDANA has held various activities. Until the inauguration of KWW, the company had donated 2 more tons and in KWW painting combined 15 more different colors. The biggest reason INDANA supports this program as a form of social care and realizing Malang as a beautiful, clean, comfortable and colorful city.

*c) Role of Jodipan community:* The role of the community, particularly Jodipan community, is to create a variety of relevant innovations and then carry out an analysis of what innovations are needed by the community. To carry out this role, the community need to have a strong commitment and can open themselves to new ideas. One of jodipan community strength is their openness to constructive ideas. Community openness regarding the idea of developing KWW shows an awareness of the need to change their conditions in a better direction. This intention is realized by the commitment in the effort to realize the concept of KWW.

*d) Role of local government:* The role of government is as an institution that particularly has an authority in local development; both in substance and administration. Local government is an actor that could develop a support through policy to enhance creativity, ideas and skills. In term of overcoming slums problem, ideally the role of the government is to provide forum dialogue and formulate various forms needed to support the transformation of community.

Until now, the role of the local (Malang City) government is to give recognition to the existence of KWW. KWW is located on the river bank, which according to the rule, this area is a green space area whose use is prohibited for housing. With the recognition of the Malang City mayor, through the inauguration of KWW, the existence of the KWW was considered crucial and needed to be supported. Until now, the support of Malang City Government aside from the recognition previously presented is to provide assistance on the management of tourist destinations, such as initiating tourism awareness groups (Pokdarwis), language training in English (collaboration with university) and tourist guide training. From the explanation and analysis, it can be concluded that in order to be able to carry out transformation, environmentally, economically and socially, the role and synergy of the four actors, namely academician, government, private and society are needed.

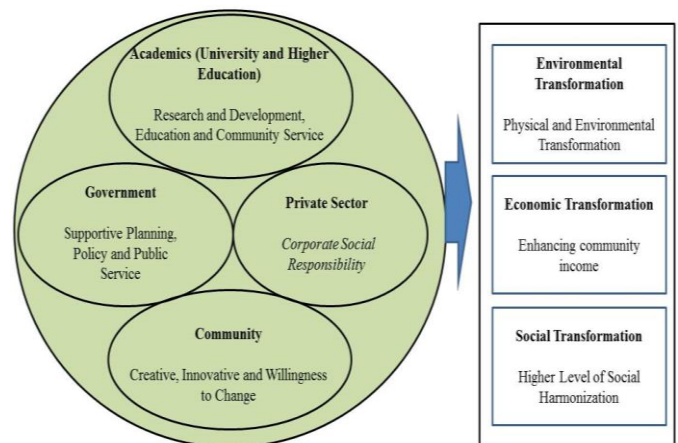


Fig. 4. The Role of actors in quadruple helix for city transformation.

**IV. CONCLUSION**

Initiation of KWW has succeeded in changing the slum of Jodipan hamlet into a clean and livable tourist area. Besides physical changes, the KWW has also managed to

accommodate the transformation of community from bad to good habits. Good habits that have been seen are cleanliness, not littering and friendliness. To be able to carry out an ideal transformation, the role and synergy of the four actors, namely academician, government, the private sector and the community are needed. Academician plays a role in providing initiation, mentoring, and networking. The company plays a role in supporting in terms of funding through CSR programs. The government provides support through regulations, planning and public services; while, the community needs to be creative, innovative and willing to change.

Future research need to be conducted, particularly on how to make a system so that the role of all actors in QH can be maximized to transform urban slum area. In policy aspect, the local government needs to make a policy that can regulate the role of QH, for example in the form of local regulation. Practically this research can be used as reference material, especially for local government, to regulate the role of various actors so that it can be useful for urban development.

## REFERENCES

- [1] Indonesia National Mid-Term Development Plan (RPJMN) 2015-2019, Jakarta: National Development Planning Agency, 2015.
- [2] Local Mid-Term Development Plan (RPJMD) of Malang City 2013-2018, Malang: Local Development Planning Agency, 2013.
- [3] J.W. Creswell, *Research design: Qualitative and mixed methods approaches*, London and Thousand Oaks: Sage Publications, 2009.
- [4] R. Arnkil, *Exploring Quadruple Helix: Outlining user-oriented innovation model*, University of Tampere, 2010.
- [5] H. Etzkowitz, M. Ranga, *Triple Helix Systems: An Analytical Framework for Innovation Policy and Practice in the Knowledge Society*, 2013, [Online] Retrieved from: <http://triplehelix.stanford.edu/images/TripleHelixSystems.pdf> (accessed on 30 April 2014)
- [6] O.R. Danar, D. Pushpalal, "Building Community Resilience: Conceptual Framework and Its Application in Post Tsunami Resettlement," *Procedia Economics and Finance*, ISSN: 2212-5671, Vol: 18, Page: 489-496, 2014.