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TOWARD SUSTAINABLE CITIES AND COMMUNITIES, THROUGH REVITALIZATION OF POTTERY URBAN KAMPONGS IN MALANG

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Abstract

One of the Sustainable Development Goals (SDG'S), Sustainable Cities and Communities, can be achieved by making cities and communities inclusive, safe, resilient and sustainable. (http://sdgsindonesia.or.id). The efforts undertaken is ensuring access to all decent communities, safe and affordable basic services, and slum area management. One of the methods is the revitalization process of urban kampongs. Malang City, has 17 urban kampongs with different potentials, both natural potency and its human resources. That is a form of settlement in the usual area with features such as: the population still carries the nature and behavior of life that is interwoven in close family ties and have distinctive regional characteristics. Decreased environmental quality, high density and limited economic access of citizens, became the basis for the selection of regional revitalization measures. Thematic means determining the direction of arrangement based on the potential of different kampong between kampongs. The methods begins with identification and understanding of economic-based as a vital factor for generators. The kampong of pottery vessel farmers is one of the kampongs with hereditary potential that

began to decline its image. Its found spots with the potential space and craftsmanship expertise scattered in the kampong. Analysis of infrastructure potential that includes accessibility, green space, and economic potential analysis can validate the direction of revitalization. This revitalization is also city-based to enhance heritage tourism in the city center as the results. With this revitalization, pottery vessel settlements will be better prepared to welcome sustainable development, through achieving sustainable urban and residential environments.

Keywords

Sustainable Development, Cities and ommunities, Pottery Kampong, Revitalization

1. Introduction

In the period 2014-2015, as many as 357 cities / regencies (61%) in Indonesia have met the criteria as a city of good scale (Kementrian Lingkungan Hidup dan Kehutanan, 2015). But to become a city and a sustainable settlement, the need to break the settlement arrangement and urban communities, especially the urban kampong scattered in most cities. (Nuryanti, 1993) The urban kampong is a form of settlement in a typical urban area characterized by the following: the population still carries the nature and behavior of rural life that's interwoven in close family ties and has distinctive regional characteristics (Andarini, 2012). The problems that arise in urban kampongs, are the high population growth and the declining quality of urban environment (Winny Astuti, 2016). Since 2016, Malang city, East Java, made a breakthrough step by revitalizing several urban kampongs with a theme based on the potential of the kampong.

Kampong Penanggungan is a pottery kampong with high population density and high building density of 21,900 inhabitants / km2. (BPS Kota Malang, 2016). This kampung is in a strategic location, traversed by two main streets of Malang. There are campuses to the west, as well as Mall and trade center to the east. The existence of large scale facilities and strategic location will lead to various activities and movements towards and within the village. There are many pottery craftsmen since 1976, that dropped dramatically to 13 entrepreneurs (Ramdlani, 2016). This condition is exacerbated by the decreasing of the distribution of materials, the decreasing of work space by the settlement of citizens, the decreasing of selling value of pottery, and the fading identity of the area as a kampong pottery. Thus, the government's step to revitalize the kampong into a pottery thematic kampong, is the way for sustainable cities and settlements.

There are several challenges that need attention in the arena of economic development and environmental depletion as the sustainable development. The concept of Sustainable development is based on following principles (United Nations-WCED, 1992):

1. Integration of environment and economic decision
2. Stewardship or humans as the caretaker of the environment
3. Shared responsibility, accountability and decision making
4. Prevention and mitigation
5. Conservation
6. Waste minimization
7. Enhancement of productivity, capability, quality of nature and human life
8. Rehabilitation and reclamation

2. Methods

The purpose of this study is to identify first the economics potential and uniqueness as a regional generator. The next step is to formulate a sustainable development strategy through the revitalization or kampong based development. Based on the objectives of the study, it takes three stages to produce a sustainable development strategy in the study area. Descriptively, the identification, analysis and formulation of a strategy, carried out by a community-based approach.

- ***Stages 1 : Identify***

  The identification stage is done through direct observation and is described based on the economic potential and uniqueness of the kampung. It conducted through direct observation, discussion (FGD) and interviews with stakeholders, namely artisan pottery, business actors and local chairman.

- ***Stages 2 : Analysis***

  The development strategy resulted from SWOT analysis, PEA analysis and SUD analysis to strengthen opportunities and weaken the threat of sustainable development.

- ***Stages 2 : Concept/Strategy***

  Result from analysis formulate to be concept and strategy of sustainable development kampong.

3. Results and Discussion

3.1 Identification of Pottery Production Flow

The activity of small craftsmen production in Penanggungan Kampung is divided into 4 stages, namely production capital, production process, finishing and marketing. Each stage has problems that require special settlement.

Table 1: *Table of pottery production flow*

production capital	**production process**	**finishing**	**marketing**
Supply of raw materials Craftsmanship skills	Techniques and tools Production flow Land availability Human Resources	Techniques and tools	distribution

Source: Focus Grup Discussion, 2016

- **Production Capital :** capital required to make pottery craft, is the skill and availability of raw materials of clay (clay) and river sand obtained from other regions.

Table 2: *Production Capital's Problem*

Supply of raw materials	• The amount of purchase adjusts to the needs of the craftsmen. • Period of purchase materials adjust needs • Some craftsmen have small and limited capital, so they are less than optimal in producing pottery and fulfilling large orders.
Craftsmanship skills	• The process of transferring skills to the next generation is lacking • The producing old-fashioned pottery models

Source: Analysis, 2016

- **production process :** The process of pottery production consists of several stages:

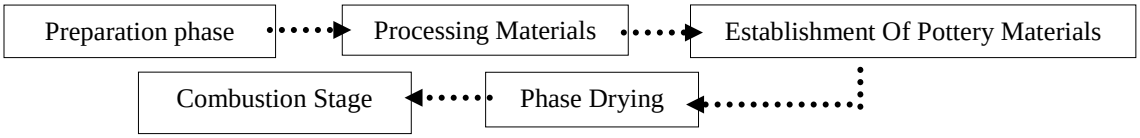

Table 3: *Obstacles in Every Stages In Production Process*

Stages	Activity	Tools	Obstacles
Preparation Phase	- Preparing clay material and sunning - Preparing the mixture material - Preparing materials processing tools		
Processing Materials	Dry material processing: - Material collision until smooth - Sifting the result of the collision - Mixing clay with auxiliary materials (fine sand / stone powder, etc) and enough water.	Wood pounder, wood flat, sieve, tarpaulin	Limited land for making pottery (inside a community house)
Establishment Of Pottery Materials	Printing technique	Print stand (horizontal and italic)	
	Swivel technique	Knife blade, cutting rope, simple rotary technique	
Phase Drying	Drying process with or without solar heat. Drying the pottery with the sun is done one day after the forming process is completed and dried for 3 days.		The place to dry less broad
Combustion Stage	The pottery is burned in the furnace which takes approximately 6 hours, where the first 4 hours of warming use a small fire. After 4 hours then the fire was raised for 2 hours until it reached 600-700^{0}C	- Furnace (jobong) - Firewood: Rp.250.000 - Rp.350.000 (1 small pick up)	- Requires a large jobong for burning with large quantities and minimizes costs - The dangers of fire due to jobong are inside the house in the dense area of the building

Sources: Analysis, 2016

- **Finishing:** The final process of making pottery after the combustion process. This process is done by means of painting with color paint, paint, megukir or stick with other materials.
- **Marketing:** Distribute through a simple showroom in people's homes and out-of-town marketing relying on orders. Marketing constraint is the lack of market trading skills

through mass media and identity of the area so that many people do not know if there is a center of pottery craft in kampong Penanggungan.

3.2 SWOT Analysis

Table 4: *Swot analysis the Kampong*

Strengths:	▪ Has historical potential area which has been known as pottery center. Started in 1930 by inheriting the pottery craft skills for generations, supported by the raw material clay is good and easy to obtain. ▪ Availability of skilled human resources in making pottery. ▪ The location is located in Malang City Center and surrounded by various public facilities of the city, such as: hotel and Mall. ▪ Has a complete network infrastructure. ▪ Easily accessible by public and private vehicles. ▪ It is a liaison between two main streets. ▪ Enthusiasm of the local community, especially craftsmen / pottery vendors to participate in the development of the area as a pottery village. ▪ High public awareness to develop the kampong independently.
Weaknesses	▪ The supply of raw materials is limited and picked up from other regions. ▪ Located in densely populated residential areas. ▪ Limited capital. ▪ Limited space for production. ▪ Lack of marketing ability. ▪ The small interest of the young generation to continue the earthenware vessel business.
Opportunities	▪ The market is still open and people still need (household and art needs). ▪ A large number of community-funded community development programs. ▪ Creative urban development program as the foundation for the development of local potency program based on local potential.
Threats	▪ The growth of similar competitors from the outside. ▪ The emergence of furniture from other materials (plastic and aluminum). ▪ People's interest in pottery is declining. ▪ Uncertain supply of raw materials from other regions.

Sources: Analysis, 2016

3.3 Physical Environmental Analysis

Physical analysis of the building environment include: land use, shape and mass of buildings, circulation and parking, pedestrian path, gate and green open space.

Figure 1: *Existing Layout Kampong Penanggungan*

Table 5: Physical Environmental Analysis

land use	- Dominated by residential buildings.. - Not supported by the provision of adequate parking space, so there is often parking vehicles on the roadside.
shape and mass of buildings	- In densely populated areas, roads become narrow because they do not have sufficient building setback. - Dominated by KLB 1-2 floors with building height 3-6 m. - Building facade features have different characteristics, colors, and characters require binding characters to form the visual character of the pottery village.
circulation and parking	- The unavailability of raw material warehouses caused pottery producers could not supply large quantities of raw materials. - many asphalt conditions are damaged and perforated. - there is no barrier between bike lanes, pedestrians and motorways. - the accumulation of car parking in the shoulder area caused by the location of parking far enough.
pedestrian path	- The existing pedestrian pathway needs to be reorganized as a path that leads to the visitor's attraction points and reinforces the identity of the Kampung Gerabah.
gate	- no character similarity was found to the design and color of the gates indicating the identity of the area.
green open space	- potentially to be developed in giving the visual impression as the identity of Kampung Gerabah area.

3.4 Analysis of Space Utilization and Development

Based on the results of physical environmental analysis, the utilization and development of space can be formulated through: the determination of pottery craftsmen houses, the Kampong corridor as the main circulation, and the determination of important nodes, namely the community meeting hall and green open space.

Table 6: *Analysis of Space Utilizaton and Development*

Determination of pottery craftsmen houses	- House of pottery craftsmen have the potential that needs to be developed as a means of education to the community for those who want to see first hand the process of making pottery that is still done traditionally in this Kampung.
Determination the Kampong corridor as the main circulation	- narrow road corridors can be developed and attract visitors to visit Kampung Gerabah.
Determination of important nodes	- spots area including in loading dock area of raw materials, showroom, gallery, pottery workshop. - the green space, a wide enough road has the potential to be developed in giving the identity of Kampung Gerabah.

3.5 Strategy of Sustainable Development

- **Zoning Concept :**
  - First specified which spot has the potential to be developed.
  - Determine the main travel path to enter the village pottery.
  - The parking area utilizes open space on the periphery.
  - Add the kampong icon as the center of visitor movement, and supporting the pottery area.
  - The last tourist destination and the main tour of the village pottery by utilizing the pattern of the earthenware vessels spreading spread throughout the kelurahan staging.

Figure 2: *Parking area in Kampong Penanggungan*

- **The Concept of Shape and Building Mass :**
  - provide a new identity to the village by applying thematic that characterizes the village pottery.
  - provides a neutral color theme and the addition of ornaments as a new, easily recognizable character.
  - utilizing waste from pottery as wall or mosaic ornaments on the village wall
- **The Concept of Circulation and Parking :**
  - The concept of circulation in the pottery village is divided into 3 namely the circulation of goods, human circulation and parking.
  - temporary storage warehouses are available so that vessel artisans can work on large quantities of production and can save time without having to wait for raw materials to be available.
  - Separation of circulation is by material differences and special markers of bicycle paths and pedestrians.

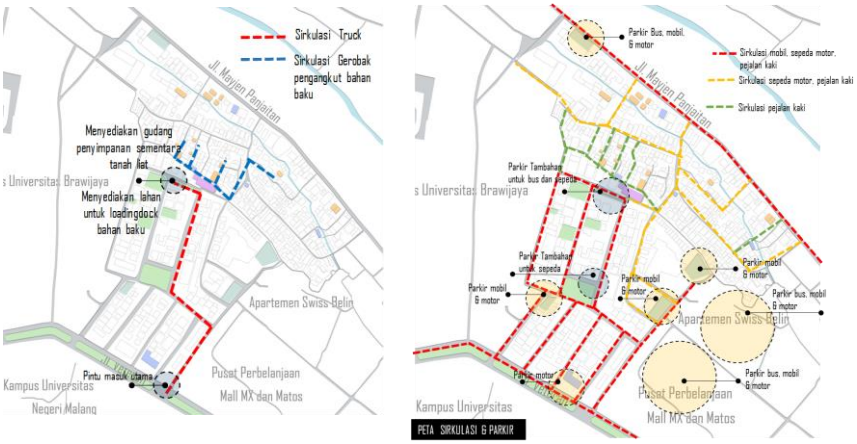

Figure 3: *Concept of Circulation and Parking*

4. Conclusion

The development of thematic kampong with the theme of "Pottery Kampong " correlates indirectly with efforts towards sustainable development. steps to address the declining quality of the kampong environment, beginning with identification with community approaches, in-depth discussions and interviews. Analysis of strengths, weaknesses, opportunities and threats is done to identify potentials and problems in development. While the physical environment analysis, followed by the analysis of space utilization and development, to formulate the village development strategy. This process does look more physical, and does not correlate directly with the economic aspects. But in reality, this revitalization process will affect the economic value of the region.

Social, environmental and economic approach. Should be carried out jointly in urban development, to contribute to sustainable settlements and cities, even if only the scale just urban settlements.

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