

Sustainability Analysis of Inner City Kampung

Case Study: Kampung Ketandan, Surabaya

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Abstract: Surabaya is a city formed from its kampungs. These kampungs are improved based on sustainable development theory and eco-city criteria to support city development. Kampung Ketandan is selected as a case study because it is located in the middle of Surabaya and appears to have a remarkable resilience level from modernization outside their doorstep. The purpose of this study is to examine to what extent sustainability concepts are implemented in Kampung Ketandan through a descriptive analytical approach. The result shows that Ketandan still have things to improve in order to preserve its existence.

Keywords: eco city, Kampung, sustainability, sustainable development.

I. Introduction

Surabaya is well known as one of Kampung Improvement Program pioneer. The program which is started in colonial era is known as *Kampoeng verbetering* on 1924, then it is re-introduced in late sixties [1]. The modern improvement of kampung is taken as a crucial point to change and repair the whole city from environmental issues to the socio-cultural issues which now has led the city to transform into a smart city. This program includes all respective factors because it's not just improving just the physical aspects but also the people.

Central Surabaya is part of Surabaya's old town where Genteng sub district is located. There are total population of 360,514 people in which 59,273 of them living in Genteng sub district [2]. Hidden in the middle of modernization, surrounded by numerous landmarks and main roads as shown in Figure 1 and Figure 2, Kampung Ketandan still preserves its kampung atmosphere as the house for 600 households and around 800 residents [3].

Kampung Ketandan used to be associated with crime, poverty and low education but now it is known for its pendopo—a cultural hall, named after a famous *ludruk* artist located right in the middle of kampung. Pendopo Cak Markeso which serves as public space is a collaboration project between UN-HABITAT, the city government, United Cities and Local Governments Asia-Pacific (UCLG ASPAC) and the community itself. This

project allows the city government to actively engage the citizens in changing the old reputation. Moreover, the newly renovated pendopo, along with the old tomb nearby, creates a new sense of cooperation and solidarity among the residents because the pendopo provides a space for the community to meet, interact, and also serve as a community center where art classes and exhibitions can be held [4].

Even though Ketandan has a strong tendency to major in their culture aspect because of its traditional pendopo, this kampung has not yet fulfilled all the indicators stated in pillars of sustainability. This could be a problem in the near future, in order to maintain its existence inside transforming Surabaya.

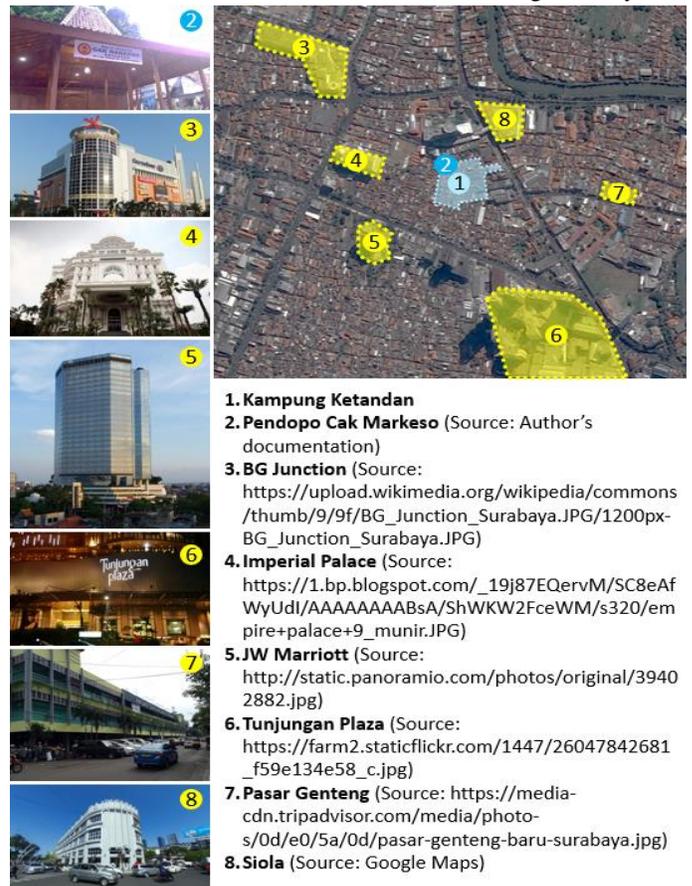


Figure 1 Landmarks around Kampung Ketandan

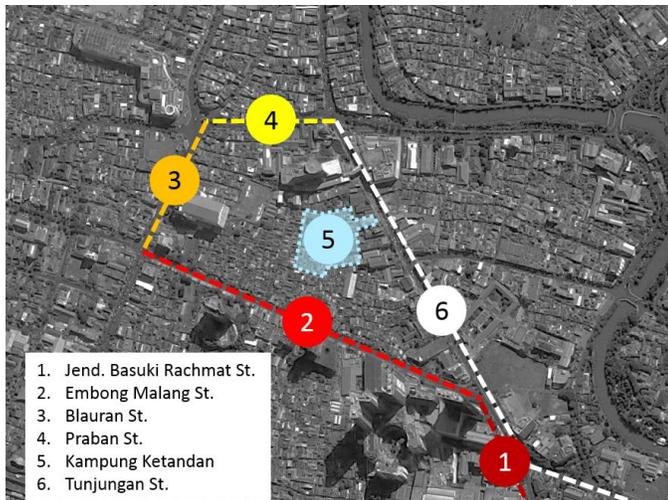


Figure 2 Location of Kampung Ketandan (Source: Google Maps)

II. Material and Methodology

The location of this research focused in RW (Rukun Warga = community units) 04 Kampung Ketandan, which includes 12 RTs (Rukun Tetangga = neighborhood units). This location is chosen because of the irregular development inside this RW. Criteria used in this study are four pillars of sustainability and eco-city criteria. The research approach in theoretical foundation is descriptive-comparative-analytical through literature studies and survey. The results gained then compared to be analyzed with criteria mentioned.

A. Definition of Kampung

Kampung is not a squatter nor a slum but rather a settlement of self-built housing without any support by any sector [5]. Kampung is a settlement that describes a process of how people provide housing for themselves—a housing by people—which history, culture, and ritual might be involved within. It has strong human criteria and interaction between man and environment.

B. Definition of Sustainability

Sustainability that derived from *sustain* and *ability* is a way of preserving current resources for the next generation. UN Brundtland Commission defined sustainable development as the way present generations meet their needs without compromising the future generations to meet their needs [6].

C. Four Pillars of Sustainability [7]

Four pillars of sustainability were established by United Cities and Local Governments (UCLG) in 2010. The description of four pillars of sustainability is:

1. Ecology:

In sustainable development, the community has environmental responsibility to maintain ecological balance as it is fundamental to humanity's ability to live on earth. Human dependency on nature creates innovations which affect the earth

and its ability to support lives, therefore such responsibility is important for current and future generations.

2. Economy:

Decent economic health always leads to material prosperity. It depends on vibrant, diverse, and dynamic local economy. This diversity involves skilled people to contribute towards local and global community.

3. Social:

Social aspect should relate to social equity in order to preserve justice, to maintain the social cohesion and welfare, and also discuss on how the engagement is done. It ensures everyone's basic needs are met, and has equal rights on education and health services, as well as equally respected despite of the ages, ethnicities, mental and physical capabilities.

4. Culture:

Civilization has always created their own legacy of arts and culture. As a dynamic element of civilization, both arts and culture creates new experiences that enriches the community, stimulates creativity, new ideas, innovation, and creates broader diversity to become more sustainable.

D. Eco-city Criteria [8]

1. Economic activities are maintained locally.
2. Suppress the carbon trail and promote utilization of renewable energy.
3. Planned city layout puts walking first, then cycling, and then public transportation.
4. Conserving resources to reach zero-waste system goal.
5. Revive the damaged urban areas.
6. Ensure adequate housing for all and improve jobs opportunities for silent, minorities, and disabled community.
7. Promote local agriculture.
8. Promoting simple lifestyle, suppress materialism in order to raise awareness of sustainability issues.

III. Analysis

A. Four Pillars of Sustainability

1. Ecology:

Physical condition of Kampung Ketandan can be considered clean, especially along the road that leads to pendopo, however the other part still need more improvement. Some vegetation found in kampung are provided privately by each households and it spread irregularly throughout kampung.

2. Economy:

Most residents of Ketandan are employee working outside the kampung. Referring to Figure 1 and Figure 2, Kampung Ketandan located near shopping centers and main roads with many shops along the way which gave higher job opportunities to residents nearby.

3. Social:

Social life in Kampung Ketandan based on traditional social cohesion is called ‘gotong royong’—a communal-based life where people tend to do things together. This preserves the kampung atmosphere despite its location in the inner city.

4. Culture:

Kampung Ketandan stated as a cultural kampung symbolized by the pendopo. There is a weekly traditional dance class that held every Sunday morning [3]. This pendopo is renovated into a Joglo—Javanese traditional house—themed pendopo to enrich the traditional and mystical atmosphere especially with tomb nearby it.

B. Eco-city Criteria

1. Economic activities are maintained locally.

As discussed before, most residents of Kampung Ketandan work as employee outside the kampung but some of them has their own business inside the kampung. There are total 20 home based enterprises such as kiosk integrated with the house, rental rooms, sidewalk eatery, and water depot [3].

Due to kampung location which allows many alternative accesses, numerous peddlers can be found strolling around inside the kampung almost all day long as in Figure 3.



Figure 3 Peddlers strolling inside the kampung. (Source: Author’s documentation)

2. Suppress the carbon trail and promote utilization of renewable energy.

Kampung Ketandan’s carbon neutralism can be considered good since the activity of motorized vehicles kept outside the perimeter enclosure.

But renewable energy is still not yet found. Electricity for housing solely is supplied by the national electrical company.

3. Planned city layout puts walking first, then cycling, and then public transportation.

Kampung Ketandan has a rule to prohibit anyone entering Kampung on their vehicle, except for cyclist (Figure 4). Hence, walking comes first, as seen in Figure 5 where a resident brought his motorcycle out of kampung. And since Kampung Ketandan is located between two main roads, it’s easy to catch any kind of public transportation such as taxi, *angkot*, or online transportations.



Figure 4 Signage of prohibition for riding motorcycles on Kampung’s entrance. (Source: <https://akcdn.detik.net.id/community/media/visual/2016/07/27/20f0d95c-27b5-4849-906c-a839159e8a41.jpg?w=617>)

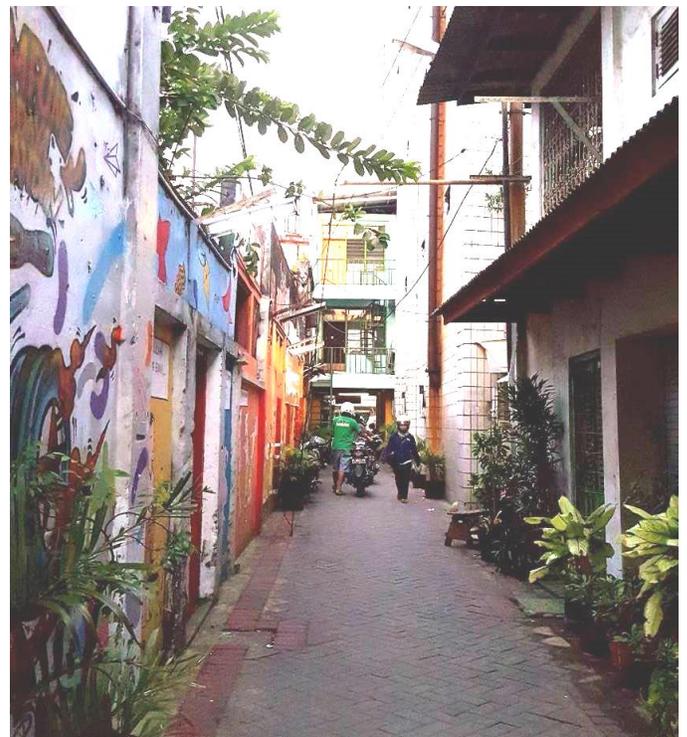


Figure 5 Some resident brought his motorcycle out of kampung. (Source: Author’s documentation)

4. Conserving resources to reach zero-waste system goal.

Resource conservation has not explored much in this Kampung. Used water or grey water goes straight to the gutter, none of them collected to be reused. Even worse, some houses in RT 03 don’t have proper sanitation system. There is also no recycling activity or waste management in general.

5. Revive the damaged urban areas.

There is no damaged area inside this kampung.

6. Ensures adequate housing for all and improve jobs opportunities for silent, minorities, and disabled community.

Houses in Kampung Ketandan mostly dated back to early 90’s or even older. Each house made by and for the residents

themselves. Most houses already met the minimum requirement of 9m²/person with decent openings, ventilations, and sanitation [9] for adequate housing. But there are also houses—most of them located in RT 03 that don't have septic tank. Local army cooperated with kampung officials to build a communal septic tank but the realization still didn't meet from what has been targeted [3].

Residents of Ketandan came from various backgrounds. For the silent community itself; the women and children, Kampung Ketandan serves as a sanctuary. Seen from the daily basis of children playing around in kampung street and they have daily Koran lesson.

For there are no physically disabled resident inside this kampung, there are no facilities for the disabled.

7. *Promote local agriculture.*

Agriculture can't be found in Kampung Ketandan as it is not its main concern. Most vegetation are provided privately by each household and are spread irregularly throughout the kampung.

8. *Promoting simple lifestyle, suppress materialism in order to raise awareness of sustainability issues.*

High density housing and small alleyway became concern when residents about to purchase things. Therefore, residents of Kampung Ketandan have always been living a simple and humble lifestyle.

IV. Findings and Suggestion

Following four main aspects of sustainability sorted by the success rate in Kampung Ketandan:

1. Culture:

Kampung Ketandan majors its cultural aspect symbolized by the pendopo. Cultural preservation accomplished by providing weekly dance and art class. These activities are already supported by local government [3].

2. Social:

Social sustainability is fulfilled by diverse background of residents with strong community life and youth as kampungs officials to accelerate life in kampung with modernization outside.

3. Economy:

The location of kampung is an advantage for economic activities. Some residents already made their own products which can be easily dispatched due to easy access of kampung. In order to promote the name of Kampung Ketandan, it might be better for local officials to gather the product and re-branding them under Kampung Ketandan's name which also need participation from each owner.

4. Ecology:

Due to low participation and lack of space, ecology aspect tends to be left behind compared to other aspects.

To reach standard of 30% city's green open space [10], each household can provide at least one tree in their own lawn and integrate public spaces in kampung with vertical garden. Waste management should start from individual level along with education for waste sorting and recycling.

V. Conclusion

Kampung Ketandan has already implemented sustainable development concepts to some extent. Flaws remained could be improved with participation from various stakeholders. Improvement should be mandatory because it aims to preserve the existence of kampung amidst the rapid modernization.

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