

## **Housing and Environment Development in Jemursari Surabaya, East Java**

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### **Abstract**

The purpose of this paper is to highlight to the significance of housing development generated by urban infrastructure. Problems may arise because of the provision of urban infrastructure. This paper contains discussion about how urban infrastructure could make a huge difference in housing, related to its change of function. Jemursari was set to be a residential area by the city council of Surabaya. By providing the area with comprehensive infrastructure, the function of the area is now changed to a business and commerce district.

The method of study is by doing a survey and interviews. The aim of this study is to investigate the positives, as well as negatives of urban infrastructure in creating viable housing environment. First the paper will briefly introduce some of the key conceptual issues about housing and infrastructure. Second, the paper elaborates Jemursari as a case study and draws attention to the basic features of the early housing provision. Third, the paper discusses the opportunity and constraints for the development of housing environment relating to urban infrastructure. Finally, how the people and the community overcome and accommodate the change of function in their housing environment will be the main focus of the discussion.

The result of the study shows that in order to create a viable housing environment, a certain degree of infrastructure available must be considered to maintain its function as a residential area.

## 1 Background

The developments of Indonesia's cities begin since the early 19<sup>th</sup> century. Surabaya as one of the old city in Indonesia has gone through an enormous development ever since. The central of activity that used to be held in northern part of Surabaya is now developing to the southern area. This area was set to be a residential area by the city council of Surabaya [1]. Therefore the city council provides it with urban infrastructure such as water supply, sewage disposal, circulation, and electricity. These are the basic networks and facilities required in a residential area [2].

The commitment of Indonesian Government in housing scheme has begun since the independence era, by having a Healthy Housing Congress (August 1950) in Bandung, Indonesia. The congress led to several outcomes:

- Propose the government to establish a housing development enterprise in every province and encourage their activities
- Formulate a minimum technical standards and requirements for healthy housing
- Propose the government to establish a housing agency which its funding was guaranteed by the government.

These outcomes were becoming a starting point for the implementation of housing programs in Indonesia.

In 1952, the Indonesian Government established Djawatan Perumahan Rakyat (Citizen Housing Institution) to manage housing problems. The aim in housing development at the time was to solve the lack of housing in terms of quality as well as quantity, to provide healthy housing for every family. Nowadays, the concept of housing development is changed from **housing** to **human settlement** development. The concept of housing provision by government also changed, although the aim remains the same. The top-down approach is being replaced by bottom-up approach that gives priority in capacity building, to put the people as the subject of the development.

According to Agenda 21 Indonesia [3], the future settlements must be the part of creating a healthy environment, regarding also the economic aspects, social – culture, and politics. Future settlements must also be the place to nurture the youth, and guarantee the improvement of life quality for everyone. In other word, housing developments ensure an integrated social and ecological function to improve sustainable life quality. This involves two major programs: adequate shelter for all and sustainable housing in an urbanizing world.

The provision of infrastructure and regulation in Indonesia is administered by Human Settlement and Infrastructure Department. The guidance consists of minimal standard service (Standar Pelayanan Minimal - SPM). It includes local infrastructure (road network, waste water, flood control, sewage disposal), environment facilities (commerce, education, health, public services, social-cultural facilities, parks and cemetery) and public utility (clean water, fire fighter).

Despite many programs conducted by the government to improve the quality of housing, there still are many people who provide housing by themselves, including the provision of the urban infrastructure. These people built their houses based on what they really need and commonly use their houses not only to live in but also for economic purpose (home based enterprises). This housing delivery system is known as the informal or owner-occupant construction. About 85% of housing provision in Indonesia is done this way [4]. The other system of housing delivery is formal housing (done by the government and real estate agents). How about these houses built by the government or a real estate agent? Do they have the same tendency in becoming a home based enterprise? If so, what factors

influencing these changes? Has it related to the provision of urban infrastructure? This paper tries to answer those questions.

## 2 Case Study: Jemursari, Surabaya

Jemursari is an area located in southern part of Surabaya. Its administrative location is the County of Jemur Wonosari. It is a 164,321 hectare area, used for residential and public services, with population of about 17.233. There are two major housing program by the government, Wisma Surya Residence (in corporation with real estate agent, implementing KPR- home ownership loan programme) and YKP- home saving institution programme. The houses built were intended to be affordable to low and moderate income households. Together with the provision of housing, the government also provide urban infrastructure that will facilitate a better housing quality.

The history of housing in this area began in 1960s, starting with informal housing by people in the northern part, near Ahmad Yani street. At first the land condition was swamp and used for planting rice. In the 1960s, people began to build houses on this area. Government began to build houses in this area since 1970s. The Government built two kinds of housing in the area: Wisma Surya and YKP. The types of housing in Wisma Surya are 36m<sup>2</sup> type and 70m<sup>2</sup> type, with big sizes of lot (200 – 800 m<sup>2</sup>).

This paper will focused at the housing and urban infrastructure condition at Wisma Surya Residence, as it is located near the main road and undergone most of the change of function. The area of the residence is about 25% of the district (40 hectare) as shown in figure 1. The residence is divided into two areas by Jemursari Street, which connects the southern part of Surabaya to the city central.

The location of Jemursari on southern fringe of Surabaya made it some sort of 'stop in' area for people in southern city of Surabaya (Sidoarjo) who are working in the city centre of Surabaya or the nearby industrial area (Rungkut Industri). Other pull factors are the good quality of road and urban transportation services and fully equipped urban infrastructure. With this condition in hand, the economic growth of the urban area is increasing rapidly. As a result, there are some positives as well as negative impacts emerged that should be well handled.

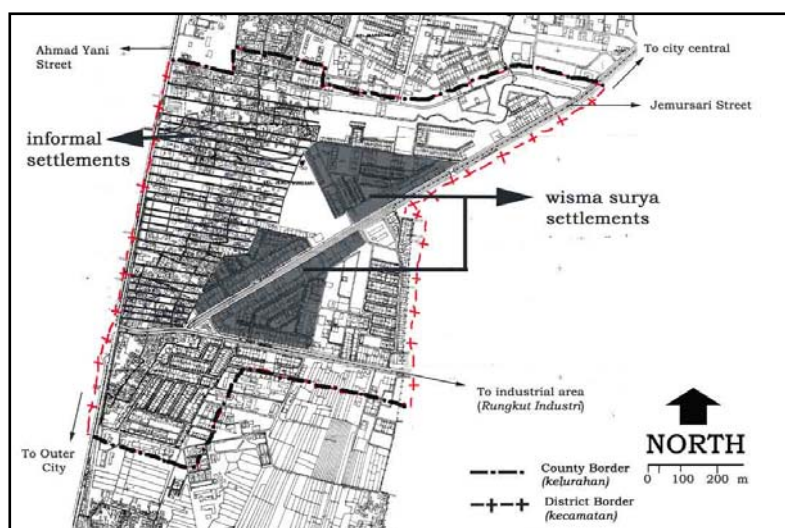


Figure 1: The grey area indicates the area of Wisma Surya Residence; the striped area indicates the informal housing

### **3 Current Condition**

There are two main issues of macro urban development need to be addressed to deal with current conditions. First, the gap in terms of economic growth between large and smaller urban centers and housing quality, that will tend to widen in the future. Second, the growths of urban areas seem to be inevitable. Therefore another main task of urban and housing policies is how to manage the high population and socio-economic growth in urban areas. This includes the provision of urban infrastructures and housing, which should involve participation of all concerned parties including central government, private sectors and communities.

#### **3.1 Urban Infrastructure Improvement in Creating Viable Housing Environment**

The improvement of urban infrastructure by the Government is to create a condition that will improve life quality of the people to attain its aim according to Agenda 21 Indonesia. One is accomplished through Wisma Surya Residence by providing houses that meet the standard requirements for healthy housing (size of the house and adequate infrastructures).

##### **3.1.1 Housing Condition**

The condition of housing from the time it was built in 1970s is relatively persistent. The change of housing type or renovation is mainly done for functional purpose. The percentage of houses that no longer have the early type is about 42%. Houses in Wisma Surya are categorized by the size of the lot into 4 main sizes: 200 m<sup>2</sup>, 400 m<sup>2</sup>, 600 m<sup>2</sup>, and 800 m<sup>2</sup>. The biggest size (800 m<sup>2</sup>) is located in the main road. These houses (95% of the total 800 m<sup>2</sup> lot) are now changed function into business and commerce building, such as restaurants, banks, shops, automotive workshops, etc. As for the houses with less size, they have the tendency to make use of the spare spaces of their house as a home based enterprises.

These changes are caused mainly by the quality improvement of Jemursari Street on late 1980s. After the improvement, this alternative access road to the city central became a potential area for businessmen, that they began to open their business in the area. The other advantage is that the area located near the industry district, so that it has better environments for business and commerce activities, such as the availability of reliable power supply, telecommunications, water supply, and other public utilities. Other factor that causes this phenomenon is the increase of building tax. This leads to the people struggling to earn more money to match the higher cost needed, by turning their house into shops or offices.

##### **3.1.2 Informal Housing**

Adjacent to Wisma Surya, there is an informal settlement that has settled since 1960s. The former inhabitants are the farmers, or people who owned the farming land which has changed into housing area. Now, people living in the informal settlements range from handy men, industry workers, company employee, navy retirement, etc.

The Government assists this informal settlement by having KIP (Kampung Improvement Programme) in 1998. This program helps people to improve the quality of their pathways (widened and paved), and helps to improve the quality of the gutter. This has brought some advantages to the people. They easily accommodate facilities by the improvement of the pathways, decreasing amount of flooded area during rainy season because of the improvement of gutters, and this economically benefits the people and the area.

### 3.1.3 Water Supply

Clean water supply for the area was administered by the regional water enterprises (PDAM). The supply is adequate according to the inhabitants. This aspect did not dominantly cause the change of housing function in the area, because from the first time people inhabit the area, they have managed to get their clean water supply from wells.

### 3.1.4 Sewage Disposal

Sewage disposal is organized by Kelurahan-the smallest unit of government administration. The government also changes the function of gutter that used to be irrigation system into drainage system to facilitate housing area. This was done because the function has changed from rice planting to human settlements. According to Public Work Department, the priority of sewage system is to at least handle 80% of the population [5]

### 3.1.5 Circulation

Circulation in the area is the main factor that causes the change of function. It started by the plan of City Council of Surabaya to improve the quality of access road. Jemursari Street is used to be 6 meters wide, with poor condition. Now it is a two way Street, each 15 meters wide with good quality condition. This improvement of road quality is also supported by the new provision of public transport system. The improvement of local road is also conducted by the people in informal settlements, using their own effort, helped by the Government (such as KIP in 1998/1999) as shown in figure 2.

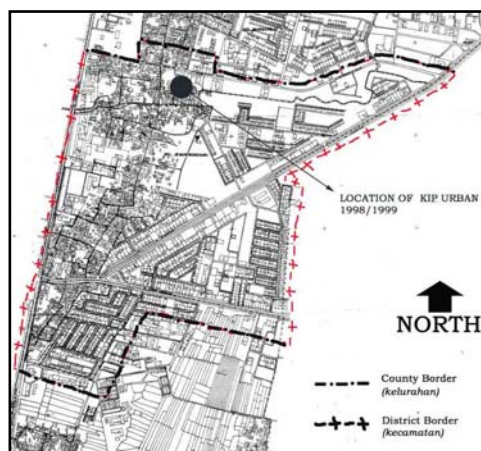


Figure 2: Location of KIP in 1998/1999, improving the quality of pathways in the informal settlements

### 3.1.6 Electricity

Electricity or power supply for the area is administered by regional electricity enterprises (PLN), and as well as water supply, this aspect did not dominantly cause the change of housing function in the area because the standard minimum requirements completed.

### 3.1.7 Public Facilities

- Shops and supermarkets can easily be found in the neighborhood, as well as banks and restaurants.

- Education facilities are fully equipped, starting from kindergarten, elementary school, junior and senior high school. Every school is within the radius of 1 km from the residence. It fulfills the standard of one Kindergarten for every 1000 citizen, one elementary school for every 6000 citizen, one junior high school for every 25000 citizen, and one senior high school for every 30.000 citizen [5]
- Health facility in the area is adequate. There is one hospital in the area.
- Parks still exist in the residence. In main road (Jemursari Street) there are many street vendors selling plants and garden accessories.

## **3.2 Opportunity and Constraint**

### **3.2.1 Opportunity**

- Already available alignment of electricity and water supply, as well as telecommunication line. These aspects support the improvement of life quality for everyone in the area
- The location between outer city and city central benefits the business by having many people passing through the area.

### **3.2.2 Constraints**

- Budget limitation from the Government, so that in most cases the people have to use their own money to fix some damage in their local road /pathways.

## **3.3 Positives and Negatives**

### **3.3.1 Positives**

- Housing condition in developing area has matched the standard from the Government.
- Fully equipped area will increase life quality of the people in doing their activity.
- The existence of these street vendors in some way helps greening the city.

### **3.3.2 Negatives**

- The increase of land price and taxes. To compare with, the land price in the area was Rp 6.000,00/m<sup>2</sup> (six thousand rupiahs) in 1986. Now the land price is around Rp 750.000 - 3.000.000,00/m<sup>2</sup> (seven hundred and fifty thousand to three million rupiahs). It means that there is an increasing number of 125–500 %. The increase of tax also tempting people to double their income by doing business, using his/her house as an office.
- The complete facilities will tempt people to move to this area, and this will lead to over population.

## **3.4 The Community Adaptation**

How the people are adapt to some developments in their housing environments?

- To protect their houses from the outsider is by closing some road into the residence, in a particular time and date. This is to prevent people from outside easily entering the area, for safety purpose.
- In the area there are 2 schools (junior and senior high school). Almost every house located in the road between the school and the main road turned into some business, such as boutique, music studio, restaurant/café.
- To lessen the effect of noise and pollution from the road, some houses build high fences to protect their house.

## 4 Conclusion

The study shows that in order to maintain a viable housing environment, the government should be able to manage and predict the future outcome of their program, so that the urban land use is still acceptable and support the housing environment. As in Jemursari, the urban infrastructures developed by government at some points have led the change of function of housing environments to become a business and commerce area. This is shown in figure 3 and 4, how the original plan and the actual condition developed.

The main road across the Wisma Surya settlements with good quality and its double road has been the main factor of the development in the area. This main factor contributes to the changing of function from housing to business and commerce area. The housing area is reduced by 20%

The development of the area has raised some opportunities, such as available alignment of electricity, telecommunication and water supply, also business opportunities to some people in the area. The constraint is budget limit of the government to provide and improve facilities and infrastructures. The people and the community accommodate this change by using some parts of their houses as a business area. In the case of houses adjacent to main road, they transform houses into shops, restaurants, or selling the houses to other people who use it for business purpose. The tendency to use their house for economic benefits does not differ between informal and formal (Wisma Surya) housing.

The paper contributes to government's program of housing, how to maintain its function as human settlements.

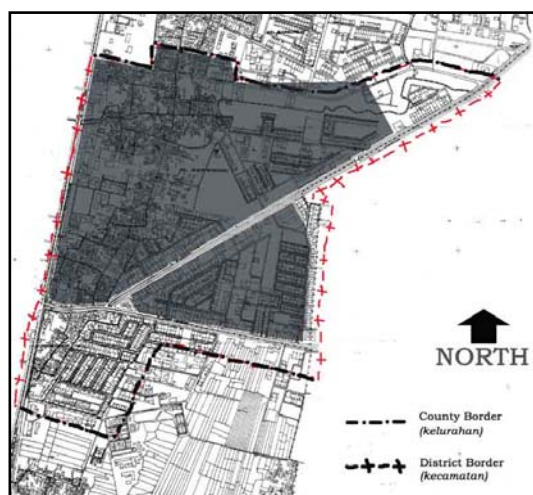


Figure 3: Plan of housing area before the change of house function (grey)

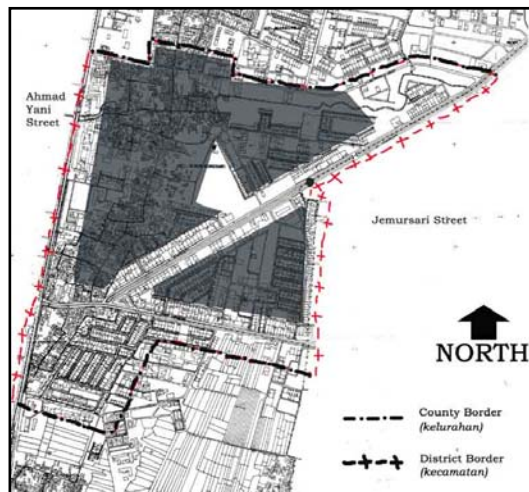


Figure 4: Present condition of housing area, showing the change of function of houses at the sides of main road (grey) into commercial building and public facilities (white)

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