

# Effect of Real Estate Development on Urban Environment Based on Sustainability

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## Abstract

The development of an area will usually be followed by the development of a population. The increase of population will have implications for the increasing number of housing needs. The house is one of the basic needs for human beings to live and socialize. The development of houses would require space, if this is not controlled or has managed properly it will give a negative impact because land is limited. The development of Surabaya City is very fast, both socio-economic and physical manifestations require spatial rules and guidelines to monitor and control the growth of the city. In the process of development, Surabaya need to think about indicators of sustainable development, especially about housing and settlements aspects mainly related to the presence of residential area. Residence is designed into a dynamic area that is responsive to the growth of a region. Under the existing policy, real estate at Surabaya coast is planned for the central region of the housing and functioned as a center for beach recreation, higher education center in Surabaya and East coast collection or distribution center for the surrounding region. Based on the indicators of sustainable development, the purpose of this study was to understand the real estate development impact on the urban environment, especially Surabaya. The method used in this research is using indicator of sustainable development based on UN Habitat for the analysis of the study area (Real estate A) with the direction of the development of the city of Surabaya. Based on the survey results of the research is that in the process of development the Real estate A are not in line with the regulations imposed by the city of Surabaya, especially in the environmental aspect. There is need a specific measures to realize all of the indicators of sustainable development in accordance with the specified indicators of UN Habitat

**Keywords:** Real estate, Eco-city, Sustainable Development.

## 1. Introduction

Housing is a basic of human needs to improve people's welfare and equity. The Government of Indonesiaan Republic trying to meet the needs and improve the quality of housing for people in rural and urban area. The main reason of it is because housing and settlements in order basic human needs, also has a strategic function like family education centers, nursery culture, and improving the quality of future generations, as well as a manifestation of identity.

There are various parties that the government share in the provision of housing called private sector. The private sector called Developer is a government partners. They have a role in housing supply at rural and urban areas.

According to Colley (2005), land development process in housing has three actors or parties involved, called; landowners (land owner), government (public agency / government), and developers (developers / private sector). Any part of housing have a role, the owner is provide a land for housing, government as stakeholders make a rules or laws and the private sector as an investor or developer who will realize the program as housing procurement mandated by law .

Real estate A is a resident area built in the city of Surabaya in order to meet the housing needs of the city. Real estate is different from residential areas in general. 'Real Estate' can be defined as land and property contained on it are owned by someone and have a sale value so that the word 'Real Estate' is often synonymous with the word 'Real Property'. However, perhaps the word 'Real Estate' in Indonesia is often interpreted differently by society as 'housing, offices, apartments, etc. are legal and permanent. 'Or' building projects for middle to high society built on a large scale '. The Connotations of it happen because change of meaning about social phenomena 'housing community' that is more often built on a large scale and for developers to build more housing projects, offices, shops , or mixed-used building.

Certain buildings also signifies something different in the area of real estate, that is potential to develop the area, which may also rise the economic level of the communities living around it, besides negative impact on the environment should also be taken into account. The use of land will always have good or bad influence, it is necessary to control the functions performed by the parties concerned.

This paper will describes the influence of resident area (Real estate A) to the urban environment at the city of Surabaya based on benchmark indicators of sustainable development (UN Habitat in 2012, namely the social dimension, the economic, environmental dimension, and the dimension of Culture).

## 2. Literature Review

Definition of sustainable development contained in the Report Yag Brudtland (1986) reads:

"Sustainable development is a method of a develop that meets the needs of today without compromising the ability of future generations to meet their own needs."

Meanwhile, the 2005 World Summit further also suggests three main pillars in sustainable development, namely: environmental, social, and economic. The three main pillars of this makes any development program should pay attention to the balance of priorities between environmental improvement, improving the quality of social life, as well as the improvement of economic levels of society.

Good city is a city that can be settled by the inhabitants with a sense of security, comfort, and especially has a carrying capacity to meet the needs of community life inwardly and outwardly. Green city is a city with sustainable environmental. Green concept on that concept is .depend on government policies to built the green city, accompanied by the spirit of community in proposing, implementing, and evaluating each activity (Arifin, 2012).

Green concept gives full attention to savings of land, materials, and energy, while the concept of sustainability meant sustainability in ecological aspects (bio-physical environment), economic aspects, and cultural (social and cultural ). Action towards sustainability consists of three components, namely:

- Ecological design component : water resource management, urban landscape, waste management, transportation, and sustainable technologies.
- The economic component, is the strategy of economic strength of sustainable development, including changes in land use rural-suburban-urban settlements-employment policy, infrastructure and maintenance costs, the loss of green open space, pollution, and traffic congestion.
- Socio-cultural components, which increase community participation, development based on local knowledge, assess the level of community sustainability.

Housing is one of the things that determine the quality of life and well-being of people who live in it. At the design and process of build a housing we should pay attention to aspects of an environmental, social, cultural and economic structure of society. That's aspects closely linked and influence in people's daily life like security, health, and welfare. Housing is part of the relationship between people and their environment. The process of housing requires a large consumption of natural resources (land, energy, water, and building materials), beside produce generating waste, air pollution, and water pollution. Housing exposed a variety of environmental impacts, including disaster and climate change. Aspects of this is an important consideration for sustinable housing. This means sustainable housing (UN Habitat; 2012) must consider:

1. Facilitate the privacy, adequate space of land, and accessibility for residents.
2. Creating a sense of security.
3. Creating comfort, like in terms of heating and ventilation in the house.
4. Facilitate infrastructure, such as clean water, sanitation and waste management.
5. Have a good environmental quality and create a healthy environment.
6. Adjacent to supporting facilities that are connected to workplaces, shops, health and child care, education and other services

## 3. Research Method

In collecting the data, the researcher do a primary and secondary surveys. The primary survey consisted of direct observation to study areas and conduct semi-structured interviews to obtain the required data.

Secondary survey consists of a survey of institutional and literature survey. Institutional survey is a survey conducted in collecting secondary data or supporting agency or agencies concerned. Literature study conducted by reviewing the contents of the literature concerned with the theme of this research, including in the form of books, research, spatial planning documents, thesis, as well as articles on the internet and mass media.

There is some analysis stage to determine the effect of real estate development on the urban environment. The following stages of the analysis carried out:

- **Identification of Sustainable Development Indicators by UN Habitat**  
Identification of sustainable development indicators is doing through by literature review. The results of the literature review found that each dimension of sustainable development has become a benchmark indicator.
- **Comparative analysis of indicators of sustainable development in the study area with the direction of the development of the city of Surabaya**  
To achieve this goal of this stage is done through qualitative descriptive analysis that examines the problem based on the empiri fact and explore from several studies related to the implementation of sustainable development. And by conducting comparative direction of urban development based on documents - Surabaya city planning documents (Development, Spatial, etc.). From the results of this analysis it will show the impact of real estate development on the environment in Surabaya.

#### 4. Discussion

##### 4.1 Identification of Sustainable Development Indicators by UN Habitat

Identification of indicators of sustainable development based on UN classification of habitats within the city are:

Table 1. Indicators of Sustainable Development

Dimension	Indicator UN Habitat
Environmental Dimension	<ol style="list-style-type: none"> <li>1. Achieving good location and density for residential areas and access to infrastructure.</li> <li>2. Serviced land in environmentally safe locations and green areas.</li> <li>3. Protection of ecosystems and biodiversity.</li> <li>4. Promoting sustainable and low carbon urban infrastructure, public transport and non-motorized mobility, energy systems.</li> <li>5. Waste management and recycling.</li> </ol>
Social Dimension	<ol style="list-style-type: none"> <li>1. Promoting integrated</li> <li>2. Communities and ensuring trust in communities.</li> <li>3. Providing community facilities, preventing segregation and displacement.</li> <li>4. Regenerating and reintegrating 'neglected' areas into regional, urban fabric.</li> <li>5. Ensuring infrastructural integration of housing into wider areas.</li> <li>6. Upgrading inadequate housing and slum areas.</li> </ol>
Cultural Dimension	<ol style="list-style-type: none"> <li>1. Promoting urban creativity, culture, aesthetics, and diversity.</li> <li>2. Shaping values, tradition, norms and behaviors (eg. in relation to energy use, recycling, communal living and place maintenance).</li> <li>3. Protecting housing heritage and familiarity of city (eg. Preventing unnecessary social replacement/gentrification or complete</li> </ol>
Economic dimension	<ol style="list-style-type: none"> <li>1. Managing economic activities and growth by strengthening housing provision and housing markets.</li> <li>2. Provision of necessary infrastructure and basic services to housing.</li> <li>3. Providing serviced land for housing.</li> <li>4. Strengthening entrepreneurship of communities, local building industry and enterprise.</li> <li>5. Promoting local and traditional building materials and techniques.</li> <li>6. Promoting regional and urban regeneration.</li> </ol>

Source : UN Habitat, 2014

##### 4.2 Comparative analysis of indicators of sustainable development in the study area with the direction of the development of the city of Surabaya

Based on the empiries fact, the study area has a number of conditions that have an impact on the surrounding environment based on sustainable development indicators UN Habitat. The following discussion is based on the analysis of individual indicators - each dimension that has been defined in the previous section.

###### 4.2.1 Enviromental Dimension Indicator

1. Environmental Dimention Indicator related to the ease of access to the population in the area of Real Estate A is already achieved but the impact of process of housing on the macro environment on city of Surabaya it is necessary to pay more attention because this residential area gives the attractiveness of population movement and that is will provide a change in the shape of space if they not controlled, it will cause many problems such a new slums area around real estate A.
2. In terms of physical services Real estate A resident area is good, all the facilities met but who need to know that the construction area of Real estate A is located at a distance of  $\pm$  700 meters from the seafont whereas From Spatial regulation of the buildings on the waterfront which determines building with sea distance should not be less than 1000 meters. The absence of provisions of space utilization can be measured that the development of Surabaya existing rules and clear boundaries. With these provisions should be a review of the feasibility of the construction of a residential real estate Abby government City of Surabaya.
3. Development of Real estate A residential area is done on the former pond, causing changes and removes vegetation (germplasm), fauna, habitats and ecosystems such as ponds special. The need for special compensation for developers Real estate A specific example like planting vegetation to the enrichment of biodiversity or the adoption of legislation for the occupants of the housing area to plant certain trees set
4. Efforts / Process promotion of sustainable infrastructure has been done mainly to reduce the carbon intensity of urban areas, the use of public transport modes of public transport and energy savings by the city of Surabaya. But at the real estate A there is no a procee promotion of sustainable infrastructure

like the city. That is need a integration with municipalities regarding this promotion like provide bikes for a residential neighborhood, or the provision of special modes for mobility within the housing.

5. Although real estate A has been equipped with EIA (environmental impact analysis) document, there is still need a study because of the many activities that will be implemented and the construction period is very long, it is possible that the EIA was prepared not going according to plan. Therefore it is necessary to see how the implementation of the EIA Regional Development Real estate A in the form of environmental risk analysis

#### 4.2.2 *Social Dimension Indicator*

1. Characteristics of community cohesion in the city of Surabaya based indicators have been achieved when viewed at certain segments of society. However, there is still an individualistic character of urban communities, especially in the urban settlements such as Real estate A residential area. It is still a need for such special attention to the implementation of a specific program for community cohesion
2. The realization of the city into a smart city is Surabaya proper effort in creating a good Surabaya city government. All access to any relevant information can be accessed easily by the public then becomes a benchmark in public trust. In the neighborhood of Real estate A resident, public confidence indicator has been reached, it can be seen from the establishment of a safe and secure environment
3. The developer of Real Estate A provides a wide range of trading facilities, health, and education in the area of housing. However, the provision of various facilities by residential areas would be better if it is integrated with the programs of facility provision by the city of Surabaya.
4. Real estate A Resident is one of the point events / activities distribution form in the city of Surabaya. Location of housing that was around the township will have an impact in the form of urbanism in case of integration between Real estate A resident areas with all around kampong beside the resident.
5. Real estate A resident also includes the opening of the access roads from East Surabaya to Madura through the Suramadu Bridge.
6. Real estate A resident is very remote from the slums because the concept is very well planned super block. But it would be very different if compared with the environment outside the residential areas (kampong) in the form of settlements that still seem disorganized. Regional development disparities between real estate resident and around the resident, it still must be integrated to eliminate these gaps.

#### 4.2.3 *Cultural Dimension Indicator*

1. Government efforts in realizing the Surabaya urban creativity, culture, aesthetics, and diversity seen by many open space that has been formed. Open space will support human interaction so the creativity will be formed. However, within the scope of Real estate A this is not a big impact because individualist characteristics exist on that society.
2. Efforts application of the 3Rs (reduce, reuse, recycle) in each kampung to do in Surabaya can be measured. However, the implementation of the program does not exist in the area of Real estate A resident.
3. Real Estate A is a new housing with modern residential concept so do not have any cultural heritage. However, if the review is more directly the existence of this housing will give effect to the social culture around the housing caused urbanism. That is need a special effort to restriction local cultural change.

#### 4.2.4 *Economic Dimension Indicator*

1. Real estate A have a process of managing economic activity with the construction of trading facilities such as malls, food court, etc.. The development in a Real Estate resident will indeed lead to the growth of the region and they will have impact. The impact must be controlled, so they will not give a bed multiplier effect for environment.
2. Provision of the necessary infrastructure and basic services for residential housing developers conducted by Real estate A is in line with the government's program of Surabaya.
3. Provision of land as residential care facilities has already been done by the developer of Real estate A
4. There is need a public awareness and increase the work ethic of the individual so that the community development programs can be implemented properly. However, by looking at the model of the characteristics of housing, mostly inhabited by the high class economic status of society then this program is not appropriate if it is intended for Real estate A.
5. Form of modern buildings do not pay attention to traditional building materials that reflect the architectural or traditional culture because no communities with special cultural characteristics live in the residential areas.
6. Real Estate A is an area that pushed for the development of the region. Considered need proper socialization media for their efforts - efforts involving the public in the process of urban development planning

## 5. Conclusion

Based on the analysis and discussion that has been done in this study, it can be concluded that there are several indicators of sustainable development in the Real estate A development process that is not in line with the provisions - provisions established by the city of Surabaya, especially in the aspects of the environment and public dissemination media. The need for specific measures in order to realize all of the indicators of sustainable development in accordance with the specified indicators UN Habitat.

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