

IMPLEMENTATION OF GREEN ECONOMY IN APARTMENT BUILDING IN SURABAYA

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ABSTRACT

Approach to urban green economy to apartment buildings. Surabaya is the largest metropolitan city in East Java Province and the capital of the province. By population, it is the second largest city in Indonesia after Jakarta. According to data from the Surabaya City Central Statistics Office (BPS), Surabaya's population is currently growing rapidly, and is expected to have more than 2 million residents by 2021. With faster population growth, the activity population also becomes more productive. Aside from growing population activities, the need for housing is also growing and is becoming a problem, especially in urban areas. The high cost of land and the shrinking number of vacant lots make it hard for immigrants and local communities to buy houses or land in Surabaya. Therefore, a vertical housing concept or apartment is needed to solve the expensive and difficult problem of empty land in Surabaya. The concept of green city development emerged as a result of this problem. A network or system of urban green building uses nature to reduce or cope with urban issues and climate change.

Keywords: *Apartment, Urban, Green Economy, Surabaya*

JEL Classification: *A1, C0, L3*

INTRODUCTION

On the contrary, there are conditions at Balehinggil Apartment in East Surabaya where the occupancy rate often increases, in proportion to the increasing volume of waste. Where the increase in occupancy is not only the number of residents but also the increase in business actors in apartment Balehinggil. Total of laundry shops, canteens, minimarkets, cafes, salons, dan gyms telah meningkat, menjadikan physical waste and residential waste a major environmental issue that can cause problems with the environment around the apartment. Overwaste can cause a lot of environmental and health pollution for both apartment residents and the people who live around the apartment.

This can cause to carrying out economic both in apartment Balehinggil and in the environment around the apartment. In the long term, sustainable economic activities for both apartment residents and the environment around the apartment cannot be achieved due to environmental constraints. This study aims to explain a new approach to properly organizing waste through the 3R program which stands for reduce, reuse,

and recycle in order to achieve sustainable development in Apartment Balehinggil. Researchers choose qualitative methods likes Kustiwi (2023) and a phenomenological approach, this study offers recommendations to apartment residents and bureaucrats in this case, the Surabaya city government in general. The following is a problem formulation that can be taken to answer the background to the problem above, namely

1. Does the Green Economy have a significant effect on the impact on apartment residents and the environment around the apartment.
2. Does the Green Economy have a significant effect on sustainable economic recovery for apartment residents and the environment around the apartment?
3. Does the Green Economy provide economic benefits to apartment residents in particular and residents around the apartment in general?

This is a study that aims to ensure that the green economy can help apartment dwellers, in particular, and people living around the apartment, and then ensure that the green economy has an impact on a sustainable economic climate in the community.

A green economy is a concept that is needed to support the welfare and justice of domestic market players so that they can develop the economy and maintain a balance between improving people's welfare and maintaining the national economy. A green economy includes low carbon, resource efficient, and socially inclusive, so that the existence of a green economy can lead to job and income growth driven by public and private investment. (UNEP, 2022).

There are five principles of economic development based on a green economy, likes:

1. Making good prosperity for community
2. Creating equality of various generational eras.
3. Maintaining, restoring and investing in any project that relation with natural resources.
4. Supporting sustainable levels especially about consumption and production.
5. Supporting system that are strong and integrated. So, it can be accountable.

METHOD

The research method used in this research is to use a qualitative research method with a descriptive approach. In this research, researchers used a division into several stages, namely observation, documentation and data analysis (Sugiyono, 2009). The design of this apartment building was designed by applying the concept of urban green building practice which will prioritize environmentally friendly design (Sugiyono, 2012). To determine the pattern of activity and space requirements in apartments, field surveys and precedent studies are used. Next, the data is evaluated to produce a design concept, which will be converted into working drawings and 3D visuals as the final design. Economic benefits, social benefits, and social costs are the dependent variables in this study (Moleong, 2007).

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RESULTS AND DISCUSSION

The Root Of The Problem

The main problem today in the context of implementing a green economy in order to create sustainable economic growth is waste. The large volume of waste that is not balanced with waste processing solutions will cause new problems in apartment "X" Surabaya. The following are the types of garbage and the length of decomposition time according to the Surabaya City Cleaning and Landscaping Office.

Table. 1 Types of Litter and Length of Decomposition Time

Garbage Type	Long Decomposition Time
Paper	2,5 months
Cardboard	5 bulan
Fruit	6 months
Plastic	80 months
Aluminium	100 months
Stereofom	Indestructible

Source: Dinas Kebersihan dan Pertamanan Kota Surabaya, 2012

For some people, both apartment residents and the people of Surabaya City argue that another alternative to handling waste is to burn garbage, this is certainly as dangerous as hoarding garbage.

As mentioned in Law Number 18 of 2008 Article 29 concerning the prohibition of importing waste, mixing waste that causes pollution and environmental damage, disposing of waste out of place, handling waste with open disposal at the processing site. Finally, burning waste that is not in accordance with the technical requirements of waste processing, and entering waste into the territory of Indonesia country.

This can be proven from the following data on the percentage of sorting and not sorting waste of Java Island residents in 2014.

Because the population is the subject and object of sustainable economic development, the first step is to socialize the importance of sorting and processing waste, as shown by the above data. The people who live there should be directly involved in these efforts. The 3R (Reduce, Reuse, and Recycle) program is one of the initiatives that aims to empower the community in the concept of green economy.

Table 2 Treatment of Sorting and Not Sorting Waste of Javanese Island Residents

Provinsi	Waste Sorted			Totally
	Sorted and some used	Sorted then thrown away	Garbage is not sorted	
DKI JAKARTA	3,39	7,95	11,34	88,65
WEST JAVA	11,28	11,36	22,64	77,36
CENTRAL JAVA	10,95	11,09	22,04	77,96
DIY	16,15	11,45	27,6	72,4
EAST JAVA	8,39	7,1	15,49	84,51
BANTEN	9,63	7,68	17,31	82,69
INDONESIA	8,75	10,09	18,84	81,6

Green economy, also known as "green economy", is a concept that aims to increase social prosperity without sacrificing negative impacts on the environment. This is consistent with the phenomenon in Apartment Balehinggil, where the residents tend to exploit natural resources indirectly in the waste management process. The 3R program is used to implement it.

Article 1 of the Regulation of the Minister of Environment of the Republic of Indonesia states that "Activities to reduce, reuse, and recycle or limit waste, reuse waste and waste recycling, hereinafter referred to as 3R Activities are all activities that are able to reduce everything that can cause waste, waste reuse activities that are suitable for use for the same or other functions, and waste processing activities to be used as new products."

In accordance with the type of activity, the implementation that has been implemented by the Surabaya City Government is the Waste Bank program in addition to the city government, the people of Surabaya are involved in this green economy program. The goal is not only to reduce the increase in waste that will cause environmental damage, but also to empower the community in each village who will later benefit through this program. The Waste Bank program will be able to motivate residents not to immediately dispose of waste in the landfill but require them to sort out the types of waste and collect waste that will be handed over to the nearest Waste Bank.

The Waste Bank program also has economic value from the recycling process carried out by residents themselves. In an effort to reduce waste little by little and use it without having to throw it away, the Surabaya City government provides facilities such as waste transport vehicles and composters used to process wet waste. With this, the implementation of green economy will be able to realize sustainable development in Surabaya City. According to the Brundtland Report of the Organization of Nations, sustainable economic development is a process of development (e.g., land, cities, businesses, communities, etc.) based on the principle of "meeting the needs of the present without compromising the needs of the next generation."

Based on Pasal 1 Ayat 3 dari Undang-Undang No. 32 tahun 2009, sustainable economic development didefinisikan sebagai "conscious and planned efforts that integrate environmental, social, and economic aspects into development strategies to ensure the integrity of the environment as well as the safety, ability, welfare, and quality of life of present and future generations." It's still same with general definition of sustainable development as development that meets the goals of sustainable

development.

The Role Of Society

The community, in this case, apartment residents in particular and residents around the apartment (Surabaya Society) in general is main part creation of sustainable green economic development.

Society is a subject and object in sustainable development. To achieve ideal conditions in the midst of the quality and quantity of natural carrying capacity that is getting lower and limited, good quality and quantity of society are also needed.

Implementation

The Green City Development Program (P2KH) states that there are three main pillars of sustainable development that are mutually sustainable. These are:

1. Economic Growth, which means maintaining steady economic growth by reorganizing the productive system to conserve resources and energy.
2. Social Sustainability, which guarantees social justice in the distribution of wealth and social services.
3. Environmental Resilience, which means keeping the environment comfortable and safe with zero emissions.

The increasing occupancy rate in Apartment "X", the increase in business actors in apartment "X" and for the people of Surabaya, if not accompanied by awareness of environmental sustainability will have an impact that threatens the environment and economic growth. The occurrence of landfill overload phenomenon, which results in air and environmental pollution will have an impact on the health of the surrounding community, and then in the next period will disrupt the process of activities and growth economics. To prevent other negative impacts from occurring, the first step is to reduce the volume of waste.

This is done by the Surabaya City Government through the Waste Bank program, which gradually eliminates the pattern of handling disposed waste. The mechanism of the Waste Bank program is as follows:

1. Residents sort garbage in their homes. Among them are paper, plastic, and wet garbage.
2. On the day specified by the Waste Bank in each kelurahan, residents store garbage. Then the Garbage Bank records in people's passbooks which will later be exchanged for cash and basic necessities.
3. Recycling activities are carried out by the management of the Waste Bank and also surrounding residents who contribute to waste storage. Here community empowerment can also be done.
4. The finished recycled product will be sold and then the proceeds will be returned to the manager and residents

Another form of implementation occurs in several business actors in Apartment "X". Among them are Indomaret, Balemart, Salon, Canteen, Laundry, Gym and others. Start implementing paid plastic bags (crackle), with the aim of reducing customer interest in consuming plastic whose decomposition time is very long.

Value of Money of The Waste Bank Surabaya City

The Surabaya nitizens get profit when they change (menukarkan) their rubbish/

waste to the waste bank Surabaya city, the nominal money are:

Table 3. Value of Money of The Waste Bank Surabaya City

Type	IDR / Kg
Cardboard Box	<u>1.300,-</u>
PET Bootle	<u>3.700,-</u>
Plastic	<u>1.500,-</u>

The Public relation of Surabaya City Government, Mrs. Rizana Hasna inform the Surabaya nitizen deposited an average paper of 20 kg / people in the weekend. She said if Surabaya nitizens enthusiastically contribute to maintaining the environment by responsibly collecting waste.

Flow of digital implementation of waste management

There are three (3) types flow of digital implementation of waste management, likes:

1. Application of Digital Waste Bank Planning
 - a. Application functional planning
 - b. Implementation of digital waste banks

The stages of the display and functions of the digital waste bank application until a prototype of a digital waste bank is formed.

There are three prototype features, namely:

- Waste bank management
Including the management of waste intake and waste volume so that it can calculate the total absorption of waste banks received by waste banks.
 - Customer management
Functions to manage the hours of customer balances and the number of existing customers so that they can obtain data on the results of waste absorption based on the area of waste bank customers to calculate future policies to achieve even waste absorption.
 - Balance exchange management.
It is a calculation of customer balances after exchanging waste so that it can calculate the reciprocity that will be given to waste bank customers in the form of basic necessities, compost and medicinal plants Where the reciprocity is expected to fill the lack of nitizen waste bank Surabaya City needs
2. Implementation of digital waste banks
The aim is that the people of Surabaya understand and implement digital waste banks and if deficiencies are found during implementation, they can be reported to Surabaya City Government for improvement by conducting the testing stage until deemed sufficient by the Surabaya City Government.
 3. Monitoring and evaluation
The last flow is the monitoring and evaluation form of Surabaya City Government about implementation the waste project, including shortcomings during the implementation of digital waste bank so that obstacles can be overcome effectively, after that an evaluation is carried out from the implementation team every 6 months with a scale of 3 years to monitor and evaluate the running of the

digital waste bank program.

Green Economy with the concept of treatment-based economic development

1. Eliminate subsidies for possible fossil

Government efforts to reduce carbon emissions and fuel consumption by the community by reducing fuel subsidies (BBM) so that people switch to more environmentally friendly electricity with zero carbon emissions to create a healthier

2. Produce strict standards of control of activities that affect the environment.

Economic reconfiguration towards a sustainable framework can lead to eco-efficiency i.e. benefits to society such as the creation of "green jobs" at the minimum level to reduce poverty, minimize income inequality and achieve an economy with inclusive growth.

3. Green sector privileges with tax intensive.

Granting privileges for business actors who implement green business with fiscal-intensive provision such as taxes and economic instruments that help conserve natural resources.

4. Regulatory framework for market instruments that promote nature conservation.

Consolidate aspects of a strong regulatory framework, limit spending in areas that deplete natural resources, implement tax and market-based instruments that enable modification of consumer preferences and stimulate green investment and innovation.

CONCLUSION

This research was conducted to determine relationship between green economy concepts, theories and applications on sustainability project in Apartment Balehinggil in particular and the Surabaya community in general.

To find out various elements and aspects that can support the achievement of green economy in Surabaya. A series of research activities, the author can draw conclusions from the problem formulation found by the author, including the following:

1. The idea of green economy is a concept that aims to improve social welfare without threatening environmental damage. The way to apply green economic theory in the city of Surabaya is with the 3R program. There are reduce, reuse and recycle.
2. The 3R program that has been implemented by the Surabaya City Government is the Waste Bank program.
3. The Waste Bank Program is not only useful in environmental aspects but also provides benefits in economic aspects and community empowerment.

Green Economy program to be explained more effectively and provide maximum results, a separate note needs to be taken as an evaluation by the Government in general and the stakeholders of Apartment Balehinggil in particular to pay attention to the following:

1. Another application of green economic theory is to start using reusable equipment such as straws, spoons, forks, chopsticks, etc. As well as implementing paid plastic bags to reduce people's plastic consumption.
2. As the volume of waste decreases, environmental problems will gradually decrease. Furthermore, economic activities will return to stability and aspects of social and environmental life will be sustainable.
3. An important part on success of sustainable development include: the government's

political will, the role of government environmental institutions, the role of non-governmental organizations or what are usually called Non-Governmental Organizations (NGOs), the role of the industrial sector, the role of the mass media, and participation public

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