

Type of Benefits Factors in The Implementation of Green Space Policy in Bandung City

Tatik Fidowaty, Samugyo Ibnu Redjo

Lecturer of Government Science, Universitas Komputer Indonesia

Lecturer of Government Science, Universitas Komputer Indonesia

samugyo@email.unikom.ac.id

tatik.fidowaty@email.unikom.ac.id

Abstract-The purpose of this study was to determine the type of benefits factor in implementing the Green Space policy in Bandung City. This study uses a descriptive research method with a qualitative approach. Data collection techniques used are literature study, observation, interviews with the Mayor of Bandung, the Bandung City Spatial Planning Service, the Department of Housing and Settlements, Land and Landscaping (DPKP3) Bandung City and the people of Bandung City. The technique of determining informants using purposive for government officials and accidental for the people of Bandung City. The results showed that Green Space has many benefits, including as a place for recreation and beauty. People visit the city forest of BabakanSiliwangi to breathe fresh air while exercising, want to see the green plants, relax while chatting. The point is you want to release your fatigue from your daily activities. Based on the explanation above, it can be concluded that the type of benefits factor can already be felt by various parties, although it is not evenly distributed because indeed the benefits of this Green Space are so many. Each party feels the benefits of Green Space from different perspectives or needs. If there are parties who feel aggrieved in the management of Green Spaces, the road will eventually be resolved in court.

Keyword: Green Space, Benefits, Park and Forest.

Introduction

This study aims to determine the type of benefits factor in implementing the Green Space policy in Bandung City. The type or types of benefits talk about what benefits are obtained from the existence of Green Space policies, especially urban parks and forests, whether it is the benefits obtained by the government as the implementor, private or community [1]. Everyone must have different benefits from the implementation of Green Space policies, especially parks and urban forests. Some use parks and urban forests as a place to relax, some use them for trading, some use them for pre-wedding and so on. Although the benefits of Green Space for each person are different, what is clear is that Green Space has many benefits.

A similar research has been studied by several researchers including Tian Gao, Fang Liu, Yang Wang, Sen Mu and Ling Qiu entitled Reduction of Atmospheric Suspended Particulate Matter Concentration and Influencing Factors of Green Space in Urban Forest Park [2]. Silvija Krajter Ostoi

PROCEEDING BOOK

The 3rd International Conference on Business, Economics, Social Sciences, and Humanities 2020

ISBN: 978-623-95562-0-4

ć, Dijana Vuletić, Spela Planinšek, Ursa Vilhar and Anže Japelj with the title is Three Decades of Urban Forest and Green Space Research and Practice in Croatia and Slovenia [3]. A similar study was conducted by Cristiana Vilcea and Cristina Sosea yang berjudul A GIS-based analysis of the urban green space accessibility in Craiova city, Romania [4]. In addition, a similar research was conducted by [Jennifer R. Wolch](#), [Jason Byrne](#) and [Joshua P. Newell](#) dengan judul Urban green space, public health, and environmental justice: The challenge of making cities 'just green enough' [5]. [Magdalen van den Berg](#), [Wanda Wendel Vos](#), [Mireille van Poppel](#), [Han Kemper](#), [Willem van Mechelen](#) and [Jolanda Maas](#) dengan judul Health benefits of green spaces in the living environment: A systematic review of epidemiological studies [6].

The similarity of the research carried out by the researchers with the five studies above is that they both research green spaces, especially parks and urban forests and the various benefits of having green spaces. While the difference is in terms of the locus.

Green space has a lot of benefits as a place for recreation, sports, relaxing with family, clearing the air and so on, but can all parties, including government, private and community, benefit from green space? The benefits of green space cannot be fully felt, on the one hand green space is beneficial for the environment, but on the other hand it may not have economic benefits. For local communities, of course the existence of green space will greatly affect the existing ecosystem as well as their socio-cultural formation. But economically, sometimes there are only certain groups who enjoy it, on the other hand, exotic parks and urban forests are used as instant enjoyment for the outside community so that the benefits that are present are not for the community itself

Some of the problems that occur in green space involve the government and the community. Many green zones should not be built, either permanent or non-permanent, but still built by the community, such as riverbanks. Many people build houses on the banks of rivers which make the river area smaller and unable to accommodate rainwater when the rainfall is high and it causes flooding. In addition, many people also make houses on land belonging to the Bandung City government. For this reason, every developer / entrepreneur carrying out housing construction is required to submit the Management of Public Utilities Infrastructure to the Bandung City DPKP3, in the PSU there is green space, but until now, of the 591 developers, only 21 developers have submitted the Management of Public Utilities Infrastructure to the Bandung City DPKP3. For this reason, the author is interested in making an article about the benefits of green space.

Method

This research uses descriptive research methods with a qualitative approach. Data collection techniques used are literature study, observation, interviews with the Mayor of Bandung, the Bandung City Spatial Planning Service, the Department of Housing and Settlements, Land and Landscaping (DPKP3) Bandung City and the people of Bandung City. The technique of determining informants using purposive for government officials and accidental for the people of Bandung.

Results And Discussion

The results showed that green space has many benefits, including as a place of recreation and beauty. People visit the city forest of Babakan Siliwangi to breathe fresh air while exercising, want to see green plants, relax while chatting. The point is you want to release your fatigue from your daily activities.

Based on the results of interviews with community visitors to parks and urban forests, they said the same thing that green space has many benefits such as a place to relax and have a recreation, sports facilities, educational facilities for children, as a place for vacation and hanging out with friends. Most people prefer to visit the baksil to exercise while enjoying the freshness of the forest, the price is cheap

PROCEEDING BOOK

The 3rd International Conference on Business, Economics, Social Sciences, and Humanities 2020

ISBN: 978-623-95562-0-4

and can make the brain fresher. Instead of visiting the mall, visiting the mall will cost a lot of money. In addition, green space can also be used as a place to work, some people make Baksil a place for pre-wedding because the Babakan Siliwangi view is good for people whose marriage uses the concept of nature.

Parks and urban forests have many benefits for life. Many Babakan Siliwangi visitors come to exercise, meet friends while enjoying the green of the forest, maintain the ecosystem, water absorption, relax, recreation and even work, in the Republic of Indonesia Government Regulation No. 63 of 2002 concerning City Forests, Article 2 reads:

"The purpose of urban forest administration is for the preservation, harmony and balance of the urban ecosystem which includes environmental, social and cultural elements." Meanwhile, Article 3 reads:

The function of the urban forest is to:

- a. Improve and maintain microclimate and aesthetic value;
- b. Infuse water;
- c. Creating balance and harmony in the physical environment of the city; and
- d. Supporting the conservation of Indonesia's biodiversity.

In the elucidation of Article 2, it is stated that the objectives of managing the urban forest are intended to:

- a. Suppress / reduce the increase in air temperature in urban areas;
- b. Suppress / reduce air pollution (levels of carbon monoxide, ozone, carbon dioxide, nitrogen oxides, sulfur and dust);
- c. Prevent subsidence of groundwater and soil surface; and
- d. Prevent flooding or inundation, drought, seawater intrusion, increased heavy metal content in water.

Whereas in the explanation of Article 3 In accordance with the objectives of urban forest administration, the function is more emphasized, namely, among others, as an absorber of carbon dioxide and an oxygen producer, an absorber of pollutants (heavy metals, dust, sulfur), noise suppression, preservation of germplasm, supporting diversity of flora and fauna. and balance of ecosystems, windbreaks and enhancement of beauty. Thus, an urban forest is categorized as already built if it is physically vegetated as planned. When viewed from the functions and benefits, there are several typologies of green space [7].

According to Ministerial Regulation No.1 of 2007 concerning Urbangreen space Planning, types of green space include:

1. City Park Green Space.

It is a plot of land which is used around it, arranged regularly and artistically, planted with shade trees, planted shrubs / shrubs and ground cover plants. This means that a city park is a space in the city whose structure is natural with few built-up parts. City parks usually consist of elements of shady trees, shrubs or shrubs and neatly arranged ornamental plants, park benches, paths, ponds, fountains, and children's playgrounds.

2. City Forest Green Space.

In Government Regulation no. 63 of 2002 stated that an urban forest is a stretch of land with compact and dense trees in an urban area, both on State land and private land, which is designated as an urban forest by authorized officials. The special characteristic of urban forest is the dominance of trees that grow tightly and are compact and natural. Even so, it is not like a jungle but its condition is monitored to always be guarded and maintained even though it is not maintained intensively like a city park.

3. Green Space for City Recreation and Sports Activities.

Used as a recreation area, namely a place where residents carry out active (like) recreational activities, such as: sports fields or passive (like) recreation such as: playgrounds. Recreational green space can also be in the form of a camp area which provides space for the community to carry out camping activities.

4. Funeral Green Space.

The provision of green space for Cemeteries in the city aims to provide land for community burials. As a burial ground, it usually has a built-up space that is not too wide and the rest of the land is planted with various types of trees for reasons of history, education or beauty. Considering that the elements of trees are contained in this type of Green Space, besides a special function, funeral Green Space also plays a role in contributing to the shrinking need for Green Space, to help form a microclimate, reduce pollution, and add acidic substances.

5. Agricultural Green Space.

It is one of the green spaces that functions as a place of work, namely a place for residents to make a living directly from the land use sector (RDTRK Kota Bandung, 2006). This area is classified as a type of green space because it consists of productive trees (agricultural plants) and without buildings (non-built). The provision of agricultural green space is usually used to meet food needs and is one of the productive economic sectors of a city. In urban areas, agricultural green space becomes one of the reserves for the expansion and development of urban-built land, meaning that agricultural green space is prepared to change its function into buildings or other built land uses. This is normal because agriculture requires a large area of land, so that it is prioritized in urban/urban border areas (hinterland).

6. Green Line Green Space and Jalan Island.

Green lanes are located along the left and right lane of the road and in the middle of the road (median of the road) the green lane is usually dominated by large and tall trees as a cover, not just beautiful trees. Several criteria regarding plants that are suitable for green-lane Green Space include large and tall stems, and resistant to extreme conditions of drought and extreme weather, fresh and attractive appearance, functions as a shade for roads, free from pests and diseases, strong branching and the leaves do not fall easily, not easy to cause allergies, does not damage the environment, does not absorb too much water, the roots do not stick out, easy care, does not look like a shrub and is not dangerous or injuring. Unlike the green lane, the road island is a small area in the middle of the road (usually located at a crossroads) and consists of shrub vegetation that emphasizes beauty, not a large shade tree because it can obstruct the driver's view. Considering the large role and contribution of motorized vehicles in air pollution in urban areas, which is 70%, the arrangement of traffic lanes requires special attention in spatial planning efforts.

7. Yard Green Space.

Located in the courtyards of buildings, be it offices, commerce, or housing. The remaining land from the allocated parcels that is not built is directed to become Green Spaces that can contribute to providing beautiful views and help reduce air pollution. According to UUPA No. 5/1960, basically land that belongs to individuals and legal entities has a social function. In this case, the social functions that can be provided by Green Spaces in the yard are in the form of use as a family garden, medicinal plants, spices, helping air circulation, increasing sufficient sun exposure and preventing mass fires (especially in residential areas). Even though the area is not large, it is quite influential in the overall Green Space of the city. Because of this, the restrictions on the area of parcels that are allowed to be built are increasingly strict and are regulated in regional regulations (RTRW Kota).

8. Green Space Sempadan.

PROCEEDING BOOK

The 3rd International Conference on Business, Economics, Social Sciences, and Humanities 2020

ISBN: 978-623-95562-0-4

The types of Green Space boundaries include building borders, beaches, rivers, lakes, and railway lines. Based on its location in the vicinity of important elements of the city / region, the green border open space is directed to the function of the buffer between a land use or surface feature and the surrounding land use. One of them is that it can slow down the flow of water in the area so that it does not cause disruption to human activities. In this case, the border has a dual function, namely that in addition to protecting humans and their surrounding habitats, it also protects the existence and sustainability of rivers, lakes, railroads or other land uses. Aesthetically and in design, the green border open space is also useful for shaping the image of the city / region.

The typology of green space above is in accordance with the theory presented by Hendrawan which states that the benefits and functions of greening or green space are:

1. City lungs, namely plants as green elements in their growth, produce acid (O₂) which is indispensable for living things for respiration.
2. Environmental regulators (micro), namely vegetation will cause the local environment to be cool, comfortable and fresh.
3. The creator of the environment, namely reforestation, can create space for living things in nature that allows natural interactions to occur.
4. Nature balancing (edapis), which is the formation of natural living places for animals that live around them.
5. Oro-hydrology, namely controlling for groundwater supply and preventing erosion.
6. Protection for natural physical conditions around it: such as strong winds, hot sun, gas, or dust.
7. Reducing air pollution, namely vegetation can absorb certain pollutants.
8. Vegetation can filter out dust by the canopy and the thickets of its leaves.
9. Reducing water pollution, ie vegetation can help clean water.
10. Reducing noise pollution, ie vegetation can absorb sound.
11. Beauty (aesthetics), namely greening elements that are well planned and thoroughly will add to the beauty of the city.
12. Health, namely the color and character of plants can be used for eye and soul therapy
13. Educational value, namely vegetation communities planted with diversity of species and characters will provide scientific value so that it is very useful for education, such as urban forests are natural laboratories.
14. Recreation and education, namely green lines with a variety of vegetation contain scientific values.
15. Social, political, and economic, namely plants have high social value.
16. Urban greening is an indicator or guide for the environment, there may be things that are harmful to the growth and development of the city [8].

With the various benefits of green space above, if the green space policy is successful, it will provide a lot of benefits both for the implementer, interested parties and also the wider community. However, it is very unfortunate that there are still many people who do not care about green space. Regarding green space as not important, even though the quality of life of our children and grandchildren will depend on green space. There are a lot of bad impacts due to the lack of green space, including pollution or an increase in air temperature, decreased groundwater availability, disruptions to health, both psychologically and psychologically, and can even disrupt the economy of a region/city.

To solve the green space problem caused by the large number of illegal buildings being built in the area designated for green space, the government is trying to dismantle the illegal buildings because

it is confirmed that they do not have IMB, the government gives a warning letter to the building owners to demolish it themselves. If up to 3 times a warning letter is sent and the illegal building owner still does not demolish the building, the government will forcefully demolish it. Usually, people who build land owned by the government are also reluctant to be relocated. Because there was no agreement, the final path was forced execution / demolition. The demolition was carried out by a combination of SATPOL PP, DISTARU and assisted by the police.

The people who objected took action and took the case to court. In the end a trial took place and the decision was left to the judge, whether the government or the community won the case later. However, because they did not have an IMB and built illegally in the end, the government often won the case.

Conclusion

Based on the explanation above, it can be concluded that the type of benefits factor has been felt by various parties, although it is not evenly distributed because there are so many benefits of green space. Each party feels the benefits of green space from different perspectives or needs. If there are parties who feel aggrieved in the management of green space, the road will eventually be resolved in court. The large number of illegal buildings in the area earmarked for green space occurs due to the lack of supervision from the government itself.

Acknowledgment

Thank to the Unikom Rector, Prof. Dr. Ir. Eddy Soeryanto Soegoto who has provided support both morally and materially in this research. And than the Ministry of Research, Technology and Higher Education of the Republic of Indonesia has provided educational support of materially.

References

- [1]. Grindle, Merilee S. 1980. *Politics and Policy Implementation in The Third World*. New Jersey: Princeton University Press.
- [2]. Gao, T; Liu, F; Wang, Y; Mu, S; Qiu, L. Reduction of Atmospheric Suspended Particulate Matter Concentration and Influencing Factors of Green Space in Urban Forest Park. *Forests* 2020, 11, 950.
- [3]. KrajterOstoic, S; Vuletic, D; Planinsek, S; Vilhar, U; Japelj, A. Three Decades of Urban Forest and Green Space Research and Practice in Croatia and Slovenia. *Forests* 2020, 11, 136.
- [4]. Cristiana Vilcea, Cristina Sosea. A GIS-based analysis of the urban green space accessibility in Craiova city, Romania. *GeografiskTidsskrift-Danish Journal of Geography* 2020. 120:1, pages 19-34.
- [5]. [Jennifer R. Wolch](#), [Jason Byrne](#) and [Joshua P. Newell](#) dengan judul Urban green space, public health, and environmental justice: The challenge of making cities 'just green enough'. *Landscape and urban planning journal* 2014, 125, Pages 234-244.
- [6]. [Magdalenavan den Berg](#), [Wanda Wendel Vos](#), [Mireillevan Poppel](#), [Han Kemper](#), [Willemvan Mechelen](#) and [Jolanda Maas](#). Healt. *Landscape and urban planning journal* 2015, 14:4, Pages 806-816.
- [7]. Peraturan Pemerintah Republik Indonesia No. 63 Tahun 2002 tentang Hutan Kota
- [8]. Hendrawan, Optimalisasi Ruang terbuka Hijau Untuk Remaja, Studi Kasus: Empat Ruang terbuka Hijau di DKI Jakarta. (Jakarta: PSIL PPS UI, 2003), Hal. 46