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To cite this article: Siti Fadjarajani and Ruli As'ari 2020 *IOP Conf. Ser.: Earth Environ. Sci.* **412** 012001

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# Analysis of the Function of City Parks as Green Open Space and Education (Study in the City of Tasikmalaya, West Java Province, Indonesia)

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**Abstract.** City parks are an area that belongs to the urban Green Open Space which functions to balance ecosystems, social, cultural, economic, aesthetic, and as a protected area. The current factual condition is that there are some discrepancies/deviations in the function of the city park as a green open space so that it can harm the environment. The study was conducted with descriptive techniques carried out on 3 Park City areas in Tasikmalaya namely Alun-Alun Park, Dadaha City Park, and Tasikmalaya City Park. This study was conducted by reviewing city parks that discuss green open space (ecological, socio-cultural, economic and aesthetic functions) and education functions. The results showed that the condition of city parks as green open spaces in the City of Tasikmalaya namely ecological, socio-cultural and aesthetic functions had conformity value and in terms of their economic functions, city parks in Tasikmalaya had a high level of thinning by not having economic functions from production garden. The incompatibility of functions that are the result of observation is by using the area as a trading area. While the education function of the City Park can be used as an area for outdoor learning or field learning.

## 1. Introduction

The need for a comprehensive geography study model so that it can show the public a geographical solution to certain environmental problems. Field laboratories are needed to support learning in the classroom. Practicum in the laboratory, field observations, and field trips are fundamental parts of many earth sciences and environmental science courses [1]. One way to develop an understanding of a scientific study is to learn from experience. The involvement of students in practicums in the field can show how to make improvements to their conceptual knowledge, which then leads to an in-depth understanding of theory [2]. Space (spatial thinking) is what makes the discipline of geography and geographical knowledge different. The discipline of geography is most closely related to spatial thinking [3]. Digital Geography skills enhance several areas of interest further regarding the intersection of labor, life and digital technology [4]. Geography skills are important for global inequality [5].

Green open space in urban areas has an important role in improving the quality of the environment, life and sustainability [6]. Open space is the best playing environment for children. Open space offers opportunities that are not found in the room and the physical environment contributes to the learning of students with their abilities [7]. Open space designed for children is very important because it can be more meaningful and useful when they contribute to the implications of learning in the classroom. Public spaces such as Green Open Space (GOS) that can be used by the community in conducting outdoor activities at this time are diminishing due to various development interests that are considered more important and of high economic value so that the land for green open space needs is increasingly considered to be less important and neglected. Public green open space, in addition to a place to carry out community activities that are intended for the public, saves benefits, especially in urban areas that are not patterned in agriculture and forestry such as in rural areas. Understanding the management of green open space as an area for the interaction of urban communities is needed [8]. The focus of the study is on the aesthetic value of land use diversity and the quality of the landscape around the community [9].



The results showed that the relationship between the existence of a green environment has a relationship with well-being [10]. Urban areas are in desperate need of trees for means of water absorption and storage of reserves, dirty air filters due to industrial activities and vehicle pollution, and surrounding air conditioning. Green open spaces are not only parks that have trees but roadside trees, the median of roads overgrown with plants and breeding plants is a GOS area, but public GOS in Tasikmalaya City has not met the standards that are 30% of the area divided into 20% Public Green Open Space and 10% Private Green Open Space (Minister of Public Works Regulation Number 5 of 2008).

Outdoor learning involving the natural environment provides opportunities to improve academic achievement and social-emotional intelligence for students [11]. The design of a good learning environment that is involved with nature is an important role to improve student's abilities such as academic achievement and social behavior.

## 2. Methods

The method used is the survey through descriptive techniques. The research step was carried out through a literature review, documentation study, data collection through surveys, data analysis. Data collection was carried out by delineating green open space areas in the City of Tasikmalaya through the use of satellite imagery. The analysis was carried out on the utilization of green open space and as a function of education and the suitability analysis of green open space in Tasikmalaya City based on criteria: physical function, social activity function, educational function, economic function, and aesthetic function.

Analysis of the utilization of green open space as an educational function is reviewed through a field learning system whose application can carry out field learning activities. However, it is important to note that the external environment is one of the most complex and difficult to control learning environments [12].

## 3. Results

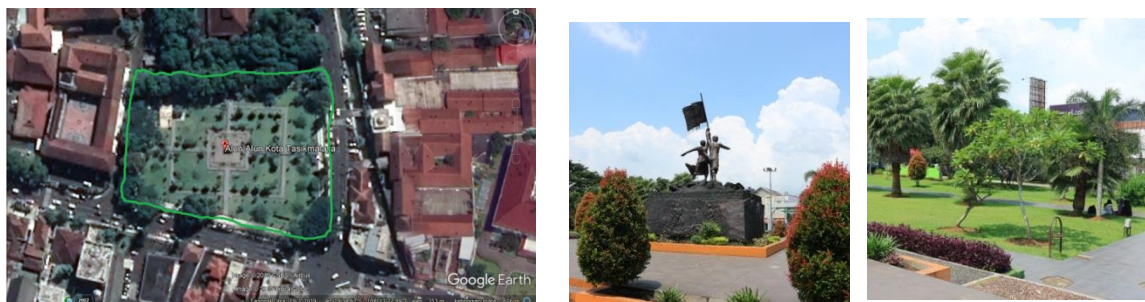
### 3.1 Conditions for Green City Parks in Tasikmalaya City

Green City Parks are areas of green open space that have a planological pattern space structure or patterns that follow urban hierarchies and structures that are intended for the public. Based on the conditions, the Green City Park in the City of Tasikmalaya can be viewed from the area of the city park, facilities owned by the city park and vegetation that grows in the city park area.

The community's knowledge of the Green Park Open Space in Tasikmalaya City is limited only as a function of sports facilities and social activities. Whereas in fact, City Parks as green Open Space can be viewed from various functions, namely: Physical function, social and cultural activities, education, economy, aesthetics.

### 3.2 Green Open Space Park Square

Green Open Space Taman Alun-Alun has an area of  $\pm 1.5$  Ha at the meeting between Jl. Otto Iskandardinata and Jl. R.A.A Wiratanuningrat, precisely located in the central government area of the City of Tasikmalaya which is surrounded by Regent's Office House, Tasikmalaya Hall, economic center and services, and education center.

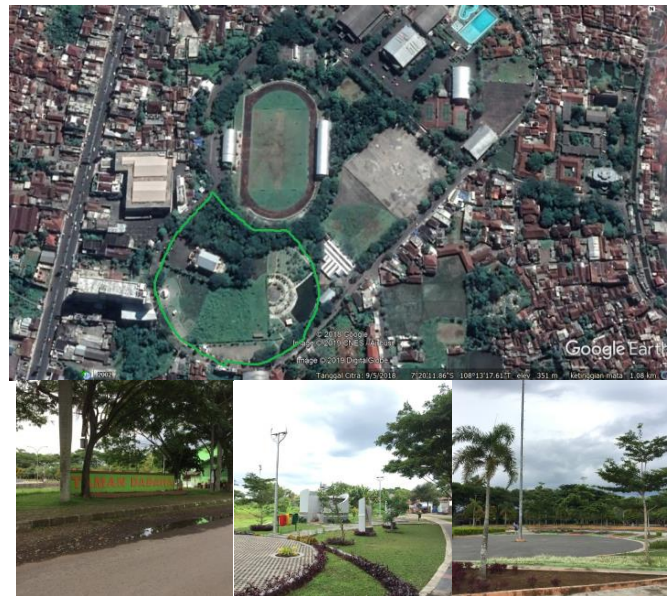


**Figure 1.** Image of A Green Open Space Square Park

Aside from being green public space, Taman Alun-Alun Green Open Space has a distinctive characteristic from the other two Green City Park Open Space namely Tugu Mak Eroh and Abdul Rozak which are the icons of Tasikmalaya City. Visitors who come are usually school children because the location of the Taman Alun-Alun Green Open Space is close to the education center.

### 3.3 Green Open Space Parks Dadaha

Green Open Space Park is located in the area of complex Dadaha Nagarawangi Village, Cihideung District. Has a land area of  $\pm 3$  ha.



**Figure 2.** Taman Dadaha Green Open Space

Taman Dadaha Green Open Space Area which has an area of  $\pm 3$  hectares which includes a city park too, namely the Mental Revolution Park located right next to the Taman Dadaha Green Open Space.

### 3.4 City Park Green Open Space

City Park Green Open Space is located in the center of the city which is opposite the Great Mosque of the City of Tasikmalaya located on Jl. K.H.Z Mustofa which has a land area of  $\pm 0.44$  Ha. This city park has such an attractive beauty and has always been a favorite city park for residents because it is located in the heart of Tasikmalaya City. Inaugurated at the end of 2016.



**Figure 3.** City Park Green Open Space

City Park Green Open Space is relatively new so it is not surprising that many visitors come to there for recreation or just sit to rest. In this case, the area is one of the supporting factors for the

community to come in. The City Park Green Open Space should be able to service the population with per-capita Green Open Space standards following applicable regulations.

#### **4. Discussion**

##### *4.1 Conformity Analysis of Green Open Space Utilization*

The forms of GOS are classified as city parks, river banks and beaches, sports parks, relaxation, funeral parks (public), urban agriculture, parks (forests) cities, parks, lakes, reservoirs, ponds, botanical gardens, ancient parks, safety green lanes, and home gardens. Not all cities can plan the same type of park and open space because different environments require different criteria and characteristics [13]. The functions of city parks are educative value, activity space and place of city facilities, aesthetic value, economic activities. The functions of the city park are social, ecological functions, hydrological functions, health functions, and aesthetic functions. The functions of city parks are Landscape Functions, Ecological Functions, Functions of Aesthetics, Convenience and Enjoyment.

##### *4.2 Physical function*

Green open space functions as an ecology that guarantees physical urban areas, is one form of GOS that is located, sized, and shaped exactly in a city area. Like GOS to protect the resources that support human life and to build a network of wildlife habitat. Based on the results of the study, the City Park GOS in the City of Tasikmalaya as a physical function has been categorized quite well because it is proven to be able to refresh the air, fertilize the soil, and can reduce noise due to the large number of tall trees that grow. But to be a place for animals it is still rare to see animals in the City Park GOS area in the city of Tasikmalaya. As for some such as the presence of birds perched on trees, as well as roaming street cats.

##### *4.3 The function of Social and Cultural Activities*

The existence of City Park GOS has been used by the community, especially for tourists who visit as a public or social space with a variety of facilities and activities carried out. City Park GOS which functions as social and cultural is a supporter and enhancer of the city's environmental and cultural qualities. Activities that can be done, such as sports, whether it's relaxing, jogging, gymnastics, and other sports. Besides that, the general public as tourists make use of the City Park GOS as a recreation room such as gathering and talking, playing, taking pictures, relaxing and other recreational activities. To express local culture can be seen by the presence of Tugu Mak Eroh & Abdul Rozak who are in Taman Alun-Alun GOS as one of the heroes of cleanliness in the City of Tasikmalaya, and accents of Payung Geulis (typical umbrella) and writing clogs are characteristic of Tasikmalaya City in City Park GOS. However, to utilize the optimal function of social and cultural activities of a City Park GOS, there needs to be a comprehensive effort to accommodate a variety of needs and desires of users in activities at City Park GOS.

##### *4.4 Educational function*

The condition of the City Park GOS in the City of Tasikmalaya has a large area and open field that has been used by the community as used for learning activities regarding sports lessons both junior high, high school, and university. As well as the amount of vegetation planted can function as germplasm conservation. Based on the results of the research that has been done, the City Park GOS in the City of Tasikmalaya has attempted to carry out its role in the context of the educational function for the community. However, there are still several challenges that must be faced such as the limited availability of roofed shady facilities for learning activities or group work. However it is important to note that, the external environment is one of the most complicated and difficult to control learning environments [12]. Outdoor learning activities provide students to acquire skills in methodology, work habits, knowledge of the environment [14]. The concepts and design implementations that emerge are explained here, focusing on what personalization means in this context, and about how analytic learning can be used to provide various types of recommendations that support learning [15]

#### *4.5 Economic function*

The City Park GOS in Tasikmalaya City is at the center of Tasikmalaya City's government, economy and trade activities. Sources of products that can be sold such as flowers, fruits, leaves, and vegetables. These conditions have an impact on microeconomic activities in the City Park GOS area which are generally used by street vendors (PKL) to sell. There are 2 types of sellers who are in City Park GOS in Tasikmalaya City, namely sellers who are permanently. More and more traders on weekends and holidays arrive.

#### *4.6 Aesthetic Function*

The urban park management system that is artistically logical requires a large enough or even large area to make it look impressive. Unknowingly a city park can create an image of a city. The city garden pattern that is usually planted with various colorful flowers can help eliminate fatigue and make it a source of inspiration for visitors. Visual or aesthetic characteristics are closely related to recreation. The size, shape, color, and texture of the plant and its composition and its relationship to the surrounding environment are factors that influence aesthetic quality. The visual quality of vegetation can affect the beauty of the city landscape. But it cannot be denied if the existence of street vendors can affect aesthetic quality. But even with the existence of street vendors, we cannot deny that it can be profitable because to buy food and drinks there is no need to buy out of the City Park GOS area.

#### *4.7 Utilization of Green Open Space as an Educational Function*

Provision of Green Open Space is one of the problems that often occur in urban areas that have a high population density. Because planners and landscape managers need to understand how city dwellers value and interact with green open spaces [8]. Green Open Space conditions are currently a dilemma for urban life which tends to develop, the quality of the environment decreases.

The assessment of open space concerning its spatial configuration is very interesting. The latest literature focuses on the aesthetic value of land use diversity and the quality of the surrounding landscape [9]. Urban green open spaces are part of urban spatial planning that is filled with plants and plants to support ecological, social, cultural, economic, and aesthetic benefits, and function as a protected area. Aside from being a protected area, green open space also functions socially as an open public space intended for places of social interaction in the community such as recreation areas, sports facilities, and play areas.

Several studies of green open spaces have long been assumed to affect the health and well-being of urban residents and improve their quality of life. The results of the study show the relationship between green environmental exposure and well-being [10]. City parks are a form of action to improve the quality of the city environment. The function of city parks, besides being an aesthetic element of city space, also functions as an ecological element of the city. As an ecological element of the city, the city park serves as a protector and regulator of the micro-climate. Besides, city parks are public facilities that are compiled and formed to be used by all urban communities as social facilities. The intensity of the highest environmental assessment here and now and discounted from a home perspective across space and time [8].

Urban green spaces have an important role in improving the quality of the environment, life, and sustainability of urban areas [6]. The existence of city parks as green open spaces provides various benefits both at national and local levels and offers a variety of benefits. Some things include; contribute a lot to social and economic life, ecological systems and local planning, and overall, to the quality of urban life. The contribution of urban green spaces can be assessed and analyzed from several perspectives including social, economic, ecological, or planning dimensions.

As a vehicle for social interaction, open space is expected to be a means of social interaction. Previously, some have identified tranquility as a contribution to the health and well-being of individuals and communities, making it rooted in the context of healthy natural ecosystems as desired environmental characteristics [16]. Activities in city parks can be used as geography learning resources related to environmental problems. Through learning with field learning techniques can provide real experiences for students and provide the ability to analyze environmental problems. So

that students can analyze and understand the characteristics of the environment, understand the concept of the environment, interconnect / linkages to sustainability and environmental change.

Supporters are needed to learn how the relationship between humans and their environment. Certainly, it is better if students are invited to observe, observations directly in the field (outdoor) or at the moment the values of practicality can be done in the classroom (indoor) listening to the recorded shows of real events. The study of society can be carried out in a limited environment, namely the environment around the school or in a broad environment, namely the environment of other countries, both those that exist in the present and the past. Students can appreciate the present with the knowledge of the past of humanity. Then discussing solving problems and understanding the social environment using various innovative models can be done by listening to textbooks, answering problem exercises. Furthermore, it was evaluated based on student's cognition abilities that were realized in answering formative and summative test questions.

The integration of information referred geographically to the conceptual framework and applied use of social science and humanities has been an ongoing process for the past few centuries [17]. An overview of technological approaches to analyzing learning and teaching [18]. Several studies conducted in the classroom show that dialogue has the potential to enhance learning, problem solving and collaborative reasoning [19]–[21].

The ecological function of a city park as a green open space is to guarantee the procurement of green space to be part of the air circulation system (city lungs), microclimate regulator so that the natural air and water circulation system can run smoothly, as a shade, oxygen producer, absorbent of rain water, absorbents of air, water and soil media pollutants, as well as windbreaks. The social and cultural function of a city park as a green open space is to describe local cultural expressions, as a medium of communication for city residents, recreational areas, places and objects of education, research, and training in studying nature. The aesthetic function enhances comfort, beautifies the city environment from the micro scale: home page, residential and macro environment: the overall urban landscape, stimulates the creativity and productivity of city residents, forming factors of architectural beauty, creates a harmonious and balanced atmosphere between the built and unbuilt areas. Urban parks are one of the main components of green open space as well as parts of urban forests that have an important role as a means of socio-cultural development such as community education, a place for various social activities, forming the image and image of the city, a place for utilities and facilities to support community activities. City Parks Green Open Space can be used to carry out various social activities in one city or part of the city. This park can be shaped as a green open space, which is equipped with recreational facilities, playgrounds (children / toddlers), flower gardens, special parks (for the elderly), limited sports facilities, and sports complexes and open to the public.

## 5. Conclusion and Recommendations

Geography learning patterns emphasize the elements of education and debriefing on learners. The emphasis on learning is not limited to efforts to provide as much material as several memorizing concepts, so teachers and prospective teachers need to develop learning models by utilizing the environment as a learning resource for the provision of learning geography. The conditioning of the Green Open Space (GOS) environment as an educational function is intended as a learning resource and as a means of supporting the academic field, especially in geography learning.

City Park GOS can be used as a place and object of education, both for research or learning activities. Based on the results of the analysis, the average visitor has never carried out learning activities or conducted a study related to City Park GOS. With student's spatial skills: 1) understand spatial, environmental and regional patterns and processes related to the geosphere in national and global contexts, 2) master basic skills in obtaining data and information, 3) display environmental care behavior and utilize natural resources wisely, and 4) displays the love behavior of the state as a citizen who is responsible for the integrity of the state.

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