

# THE PROVISION OF RECREATIONAL FACILITIES: THE POLICY PERSPECTIVE

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## ABSTRACT

*Recreation is essential to human life, but the facilities are in short supply. This paper examines the distribution of recreational facilities concerning policies and strategies in Greater Jos, Plateau State, Nigeria. The data were drawn from the study utilizing Multiple methods - integrated qualitative and quantitative analysis. The qualitative method employs ArcGIS software to determine the distribution of various recreational activity areas. For the quantitative method, a field questionnaire survey was conducted to collect data within the ten sectors of the study area using a simple random sampling, and the data were analysed descriptively using the SPSS software. The study found out that the distribution of the recreational facilities is not according to the policy of a neighbourhood, lacks appropriateness, insufficient to meet the population threshold. This affects the distance journey to recreation and deprives them of the desire for social integration. The study focused on the Greater Jos, Plateau State, Nigeria, reflecting a specific developing country with attendant inadequate facilities and services. The paper discussed the distribution as it affects the ten (10) zoning/sectors of the Greater Jos. Based on the problems mentioned above, suggestions were proffered towards observing maximum adherence to the implementation of policies and strategies that would help in achieving equity and adequate distribution of recreational facilities globally, especially in Greater Jos, Nigeria.*



**Keywords:** *recreational facilities; distribution; policy, strategy, Greater Jos*

## INTRODUCTION

Provision of recreational and sporting facilities often become focal points for communities, offering a diverse range of activities easily accessible using active modes, such as walking and cycling and public transport (Stenseke & Hansen, 2014). Recreational facilities are essential components of urban infrastructure and provide an avenue for relaxation, social integration, and value to the residents (Bahrini, Bell, & Mokhtarzadeh, 2017). It is essential that leisure facilities are available to all people, more so that leisure facilities do enhance the potential of a city centre by attracting visitors (Jiao, Jin, Gunawan, & James, 2015). The facilities need to be accessible to all community members and have sufficient quality and quantity (Rigolon, Browning, & Jennings, 2018). However, in many cases, they are inadequately provided or, to a greater extent, not located in the most desirable places as they should be (Bahrini et al., 2017). Furthermore, individual characteristics influence recreational activity regarding the location and environmental factors that tend to affect the residents' behaviour in terms of wellness (Plys, 2018). Also worthy of consideration are principles of place, for instance, siting of new parks within easy walking distance; been mindful of visibility and accessibility to the community (Bhattacharya, Dasgupta, & Sen, 2020; Esmailzadeh, Farace, & Fard, 2019).

There are problems with the uneven distribution of recreational facilities, which does not reflect residents' needs for leisure. The elements lead to developing social infusion problems' physical and mental well-being (Yu, Che, Xie, & Tian, 2018). Market forces of demand and supply are notably in the developing world with a weak economy (Mwenzwa, 2016). Thus, the awareness of the distribution of the facilities gives impetus to being developed to meet demand but becoming faulty because of improper concern for a system that accommodates them (Sinclair, Ghermandi, Moses, & Joseph, 2019).

Planning policy for recreation tends to embrace existing facilities because land competitiveness in developing areas varies. However, in providing a new recreational facility, there is a need to improve reachability which includes geographical location, social inclusion, and facilities for people with disabilities and low-income levels (Boman, Fredman, Lundmark, & Ericsson, 2013; Oxford Local Plan, 2016). Research results in Portland, Oregon (USA) showed that the most prevalent constraints to participation and visiting parks and other recreational areas in the region were lack of access to the places of recreation (Rushing, Needham, Antonio, & Covelli, 2019). In addition, the type of activities and what characteristics of recreation an individual pursues influence various activities (Gao, Song, Zhu, & Qiu, 2019).

Besides, the associated problems led to a growing interest in assessing the spatial distribution and access to parks and other recreation areas (Tan & Samsudin, 2017), where minority groups and low-income people could easily reach the facility areas as those highly privileged (Rigolon, 2017). In Sweden, outdoor recreation is designed to embrace recreational issues, most importantly, the ecological perspective. Therefore, the basis for improvement is that recreation is a land use and vital component in planning and management (Chiu, Ramely, & Abdul Wafi, 2020; Stenseke & Hansen, 2014). Furthermore, the experience in recreation should fuse from the residents and professionals for better understanding and efficiency in the provision and distribution of the facilities (Hjort, Martin, & Troelsen, 2019).

The research is a case study which was conducted at Greater Jos, Plateau State, Nigeria. Doxiadis Associates, (1975), stated that there were limited cultural and recreational facilities in the Jos-Bukuru metropolis. This is coupled with the fact that the available recreational facilities in the early eighties, and now being in the core city centre. This informed the paper's aim that is to determine the effectiveness of the distribution of recreational facilities based on the established policies and strategies and the application of multiple methods toward proffering effective solutions to the problems.

## **LITERATURE REVIEW**

### **Opportunity Theory**

The essence of any public service is for every community member to have an equal opportunity to enjoy such services. Hence, the philosophy of opportunity theory informed this research. Suffice to say that, equal opportunity can also be related to attitudes of redistribution, considering the possible kinds of inequality that deterred the growth of development such as access to recreation are connected to the theory (Ferreira & Gignoux, 2011). The opportunity theory by Romsa & Hoffman (1980) and, as captured by Lee, Dvorak, Schuett, and Riper (2017) recommended that all things being equalled, where individuals from different segments of society have the propensity to participate in recreation activities and the participation is dependent on the accessibility of the facilities. The prime issues, among others, are the availability of recreational resources and their appropriateness for all populations.

Contributing to the theory, Jacobs Lesley looks at an equal substantive opportunity with models for regulating the distribution of social goods to achieve equal justice. He considers the aspects of procedural fairness, background fairness and stakes fairness, the opportunity that is accessible and having fair means of choice (Voorhoeve, 2005).

By having an acute social inequality of population, and area exclusion, there is the crucial need to continually examine the distribution of services regarding opportunity and equal access to the beneficiaries within a city and its suburbs (Frenkel & Israel, 2017). This fact informed the need for this research, citing the Greater Jos, Plateau State, Nigeria as a case study.

### **Brief Review of Policy**

Recreational facilities over the years bring changes that affect cities socially in relation to the well-being of the people and the liveability of the area particularly to the areas that conceived the idea. However, with reference to the Sustainable Development Goals (SDGs) index performance, especially on reaching the target goal 10.3, it shows that only 24 out of

193 member countries (UN) could ascertain records in ensuring equal opportunity. The report indicated that developing countries, predominantly Africa, occupy the bottom place in performance (Institute for Economics and Peace, 2019). Given this, an insight into various policies with regards to the provision of recreational facilities is prompted.

Furthermore, the effectiveness in sports and recreational facilities have a connection to local government sports and recreation management departments based on means of provision. Thus, various approaches in the provision of public recreation services, which include hierarchical facilities, economy, and collaborative approach, to manage the services were provided (Commission and Report, 2006; Hodgkinson & Hughes, 2012). In 2007, 207.9 million people in the US engaged in several recreational activities (ABD'Razack, Martins, & Bello, 2007).

For Los Angeles, public parks and open spaces are located for recreation exceeding 36,000 acres. The facilities are on land designated within the interior and land extending to boundaries, excluding privately owned recreational facilities. The Los Angeles County Plan classified recreational areas of parks into mini-parks, neighbourhood parks, community parks, and regional. There are also urban parks, a category that reflects other recreational facilities. Santa Monica is the only city with a population density above 10,000 per square mile that spends more than the regional per capita average on parks and recreation. In Los Angeles there are 222 neighbourhood parks, between 2 and 20 acres, constitute slightly less than half of all the parks and serve nearly to 4 million residents (Cohen et al., 2016; Los Angeles County, 2016).

On the other hand, Hong Kong adopted the core activities approach, and these are recreational activities by the government following the population threshold in each district. This approach ensures a balanced provision of public recreation facilities, which invariably influence various recreational guests and of all age groups. Besides, the provision of recreational facilities for open space is dependent on the individual, and for various population thresholds (Gao et al., 2017; Yuen et al., 2019).

In addition, the subtle changes in the African continent are worth looking at, hence the policies in Nigeria and Kenya. Recreational facilities in

Nigeria connect with the provision of social services dating back to the pre-colonial period. An era to reckon with is the period of the missionaries, where they engaged in the provision of infrastructure, some social services that complemented those of the British government that were seemingly limited in provision (Sunday, 2013). While the Government of Kenya realises the need for recreation among urban residents, it stated that recreation is necessary. Therefore, the government emphasised the need to consider recreation provision in planning. In addition, it promotes socio-cultural and environmental conservation of green to safeguard against competing uses (Muiga & Rukwaro, 2017).

A policy is a significant element in land use. The efficient distribution of residential areas, work, commerce, recreation, and other elements of the city form is essential. Research on regulatory, strategies, structure, and effectiveness in implementing policy has taken a new dimension. For instance, Australia had considered two regulatory themes of the policy, compliance to regulations by privately owning public recreational facilities (Randle & Hoyer, 2016). Bearing this in mind, this helps to minimise the negative notion and maximises the positive aspects of the provision and distribution of recreational facilities by observing suitable policy (Abdullah, Patterson, & Pegg, 2015). In dealing with differences of groups in terms of provision and distribution, finding sustainable solutions for such recreational-related conflicts are at best looking at Landscape management and land use policy (Komossa, Zanden, & Verburg, 2019). Therefore, determining the type of recreation for various age groups, genders involved, and racial/ethnic groups participating in recreation is vital in policy guides (Aldosary & Fahd, 2011).

Every country is an entity of its own; each having its unique characteristics. Therefore, strategies and policies regarding the provision and distribution of recreational facilities tend to differ from one country to another. In some quarters there are similarities. But the unifying factor in all countries is the need for the services, and policies that drive the strategy to be considered and implemented.

## **Policies in Distribution of Recreation**

The strategy in distribution is categorised into two aspects, namely

equity and integration.

## **Equity**

This is an essential strategy in terms of share or equal distance for easy reach to recreation areas. It considers a reduction in distance to or increases in the size of land for recreation sites. Although this strategy improves the welfare distribution among all income groups, it provides a substantial number of advantages on the side of high-income groups (Jacobs et al., 2019; Lamborn, Smith, & Burr, 2017). The neighbourhood parks and other recreational facilities form part of the built environment that encourages having physical activities near home, thus, creating greater access to parks, and associated with higher population participation (Evenson, Williamson, Han, Mckenzie, & Cohen, 2019; Talmizi, Ali, & Teriman, 2021).

## **Integrated services**

To have a lively community is to have means of the quality of life, which opens new recreational opportunities. Thus, this should be integrated and sustained for the communities in all aspects (Gul, Sultan, Moeinaddini, & Jokhio, 2018; Wash & Mohammed, 2019). The design of a built environment has a vital role in creating an infrastructure of great benefit. Mainly this can prevent odd behaviour, creates a sense of belonging and safety within a given society (Hadavi, Kaplan, & Hunter, 2015). As part of sustainability principles, plans provide adequate green areas and other recreational facilities within the plan that offers recreational facilities within each neighbourhood (Kaufman et al., 2019; Yuen et al., 2019).

## **Review of Jos Recreational Policies**

Policies are constantly observed and used in the implementation of plans. The information used in preparing plans is of utmost importance and there are x-raying policies that are looking at different plans with emphasis on recommendations. Some notable policies are Plateau Regional Study final report plans, volume 2 in association with Shankland Cox Partners (Shankland Cox Partnership, 1980); they reported that the attractions that could make the state and Jos, in particular, a major resort for tourists are well known. The report mostly centred on tourism development rather than recreation. It captured constraints to include lack of international standards hotels, relatively high tariffs, potential tourists' attractions not being developed such as Jos pottery, and lack of facilities like souvenirs shops. The

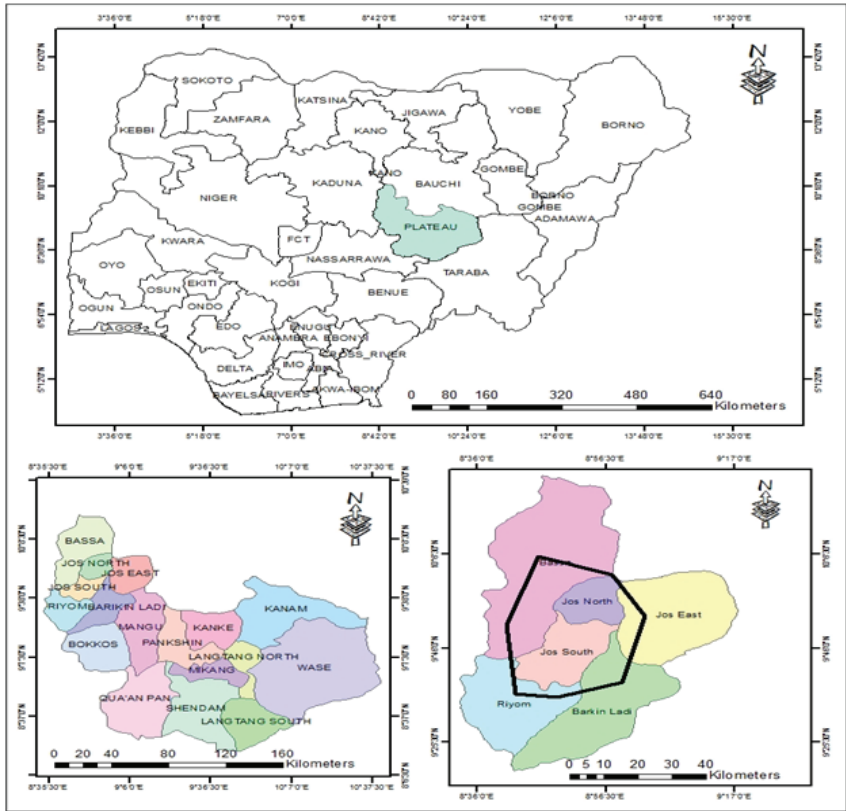
report was completed in 1973, recommended reviewing the more excellent Jos Master Plan. , The recommendations provided had been questionable in terms of its implementation since the completion of the report.

The Greater Jos Master Plan (2008-2025) became the current report of the Jos metropolis and environs prepared by Fola Konsult in 2008. According to the report, Jos-Bukuru is a significant tourist destination with perhaps some of the most equable climates in Nigeria. Therefore, the need for recreational Parks as vital land use is included in the plan. In addition, the plan makes the proposals for urban green infrastructure considering the need to be further developed and enhanced, provision for Neighbourhood Parks and utilising natural features on the Jos Plateau.

## **THE STUDY AREA**

The Greater Jos is part of the Plateau North senatorial district of Plateau State in Nigeria (Figure 1). The research area would accommodate a projected population of 2,739,574 by 2025, distributed among the ten sectors. Jos North and Jos South Local Governments are the most densely settled of the planning area, thus accommodating a higher proportion of the anticipated population increase. Each sector is a Mini-Urban Centre with all the attributes of a self-sustained town, services, facilities and amenities (Fola Konsult, 2009). The Greater Jos is situated in Plateau North of Plateau State in the Middle Belt of Nigeria. It is located on the Jos Plateau at an elevation of about 1,238 metres above sea level. It occupies Jos-North and Jos-South and parts of Jos-East, Bassa, Riyom and Barkin-Ladi. Out of a total population of 1,315,301 persons recorded for the six local governments, the three local governments of Jos North, Jos South and Jos East take up 821,618 (62.47%) of the population, while the remaining three consist of only 37.53%. The results confirm that the large concentration of the people is within the Jos-Bukuru axis. Dung-gwom and Jugu (2017) put the population by estimation as 1.4 million.





**Figure 1. Locational Map of Greater Jos**

Source: Plateau State Ministry of Lands, Survey and Town Planning, (2019)

## METHODS

This paper aims to determine the effectiveness of the implementation of policy and strategy on the distribution of recreational facilities. The research adopted a mixed-method, qualitative and quantitative analysis before considering the situation. For the qualitative method, the recreational facilities within the Greater Jos were identified. Then, inventory was obtained to give virtual locations and categories of the recreational facilities within the Greater Jos. While the quantitative method focused on input from respondents who are residing within the Greater Jos. The last population census conducted in Nigeria was in 2006. However, there were many kinds

of literature presenting estimation of the population; the Greater Jos Master Plan considered the population at 1.5 million population (Fola Konsult, 2009).

## **Research Instruments**

With the aid geographic information system, a Geographic Positioning System (GPS) was employed. The method determines the locations of the recreational facilities by observing on the type of activities within the area. In addition, a field survey questionnaire was administered for quantitative analysis. The survey covered the ten sectors of the Greater Jos Master Plan. The questionnaire was designed with closed-ended questions, which consist of biodata and a positive five-point Likert format. The questionnaire form consists of five sections, including respondents' demographic profile, accessibility to recreational areas, resident's involvement in the provision of recreational facilities, adequacy, and appropriateness of recreational facilities and policies of the provision of recreational facilities.

## **Data Collection and Analysis**

The methods were carried out in two ways, qualitative and quantitative data. The qualitative method was used to identify, map, and determine the various recreational activity areas. The recreational activity areas identified were enlisted into the inventory chart and superimposed on a map of figures 1, 2 and 3. Whereas in the quantitative method, the sampling method was simple random sampling, which was carried out in ten sectors of the Greater Jos. First, the researchers distributed the survey forms to the residents. Then, self-administered questionnaire surveys were conducted at several locations of the sectors, targeted at 450 according to the density of the population. They are, Nigeria National Petroleum Corporation (NNPC) (Sector 1), Bassa (Sector 2), Jos the core City Center (Sector 3), Kufang (Sector 4), Vom (Sector 5), Kassa (Sector 6), Foron (Sector 7), Du (Sector 8), Shen (Sector 9) and Bukuru (Sector 10). The respondents were selected within the developed areas of the sectors, who are the permanent residents. They are 400 participant involved in the study, from age 15 to 65 years old.

The qualitative analysis employed the use of a Geographic Information System (GIS) application, namely ArcGis to analyse the data carried out in

the field. The list of recreational facilities was obtained from the ten sectors with the aid of a Global Positioning System tool (GPS), due to the absence of an official list from the Jos Metropolitan Development Board (JMDB). The locational bearings were then superimposed on the Greater Jos Plan, to indicate the correct position of each of the facilities as well as the description. The results are presented in the Geometrical Data Analysis using point mode which aids in generating maps as reflected in figures 1, 2 and 3.

The Statistical Package for the Social Sciences (SPSS) version 24 was used to run the quantitative analysis. Descriptive analysis using cross-tabulation percentage and mean was performed to present significant values, the provision of recreation, appropriateness of recreational facilities and the distance from home to facility areas was determined compared to the provision of the policy and strategy. The descriptive helped to summarise the samples collected.

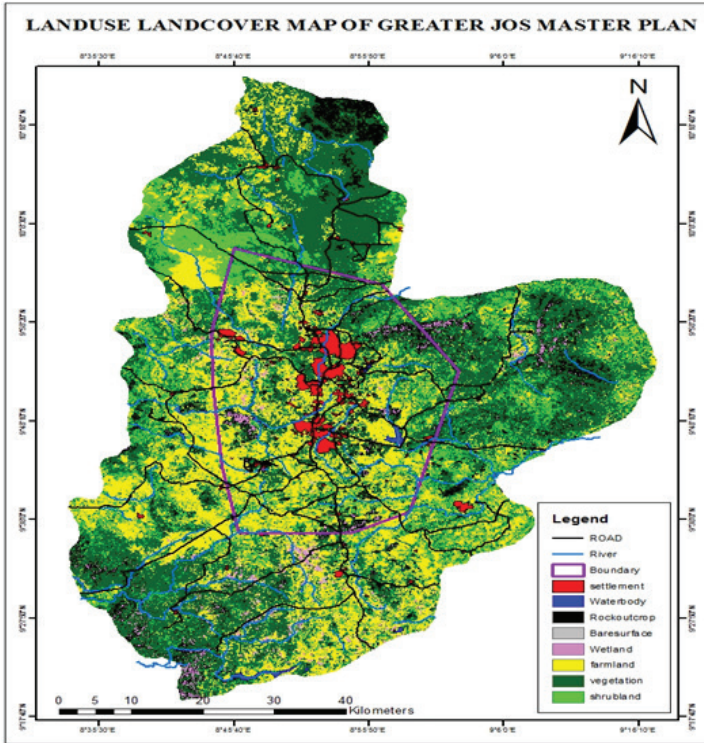
The geospatial techniques were used for the geospatial database to describe spatial features and integration that aids in a spatial study (Parvin, Hashmi, & Ali, 2019). For instance, Eissa (2017) considered integrating identified indicators of recreational facilities into a GIS model that can measure indicators; this is to determine proximity and equity in the distribution of recreational facilities. Besides, GIS models also do benefit measurements (Holliday et al., 2017).

## **RESULTS**

The survey obtained a total of 400 respondents within the age of 15 years and above. Therefore, the sample size was considered sufficient. The results presented are the analysis of field surveys conducted from January to March 2019. They were from the geometric analysis and point mode; cross-tabulation with the aid of SPSS and observations. The results were in the form of maps and tables. The information in each source complements one another and have a better effect. The projects are true reflection of the existing situation.

In addition, the results of the inventory of recreational facilities in Greater Jos were obtained alongside their coordinates for confirmation.

Thus, for proper identification and better explanation, the points were superimposed in maps Figures 2 and 3. The maps were generated as determined by the Greater Master Plan (Greater Jos Master Plan 2008-2025).



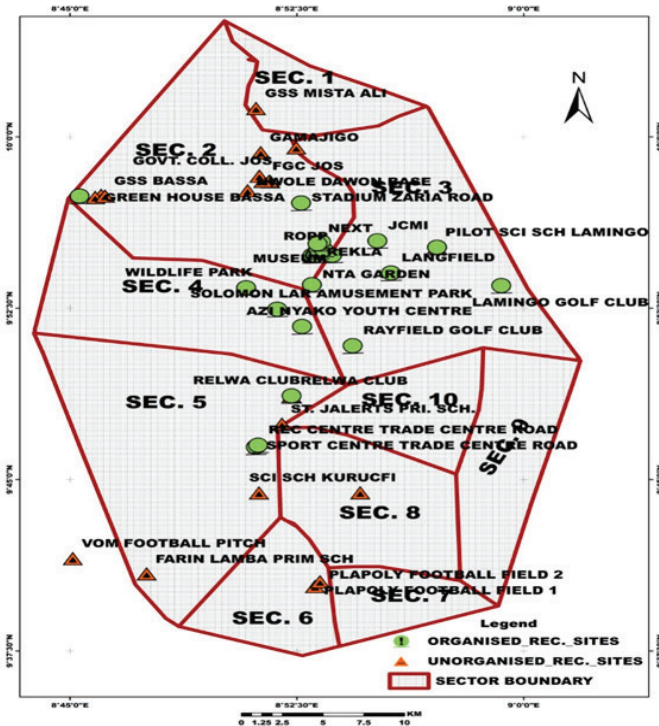
**Figure 2. Natural Features of Greater Jos**

Source: Authors' Analysis, (2019)

Figure 3 shows the distribution of the facilities, where most of the recreational facilities are located within the developed areas. It witnessed the unbalanced distribution of outdoor recreational facilities, lacking at the outskirts, and available only within the core city. The facilities are in varieties as reflected on map in Figure 4, such as gardens, football pitches, guesthouses/ clubs, and leisure parks.

The main city centre comprises sectors 2, 3 and 4 which gives advantages to others by considering the reduction of a journey outside

the sectors for recreation and the existing facilities conditions based on the hierarchy. It then acknowledged the sense of entity and identification to describe the area of having a complete system with lots of recreation facilities. Finally, it has to some extent established policies, most notably, on the proposal of the Fola Konsult Plan in providing a recreational facility to every sectors of Greater Jos.



**Figure 3. Categories of Recreational Facilities**

Source: Authors' Analysis, (2019)

Also, from the result, it shows disappointment or rather disadvantages in the distribution of the facility. As seen in other sectors from sectors 2, 3, 4, and 10, all other sectors (1,5,6,7, 8, and 9) lack the facilities. They lack variety and the appropriate outdoor facilities for recreation (a reference to Figures 2 and 3).

Figure 3 shows the spread of the variety of facilities and space distance in the sectors, hence having an estimated radius of 15km. The estimated

range implies the average distance covered during the process to recreate in areas of abundance, located in the city centre. For the less privileged in terms of economic buoyancy, it is quite a distance and cost demanding. In addition, the tendency to experience insufficiency of the facilities will exist. A total of 400 resident members in the ten sectors were selected randomly, ages range from 15 to 65 years, responded to the questionnaire. The questionnaires were distributed to each of the sectors based on the population density. For instance, in the higher density population there were more respondents than their counterpart at the lowest population density. The survey was analysed and later presented in cross-tabulation using absolute figures and percentages.

### **Descriptive Analysis**

The result of Table 1 is intended to reveal the residents' feelings about the facility. The result revealed that 49.0% agreed that they are experiencing invariably insufficient facilities in some parts of the area. This was shown in the distribution map (Figure 3). While those who strongly agreed and somewhat agreed were 19.0% and 18.5%, respectively, given the total to 76.5%. This shows that there is, a lack of outdoor recreational facilities in the area. From the sources, referring to the sectors, the higher percentage of the respondents are from the areas that are lacking in the facilities. The insufficient facilities as shown in Table 1 display that two sectors mainly sectors 2 and 3 have the highest percentage of respondents who agree to the statement – Sector 2 (9.8%) and Sector 3 (8.8) respectively. This shows that the available facilities are grossly inadequate.

**Table 1. Insufficient Facilities**

	Sector 1	Sector 2	Sector 3	Sector 4	Sector 5	Sector 6	Sector 7	Sector 8	Sector 9	Sector 10	Total
Strongly Disagree	0.5%	1.0%	1.3%	0.0%	0.3%	0.0%	0.8%	1.0%	0.3%	0.8%	5.8%
Disagree	0.0%	2.5%	1.8%	0.0%	0.8%	0.5%	0.0%	0.5%	0.8%	1.0%	7.8%
Somewhat Agree	1.0%	4.3%	6.8%	1.8%	1.0%	0.8%	0.5%	0.5%	0.8%	1.3%	18.5%
Agree	4.0%	9.8%	8.8%	5.5%	3.5%	6.0%	2.0%	4.0%	2.0%	3.5%	49.0%
Strongly Agree	2.0%	5.0%	1.5%	0.3%	2.0%	0.3%	1.8%	1.5%	1.3%	3.5%	19.0%
Total	7.5%	22.5%	5.0%	7.5%	7.5%	7.5%	5.0%	7.5%	5.0%	10.0%	100.0%

Source: Authors' Analysis, (2019)

**Table 2. Inappropriate Facilities**

	Sector 1	Sector 2	Sector 3	Sector 4	Sector 5	Sector 6	Sector 7	Sector 8	Sector 9	Sector 10	Total
Strongly Disagree	0.8%	0.3%	1.3%	0.0%	0.0%	0.0%	0.5%	0.5%	0.3%	0.5%	4.0%
Disagree	0.5%	2.0%	2.0%	0.0%	1.3%	0.5%	0.3%	1.0%	0.5%	1.0%	9.0%
Somewhat Agree	1.8%	4.3%	6.8%	2.3%	2.5%	3.3%	1.0%	1.0%	1.5%	2.8%	27.0%
Agree	2.5%	13.3%	8.5%	4.3%	3.0%	3.5%	2.3%	3.5%	1.8%	5.0%	47.5%
Strongly Agree	2.0%	2.8%	1.5%	1.0%	0.8%	0.3%	1.0%	1.5%	1.0%	0.8%	12.5%
Total	7.5%	22.5%	20.0%	7.5%	7.5%	7.5%	5.0%	7.5%	5.0%	10.0%	100.0%

Source: Authors' Analysis, (2019)

The result of Table 2 reveals the desire for the available outdoor recreational facility. The result showed that 47.5% of the respondents agreed that the available facilities are inappropriate. While those that strongly agreed and somewhat agreed were 12.5% and 27.0% respectively, bringing the total to 66.0%. This implies that the available facilities are inappropriate. While the category of outdoor facilities that are the desirable ones, are appealing and attracting high participation. Thus, from the sources considering the sectors, the higher percentage of the respondents are from the core city, where they stand a chance to assess the accessible facilities. This was obvious particularly to the respondents from sectors 2 (13.3%) and 3 (8.5%) as having the highest to agree with the statement. It then confirms the inappropriateness of the available recreational facilities.

Table 3 shows the findings on determining the average distance to a desirable outdoor recreational facility. The result shows that 46.5% agreed that the available facilities are not up to the desired distance as to policy and standard of providing recreational facilities in each neighbourhood and within walking distance. While those that strongly agree and somewhat agreed were 16.3% and 21.8% respectively, this summed up to 84.6%, which infers that recreational facilities are not distributed to easy reach from homes. The distribution was mainly at the core city. As a result, this affects the outskirts of inaccessibility.

**Table 3. Distance from Home**

	Sector 1	Sector 2	Sector 3	Sector 4	Sector 5	Sector 6	Sector 7	Sector 8	Sector 9	Sector 10	Total
Strongly Disagree	0.5%	1.0%	0.8%	0.0%	0.5%	0.3%	0.3%	0.8%	0.0%	0.0%	4.0%
Disagree	0.5%	3.0%	3.0%	0.0%	1.0%	0.5%	0.8%	0.8%	0.3%	1.8%	11.5%
Somewhat Agree	1.5%	4.3%	4.8%	1.8%	2.5%	1.5%	1.3%	0.8%	1.0%	2.5%	21.8%
Agree	4.0%	10.0%	9.3%	4.3%	2.8%	4.5%	2.0%	3.5%	2.5%	3.8%	46.5%
Strongly Agree	1.0%	4.3%	2.3%	1.5%	0.8%	0.8%	0.8%	1.8%	1.3%	2.0%	16.3%
Total	7.5%	22.5%	20.0%	7.5%	7.5%	7.5%	5.0%	7.5%	5.0%	10.0%	100.0%

Source: Authors' Analysis, (2019)



## **DISCUSSION**

The results presented show misgiving of policy and strategies, determining inappropriateness on the distribution of the facilities in the Greater Jos. Referring to figures 2 and 3, they show the spatial distribution of the facilities. This finding substantiated with Gu, Li, and Chand's (2020) results in considering different recreational facilities. Hence, the misimplementation of policy and strategy, and the high use of the country's recreational facilities were observed to be the most causing factors. The finding serves a great deal in showing uneven development concerning outdoor recreational facilities. In addition, the findings contradicted with Yuen et al.'s (2019) findings, where they found out that the providers have adopted the core activities approach. This approach was practical as it provides recreational activities to the population threshold in each district. It is an approach toward achieving a system that would be achievable by considering the policy of provision and distribution of facilities to serve the area effectively. Thus, it is good to learn and adopt a system that is successful such as in Hong Kong. It connotes strategy and policy of ensuring the delivery of quality opportunities with regards to natural resources (Figure 2) while, an update of the distribution strategy used by Ministries, Departments, and Agencies (MDAs), as well as other interested non-governmental organisations as a source of information (Kubota et al., 2019). Thus, this serves as a guide for actions, decisions in the development and expansion of the distribution of recreational facilities.

Table 1 displays the respondents' perception of insufficient provision of recreational facilities to reach the populace's demand. This is a critical issue for urban planning to intervene so that an acceptable quantity for an average resident can be satisfied. There are studies of shortage in provision for all citizenry to access and make use of the findings. Referring to the findings of You (2016) and Xu et al. (2018) as they found out that Shenzhen and the region of Munich are typical examples, inculcating the need for urban planners to plan the allocations of the facilities appropriately within space and adhere to the policies and strategies. The threshold of the facilities to the population left much to be desired, whether it is sporting or passive, sufficiency to the user is the watchword. Gidlow et al. (2019) stated that communities of most countries realise the essence of participating in recreation after confirming that it is of utmost importance and is a motivating

factor for healthy fitness. So it should be within close distance. This factor puts emphasis on the need to consider planning in recreation provision.

Table 2 displays the inappropriateness of the available recreational facilities, which can be seen pictorially in Figure 3. Figure 3 displays having a scanty and limited variety of recreational facilities, contrary to the recommended policies of the plans, especially the Fola consults of proposing all facilities for all persons. This aligns with the finding of Gao et al. (2019) that the choice for the type of activities, and what characteristics of recreation an individual persuades does influence various types of activities in the recreational park. However, the main concern is that where needs and circumstances of provision are not balanced or evenly distributed to the desires of the individuals that may lead to dissatisfaction.

The inequitable distribution of the facilities greatly affected the easy access to the facilities, considering the astonishing population, which can best be described as deprivation of the facilities to the populace. The experience of Shanghai, China, as confirmed from the finding from Xiao et al. (2017) shows the distribution of the services is equitable for all populations, and a fair planning approach was recommended to solve the problem of environmental justice. As a recommendation, they directed recreational facility planning at the lower level of neighbourhoods rather than the district and regional. However, the distribution of facilities in Greater Jos is along the axis of the core city, resulting in development at the outskirts at a disadvantage. In terms of equity in the delivery of recreational facilities, the policy was not adhered to, the neighbourhood concept was far from reach. Hence, there is a need for a better strategy in redistributing and development. Thus, further research will entail further discussion concerning public involvement and implementation strategies for the recreational provisions.

It is vital to sustain the policy of distributing services to the neighbourhood, within sectors, and on the complexity of the facility. In addition, the location should create an environment that attracts high participation (Liu, Chen, & Dong, 2017). The high percentage of responses confirms the shortage and spacious distribution of the recreational facilities in the area. In their study of recreational areas in Singapore, Tan and Samsudin (2017) stressed the implications of the results affecting spatial

equity and disparity tendencies which is an applicable situation to Greater Jos.

## **CONCLUSION**

The unprecedented urbanisation worldwide has heightened the disparity between the need and provision of recreational services, an understanding of the indicators that influence the increase of these services is paramount (Li, Li, Li, & Long, 2019). This paper aims to determine the adequacy of the implementation of policy and strategy in the provision and distribution of recreational facilities with a focus on the Greater Jos. The policy and strategy that necessitated the provision and distribution of outdoor recreational facilities are of paramount importance and worth researching so that the desired recreational facilities would be provided accordingly and to service sufficiently and efficiently to the beneficiary. The results of the study are eminent in achieving equity in the distribution of recreational facilities. However, the master plan failed to identify the existing and potential areas of recreational areas as there is no definite catalogue of the areas. Furthermore, regarding the provision and distribution of the facilities, the policy is just a passing statement of recommendations with no resultant effects since the development of the plan in 2009.

The statutory body that regulates and enforces the law for establishing the provision and operating the services should update the policies and strategies of provision and distribution of the facilities. This plan is to achieve effective implementation of the policies on the provision of adequate and quality facilities. Consequently, there should be synergy between the private and public providers to facilitate the provision of the services evenly and within reach of the people.

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## CONFLICT OF INTEREST

The authors declare no conflict of interest.

## REFERENCES

- ABD'Razack, N. T. A., Martins, V. I., & Bello, L. O. (2007). An Assessment of Preference and Behaviour of Minna City Dwellers to Outdoor Recreation. *International Journal of Humanities and Social Science Invention*, 2(3), 17–30. Retrieved from [www.ijhssi.org](http://www.ijhssi.org)
- Abdullah, N. H., Patterson, I., & Pegg, S. (2015). *Organisers ' and Residents ' Views about the Benefits and Costs: The Case of Monsoon Cup International Sailing Regatta, Malaysia*. (March). <https://doi.org/10.5199/ijsmart-1791-874X-17d>
- Aldosary, A. S., & Fahd. (2011, 2 March). *Assessing Adequacy of Leisure and Recreation Facilities in KFUPM Campus*, 2–5. <https://doi.org/10.4018/jabim.2011010105>
- Bahrini, F., Bell, S., & Mokhtarzadeh, S. (2017). The relationship between the distribution and use patterns of parks and their. *Urban Forestry & Urban Greening*, 27, 332-342. <https://doi.org/10.1016/j.ufug.2017.05.018>
- Bhattacharya, T., Dasgupta, S., & Sen, J. (2020). An Attempt to Assess the Need and Potential of Aesthetic Regeneration to Improve Walkability and Ergonomic Experience of Urban Space. In Charytonowicz J., Falcão C. (eds) *Advances in Human Factors in Architecture, Sustainable Urban Planning and Infrastructure*. AHFE 2019. Advances in Intelligent Systems and Computing, 966. Springer, Cham. [https://doi.org/10.1007/978-3-030-20151-7\\_34](https://doi.org/10.1007/978-3-030-20151-7_34)
- Boman, M., Fredman, P., Lundmark, L., & Ericsson, G. (2013). Journal of Outdoor Recreation and Tourism Outdoor recreation – A necessity or a luxury ? Estimation of Engel curves for Sweden. *Journal of Outdoor Recreation and Tourism*, 3–4, 49–56. <https://doi.org/10.1016/j.jort.2013.09.002>

- Chiu, L. K., Ramely, A., & Abdul Wafi, A. (2020). Make Green Growth a Priority: Issues and Challenges in Organising Green Sports Tourism Events. *Malaysian Journal of Sustainable Environment*, 7(1), 53. <https://doi.org/10.24191/myse.v7i1.8910>
- Cohen, D. A., Han, B., Derose, K. P., Williamson, S., Marsh, T., Raaen, L., & Mckenzie, T. L. (2016). The Paradox of Parks in Low-Income Areas : Park Use and Perceived Threats. *Journal of Parks and Recreation*, 48(1), 230-245 <https://doi.org/10.1177/0013916515614366>
- Commission and Report. (2006). Audit Commission annual report and accounts. (March).
- Doxiadis Associates. (1975). *Greater Jos Area Final Master Plan Report (1975-2000)* (Vol. 4). Jos- Plateau State.
- Dung-gwom, J., & Jugu, A. S. (2017). Settlements in Jos Metropolis, Nigeria. *UPLanD – Journal of Urban Planning, Landscape & Environmental Design*, 2(2), 129–149. <https://doi.org/10.6092/2531-9906/5262>
- Eissa, R. (2017). *Developing a GIS Model for the Assessment of Outdoor Recreational Facilities* in New Cities Case Study Tenth of Ramadan City, Egypt. (68).
- Esmailzadeh, M., Farace, K., & Fard, M. K. (2019). Analytical Review of Fair Distribution of Recreational and Sport Services in by Using Topsis Model. *Annals of Applied Sport Science*, 7(3), 41-48. <https://doi.org/10.29252/aassjournal.726>
- Evenson, K. R., Williamson, S., Han, B., Mckenzie, T. L., & Cohen, D. A. (2019). *United States ' neighbourhood park use and physical activity over two years: The National Study of Neighborhood Parks*. Preventive Medicine, 123(October 2018), 117–122. <https://doi.org/10.1016/j.ypmed.2019.03.027>
- Ferreira, F. H. G., & Gignoux, J. (2011). The Measurement of Inequality of Opportunity: Theory and An Application to Latin America. *Review of Income and Wealth Series*, 57(4). <https://doi.org/10.1111/j.1475-4991.2011.00467.x>

Fola Konsult. (2009). Greater Jos Master Plan (2008 – 2025). Jos- Plateau State.

Frenkel, A., & Israel, E. (2017). Spatial inequality in the context of city-suburb cleavages—Enlarging the framework of well-being and social inequality. *Landscape and Urban Planning*, 117(1), 328-339. <https://doi.org/10.1016/j.landurbplan.2017.02.018>

Gao, T., Song, R., Zhu, L., & Qiu, L. (2019). What Characteristics of Urban Green Spaces and Recreational Activities Do Self-Reported Stressed Individuals Like? A Case Study of Baoji, China. *International Journal of Environmental Research and Public Health*, 16(8),1348. doi: 10.3390/ijerph16081348

Gao, W., Lyu, Q., Fan, X., Yang, X., Liu, J., & Zhang, X. (2017). Building-Based Analysis of the Spatial Provision of Urban Parks in Shenzhen, China. *International Journal of Environmental Research and Public Health*, 14(12). <https://doi.org/10.3390/ijerph14121521>

Gidlow, C., Cerin, E., Sugiyama, T., Adams, M. A., Mitas, J., Akram, M., ... Sallis, J. F. (2019). *Health & Place Objectively measured access to recreational destinations and leisure-time physical activity: Associations and demographic moderators in a six-country study*. 59(July). <https://doi.org/10.1016/j.healthplace.2019.102196>

Gu, X., Li, Q., & Chand, S. (2020). *Factors influencing residents ' access to and use of country parks in Shanghai Cities*, 97(September 2019), 102501. <https://doi.org/10.1016/j.cities.2019.102501>

Gul, Y., Sultan, Z., Moeinaddini, M., & Jokhio, G. A. (2018). The effects of socio-demographic factors on physical activity in gated and non-gated neighbourhoods in Karachi, Pakistan. *Sport in Society*, 1–19. <https://doi.org/10.1080/17430437.2018.1508208>

Hadavi, S., Kaplan, R., & Hunter, M. C. R. (2015). Landscape and Urban Planning Environmental affordances : A practical approach for the design of nearby outdoor settings in urban residential areas. *Landscape and Urban Planning*, 134, 19–32. <https://doi.org/10.1016/j.landurbplan.2014.10.001>

- Hjort, M., Martin, W. M., & Troelsen, J. (2019). Planning of sport and recreational facilities informed by interdisciplinary knowledge: An attempt to make a systematic and transparent design strategy. *Interdisciplinary Knowledge*, 13(2), 349–367. <https://doi.org/10.1108/ARCH-11-2018-0002>
- Hodgkinson, I. R., & Hughes, P. (2012). A level playing field : social inclusion in public leisure. *International Journal of Public Sector Management*, 25(1), 48–63. <https://doi.org/10.1108/09513551211200285>
- Holliday, K. M., Howard, A. G., Emch, M., Rodríguez, D. A., Rosamond, W. D., & Evenson, K. R. (2017). *Where Are Adults Active? An Examination of Physical Activity Locations Using GPS in Five US Cities*. <https://doi.org/10.1007/s11524-017-0164-z>
- Institute for Economics and Peace. (2019). *SDG16 Progress Report 2019. Australia*. Retrieved from <http://visionofhumanity.org/app/uploads/2019/03/SDG16Progress-Report-2019>
- Jacobs, J., Alston, L., Needham, C., Backholer, K., Strugnell, C., & Allender, S. (2019). Variation in the physical activity environment according to the area - level socio - economic position — A systematic review. *Public Health*, (September 2018), 1–15. <https://doi.org/10.1111/obr.12818>
- Jiao, X., Jin, Y., Gunawan, O., & James, P. (2015). Modelling Spatial Distribution of Outdoor Recreation Trips of Urban Residents. 3(3), 36–49.
- Kaufman, T. K., Rundle, A., Neckerman, K. M., Sheehan, D. M., Lovasi, G. S., & Hirsch, J. A. (2019). *Neighbourhood Recreation Facilities and Facility Membership Are Jointly Associated with Objectively Measured Physical Activity*. 570–582.
- Komossa, F., Zanden, E. H. Van Der, & Verburg, P. H. (2019). Land Use Policy Characterizing outdoor recreation user groups : A typology of peri-urban recreationists in the Kromme Rijn area, the Netherlands. *Land Use Policy*, 80(September 2018), 246–258. <https://doi.org/10.1016/j.landusepol.2018.10.017>
- Kubota, A., Matsushita, M., Smith, B. J., Sugiyama, T., & Arao, T. (2019).

*The impact of a new exercise facility on physical activity at the community level: a non-randomized panel study in Japan.* 1–8.

Lamborn, C. C., Smith, J. W., & Burr, S. W. (2017). Landscape and Urban Planning User fees displace low-income outdoor recreationists. *Landscape and Urban Planning*, 167(1), 165–176. <https://doi.org/10.1016/j.landurbplan.2017.06.007>

Lee, K. H., Dvorak, R. G., Schuett, M. A., & Riper, C. J. van. (2017). Landscape and Urban Planning Understanding spatial variation of physical inactivity across the continental United States. *Landscape and Urban Planning*, 168(12 2016), 61–71. <https://doi.org/10.1016/j.landurbplan.2017.09.020>

Li, F., Li, F., Li, S., & Long, Y. (2019). Deciphering the recreational use of urban parks : Experiments using multi-source big data for all Chinese cities Deciphering the recreational use of urban parks: Experiments using multi-source big data for all Chinese cities. *Science of the Total Environment*, 134896. <https://doi.org/10.1016/j.scitotenv.2019.134896>

Liu, W., Chen, W., & Dong, C. (2017). *Urban Forestry & Urban Greening Spatial decay of recreational services of urban parks: Characteristics and influencing factors.* 25(March), 130–138. <https://doi.org/10.1016/j.ufug.2017.05.004>

Los Angeles County. (2016). Los Angeles countywide comprehensive parks & recreation needs assessment.

Muiga, J., & Rukwaro, R. (2017). Satisfaction among Residents over Recreation Facilities: A Case of Kasarani Neighbourhood in Nairobi City. 22(2), 70–84. <https://doi.org/10.9790/0837-2202037084>

Mwenzwa, E. M. (2016). The Oscillating State's Role in the Provision of Social Welfare Services in Kenya, 6(5), 119–128.

Oxford Local Plan. (2016). *Sport, Outdoor Recreation and Community Facilities.* Cambridge.

Parvin, F., Hashmi, S. N. I., & Ali, S. A. (2019). Appraisal of infrastructural amenities to analyze spatial backwardness of Murshidabad district using WSM and GIS-based kernel estimation. *GeoJournal*, 7. 19-41. <https://doi.org/10.1007/s11464-019-0711-1>



doi.org/10.1007/s10708-019-10057-7

- Plateau State Ministry of Lands, Survey and Town Planning (2019). Plateau State, Nigeria.
- Plys, E. (2018). Recreational Activity in Assisted Living Communities : A Critical Review and Theoretical Model. *The Gerontologist*, 59(3), e207–e222. <https://doi.org/10.1093/geront/gnx138>
- Randle, E. J., & Hoye, R. (2016). Stakeholder perception of regulating commercial tourism in Victorian. *Tourism Management*, 54, 138–149. <https://doi.org/10.1016/j.tourman.2015.11.002>
- Rigolon, A. (2017). Landscape and Urban Planning Parks and young people : An environmental justice study of park proximity, acreage, and quality in Denver, Colorado. *Landscape and Urban Planning*, 165(November 2016), 73–83. <https://doi.org/10.1016/j.landurbplan.2017.05.007>
- Rigolon, A., Browning, M., & Jennings, V. (2018). Landscape and Urban Planning Inequities in the quality of urban park systems : An environmental justice investigation of cities in the United States. *Landscape and Urban Planning*, 178(January), 156–169. <https://doi.org/10.1016/j.landurbplan.2018.05.026>
- Romsa, G., & Hoffman, W. (1980). An Application of Nonparticipation Data In Recreation Research: Testing the Opportunity Theory. *Journal of Leisure Research*, 12(4), 321–328. <https://doi.org/10.1080/00222216.1980.11969458>
- Rushing, J. R., Needham, M. D., Antonio, A. D., & Covelli, E. (2019). Journal of Outdoor Recreation and Tourism Barriers to attachment ? Relationships among constraints, attachment, and visitation to urban parks. *Journal of Outdoor Recreation and Tourism*, 27(June), 100228. <https://doi.org/10.1016/j.jort.2019.100228>
- Shankland Cox Partnership. (1980). *Plateau State Regional Plan*. Jos-Plateau State.
- Sinclair, M., Ghermandi, A., Moses, S. A., & Joseph, S. (2019). Recreation and environmental quality of tropical wetlands : A social media-based spatial analysis. *Tourism Management*, 71(2751), 179–186. <https://doi.org/10.1016/j.tourman.2019.100228>

org/10.1016/j.tourman.2018.10.018

- Stenseke, M., & Hansen, A. S. (2014). From rhetoric to knowledge-based actions – Challenges for outdoor recreation management in Sweden. *Journal of Outdoor Recreation and Tourism*, 7–8, 26–34. <https://doi.org/10.1016/j.jort.2014.09.004>
- Sunday, I. (2013). The Imperatives of the Provision of Infrastructure and Improved Property Values in Nigeria. *Mediterranean Journal of Social Sciences*, 4(15), 21–34. <https://doi.org/10.5901/mjss.2013.v4n16p21>
- Talmizi, N. M., Ali, N. E., & Teriman, S. (2021). A Review on Socio-Demographic Factors. *Malaysian Journal of Sustainable Environment*, 8(2), 75–90. [https://doi.org/doi: https://doi.org/10.24191/myse.v8i2.13237](https://doi.org/doi:https://doi.org/10.24191/myse.v8i2.13237)
- Tan, P. Y., & Samsudin, R. (2017). Landscape and Urban Planning Effects of spatial scale on assessment of spatial equity of urban park provision. *Landscape and Urban Planning*, 158, 139–154. <https://doi.org/10.1016/j.landurbplan.2016.11.001>
- Voorhoeve, A. (2005). Pursuing Equal Opportunities: The Theory and Practice of Egalitarian Justice. *Economics and Philosophy*, 21(1), 155–160. <https://doi.org/https://doi.org/10.1017/s0266267104250519>
- Wash, P. M., & Mohammed, B. (2019). Recreational Facilities' Role as an Integral Part of a Livable City. *Opcion*, 35(Special), 2023–2039.
- Xiao, Y., Wang, Z., Li, Z., & Tang, Z. (2017). Landscape and Urban Planning An assessment of urban park access in Shanghai – Implications for the social equity in urban China. *Landscape and Urban Planning*, 157, 383–393. <https://doi.org/10.1016/j.landurbplan.2016.08.007>
- Xu, C., Haase, D., Okta, D., & Pauleit, S. (2018). Spatial variation of green space equity and its relation with urban dynamics: A case study in the region of Munich. *Ecological Indicators*, 93(March), 512–523. <https://doi.org/10.1016/j.ecolind.2018.05.024>
- You, H. (2016). Characterizing the inequalities in urban public green space provision in Shenzhen, China. *Habitat International*, 56, 176–180. <https://doi.org/10.1016/j.habitatint.2016.05.006>

- Yu, B., Che, S., Xie, C., & Tian, S. (2018). *Understanding Shanghai Residents' Perception of Leisure Impact and Experience Satisfaction of Urban Community Parks: An Integrated and IPA Method*. <https://doi.org/10.3390/su10041067>
- Yuen, J. W. M., Chang, K. K. P., Wong, F. K. Y., Wong, F. Y., Siu, J. Y. M., Ho, H. C., Yang, L. (2019). Influence of Urban Green Space and Facility Accessibility on Exercise and Healthy Diet in Hong Kong. *International Journal of Environmental Research and Public Health*, 16(9). <https://doi.org/https://doi.org/10.3390/ijerph16091514>

