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بِوَسِيْلَةِ سُنَّتِيْ اِسْلَامٍ اَنْبَارٍ اِيْجِيْبَا مِلْدِيْنِيَا

THE EFFECTIVENESS OF GREEN OPEN SPACE
PROVISION AS URBAN RECREATION RESOURCE
IN PEKANBARU, INDONESIA

BY

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A dissertation submitted in partial fulfilment of
the requirements for the degree of Master of Urban
and Regional Planning

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ABSTRACT

Urban green open space has significant benefits for the condition of urban living and its community. The availability of accessible and attractive green spaces for recreation activities is an integral part of urban quality of life. This research aims to assess the effectiveness of green open space provision as recreation resource for urban citizens in Pekanbaru, Indonesia. This study presents the assessment of two elements which are equity and efficiency. These two elements are analyzed based on numerous independent variables such as number of the facility, distance to house, accessibility and public transportation availability for equity assessment and frequency of usage, attractiveness of facilities and safety level for efficiency assessment. The assessment of those variables is applied in three different subdistricts in Pekanbaru which are City Center, Sail and Tampan that represent different density categories. To achieve the objectives of this study, the method used to conduct the study is field survey by questionnaire and interview. Stratified random sampling was the method used in data collection through the distribution of questionnaire, and the tool used to analyse data is through the Statistical Package for Social Science (SPSS). The data was analysed using descriptive statistics to obtain frequency distributions, percentage and the level of equity and efficiency. Several types of test in SPSS data analysis are included to attain some significant information in the study such as Chi-Square test of independence and analysis of Correlation. The findings indicate that a majority of respondents were not satisfied with the distribution of green open space. This study also identified that the quality of green open space facilities was perceived by residents as at moderate level. This survey results indicate that there is significant relationship between subdistricts of respondents and the satisfaction level of green open space distribution. The study could be useful for decision makers, professionals and researchers related to urban and recreation planning to achieve a better quality of life.

ملخص البحث

المساحات الخضراء في المناطق الحضرية لها فوائد كثيرة للحالة المعيشية في المناطق الحضرية والمجتمع. توافر المساحات الخضراء بشكل مبسط وجذاب للنشاطات الترفيهية هو جزء لا يتجزأ من جودة الحياة الحضرية. يهدف هذا البحث إلى تقييم فعالية توفير المساحات الخضراء كموارد ترفيهية للمواطنين في المناطق الحضرية في بكان بارو ، إندونيسيا. وتقدم هذه الدراسة تقييم لاثنتين من العناصر وهي المساواة والكفاءة. هذان العنصران يتم تحليلهما على أساس متغيرات مستقلة عديدة مثل عدد المرافق ، والمسافة من وإلى البيت ، وسهولة الوصول وتوفر وسائل النقل العام كمتغيرات لتقييم المساواة وتواتر الاستخدام ، وجاذبية المرافق ومستوى السلامة كمتغيرات لتقييم الكفاءة. تقييم هذه المتغيرات يتم تطبيقها في ثلاث مناطق فرعية مختلفة في بكان بارو وهي مركز او وسط المدينة ، تمبان وسيل التي تمثل فئات مختلفة الكثافة. لتحقيق أهداف هذه الدراسة ، فإن الطريقة المستخدمة لإجراء هذه الدراسة هي المسح الميداني من الاستبيان والمقابلة. العينات العشوائية الطبقية كانت الطريقة المستخدمة في جمع البيانات من خلال توزيع استبيان ، والأداة المستخدمة لتحليل البيانات هي من خلال حزمة الإحصائية للعلوم الاجتماعية (الإحصائي للعلوم الاجتماعية). وتم تحليل البيانات باستخدام الإحصاء الوصفي للحصول على توزيعات التردد ، النسبة المئوية و مستوى المساواة والكفاءة. هناك عدة أنواع من اختبارات الإحصائي للعلوم الاجتماعية استخدمت في تحليل البيانات لتحقيق بعض المعلومات الهامة في البحث كاي سكويرمثلا لتحليل العلاقات المتبادلة. تشير النتائج إلى أن غالبية المشاركين كانوا غير راضين عن توزيع المساحات الخضراء. كما حددت هذه الدراسة أن نوعية المرافق في المساحات الخضراء ينظر إليها من قبل السكان بانها معتدلة. هذه النتائج تشير إلى أن هناك علاقة كبيرة بين المشاركين من المناطق الفرعية ومستوى الارتياح لتوزيع المساحات الخضراء. هذه الدراسة يمكن أن تكون مفيدة لصانعي القرار والمهنيين والباحثين ذو العلاقة بالتخطيط الحضري والترفيه لتحقيق نوعية حياة أفضل.

APPROVAL PAGE

I certify that I have supervised and read this study and that in my opinion, it conforms to acceptable standards of scholarly presentation and is fully adequate, in scope and quality, as a thesis for the degree of Master of Urban and Regional Planning.

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Supervisor

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DECLARATION

I hereby declare that this dissertation is the result of my own investigations, except where otherwise stated. I also declare that it has not been previously or concurrently submitted as a whole for any other degrees at IIUM or other institutions.

Wahyu Hidayat

Signature.....

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**THE EFFECTIVENESS OF GREEN OPEN SPACE PROVISION AS
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I dedicate this dissertation wholeheartedly and sincerely to my beloved family:

To my parent who I am proud to be their son,

“There is no blessing of Allah without their blessing...”

And to my beloved wife for her patience to support me at all the time,

And to my beloved son who always be my inspiration and motivation in my life.

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LIST OF ABBREVIATIONS

GOS	Green Open Space
SEDEPTF	Minnesota Sustainable Economic Development and Environmental Protection Task Force
NPFA	National Playing Field Association
NSW	New South Wales
MMBW	Melbourne and Metropolitan Board of Works
NFCSA	National Fitness Council of South Australia
NRPA	National Recreation & Parks Association
PW/PAMC	Planning Workshop/PA Management Consultants
NSWPEC	NSW Planning & Environment Commission
NSWDEP	NSW Dept of Environment and Planning
OMCR	Ontario Ministry of Culture and Recreation
NSWDRS	NSW Dept of Sport and Recreation
NCDC	National Capital Development Community.
SAULT	South Australian Urban Land Trust

CHAPTER ONE

INTRODUCTION

1.1 INTRODUCTION

Open spaces and landscape in the city play the primary role of urban areas that provide main locations for human habitation and interaction. Planning for public space in the urban area is one of the needs to achieve a good living environment for community. Open space and parks form a crucial feature of livable cities. According to Wilkinson (2003), the concept of open space is usually considered in an urban context. Open space has been part of urban recreation and leisure resources since ancient times of Mesopotamia, the Greek city states, and the Imperial Rome. In the twentieth-century, open space was an important element in new towns in Britain and the United States such as Central Park in New York City, Mount Royal Park in Montreal, Moor Park in Preston, and Queen's Park in Manchester. During the 1950's and 1960's, the provision of park and open spaces was an important part of the planning and design of new towns, which was influenced by the Garden City Movement.

In land use planning, the key objective is to achieve the optimal balance between competition of interests and availability of land. In practice, however, every interest claims that its demand is the most important for development and society. The basic land uses are residential, commercial, industrial, corridors for transportation, communication and utilities, and open space. Of these, the first four have traditionally been viewed as symbols of progress, expressed in positive construction, while open space has been seen as void, raw land waiting for the hand of progress to give it

positive value via constructed development. The result is open space, park and recreation system which are inadequate, are always vulnerable to demands from development interests, and frequently a loser in the competition for land use with other more highly valued uses. Therefore, one of the main functions of land use planning is to ensure the balancing of development among various interests and demands. The need for a balanced system of planning to achieve a satisfactory social, economic and ecological environment has now been recognised.

Part of the challenge of sustaining a livable urban environment, is to ensure the maintenance of a choice of quality leisure experiences through the existence of a spectrum of recreation opportunities, with the flexibility to adapt to the dynamics of a changing city landscape and evolving socioeconomic and political relationships (Pigram, 1999). According to Gold (1988), an effective recreational experience in cities calls for opportunities to experience freedom, diversity, self-expression, challenge and enrichment. Servicing such opportunities provides much of the justification for providing open spaces within cities. In this context, an open space is a basic element in the structure and function of the built environment in meeting human needs. Thus, a new paradigm in park and recreation planning is stated that we must begin to think of the entire landscape as a recreational resource, and it is at this point particularly that park and recreation planning merges with land use planning in general (Hilts, 1977).

In Indonesia, recently local governments attempted to initiate a greener city starting from the movement of a million trees planting which is called the green programme. Before that, Indonesia government has gazetted the Act No. 26, 2007 about space arrangement where one of the important parts is that local authority should provide at least 30 percent of the total area for green open spaces. From this

allocation use of land, at least 20 percent of total area is for public green open space and 10 percent of total area is for private green open space. According to this Act, the distribution of green open space should be based on the distribution of population, service hierarchy and space pattern.

Although the main purpose of this policy is based on the environmental consideration, local authorities need to consider broader role of open space for enhancing quality of life in urban area and to fulfill the needs of community such as recreation activities and leisure. Through this study, the effectiveness of provision of public green open spaces to be used as urban recreation resources will be analysed.

1.2 STATEMENT OF PROBLEM

Much of dissatisfaction with urban living, and many of the concomitant social problems, can be traced to the apparent inability of the modern city to meet the basic needs of its inhabitants. One of the objectives of urban environmental and recreation planning is to produce a more satisfying array of amenity stimuli and responses. In an urban situation, a fundamental component of the amenity response system is the viability of open space for recreation (Pigram, 1999).

Open space needs to be meaningfully integrated into the places where we live, into the community. Open space should not be about more space, but about better, more usable space in the form of urban parks, playgrounds and squares (Schmitz, 2000). The very best views and design features should be open to entire community, spreading the premiums among all residents. Additional value can be created with small “pocket parks” and squares throughout the community, and it allows residences in several locations to have attractive views. Thus public spaces are integrated

throughout the community, making them more easily accessible for more residents and safer because they are not isolated areas.

In practice, although the standard number of green open spaces has been given, the policy of local authority in providing of green open space is more in fulfilling the minimum number of the area or its percentage in land use aspects. Meanwhile, the benefits of provision of green open spaces are not limited for the improvement of environment condition, it can be more beneficial economically and socially if those facilities are planned and designed to meet other human needs. It could be achieved by the improvement of the quality of green open space facilities to ensure the effectiveness of those facilities for recreation area in the city.

Due to the development pressure in many types of activities and facilities in Pekanbaru, citizens are facing the problems to get the location for recreation. Comfortable green areas which can be accessed freely for recreation of citizens are important need to improve quality of life in the city. Based on the Act No. 26, 2007 about space arrangement, green open space facilities could be implemented by local authority in many types of facilities such as green belts, urban forest, cemeteries, and urban parks. Local authority policies to develop some facilities of green open space in various characteristics still can not fulfill the needs of residents who need better allocation and quality of those facilities. Recently, policy of the local authority in providing green open space in Pekanbaru more in maintaining the forest areas in the fringe of the city compared to develop the designated green open spaces that can be enjoyed by residents.

In line with a better understanding of Indonesian government to improve the environment condition, especially green spaces performance in urban area, local authority needs to optimize this opportunity to give a wider dimension of quality of

life in the city through provision of accessible and attractive green open spaces where it can be used by citizens for recreation. To identify the effectiveness of provision of green open spaces in urban area, especially it's potential to be used as recreation resources, the assessment and monitoring need to be conducted as an attempt to span a bridge between scientific theories and planning practice.

1.3 OBJECTIVES OF STUDY

The availability of accessible and attractive green spaces is an integral part of urban quality of life. This study aims to analyse the effectiveness of green open space provision for the using of recreation activities which is stressed on the monitoring of the urban green space provision against quantitative and qualitative targets, the comparison between cities and city parts, and the utilization level by community. At the end of this study, it will provide information for improvement of policies and strategies in planning and development of green open space for a better quality of life.

Hence, to achieve this, several objectives are formulated as the following:

- i. To identify the equity of green open space distribution
- ii. To assess the utilization level of green open space facilities for recreation activities by urban citizens
- iii. To assess the satisfaction level of urban citizens regarding provision of green open space
- iv. To outline recommendations and suggestions that may improve the effectiveness of planning and development of green open space

1.4 RESEARCH QUESTIONS

In order to conduct the research, based on the formulated objectives above, some questions have been proposed as stated below:

- i. What is the equity level of green open space distribution among different parts of the city?
- ii. What are the utilization levels of green open space for recreation by citizens?
- iii. How is the satisfaction level of urban citizens on the provision of green open space?
- iv. What are the recommendations and suggestions that can be proposed to improve the effectiveness provision of green open space.

1.5 SCOPE OF STUDY

This study focuses on the current issue of required minimum percentage of green open space allocation that local authority should fulfill in the city planning. From the policies and strategies that have been taken by the local authority to achieve the targeted percentage of the area, this study attempts to examine its effectiveness in usage of green open spaces by citizens for their recreation activities.

To assess the effectiveness of green open space provision in meeting the needs of the community for recreation, this study focuses on two main ideas. First, green open spaces as other public facilities should be distributed equally for all parts of city where it has implication to the aspect of accessibility. Second, to ensure its efficiency, the provision of green open space should be able to encourage the community to utilize those facilities as urban recreation resources. In other words, the provision of

green open space should be able to offer more recreation opportunities for the community.

In this study, the benefits of green spaces to urban quality of life are at the centre of attention. Therefore, the study is not limited to the identification of green spaces. Investigation of the opportunities of usage, experiences and accessibility is an integral part of it. Moreover, as we need to be concerned about each part of the city as a livable place, all of the residential places should be provided with accessible and attractive green spaces equally.

Based on the problem statement highlighted and the ideas above, some main elements to be assessed through this study are performance of supply or distribution of green open space in selected districts of the city, precondition use of facilities such as the level of accessibility regarding to the location, and the frequency of visiting for recreation among residents.

1.6 SIGNIFICANCE OF THE STUDY

The efforts of the government to enhance the environment condition by certifying the Act No. 26, 2007 about space arrangement give the duty for local authorities to provide at least 30 percent of the total area for green open space areas where 20 percent of it is for public green open space as a responsibility of the local authority in its provision. It should be viewed from larger perspective to achieve a better quality of life in urban community. However, green open space has a bigger role in improving the quality of life for people if it is planned and designed to meet the needs of citizens for their daily activities such as recreation and leisure in various types of activities. Local authorities need to take into account the consideration of social benefits for citizens in the existence of green open space facilities. Through the comprehensive

planning and management of provision of green open space, the existence of this facility will carry many benefits for urban community in their daily life.

1.6.1 Significance towards Planning

Accessible and attractive green open space is an element to improve the quality of life for urban residents. To achieve the objectives of provision of green open space to enhance the performance of environment, social and economic in urban area, green open space should be planned in conjunction with other land uses. Study on the effectiveness of green open space provision to give equal opportunities to enjoy recreation resources for community in all parts of city will deliver a proper concept in attaining social benefits especially to meet the needs of community.

1.6.2 Significance towards Community

Public welfare has always been a primary motivation for creating or improving public space. It has been seen as “the lungs of the city”, substituting the countryside where exposure to fresh air and sunlight, with the opportunity to stroll freely and relax, would serve as an antidote to the oppressive physical and psychological conditions of city life. By having an attractive and accessible green open space, it creates opportunities for urban community to get a better quality of life. This study also gives a better understanding of residents on their rights to get free urban recreation resources in various forms and types of function.

1.6.3 Significance towards Local Authority

Urban planning has always been largely socioeconomic in orientation, and political in implementation. Local authority with its responsibility should fulfill the need for a

balanced system of planning to achieve a satisfactory social, economic, and ecological environment. This study will examine the achievement of green open space provision from social point of view, especially to meet the need of urban community for recreation resources. This effort hopefully leads local authority to improve the planning and strategies to achieve the effectiveness of green open space provision not only for environmental purposes, but also for social and economic purposes.

1.7 HYPOTHESIS

Human beings are overwhelmingly social creatures and, as such, prefer to live together in communities created to serve individual and collective human needs. In the urban social life, these communities can be varying in terms of size and characteristic, but they have one feature in common which is the potential to offer a wide range of functions to satisfy the need of population. One of these needs is provision for the recreational use of leisure.

Green open space has been an important part of current policies of urban planning in Indonesia as stated in the Act No. 26, 2007 about space arrangement. Based on the Act, local authority should provide 30 per cent of the total area for green open space facilities. Due to the implementation of the Act, could the local authority of Pekanbaru to ensure the distribution of green open space in all parts of the city? Do the existing green open spaces able to attract citizens to utilize green open space? Thus, this study will be led to answer the following hypothesis:

1. The equity of green open space distribution is not effective to ensure the ability of residents to utilize it as recreation resource.
2. The provision of green open space is not efficient to attract citizens to utilize green open space for their recreation activities.