Comparison On Sustainable Urban Landscape Management: Insight From Urban Green Space Governance In England, Malaysia And Singapore

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Abstract. In order to achieve high-quality urban landscape management, it is important to have a proper management system. Some developing countries are facing a decline of green spaces due to lack of proper management. This paper aims to identify best management practices and provide a comparison regarding the governance of urban landscape management in the context of three countries: England, Malaysia and Singapore. It also highlights the importance of establishing more appropriate programs in order to achieve the goal of sustainability. The findings show that good and proper planning as well as programs and activities in the local government system can enhance and increase urban green space in a landscape. The contribution of this paper is to increase the local authority's knowledge of managing the landscape and decreasing the deterioration and decline of urban green spaces in a landscape.

1 Introduction

Urban landscape structure has come about as the result of a current rapid increase in population, the evolution of city areas and the concept of dense areas. Recently urban open green space has been decreased in some urban areas, especially in Kabul Afghanistan [1]. For the present and future development of urban landscapes, it is better to focus more on sustainable urban development, green solutions, and the management and governance of green areas in the landscape [2]. Effective management depends on good governance [3].

Unsustainable landscape management causes air, water, and soil degradation. With respect to good planning, more sustainable approaches are needed in the management of urban landscapes [4]. Sustainable landscape has been overlooked from the policy maker's perspective [3]. Thus, this paper provides a brief review of the management system in three selected countries, namely England, Malaysia and Singapore by examining their landscape management systems in the context of providing and enhancing urban green space. This paper provides a general definition of landscape management and discusses the contribution of knowledge on landscape best management practices through a proper management system. For comprehensive sustainability of urban landscape management, including whole open green spaces, integrative approaches are critically needed [5]. Landscape management is connected to the managing organization and all others which work with it [2].

2 Defining urban landscape in terms of landscape management

There are many different definitions of landscape depending on the context in which it is being used. Some definitions include: a land including landscape elements or a piece of land consisting of greenery and water which is perceived by the people [6], [7]. According to Osman, (2005) urban landscape has been defined as the overall urban space which forms the character of a town or city. This space includes parks, green corridors, open green spaces, and other spaces between and within the area, greatly benefiting urban dwellers in fulfilling their everyday life. Landscape is defined by the Latin American Landscape Initiative as the outcome of natural and social activities which has been shaped by the people. Landscapes have a user-defined pattern that is imagined to influence its purpose. This relationship between space and pattern is called landscape concept [7], [6]. Landscapes can also be seen as a mixed land space shaped of a cluster of interrelating ecosystems that are repeated in similar form throughout. The function of the landscape is to provide for biological biodiversity, greening the environment, producing clean water, etc. [7]. The characteristics are as follows:

1. It has natural and cultural values which emphasize the relationship between these two
2. It is more than what we think we see in the world; it has social, cultural and artistic elements, including physical and metaphysical perspectives.
3. Landscape management works to save the landscape for now and for future generations. Additionally, the

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current landscape is the result of all past generations' changes to the environment. This means it is where the past and present people can achieve their needs.

4. Landscape provides uniqueness to the environment and adds diversity to the setting of peoples' lives.

In summary, landscapes can be defined in many ways, but in this paper, the focus will be on the management of urban green spaces such as parks, green corridors, and green spaces within urban areas.

2.1 Sustainable landscape

Sustainable landscape is more than environmental, human and cultural sustainability. It also includes biodiversity, people, their needs, and attitude toward their habitat [8]. Sustainable development is a development whereby current people can achieve their needs without limiting the next generations [9], [10]. Sustainable landscape has become an essential problem in developing countries because there are not proper management programs. There is a need for strategic landscape planning in order to save the environment and increase human comfort. Sustainable landscaping is based upon three dimensions of sustainable development: social, environmental, and economic. The goal is to create a healthy, livable landscape which is economically viable. Sustainable landscapes can be described in different ways: A sustainable landscape increases the environment quality of all productions where possible (Commission on Environmental Law, 2000). And according to Phillips (2000), landscape is still not a subject of international debate because it faces a lack of attention from environmental policy makers and environmental lawyers. There is still no specific attention to landscape conservation, release of pollution, etc.

2.2 The concept of sustainability

Sustainable development is not just preserving a certain type of land, it also includes maintaining the natural, cultural and environmental dimensions of urban green space [11]. The concept of sustainable development involves keeping rural and urban land for the present and the future. The other concept is landscape improvement for the future. Sustainability is also connected to urban expansion and globalization in the world. Therefore it depends on the country's planning and management [12]. From another view, sustainability is about sustainable development of economic, environmental, and societal components[8], [13], [14].

2.3 Sustainable landscape management

A holistic meaning of management, according to the Oxford English Dictionary, is the procedure of controlling or guiding people or things. In relation to urban landscape, it can involve the management of both people and space, mainly by those involved with management organizations. Landscape management is

defined as the management of open spaces and open greenspaces, like residential green spaces, parks, playgrounds and etc. [15]. For the sustainable development and management of landscapes, many different actors and organizations should be included.

Landscape management and sustainable development require proper governance and supervision, hence, a continuous development of social, economic and environmental factors will be an essential requirement to achieve the goal of sustainability [2].

Landscape management has been introduced here as a general concept that mainly emphasizes green area management and development processes. It also includes other fields like planning and organization, open green space management, as well as the skills of managers.

3 Methodology

Three case studies of sustainable urban landscape management in the countries of England, Singapore and Malaysia have been selected. For each, a review will be done of the governance of sustainable landscape management in the context of urban green space. This review is conducted using a qualitative research strategy with content analysis in searching for the best management practices found in these countries. The [6] claims that Singapore can be a role model for the other cities in case of green management and sustainable development - it even has the title of Garden city. In the case of England, London is known as a greenest city in the world [16]. Malaysia has been recognized as a national tropical garden in 2005 [17].

The information has been gathered through articles, reports, screen study, document analysis, and the study of government websites. Lastly, the researcher used the descriptive analysis strategy in order to simplify the research process. The analysis is comprised of content and descriptive analysis. The aim is to identify the best management practices seen in England, Malaysia and Singapore, since these countries can serve as role models for the green management of other cities. Therefore, the researcher reviewed the management practices of each country separately and subsequent to the analysis determined the best management practices applicable to the context of developing countries, especially Kabul, Afghanistan. These can be combined and developed as a comprehensive management system which can be used to achieve a sustainable landscape management goal.

4 Analysis and results

The results are discussed in two parts: first each country's best management is reviewed, then a comparison is made of their key best management practices.

4.1 Malaysia

Malaysia has the vision to become a developed country by 2020 and aimed to create a national park system by

2005. In order to achieve these visions, the authorities have focused more on the landscape and the greenery of the country. As a first step, a national landscape department has been established. This department focuses on leading and being the center of excellence for landscape development in achieving a quality and sustainable living environment. Under this department, many different programs have been started, including a national planting campaign, a national garden, landscape extension and advisory, landscape research, national landscape nurseries, annual celebration of national landscape day, and a landscape architecture program in the local institute of higher education.

These programs focus on different dimensions of landscape management and maintenance. A nation-wide tree-planting campaign program's responsibility is to achieve the goal of being a garden nation by planting one million trees per year and developing the landscape and public parks. The landscape architecture program in the local institute of higher education focuses on supporting government efforts in the landscape industry. A landscape architecture program has been introduced by several local institutes of higher education and training programs have been offered by local institutes [4], [18]. From the policy perspective, some acts and policies such as a tree preservation order, landscape policy and town and country planning have been established in order to follow the vision of greenery and sustainable landscape. [19]

The municipality landscape recreation department has been focusing on greenery and landscape sustainability, with a particular focus on providing entertaining amenities for the public and working on the beautification of the city in order to achieve the goal of becoming a world class sustainable tropical city by 2020 (Municipality). For the vision of Kuala Lumpur, a city of parks and facilities for all people, beautification programs and the establishment and maintenance of park areas are ongoing year to year [18], [19].

4.2 Singapore

Singapore has one of the highest per person incomes in Asia. It has a 40-50 year development plan based on five main targets: worthy living environment, complete society, economic development, a sustainable Singapore, and a comfortable home for the public [20].

After about five decades of rapid urbanization, industrialization, and declining forests, Singapore gave more attention to urban greening as a main development objective [21]. They had the idea of becoming a garden city in the world garden. Firstly, the country started a green program to create a green and clean city before issuing any other programs [21]. Smart allocation has been established for the greening of the city. Based on these experiences, Singapore can be a role model for cities in sustainable development. With its green landscape, it deserves the title of Garden city [22] [6]. Singapore's vision for parks and green areas has changed over the years [20]. The country started off primarily by creating housing and employment for the people and by creating small parks by hand. After that, the program

changed to the beautification of the environment and started planting different varieties of trees and shrubs for people's recreation. Eventually, the vision evolved to become a garden in a city for the people's recreation and the country's beautification. A national park has been established to take over all the responsibilities of landscape management and produce programs and guidelines in order to keep the city clean and green. The National Park Board is the responsible public organization to facilitate these activities and programs [19], [23].

4.3 England

England has a standard requirement of 6 acres to be set aside as a recreation area for every 1000 people [24]. England's priority is on increasing the quality of urban green space over quantity [25]. The Commission for Architecture and the Built Environment (CABE) is a strategic advisory organization for development and management that was established in 2003. The main objective of CABE space is working for the better design and management of parks and public green spaces in cities, establishing leadership, giving clear responsibilities for management units, consultant selection, distribution of green spaces, community engagement and stakeholder consultation, preparing green space strategies for better management, planning and design of urban green spaces, and establishing quality indicators (CABE, 2010). All the experts are accountable for developing and updating the urban open green space strategy. Each of the advisors offer support and guidance around the country. Thus, cooperative thinking and partnerships are essential for landscape management [26]. Councils are responsible for the vision and details for providing, enhancing, and maintaining green spaces and parks. National planning came up with specific expectations from the local experts to form a strategic method for landscape management [26].

England evaluates the quality of their landscape through distinctiveness and connectivity. This can offer guiding information for developing landscape policies. There is a European Landscape Convention, established in 2000, whose members include most European countries including the United Kingdom. It has laws above the national level for the conservation, planning, and management of landscapes [25], [27], [28]. CABE has come up with a funding model to increase urban green space and claims that this funding can be used around the world [29]. London is already one of the greenest cities in the world. [16], [25], [30]. From the above, it is obvious that they have maintained their plans and programs. Some of their policies, activities, experiences, and programs should be used in Afghanistan to sustain the landscape there and keep it durable.

Based on the above knowledge, the researcher realizes that very similar organizations, plans, and programs are functioning in countries like Singapore, Malaysia, and England. But the problem in Afghanistan is that there is not a clear or significant management system in existence to manage the urban green space

landscape over the long-term and maintain a green and clean environment.

5 Comparing the best management practices of Malaysia, England and Singapore

Table 1: Best practices management comparison

Key best practice management	Malaysia	Singapore	England
Vision	+	+	+
Establishing landscape department	+		
Advisory offices	+	+	+
Landscape architecture program in the local institute of higher education.	+		
Acts, policies and tree preservation order	+	+	
Beautification programs and establishment and maintenance of park areas are continuously running year to year	+	+	+
Smart allocation for greening of the city	+	+	+

From figure 1, it can be seen that each country has its own vision in order to have a stable management. In Malaysia, a national landscape department has been established. This department focuses on leading and being the center of excellence for landscape development in achieving a quality and sustainable living environment, landscape extension and advisory, landscape research, national landscape nurseries, annual celebration of national landscape day, and a landscape architecture program in the local institute of higher education. From the policy perspective, some acts and policies such as a tree preservation order, landscape policy and town and country planning have been established in order to follow the vision of greenery and sustainable landscape.

Beatification programs are continuously running to establish and maintain the parks and green areas. Each country has some allocation for city greening. Based on the above knowledge, the researcher notes that very similar organizations, plans, and programs are functioning in the countries of Singapore, Malaysia, and England.

6 Discussion and conclusion

This review shows that the appropriate planning, programs, activities and guidelines can lead to proper management. Ultimately, suitable management ensures the sustainability of the landscape of a country. This paper is the result of an analytical study of lessons learned from the countries of Malaysia, Singapore and England. The research shows that urban landscape sustainability can be achieved with proper planning, implementation, organization, activities, availability and usage of guidelines.

Each country has its own system for landscape management, which can be implemented by the community with close supervision of the local government. England has the advisory organizations like CABI that prepare guidelines and strategic planning for the government in order to bring sustainability to urban green space in a landscape. Some of the countries applied effective measures and achieved landscape sustainability, for instance, Malaysia has established a landscape department, landscape day, trained people and had the vision to become a tropical garden city. The government of Singapore envisioned Singapore as a city garden. To achieve this vision, the local government established national parks, prepared and approved landscape safe-keeping policies, and implemented several other measures to enhance urban green space in the city. They also hired trained technical and professional staff. These all form part of the best initiatives to ensure successful landscape sustainability in a country.

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