Urban Green Spaces; Strategic Design Proposal for Conservation: the Case Study of Hyderabad City *(Provide Future Development Control Guidelines)*

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Abstract: *This research intended to highlight the urban green open spaces for public use in Hyderabad city, which may already face intensive development and planning deficiencies, mainly the ignorance of the governing authorities. Consistent ignorance of urban green spaces may cause various issues within the city and directly affect the health and performance of the inhabitants of the metropolis. To achieve the task SPSS and GIS software are used to manipulate data gathered from the users as well as the municipal authorities. This research with help highlight the problems and focus to provide a future development plan that may enhance city aesthetics and the overall environment.*

Introduction

Pakistani citizens may engage in social activities such as spending time with friends, family, coworkers, and others. One of Pakistan's biggest cities, Hyderabad, has an increasing number of immigrants from nearby countries (like more access to health institutions, improved employment possibilities, and educational chances may be found in large cities). Approximately 81000 households, or 486000 people, live in the Hyderabad city region, as opposed to the survey's target population of 1800 people from 300 homes. The goal of this study will be accomplished by gathering environmental and social data as it examines the environmental and social aspects of the urban landscape and provides a strategic design proposal for future development, to provide future development control guidelines. The information will be gathered using a variety of methods, including questionnaire surveys, on-the-ground investigations, and current land use planning trends. Therefore, to assess the scarcity of urban open space, statistical analytic methods from the Statistical Package for Social Sciences (SPSS) are applied. (Chandio, Abd Nasir , WanYusof, & Talpur, 2013) and how it affects the city's residents' sense of social unity (Atifa, Neelum, & Ghulam Abbas, 2016). Investigating actual land evaluation is made easier with the integration and purchase of geographic information systems (GIS). (Saleem A., 2014) (Fang & Julie, 1998). Atifa, Neelum, and Ghulam Abbas (Atifa, Neelum, & Ghulam Abbas, 2016) argue that exploring the particular characteristics of the urban landscape is important for regulating, to some degree, the effects that existing peripheral may have on the value of the open green spaces and their features (Soleckia & Joan M. Welchb, 1994).

Aim and Objective

This study focuses on the essential components of urban green open spaces, including the environmental and social aspects of society that can offer long-term solutions for ensuring a healthy future for the built environment in cities.

Research Methodology

The triangulated method was used in this study to gather empirical data. This was done to increase the data's dependability. The techniques employed included reading articles and papers, making observations, gathering data through questionnaires, and conducting interviews. The recommended quantitative technique has aided in the evaluation of several policy frameworks linked to greening open spaces created by local governance organizations in Hyderabad City. Through observations and 3D models created with the ArcGIS program, a small-area spatial analysis was done to comprehend the urban form of the chosen case study site. (Sushant & Fei, 2012). Participants and observers both made observations. For field research, the researcher had actually travelled to Hyderabad City. The non-participant observation was conducted in-depth throughout the peak hours by strolling around various city parks and playgrounds and counting the number of visitors and their intentions. Additionally, participant observations were made while visiting certain urban green spaces in the city. These insights not only made it possible for a narrative explanation but also helped restructure some of the study topics.

On independently created cadastral maps, the small area spatial analysis has also been helpful in combining multiple activity data sets. In geosciences studies, this kind of information is referred to as "Map info." These information maps also display statistical information of any kind., By exposing them with various hue tones and contrasts, e.g., socioeconomic, etc. Through the employment of different colour schemes in the presentation of data, the visual information of activities and the intensity level from higher to lower scale or spatial level is communicated to viewers. This research will additionally employ the "Map info" technique to accomplish its secondary target.

Problem Statement

In Hyderabad City's urban context, edifying focal points or directions must be established. This guidance will assist the government, planners, or urban designers in addressing local issues more forcefully while avoiding any impractical physical solutions that will make the issue worse. These focus areas ought to be places—physical or institutional— that contribute to the creation of a virtuous city ideology. The establishment of such places or institutions has previously faced severe official opposition. These green places are crucial for the culture to develop and expand. Similar to this, there are no appropriate green space amenities or passively oriented areas available for community groups, leaving kids with little choice but to play on the streets.

Research Background

The city of Hyderabad's land values has recently reached their highest point due to overcrowding. This is a peculiar reality that appears to be understandable for the land in wealthy world nations yet an inappropriate one in the developing world. (Qureshi, Breuste, & Lindley, 2010). The land value may increase in developed countries as a result of the state's emphasis on the value of land as a vital resource and the countries' strong economic growth. In contrast, governments in less developed nations must ensure that land values don't go over a certain threshold in order to ensure better land distribution.

- Functional-Recreational Balance
- A Balance between Private and Public Activity

There is a discussion surrounding how, over cultures and eras, the concept of public space has changed. Public spaces should be planned with a balance between the functional and recreational demands of the surrounding community in mind. Additionally, there is a dynamic balance between public and private activity. This balance indicates the impact of many cultures on public space. Traditional open spaces in European cities, for instance, served as symbols of wealth and authority. Whereas in Arab culture, the only public spaces offered were markets and places for prayer, which represented the pattern of Islamic society. Currently, the balance between these two factors has shifted more in favour of leisure

and public activity, which is seen in the shape of well-known public places, especially in industrialized nations.

Development of a Green Urbanism Strategic Planning Framework

Prior to presenting a plan for a city, a vision is required in the context of urban design to direct design. This indicates that the suggested design concept should stand out in terms of urban form from other neighbouring structures and should represent the local culture as an "object in space."

To implement green urbanism at various scales, a framework for strategic planning is required as a set of tools for policy. In the recommended policy framework, which is further mentioned in the report, the following points are highlighted: green open spaces in dense areas

- green urbanism utilities that support development
- funding mechanisms for implementation by Public/private funds.

The design brief, in particular, must demonstrate a pattern (future proposal) that has been methodically created while taking into account the entity's political, social, and environmental components. It must additionally provide functions relevant to accessibility.

Urban Green Spaces Conceptualization

According to Nunta & Sahachaisaeree (2010), urban green territories are cumulatively comprised of "a geographic area, containing both cultural and natural resources and the wildlife or domestic animals therein, linked with a historic event, activity, or person or demonstrating other cultural or aesthetic values." (Junjira & Nopadon, 2012)

Sense, movement, communication, area, symbol, the pattern of transformation, natural elements, spatial settings, and an organized management system on entirely optimistic idea performance are all part of what a cultural landscape means. (Rapoport, Cultural landscapes. Traditional Dwellings and Settlement Review, 1992). Rapoport (1996) stated that in order to create a conceptualization of urban green spaces, it is imperative that geography and interpretability be

combined. Proximity, housing, and infrastructure utilities are also crucial components of this description. (Rapoport, Culture and built form-a reconsideration, 1996)

Functional Issues in the City of Hyderabad

The following are the basic functional issues in urban areas that need to be focused on when examining the most prevalent functional issues in Hyderabad city:

Congestion in Traffic

Congestion is a phenomenon Rapid population expansion and an inflow of migrants looking for work from the rest of the province have caused in Hyderabad. The scale of the city's influx has ensured that the city's ability to serve its residents remains ineffectual.

Unauthorized Settlements:

The slum phenomenon is a problem in almost all developing cities. There are two primary causes for the growth of these slums in Hyderabad:

- Land grabs and bogus leases.
- The flood of migrants from the rest of the province.

This may enforce the user/inhabitant to live and utilise low-quality living standards, which may highly sacrifice the healthy life of inhabitants and directly effects the city aesthetics, as a whole.

Discontinued Transportation System

The city has doubled in size since it was founded, and it is consistently expanding so quickly that it can be challenging for commuters to get about. Any serious endeavour to construct a suitable, accessible public place will have difficulty due to the lack of an efficient transit system. And may enforcing the user to use private transportation, as the city lacks public transportation facilities too; and gradually the user faces long-distance travels/journeys to their workplace or specific destinations.

Examining the Development Policy Framework at the Local Level

A strategic planning framework is required for a successful green city. A framework for strategic

planning is frequently utilised for different development agendas in every location, and it delivers information on corrective measures through policy objectives to move toward desirable goals. (Aviva , MA, & Sarah, 2010)In the same situation, it's important to understand where open spaces should be located and what kind of strategic framework is needed to create or redesign desired open spaces. In the case of Hyderabad City, the "Karachi Town Planning & Building Control Ordinance" and the "Hyderabad Master Plan 2007" (District Govt. Hyderabad, Govt. of Sindh, 2009) are two public sector policy papers. *This study,* (Zaka Ali, 2012) *has been looked at. The policy analysis method was useful in learning more about topics like, for instance, what kinds of land development restrictions bylaws are in place for development control.* What effect do these bylaws have on the city's current rate of growth? What specific tactics are needed to provide fresh guidelines for green urbanism?

Research Findings

For a population of about 0.5 million, these "0.44" acres are not enough to provide for sustainable land use or to meet the standards of the National Reference Manual from 1986. (PEPAC, 1986). The findings are as follows:

- ➤ Limited recreational possibilities for individuals of all ages; i-e: Absence of recreational spaces, such as parks, playgrounds, and sports facilities.
- ➤ Exorbitant prices for standardized recreational amenities.
- ➤ Hyderabad City lacks adequate areas for sports and recreation amenities.
- ➤ Small funding.
- ➤ A lack of playground equipment for children and other leisure facilities.
- ➤ The inadequate maintenance of the current sporting facilities, particularly the Rani Bagh and Hyderabad Sports Complex.
- ➤ Physical and mental health issues are becoming more prevalent because there aren't enough open spaces and leisure locations.
- ➤ The absence of plantations and green spaces contributes to rising air pollution.

- ➤ The lack of town planners in local councils prevents the city from incorporating any planning for recreational purposes.

The state of the city's urban landscape as a whole is extremely poor.

Future Development Control Guideline

The design idea for managing urban green spaces is shown below in order to improve future development control guidelines (HMP 2009). Figure 1, displays a suggestion for future work.
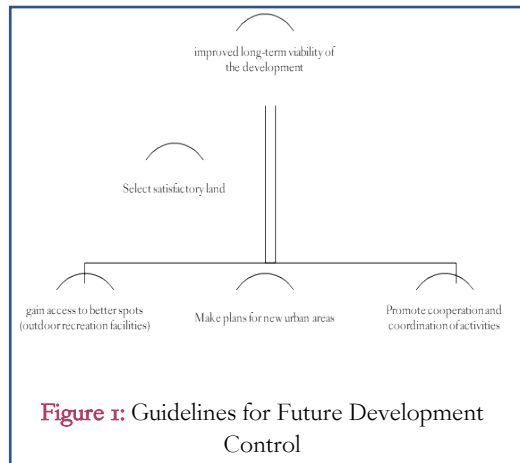

Figure 1: Guidelines for Future Development Control

Proposal for a Strategic Design and Recommendation

To serve the city's inhabitants as effectively and efficiently as feasible, some proposals can be made to level up Hyderabad's urban terrain, including:

New Long-Term Viability in Development

Make a long-term plan for the construction and acquisition of new green open spaces, preserves, access points for the general public, and related outdoor leisure facilities. Develop this strategy in accordance with the local government's general commitment to the preservation and sustainability of agriculture and its respect for private property rights. Make sure the strategy promotes its importance and incorporates a variety of leisure activities. The following suggestions for better development strategies are listed:

Obtain Sufficient Land

Acquire sufficient land to accommodate more parks,

preserves, public access areas, and outdoor recreation facilities (hence, referred to as "outdoor recreation facilities") to meet the needs of Hyderabad's residents and tourists. Verify if the plan provides a variety of opportunities.

To enhance the standard of living for residents of the Hyderabad district, it is desirable that land acquisitions for parks, preserves, and similar outdoor recreation facilities commence in advance of expansion and development.

Recognize that land obtain for outdoor recreation facilities supports Hyderabad district businesses that cater to tourists and that land purchases may boost the local economy.

Determine the Locations of Facilities for outdoor Recreation

The proposed scenario's plan merely acts as a schematic for the parks, preserves, trails (for walking, bicycling, etc.), and related outdoor leisure amenities. Facilities for active and passive urban gardening may be positioned on any nearby suitable sites.

The additional land that is available in the outlying or suburban areas can be used for other purposes, such

as the establishment of recreational space that can be shared by nearby suburbs and used for city-level recreation.

Plan New Urban Territories

Plan new outdoor urban open spaces to meet the need for public recreation while taking safety, environmental protection, and private property rights into account. The following recommendation should be taken into account to prevent negative effects:

In order to ensure a higher degree of maintenance, acceptable use, friendliness, and security, parks should be made available under private ownership or leasing. Parks that are kept up well are a big magnet for people looking to make new friends and do healthy things.

A GIS-based residential block map of Hyderabad in Fig. 2 illustrates the city's population density. concentrating on the densely inhabited places, referred to as densely populated and highly

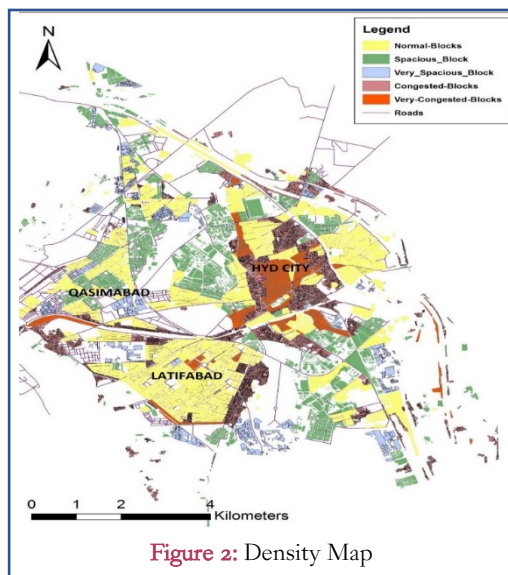congested locations that can help in identifying and planning potential future urban areas.

Figure 2: Density Map

Cooperative & Coordinative Initiatives

To provide public access to and recreational use of public lands, government organizations must cooperate and coordinate their efforts.

Take into account the following suggestion for Easement:

- Coordinate efforts with other public entities that grant access to the public on land that was acquired with public funds to purchase properties outright or under an easement for outdoor recreation amenities.
- The local government will work with other public bodies to acquire more outdoor recreation facilities in accordance with the plans and policies that have been developed.
- Prior to the formal adoption of property for use as outdoor recreation facilities, public authorities must coordinate their efforts to address and resolve outstanding issues.

Whereas, the recommendation listed below should be taken into account for better funding: Encourage the land-banking of sites purchased for recreational purposes anywhere funds are not immediately available to develop and manage these properties for public use.

According to the Local Government Act, free

assets acquired by local governments for outdoor recreation may be land-banked, and access by the general public may be restricted in some cases or entirely while the department of parks and recreation creates its management plans (Master Plan). Encourage the use of the public property to meet the demands of outdoor recreation, and where suitable, implement the suggested recreational facilities on already-existing public lands.

Road Medians

- Utilize current infrastructure and reduce the environmental impact of creating access road improvements.
- Give consideration to the intended urban landscape in the areas that can be reached by existing or future public roadways.

The proposed road medians with plenty of green space are depicted on the GIS-based road network map in Fig. 3, which will provide users with attractive and healthy roadways. (However, in some crowded regions of the city, there might not be enough room to set up a buffer.
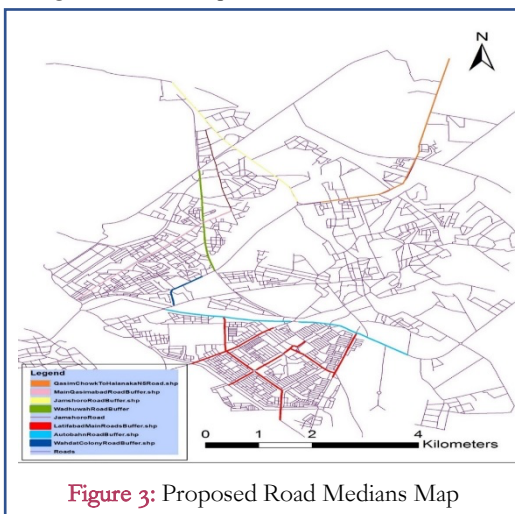

Figure 3: Proposed Road Medians Map

Encouragement

As a whole the strategic scenarios encourage private non-profit organizations; that may help to manage the lands and may be bought together with public monies to ensure regular public access and recreational use, and better considerations.

Whereas the following set of selected recommendations should be taken into account for

appropriate management, and enhancing public benefits:

- Introduce the management of land for public access and enjoyment in conjunction with non-profit groups.
- Incorporate the local government, that should cooperate with non-profit organizations, i-e: in order to successfully maximize financial opportunities, land acquisition, and grant finance that would otherwise not be available to public agencies.
- Consider the following advice for appropriate maintenance, in the long-term viable planning approaches:
- Develop regional support systems for managing park infrastructure.
- Increase talukas' shared usage of recreational facilities in the area.

Determine whether there are any suitable sites outside the current city limits that could be developed or renovated to serve the needs of the citizens of different talukas. In order to provide parks and recreational amenities in these locations, the TMAs would consider joint use agreements with cities. In addition, enforcing authorities to timely process authentic checks and balance for maintaining the respective areas without any delay or creating any inappropriate situations for the users as a whole.

Conclusion

Through qualitative and quantitative studies, the survey-collected data was examined. Arc-GIS, a piece of software that identifies the position and projected area boundaries of a certain park (for either passive or active use) within the city of Hyderabad, was used to carry out a spatial analysis for assessing availability and area assessment. Through frequency analysis in SPSS-20, the circumstances, and the effects of various traits (as reported by diverse respondents) were examined. Acquired results showed significant shortcomings for urban green open spaces, which amply demonstrates that current scenarios may not satisfy the needs and necessities of the current population to the required level for providing standard services. The aimed target determined that more extensive policy design proposals were needed to offer sustainable green open spaces for the inmates of Hyderabad City. As a

result, the data analysis indicates that Hyderabad lacks the necessary components for planning and designing urban areas as a whole and may be short on funding for urban strategic design assembly. In order to accommodate the present population's needs for a healthy environment to work and live in, more space is required due to the population growth rate. In this regard, a design plan was created that might offer a future development program to manage Hyderabad's urban green spaces.

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