

Shaping communities through urban green spaces – A study in the Indian context

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ABSTRACT

Public spaces in the form of green spaces need to be an integral part of every urban city. Public well-being and urban green spaces are synonymous to one another. The urban green spaces could be in the form of forests, parks, play grounds, garden, mangrove or agricultural lands along with other components of natural environment. The green spaces provide numerous opportunities and benefits in shaping the community or neighbourhood within which it is surrounded. This paper discusses the challenges faced by these urban green spaces and the advantages of green spaces to the people in particular and to the city in general. The social, environmental and cultural framework has been taken under consideration to understand the user behaviour in urban green spaces. These concepts are looked upon, on the basis of the existing situation, its limitations, and reasons of failure to bring about character to its co-existing community. It also, looks briefly into its benefits and end results on the users and its community. The coexistence and balance between urban and rural, natural and manmade is very essential in the present scenario. From the historic era, it is a proven fact that natural environment has played an important role in safeguarding civilization. The opportunity and necessity exists for a more meaningful and integrated relationship of the co-existence of the urban form and the natural environment. In considering the elements as naturally dependent within a single whole, it is possible to create a self-sustaining urban landscape in which green space can take on a number of ecologically and socially enriching roles which contribute in shaping the society.

Key words : Environment, Social, Cultural, Co-existence, Neighbourhood

Introduction

Green spaces both planned and natural are an integral part of any urban area and are essential for maintaining their environmental quality and sustainability. In the urban area, the building forms along with green spaces results in giving a visually pleasing environment. Green spaces are essential and advantageous to any given urban area in many characteristics. A planned city with a good network of roads and public spaces needs to be adorned with green spaces to make the area an attractive and appealing place to live and work in; at the same time the landscape of green spaces should contribute to

the quality of the urban environment. The public owned and the public accessible open spaces cater to recreation and cultural purposes in any given regional context. These urban green spaces also improve economic revenue and environment quality.

Urban Green Space

At present, urban green spaces are treated as lands with landscape, completely lacking in form or expression that communicates and improves the essence of the city or the community. The provision of urban green space and its associated benefits are important for sustainable urban development from ecological, economic and social aspects (Baycan-

Levent, *et al.*, 2009). The absence or reduced level of character, functionality and purpose in urban green space has led to non-usage of these spaces. The paper explains the importance of urban green spaces, in order to manage and to provide benefit to its fullest potential. With over 40% of the population now living in cities, it is time to take a closer look at the urban green spaces and its relationship with its surrounding environment.

Social attributes

The existing social fabric of a town or a city is a crucial component for revitalization within its context. Studies indicate that high-density neighbourhoods can provide better local services but also have more limited and low-quality green spaces, which may lead to a stronger feeling of insecurity and less social interaction than neighbourhoods with lower density (Dempsey *et al.*, 2012). The closely knit community enjoys the coexistence and at the same time spends quality time together. The UGS facilitates and encourages social interaction under its canopy. The social life has many positive attributes; bonding between neighbours, improve behaviour of people, develop relations among neighbours, sense of belonging and identity etc. These attributes are very important for the well-being of family, community and nation as a whole.

Environmental attributes

Environmental factors, in varying degrees, have always a direct influence on the urban environment and the provision of favourable and safe conditions for the life of the population. Its role in planning and development of these urban areas is an integral part of the management of these areas, and should be aimed for improving the ecological balance of the environment. Planning must be done with the consideration of identified ecological processes in cities on the basis of information about their occurrence in the past and the present. Currently, cities face a multitude of problems that require urgent and immediate solutions (Kustysheva, 2017). One of the most important issues is the poor state of the urban environment as authorities give more importance to transport and other infrastructural buildings and services. Hence it has remained as one of the most critical problems that should be considered by the authorities while implementing the urban areas' development plans.

Cultural attributes

The cultural attributes play a major role especially in the older areas where families have been staying for few decades. Most of the time, relatives or people migrated from same village or town tends to stay in close proximity. These give a distinctive character to the region in terms of cultural behaviour or background. These group formations sometime extends to religion too as one finds Muslims, Christians and others forming their own neighbourhoods. The festivals celebrated, customs followed will be more or less similar in nature. While providing UGS, considering cultural attributes becomes important.

Key Attributes of Urban Green Space Provision

Green space is one of the key elements for architectural composition that helps in creating and integrating urban spaces. The functions of these green spaces mainly reflect formation, location and climate. Urban green spaces are lands that consist predominantly of permeable; 'soft' surfaces such as soil, water, and vegetation in form of grass, shrubs and trees. It includes all areas of forest, parks, play areas and other green spaces intended for recreational use.

Hierarchy of areas and Typologies

Green spaces can be classified in different ways according to their use patterns: active green spaces and passive green spaces, ecological function: historic gardens, greenbelts surrounding the city, agricultural areas, buffer greens and recreational functions: parks, thematic park, gardens, sports fields, playgrounds, natural and semi-natural areas and green corridors.

Benefits, Values and Functions of UGS

The importance of cities have increased significantly over the centuries however the transition from rural to urban civilization has led to a technological revolution focused on information technology which has changed from local to global networks connecting people. This growth in urban population associated with industrialization has resulted in a range of detrimental and often negative outcomes for mankind. As an ideal solution to this scenario a large and growing body of research exists on how the design of the environment can positively or negatively affect a person's health and well-being, as well as in-

fluence their behavior. Hence, an effective design of open spaces requires a key understanding of the benefits of UGS to bring about a successful design with maximum potential. The benefits of urban green areas for people are grouped as per the below mentioned attributes.

Characteristics of UGS

The main characteristics of UGS are Features and facilities, Condition, Hygiene, Accessibility, Attractiveness, Perceived safety and security, Distance from home. In the Indian context it is very important to open up UGS for the benefit of the population.

Functionality of UGS

The functions taking place within UGS varies from physical activity/exercise, Social Interaction, Cultural activities, Rest and relaxation. The activity should cater to all age groups. At the same time, the activity should be well distributed and provided with all safety measures.

Outcomes derived from UGS

The important outcomes from UGS are Physical and Psychological health benefits, Social benefits and cultural integrity. The environmental benefits are many folds for the immediate surroundings in particular and to the whole in general.

Need and Demand for UGS

The increase in population in urban settlements has led to traffic congestion and air pollution in major cities. People experience many health problems and mental strain due to urbanism. Green spaces control the air and noise pollution, and enhance the micro climate; it also contributes greatly to social and environmental factors such as: sport and recreation, mental health and well-being, biodiversity conservation, reduction in carbon footprint, atmospheric pollution filters, improved urban hydrology and water quality and thermal improvement.

For better maintenance and enhancing these urban green spaces, we need to be able to quantify the ecosystem services they provide and understand the corresponding social and ecological processes involved. Improved urban design, planning and management of urban green spaces are necessary to enhance the livability of cities.

High and Low density residences and their green/leisure space needs

People live in higher density dwellings for a variety

of reasons (Byrne *et al.*, 2010). In some cases, income plays a major role; people opt for apartments as they are cheaper than independent houses. The higher density residences also give security and access to shared facilities within the complex or neighbourhood and vice versa at times. Some researchers have found that lower-income residents need better access to parks and open space because they cannot afford other forms of leisure/recreation like picnics, visiting places of interest etc. The residents choose to live in luxury apartments to be closer to shops, restaurants, entertainment venues and public transit routes; they usually have higher incomes. The study even shows that older people are less inclined to use parks and other green spaces for reasons related to personal mobility, health and fear of other park users. So there is collaboration between the density, income, age, towards park and its use which cannot be negated.

Describing the Supply of UGS

The traditional underlying philosophy of the development of green open spaces within its urban settings has been to provide residents with opportunities for social, physical, physiological and environmental benefits; a space for recreation and leisure activities by providing an element of nature within the urban context. The resulting reality is often a sterile but hostile environment of large lawn spaces and well-tended flower beds that serve as nothing more than a cosmetic role within an increasingly developed city. The toddlers and children are discouraged to use lawn spaces and restricted to use only narrow paved paths for their play and other passive activities.

User behaviour analysis in UGS

Cycling within UGS or using UGS to cross over to schools and workspace in the serene atmosphere and safety of the track contributes to positive benefit. The improved microclimate within UGS brings health and better psychological effect. Though most of the times, the users between 15-25 years tend to use these tracks; the younger ones less than 15 and older than 25 should be made to understand the advantage of physical wellbeing by encouraging them to use cycle to work places.

The location and quality of UGS is very important in encouraging recreational activities like walking, jogging, running. Properly laid paved paths with even surfaces, resting places along the path,

appropriate and sufficient lighting should be properly planned and executed. Though recreational activities are more of an optional activity, a good UGS encourages the neighbors to utilize and spend quality time within it. The recreational activity encompasses all age group bringing in wellbeing of the families and individual users.

Urban green spaces also need to include play grounds within to cater to sport activities. Though in concept it differs from UGS, provision for sports activities should be an integral part of neighbourhood planning. The proximity to the place of stay encourages people of all age to use the facility more productively. Close proximity also helps to reduce travelling in vehicles, and also reduces parental responsibilities of accompanying children for daily practice.

Celebrating birthdays, picnicking, reading books, lazing around with family on holidays and week-

ends are common in many UGS. Lawn spaces with good maintenance, provision of amenities and essentials within UGS is very important; at the same time providing safety and security is utmost important.

Understanding the demand for UGS

There are significant differences in the usage of UGS depending on the individual characteristics. In theory the demand for UGS in a certain neighbourhood could be estimated using population demographics, e.g. a neighbourhood with a lot of families with small children will require a different type of UGS than a neighbourhood with primarily elderly people. However, the level of education and personal preferences also play a role in determining the demand for UGS. Detailed information about the neighbourhood residents is needed to estimate demand accurately. In theory, matching the

Table 1. Flow chart of Urban Green Spaces

Parameters	Description
Land value and regulation	The land trading and real estate escalation in the market act as key generators for lack of urban green spaces. The mandatory open space regulation has marginally increased the green spaces but has not made remarkable change to the environment.
The accessibility and connectivity	The green spaces within the close proximity are preferred by the users. These spaces turn out to be small parks of no significance within the neighbourhood
Purpose and Activities	The scale of most green spaces fails to enable activities. The choice of activity is very limited to the end user.
Comfort and Image Social interaction	Most UGS across the country/city holds similar character and image Urban spaces are not well designed to suit the needs of the community, these results in non-usage of UGS thus causing less or no social interaction.
Character and Continuity	There is a total lack of character exhibited in urban green spaces and they do not contribute to its context. In most cases they are limited to a few trees and benches or a small playground. Landscape with hard and soft-scape, water bodies, zones for activities such as running, small workouts, socialization, community building etc. are absent within the same UGS.
Sense of Place	They are very generic in nature and do not reflect any characteristics of the community or the user demand in particular. This creates a forced sense of being and reduces the level of comfort.
Quality of the space	Limited technical capacity and lack of maintenance creates a space of non-inspiring quality which in turn affects the usability of the space.
Legibility and Adaptability	They completely lack the quality of adaptability or even adapting to the transition of activities from morning to night. This limits the time frame of access, makes it unsafe and drops the quality of usability of the space. Spaces are limited to transition wherein they are incapable of catering as a multi-use spaces which holds alternative activities such as community gatherings, social events, festivals etc.

Source: Authors

local supply of UGS with the local demand should result in an optimized use of UGS, which in turn would help improve the health and well-being of the urban population.

Indian Context- Reason for Failure in an Indian Context

The high density of buildings, exploitation of land for their high real estate value, lack of provision for UGS within urban areas at the time of planning are few of the reasons for failure of the implementation of UGS in the Indian context. The hierarchy of UGS is seen lacking in most of the urban areas. UGS might be available in smaller pockets but they are of insignificant size in most cases; inaccessible; lack of safety and security; low or no maintenance are few of the reasons for non-existence or non-popularity of UGS.

Conclusion

Urban green spaces provide numerous benefits for those living in the city; they improve the quality of the air and microclimate and reduce pollution. It is witnessed that UGS is the area where a sense of community is developed among the users. It provides opportunities for mental healing, acquiring of knowledge, physical exercise, and comfort. In other words, they are important social focal points, where people from different cultures and socio-economic background come together to become acquainted with each other.

Urban green areas are a significant part of the daily lives of people of all age categories and serves different purposes to different people. In present times, the need for urban green areas has increased multifold. In order to maintain the ecological balance in cities, a design approach of urban spaces specifically dedicated to UGS should be produced by the planners and designers. Otherwise, urban spaces will be improperly planned and poorly provided without any care and consideration. These may lead to generation of places which serve no purpose and finally prompting to be negative spaces within the neighbourhood. While this stresses the value of green space for the area, it is focused primarily upon attracting people and economic value rather than serving the existing residents. This perspective elucidated by residents that green space should provide spaces of refuge and relaxation, for people in the community is particu-

larly important and emphasizes the importance of green space even in areas where one would not expect to attract outside visitors or workers.

The UGS help in shaping the communities within which they are located in. the factors within the design should focus on the appropriate planning and design considering proximity; linkages; spaces for activities; versatile spaces and meeting the demands of the mixed user groups. The inclusiveness and sense of belonging can be created with appropriate design of UGS in the following four ways: 1. They are free and accessible to all, 2. They provide space for human interactions, 3. They relieve stress and restore mental wellbeing and physical fitness, 4. They create a sense of being and build on community growth.

In conclusion it is understood that there is a lack of fulfillment in the Indian scenario on UGS which has led to the failure of urban green spaces. It also reflects on the high demand and the need for re-neutering. If thought is given to design, planning and management of urban green spaces across our country with focus not merely on land trade value but the priority of well-being and improved quality of life, then urban green spaces can be used as a tool to help reshape the communities and unify them on a global platform with a more meaningful and integrated relationship. The time has changed in the recent times; one can see the changing pattern and thinking towards providing better UGS.

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