

Urban Open Spaces and Legislation

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Abstract- Open spaces in an urban context are the lungs of the city; they are the feeders and lifeline in the urban scenario. They cater to human requirements in many ways playing a major role in overall health and human well-being. Do all cities have open spaces? If yes, are they being equipped properly to serve the purpose? Is there a particular manner to get maximum benefit to the cities' ecology? In this paper, an attempt is been made to answer these questions in detail. The categories of open spaces available in the cities, the conditions in which they are available, the hierarchy of these open spaces, the importance of these spaces, how should we consciously accommodate such open spaces in the master plan? How these spaces are treated? What are the implications of not having open spaces, and the repercussions of the same on the ecosystem? How the existing open spaces are treated, how beneficial it is to have open space in the urban context, this how environmental and ecological function improves. The "right to live" policy for human well-being has to be provided to give the dignity of life. To provide this, every state government and local bodies work together by establishing some set of rules, regulations, certain strategies, bring in infrastructure by identifying the stakeholders, and they are developing these open spaces to provide the dignity of life to the citizens. Not only can that, having well-maintained open spaces act like a structure and symbolic icon of the city or the layout. In this paper, a case study on Bengaluru city open space analysis is being made, and in detail the of Impacts, usage, pollutions, and types, general issues, Analysis and short comings, Identified and solved issues, amendments and policies, Concerned Authoritie who are responsible for creating and maintain these open spaces, the proposed policies, an overview and conclusion.

Index Terms- Bye-laws, Encroachment, Environmental and ecological functions, Infrastructure, Intentional / Incidental open spaces, Legislation, Recreation.

I. INTRODUCTION:

In a broader sense, open spaces can also be considered as something wider such as that, which is not covered with a roof. This can be defined as an encompassing network, between the continuous matrixes of all built v/s inbuilt environment in urban areas. This way the open spaces link together all individual spaces and flow around and in between every structure in the built environment. It further continues forming the context and the surroundings of each space connecting the inner city to the surrounding landscape. Generally, open spaces are large green spaces created intentionally by choice identifying its strong natural landscape qualities; or by consciously providing a dedicated open land which has no specific purpose or utility such piece of land will be reserved to create as a feeder to the community. Open spaces are the spine of a city and these spaces feed the cities' lungs. Eccentrically or concentrically, the cities' built environment develops keeping miniature

patches of these open spaces. Urban space can extend even beyond city limits, but only as a secondary option for the occasional visit by choice. Urban space includes all significant outdoor spaces that fall within the influence of the urban fringe area.

A. Urban green space:

Land that consists predominantly of unsealed, permeable, 'soft' surfaces such as soil, grass, shrubs, and trees (the emphasis is on predominant' character as green spaces may include buildings and hard-surfaced areas as well); it is the umbrella term for all such areas whether or not they are publicly accessible or publicly managed. It includes all areas of parks, playgrounds, and other green spaces specifically intended as feeders, permissible areas, micro climate moderators, recreational purposes, as well as other green spaces with other origins. The term 'urban green spaces' is used throughout this paper as a shorthand term for the parks, play areas, and green spaces of the title, as it includes all these categories.

For example local recreation parks, reserve forests outside the city boundaries. Like, Innovative film city, (Hyderabad, Bidadi) Fun world, (electronic city) Fantasy parks, etc. (Mysore) National parks, (Bannerhatta, Bengaluru) Reserve Forest, Hillocks (Nandi hills, Chamundi hills), etc. This perception of urban open space as an undivided resource is a vital basis for its strategic planning, design, and management. These include ownership, management responsibility, accessibility, structure, and usage in various ways. One major distinction can be made between public and private open spaces. However, not only public spaces can be shaped by public policy. Privately owned open spaces can be influenced by public policy in numerous ways. These include planning regulations and conditions placed upon the granting of permits, both to the owner and the user in their scope of responsibilities.



Fig. 1.1 Showing open area among the Developed area Between Koramangala, Bellandur Lake outer ring road.

Ar. Nanditha Nagaraj, Bengaluru, Karnataka

II. CATEGORIZATION OF OPEN SPACE IN METROPOLITAN CITIES

Over the last fifty years, India has faced dramatic growth in its urban population. The number of megacities increased in the period from 1975 until today from four to twenty-two, mostly in less developed regions (Münchner Rück, 2005). Significantly the Indian megacities are among the most dynamic regions on the Earth. During the last fifty years, the population of India (today 1.3 billion) has grown two and a half times, but the urban population has grown nearly five times. In India, the Census Commission defines a metropolitan city as one having a population of over one million, like Mumbai, Delhi, Kolkata, Chennai, Bengaluru, Hyderabad, Pune, Sonapat, Gurgaon, Chandigarh, Ahmadabad, Surat, Nasik, Jaipur, Patna, Lucknow, Allahabad, Bhubaneswar, Nagpur, etc. A megacity is usually defined as a metropolitan area with a total population of more than 10 million people. The number of Indian megacities will double from the current three (Mumbai, Delhi, and Kolkata) to six by the year 2021 (new additions will be Bengaluru, Chennai, and Hyderabad). When India will have the largest concentration of megacities in the world. The city planning authorities in India have been proposing to increase open spaces in their successive plans. The implementation of these plans has been far from satisfactory and the open space provided for or mentioned in the plans has been used for other land uses. The urban areas need open space and the importance of it as a land-use type cannot be negated, but the question that arises here is that how much open space is required for a given unit of urban population? The other concern is the spatial distribution and pattern of open space within a city.

It may be any land area zoned for an open space by a comprehensive land-use plan. However, adopted by a city or any land area in which the preservation in its present use would conserve and enhance natural or scenic resources. Open spaces help protect streams or water resources, promote conservation of soil, wetlands, beaches or tidal marshes, enhance the value of abutting or neighboring parks, forest, wildlife preserves, nature reservations or sanctuaries or other open space enhance recreation opportunities, preserve historic or heritage sites, to preserve visual quality along the highway, roads, and street corridor or scenic vistas, retaining natural state of land not less than one acre situated in an urban area and open for public use in such conditions it may be reasonably required by the granting authority. The issue of required open green space per capita in urban systems has remained controversial. In the century, experts in Germany, Japan, and other countries proposed a standard of 40 square meters of urban green space in high quality or 140 sq.m. suburb forest area per capita for reaching a balance between carbon dioxide and oxygen, to meet the ecological balance of human well-being. Currently, developed countries have tended to adopt a general standard of green space of 20 sq. m. Park area per capita (Wanget al 2009). The international minimum standard suggested by the World Health Organization (WHO) and adopted by the publications of the United Nations Food and Agriculture Organization (FAO) is a minimum availability of 9 sq.m. green open space per city dweller (Kuchelmeister, 1998). The town planning standards for open space in cities vary according to the measure of local conditions. The ever increasing demands for

the building and paved circulation in the urban area, impaired physical environment to the extent that the spatial pattern is more fragmented and confusing, the city has become less humane in nature. The gap between urban man and nature has widened than ever before. Hence, the city is becoming less natural, less livable with lots of environmental issues and cumulatively it is changing the global environment system (Edward and Matson, 2000).

III. TYPES OF OPEN SPACES AVAILABLE IN AN URBAN AREA

Open space are that part of the urban area which contributes to its amenity either visually by contributing positively to the urban landscape, or by public access. It is therefore defined as combining urban green spaces and civic spaces. This accords broadly with the taskforce's the local authorities like, (BBMP, BDA, CDA, etc.) own working definition of open space as encompassing "a mixture of public (or civic) and green space, where public spaces are mainly 'hard' spaces such as squares, street frontages, and paved areas." It is also compatible with the approach proposed in Scotland, which defines open space as "a mixture of civic spaces and green spaces". Public open space are also green spaces, and hard 'civic' spaces, to which there is public access, even though the land may not necessarily be in public zone.

Hierarchy of the Urban open spaces

Matrix of all inbuilt land in urban areas –
Spatial Standard for Parks: (As Per Indian Standards)

Regional Level parks	20-40 acres
Tot lot < or equal	150m2
Neighborhood level parks	150-400m2
City-level parks	1-20 acres
State-level park	40- 100acers

Eg: Brindavan Gardens(60 acres)

National Level>100 Acers

Eg: Sundarbans, Nagarahole, Bannerghatta, Bandipur

Public gardens Semi-Public gardens

Private gardens Other spaces

Functions of Urban open spaces

The open space has many positive functions like:

Recreational; (it can provide opportunities for a variety of outdoor activities for people of all ages); both active field games and passive parks.

Stress-relieving; (open space can help to restore people physically and psychologically by reducing stress, improving moods, and even lowering blood pressure)

Aesthetic; (Trees, flowers, and other green vegetation offer beauty and aroma to the built environment);

Habitat Protection; (Urban open space networks can sustain complex ecosystems);

Air oxygenation; (Improves the air quality);-Acts as lung spaces.

Economic; (Parks, greenways, and other open space can significantly enhance property values)

Value ;(It adds both Tangible and Intangible value to space and city);

Acts as buffer areas between separate functions. Acts as a multifunctional area throughout the year.

Even edges and roadways act as open spaces not only for circulation but as multifunctional in residential areas Eg: Parking, Socio-religious function, demonstrations, utilitarian functions like washing/drying, etc.

IV. ENVIRONMENTAL AND ECOLOGICAL FUNCTIONS

A. Climatic Amelioration

Open spaces help improve climate of Urban Area. The Vegetated open spaces help in reducing the urban heat island effects, thus cooling air and surrounding.

B. Noise Screening

Reduces noise created by traffic, influences the Hydrological cycle, provides habitats for wild plants and animals/Birds keeps in check with the Urban Ecology and Biodiversity. Air quality regulator Acts as a carbon sink, improves air quality, provides color, texture, and ambiance to the urban fabric.

C. Functions

Intentional open space that can directly create an identity of a particular urban context by articulating, dividing the areas of Urban fabric at the same time by linking of such spaces. This defines the Urban land use and divides individual utilities. Feature in the open spaces dictates or is added to keep up the dignity of the city. Urban public open spaces establish a sense of place.

E.G: Lal Bagh, Cubbon Park Etc.

It acts as a carrier of Identity meaning and values to the city. Usually, urban open spaces are systematically organized, for the convenience of the user s.

E.g.: Regional level parks, community parks, Green corridors, Green Belts, Green Wedges, Concentric Green rings, boulevards, Tree linked Streets.

D. Symbolism

Is a broad term in all landscape design that reflects the heritage of the city, its social, cultural, and economic status is reflected aesthetically. Incidental open spaces: Improving the legibility of the city. Result of addition and alteration, defined activities, poor planning, inefficient spatial allocation- eg: edges, space between buildings, etc. It creates a sense of navigation, orientation, ensures a sense of well being. Unorganized open spaces are usually natural and without or with less human intervention. Bangalore city from 1973-2016 and its growth prediction in the year 2020.

V. CASE STUDY AND ANALYSIS

Bangalore is the principal administrative, cultural, commercial, and industrial center of the state of Karnataka and is also one of the primate city. According to the development plan (CDP) of Bangalore, the area covered by the parks, playgrounds, and organized open space in the year 1983 was 2050 hectares, which was 10.1 percent of the total area of the city. Whereas the open space in the year 1960 was 17.2 percent of the total area (Vagale, L.R. 1998).

According to the accepted spatial and design standards of the land use planning, at least 12 to 15percent of the developed areas should be devoted to the open space. Bangalore is one of the fastest-growing metropolises. The urbanized extent of

Bangalore has been continuously expanding in a sprawling manner. It was about 800 sq. km in 1981 now due to heavy encroachment on the open space, it is more than 1200 sq. km. At present, the norm for parks and open space is 15 percent of total land use or one hectare of open space per 1000 population (state of the environment report for Karnataka, 2003). The largest land use under the category of "parks and open space" among all the cities in Karnataka can be found in Bangalore (2132.16 hectares). Cubbon Park lies at the heart of the city of Bangalore. The park is one of the major attractions in the city. Cubbon Park stretches over a larger area, which encompasses many government buildings, heritage centers, and historical monuments.

Access: The park is accessible from M.G. Road, Kasturba road, Hudson Circle, and Ambedkar Veedhi (Road). The motor able roads that run through the park are allowed for light motor vehicles only. All locations of the park are accessible through walking paths. The Park is open to the public at all times but the roads around the park are closed for traffic from 5:00 to 8:00 am every day to provide a more safe and fresh environment for morning walkers and exercisers.

Timings: 5:00 AM – 6:00 PM. Closed on Monday & 2nd Tuesday of Every Month, this is a buffer time provided or needed for the space to revive itself.

Social functions of the park: The Park is versatile and equipped with thick lush vegetation; it is a great asset to Bangalore city both tangibly and intangibly. It rejuvenates the city as well as morning walker with fresh air and soothes the soul by its lush green scenic beauty.

Uses: The parks is used for walking and exercise during morning hours 5-8 am. There is a central library situated in it. An exclusive zone for kids. Bala Bhavan, an aquarium, Sports association an auditorium is situated there. Entry to Sir M. Vishweshwaraiah Museum two roads are allowed for vehicular movement. At times flower shows would be arranged for public.

Misuse: It is unsafe for single women visitors, as advantages are taken by eve-teasers, robbers, there is a lot of vandalism that gets Registered. Lack of security, street vendors and hawkers mess the place, traffic movement, etc. Factors influencing people's usage of open spaces

The provision of urban open space should be made based on considering the demography and footfall, three factors are very important in defining how everyone uses open space as they move through different stages in their life cycle.

These factors are, Mobility, Physical activity, Time, Budget. The users of public open spaces depend on the infrastructure available.

Safety and security: Even though there are a lot of Police it is unsafe for Single women visitors.

Infrastructure: the street furniture's are not provided and certain areas are too dark which allows the miscreants to perform illegal activities, the park needs to provide with permissible areas.

Lighting: The streets are well illuminated but the parking area has no proper lighting.

Furniture: Very few of them out of which many are unusable.

Stray Animals: A lot of stray dogs, Snakes also keep moving around.

Accessibility: The park is easily accessible with good roads.

Encroachment of the Cubbon park: The fringe areas of the park facing all the major roads are taken up by the government and many office buildings are lifting up. This will be a major damage to the city as this park was managing the urban heat island effect and micro climate of the central part of Bengaluru city.

Maintenance: Moderately maintained. reasons for Government not acting: Corruption, Lack of involvement, unable to take control as the park has access from multiple major roads situated between the number of Government. Lack of coordination between Multiple other departments involved in development Such as Police for security, Horticulture for planting, Bescom For lighting Maintenance, etc .Delay decision making on Planning and implementation. Week Policies on maintenance authorities and users.

VI. GENERAL ISSUES THE CITY IS FACING

A. Bangalore

Bangalore's Garden City tag is passe. The city's lung space has rapidly reduced over the years, so much so that doctors call Bangalore the allergy capitals of the country and authorities have had to depend on fictitious figures in land use reports to save face. The World Health Organization (WHO) mandates cities to have a minimum of 9sqm open space per person. This has been charged in the Urban Greening Guidelines 2014 of the ministry of urban development. But according to a study done in 22 cities in 2003, Bangalore has only 2.01 sqm of open space per capita, and the proposed land use year report in 2011 shows that open space per capita would be 9.72 sqm per capita. Simply put: one citizen will have little more than 9 sqm of open/recreational/lung space. The Urban Greening Guidelines 2014 has been framed to limit blatant concretization in the name of urban development in towns and cities.

B. 'Pollution kills':

Our study published in 1979 predicted pollution to be a killer, and it is now proven to be true. Air pollution is a major contributor to health hazards in Bangalore. About 15 years back, only 2% of the kids had asthma, but as of 2008, the percentage has risen to 28.5%. Children in schools amid heavy traffic areas suffer from breathing problems two and a half times more than those studying in school open spaces. Having more green cover is the one-stop solution to improving health in urban areas.

Dr. H Paramesh | pediatric pulmonologist and director, lakeside hospital

Gender Issues: The integration of gender mainstreaming into spatial urban policy-making can result in a more sustainable, equal, and accessible environment not just for women but for all members of society.

Traffic: The movement of traffic who pass through the park is more, this is restricting the use of the park to certain patches only.

C. Current Policies on open spaces



BENGALURU: Fig 4.1, The cabinet on Wednesday decided to once again send the Karnataka Urban Development Authorities (Amendment) Bill-2016 that seeks to shrink the mandatory percentage of open spaces and parks by government development authorities, to governor Vajubhai R Vala.

The cabinet had decided to once again send the Karnataka Urban Development Authorities (Amendment) Bill-2016 that seeks to shrink the mandatory percentage of open spaces and parks by government development authorities, to governor Vajubhai R Vala. This time, the government has justified the amendment bill stating it would reduce the cost of government housing sites. "There's already a 10 percent mandatory reservation for open spaces and parks for private layouts. We have amended the Act to bring even government layouts on par with private developers. The bill was passed to reduce the 15 percent reservation for open spaces and parks in government layouts to 10 percent," law minister TB Jayachandra said on Wednesday 20 July 2016.

In the last few decades, we have already lost 66% of the city's green cover and 74% of its lakes to irresponsible development. The new KUDA (amendment) Bill when applied to Bangalore makes shrinking public space opportunities and encroachments legal. This bill is only to help land sharks and irresponsible builders, with zero benefits to the city or its citizens. The bill also grants permission to including legislators from the jurisdiction concerned. A representative of major service sectors such as the electricity supply company, Karnataka State Pollution Control Board, chief executive officer of the Zilla panchayat and deputy registrar of the cooperative societies, should be made prime members of the urban development authorities. In cities like Bangalore, which are suffering from indiscriminate concretization leaving little space for even vehicles moving around the urban children are deprived of their play grounds, reduction of the open space is a crime against the inhabitants. That the bill was passed without discussion on the need reflects very poorly on the people's representatives. As the constituents, are negatively impacted by such insensitive measures, it is our resistances that will make the lawmakers listen! Having more green cover improves the quality of air, reduces pollution, and influences the quality of water and soil. The guidelines also say that the planning perspective is to increase urban landscaping such that more people can access places by foot or cycle that will encourage non-motored transport and properties with a view of parks or lakes come at a premium locality.

VII. ISSUES RELATED TO OPEN SPACES AS REPORTED IN NEWS PAPERS

A Report, from "The Hindu" OCTOBER 19, 2016

Bengaluru: Seventy-year-old Gopal Rao remembers his childhood days in Malleswaram when all the children in the

neighborhood would gather in the 15th Cross-playground. Sadly, his grandchildren are forced to play on the roads today.

The decades-old BBMP playground is now going to make way for a private hotel.

Mr. Rao, president of Malleswaram Residents' Welfare Association, along with other residents have not lost hope. They say they will fight to get their playground back.

A part of Netaji Ground in Sane Goravena Halli, Basaveshwaranagar, for instance, was converted into a park. The rest was used to dump the garbage. A few years ago, a good portion of Magadi Road ground was used to build a water tank. Residents of Indiranagar 1st Stage launched a massive protest earlier this year to safeguard a playground that was proposed to be converted into an indoor stadium.

At Koramangala 3rd Block, residents are still fighting to save their only playing space, which on weekends receives hundreds of sports enthusiasts from not only the neighborhood but also places like BTM Layout, Vivek Nagar, and Frazer Town.

We need to preserve such open spaces," says Nitin Seshadri, a resident of Koramangala.

In the last 50 years, open spaces in the city have shrunk. From 6.82 sqm per person in 1968 to 1.82 sqm in 2015, according to an analysis of successive BDA Master Plans, claims D.S. Raveendran, a senior Indian Forest Service officer, in his study 'Whither Open Spaces: A Politico-Economic Analysis of Open Space Provisioning in Bangalore', as part of his postgraduate program in Public Policy and Management at IIM, Bengaluru.

Residents and activists argue that most of the open spaces that remain are parks while little priority is accorded to playgrounds. While there are 2,377 parks in the city covering an area of 13.4 sq km, 390 playgrounds are covering an area of just 2.6 sq km, as per GIS data collected by the BBMP Restructuring Committee in 2015.

"Many of the existing open spaces are not functional. Only when their utility is improved can they be safeguarded. Civil society must have a stake in such open spaces. There needs to be a sense of ownership,

A. Expert Speak

Mr. Raveendran says.

"An open space can be protected only when there is activity around it. These spaces need to be visible, accessible, and usable; therefore, their locations play an important role. Also, there needs to be greater monitoring of these spaces to protect them from encroachments," says Sathya Prakash Varanashi, architect and urban designer.

B. People speak

"The quality of life is measured by parks, gardens, and open spaces. Under the new paradigm of urban development, local governance and developers have colluded to usurp land and spread a consumer-oriented lifestyle. Additionally, large scale infrastructure projects have ruined the city's biodiversity," says K.C. Smitha, Research Scientist, Centre for Research in Urban Affairs.

"Where is space for children to play and stay fit? How can we expect our youngsters to win medals at the Olympics when there is no encouragement or space for them to play and learn sports," says Hitesh Rathod Forest dept nixes plan to build legislators' township in Kadugodi plantation Aparajita Ray| TNN | Updated: Nov 22, 2016, 06.15 AM IST

C. No ruining of reserve forest.

Bengaluru: The forest department has shot down the government's proposal to construct a 100-acre legislators' township in the Kadugodi plantation in Whitefield, saying it can't come up in a reserve forest. On November 18th Deepika Bajpayee, deputy conservator of the forests (DCF), Bengaluru Urban, wrote to the revenue department, additional chief secretary and V Shankar, deputy commission of Bengaluru the Urban, saying the land is classified as a reserve forest. She said the forest department has already filed a writ petition in the Karnataka High Court, seeking transfer of the parcel from the revenue department. The plantation spans over 711 acres — it's twice the size of Cubbon Park and thrice as big as Lalbagh. It was classified as a reserve forest by the Mysore Maharaja and notified in 1896 under the Mysore Forest Rules 1876. In 1963, the Karnataka Forest Act deemed it a reserve forest.

BENGALURU: All is not well with the upcoming revised master plan for Bengaluru. As a run-up to the much-awaited RMP 2035, the Bangalore Development Authority (BDA) has recently prepared a visioning document. A group of citizen activists from Namma Bengaluru Foundation (NBF) and Citizens Action Forum (CAF) on Tuesday, Dec 6, 2016, said the document is not at all-inclusive simply because no member of Bangalore Metropolitan Planning Committee (BMPC) has been involved in the process.

VIII. LEGISLATIONS ON OPEN PARKS

A. A. KTCP Act 1961

Sub-section (3) Inserted by Act 1 of 2005 w.e.f. 14.2.2005.

The benefit of development rights.- Where any area within a local planning area is required by a Planning Authority or local authority for the development of open spaces. Annexure 1.1 As it is in the name of development the Government is taking up a lot of a decision that is environment bias and without taking the replenishment process in the program thus resulting in reducing the green cover of the city and creating environmental pollution.

For example, Flyovers, metro projects, government/private buildings on CA sites meant for community gathering of locality (parks).

Land acquisition for purposes of a scheme or Development Plan to be deemed for a public purpose.—Land needed for purpose of a Town

Planning scheme or 1[Master Plan]1 shall be deemed to be land needed for a public purpose within the meaning of the Land Acquisition Act, 1894.

1. Substituted by Act 1 of 2005 w.e.f. 14.02.2005.

Bye-laws.—(1) A Planning Authority may, with the previous sanction of the State Government, make bye-laws consistent with the provisions of this Act and the rules thereunder to carry out the purposes included in 1[the Master Plan.]1

Substituted by Act 1 of 2005 w.e.f. 14.02.2005 Bangalore Development Authority Act- 2015 4.12.2) Regulations

B. Permissible land uses:

Uses permissible include: Sports grounds, stadiums, playgrounds, parks, swimming pools, cemeteries, garden land, and crematoria. Uses permissible under special circumstances by the authority: Open-air theatres, Setbacks for the above will be decided by the Authority taking into account the surrounding development and traffic scenario in that area.

B. THE KARNATAKA REGULARISATION OF UNAUTHORISED CONSTRUCTION IN URBAN AREAS ACT, 1991.

Other Legislations on Urban Planning are Karnataka Municipal Act, 1964

Karnataka Slum Clearance Area Act, 1974

Bangalore Development Authority Act, 1976

Karnataka Municipal Corporation act 1976 Bangalore Metropolitan Region 1986

Karnataka Urban Development Act, 1987

Akrama Sakrama 2016: An Amendment was passed on Legalizing the govt. land encroached properties during the last 15yrs by fixing a fee amount on the % of Encroachment. By The Karnataka High court. Based on

KTCP Act 1961, Section 76 FF provisions

76-FF. Regularization of certain development and change of land use.

C. Authorities Responsible

KUDAB (Karnataka Urban Development Authorities)

BDA (Bangalore Development Authority)

BBMP (Bangaluru mahanagara palike)

NBF (Namma Bengaluru Foundation)

CAF (Citizens Action Forum)

JANA urban Space Foundation India Private Limited

IX. CONCLUSION

As the demand of man for the land is growing and so is the population, Bengaluru is attracting many immigrants who come seeking a job and settle down here. Due to the mismanagement in the system somewhere the city has lost its identity which was once a "Garden city " has now become a garbage city, To save the city from more damage the concerned officials and authorities should take more environmentally sensitive decisions to save it and develop it rather than encroaching it. They should not be taking any decisions to pass any bills related to environmental issues without calling for public participation, the existing historic parks areas like Lal Bagh and Cubbon parks are the Identity of the city which has to be well maintained by the authorities concerned. Proper amendments for both the Users and the Authorities have to be made as these two large areas of the green patch in the heart of the city acts as the lifeline for the urban matrix. On the whole, the encroachment philosophy to gain monetary benefits would directly or Indirectly curb the overall development of the human dignity of living and lifestyle, Leading to health disorders both Physical and mental status, The Authorities now should act wisely to keep

up their responsibility and bring the system together to look at the environmentally sensitive issues in more Intangible way rather than Tangible way which always results in short time benefits.

For Example Encroachment / Sanctioning of Playgrounds to build Hotels, nursing homes.

By the end, the Authorities involved in development activities are also Humans. Which they tend to forget while taking decisions.

"Live And Let Live because your Lungs and Lung Spaces are important for you to say your alive".

A. Strategies and policies

Strategies: Of the 'Urban open Space', project is to provide a detailed report on how urban spaces can contribute to enhancing the dignity of life in the urban area, the attractiveness and quality of the urban environment. Bengaluru city, the way it has evolved over a while in an increase in population and high demand for land for habitation its implication on open spaces. How to retain the open spaces available in the heart of the city without allowing encroachment? How to create an attractive, high quality urban landscapes and retain open spaces which are the precondition for achieving the goal of Healthy and strong eco system of Urban areas.

B. Policies and further Legislative actions:

The existing open spaces have to be enhanced and be rid of encroachments.

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Authors of rejected papers may revise and resubmit them to the journal again.

X. ANNEXURE 1.1

1. Sub-section (3) Inserted by Act 1 of 2005 w.e.f. 14.2.2005. [14B. The benefit of development rights.- Where any area within a local planning area is required by a Planning Authority or local authority for the development of open spaces. Public purpose and the owner of any site or land, which comprises of such area surrender it free of cost. Hands over possession of the same to the Planning Authority or the local authority free of encumbrances, the planning authority or the local authority, as the case may be, may notwithstanding anything contained in this Act or the regulations but subject to such restrictions or conditions as may be specified by notification by the State Government, permitted development rights in the form of additional floor area which shall be equal to one and half times of the area of land surrendered. The development right so permitted may be utilized either at the remaining portion of the area after the surrender or anywhere in the local planning area, either by himself or by transfer to any other person, as may be prescribed. The area remaining after surrender shall have the same floor area that was available before surrender for the original site or land as per regulations.

Explanation.- For this section,- Public purpose means.- Widening of an existing road or formation of a new road

;Providing for parks, playgrounds and open spaces or any other civic amenities; Maintaining or improving heritage buildings or precincts notified by the State Government. "Development right" means the right to carry out development or to develop land or building or both.

A. Annexure 1.2

4.12 PARK AND OPEN SPACE (P) 4.12.1) Description

The natural and man-made features meant for environmental conservation and preservation, including water bodies, forests, and drains; parks, playgrounds, burial grounds, and crematoria.

4.12.2) Regulations

Permissible land uses:

Uses permissible include: Sports grounds, stadiums, playgrounds, parks, swimming pools, cemeteries, garden land, and crematoria.

Uses permissible under special circumstances by the authority: Open-air theatres, indoor recreational uses, dwelling for watch and ward, sports clubs, libraries, milk booths, HOPCOMS, the area of such use shall not exceed 5% of the total area and shall not be more than G+1 in any case. Setbacks for the above will be decided by the Authority taking into account the surrounding development and traffic scenario in that area.

Valley/ drain Within the demarcated buffer for the valley the following uses are allowed:

Sewerage Treatment Plants and Water treatment plants

Roads, pathways, the formation of drains, culverts, bridges, etc which will not obstruct the watercourse, run-offs, channels.

In the case of water bodies a 30.0 m buffer of 'no development zone' is to be maintained around the lake (as per revenue records) with exception of activities associated with the lake and this buffer may be taken into account for reservation of park while sanctioning plans. If the valley portion is a part of the layout/ development plan, then that part of the valley zone could be taken into account for reservation of parks and open spaces both in the development plan and under subdivision regulations subject to fulfilling section 17 of the KTCP Act, 1961 and sec 32 of BDA Act, 1976.

Either the Authority or Government has accorded any land falling within the valley for which permission or then such permission shall be valid irrespective of the land use classification in the RMP 2015. Fresh permissions for developments shall not be accorded in the valley zone.

NOTE:

Drains: The drains have been categorized into 3 types namely primary, secondary and tertiary. These drains will have a buffer of 50, 25, and 15m (measured from the center of the drain) respectively on either side. These classifications have been used for the drains newly identified while finalizing the RMP 2015. In case the buffer has not been marked due to cartographical error for any of the above types of drains, then based on the revenue records buffer shall be insisted in all such cases without referring the land use plan while according approval for building/development/ layout plan. Only the Planning Authority shall consider permissions in sensitive areas earmarked on the land use plan.

XI. THE KARNATAKA REGULARIZATION OF UNAUTHORIZED CONSTRUCTION IN URBAN AREAS
XII. ACT, 1991.

A. *Amending Act 27 of 1995.-*

It is considered necessary to amend the Karnataka Regularization of Unauthorized Constructions in Urban Areas Act, 1991,- to provide for regularization of Unauthorized Constructions made up to and inclusive of 1st January 1995, and to extend the date of making an application for regularization from 1st day of October 1994 to 1st day of October 1995.

TO EXCLUDE UNAUTHORIZED CONSTRUCTION MADE ON ANY LAND

which belongs or vested in an Authority and which is notified for acquisition under Bangalore Development Authority Act, 1976, or under the Karnataka Urban Development Authority Act, 1987 or under the Karnataka Improvement Boards Act, 1976 from the benefit of regularization;

To provide for regularization of unauthorized constructions made in green belt area declared as such under the Karnataka Land Revenue Act, 1964;

to provide for regularization of unauthorized constructions which fall within the required setoff specified in any rules, bye-laws, or regulations governing buildings;

To provide for regularization of unauthorized constructions having more than two floors; To provide for regularization of unauthorized constructions used for commercial purposes.

To provide for regularization of unauthorized constructions made in violation of the Karnataka Parks, Play-fields and Open Spaces (Preservation and Regulation) Act, 1985;

to provide for the appointment of the competent authority for the Act, by substituting the provisions relating to the Screening Committee; As the matter was urgent and both the Houses of the Karnataka Legislature were not in Session the Karnataka Regularization of Unauthorized Constructions in Urban Areas (Amendment) Ordinance, 1995 was promulgated.

Hence the bill (Obtained from L.A. Bill No.23 of 1995). As of March 2015, Bengaluru has the highest number of vehicles At 55 lakh whereas Chennai has only 44 lakh and the vehicle growth population in Bengaluru is 10% which means Bengaluru now has 60 Lakh vehicles plying!

In 1985, Bengaluru had 51 good lakes,3 decades later only 17 of them exist, some of them in really bad conditions. Lakes have been encroached and converted to residential areas, BMTc bus stands, golf course, etc.

Some examples:

Sampangi lake changed to Kanteerava Sports Complex.

Dharmanbudhi Lake changed To Kemppegowda Bus Station

Challaghatta Lake changed to Karnataka Golf Association

Koramangala Lake changed to National Games Complex in

Ejipura Siddikatte Lake has now become KR market, Karanji

tank is in the Gandhi Bazar area who knew Kanteerava,

Majestic, KR Market were goddamn lakes!

Rapid urbanization, rapid population growth, the

Encroachment of lakes (and flora-fauna around it!), air pollution and the inevitable global warming is the reason why Bengaluru's weather is changing like crazy.

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