



INTERNATIONAL JOURNAL OF CREATIVE RESEARCH THOUGHTS (IJCRT)

An International Open Access, Peer-reviewed, Refereed Journal

GOVERNANCE POLICIES FOR INDIAN URBAN OPEN SPACES:

An Example Of Mumbai City

¹Kelkar Ashish

¹Founder/President

¹Urban Planning

¹The Neo Urbanism Planners and Designers, Pune, India

Abstract: Due to rapid urbanisation in Indian cities, there is a need for urban open spaces to deal with the issues relating to the health and well-being of the citizens by managing densely populated residential areas. It is relevant in Indian cities as there is an increasing migration from rural areas to urban areas in search of livelihood. A balance between the built environment and the natural environment in the cities is essential to plan and maintain public open spaces, parks, and gardens making cities more breathable and environmentally sustainable. This research considers the example of Mumbai City in India. This research used a qualitative methodology that includes analysing the existing published literature, including research papers, reports, books, newspaper articles and text, that addresses the gap in the research about the function of urban open spaces and its impact on citizens' health and well-being. The research findings include about how open-air recreation and access to outdoor spaces is an essential part of many people's daily lives, and outdoor activity provides scope for relaxation, refreshment, escape from the everyday and a chance to form social relationships. However, in Mumbai city urban governance policies at national state and local level are found to be inadequate in protecting and enhancing the quality of open spaces. Also, in conclusion, the recommendations based on data gathered in terms of the migration rate in the city are related to the encroachment happening in open spaces and urban governance policies to curb this encroachment and reduce the migration rate. Implementation of this is possible by the urban governance policies related to the protection and enhancement of open spaces and by reducing migration rates through the provision of essential services and amenities at the rural level.

Index Terms - Urban open spaces, Indian cities, Mumbai city, Urban governance policies, Rural migration.

I. INTRODUCTION

In the past few decades, India is growing in its influence on urban areas, majorly impacting the rural areas adversely in the country. These changes are leading to an impact on land cover, natural habitats, biodiversity, and the ecosystem services responsible for the health and well-being of the citizens. Excessive urbanisation significantly impacts rural areas by reshaping lifestyles, livelihoods, consumption patterns and waste generation. Furthermore, it harms the supply of natural resources due to the increased urban population. Also, there is increased pollution within and outside city areas. It has been damaged due to inappropriate policies, poor regulations, and enforcement for its implementation. (Aggrawal and Butsch, 2012, as cited in Nagendra et al., 2013). Thus, it is inevitably harming the country's environment, ecology, society, and sustainability, due to the massive increase in urban population (Nagendra et al., 2013).

A natural harbour city, Mumbai is in the western coastal region of India. Mumbai city has administrative importance as it is the capital of Maharashtra state and is also known as the commercial capital of India and has an area of 603 Km². Mumbai is the world's 4th most densely populated city, has 12.40 million population calculated as per the 2011 census and has a strategically located port for its trade to the middle east, Africa, and Western countries (Eren, 2014). Mumbai, the commercial capital of India, attracts millions of jobs and therefore has a faster urbanisation rate compared to the other cities in India. This means the transformation of various land uses into urban areas which mostly are unplanned and uncontrolled urban expansion leading to environmental degradation, housing shortage, poor water quality, increased air pollution, inappropriate waste management etc. (Ramachandra et al. 2012, Uttara et al. 2012, as cited in Ramachandra, Bharath, and Sowmyashree, 2014). According to the data by (Ramachandra, Bharath, and Sowmyashree, 2014) vegetation in Mumbai has declined from 53.63% in 1973 to 33.76% in 2009 with a net loss in the vegetation of up to 62.79% in the last four decades. Within the same period, the built-up area increased by 155% with urban sprawl visible toward the southwest and northeast sectors of the metropolitan area (Ramachandra, Bharath, and Sowmyashree, 2014). From this data, it can be said that there is a conflict between green space preservation and housing need in Mumbai city. This paper thus aims to:

1. Analyse the existing central, state, and municipal policy instruments that drive the open space agenda for Mumbai and how these have proved to be inadequate in meeting the expectations of its space-starved 12.40 million inhabitants (Udas-Mankikar, 2020).

Furthermore, this paper aims to:

2. Address the issue of overcrowding in the metropolitan city of India i.e., Mumbai, due to migration have caused a tremendous burden on the management of energy, water, and transportation as well as severely affecting the atmosphere, climate, lithosphere, biosphere, hydrosphere, as well as green open spaces and water resources (Ramaiah, and Avtar, 2019) by forming an urban-rural nexus and developing rural areas with infrastructure and amenities along with urban areas, to reduce migration.

II. LITERATURE REVIEW:

2.1. Background of urban open spaces:

The industrial revolution of the 18th century in Europe spurred a search for solutions to social and environmental problems in urban areas. The thinkers and planners at that time found the solution to the ills of the industrial revolution such as environmental quality, social degradation, health, and well-being by connecting urban areas with nature. There were two approaches that they found in reconciling cities with nature: first, to develop urban greening projects within the existing urban fabric, and second, which was a utopian vision of unlocking the potential of rural areas by planning new towns with broader regional settings (Hirt, 2011, as cited in Feng and Tan, 2017). Thus, city planners and thinkers expected improved social well-being, public morality, and health outcomes by connecting cities with nature (Feng and Tan, 2017).

2.2. Solutions to the ills of industrial revolution and radical views of planners:

Thinkers and planners developed new theories and utopian visions in urban planning with their radical views to overcome the ills of the industrial revolution in urban areas. These views were not restricted to the city improvement schemes but delivered a far-reaching goal and a definitive solution to the urban issues of those times. Ebenezer Howard with his Garden City that was also a social city addressed urban issues such as rural-urban migration, slums, overcrowding, growing social inequality, and improving life quality in rural and urban areas (Batchelor, 1969 as cited in Feng and Tan, 2017). Furthermore, garden cities comprise merging rural areas into towns with extensive greenery, self-sufficient in its resources that enjoy economic benefits and living close to nature. Le Corbusier invented the Radiant City concept that includes high-rise residential towers to preserve 95% of urban land for parks. He promoted high-rise growth with less distance to be covered on foot or by car. On the other hand, Frank Lloyd Wright, with his Broadacre City which was automobile-centred, offered households a minimum one-acre space. This arrangement made the city dispersed within a natural landscape that was connected only by highways (Feng and Tan, 2017).

2.3. Urban open spaces in the Indian context:

On certain specific occasions like the new year and other festivals open spaces in India start to fill up with people, e.g., in Delhi over 100,000 people gathered at India Gate. Other open spaces in Delhi were also overcrowded which brought central Delhi to a standstill. In Mumbai, on New Year's Day, the Marine Drive promenade or Marina Beach in Chennai were equally crowded. It has been observed that the crowds in the Indian open spaces are on the rise, and are becoming inadequate and unsafe. People are finding it difficult to spend even a single day away from home and work. Even other than these festive days, there are persistent arguments and disagreements over the use of public open space in the Indian context, which can be to pray, play cricket, to exercise in the open, and has been a growing concern. To sight an example, in mid of 2018, an incident occurred in Gurgaon, where there was communal distress over allowing namaz gatherings in open spaces, and people were up in arms (Mint, 2019).

2.4. Current issues in Indian open spaces:

In Indian cities, religious and class conflicts immerse due to demands of urban services such as the availability of open spaces are not met. There is a clear recognition of the need for urban open spaces in traditional Indian town planning at the neighbourhood level, with spaces like 'chock' as an important part of the tradition. In any thriving urban community around the world, there is always a notion of 'publicness' in it. Social interactions of people in open spaces help to grow businesses and thus, cities grow. However, there is a change in the current notion of recreation and leisure in Indian cities which revolve around indoor spaces and are paid for. Quality open spaces have become a luxury than an absolute necessity and are hurting especially the poor. Over half of the urban population in Mumbai lives in slums and the lack of open spaces in these areas affects them the most (Mint, 2019)

III. RESEARCH METHODOLOGY:

The research question formed in this research was, why urban open spaces are relevant in the Indian context, and what are the urban governance policies that would help to protect urban open spaces? Mumbai City was considered as an example for this research. This question was answered using the qualitative research method with inductive reasoning. The research data, that was mostly secondary in nature, was gathered from the published literature such as books, research papers, journal articles, conference papers, reports, government data, newspaper articles and text. The research was analysed using the content analysis method and was both exploratory and explanatory. This research used this method because very little literature was available on urban governance policies of open spaces in urban areas. Also, it involves understanding the fundamental causes of the encroachment of open spaces in urban areas and urban governance policy recommendations at national, state, and municipal levels, which were the two main objectives of the research that were satisfied using this method.

IV. FINDINGS:

As discussed in the research methodology section of this paper, following are the inductive questionnaire that has been developed in an example of open spaces in the Mumbai city.

1. Why urban open spaces are important in Mumbai? Why they need to be protected?
2. How much is open space per person in Mumbai City is there in comparison with the other cities across the world?
3. So, what is the solution in terms of policies at national, state, and municipal levels?
4. What are the recommendations?

It starts with a specific enquiry about why urban open spaces are important in Mumbai city and end up in generating a theory about why and how they can be protected with policies at national, state, and municipal level and what are the recommendations to overcome the challenges in implementing current policies. The discussion is as follows:

1. Why urban open spaces are important in Mumbai? Why they need to be protected?

The quality of life in a city is very much determined by the quality of open spaces in it. Open spaces can either be man-made or natural depending on the morphology of the city that originates to its use by the people. The way open spaces are defined is shaped by the everyday activities of the people that is much more powerful than the physical open spaces and can range from shared courtyards between neighbours, a street shared by vendors and fellow commuters to a public garden shared by the entire city. The City of Mumbai offers a range of open spaces due to its geographical conditions and historical background and are used in a very intense manner. In addition to the major open spaces such as seafronts, mangroves, designated national parks and historic maidans, there are smaller open spaces such as spaces for leisure and recreation that shape the character of the city (LEAF, 2012).

With the help of urban open spaces such as parks, forests, green roofs, streams and community gardens, critical ecosystem services evolve. They facilitate the physical and mental well-being of the citizens (Wolch, Byrne, and Newell, 2014). Overall, in Mumbai, there is 15.37 Km² open space that can easily be accessed by the citizens. These gardens, playgrounds and parks are not maintained well and have a broken infrastructure. In addition, there are inaccessible open spaces in Mumbai city which is about 128.41 Km² in its area which contribute to the lack of open spaces. Furthermore, decaying laws, faulty planning policies, administrative inefficiency, and lack of monitoring in plan implementation calls for urban open spaces in Mumbai City to be protected (Udas-Mankikar, 2020).

2. How much is open space per person in Mumbai City is there in comparison with the other cities across the world?

The Bombay Municipal Corporation's current land use shows that open spaces form only 3.7% of the total area of the city, (Fig.1) compared to other cities in the world (Table 1). Mumbai has an abysmal 1.24 square metres of accessible open space per person, ahead only of Chennai, which stands at 0.81 square metres per capita. In comparison, Delhi has 21.52 square metres and Bangalore has 17.32 square metres of open space per capita. Other global megacities fare better than Mumbai as well; London has 31.68 square metres, New York City has 26.4 square metres and Tokyo has 3.96 square metres of open space per capita (Udas-Mankikar, 2020).

City	Percentage of green space	Year
Amsterdam	13.00%	2018
Austin	11.00%	2018
Bogota	4.90%	2017
Brussels	18.80%	2015
Buenos Aires	8.90%	2013
Cape Town	24.00%	2016
Chengdu	42.30%	2017
Dublin	26.00%	2018
Edinburgh	19.00%	2016
Helsinki	40.00%	2018
Hong Kong	40.00%	2016

Istanbul	2.20%	2015
Johannesburg	24.00%	2002
Lisbon	22.00%	2018
London	33.00%	2015
Los Angeles	34.70%	2016
Melbourne	10.00%	2016
Milan	12.90%	2016
Montreal	14.80%	2013
Moscow	18.00%	2017
New York	27.00%	2010
Oslo	68.00%	2018
Paris	9.50%	2013
Rome	38.90%	2017
San Francisco	13.00%	2017
Seoul	27.80%	2016
Shanghai	16.20%	2017
Shenzhen	40.90%	2016
Singapore	47.00%	2011
Stockholm	40.00%	2015
Sydney	46.00%	2010
Taipei	3.40%	2017
Tokyo	7.50%	2015
Toronto	13.00%	2018
Vienna	45.50%	2014
Warsaw	17.00%	2015
Zurich	41.00%	2018

Table 1. Percentage of open spaces in different cities in the world (Udas-Mankikar, 2020)

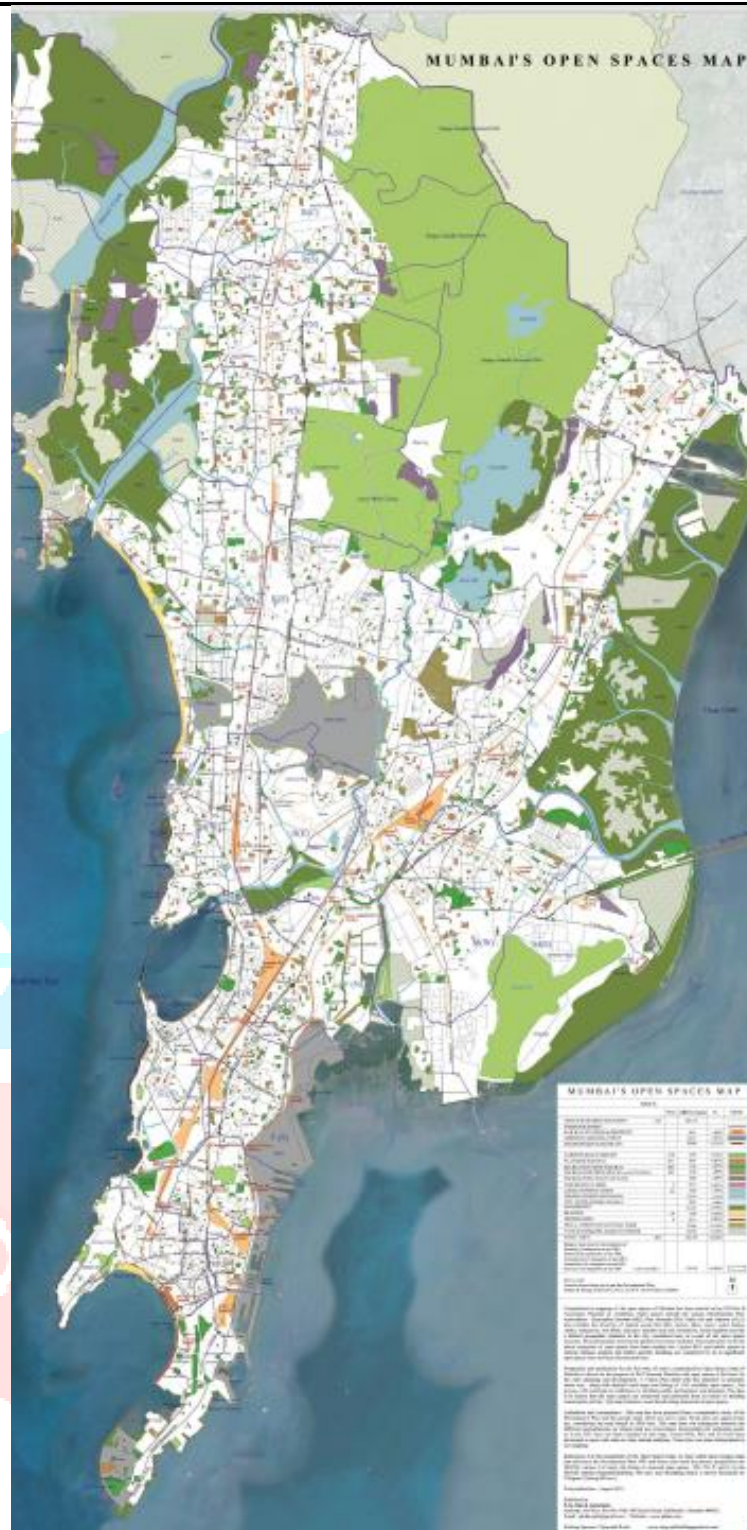


Fig 1. Open Spaces in Mumbai City (P.K. Das and Associates, 2011)

3. What are the policies at national, state, and municipal levels?

At the national scale in India, due to rapid urbanisation, there has been a significant reduction in per capita green open spaces (Govindarajulu, 2014 as cited in Gujar, Deshmukh, and Gupta, 2022). The Indian government has responded to this growing concern by introducing acts, policies, and programs, such as the Jawaharlal Nehru National Urban and Rural Mission (JnNURM) in 2005 and the Atal Mission for Rejuvenation and Urban Transformation (AMRUT) in 2015, for the development of infrastructure, green open spaces, and parks in the cities. Also, in 2015 Government of India introduced Smart City Mission for 100 cities throughout India that focused on implementing sustainability goals in preserving and developing urban open spaces (Ministry of Urban Development, 2015, as cited in Gujar, Deshmukh, and Gupta, 2022).

At the state level in Mumbai, Maharashtra Regional Town and Country Planning (MRTP) Act, 1966 has the provision to prepare a development plan for a city that determines the land-use plan for the city for the revision period of 20 years. There is a provision in the development plan to demarcate reservations for open spaces, gardens, parks, playgrounds, and recreation grounds in the land-use plan by the process of acquisition by the civic body. The first 20-year development plan in Mumbai city was prepared in 1967 that included the number of open spaces to be acquired and developed over the period of 20 years. This was followed by the subsequent development plans which had policies and provisions for the open spaces. The process of acquisition depends on the need in an urban

scenario and the availability of funds (Udas-Mankikar, 2020). The development plan also needs to cater to the migrant population from the rural areas and severely hinder the development of green open spaces (Ramaiah and Avtar 2019).

At the local authority level, state acts are followed guided by City Development plans and Development control regulations. However, depending on the city's geography, and social and climatic requirements, some alterations are allowed (Gujar, Deshmukh, and Gupta, 2022).

4. What are the recommendations?

Following are the policy recommendations to improve the conditions of the urban open spaces:

- a) Government policies for the urban open spaces in Indian cities like Mumbai need to be more comprehensive, rather than narrowly focused, caretaker policy and address issues developed beyond the jurisdictional boundaries (Udas-Mankikar, 2020).
- b) It is also essential for the local authorities in Mumbai to cater to the overlapping administrative boundaries of the National, state and the local to be kept with the respective agencies for the provision and protection of the urban open spaces (Udas-Mankikar, 2020).
- c) It is essential to understand that the issues of urban open spaces come along with issues of urban management such as urban renewal, housing, and transport. Therefore, it is essential for the cities like Mumbai to grow in such a manner that all the amenities and facilities including healthy open spaces are available for the citizens which is a part of rapid urbanisation (Udas-Mankikar, 2020).
- d) Above all this it is essential for the local authorities and the Maharashtra government to keep a constant eye on the constitutional amendments, the Acts and the plan that would help in creating policies for the urban open spaces in a megacity like Mumbai (Udas-Mankikar, 2020).
- e) Along with Smart Cities, it is essential to develop smart villages with amenities and facilities which can help to stop migration happening to cities. Due to this there can be certain amount of control on encroachments of the open spaces in the cities.

V. CONCLUSION:

There are enormous health and well-being benefits of the urban open spaces for the prosperity of the city and its citizens. Therefore, it becomes essential for urban open spaces policy instruments to be relevant to the lives of the people. There is a lot of scope for improvement in the existing policy framework considering the goal to boost urban open space per capita in Mumbai (Udas-Mankikar, 2020). However, the current figures are alarming and consistently degrading. Therefore, from the research, it is found that current policy instruments are inadequate in dealing with the protection of the open spaces in Mumbai. Therefore, a more radical approach as discussed in the findings about the development of smart villages along with smart cities is needed in this scenario, other than small improvement policies at the city level.

VI. REFERENCES:

- [1] Eren, F. (2014) 'An evolution of Mumbai's urban development', International Journal of Research, Vol 1(7), pp. 943-948.
- [2] Feng, Y., and Tan, P. (2017) 'Imperatives for Greening Cities: A Historical Perspective', 10.1007/978-981-10-4113-6_3.
- [3] Gujar, S., Deshmukh, A., & Gupta, R. (2022). Review of open space rules and regulations and identification of specificities for plot-level open spaces to facilitate sustainable development: An Indian case. In IOP Conference Series: Earth and Environmental Science (Vol. 1084, No. 1, p. 012073). IOP Publishing.
- [4] LEAF (2012), 'Open Spaces in Mumbai', Retrieved from: <https://www.leaf-India.org> [Accessed on 21 May 2023].
- [5] Mint (2019) 'The distressing lack of enjoyable open spaces' Retrieved from: <https://www.livemint.com/Opinion/zT3S6bEe4BINS8qXRqrUpN/Opinion--The-distressing-lack-of-enjoyable-open-spaces.html> [Accessed on 19 May 2023].
- [6] Nagendra, H., Sudhira, H. S., Katti, M., & Schewenius, M. (2013). Sub-regional assessment of India: effects of urbanization on land use, biodiversity, and ecosystem services. Urbanization, biodiversity, and ecosystem services: challenges and opportunities: a global assessment, pp. 65-74.
- [7] P.K. Das and associates (2011) 'Mumbai's open spaces: Maps and preliminary listing document', Bharat copy centre, pp. 4-5.
- [8] Ramachandra, T., Bharath, H., and Sowmyashree, M. (2014) 'Urban footprint of Mumbai-The commercial capital of India', Journal of Urban and Regional Analysis, Vol 6(1), pp. 71-94.

[9] Ramaiah, M., and Avtar, R. (2019) 'Urban green spaces and their need in cities of rapidly urbanizing India: A review', Urban science, vol. 3(3), 94.

[10] Sen, A., and Pattanaik, S. (2015). Alienation, Conflict, and Conservation in the Protected Areas of Urban Metropolis: A Case Study of Sanjay Gandhi National Park, Mumbai. Sociological bulletin. 64. 10.1177/0038022920150306.

[11] Udas-Mankikar, S. (2020) 'Formulating open-space policies for India's cities: the case of Mumbai', ORF Occasional Paper, (241).

[12] Wolch, J. R., Byrne, J., & Newell, J. P. (2014). Urban green space, public health, and environmental justice: The challenge of making cities 'just green enough'. Landscape and urban planning, 125, 234-244.

