

BUILD IN - THE NEED FOR COMMUNITY-CENTRIC APPROACHES TO URBAN DESIGN INTERVENTIONS IN INDIA

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ABSTRACT

Urban design is an interdisciplinary field of exploration that is concerned with developing spaces in urban regions that allow for the provision of services and utilities to residents, whilst also achieving social cohesion and environmental protection. This paper has examined the scope of urban design interventions in India, a nation that faces critical challenges associated with rapid rates of urbanization. The problems that surround urbanization and economic development in developing economies have been analyzed, with special emphasis being paid to the South Asian region. Tackling diverse challenges including high pressure on necessities like water and electricity, increasing economic inequalities, social tension between different communities, and environmental degradation is crucial to the socio-economic development of India. Governmental failures have exacerbated many of these problems, which can be owed to the restricted definition of infrastructural and urban development. In that context, this paper has concluded that there is an urgent need of developing holistic urban design interventions in Indian cities, especially those where population growth has been intensive over the past few years.

Keywords: urban, socio-economic, inequalities, communities, development

Introduction

Urban design can be defined as the process of designing and shaping the physical features of urban spaces and villages and planning for the provision of municipal services and public utilities for residents and visitors. It is an interdisciplinary field of study as it deals with issues of a larger scale than architecture and it cannot be characterized as a wholly separated field of research and design (Massip-Bosch, 2020). It exists in the intersection between landscape design, architecture, design, civil and environmental engineering, as well as social sciences including urban economics, sociology, and psychology with the quality of urban design being dependent on the interactions between these separate fields of study (Van Assche, et. al., 2013). Urbanization has increased at a rapid pace over the past few decades, with research suggesting that 64% of the developing world and 86% of the developed world will be living in urban spaces

by 2050 (Glaeser, 2012). Moreover, a distinctive feature of urbanization is that it clubs people from diverse communities and backgrounds together in limited spaces. The growing threat of environmental degradation and climate change (to which cities provide a disproportionately high contribution) has also induced the need for lifestyles and artificial environments to be more sustainable. Therefore the challenge of designing urban areas to serve the needs of their diverse residents is not just associated with sustainability and engineering, but also with social and behavioral sciences, as well as public policy. This has contributed to the increase in research and exploration into urban design and ecology ((Massip-Bosch, 2020).

The spaces that people occupy in cities are often reflective of their background and privilege. Hence cities have often been developed inequitably, with spaces occupied by privileged communities having adequate access to spaces (parks, recreational and community centers) and public utilities (quality schools, hospitals, and reliable electricity supply) and localities that are resided by poor residents suffering from high rates of crime, the lack of public safety, and unequal access to public resources. These divisions usually have a racial or religious undertone to it, as it has been observed in the United States (Ansfield, 2018). Urban design has emerged as a means of ensuring social justice and correcting historical wrongs by ensuring that cities remain inclusive and that there is equal access to and distribution of public goods, in an attempt to meet the needs of diverse residents, especially those who belong to marginalized communities. It has emerged as a means of not just developing infrastructure and public spaces but revolutionizing social, political, and spatial systems to ensure an equitable, inclusive, and sustainable future (Moudon, 1992).

India started to urbanize after Independence, primarily due to the development of a mixed economy that allowed the private sector to flourish. The economy of India went through a significant overhaul in 1991, which further promoted the development of private industries and accelerated the rate of urbanization. Research suggests that the population of India residing in urban areas in India was 11.4% in 1901, 28.53% in the 2001 census, and reached 31.15% in 2011 (Datta, 2012). Combined with the increase in income inequality, which is also a product of the growth of the free-market economy, urban development has emerged as a crucial challenge for India. However, challenges pertaining to urban design have been ignored at the national level by subsequent central governments (Roy, 2012). Only select cities like Jamshedpur and Chandigarh have implemented sustainable urban designs, whereas most populated cities and metropolitan regions suffer from unequal urban development and poor environmental outcomes. Research surrounding this field is also fairly recent, which prompts the need for conceptualizing, developing and implementing sustainable and equitable urban design system.

Background

The population of urban India has been increasing at an alarming rate, with Delhi, Mumbai, and Chennai recording a population increase of 4.1%, 3.1%, and 2% respectively according to the most recent census (Jain, et. al., 2012). This trend is reflective of the entire South Asian region, which has historically relied on the Agrarian economy, until the last few decades, the result of which is increased annual growth of the urban population. Even amongst South-Asian countries, India has shown an unprecedented increase in the urban population in the last few decades and its urban population, which has increased about 14 fold from 1901 to 2011. In 1971 only 150 cities in India had a population of more than 1 lakh (Nandy, 2015). This figure has reached 500 according to the most recent research, which implies that the number of urban spaces in India is also increasing along with the increase in the population residing in them (Jain, et. al., 2012).

Urbanization in South Asia has become a characteristic feature of the development in this region. It is both a consequence of and contributes to economic development and the rise in GDP. However, concerns surrounding the trends of urbanization in South Asia have crystallized through research, which suggests a correlation with environmental degradation, which is fueled by the lack of planning, high demands for energy, and exponential increases in waste generation (Gade, et. al., 2013). Urbanization poses a particular threat to the local environment of these countries. Major greenhouse related gases including carbon dioxide, carbon monoxide, methane, nitrogen oxide, sulphur dioxide cause air pollution and deter the micro-climate of the region. A detailed study on the impact of urbanization on regional climate has concluded that it has led to changes in temperature, precipitation, and the creation of an atmospheric brown cloud over the Indo-Gangetic basin in India. (Singh, et al, 2005). The changes in the climatic and hydrological cycle further have a long term impact on the monsoon circulation over the years. An increase in the magnitude and frequency of extreme events(flood, drought, etc.) has also been reported (Nandy, 2015). Processes that support urbanization also entail the cutting of trees and destruction of biodiversity in vulnerable and sensitive regions of these countries. Moreover, the economic development that forms an integral part of the sociology of urbanization also entails the widening of the gap between the rich and the poor, which has led to the creation of slums and a decrease in the general standard of living in urban spaces. (Sivaramakrishnan, et. al., 1993). The pressure on water and electrical resources is also critical, with access almost solely being determined by the socio-economic background of individuals.

The government's response to this crisis, which has a detrimental and long-lasting impact on the society, environment, and economy of India has been inadequate. There is a need to create conducive and sustainable urban spaces that serve the needs of the diverse communities that occupy them (Ramanathan, 2019). This process is complex and dynamic and involves balancing

the needs of diverse stakeholders to achieve a balance between aesthetics, sustainability, and utility.

Discussion

Urbanization in South Asia and India in particular is fueled by 3 major components - natural population growth, reclassification of rural areas as urban, and net migration of people from rural to urban areas, all of which are consequences of economic development. The physical growth of urban areas is linked to the modernization and industrialization processes that fueled both private and public efforts in the post-independence period. Whilst the first two factors are more directly linked to the need for developing and investing in infrastructure and public utilities in general, mass migration from rural to urban regions of the country is most important to understand whilst evaluating the need for urban design in India. This migration in India takes place under the pretext of economic development of cities which attracts people because of the promise of quality employment, better livelihood options, amenities, human development opportunities, and infrastructural facilities (Nandy, 2015). Adverse circumstances in rural India in terms of the provision of healthcare and education further motivates people to relocate to urban centers. Given that rural India consists of a much larger territory in terms of landmass, and is much diverse in terms of the communities it hosts, this urbanization presents sociological challenges of its own. The spatial distribution of large cities in India is uneven (caused due to the uneven rates of economic development in the country) as out of 100 most populous cities in the country are confined to only 5 states - Uttar Pradesh, Maharashtra, Tamil Nadu, Kerala, and Andhra Pradesh and the National Capital Region. This implies that the regional distribution of the urban population is mainly uneven, and people from diverse states migrate to a select few cities (Mitra & Murayama, 2008).

The rise in economic inequality in urban India, which is accompanied by the lack of infrastructural and public utility development in the form of housing, healthcare, and educational facilities, the cultural and ethnic diversity of the urban population gives rise to conflicts between the host and migrant communities, as well as between different migrant communities. These clashes have been most prominent in Delhi, Mumbai, Chennai, and Bangalore and are often capitalized upon by device political parties, which have often fueled such conflicts instead of implementing community-centric and inclusive urban design policies (Crowne, 2013). The rising rates of environmental pollution and the pressure on necessities also points to the need for holistic and comprehensive urban planning and design. Research by the Niti Aayog, central planning, research, and policy organization of India suggests that 21 of the biggest urban cities in India including Chennai and Mumbai would run out of groundwater by the end of 2020 (Niti Aayog, 2020). Indian cities also perform poorly when it comes to traffic congestion, environmental pollution, and crime (Naik, 2015).

Certain cities stand out as exceptional examples in the context of India. Jamshedpur, despite hosting one of India's largest steel plants and being located in one of the least economically developed states of the country (Jharkhand) has performed excellently when it comes to environmental and human development outcomes. This can be attributed to efficient planning that has allowed for the development of public spaces including parks and community centers, infrastructural facilities, residential colonies, schools, and hospitals. Investment by the Tata Group has played an important role, and continuous audits and redevelopment programs by local authorities ensure that utilities and infrastructure stay at par with the dynamic needs of the heterogeneous and culturally diverse population (Sinha & Singh, 2011). Chandigarh, a Union Territory that also serves as the capital of Punjab and Haryana was conceptualized as one of the most intricately planned cities of India. The central government hired internationally acclaimed planners including Albert Meyer, Matthew Nowicki, and Le Corbusier to develop a superblock-based city interspersed containing abundant green and public spaces which with an emphasis on cellular neighbourhoods and traffic segregation (Banerjee, 2009). Their plan took advantage of natural land characteristics to create an effective drainage system. However, the emphasis on overall city planning has gradually decreased at the national level over the past few decades. Whilst rich neighborhoods of South Delhi, South Bombay, and South Bangalore enjoy benefits associated with quality urban development including aesthetic and sustainable design, most localities in the same city resided by low-income communities are unplanned and suffer from congestion, the lack of hygiene, and higher rates of crime and conflict.

Conclusion

The need for promoting and implementing urban design solutions in India is imminent. However, there also exist debates surrounding the types of urban design most suitable in the Indian landscape and the means of developing each of them. There is a growing emphasis on meeting the needs of sustainability through urban design, by altering the built environment to create smart cities that support sustainable transport and developing compact urban neighborhoods. Recent developments in architecture and construction technology allow for the creation of compact spaces that can meet the growing public demand for utilities and services in cities sustainably. The lack of scientific methods in the development of public and residential areas (especially those that are likely to be occupied by low-income communities) has prevented these goals from being achieved in India, and have contributed to higher economic and environmental costs in the long run. Social programs, such as the Swachh Bharat Mission have failed to create a long-lasting and sustainable impact on urban ecology.

There is a need to conceptualize urban design as an interdisciplinary field of research in India, which would allow for the inclusion of behavioral and social science aspects in the realm of urban real estate development. The kind of spaces that surround people determine their behavior,

well being, and interpersonal interactions. Reimagining urban development as a means of enhancing social integration and human resource development in addition to providing essential utilities and services to diverse urban populations can be the key to achieving social and environmental cohesion in urban India. Moreover, the field of urban design holds enormous potential for helping India address some of the most critical challenges that it faces today including an expanding population, mass urbanization, rising inequality, and climate change. As climate change progresses, urban design can mitigate the results of flooding, temperature changes, and increasingly detrimental storm impacts through a sustainable approach. It is a means of ensuring social justice to historically marginalized communities, which currently faces the worst living conditions in urban India. Urban design has, and further needs to emphasize making spaces inclusive to those identities that have faced the highest levels of social stigma and exclusion. Even beyond socio-economic oppression, this includes making cities and public spaces more comfortable for people with physical and mental disabilities.

Investment in and development of urban design can prove to be key in India's efforts to become a developed, yet sustainable economy. More importantly, it has long term social, economic, and public health benefits, which is often reflected in the standard of living and self-actualization ability of individuals and is determined to a large extent by the people and spaces that surround them.

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