

# Sustainability and Urban Planning in India: A Review of Literature

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**Abstract:** The eleventh Sustainable Development Goal commits to making cities more inclusive, resilient, and sustainable. Urbanization is a multifaceted socio-economic-cultural phenomenon that transforms the civic and demographic makeup of both urban and rural regions. The United Nations estimates that by 2050, India will have 416 million more urban inhabitants. The functions of the Urban Local Bodies in India are in consonance with the Sustainable Development Goals. In 2003, the Government published a Model Municipal Law to assist states in drafting municipal legislation to fulfill the mandate of the Constitution (74th Amendment) Act, 1992. Many Indian metropolises continue to encounter socio-economic and ecological problems due to unplanned, sporadic growth. The planning, funding, and administration of urban areas are crucial for enhancing the livability and sustainability of cities.

There is no prior literature review-based research that has been conducted to look into the recommendations of published research articles on the nexus between sustainable urbanization and urban governance in India. The present paper is an in-depth narrative literature review of articles on sustainable urbanization and urban planning in India from 2003 to 2023 (from the date India first published its Model Law). Researchers qualitatively explore the underlying social and geographical mobility factors and the role played by the Urban Local Bodies in achieving Sustainable Urban Development in relation to SDG 6, 8, 11, and 13 in India. Further, the research gaps identified, analysis of research developments made, and the summative research findings of existing literature will be of use to academicians, law and policy makers, and researchers for their future studies.

**Keywords:** Urbanization, Sustainable Development, Urban Planning, Smart Cities, Urban Local Bodies

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## 1. INTRODUCTION

Urbanization is defined as the gradual aggregation of population and economic activity inside urban centers. [1] The process of geographic transformation is characterized by the migration of individuals from rural regions to urban and suburban areas, driven by the expectation of an enhanced quality of life encompassing improved job opportunities, higher education, medical care, means of communication, public transportation, housing, and recreational activities. [2] The term 'urban' lacks a universally accepted definition. In India, the state governments confer municipal status upon urban regions, or they are recognized on the grounds of economic activity or demographic factors, i.e., a province with a population exceeding five thousand or an overall density of four hundred inhabitants per square kilometer, together with three-fourths of the working male population engaged in sectors besides agriculture. [1] In the 2011 census, 34% of India's overall population was estimated to be urban, and by 2050, the urban population is predicted to have further 416 million inhabitants. [3] History illustrates that no nation has reached higher-income levels or expeditious economic expansion without significant urban growth. [4] Rapid urbanization is taking place in India. [5] The hundred highest-populated urban centers generate almost forty-three percent of the Gross Domestic Product for the country. However, the investment-intensive character of industrialization is resulting in a low level of job creation in the formal urban economy. [6] Consequently, the informal economy is the leading source of employment for a vast number of migrants.

The administration of fast urban expansion is a significant problem for policymakers. Rapid migration strains metropolitan regions due to the inadequacies of urban infrastructure. Post-colonial urban planning in India includes five-year plans at the union level in addition to master plans by the respective states. [7] The Seventy-Fourth Constitutional Amendment Act, 1992, led to the creation of Urban Local Bodies (ULBs) as the third tier of governance in India. [8] These local bodies have autonomous

functioning. However, municipal personnel are usually employed by the state, limiting their autonomy and capacity to implement urban development plans. [9] Urban local bodies draft policies for economic growth and social justice as enumerated in Schedule 12 of the Constitution. Many Indian towns continue to encounter socio-economic and ecological problems due to unplanned, sporadic growth. The planning, funding, and administration of urban areas are crucial for enhancing the livability and sustainability of cities.

India encounters a substantial obstacle in defining the meaning of urban sustainability, a notion that denotes intergenerational solidarity. Sustainable cities remain a 'major challenge' for the country. [10] There are a number of indicators that may be used to determine sustainable urbanization, such as effective land use, good civic infrastructure, adequate public amenities, equitable housing, eco-friendly development, and other socio-economic factors. [11] There is demand for inclusive governance frameworks that are capable of integrating advances in technology. [12] To resolve sustainability concerns in expanding urban areas, the nation must instantaneously execute an action plan for effective governance.

## 2. MATERIALS AND METHODS

The objective of this research was to review the existing literature (Research Articles - 110 in no.) on the following three aspects namely: (1) Sustainable Urban Development in India; (2) the Impact of Urbanization on Sustainable Development in India; and (3) the Role played by the Urban Local Bodies in achieving Sustainable Urban Development in India. The researchers shortlisted 30 articles that encompassed all the above three aspects. A qualitative narrative literature review of these 30 research articles was carried out. The bifurcation of the above chosen 30 articles is summarized as follows: Published by Economic and Political Weekly (EPW) indexed on SCOPUS (15 in no.), Emerald Publishing indexed on SCOPUS (9 in no.), and Hein Online (6 in no.). The selected articles were all double-blind peer-reviewed by the respective journals. Further, all the above articles were published between 2003 and 2023 after the passing of the Model Municipal Law in India.

**Limitations of the study:** The article is a narrative literature review. Hence, researchers did not critically review any existing municipal laws or Acts passed by the Indian states and union territories for governing urban areas beyond what has been discussed in the existing literature (research articles). The articles were selected from three research databases: EPW, Emerald Publishing, and Hein Online. Therefore, articles published by other research databases on the topic are outside the purview of the current literature review.

## 3. LITERATURE REVIEW

The literature review is bifurcated as per the Sustainable Development Goals (SDGs) and corresponding Schedule 12 function of the Urban Local Bodies (ULBs) given in the Constitution of India, 1950. Even though they were drafted many years apart, the functions of the ULBs in India are in consonance with the SDGs. Thereby, the review of literature is divided into four parts consisting of the following SDGs (in bold) and corresponding functions of the Indian ULBs (in italics):



Figure 1: Sustainable Development Goal and Related Urban Local Body Function (Source: Created by the Authors)

### DISCUSSANT

#### 3.1 SDG 11 (Sustainable Cities and Communities)/ Schedule 12 function (Urban planning, including town planning, and slum improvement and upgradation)

Shipra Narang Suri and Eugenie Birch (2014) begin the sustainable cities discussion with a historical evolution of the urban development goals by discussing the Millennium Development Goals which were

the first global consensus on development priorities. Millennium Development Goals largely ignored cities, except for a target for improving the lives of a hundred million slum dwellers. This target was quickly met and proved meaningless, as the world had more slum dwellers by 2008. The authors rightly stated that the subsequent Sustainable Development Goals focus on a more integrated approach. This integrated approach is needed to ensure sustainable development in cities and human settlements. This approach underscores the necessity for a holistic approach to sustainability in urban areas, incorporating participatory urban planning for public amenities such as transportation, optimal land utilization for the cultivation of food, sustainability of ecosystems, and disaster resilience. Suri and Birch drew an inference that environmental degradation and natural calamities have aggravated problems such as unauthorized slum settlements, a lack of housing security, rising pollutants, and dwindling greenery in the Indian cities. [13]

This section of the literature review covers three primary subject matters, including slum improvement, smart town planning, and addressing urban sustainability challenges in India.

### **3.1.1 Urban slum dweller' rights, challenges, and the necessity for improvement in their living conditions**

Priya Gupta (2014) studied the urbanization issue through the lens of slum dwellers' rights in India, their legality, rehabilitation, and the need of the State to prevent further encroachments. Gupta discusses urbanization in the light of judicial decisions like *Olga Tellis v. Bombay Municipal Corp.*, [1985] Supp. (2) S.C.R. 51. It is noted that the outcome of this decision was largely academic and not much help was provided to the rural migrants who largely inhabit the slums. Though the scope of the right to life is enlarged, this demographic is largely excluded from the rewards of urban advancements. Housing problems, encroachments, and homelessness are all discussed in the article with a lack of focus. The judicial decisions sanction the implementation of slum removal norms to satisfy lobbies using health, hygiene, and beautification of cities arguments. The author analyzes the history of the Delhi Development Authority and the lack of implementation of its Master Plans, which aimed for the city's orderly development (as discussed in *Pitam Pura Sudhar Samiti v. Union of India*, (2002) I.L.R. 2 (Del.) 393). The article, thereby, concludes and emphasizes the crucial role the judiciary could play in re-crafting urban cities, reinforcing government actions, and determining legitimate uses of urban space and resources. [14] The issues faced by Indian urban slum dwellers were examined further in two subsequent 2022 articles authored by Kshitij Naikade and Mathew Idiculla, respectively. The first article is a case study of the biggest slum in Pune (Janata Vasahat). It is discussed how slums in India became the hub of the pandemic due to inadequate urban planning and social distancing. Authors critically examine the role of urban governance bodies in slum administration and explore legislative actions that can be taken to improve slum conditions. The article studies the "Slum Areas (Improvement and Clearance) Act of 1956 and the National Urban Housing and Habitat Policy of 2007". [8] Various programs and schemes have also been analyzed. The research concludes that government agencies fail to provide basic amenities (e.g., sewage structure and wastewater disposal) in urban slums and need private expertise and assistance. In order to cope with crowding, the slum rehabilitation must give preference to the relocation of dwellers to B-tier/semi-urban suburbs that have been built by the municipalities. Another recommendation was that urban bodies should have the requisite autonomy beyond decentralization to make significant reforms. Consequently, Idiculla emphasizes that the present 'aesthetic framework' of governance characterizes 'planned-ness' based on visual appeal rather than legislative planning. The judiciary primarily relies on visual evidence; if a settlement appears polluted, it is deemed unplanned and unlawful. The author commences the discussion with the verdict in *Ajay Maken v Union of India*, W.P.(C) No. 11616/2015, which affirmed the right to housing for slum-dwellers and stipulated safeguards against forced eviction in India. The article advances to examine *Chammeli Singh v State of U.P.*, (1996) 2 SCC 549, which elaborates on the "Right to Shelter", asserting that it encompasses suitable space for dwelling, secure building structures, clean environs, adequate light, clean air and drinking water, power supply, hygienic conditions, alongside other amenities. The article also addresses international aspects. The World Charter on the Right to the City, 2005, is examined, leading the researcher to determine that a significant portion of the population in India remains without access to suitable dwellings and essential amenities. This research is pertinent to the pandemic scenario, which calls for universally acceptable housing for all. An argument is made that the 'Right to the City' of slum residents is an entitlement to utilize and benefit from urban settings, regardless of whether doing so might not be strictly legal. It is concluded that acknowledging

their suitable housing rights necessitates significant political reforms that extend beyond the current framework of property rights jurisprudence. [15]

### **3.1.2 'Smart' town planning: the foundation for Sustainable Cities**

Ensuing challenges in governance, data collection, and implementation with respect to urbanization in India were highlighted by Anant Maringati and Partha Mukhopadhyay in their 2015 article. Traditional Indian urban planning focused on land-use maps and zonal regulations, thereby neglecting services. This has resulted in ill-planned resettlement colonies and inadequate water supply in cities like Savda-Ghewra in Delhi. The discussion around smart cities focuses on the need for making smart choices, such as waste management, to resolve service-centric issues. Key recommendations include the need for the State to start reconstructing and reworking well-raised technological and societal concerns and allotting necessary funds for smart civic development. [16] Jaideep Gupte (2016) further talks about the Digital India initiative of the government focusing on urban development and smart cities. The overarching goal of this initiative is to create world-class urban centers that will constitute forty percent of the Indian population and seventy-five percent of the GDP by the year 2030. However, most infrastructure for urban India has not yet been built. The author asserts that it is imperative to prioritize youth, establish employment opportunities, and build engaging environments in order to achieve smart urbanization in India. The emphasis should be placed on inclusive urbanization, rather than solely on technology, to guarantee that no one is left behind. [17] Subsequently, Shailaja Fennell (2018) recalls the objective of the government while announcing the Smart Cities Mission in 2015, which aimed at celebrating urbanization and upgrading India's growing cities. The emphasis was on the need for a policy model that builds on smart cities-smart village linkages and provides renewable electricity to rural households. Researcher states that the same is crucial for achieving the Sustainable Development Goals. The article links the availability of renewable energy and increased employment to achieve the current mission of smart cities-villages. [18] A gap in the research study is that the article does not explicitly discuss the role that local governance bodies can play in both urban and rural regions to achieve the smart cities-villages linkage. The article by Ankita Sharma (2021) discusses the key enablers for smart cities by discussing the example of Atal Nagar, Chhattisgarh. It also talks about the smart governance system in Atal Nagar where there is integration of various government services and a citizens' portal. There is a complete use of technology and adherence to green norms. Amenities like 100% piped domestic wastewater collection, recycling of water, and e-services are provided. It is a Zero Discharge City. The author concludes that urban regions need to make progress in three key areas: efficiency, livability, and sustainability. It is further highlighted that smart towns and cities in India should not be perceived just as settlements of the future. With adequate planning, they could serve as the cities of contemporary times. [19]

### **3.1.3 Traversing case studies to tackle urban sustainability issues in India**

The article by Kaliyan Mathiyazhagan, A. Gnanavelbabu, and B. Lokesh Prabhuraj (2018) brings back the discussion to sustainable cities, sustainable architecture, and green design as the emerging research areas. Indian industries are adopting sustainable material selection criteria due to environmental consciousness. In the article, the authors endorse that sustainable building construction is crucial for resource conservation. The construction sector impacts the environment, health, and urban quality. The authors also state that there is a lack of waste minimization practices in these congested construction sites in India due to a lack of awareness. Authors conclude that managing the environment responsibly and addressing urban needs is becoming increasingly challenging. [20] The study focused solely on the construction industry sustainability assessment. Therefore, the significance of urban governance bodies in managing the right waste minimization and sustainable construction for the future is an area that needs further push and research. The 2019 article by Arindam Biswas on "Why Indian Cities Are So Chaotic?" looks into the constraints that lead to poor conditions in Indian cities. [7] It looks into the tools of sustainable and functional urbanization. The approaches of urban renewal programs like Atal Mission for Rejuvenation and Urban Transformation, Smart City Mission, and how far they have been successful are discussed with reasons. The main conclusion of the article is that the lack of political will has led to the improper implementation of these programs. The financial constraints and the lack of vision of the government lead to an urban environment that is unsustainable. The government's focus on real estate development and demand for immediate return as opposed to sustainable urban development is evident. The study also highlights a lack of requisite knowledge and skills among modern-day urban development officials. However, the article is limited in the sense that it uses the city of Chandigarh—famous for its modern architectural design and meticulous city planning—as a sole case study to assess India's approaches to

urban growth. The subsequent 2021 article on the neighborhood sustainability assessment (NSA) framework in India by Tanushri Kamble and Sarika Bahadure is more comprehensive and uncovers that high-density neighborhoods are sustainable. Insufficient housing and the proliferation of unauthorized neighborhoods are consequences of India's accelerated urban growth. The process of densification appears to offer a long-term answer. According to the authors, the establishment and execution of assessment systems need to be an integral component in city-wise sustainable policy initiatives, with a particular emphasis on infrastructural advancements. The article concludes that the rapid growth of the population and inadequate urban planning strategies by municipal and other authorities are posing significant challenges to existing facilities, causing concerns about sustainability and quality of life for Indian urban dwellers. [21] In a similar vein, Viswanathan Thangaraj and Neha Chhabra Roy (2021) state that the government agencies should take the lead in creating tailored city-wise development models. They underline that every big metropolis has distinct issues, such as water management in Chennai and pollution mitigation in Delhi. The article discusses the role of planned cities in creating sustainable urban development, generating jobs, economic growth, social inclusion, and reducing poverty and pollution. It is further addressed how challenging it is to undo the poor choices made during the construction of cities. The research investigates the effects of rural-urban relocation on Bengaluru through an integrated urban metabolism analysis tool method. Researchers conclude that the country is falling behind in terms of organized city-specific planning. [11]

Other sustainable city planning perspectives include K Lenin Babu and Moho Chaturvedi's 2022 study from a disaster management standpoint. They talk about mechanisms of resource allocation for disaster management and take the example of the 1999 super cyclone to study the adverse impacts, so that state machinery is well prepared. Researchers compare it to Cyclone Phailin, which occurred 14 years later. Thereby, looking at reasons for a significant reduction in the death rates and the effectiveness of disaster prevention and preparedness measures by the State. The article goes on to speak about 21 cities in India reaching zero groundwater levels due to rampant growth and a lack of long-term comprehensive planning. The heat wave in north India is described as a perfect recipe for a disaster. The article concludes that the three-tier governance system introduced by the seventy-fourth amendment is still dependent upon the availability of finances which is hampering disaster management. Fund generation can be achieved through the introduction of a cess. [22] Notably, disaster management is not an ULBs function as per Schedule 12 but some coordination or acknowledgment must be there as the same is important for sustainable city development.

Aparna Vedula (2022) talks about Indian socio-economic planning, a matter of concurrent list, and political urban design in country that is dominated by the decisions of the union government. Land rights and land development are the major constituents of the Indian urban planning which is the domain of the state governments. The constitutional position is discussed along with evolvement of statutory urban planning. Instances of towns such as Navi Mumbai have been examined, with the Eighth Five-Year Plan asserting that urban planning was essential to aid those who were poor and marginalized. The article concludes with the note that the transition from city-for-equity to city-for-profit in India has culminated in the establishment of profit-driven cities, frequently perceived as elitist and inequitable. [23] This underscores the necessity for a more profound comprehension of Indian Greenfields and the likelihood of further fragmentation as urban planning intensifies. According to researchers, some of the primary targets for India are to construct a strong urban infrastructure, foster inclusive industrial development, enable innovation, cultivate long-term economic prosperity, make certain that everyone has the opportunity to obtain a decent job, and empower women and girls to reach gender parity. The 2023 article by Ratri Parida, Rajesh Katiyar, and Kirti Rajhans presents a model for sustainable development that recommends an even allocation and dispersion of financial resources among all states of India. This approach seeks to eliminate existing biases and political opportunism. For specific urban centers or sectoral development, it is critical to have stringent oversight and supervision of the funds that have been allocated to states and urban local authorities. The author concludes that government intervention can help promote the adoption of emerging technologies and bring gender equality in employment and economic initiatives in urban India. [24]

**3.2 SDG 6 (Ensure availability and sustainable management of water and sanitation for all)/ Schedule 12 function (Water supply for domestic, industrial, and commercial purposes, and Public Health, Sanitation Conservancy, and Solid Waste Management)**

In his critical analysis of the Delhi Master Plan, author Amitabh Kundu (2003) initiated the scholarly conversation on the effect of inadequate municipal services on sustainable cities. It was pointed out that the Master Plan had been greeted with opposition from architects and city administrators who are concerned about the potential destruction of the environment, heritage, and history in the capital city. The need to preserve urban planning standards in city development was highlighted. Another aspect discussed was the city being besieged by migrants and civic amenities being stifled due to slum expansion, and the ensuing environmental squalor. In 2000, the Delhi High Court issued directives to the Municipal Corporation of Delhi to provide services such as drinkable water, sanitation, and conveyance at resettlement sites. Nonetheless, the author established that the slum resettlement initiatives were not implemented instantaneously due to the sizeable financial requirements and interpreted it as evidence of the government's lack of commitment. [25] Later, in an article published in 2011, Steffen Lehmann also took an example of Delhi to address the pressing need of solid waste management by ULBs and proposed a 'zero waste lifecycle' as a potential remedy to the mounting amount of urban waste. The author suggested that local municipalities can take immediate action by separating recyclable materials and consolidating waste categories into one collection point. A waste stream analysis is required to inventory the nature of waste, assess material quantities, and identify waste sources and disposal facility locations. Municipalities could set up databases to monitor garbage categories and determine reduction and recycling opportunities. In India, more than twelve hundred thousand informal garbage handlers gather waste by hand. A mechanized clean-up framework could threaten the jobs of these poor individuals. To minimize long-distance transportation, cities must be designed in close vicinity to composting stations and recycling plants. [26] Another 2011 article delved into population health aspects of urbanization, also known as public health, which is a pressing concern in numerous developing nations with growing populations. The author Shriya Malhotra noted that there are challenges driven by migration to metropolises for income, employment, and economic shifts from agriculture. The effectiveness of the Jawaharlal Nehru National Urban Renewal Mission (JNNURM) was deliberated. The coverage of JNNURM was found to be inadequate as it did not cover all Indian towns and was limited to conventional infrastructure like drainage and water supply lines. The article concluded that to promote urban health and sustainable development, the strategic application of urban planning as an avenue for advancing public health is crucial. [27] Partha Pratim Biswas (2020) highlights a critical point that the upper limit of population density in a city is not set, but there is a lower limit. Despite growth in urban population density there has been no concurrent improvement in civic amenities including the healthcare infrastructure. The researcher's key subject matter was the lack of urban healthcare infrastructure in India, which made urban areas more susceptible to COVID-19. The study concludes that regulatory bodies need to reassess their role in urban area development to address the spread of infections and achieve balanced future land use (FAR) in existing cities or peri-urban areas. The study suggests that urban growth in India is primarily unplanned and market-driven, necessitating a revision of land use plans based on long-term perspectives. [2] Researchers have also discussed the poor quality of life, the inadequate infrastructure, and the severe socioeconomic repercussions that have occurred in India as a result of malpractices and corruption. Research study by Ratri Parida, Rajesh Katiyar, and Kirti Rajhans (2023) outlined seventeen challenges that present major hurdles for the governing bodies and policymakers in implementing a comprehensive sustainable development strategy. Urbanization puts strain on fundamental structures, including public transportation, clean drinking water, the environment in which we live, health care services, standard of life, urban expansion, and governance. [24] The takeaway of the research study is that resolving these obstacles is necessary for a comprehensive sustainable advancement of India.

### **3.3 SDG 13 (Take urgent action to combat climate change and its impacts) / Schedule 12 function (Urban forestry, protection of the environment, and promotion of ecological aspects)**

Urbanization constitutes a tremendous threat to biodiversity, and the challenge lies in preserving native biodiversity within urban landscapes. India due to diverse socio-economic structures, culture, and beliefs, faces more challenges. Additionally, the current urban generation has delinked from nature. Strengthening urban governance bodies' capacity to understand city conditions, make decisions, and implement measures to conserve green spaces and enhance biodiversity is urgently needed. Soubadra Devy, Savitha Swamy, and N. A. Aravind (2009) ascertain that the urban authorities govern parks in cities; however, the preservation of urban green spaces remains a lower priority for them. An example of the butterfly park in Bangalore, which is the largest in Asia, is cited as a prime model of public-private group efforts to preserve ecosystems within cities. [28] Article by Partha Mukhopadhyay and Aromar Revi (2009)

discusses the scope of Urban Climate Adaptation Plans and their impact on sustainable urbanization. The authors propose that Indian finance and planning ministries encompass climate change mitigation into medium-term planning and spending frameworks, while state finance commissions foster monetary disbursements and capacity-boosting within ULBs. They also propose modifications to incorporate natural disasters and environmental crisis considerations into urban development policies. [29] A case study by Lancy Lobo (2022) on the 2019 floods in Vadodara, India, underlines that the same were caused by dumping and encroachment of river floodplains, which led to the disappearance of wetlands and water systems. This has made the city prone to flooding. India has experienced urban flooding for decades, but there has been insufficient attention to address it. Cities like Delhi, Chennai, Amaravati, Mumbai, Ahmedabad, Patna, and Vadodara also face frequent flooding due to inadequate drainage infrastructure maintenance. The author highlights four critical challenges in Indian cities: the mismanagement of stormwater drainage, the overflow of smaller drains, the decline of open spaces, and the heightening of concrete infrastructure to meet urban population growth. Illegal development, encroachments, and the failure to maintain drainage structures are other governance challenges. These elements lead to urban flooding, rendering it a man-made disaster in several cities and towns across India. [30] The author underscores the necessity of strengthened urban governance to overcome these challenges.

Another ecological issue discussed by researchers is the impact of urban expansion on Indian farming systems and their sustainability. Female work participation is higher in urban areas owing to greater participation in non-farming work fields. Urbanized Agroecologies have reshaped dietary preferences, gender relations, and social connectedness. Sheetal Patil (2018) has done a case study in Bangalore where farmers were switching to non-traditional crops due to changing water quality and city requirements. This shift has led to increased financial returns; however, it has also resulted in health constraints of polluted drinking water and soil. The Pradhan Mantri Krishi Sinchayee Yojana (PMKSY) facilitates the appropriate consumption of wastewater from cities for the cultivation of crops, but, without operational pollution-management systems, it constitutes health risks to both farmers and consumers. [31] Additional well-being and ecological vulnerabilities were seen in the urban construction sector that significantly impacts the environment, health, and economy. Urbanization has led to increased consumption and ecological degradation. India should increase its innovation potential. Kaliyan Mathiyazhagan, A. Gnanavelbabu, and B. Lokesh Prabburaj (2018) lay that challenges to construction site waste minimization include a lack of waste management systems and education to implement them among workers, especially in congested sites. Article concludes that India should focus on improving its waste management practices. [20]

Scholars' results on the correlation between energy consumption, urbanization, and the environment have been inconclusive, but mainstream literature supports its negative impact. Energy use primarily from burning fossil fuels gives rise to environmental deterioration. Stuti Haldar and Gautam Sharma (2021) envisage that as urbanization, economic output, and populace increase, increased energy demand and consumption will lead to increased carbon dioxide emissions. Therefore, government policies based on empirical evidence should be formulated, implemented, and regularly updated to adapt to changing times. [32] It is true that urbanization necessitates massive energy consumption, but it likewise contributes to environmental deterioration. In order to address the aforementioned issue, Yousuf Khan, Mohd. Azam Khan, and Shadman Zafar's (2023) research concentrates on the actions necessary for boosting innovations, research and development efforts, funding for environmentally friendly technologies, resource optimization, and economies of scale. They maintain that urbanization boosts city-dwellers' spending capacity, resulting in greater green energy use. Their findings establish that municipal services such as healthcare, water supply, disposal of waste, and green infrastructure make it for quality metropolitan areas. Furthermore, to absorb the cost of environmental deterioration, the government should employ pollution taxes as a device, and spending more on renewable sources of energy is the only way to mitigate adverse environmental effects. [33] As a prospective remedy, Hemant Kumar and Gautam Sharma (2023) support the idea of enabling innovations. They acknowledge that environmental sustainability as a function of urban governance is sometimes overshadowed by the fact that a large percentage of the population does not have access to a basic energy supply. The results of their study show that native inventions, which are made by individuals within urban India by employing materials that can be readily obtained, offer economically viable technological solutions to the country's energy concerns. A real-life example taken by researchers is that of a water cooler that is manufactured using copper coils and a cotton cloth dripping mechanism that does not require electricity to work and

is an Indian innovation that is environmentally conscious. [1] Regions having no access to electricity or frequent electricity outages will find this innovation particularly advantageous.

### **3.4 SDG 8 (Promote sustained, inclusive, and sustainable economic growth, full and productive employment, and decent work for all) / Schedule 12 function (Planning for economic and social development)**

Income growth in states has been uneven, leading to increased poverty and exclusionary urbanization. The article by Amitabh Kundu (2003) talks about urban governance and the need for infrastructural investment in developing cities to attract the population. It also discusses the process of urbanization in India and the population being concentrated in class I cities. The author points out that urban growth in developed Indian states is above the national average, while in slightly backward states, it is below par or at most equivalent to the national average. The strategy of permitting vertical growth of buildings looks at enabling ULBs to uncover added space for business houses and generate funds for infrastructural growth by selling the extra Floor Space Index. The lack of basic amenities in cities hinders private investment. It is concluded that as governmental investment in infrastructure and basic amenities decreases, disparities in urban centers are expected to increase, and it is unrealistic for small-and medium-sized townships to fund capital expenditure through internal funds or borrowings. The article recommends that the strategy of urban development should aim to free the market from state regulation, facilitate private investment, and empower local governments to make economic development decisions. [6] In a preceding article, author Amitabh Kundu (2003) had stressed how informal urban land markets are plagued by corruption as a result of deficiencies in legal provisions and their enforcement. The author examined the Delhi Master Plan, which had an aim to strengthen its infrastructure, sustain growth in the economy, and transform it into a global metropolis. However, architects and urban planners had contested the master plan, forecasting the obliteration of city history, cultural heritage, and natural beauty. They advocated for the prohibition of construction operations in certain zones and adherence to urban planning standards. It was noted that engagement of the private sector in the establishment of premium infrastructure projects and municipal amenities in India is anticipated to see a rise, with housing for the wealthy and middle class becoming an important contributor of money for these projects. The author concludes that the aim for planners should be to boost the capital city's economic expansion and decent job opportunities while holding onto the quality of life. Policy frameworks promise relocation of slum-dwellers to bigger plots in peripheral towns with amenities and extended leases; however, the poor harbor dissatisfaction toward these benefits due to economic displacement and inadequate environmental circumstances in peripheral towns. [25]

Urbanization is an indispensable contribution and foreseeable outcome of growth, but existing models are unsustainable and the exclusion of the poor from the decision-making process affects their efficacy. Partha Mukhopadhyay and Aromar Revi (2009) reiterate that migration within India is hindered by high urban poverty, poor living and working conditions. Researchers contend that, given that the city planning instruments are now under the purview of ULBs in India, according to the seventy-fourth Amendment, states have failed to fully devolve this responsibility to the municipalities. Some suggest that the amendment simply established a framework for fiscal devolution from states to urban local governments, not a mandate. The article predicts that the emerging climate-induced risks in cities may exacerbate and further undermine the resilience of poorer and vulnerable segments of society. [29] Urbanization is a global phenomenon, and countries are likely to continue urbanizing. However, it is crucial to manage its negative impacts while leveraging its potential for poverty reduction. RB Bhagat (2018) stresses that in India, seasonal and temporary migrants with low education and skills are more vulnerable and excluded from social security programs. These migrants are excluded from the public distribution of food, education, healthcare, and housing entitlement due to a lack of identity and residential proof. It is concluded that laws and policies that protect migrants' rights are likely to yield greater development benefits. [4] On the other end of the spectrum, Shagun Agarwal (2021) examines the housing situation in Indian cities. The article sheds light on the disparity between the requirement for housing and the available inventory, notably in developing nations, and also addresses the aspects that are essential for the creation of sustainable urban environments. The analysis shows that individuals with lower incomes, who frequently have precarious employment and few resources, are the ones most in need of living space. Therefore, the supply side's concentration on affordability periodically sacrifices additional significant characteristics of suitable housing. Housing Critical Success Factors additionally include socio-cultural factors, environmental factors, and efficiency and technology conditions. The study concludes that the

cost of dwelling is not the only aspect that consumers consider. There are other essential aspects for selecting sustainable urban housing like the four Critical Success Factors stated above. [34] This demonstrates that the Indian urban housing market is increasingly influenced by environmental and socio-cultural aspects of sustainability. Wherein maintaining green spaces and quality communal facilities is the responsibility of the urban local authorities. The access of the poor to education and employment is further exacerbated by a poor public transportation system in urban areas. Vineet Abhishek (2020) examines the disadvantages of urban mobility in reference to smaller cities and towns against the backdrop of investment. Small- and medium-sized cities face bigger challenges due to a lack of investment in transportation infrastructure. Even after investment metro and rail-based public conveyance are too high-priced for the poor, and urbanization has always been associated with urban poverty. Post Jawaharlal Nehru National Urban Renewal Mission, there has been no large-scale support system for public bus projects under the Ministry of Housing and Urban Affairs. This article examines intracity equity and the bearing of transportation policies on different citizens and the prioritization of metropolitan cities over smaller towns in investments, policies, and public discourse. Urbanization has always been linked to urban poverty which explains the proximity of the residents of the poor class to their workplaces to minimize transportation costs. [35] Lancy Lobo (2022) further assesses urban economic sustainability issues, notably the detrimental effects of catastrophes on the poor and corruption among town planning authorities. Flooding is a major issue in urban and peri-urban areas, affecting the middle and poor classes, small traders, and businesses in low-lying areas. Urban areas are vital economic centers with vital infrastructure that needs protection at all times. Major urban-peri-urban issues include collusion among local politicians, municipal corporation officials, land mafia, and developers. Town planning schemes are influenced by powerful politicians and bureaucrats leading to intentional delays. Urbanization in India should not just be about growth or planning; it should also involve understanding the experiences of peri-urban areas to recognize the ongoing rural-urban transformation. [30] According to the findings of Ratri Parida, Rajesh Katiyar, and Kirti Rajhans (2023), Agenda 21 lays attention to the essence of sustainable development efforts that take into account equitable treatment, economic prosperity, and engagement from all individuals. Cities elevate living standards, offer wealth, and foster global trade, but they also present significant barriers to sustainable development. Societal hurdles such as sociocultural hegemony and gender inequality are prevalent in India. These factors contribute to discrepancies in wealth and opportunities. Therefore, the researchers conclude that urbanization poses substantial risks regarding social exclusion, and government intervention is desired to reduce disparities relative to income. [24]

#### 4. RESEARCH FINDINGS

The Indian Model Municipal Law was introduced over two decades ago in 2003, but the provisions of the model law and state laws have not been part of academic review. This lack of critical examination of the law poses problems in aligning the law with recent advancements in the Sustainable Development Goals. Some articles have briefly discussed the framework of the Urban Local Bodies; however, the legal position has not been thoroughly explored or evaluated. Severely limited discussion is visible on State-specific Acts, urban policies, and government schemes like the Delhi Master Plan in the context of the Sustainable Development Goals that they address and issues in effective implementation to promote sustainable urbanization. The majority of articles are written by researchers from other disciplines on sustainable urbanization and municipal governance with no critical analysis of the Statutes. There is no collaborative research amongst the legal scholars and other disciplines, which is most important for tackling the urbanization challenges holistically. There is a lack of thorough study or continuous evaluation. Previous researchers have been publishing event-wise, namely, articles on Smart City Mission post 2015 or COVID-19 pandemic and public health issues post 2020. This reduces the urban issues to a mere academic trend, ignoring the incessant ongoing impact on the real world. The majority of researchers have limited their research to the impact of urbanization on a specific sector (e.g., agricultural or construction), territory (e.g., Delhi, Chandigarh, or Bangalore), or a limited set of sustainable development targets as seen in research articles reviewed above. This lack of a holistic perspective affects grassroots implementation of urban planning laws, policies, and schemes. The lack of comprehensive research is also affecting the implementation of prior research suggestions. It is also affecting the cross-pollination of ideas permitted under this approach.

An in-depth study of urban planning laws and sustainability schemes which are one of the present gaps identified can lead to effective implementation of suggestions of previously conducted research. Likewise,

intra-urban and inter-state disparities in municipal fund allocation and urban development in India can be a starting point for future research studies.

The present research aimed to highlight the negative impact of excessive migration and the non-implementation of slum resettlement initiatives in urban India. Uneven Income growth in Indian states is leading to an increase in poverty and exclusionary urbanization. Urban governance authorities and well-planned cities play a major role in managing urban growth, economic development, and social inclusion. There is a need for effective State steps. The impact of emerging climate-induced risks is more on the urban poor and vulnerable segments of society. The judiciary can play a major role in re-crafting urban cities, upholding the rights of slum dwellers, rehabilitation, and enforcement of master plans and municipal laws. Judicial rulings in India have upheld slum-dwellers' right to housing and a clean-living environment.

There is a need to strengthen urban governance bodies' capacity to conserve green spaces and tackle threats of urbanization to biodiversity. India should focus on planning improved cities through waste composting and waste recycling, and find ways to promote urban health and sustainable development. States can use technology to map the effectiveness of urban civic amenities and integrate digitization in urban governance [36]. Atal Nagar is a good smart city model developed in Chhattisgarh, India. Financial constraints and a lack of vision lead to an unsustainable urban environment and inadequate implementation of urban renewal programs. There is a lack of balance between growth in urban population density and significant improvement in civic amenities. States need to use empirical evidence in their policies to deal with the increase in urbanization and forecast energy, housing, and civic amenities demand and consumption. Developing Urban Sustainability Assessment frameworks is a way to do that. Tackling zero groundwater level also needs long-term comprehensive planning.

## 5. CONCLUSION AND SUGGESTIONS

The congruence between the function of Urban Local Bodies in sustainable urban governance and the application of state-wise municipal laws is something that legal researchers need to rigorously investigate and assess. On an international scale, the sustainable urban development framework has emerged as an essential subject matter for scientists, academic researchers, and policymakers. Maintaining a healthy equilibrium across towns and between urban and rural regions, also known as RURbanism, is a research area gaining significance.

Major municipal entities in developed regions have witnessed significant economic expansion; yet, diminishing governmental investment in infrastructure and essential services in smaller towns is anticipated to exacerbate disparities within the Indian urban economy. Autonomy of ULBs should be the norm in all states. Expert guidance is essential for activities such as the cleanup of rivers and the treatment of sewage water. State master plans take extensive time for drafting and face obstacles in terms of being updated. Development of cities is expensive, and oversights in the construction of infrastructure, spending on civic amenities, and the land use plans might prove difficult to alter for decades. Therefore, evidence-based prospective policymaking that requires continuous observation and assessment is the need of the hour. It is imperative that state governments facilitate the training of municipal personnel with modern urban development and administration tools, in addition to investing in strengthening them. The active participation of community members in the development of cities should be promoted.

Effective urban governance necessitates interdisciplinary research on growing complex challenges related to sustainable urbanization and the regional integration of globally successful approaches. It is the responsibility of higher education, professional, and vocational institutions to cultivate experts who can exhibit competence of a world-class and practical nature, with the skill to obtain a thorough understanding of the urban environment to develop innovative solutions to urban concerns. Sustainable urban development should be expressly and unambiguously be stated as the goal of the ULBs. In a similar vein, the ideas of sustainability and the right to the city discussed above should be included in state urban plans and legislation, if not in the constitution itself. Action-based sustainable urban policies should be prioritized, and energy-efficient activities ought to be encouraged. Academic discussions through collaborative research on urbanization, good governance, and the effectiveness of the legal framework can pave the way for sustainable urban development. The ULBs serve as the backbone of the Indian urban civic structure and align with the 2015 Sustainable Development Goals, despite being formulated in different timeframes. A law-backed state-specific SDG target-wise goal-indicator-action approach by Urban

Local Bodies is the way ahead for India to help start building sustainable urban structures at the grassroots level. This is essential to accommodate the projected increase of 416 million urban residents by 2050.

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