



REFORMS IN URBAN PLANNING CAPACITY IN INDIA

— Final Report —
September 2021

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REFORMS IN URBAN PLANNING CAPACITY IN INDIA

September 2021



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(Constituted vide OM dated 22nd October 2020)

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Urbanization is intrinsic to development and often serves as a major driver of economic growth. As India reaches tipping point of transitioning from a mostly rural to an urban society, the focus must be on ensuring the best opportunities for economic growth for all sections of the society.

It is a matter of concern that despite huge investment, our cities still face many efficiency-and sustainability-related challenges. None of our cities feature among the top 50 cities in many global rankings.

The need of the hour is incisive, insightful planning – in the absence of which neither investments nor actions would be able to yield long-term solutions. Unplanned urbanization could result in serious downsides.

Cities are like living organisms. For them to flourish, it is important that their economic and social infrastructure are in a sound state. There are enormous possibilities to achieve this through adoption of spatial planning tools. We must rethink, reimagine and re-establish the very purpose and approach towards planning of cities and towns in India.

The state of human settlements could become a silent crisis in motion. We need to urgently and significantly ramp up the present cumulative capacity of urban planning in the country to avoid the creeping and silent crisis that is overtaking human settlements.

This committee focused on arriving at recommendations that can be catalytic in nature and can unblock bottlenecks in the value chain of urban planning capacity in India.

The lack of human resources has emerged as a major bottleneck in the State machinery responsible for urban planning and design. At the same, it is rather ironic that the country also lacks sufficient demand for qualified urban planners in both the public and private sectors. There were several other impediments observed in the entire value chain – most of which appear to be due lack of awareness about ‘urban planning’ and its utility per

Foreword



se. A set of major reforms have been recommended to strengthen India's urban planning capacity-technically, organizationally, and institutionally.

I commend Dr. K. Rajeswara Rao, Special Secretary, NITI Aayog, for conceiving and taking forward this initiative and successfully bringing it to completion. My congratulations to Sh. Rakesh Desai, Director, NITI Aayog, for ensuring time bound actions as convener of the committee. A special appreciation to Ms. Anshika Gupta, Senior Associate, for her ideas and insights.

We hope that this report will stimulate conversation and action on bringing about a qualitative improvement in urban planning capacity. The road to reform may be long. The time to start is now, if the country has to keep pace with the emerging demands of time.

A new phase of action must begin with this effort.

I extend my best wishes and support to all the member Ministries, State governments and urban local bodies who will be the real drivers behind the implementation of these recommendations to bring about sustainable and equitable growth in the coming years.



Dr. Rajiv Kumar

6 August, 2021
New Delhi,
India



Sh. Amitabh Kant

Chief Executive Officer
National Institution for Transforming India
Government of India
New Delhi, India



Urbanization is the key to India's future. Our cities occupy just 3% of the nation's land, but their contribution to the GDP is a whopping 60%. India is swiftly moving forward for becoming half urban in a couple of decades. This would bring enormous opportunities of economic growth and global competitiveness. Efforts must be channelised to ensure preparedness of the nation to manage such a massive urban transition and save our cities from the clutches of unplanned urbanization and unregulated construction activities.

Our urban planning machinery has not grown at the pace of the demands posed by urbanisation and global technological advancements. Urban local bodies face a massive shortage of skilled and trained human resources as well as financial challenges. Furthermore, poor quality of planning is a huge limiting factor to realize the true economic potentials of urbanization.

Over the years, the country has witnessed the expansion of cities based on car-centric planning. However, the future of urban mobility and urban living needs to evolve on the back of public transportation. The cities need to be very compact and adopt a circular economy system to minimize their negative impacts on the environment. A global city like Singapore was raised through firm political leadership, a professional approach, and intelligently created capacities. Therefore, it is not just important to enhance the number of urban planners in India but to also ensure a simultaneous improvement in the quality of planning.

Of the 7933 towns that are accounted as urban, almost half have a status of census towns and they continue to be governed as rural entities. With business as usual, the country may become a haven for unplanned urbanization. This needs planning interventions at a massive scale, which could be fostered by private sector companies through their problem-solving capacities and efficiencies. However, currently the ecosystem for the development of private sector companies and start-ups in this domain is not robust enough to meet the needs.

Message



If the country has to witness a quantum leap in its planning capacities, the private sector companies need to be nourished and developed to provide innovative solutions to the public sector and good quality jobs to the future urban professionals. On the front of the education system of urban planning, a lot needs to be done to ensure that future planners are equipped with all the technological prowess and multi-disciplinary expertise to pave the socio-economic progress of the cities as well as the upcoming rural settlements.

This report, prepared by the Advisory Committee on 'Reforms in Urban Planning Capacity in India' chaired by the Hon'ble Vice Chairman NITI Aayog, has come at a critical time.

This is a remarkable initiative steered by NITI Aayog wherein multiple discussions with experts, decision-makers and stakeholders were undertaken during last 9 months. I congratulate Dr. K. Rajeswara Rao, Special Secretary, NITI Aayog, for spearheading such a landmark achievement and Mr. Rakesh Desai, Director, for managing it in a timebound manner. I appreciate the excellence demonstrated by Ms. Anshika Gupta, Senior Associate, NITI Aayog, through ideation of this vital pursuit, and generation of its technical discourse.

I request the member Ministries, State Governments and the city governments to review this report and build upon it further to create strategies for immediate, mid-term, and long-term actions. Only with a mass movement can we all create a new ethos and dynamism for India's urbanization.



Sh. Amitabh Kant

6 August, 2021
**New Delhi,
India**



Dr K. Rajeswara Rao

Special Secretary
National Institution for Transforming India
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New Delhi, India



Urbanisation has been knocking at the doors, it has the power to transform the country and set it rolling towards economic transition. Is the country prepared enough to plan or manage the projected urbanisation or would it be left to the chances of survival through laissez-faire? This question led to multiple discussions, and ultimately to the formation of an inter-ministerial Advisory Committee.

I am sincerely grateful to Dr Rajiv Kumar, Vice Chairman, NITI Aayog for leading us with his visionary insights and Sh. Amitabh Kant, CEO, NITI Aayog for his encouragement to take the efforts ahead. I would also like to express my gratitude to Dr Gyanendra Badgaiyan, Resident Senior Fellow, IDFC Institute for providing valuable insights into the sector.

My deep regards to key functionaries in the Advisory Committee namely, Sh. Amit Khare, Secretary, Higher Education, MoE, Sh. Durga Shanker Mishra, Secretary, MoHUA & Sh. Sunil Kumar, Secretary, MoPR, Dr. D.P. Singh, Chairman, UGC, Prof. Anil D. Sahasrabudhe, Chairman, AICTE and Ms. D. Thara, Joint Secretary, MoHUA & Chairperson, TCPO. I express my gratitude to the eminent experts namely Dr. Bimal Patel, President & Acting Director, CEPT University, Ahmedabad and Prof. Dr. P.S.N. Rao, Director, SPA, New Delhi for providing valuable insights about issues restraining the urban planning capacity in India.

I thank Sh. Hitesh Vaidya, Director, NIUA for supporting the committee. I also thank Dr. D.S. Meshram, Council member & Former President, Institute of Town Planners India for his kind cooperation. I would also like to appreciate the efforts put in by Sh. Rakesh Desai, Director, Managing Urbanization vertical who was also convener of the committee. With proactive participation of all the members, this task achieved much headway in a limited time.

I would also like to place on record my appreciation to Sh. R. Srinivas, Head-Metropolitan planning and Union Territories Division, TCPO for

Acknowledgements



his support throughout the journey. A special thanks to Dr Debjani Ghosh, Associate Professor, NIUA who has supported the committee with noteworthy need assessments and research inputs. During the tenure of the committee, many experts as enlisted in the list of key contributors have pro-bono contributed towards the ideation of reforms. I acknowledge their support and express my gratitude to them for extending their cooperation.

Last but certainly not the least, I would like to appreciate the efforts of Ms Anshika Gupta, Senior Associate, Town Planning and Urban Finance, NITI Aayog, who showcased remarkable technical excellence while leading this task. She formulated the need for Committee by authoring several concept notes and assisted it in its strategic steering. The editorial and research assistance provided by Ms Pragya Sharma and Ms Himanshi Gupta was found promising.

The working of this committee was truly an endearing and enriching journey. It created a stir among technocrats and opened many policy questions at national as well as international forums. Utmost care has been taken to ensure the clarity and correctness in the report and its annexures. However, if any factual errors are observed, the same may kindly be informed. The overall effort was collaborative, exhaustive, and consultative. I hope that this report shall serve as a key for undertaking much needed long-term reforms in the urban sector.

6 August, 2021
**New Delhi,
India**



Dr. K. Rajeswara Rao

Considering the projected trend of urbanization, the multiple challenges being faced in the cities and India's commitments towards global agendas, **NITI Aayog constituted an Advisory Committee on 'Reforms in Urban Planning Education in India' in October 2020**. This high-level committee was formed under the Chairpersonship of Dr Rajiv Kumar, Vice Chairman, NITI Aayog. It comprised 14 members: CEO, Special Secretary and Director of NITI Aayog; Secretaries of three key Central Ministries—MoHUA, MoPR and MoE; Chairpersons of UGC, AICTE and TCPO; Directors of two leading institutions—CEPT University, Ahmedabad, and SPA Delhi; Director, NIUA; and President, ITPI.

The first meeting was held on 17 November 2020, wherein the Chairperson expressed a strong need for reformative actions in urban planning capacity of the country. Consequently, the work and title of the committee was expanded and changed to **'Reforms in Urban Planning Capacity in India'**. This laid a foundation for extensive discussions with eminent experts, brainstorming sessions on several thematic areas like curriculum, capacity building and human resources, side events on efficient utilisation of urban land and urban housing, data collection and analysis, and convergence of ideas from literature. Over a period of 9 months, more than 10 consultations were undertaken, 4 reputed think tanks/CSOs were consulted, inputs from 8 organisations were sought, and feedback from over 30 academic institutions was mapped. The second meeting of the committee was held on 12 March 2021, which brought several crucial issues to the fore. During the third meeting of the Advisory Committee held on 18 June 2021, extensive discussions were undertaken on the draft recommendations and a way forward was prepared.



This report presents a condensed outcome of the deliberations with the committee members, eminent experts, academia and professionals. It has been structured into 7 chapters as described below:

- Chapter 1 presents the need for reforming urban planning capacity in India. It articulates multiple transitions, including those related to demographic, policy, and finance, that the country is witnessing. It discusses the key urban challenges as well as immense relevance of 'planning' skills to address these challenges.
- Chapter 2 presents a brief summary about the previous committees in the domain, the genesis of Advisory Committee and processes undertaken by it to position the intellectual dialogue in present context.
- Chapter 3 summarizes the evolution of planning of human settlements in India throughout different ages.
- Chapter 4 briefly describes the situation of human resource capacities and identifies demand-supply gaps for urban planning in the State town planning departments and rural planning capacities for the implementation of ongoing schemes.
- Chapter 5 illustrates the supply capacity, regional distribution, and curriculum aspects of urban planning education to present a bigger picture of opportunities, and the potential of strengthening the education of all 'planning' specialisations in India.
- Chapter 6 presents an overview of the critical issues emanating from each chapter leading finally to Chapter 7 that puts forth recommendations.

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BRIEF SUMMARY OF THE REPORT



India is the second largest urban system in the world with almost 11% of the total global urban population living in Indian cities. In absolute numbers, the urban population in India is more than highly urbanised countries/regions across the globe. The country has reached a turning point in its journey of its economic transformation wherein half of the country would be 'urban' in a few decades. Urban growth is expected to contribute to 73% of the total population increase by 2036 (MoHFW, 2019).

Over the years, cities have expanded and become burdened by the stresses and strains of unplanned urbanization, the brunt of which is faced by the poor and the marginalised, the biodiversity and the economy. In fact, Covid-19 revealed the dire need for planning and management of our cities, with an emphasis on the health of citizens.

Issues like lack of availability of serviced land, traffic congestion, pressure on basic infrastructure, extreme air pollution, urban flooding, water scarcity and droughts are not merely a reflection of infrastructural shortcomings in the cities. These issues indicate a deep and substantial lack of adequate urban planning and governance frameworks.



Over the last few years, a lot of efforts has been made by the Centre and the State Governments in the urban sector. However, **urban planning, which is the foundation for the integrated development of cities, citizens, and the environment, has not received adequate attention.**

For this reason, as the State and city governments continue to solve urban issues in a firefighting mode, urban areas struggle to achieve 'basic services for all'.

For long-term sustainable urban transformation, systemic issues need to be identified and addressed. **India's urban story may be lauded globally or suffer irreversible damages in the next 10-15 years depending upon corrective policy measures and actions taken at the beginning of this decade.**

Several bottlenecks and impediments have been restricting urban planning capacity in the country. To begin with, a significant proportion of **urbanization in the country is unacknowledged and unaddressed.** Almost half of the 7933 'urban' settlements are census towns, that is, they continue to be governed as 'rural' entities. Small and medium towns face vulnerabilities due to rapid growth and inadequate planning. Moreover, several studies have indicated that the current definitions of 'urban' are not reflective of the extent of urbanization that the country has already witnessed.

Secondly, the **transfer of the urban planning function from States/UTs to elected urban local governments** did not happen as was envisaged through the Constitutional (Seventy-Fourth amendment) Act 1992. Many agencies are involved in urban planning, implementation, infrastructure development at the city as well as State levels. The existing framework has become complex, which often leads to overlapping of functions, lack of accountability and coordination, time delays, resource wastage, etc.

Master plans are statutory instruments to guide and regulate the development of cities and are critical for managing urbanization as well as 'spatial sustainability'. However, **65% of the 7933 urban settlements do not have any master plan.** This leads to piecemeal interventions, haphazard constructions, urban sprawl, and environmental pollution, which can further aggravate issues such as traffic congestion, flooding, etc. Various shortcomings in the approaches of city planning and bottlenecks in plan implementation too need to be resolved.

Urbanizable/developable land is costly as well as limited in supply. City governments guide and regulate development through planning regulations and building bye-laws. **In many cities, development control regulations were formulated several decades ago and have been updated arbitrarily without sufficient empirical evidence on their impacts.** Recently, most States/UTs have revised their respective bye-laws based on the Model Building Bye Laws 2016 (MoHUA, 2016). It is imperative that the city governments adapt the model regulations and as per their context and economic growth drivers. Also, there is a need to shift from text-based to form-based regulations to ensure the optimum use of urban land and enable development based on a suitable urban form.

In urban areas, land is **confronted with competing uses due to market forces, social necessities, as well as environmental concerns.** If the land use plan of a city diverges from the status of land records, it may not get implemented on ground. Moreover, such



divergences become a potential cause of unnecessary and time-consuming disputes and litigations. Accurate cadastral maps and clarity about property rights are very important for successful planning. Such maps do not exist with the city functionaries or in the public domain for most Indian cities. This is a big impediment in the planning process.

Massive capacities for problem-solving, innovation, and ideation are required to address the present and future challenges in the planning and management of cities, towns, villages and their infrastructure. It may not be feasible to create such capacities in the public sector given the size and scale of urbanisation in India. Over the years, many private sector companies developed in India in the domains of architecture, civil engineering and construction. However, **the ecosystem of the private sector in urban planning domain has remained under-developed.**

Human resource is indispensable to strengthen the urban planning capacity in the country. A study conducted by TCPO and NIUA for NITI Aayog indicates that over 12,000 posts for town planners are required in the State town and country planning departments. This is in stark contrast to the present situation. There are fewer than 4000 sanctioned positions for 'town planners' in these departments, half of which are lying vacant. **An inadequate number of urban planners in the State planning machineries and lack of multi-disciplinary teams** are serious issues. Also, in several States, ironically, a qualification in town planning is not even an essential criterion for such jobs.

The **country has been producing graduates with degrees such as Bachelor of Planning since more than 3 decades and Master of Planning since early 1950s.** However, so far, the urban planning profession has not yet gained a strong and unique identity of its own. As a result, prospective employers, unaware of these courses and skill sets of available graduates, end up hiring professionals from other disciplines to undertake the tasks of planning, thereby creating a negative feedback loop. This restrains the growth of urban-planning capacity in the country in terms of quantity of fresh graduates as well as the quality of work being delivered in this sector.

There are only about 7000 registered members in ITPI, a professional body of town planners in India. However, this institute is not a statutory body and its membership is voluntary. In the absence of an end-to-end system to track the number of urban planners who graduate every year, a fallacious sense of shortage is created.

The supply of urban planners needs to be supported with adequate job demand and not just the perceived need for planners or planning of cities. Planners must be organized in private sector companies to be able to deliver services or entrusted with roles of planning in public sector organisations. Till this doesn't happen, this workforce will remain unutilized and **demand-supply** will be **disconnected.**

There are 49 educational institutions across India that provide degree programmes in urban planning and allied specialisations and nomenclatures like Environmental Planning, Transportation planning, Housing, Infrastructure planning, and so on. These are distributed across the country, barring the North-Eastern States (except Assam), Western Himalayas and UTs (except New Delhi). **Multiple nomenclatures of degrees**



create problems in the absorption of qualified graduates—AICTE has an approved list of 25 nomenclatures for postgraduate degrees in planning.

Observing India's urbanization through Western lens has become a practice. Experience has shown that such objectivity diminishes the motivation and confidence needed to generate innovative solutions for indigenous problems. Indian cities are different from their Western counterparts in terms of culture, demography, lifestyle and so on. Adopting Western practices without tailoring them to suit Indian needs is not advisable.

There is a **lack of synergy between urban and rural planning and development**. The State Town and Country Planning Acts need to be revisited to harmonize the two.

The platforms for citizen participation and their awareness about the process of urban planning and development are limited. There is a perceptible communication gap between planning agencies and the people, who are the ultimate beneficiaries.

With the 'business as usual' scenario, human settlements may become dysfunctional and, in turn, generate serious socio-economic impacts. Therefore, there is an immense need for significant reforms across the value chain of urban planning in the country.

The Advisory Committee focused on devising measures to strengthen **the three pillars of cumulative urban planning capacity in the country: public sector, education/research sector, and private sector**. And on identifying ways to create a robust feedback loop that helps one pillar strengthen the other.

The recommendations of the Advisory Committee are:

- ▶▶ **Programmatic intervention for planning of healthy cities:** Every city must aspire to become a 'healthy city for all' by 2030. This would need a convergence of multi-sectoral efforts at the intersections of spatial planning, public health, and socio-economic development. Also, the focus of planning urban development must encompass not only the million-plus cities but also hundreds of small- and medium-sized towns. The Advisory Committee recommends a central sector scheme '500 Healthy Cities Programme', for a period of 5 years, wherein priority cities and towns would be selected jointly by the States and the local bodies.
- ▶▶ **Programmatic intervention for optimum utilization of urban land:** All the cities/towns under the proposed 'Healthy Cities Programme' should strengthen development control regulations based on scientific evidence to maximize the efficiency of urban land (or planning area). The Advisory Committee recommends a sub-scheme 'Preparation/Revision of Development Control Regulations' for this purpose.
- ▶▶ **Ramping up of human resources:** The public sector must have an adequate workforce in terms of quantity and quality to tackle the challenges of urbanization. The Advisory Committee recommends that the States/UTs may need to a) expedite the filling up of vacant positions of town planners, and b) additionally sanction 8268 town planners' posts as lateral entry positions for a minimum period of 3 years and a maximum of 5 years to close the gaps.



- ▶▶ **Ensuring qualified professionals for undertaking urban planning:** Urban areas and their developmental complexities have increased over the years. The discipline of urban planning or town planning has a dedicated course curricula with which graduates acquire a multi-sectoral overview and skillset to address such challenges. The States may need to undertake requisite amendments in their recruitment rules to ensure the entry of qualified candidates into town planning positions.
- ▶▶ **Mainstreaming capacity-building activities and rejuvenation of capacity-building centres:** Concerted efforts are required by the States/UTs to ensure regular capacity building of their town planning staff. Also, the existing centres of excellence established by MoHUA and State-level training institutions need to be further strengthened to regularly build the skills and expertise of urban functionaries.
- ▶▶ **Re-engineering of urban governance:** There is a need to bring in more institutional clarity and also multi-disciplinary expertise to solve urban challenges. The Advisory Committee recommends the constitution of a high-powered committee to re-engineer the present urban-planning governance structure. The key aspects that would need to be addressed in this effort would be: i) clear division of roles and responsibilities among various authorities, appropriate revision of rules and regulations, etc., ii) creation of a more dynamic organizational structure, standardisation of the job descriptions of town planners and other experts, and iii) extensive adoption of technology for enabling public participation and inter-agency coordination.
- ▶▶ **Revision of Town and Country Planning Acts:** Most States have enacted the Town and Country Planning Act, which enables them to prepare and notify master plans for implementation. These Acts provide a fundamental basis to transform cities, regions, and their character. However, many need to be reviewed and upgraded to the latest advancements in technology, urban and regional planning approaches and policies. Therefore, the formation of an apex committee at the State level is recommended to undertake a regular review of planning legislations (including town and country planning or urban and regional development acts or other relevant acts).
- ▶▶ **De-mystifying planning and involving citizens:** Due to the planning process being highly technocratic in nature, the public's participation in it is limited. While it is important to maintain the master plans' technical rigour, it is equally important to demystify them for enabling citizen participation at relevant stages. Therefore, the Advisory Committee strongly recommends a 'citizen outreach Campaign' for demystifying and making urban planning more accessible.
- ▶▶ **Building local leadership:** It is important to enlighten the city leadership about the significance of urban planning and public policy to achieve integrated development, mobilize finances, ensure affordable housing, and make cities more economically productive, liveable as well as inclusive. Therefore, the Advisory Committee recommends a 'short-term training programme for city-level elected officials on the economic and social benefits of urban planning'.





- » **Steps for enhancing the role of private sector:** The private sector needs to be evolved to heighten its role and employment opportunities for planners. Adequate capacities for project planning, risk structuring and negotiating to enter into public-private partnerships or manage private consultancies need to be built at various levels in the public sector. The Advisory Committee recommends that concerted measures must be taken at multiple levels to strengthen the role of the private sector to improve the overall planning capacity in the country. These include the adoption of fair processes for procuring technical consultancy services, strengthening project structuring and management skills in the public sector, and empanelment of private sector consultancies.
- » **Steps for strengthening the urban planning education system:**
 - History of human settlements in the Indian subcontinent must be taught to all young planners in a more exhaustive and analytical manner. Educational institutions must also focus on teaching economics to future planners in a way that equips them to understand its applications in urbanisation, urban development and policy.
 - The Central universities and technical institutions in all the States/UTs of the Indian Himalayan Region may be encouraged to establish a 'department of planning and public policy' and offer postgraduate degree programmes (M.Tech.) with specializations in 'hill area planning', 'environmental planning', 'regional planning', and 'rural area planning'. Also, the Central universities and technical institutions in all the other States/UTs may be encouraged to offer postgraduate degree programmes (M.Tech. Planning) to cater to the requirement of planners in the country in a phased manner.
 - The Advisory Committee also recommends that all such institutions may synergize with the Ministry of Rural Development, Ministry of Panchayati Raj and respective state rural development departments/directorates and develop demand-driven short-term programmes on rural area planning.
 - 'Planning' as an umbrella term, including all its specializations such as environment, housing, transportation, infrastructure, logistics, rural area, regional, etc., or any other nomenclature approved by AICTE, should be included as a discipline under the National Institute Ranking Framework (NIRF) of MoE to encourage healthy competition among the institutions.
 - The Advisory Committee recommends that AICTE may retain the names of specializations based on industry requirements, while limiting them to an appropriate number, as 25 nomenclatures seem too high for market acknowledgement and absorption. Nonetheless, the names of the degrees should be limited to only two: Bachelor of Technology in Planning and Master of Technology in Planning, with their specialization in brackets.
 - The growth and development of the educational institutions need mentoring from peers. The Advisory Committee recommends that the institutions in the domain of planning education may identify prominent





international and national institutes, connect with them and sign MoUs for mentoring.

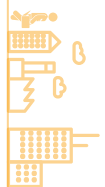
- Faculty shortage in educational institutions conducting degree and PhD programmes in planning needs to be resolved in a timebound manner. In this regard, the faculty recruitment rules, particularly of the centrally funded technical institutions, need to be reviewed and strengthened with suitable provisions. Faculties need to be encouraged to write and publish technical papers, which should be linked with their promotion so that quality improvement can be incentivized.

►► **Measures for strengthening human resource and match demand-supply:**

The profession needs more structuring, skill-mapping, and data-basing of the workforce to bridge the gap between demand and supply. The Advisory Committee recommends the constitution of a 'National Council of Town and Country Planners' as a statutory body of the Government of India. Also, a 'National Digital Platform of Town and Country Planners' is suggested to be created within the National Urban Innovation Stack of MoHUA. This portal is expected to enable self-registration of all the planners and evolve as a marketplace for potential employers and urban planners.

The political leadership, decision-makers and planners need to reach a common consensus that a promise to save the environment from the strains of urbanization is a promise of economic growth in the long run.

The road to reform may be long. Collaborative, concerted and cooperative efforts are required to strengthen the urban planning capacity of the country. The moment to start is now, if the country has to keep pace with the emerging demands of time.





Need for Reforming Urban Planning Capacity



1.1 TRANSITIONS AND TARGETS

i. The 'Urban' Transition

India's population stood at 1210 million in 2011, with an **urbanisation level of 31.1%** (Census of India 2011). Notwithstanding a low level of urbanisation, **India's urban population is 11% of that of the world. This is still more than highly urbanised countries/regions like the United States, Japan, Western Europe, and South America** (refer to table 1).

The United Nations in 2019 estimated that **India will to surpass China as the world's most populous country by 2027**. Also, **India's urbanisation is poised to accelerate in the coming decades. During 2011-36, urban growth will be responsible for 73% of the rise in total population** (MoHFW, 2019). Earlier estimations indicate that about 416 million people will be added as urban dwellers in India between 2018 and 2050 (United Nations 2018); and that India will be 50% urban by 2050 (UN-Habitat, 2017).



The process of urbanisation has already started, albeit haphazardly, all size of settlements including the rural habitations. Between 2001 and 2011, the number of census towns increased massively—from 1,362 to 3,892. These **census towns contributed over 30% of the net increase in urban population between 2001 and 2011—indicating the nature of transformation that is taking place in the rural areas.**

India is transitioning from a mostly rural to a quasi-urban country. This poses challenges for sustainable development and at the same time presents a great opportunity for leveraging the benefits of urbanisation with robust systems in place. This is a crucial time to leverage technology, and ensure planned development that can bring in greater economic and social benefits across the country.

There is immense stress on the infrastructure of many Indian cities and towns, along with unregulatable development. Additionally, they are facing the brunt of climate change and poverty. The Ministry of Finance (2021) noted that one-in-three poor people is living in urban areas, which was about one-in-eight in the early 1950s. **This situation, along with the projected urbanisation levels, if left unplanned and sub-optimally managed, may be detrimental to the society, economy, and environment.**

Table 1:

Population and Levels of Urbanisation of India and Other Countries in 2018

S. No.	Country	Total population (in millions)	Urban* population (in millions)	Percentage urban
	1	2	3	4
1	World	7,632.81	4,219.81	55.28
Advanced economies				
2	United States	326.77	268.78	82.26
3	Germany	82.29	63.62	77.31
4	Japan	127.19	116.52	91.61
5	United Kingdom	66.57	55.52	83.39
Emerging market and developing economies				
6	China	1,415.05	837.02	59.15
7	India	1,354.05	460.78	34.03
Continents/regions				
8	North America	363.84	298.99	82.17
9	South America	428.24	360.35	84.14
10	Western Europe	194.07	154.99	79.86

Note:

The names of countries in column 1 are examples of 'Advanced economies' and 'Emerging and developing economies' are from International Monetary Fund, *World Economic Outlook. July 2021*. p.6 <https://www.imf.org/en/Publications/WEO/Issues/2021/07/27/world-economic-outlook-update-july-2021>



The data in columns 2, 3 & 4 are from United Nations, Department of Economic and Social Affairs, Population Division (2018). *World Urbanization Prospects: The 2018 Revision*, Online Edition. <https://population.un.org/wup/Download/>

*The definitions of 'urban' varies across the countries

ii. Urbanisation is Central to India's Economy

Urban India needs to take a giant leap to become a global player; Indian cities must be well-prepared for dealing with current challenges and a competitive future. MoHUA (2016) stated that urbanisation contributes nearly 60% to India's Gross Domestic Product (GDP). There are some studies that attest linkages between urbanisation and per capita GDP and India is behind other large Asian economies in this context. Furthermore, there also exist large, **untapped economies of scale**. This needs effective interventions incorporating urban and spatial planning, urban land markets, and governance.

iii. India's Global Commitments

Cities play a decisive role in achieving India's commitments to global agendas, such as United Nation's Sustainable Development Goals (SDGs) 2030; UN-Habitat's New Urban Agenda; and the Paris Agreement under the United Nations Framework Convention on Climate Change.

The **SDGs**—specifically Goal 11 (making cities inclusive, safe, resilient, and sustainable)—promote urban planning as one of the recommended methods for achieving sustainable development. They include a new focus on participatory and integrated planning for urban areas, peri-urban areas, and rural areas.

The **New Urban Agenda** adopted at Habitat III in 2016 puts forth principles for the planning, construction, development, management, and improvement of urban areas. It seeks to work as an accelerator of SDGs, in particular, the SDG 11. **The illustrated handbook of the New Urban Agenda has included "spatial sustainability" as its fourth dimension** in addition to three widely discussed dimensions—social, economic and environmental sustainability. The UN-Habitat (2020) mentions that:

Spatial sustainability, as a concept, suggests that the spatial conditions of a city can enhance its power to generate social, economic and environmental value and well-being. Governments can achieve spatial sustainability by guiding the physical form of urban environments to create equitable access to jobs, housing and social interactions; enable agglomeration economies and encourage sustainable relationships to ecosystems and natural habitats. The physical form of a city, which is the result of intentional planning and development, is critical to urban social, economic and environmental well-being. (p.45)

The **Paris Agreement** under the United Nations Framework Convention on Climate Change (UNFCCC) of 2016 relies upon the pledges of the countries known as National Determined Contributions (NDCs). India's NDC includes the goals to reduce the emission intensity of country's GDP by 33 to 35 percent by 2030 from 2005 level (Lok Sabha Secretariat, 2017). Urban areas hold a key in such massive emission reduction.



iv. India's National Growth Targets

Several growth targets of India reflect the need for concerted action for fulfilling the full potential of the urban economy. For example, a) economic growth target: USD 5 trillion economy by 2024, b) employment target: total workforce estimated to be 0.64 billion by 2030, of which 0.26 billion to be employed in urban areas (MoF, 2021), c) infrastructure targets: creation of 11 large industrial corridors as part of the National Industrial Corridor Programme (Press Information Bureau, 2021), several multi-modal logistic parks, etc., and d) environmental protection targets: river rejuvenation, clean air in cities, etc. Strategic spatial planning will be instrumental in attaining India's growth targets, sustainable development, and to prevent negative externalities of urbanisation.

v. National Infrastructure Pipeline

The Ministry of Finance, Government of India, had launched the National Infrastructure Pipeline (NIP) for FY 2020-25 to facilitate infrastructure projects in the country with a projected investment of Rs 111 lakh crore during the period 2020-25. The urban sector has a significant share of 17% in the NIP. "India needs to develop quality, reliable, sustainable, and resilient infrastructure, including regional and trans-border infrastructure, to support economic development and human well-being, with a focus on affordable and equitable access for all" (Ministry of Finance, n.d., p. 27).

vi. Need for Capacities to Ensure Multi-sectoral Convergence

There are several stakeholders at Central, State and Local Government levels as well as multi-sectoral schemes that directly and indirectly impact the urban landscape in India. For example, Smart Cities Mission of Ministry of Housing and Urban Affairs, GoI is an urban renewal and retrofitting program to develop smart cities across the country. The Ministry of Heavy Industries has approved Phase-II of the FAME Scheme under the National Mission on Electric Mobility to encourage the demand of electric vehicles in the country like e-buses, e-3 wheelers, e-4 wheeler passenger cars (including strong hybrid) and e-2 wheelers with aim of affordable & environment friendly public transportation options. The Ministry of New and Renewable Energy unveiled a concept note on 'Green City', stating that Shri Narendra Modi, Hon'ble Prime Minister of India, desires one city in each State to be developed as a green city, which would meet all its energy requirements from renewable sources.

Therefore, there is an urgent need for a multi-sectoral approach to spatial planning as sectoral schemes are executed by different government departments and often not linked with each other. This is certainly not possible without adequate technical knowhow and planning capacities at the local levels. This further necessitates a stronger urban planning ecosystem in the country.

vii. Focus on Urban Local Bodies, 15th Finance Commission

The 15th Finance Commission's report, 'Finance Commission in Covid Times Report



for 2021-26' (2020), noted that cities are engines of economic growth and adopted a differentiated approach in the allocation of grants to urban local bodies (ULBs).

BOX 1: LOCAL BODIES GRANTS

"The Commission has recommended total grants for duly constituted local governments that add up to Rs 4,36,361 crore for the period 2021-26. The Commission has recommended basing the inter-se distribution of grants for local bodies among the States, on population and area in the ratio of 90:10."

"A sum of Rs 2,36,805 crore is earmarked for rural local bodies, Rs 1,21,055 crore for urban local bodies and Rs 70,051 crore for health grants through local governments. Rs 8,000 crore is performance-based grants for incubation of new cities and Rs 450 crore is for shared municipal services."

"The Commission has recommended imposing **entry-level conditions for local bodies** to receive grants. These include **(i) setting up of State Finance Commissions** in States, act upon their recommendations and lay the explanatory memorandum as to the action taken thereon before the State legislature on or before March 2024, **(ii) having both provisional and audited accounts online in the public domain** and, **(iii) fixation of minimum floor for property tax rates** by the relevant State followed by consistent improvement in the collection of property taxes in tandem with the growth rate of State's own GSDP (for urban local bodies)."

"The Commission has recommended that **60 per cent of the grants to rural local bodies and for urban local bodies in non-Million-Plus cities should be tied to** supporting and strengthening the delivery of two categories of basic services: (a) sanitation, maintenance of ODF status (for Rural Local Bodies), solid waste management and attainment of star ratings as developed by MoHUA (for non-million plus cities/Category-II Cities/Towns; (b) drinking water, rain water harvesting and water recycling (both for Rural Local Bodies and Urban Local Bodies)."

"The Commission has recommended that for cities with million plus population (Million-Plus cities), 100 per cent of the grants are performance-linked through the **Million-Plus Cities Challenge Fund (MCF)**."

"The Commission has recommended that a sum of Rs 8,000 crore is recommended to States as **grants for incubation of new cities** and Rs 450 crore for **facilitating shared municipal services**."

"The Government has accepted the above recommendations of the Commission."

Note:

Excerpts from Department of Economic Affairs (2021). *Explanatory memorandum as to the action taken on the recommendations made by the Fifteenth Finance Commission in its final report submitted to the President on November 9, 2020*. Ministry of Finance, Government of India, New Delhi. <https://fincomindia.nic.in/ShowContent.aspx?uid1=3&uid2=0&uid3=0&uid4=0>

viii. Capacities to Manage Transition and Achieve Targets

The transition of settlements from rural to urban, impactful implementation of government schemes, effective use of financial provisions with an overall aim for achievement of the national targets, needs heightened capacities of urban planning





in multiple sectors at all relevant levels. The complex and multi-stakeholder task of city planning not only requires advanced technology, equipment, administrative leadership, and political decisions but also skilled professionals, such as planners, urban designers, architects, engineers, data-science experts, geospatial technology experts, and so on. The term ‘planners’ here, includes the all the relevant streams—urban and regional planning, infrastructure planning, environmental planning, transportation planning, regional planning, housing, industrial areas planning, rural area planning or any other nomenclature approved by AICTE. For cities to become more liveable—with opportunities for employment and economic growth—an adequate, empowered, and technically sound pool of planning professionals is critical.

ix. Need, Demand, and Supply of Urban Planners

A question on ‘urban planners to urban population ratio’ was raised in Rajya Sabha in 2015. In his response, the Minister of State of the Ministry of Urban Development had stated ‘the total number of registered planners is approximately 5000 which work out to one planner for 75,000 urban population. The ratio has to be seen in the context of levels of urbanization and is low in comparison to developed countries’ (refer to Annexure I). A year later, UN- Habitat in its document titled ‘World Cities Report’ indicated that India has a grim ratio of 0.23 accredited planners per 1 lakh population—contrast this with the UK, where the figure is as high as 38. Meshram (2020) noted that there are only 7000 qualified town and country planners in the country where as there are 7935 town and cities, besides 640 districts and over 6 lakh villages. The supply as well as involvement of urban planners in urban planning and development are critical links. It is necessary to look into the present workforce of urban/town planners and their supply system in the country.

1.2 THE URBAN CHALLENGES

i. India’s Urban Story

India’s urban story is complex and diverse. It can be broadly viewed in terms of:

- a. **Level of Urbanisation:** While India’s level of urbanisation as a whole appears to be low, it varies significantly across the States and UTs. States such as Goa, Tamil Nadu, Kerala, Maharashtra, and Gujarat have attained over 40% urbanisation. States such as Bihar, Odisha, Assam, and Uttar Pradesh continue to be at a lower level of urbanisation than the national average of 31.1%. Over 75% of the urban population of the country is in 10 States: Maharashtra, Uttar Pradesh, Tamil Nadu, West Bengal, Andhra Pradesh, Gujarat, Karnataka, Madhya Pradesh, Rajasthan, and Kerala. The union territories, NCT of Delhi, Daman and Diu, Chandigarh, and Lakshadweep, show above 75% urbanisation, as per Census 2011. The distribution of urban centres and the pace of urbanisation is not uniform across the country.
- b. **Governance status of towns:** As per Census 2011, the **urban system of India consists of 7933 settlements**, classified broadly as statutory (4041) and census

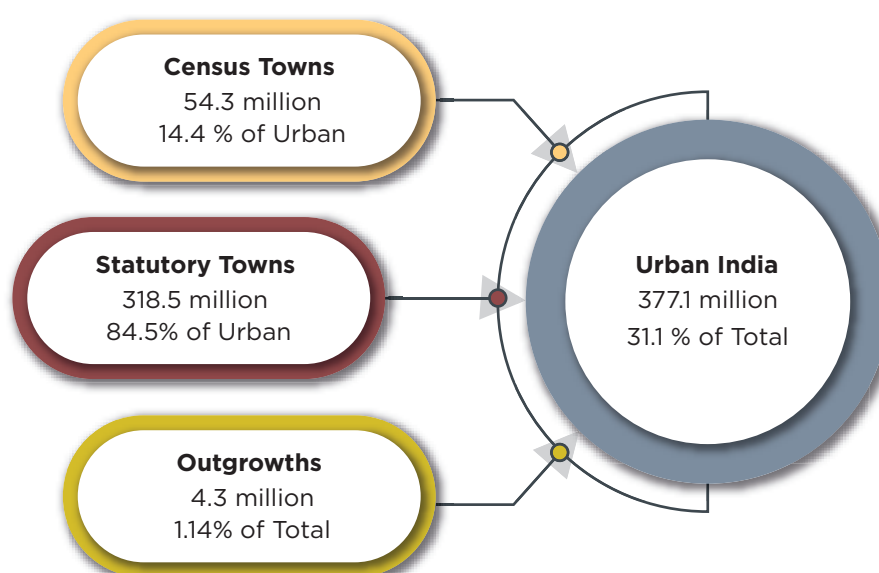


(3892) towns. The urban agglomerations are a continuous spread of towns and outgrowths. The key definitions are as mentioned below:

- **Statutory Towns:** Settlements that are notified under law by the concerned State/UT government and with local bodies such as municipal corporations, municipalities, municipal committees, etc., irrespective of their demographic characteristics.
- **Census Towns:** Settlements that are classified as urban in the census after they have met the following criteria: a minimum population of 5,000, at least 75% of the male 'main workers' engaged in non-agricultural pursuits, and a density of population of at least 400 persons per sq. km. These are governed as villages and do not necessarily have urban local bodies.
- **Outgrowths:** These are viable units, such as a village, clearly identifiable in terms of their boundaries and locations. Outgrowths possess urban features in terms of infrastructure and amenities, such as pucca roads, electricity, etc., and are physically contiguous with the core town of the urban agglomeration.

Figure 1

Composition of Urban Population



Note:

Calculated from Office of the Registrar General & Census Commissioner, India. (2011). *Census of India 2011*. Ministry of Home Affairs, Government of India. <https://censusindia.gov.in/2011-common/censusdata2011.html>

- c. **Significance of Census Towns in Urbanisation:** The process of urbanisation in India is characterised by a mix of natural increase in urban population, migration and transformation of settlement characteristics from rural to urban in descending order of share. However, the Census of India 2011, shows a different composition, with the share of natural increase dipping to 43.3%, followed by census towns whose share jumped to 31.2%, and rural-urban

migration accounting for 22.8% of the net urban population increase. The census towns are an integral component of India's present urbanisation story. It is also worth mentioning that the share of population of census towns in the total urban population increased from 7.3% in 2001 to 14.4% in 2011.

The States wherein there was a massive increase of Statutory towns in number from 2001 to 2011 are: Chhattisgarh (75 to 168), Gujarat (168 to 195), Madhya Pradesh (339 to 364), Jammu & Kashmir (72 to 86) and Nagaland (8 to 19).

The States where there was a massive increase of census towns between 2001 and 2011 are: Andhra Pradesh (93 to 227), Assam (45 to 123), Gujarat (74 to 153), Haryana (22 to 74), Jammu and Kashmir (3 to 36), Jharkhand (108 to 189), Karnataka (44 to 127), Kerala (99 to 462), Madhya Pradesh (55 to 112), Maharashtra (127 to 279), NCT of Delhi (59 to 110), Odisha (31 to 116), Tamil Nadu (111 to 376), Uttar Pradesh (66 to 267), and West Bengal (252 to 780).

The States wherein urbanisation was led to a significant extent by the census towns during 2001-11 were Uttarakhand, Assam, West Bengal, Jharkhand, Odisha, Goa, and Kerala.

- d. Size-class Distribution of Towns:** The urban system of India is diverse, and the size-class composition does not follow the same pattern across the States. A broad description is provided in Table no. 2. In 2011, 70.2% of the total urban population was living in cities with over 100,000 population. The Class-I cities comprise 44.7% of the total urban area of the country. The number and proportion of cities with over one million people have grown dramatically in the recent decades and are poised to rise further. Cities with a million-plus population rose to 35 by 2001 and 53 by 2011. On the other hand, the Class II, III and IV towns together make up 26% of the total population in the country and contribute a share of over 44.2% to the total urban area in the country (refer to Table 2). The small- and medium-sized towns carry similar importance with respect to their integrated spatial planning.

Table 2:

Size-class distribution of Towns

S. No.	Class	Number of Urban Agglomerations* /towns	Area (in sq.km)	Percentage share to total Urban Area	Total Population in class (million)	Percentage share to total urban population
1	Class I-100,000 and above	298 Urban Agglomerations and 170 Towns	45,662.85	44.7%	264,745,519	70.2%
2	Class II- 50,000 to 99,999	100 Urban Agglomerations and 374 Towns	9,693.17	9.5%	32,179,677	8.5%
3	Class III- 20,000 to 49,999	75 Urban Agglomerations and 1298 Towns	19,774.45	19.3%	41,833,295	11.1%



4	Class IV- 10,000 to 19,999	1 Urban Agglomerations and 1682 Towns	15,690.27	15.3%	24,012,860	6.4%
5	Class V- 5,000 to 9,999	1749 Towns	9,688.14	9.5%	12,656,749	3.4%
6	Class VI- Below 5,000	424 Towns	1,743.12	1.7%	1,678,025	0.4%
Total		474 Urban Agglomerations and 5697 Towns*	102,252	100.0%	377,106,125	100.0%

Note:

Urban agglomerations are a continuous urban spread constituting a town and its adjoining outgrowths (OGs), or two or more physically contiguous towns with or without outgrowths.

*The totals in number of Urban Agglomerations may not match owing to variance in Census tables.

Compiled from Office of the Registrar General & Census Commissioner, India. (2011). *Census of India 2011*. Ministry of Home Affairs, Government of India. <https://censusindia.gov.in/2011-common/censusdata2011.html>

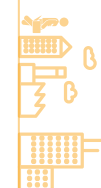
ii. Statutory Towns Growing Without 'Master Plans'

Master plans are critical for managing urbanisation. They are statutory instruments to guide and regulate the present and future utilisation of land, expansion, and zoning of cities for 20–25 years. As per the data provided by TCPO to the Advisory Committee, **about half of our statutory towns are expanding without any master plan to guide their growth and infrastructural investments** (refer section 4.1.3 for more details).

It is often observed that several challenges are faced during implementation of the master plans like delays, disputes in courts etc. Some master plans also get amended more than a thousand times during their implementation. There could be multiple reasons behind this. For example, lack of data supporting ground realities, lack of communication between various departments and planning agencies, and lack of development policy awareness amongst citizens. It is often argued that master plans do not sufficiently address financing issues in a comprehensive manner, which results in piecemeal interventions, haphazard growth of cities, and create inefficiencies in the use of urban land as well as urban sprawl.

iii. Lack of Preparedness to Capture Benefits of Urbanisation in Census Towns

As per the data compiled by the Town and Country Planning Organisation (TCPO), about two-third of the census towns do not have master plans to guide their spatial growth. Urban economic activity is growing rapidly in these towns but there is no local government responsible and accountable for infrastructure development or service delivery. The census towns continue to be governed as villages and



do not have an urban local body.¹ The opportunity of reaping the benefits of planned urban development in such towns may remain unutilised if these towns keep growing without a comprehensive spatial development strategy under statutory master plans. Haphazard growth, unplanned construction, and ad-hoc provisioning of infrastructure, over a long period of time, will put them at major risks of urbanisation.

iv. Sub-Optimal Utilisation of Urban Land

MoHUA (2016) noted that the urban land in India is 3.1% of the total land area of the country, and paradoxically land parcels of high urban densities co-exist with those which are sub-optimally utilized. There are several factors that play a role in land use efficiencies.

The fundamental factor is the **fragmented and poorly recorded ownership of urban land**. Moreover, in a typical Indian city, multiple public sector organizations/agencies—ports, railways, ULBs, etc.—own land under their jurisdictions. For a city to develop holistically, planning for each land parcel needs to fall into one comprehensive spatial strategy. This needs deeper interventions in urban land governance and record modernization.

Furthermore, the researchers argue that the regulatory frameworks that are typically developed and used as tools for urban development and value capture financing have become counterproductive and are causing them to expand horizontally resulting in a suburban sprawl:

In developing countries such as India that is facing large-scale urbanization, regulatory reform has the potential to enable much more built space to accommodate anticipated urban growth within central-city areas, and reduce future suburban sprawl. Cities are often unaware of the outcomes, effectiveness, cost implication, or unintended consequences on land utilization and development pattern of regulations as they were formulated several decades ago and have not since critically evaluated, but only updated in an ad-hoc manner. Future research on land price comparisons can be undertaken to understand price variation for built space on ground and higher floors within buildings (Byahut et al., 2020, p.18).

Land is a finite entity and a basic ingredient for urban development. Land acquisition is a complex process and the infrastructural provision is costly. Therefore, it is necessary that the inner city areas as well as city expansions are efficiently utilized. This is also important in the context of improving urban economy, ensuring affordability, and mitigating pollution.

v. Magnitude of Population Living in Slums

As per Census 2011, 17.3% of the total urban population was under slums in India and about 70% of this slum population was concentrated in six States: Maharashtra

¹ In some cases, however, the State governments have constituted development authorities for Planning, Developing, Regulating and Operating the Census towns. e.g., Greater Noida.



(18.1%), Andhra Pradesh (15.6%), West Bengal (9.8%), Uttar Pradesh (9.5%), Tamil Nadu (8.9%) and Madhya Pradesh (8.7%). It is also important to note that the same States observed a jump in census towns between 2001 and 2011—Maharashtra (127 to 279), Andhra Pradesh (93 to 227), West Bengal (252 to 780), Uttar Pradesh (66 to 267), Tamil Nadu (111 to 376) and Madhya Pradesh (55 to 112).

Pradhan Mantri Awaas Yojana (PMAY) was launched in June 2015 by the Hon'ble Prime Minister as a flagship mission with objective of addressing housing shortage among EWS/LIG and MIG category by the year 2022. Further, in June 2021, the Union Cabinet approved the Model Tenancy Act for circulation to all States/Union Territories for adaptation by way of enacting fresh legislation or amending existing rental laws suitably. The act is a step in the direction of a vibrant, sustainable and inclusive rental housing market in the country.

Housing is an integral component of city planning. Ensuring adequate and decent quality of houses at speed and scale to urban dwellers will require a stronger capacity and system of policy-making, project preparation, financial modelling, city planning, and engineering for implementation.

vi. Increasing Risk of Water Scarcity in Cities

Water is in an indispensable necessity for any settlement to thrive and sustain its population, built and natural environment, as well as economic activities. NITI Aayog in its Composite Water Management Index noted that “As India’s water crisis worsens, **environmental damage will intensify with increased attempts towards finding additional water resources.** This will lead to serious harm to the country’s biodiversity, environment, and ecological balance” (2019).

The World Wide Fund for Nature India (2020) has found that **Indian cities dominate both current and future lists of cities from across the world with the highest overall water risk.** Moreover, 30 Indian cities, including Jaipur, Indore, Amritsar, Pune, Srinagar, Kolkata, Bangalore, Mumbai, Kozhikode, and Vishakhapatnam, are likely to face acute water shortage in the next few decades.

This situation is further exacerbated by the lack of adequate infrastructure in cities and towns to handle their own wastewater and solid waste. This may lead to contamination of remaining groundwater resources or deterioration of surface water quality.

Providing additional water through desalination plants is an energy-intensive and expensive solution. It is crucial that the planning of cities and towns should be done with adequate provisions of **blue-green-grey infrastructure integrated** with the land uses, transportation systems, natural drainage pattern, and the regional context. Such capacity as well as priority needs to be inculcated in city planning and plan implementation processes.

vii. City Planning for Disaster Mitigation

The way urban areas are planned, developed, and managed; can create long lasting impacts on the local water availability and vulnerability to disasters. The floods



that had struck the city of Chennai in the year 2015 present a learning in this regard. The Parliamentary Standing Committee on Home Affairs in its report titled, 'Disaster in Chennai Caused by Torrential Rainfall and Consequent Flooding in the Country'—presented to Rajya Sabha in 2016—noted that the encroachment of lakes and riverbeds had played a major role in flooding.

The approach towards natural drainage systems, wetlands, floodplains, surface waterbodies and ground water while planning of cities and regions plays an integral role in maintaining the water balance, flood cushioning, micro-climate regulation and protection of biodiversity. Therefore, for sustainable urban development, water shall remain a key aspect. The urban planning and plan implementation capacities needs to be oriented towards considering these aspects.

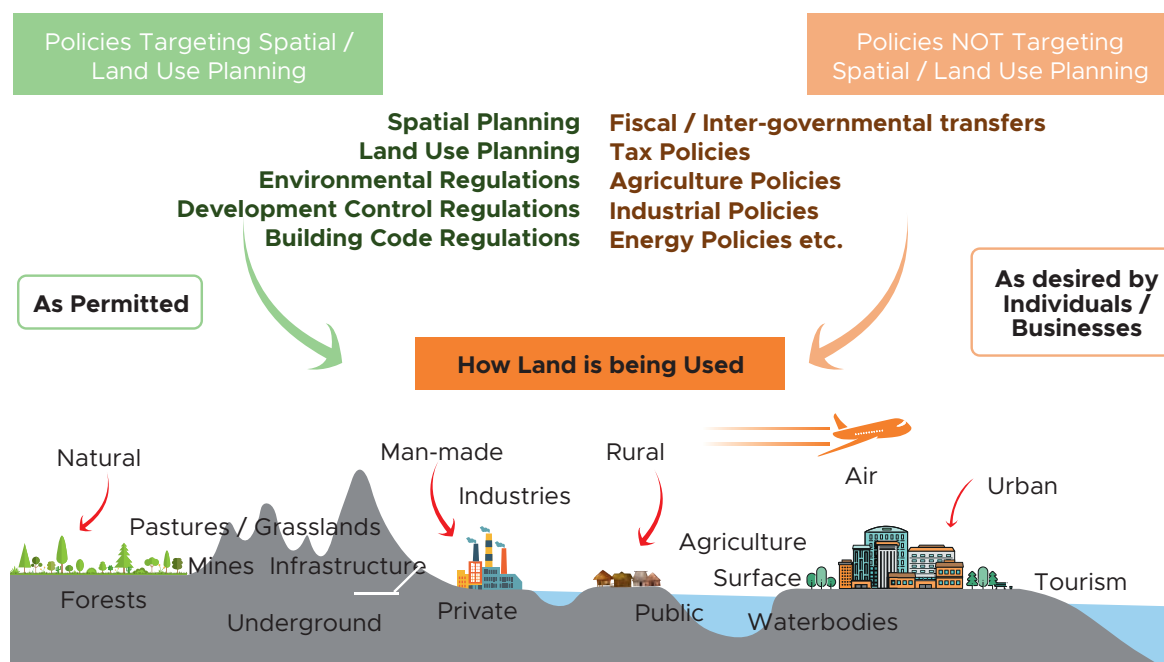
viii. Pressures on Coastal Habitations

As per the MoEFCC (2017), India has a large coastline (7516.6 km), including 5422.6 km of mainland and 2094 km of island territories. There are 66 coastal districts in the mainland, three in the Andaman and Nicobar Islands and one in the Lakshadweep Islands. About 171 million people reside in these districts, which is home to 14% of the population of the country. The coastal cities are vulnerable to floods due to multiple causes, that include faulty urban design and planning, dynamic coastline, flash floods, storm surges, cyclones, and tsunamis (Dhiman et al., 2016). Coastal habitations and infrastructural investments are vulnerable to rise in sea levels due to climate change, cyclones, and so on. Capacities including specialist expertise for planning coastal regions and settlements, are therefore, extremely important.

ix. Urban Planning and Policy Making—Multi-Disciplinary and Multi-Sectoral

A city is a 'system of systems', wherein the spatial components include land use, transport, logistics, heritage, environment, housing, etc., and the non-spatial ones include the administrative structures, legislative frameworks, economic policies, labour market, budget allocations and so on. (Refer Figure 2)

Agarwal (2018) has described that the spatial and land use plans use environmental legislations and development control regulations to affect/control the land use. These instruments can restrict the usage of land in a certain way, but may not necessarily offer the most efficient, community and market driven land use patterns to emerge. The non-spatial systems may create incentives to use land in a certain but may not correspond to the objectives of land use planning systems. In many cases, the cities struggle to achieve their development objectives due to overwhelming pressures of competing as well as contradicting land uses. Therefore, there is an immense need for multi sectoral urbanisation policy at the State levels with involvement of all relevant stakeholders.

Figure 2*Spatial and Non-Spatial Factors Affecting Land Use***Note.**

Graphics from Agarwal A. (2018). *A Compendium on International Practices and Experiences*. Deutsche Gesellschaft für Internationale Zusammenarbeit (GIZ) GmbH, New Delhi.

The settlements, thus, demand an integrated planning approach wherein both the spatial and non-spatial systems are given due consideration. This needs concerted actions towards increasing awareness about utility of multi-sectoral approach towards urban planning and policy making at various levels, preparation of urbanisation policies at the State levels and urban planning capacities to be able to put the policies into action.

1.3 PLANNING SKILLS TO ADDRESS URBAN CHALLENGES

i. Urban and Regional Planning

The National Commission on Urbanisation elaborated that physical or spatial planning covers various aspects of development such as infrastructure, basic amenities, land uses development, physical environment, and citizen participation in decision-making and plan implementation— the ultimate objective being improvement in the quality of life for all sections of society. (1988)

‘Urban and regional planning’, is therefore a professional practice and an academic study, which is focused on processes that promote planned, economic, scientific, and artistic development of all sizes of settlements. This practice, ideally, needs an understanding of multiple disciplines such as economics, finance, project management, architecture, engineering, sociology, demography, mapping technology, consensus building, etc. Moreover, planning is a cyclical process that involves “identification of goals and objectives, assessment of issues, potentials,

and priorities; evolution of alternative plans and their evaluation to select the most appropriate concept; preparation of the plan based on the selected concept; implementation followed by feedback and review to decide a future course of action". (Kulshrestha, 2012).

While urban planning relates to cities, 'regional planning' includes planning for rural as well as urban areas within a region on a different scale and level of detailing. A region generally has some common attributes. For example, the Indian Himalayan Region, Western Ghats, Gangetic Plains, industrial region, district or groups of districts, a tourist region, and so on, etc. Some examples of planning at regional scales include: integrated cluster action plans under SPMRM, district-level plans, regional plan of National Capital Region., Gujarat Petroleum, Chemicals and Petrochemicals Investment Region, Dholera Special Investment Region., Delhi Mumbai Industrial Corridor, and so on. These regions span upto to a several thousands of square kilometres.

It is evident that planning of settlements or regions is a continuous process, one that does not end with the preparation of a plan or a detailed project report — and it needs multi-disciplinary teams as well as sustained capacity to deliver its intended outcomes.

ii. Levels of Planning

Traditionally, the term 'urban planning' was considered to be associated with only spatial planning. Over time, the urban and regional planning skills have evolved across multiple sectors for different scales of interventions as elaborated below:

a. At the city level:

- Land use planning: development plans, master plan, town planning schemes, building construction permits, development control regulations, inter-agency coordination local area plans for redevelopment of inner-city areas, heritage conservation, environmental improvement etc.
- Mobility planning: comprehensive mobility plans (including parking strategies, adoption of intelligent transportation systems), planning of bus/rail rapid transit systems, etc.
- Environmental infrastructure planning: city sanitation plans, water supply infrastructure plans, solid waste management plans etc.
- Implementation of various government schemes and programmes such as SAAPs and formulation of GIS-based master plans under AMRUT scheme
- Public outreach including participatory planning and grievances redressals

b. At the regional level:

- Land use planning: district/metropolitan development plans, regional plans: district development plans, metropolitan development plans, industrial area plans (industrial regions/SEZs, tourism management plans,
- Regional infrastructure: planning of highways, metropolitan transportation planning, planning of multi-modal logistic parks, etc.



c. At the National/State level:

- Policy framework such as National Urban Transport Policy, National Housing and Habitat Policy, etc.
- Design of programmes/missions such as the Atal Mission for Rejuvenation and Urban Transformation (AMRUT), Pradhan Mantri Awas Yojana (PMAY), Smart Cities Mission (SCM), Swachh Bharat Mission (SBM)
- Strategic/Project planning

iii. Role of Urban Planners

Across different sectors and scales of interventions, an urban planner may be engaged in public, private or education sectors. Various roles include town planning official, technical expert, project manager, advisor, consultant, faculty etc. Some of the key functions of urban planners (including but not limited to) are:

a. Technical and Analytical:

- Conducting feasibility studies, undertaking survey, research and analysis, documentation, preparation of plans, detailed project reports, financial modelling, implementation, and monitoring,
- Analysis, drafting, preparation, implementation, and monitoring of spatial plans
- Conducting research and developing strategies, supporting policies, programmes and key projects of the government at various levels
- Contributing to the field through research and innovations
- Developing innovative approaches to solve complex urban and regional challenges pertaining to housing, basic services, transportation,
- Incorporating considerations pertaining to gender, child, universal access, climate change, safety and sustainability
- Executing techno-legal roles, including building permissions and plan enforcement functions
- Developing strategies for regional development
- Developing policy frameworks for environment-sensitive development
- Implementing development projects and closely monitoring the impacts for mid-course corrections, if any.

b. Consensus building and moderation:

- Engaging actively with different stakeholders
- Enabling the balance amongst all relevant interests and competing land uses so as to solve conflicting demands on space and development
- Engaging with citizens and ensuring effective public participation at various levels of planning processes

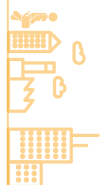
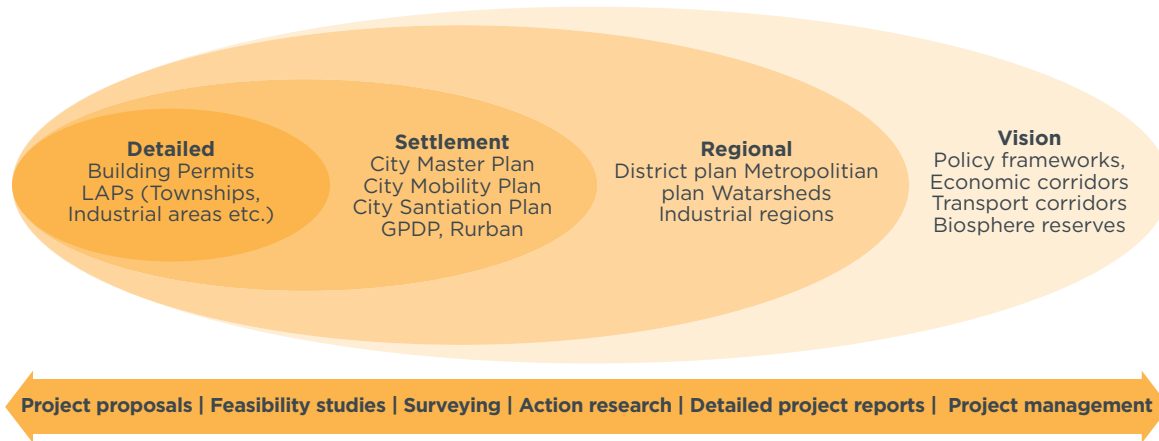


Figure 3*Levels of Interventions of Urban Planners***Note.**

Adapted from Agarwal, A. (n.d.). *Flight to Urbanisation*. Tarksthal. <https://tarksthal.in/2020/05/12/chapter-03-flight-to-urbanisation/>

As depicted in Figure 3, urban planning and its applications go beyond cities/urban, to rural, tourism, industrial, transport and logistics, regional, environmental, and so on.

Therefore, the skillsets of urban/town planners need to encompass various aspects of multiple disciplines such as architecture, economics, environmental science, geography, finance, data analytics, etc.

iv. Complexity of City Planning

Master planning of a city is essentially an exercise involving land allocation for various uses, amongst other purposes. As a planner, one has to arrive at solutions for competing land uses, economic versus environmental considerations, and many other paradoxical situations. Moreover, actions on one front may solve one problem but they could have serious effects. For example, decrease in the density of land development may reduce air pollution in certain pockets, but in turn may increase dependence on automobiles as well as travel time.

Rao (2013) opined that “While the planner looks at the city as a whole, the individual looks at his own property alone. All problems originate from this diametrically opposed view.”

The competing land uses along with contracting interests need to be moderated through evidence-based decisions or trade-offs and incorporated in a spatial strategy that is most beneficial to the city, its surroundings, and masses. Therefore, the complexity of the task of city planning is remarkably high; it needs specialist skills as well as awareness.

v. Skill Sets of Urban Planners

An urban planner, ideally, possesses skills for solving complex multi-sectoral challenges, moderating the competing pressures on land posed by market forces,

environmental considerations, and social needs, and take a balanced approach in a citizen-centric approach.

Figure 4

Skills imparted to Urban Planners

Quantitative & qualitative research	Project structuring	Strategic planning	Consensus building and moderation
Surveying & mapping	Critical thinking	Financial modelling	Leadership & team management
Policy development	Problem solving ability for multi- sectoral issues	GIS & Remote sensing	Project Evaluation & monitoring
Documentation and visual presentation	Multi-disciplinary awareness	Regulatory & legal frameworks	Communication & persuasion

Technical Skills

←————→

Managerial Skills

They work as enablers, moderators as well as specialists. With training and experience in technical as well as managerial aspects, they possess unique abilities of working across disciplinary boundaries by virtue of their training and experience. This is further depicted in Figure 4. Nonetheless, the level of skills imparted through organised technical education systems vary depending upon syllabus and institutional capacities.

vi. Importance of Recognizing Urban Planning as an Independent Discipline:

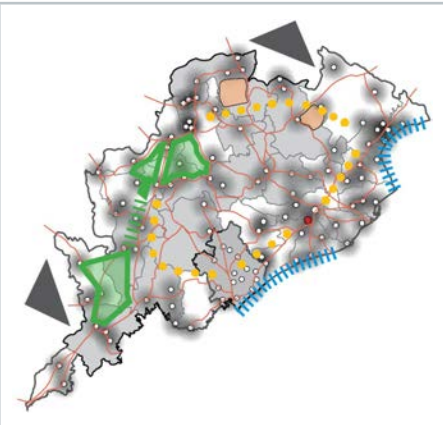
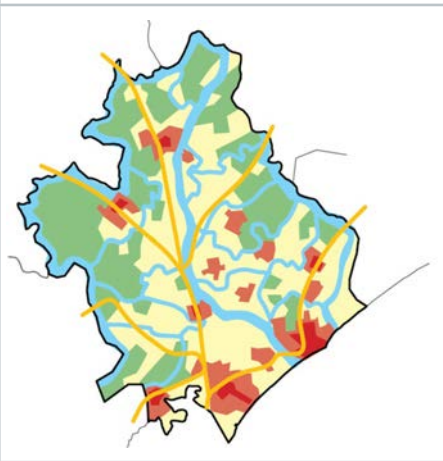
Over the years, the discipline called 'Urban planning' (and its allied nomenclatures) have gained a lot of importance globally. The research and education sector has grown as well. However, in terms of perception and employability, this field and its expertise remains ironically underrated and under-utilised in both public as well as private sectors in India. This is largely due to legacy issues as well as practical overlapping of the roles/skill sets of a planner, architect, urban designer and a civil engineer. At times, it has also been observed that the planner's role is being catered to by the professionals from a field which are not even related to any of the aforementioned domains of expertise. This lack of clarity amongst the potential users of the planning skill sets as well as the public at large, is also hampering the overall quality of work outputs and their intended outcomes.

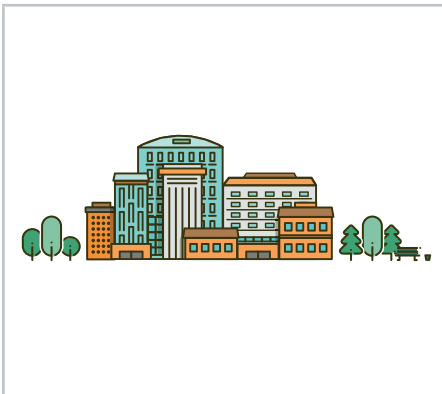
It is essential to recognize that planning, urban design, architecture, and civil engineering are distinct professions with dedicated degree programmes and qualifications, albeit with some overlapping skill sets. Typically, a civil engineer has an expertise in construction technologies of buildings, bridges, roads, ports etc.; an architect is well-versed in building design; an urban designer has an ability to comprehend the local level plans in greater detail and envision the development in

three dimensions; and a planner is trained to prepare large-scale plans, including city master plans, comprehensive mobility pans, city sanitation plans, district plans, metropolitan region plans, industrial areas plans, policy frameworks, special economic zone plans and so on.

Figure 5 depicts the difference in scales of interventions. At each scale of intervention, the skill sets and the domain expertise required to achieve the desired outputs vary.

Figure 5
Scales of Physical Interventions in Cities and Skills

	1. National/State level policy making At the National or State level, planning skills are pertinent for policy formulation, vision preparation, programme design, strategic positioning of projects etc.
	2. Regional plans Regional plans address the multi sectoral aspects and give direction and priorities for investments and development. Preparation, implementation, and review of regional plans is a cyclic process. Planning skills are predominantly applicable here for devising a bigger picture and a strategy while encompassing considerations about multiple sectors like transportation, tourism, agriculture, land, industries, forests, environment and so on.
	3. Master plans The city master plans or development plans are statutory in nature. They define land uses and a set of norms to which all the constructions in the city must comply with. Their preparation, implementation and review entail a cyclic process which needs planning skills (both technical as well as managerial) for moderation, consensus building, and decision making with a team of multi-disciplinary experts (which may include architects, civil engineers, data scientists, transportation planners, environmental planners and so on.) Other city scale plans that need specialist expertise of planners include city sanitation plans, comprehensive mobility plans and so on.



4. Local area level planning, building level interventions

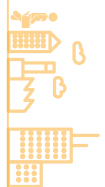
This scale of intervention predominantly needs urban design, architecture and engineering skills. Depending on the nature of the area being planned, such as a transit-oriented zone planning, may also need specialist skills such as Transportation planning, environmental planning and so on. At the building level, the role of a planner is mainly in terms of permits and compliances.

Note.

These examples are only indicative and not exhaustive in nature. They have been used to depict the overlapping nature of skill sets and the need to identify the distinct role of each domain. Graphics adapted from Agarwal A. (2018). *A Compendium on International Practices and Experiences*. Deutsche Gesellschaft für Internationale Zusammenarbeit (GIZ) GmbH, New Delhi.

It is widely debated that certain overlapping skill sets may also be acquired on-the-job by an individual with basic training in architecture or civil engineering. Though this is possible, however, in absence of any measure like a skill qualification framework or a degree qualification, it shall remain difficult to ascertain the adequacy of such acquired skills.

Therefore, in order to initiate interventions in the urban planning capacity of the country, it would be pertinent to delve into the aspect of recognizing 'Urban Planning' as an independent discipline. This may help in nurturing quality of the present and future urban planning capacity of the nation.



2

GENESIS OF ADVISORY COMMITTEE



2.1 PROMINENT COMMITTEES IN NEAR PAST

2.1.1 National Commission on Urbanisation

The Government of India constituted the National Commission on Urbanisation in 1986 under the Chairpersonship of Mr. Charles Correa, an eminent Architect. Its vice-Chairperson was Sh. M.N. Buch, an Indian civil servant and urban planner. The Commission had an eclectic mix of architects, planners, industrialists, economists, environmental engineers and administrators. The Commission was constituted to address the issues of rising urban population, economic potential of urban India, and degradation of the urban environment. It submitted the final reports in 1988. The National Commission on Urbanisation (1988) looked into various aspects of urbanisation. It observed, among other things, that,

- a. The process of urbanisation must improve the agricultural performance and create localised employment opportunities.
- b. Land is a key resource in urban planning and its supply needs to be given topmost priority.



- c. Water is critical for human survival and must be suitably accorded high priority in planning process.
- d. Greater resources would need to be mobilised for urban development to expect a significant change in cities.

The commission made recommendations on dimensions of urbanisation, land, water and sanitation, energy, transport, urban poverty, housing, urban form, conservation, spatial planning, finance, management and information systems. The NCU (1988) recommended that:

- a. 329 urban centres identified by the commission as Generator of Economic Momentum (GEMs) require priority in development. These GEMs were further divided into NPCs (National Priority Centres) and SPC (State Priority Centres). Additionally, the commission also identified 49 Spatial Priority Urban Regions (SPURs) wherein the future growth in urbanisation was expected.
- b. A settlement survey of India should be established at national level and a directorate of urban land in each State and, an Urban land manager position should be created at city level under the control of District Collector.
- c. The Land Acquisition Act 1894 should be amended to eliminate delay and ensure timely payment to the citizens.
- d. Water resource management should be done in a holistic manner and not in a compartmentalised manner.
- e. Land use planning and transportation planning should be integrated and also used as a tool to reduce the energy needs that arise from the transport sector.
- f. The development control regulations and building bye laws should be modified to ensure construction of energy efficient buildings.
- g. Mass transportation systems must be encouraged in city planning along with more thrust on cycling and pedestrian facilities.
- h. The provision of shelter and sites for employment generation programmes should be considered in city planning.
- i. Rent Control Acts must be modified and the housing policy must aim at increasing the supply of serviced land, upgrading slums, etc.
- j. Four major banking institutions must be set-up: Metropolitan Cities Development Bank, National Housing Bank, Urban Infrastructure Development Bank, and Urban Small Business Development Bank.
- k. Data sources should be modified to provide spatially disaggregated data.
- l. Location specific information systems should be devised to facilitate urban planning.

The Commission's reports spread over 7 volumes are an elaborate repository of information about the history of human settlements in India, urban poverty, housing strategy, building technology, urban environment, physical planning, etc. Detailed strategies for urbanisation issues were put forth in them.





2.1.2 High-Powered Expert Committee, Ministry of Urban Development (2011)

The report of the High-Powered Expert Committee (HPEC) for Estimating the Investment Requirements for Urban Infrastructure Services—set up by the erstwhile Ministry of Urban Development (MoUD)—asserted that the ability of the ULBs to deliver urban services depends not only on devolution of functions by the State governments or financing arrangements, but also on their capacities to fulfil their responsibilities. It emphasized that **for good programmes and projects to emerge** from cities and towns, there is an **urgent need for professionals in areas such as urban planning**, engineering, finance, and management. In the context of urban planning capacities of India, the HPEC (2011) recommended that:

- a. The Government of India in partnership with State governments and possibly the private sector, should **set up five Indian institutes of urban management**. The institutes can either be anchored in the existing IIMs or be standalone institutions of excellence. Their task would be to prepare a future generation of urban managers/regulators with state-of-the-art training in urban issues.
- b. The **existing schools of urban planning should be revitalised** and strengthened with infusion of funds and new talent so they can provide similar inputs for urban planning (including metropolitan and regional planning).
- c. A **large number of officials will have to be trained in urban planning**, finance, project preparation, project implementation, project management, e-governance, etc., and in developing systems of quality assurance and monitoring of reforms.
- d. As the **ULB staff comprises a small number of skilled personnel** and a large mass of unskilled workers hired locally, the building/reforming of municipal cadres in all States was strongly recommended. The cadre should cover expertise in areas of regional and city planning, finance and accounts, public works, project management, traffic and transportation, environmental conservation, e-governance, etc.
- e. The personnel requirements and competencies needed for municipal corporations, municipalities and *nagar* panchayats should be assessed and size of the **cadres at the different levels** determined.
- f. The Committee also emphasised on **inclusive planning**, which would cater to the needs of housing and public transport, with special focus on low-income groups.
- g. In addition, it was mentioned that India's culture and architecture is reflected in its urban morphology and buildings. Urban planning in India must draw upon this rich heritage.
- h. Further, the Committee also pointed out that the legislation defining the ULBs—e.g. Delhi Municipal Corporation Act and the Bombay Provincial Municipal Corporation Act or the Municipalities Act in Gujarat—should prescribe how, when, and who (within the ULB) should make the development plan. It should **define a position for an urban planner within the ULB** and the relationship of the planner with other functionaries and office-holders.



2.1.3 Committee of Experts in Town Planning and Architecture, Ministry of Human Resource Development, 2011

The Ministry of Education (then MHRD) had set up the Committee of Experts in Town Planning and Architecture for 'Policy Guidelines to Energise Architecture Town-Planning Education'. The Committee, in its report submitted in July 2011, made recommendations on various aspects pertaining to town planning and architecture, such as institutional set-up, demand-supply gap, pedagogy and research, admission criteria, faculty, institutional consultancy, professional parity of courses, etc. Some of the key recommendations are mentioned below:

- a. By 2032, India would need about 3 lakh town and country planners—i.e. on an average, 8000 per year (6000 from B. Planning and 2000 from M. Planning). To meet this requirement,
 - Student intake in 3 Schools of Planning and Architecture and National Institutes of Technology should be enhanced,
 - Fourteen new Schools of Planning and Architecture should be started in major metro cities with minimum intakes of 75 in B.Planning and 60 in M. Planning, respectively.
 - Balance of seats could be provided by the University Grants Commission (UGC) and State-recognised universities through affiliated institutions for B. Planning.
- b. A multi-pronged strategy needs to be adopted to bridge the gaps between supply and demand for trained professionals in planning.

2.2 CONSTITUTION OF ADVISORY COMMITTEE BY NITI AAYOG, 2020

- i. Considering the need for long-term interventions to bring about reforms in the sector, NITI Aayog constituted a high-level inter-ministerial Advisory Committee under the Chairpersonship of Dr Rajiv Kumar, Vice Chairperson, NITI Aayog. The composition of this Committee, as per the OM dated 22 October 2020, is as below:
 - a. Dr Rajiv Kumar, Vice Chairperson, NITI Aayog Chairperson
 - b. Sh. Amitabh Kant, CEO, NITI Aayog Member
 - c. Secretary, Ministry of Housing and Urban Affairs (MoHUA) Member
 - d. Secretary, Higher Education, Ministry of Education (MoE) Member
 - e. Secretary, Ministry of Panchayati Raj Member
 - f. Dr K. Rajeswara Rao, Special Secretary, NITI Aayog Member
 - g. Chairman, University Grants Commission (UGC) Member
 - h. Chairman, All India Council for Technical Education(AICTE) Member
 - i. Chairperson, Town and Country Planning Organisation Member
 - j. President, Institute of Town Planners, India Member



- k. Director, School of Planning and Architecture (SPA), New Delhi Member
 - l. President and Director, CEPT University, Ahmedabad Member
 - m. Director, National Institute of Urban Affairs Member
 - n. Sh. Rakesh Desai, Director (Managing Urbanisation Vertical), NITI Aayog-Convenor
- ii. The first meeting of the Advisory Committee was held on 17 November 2020. Pursuant to the inputs from the members, the Chairperson advised expanding the then existing title from **‘Reforms in Urban-Planning Education System in India’** to **‘Reforms in Urban Planning Capacity in India’**.
- iii. Accordingly, the terms of references (ToRs) were revised and informed to the Advisory Committee members vide OM dated 1 March 2021, these were:
- a. Identify the need and suggest strategic interventions to raise the quality and quantum of the planning education system—in the context of curricula, demand, regional distribution and ranking framework of institutions, research environment, faculty development and related aspects.
 - b. Examine the factors affecting demand-supply gaps of planners at all levels and sectors of governance and suggest suitable mechanisms for empowering governance with adequately skilled and qualified planning professionals.
 - c. Strengthen the mechanisms for empowering the States and local bodies with adequately skilled and qualified human resources for planning and managing settlements.
 - d. Suggest a roadmap for enhancing the involvement of multiple stakeholders such as educational institutions, private sector, and others in improving the technical knowledge base and operational efficiency of future planning professionals.
 - e. Suggest interventions to create synergies and address concerns of the private sector in each of the above points to augment the overall planning capacity of the country.

2.3 DEFINING ‘URBAN PLANNING CAPACITY OF INDIA’

i. Cumulative Planning Capacity of India

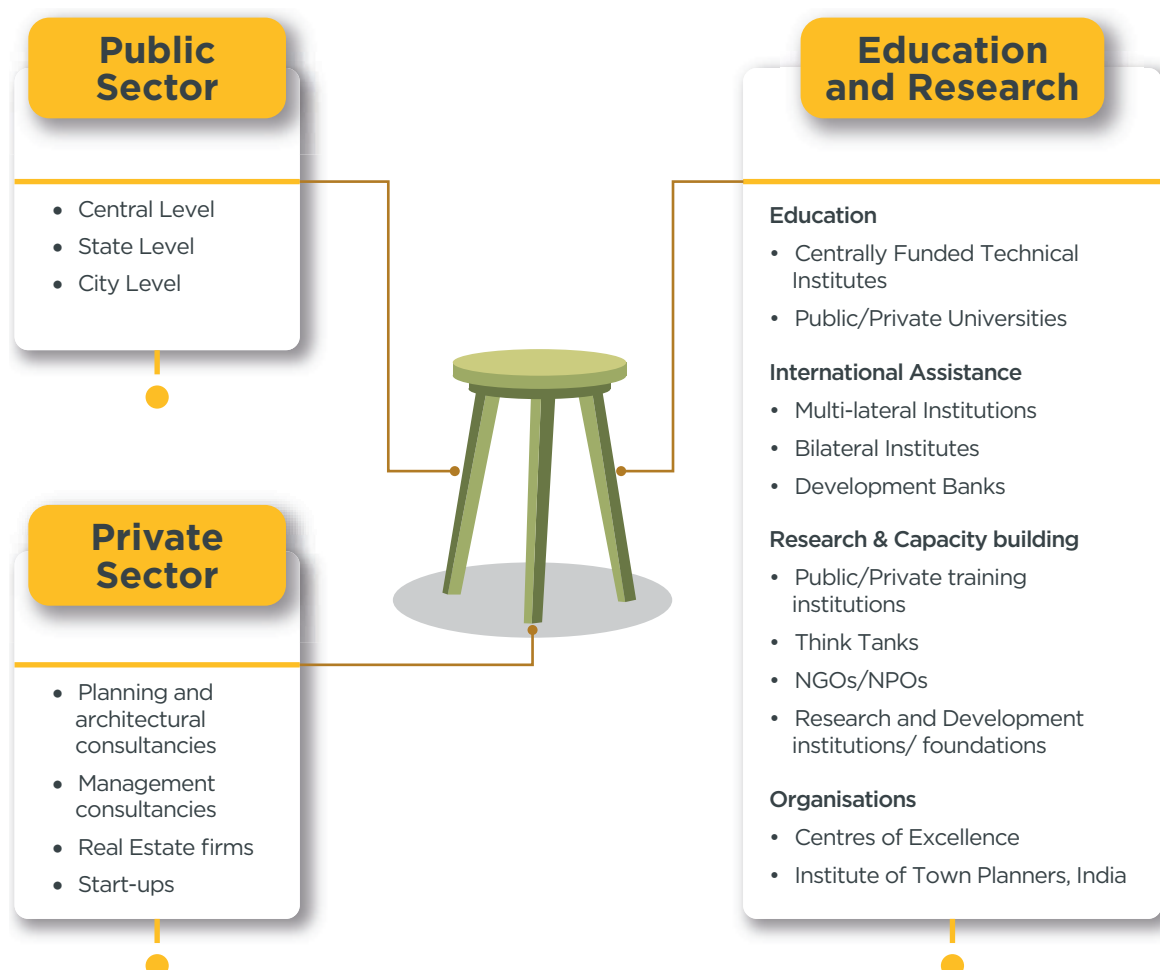
Various studies and research documents—such as the Indian Urban Infrastructure and Services (HPEC, 2011), Future of Urban Development and Services (World Economic Forum, 2015), World Cities Report (UN-Habitat, 2016 and 2020)—have discussed the need for augmenting the capacities for planning and management of cities in India.

To address the question of urban planning capacity in India, it is pertinent to first define what constitutes it. The Advisory Committee assessed that the capacity of urban planning in India is built upon three pillars: a) public sector, b) private sector and c) education and research sector. There is a need to recognise the roles of

these three sectors individually to improve the overall capacity.

Figure 6

Components of Cumulative Capacity of Urban Planning in India



Note:

Graphic adapted from presentation on 'Planning/Design Capacity in India' by Dr Bimal Patel, Director CEPT University at the second meeting of the Advisory Committee.

ii. Public Sector:

- Firstly, it is pertinent to note that the **demand-supply aspect of planners² needs to be seen in an overall context**. This is because there are numerous ministries, departments, organisations, and bodies at the Central, State, and local levels that utilize the skill-sets of planners while undertaking their mandates ranging from policy making, programme design, strategic planning, legislative interventions to preparation of regulations, rules, guidelines, and training of human resources. A non-exhaustive list is given below:

² The term Planners, here, includes the all the relevant streams-Urban and Regional Planning, Infrastructure Planning, Environmental Planning, Transportation Planning, Regional planning, Housing, Industrial areas planning, Rural area planning or any other nomenclature approved by AICTE.

a. Central Level:

- Apex/Independent offices:
 - ♦ National Institution for Transforming India (NITI Aayog)
- Ministries:
 - ♦ Ministry of Housing and Urban Affairs (MoHUA)
 - ♦ Ministry of Rural Development (MoRD)
 - ♦ Ministry of Panchayati Raj (MoPR)
 - ♦ Ministry of Finance (MoF)
 - ♦ Ministry of Railways (MoR)
 - ♦ Ministry of Environment, Forest, and Climate Change (MoEFCC)
 - ♦ Ministry of Road, Transport and Highways (MoRTH)
 - ♦ Ministry of Commerce and Industries (MoCI)
 - ♦ Ministry of Ports, Shipping, and Waterways (MoPS&W)
 - ♦ Ministry of Jal Shakti (MoJS)
 - ♦ Ministry of Tourism (MoT)
- PSUs/Boards/Institutions/Organizations/Bodies constituted by or divisions under various Ministries:
 - ♦ Town and Country Planning Organization (TCPO)
 - ♦ National Institute of Urban Affairs (NIUA)
 - ♦ Central Public Health & Environmental Engineering Organisation (CPHEEO)
 - ♦ National Capital Region Planning Board (NCRPB)
 - ♦ Housing and Urban Development Corporation (HUDCO)
 - ♦ National Industrial Corridor Development Corporation (NICDC)
 - ♦ Logistics division under MoCI
 - ♦ National Institute of Rural Development and Panchayati Raj (NIRDPR)
 - ♦ National Disaster Management Authority (NDMA)
 - ♦ Rail Land Development Authority (RLDA)
- Metro Rail Corporation
- Rail Land Development Authority
- DMIC Development Corporation

b. State Level (including Joint ventures and Parastatals):

- Urban Development Departments
- Rural Development Departments



- Town and Country Planning Departments
- Directorate of ULBs
- Institutes for Space Applications and Geoinformatics
- Urban Finance and Infrastructure Development Corporations
- Housing Boards/Housing Corporations
- Metro Rail Corporations
- Slum Clearance Boards
- Urban Land Transport Departments
- Ports/Maritime Boards
- Real Estate Regulatory Authorities
- Coastal Regulatory Zone Authorities
- Water Supply and Sewerage Boards
- Urban Transport Directorates
- Tourism Corporation
- Industrial Development Corporations
- Disaster Management Authority
- State Institute of Public Administration

c. Regional/Local Levels:

- Metropolitan Planning Committee
- Regional Development Authorities
- District Planning Committee
- Zilla Parishads
- Cantonment Boards
- Urban Development Authorities
- Special Area Development Authorities
- Urban Local Bodies
- Urban Improvement Trusts
- Special Purpose Vehicles under Smart Cities Missions

- » Secondly, what is perceived as a city is actually a 'system of systems', a social-economic entity, and physically a milieu of various sub-sectors like housing, commerce, industry, and its supportive infrastructure (mobility, education, water supply, public health, sanitation, drainage, solid waste, communication, energy, power, digital connectivity, parks, urban forests, and open spaces etc.). Therefore, the government organisations that directly contribute to the pillar of 'public sector' in the urban planning capacity, belong to multiple sectors.





Their cumulative role is to organise a statutory framework, modernise planning policies, continuously measure the efficacy of planning frameworks, manage plan-making, project financing, and implementation processes, ensure inter-agency coordination, provide procurement expertise, and facilitate public consultation and communication. This role is played by various actors that have been listed in Section 4.1.

iii. Private Sector

The role of the private sector is to build and maintain robust organisations to tackle urban-planning problems. Private-sector companies organise planners in teams and develop and maintain their expertise and provide planning and implementation capacities. These include (not limited to):

- a. Planning and architectural consultancies
- b. Management consultancies
- c. Real estate firms
- d. Start-ups

iv. Education and research sector

The role of educational and research institutions is to generate knowledge, train urban-planning and design professionals to work in the private and public sectors, undertake relevant research, improve practices in the three sectors, advise governments, ensure professionalism in urban planning and design, and ensure a continuous education of professionals. This sector includes:

a. Academic Institutions:

- Centrally funded technical institutions
- Public/private universities
- Associateship Examination of the Institute of Town Planners, India

b. International Technical Assistance Organisations:

- Multilateral organisations
- Bilateral organisations
- Development banks

c. Research Institutions

- Think tanks
- Research and development organisations
- Centres of excellence
- Not-for-profit organisations
- Non-governmental organisations



d. Capacity-Building Institutions:

- Public-sector capacity-building institutions such as the Regional Centre for Environment and Urban Studies
- Non-government capacity-building institutions

v. Scope and Focus of Advisory Committee:

Considering the wide arena of the cumulative capacity of urban planning in India, the Advisory Committee further decided to focus on: a) State town and country planning departments under the pillar 'public sector', b) higher technical education institutions that offer degree programmes in planning the pillar 'Education and research' and c) the private sector.

It was unanimously decided that though the issues related to rural and regional planning are highly relevant, but owing to the scope of the said Advisory Committee, the rural-area-planning capacity would need a dedicated in-depth effort at the national level in consultation with the States/UTs.

Additionally, while the committee noted that there are numerous other challenges in urban sector such as weak finances in ULBs, infrastructural shortages, impacts of climate change, lack of regional planning, weaknesses in land record management and asset management etc.; it focused only on the capacity for planning of urban areas as per its scope of work.

vi. Cumulative Capacity vis-à-vis Capacity-building:

The advisory committee also considered that bringing an incremental or transformational change in the cumulative urban planning capacity of India is a matter of concern much larger than the 'training of staff' or 'adding more institutions'.

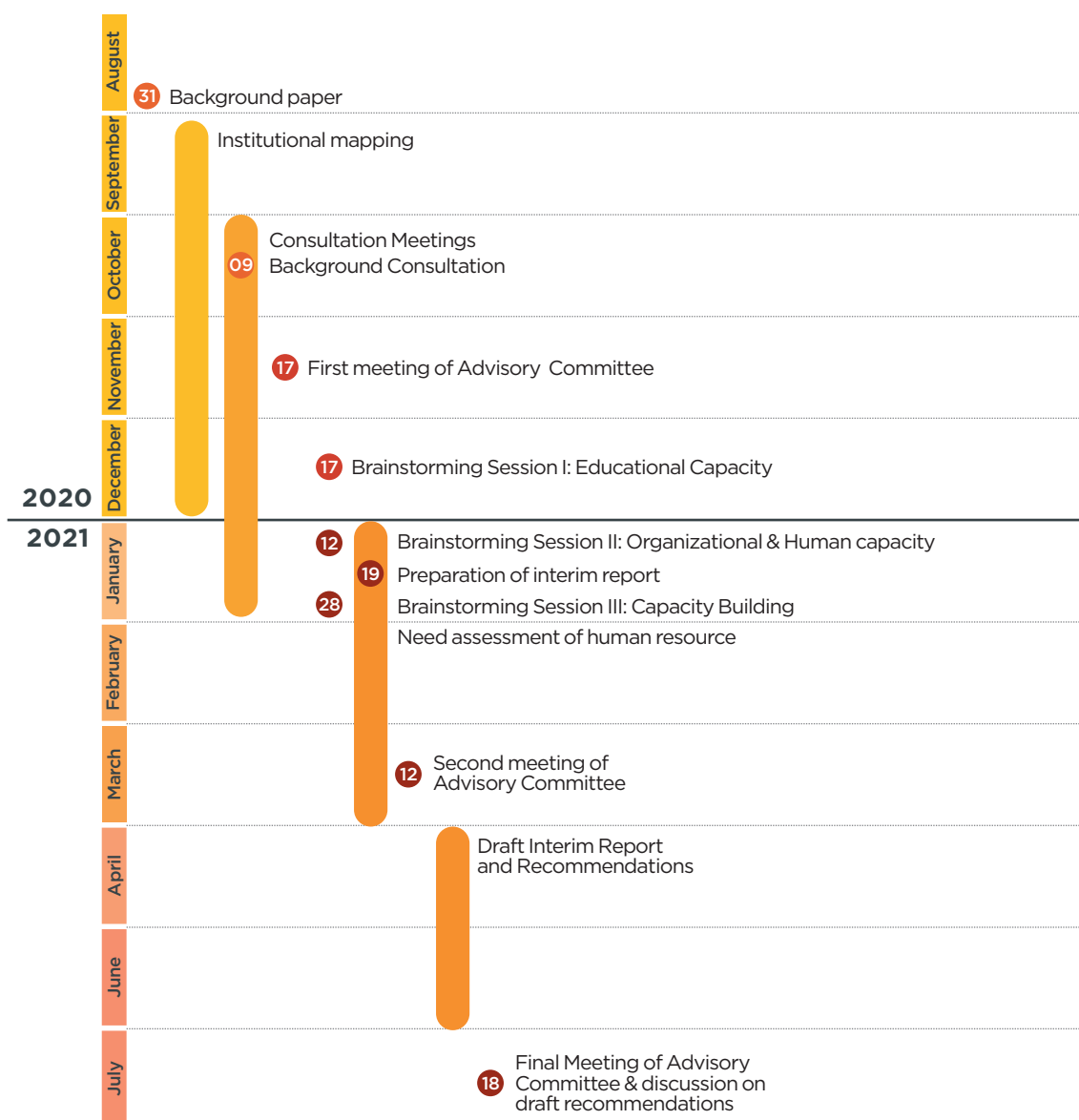
Planning capacity, per se, would pertain to the issues in overarching frameworks that impact the capacities of planning of urban areas, capacities of public sector organisations to undertake planning exercises and the capacities of educational institutions to be able to train enough graduates adequately to serve public as well as private sectors. It also includes ways to develop domestic private sector companies so that they can expand their operations to qualitatively and quantitatively contribute to the urban sector, and in turn generate employment.

Capacity-building, on the other hand, is an effort, which is limited to strengthening and improving the abilities of personnel and organisations to perform their tasks in a more effective, efficient, and sustainable manner.

2.4 TECHNO-CONSULTATIVE PROCESSES UNDERTAKEN

A series of technical and consultative processes was undertaken to meet the terms of reference of the Advisory Committee. The following illustration depicts the flow of the processes and events.



Figure 7*Processes Undertaken under the Advisory Committee*

Progress and outputs along the different stages:

i. Background work

The genesis of the deliberations on 'Urban Planning Education in India' was a preliminary background paper that was developed by NITI Aayog, which included aspects like importance of urban and regional planning, recommendations of past committees in the domain, urban planner to population ratio aspects, issues in technical education of urban planning, ranking framework of institutions etc. The key findings of this paper were discussed with eminent experts in the field of urban planning, governance and urban design.

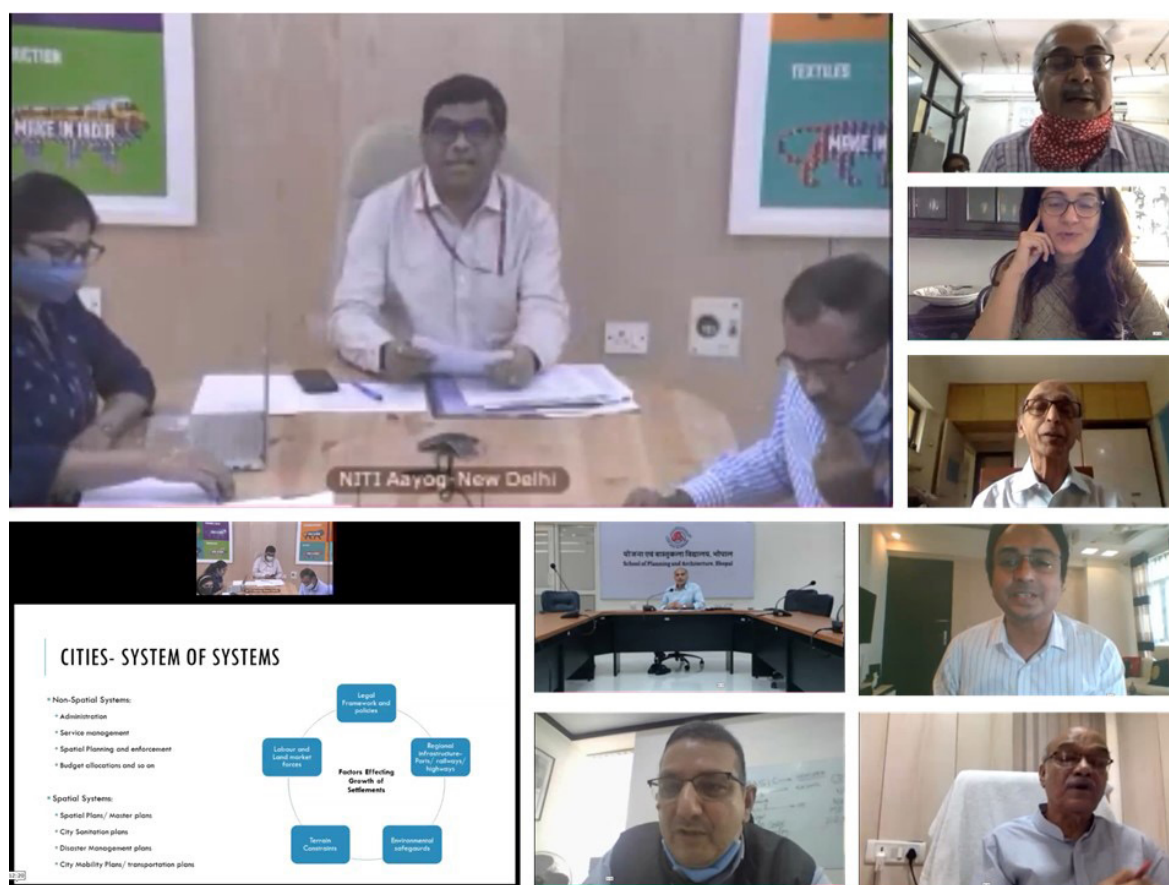


ii. Background Consultation on 'Proposed Reforms in Urban-Planning Education System in India'

To identify specific issues related to gaps in the existing urban-planning education system in India, NITI Aayog hosted a virtual background consultative meeting on 9 October 2020. The meeting was titled 'Proposed Reforms in Urban-Planning Education System in India', and held under the Chairpersonship of Dr K. Rajeswara Rao, Special Secretary, NITI Aayog. Several senior representatives of various organisations participated in the consultation.

Figure 8

Glimpses of the Proceedings of Background Consultation held on 9 October 2020



The following aspects were discussed:

- ▶▶ Urban-planning education system in India
- ▶▶ Importance of conflict management, negotiation, and communication among urban planners
- ▶▶ Technology in urban-planning education
- ▶▶ Curricula of urban-planning education
- ▶▶ Recruitment rules for town planners at the State level
- ▶▶ Ranking framework of urban-planning institutions
- ▶▶ Nomenclatures of the degrees



- » Job availability for urban planners
- » Knowledge of public policy important for planning

iii. Constitution of Advisory Committee

A need was felt to explore the possibilities of bringing about advancements in the existing urban-planning education system of the country. This was considered to strengthen the role and services of the current and future urban-planning professionals. In this context, a 14-member High-Level Advisory Committee was constituted under the Chairpersonship of Dr Rajiv Kumar, Vice Chairman, NITI Aayog, vide OM dated 22 October 2020 (refer to Annexure II).

Figure 9

Snapshot of Media Coverage on the Formation of the Advisory Committee

Home / Education / NITI Aayog panel for reforms in urban planning education

NITI Aayog panel for reforms in urban planning education

The 14-member advisory committee, headed by NITI Aayog Vice-Chairman Rajiv Kumar, will review the urban planning education system in India and examine the availability, demand and supply of qualified urban planners in the country.

By: **Express News Service** | New Delhi | Updated: October 23, 2020 9:24:50 am

Note:

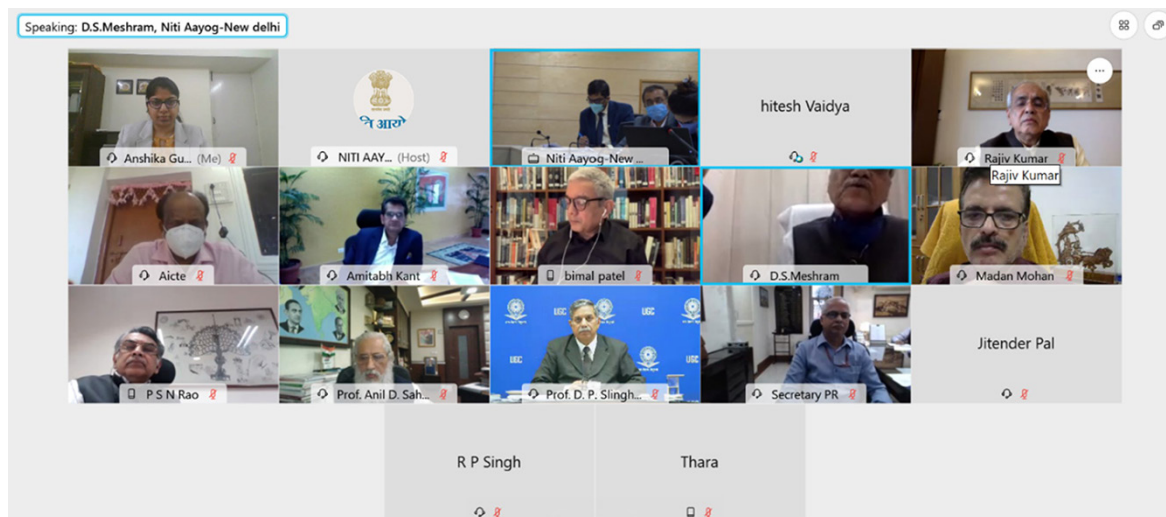
Snapshot from Express News Service (2020, October 23). NITI Aayog panel for reforms in urban planning education. The Indian Express. <https://indianexpress.com/article/education/niti-aayog-panel-for-reforms-in-urban-planning-education-6844024/>

iv. First Meeting of Advisory Committee on 'Reforms in Urban Planning Education System in India'

The first meeting of the Advisory Committee was held on 17 November 2020, and chaired by Dr Rajiv Kumar, Vice Chairman, NITI Aayog (refer to Annexure III for the list of participants).

Figure 10

Snapshot of the Proceedings of First Meeting of Advisory Committee Held on 17 November 2020



The major points raised during the discussion were:

- ▶ The role of the office of mayors has been diminishing over time.
- ▶ There is a need to improve the understanding of Indian cities and their planning.
- ▶ There is a need to bring about structural reforms in urban-planning education.
- ▶ Training of future urban planners should be based on a completely different ethos of planning, which will lead to compact and vertical cities, efficient mass transit systems that will encourage cycling and walking with the use of technology.
- ▶ There is an uneven geographical distribution of the planning education institutions in India.
- ▶ Working with a government authority for up to one year after graduation should be made compulsory for all urban-planning students.
- ▶ There is a need to expand degree programmes in the domain of urban design.
- ▶ Faculty members of urban-planning institutions need continuous trainings.
- ▶ Student and faculty exchange programmes are important.
- ▶ The provision of 'Academic Bank of Credits' in the National Education Policy 2020 can bring lot of advancements in the higher technical education.
- ▶ There is a need for including economics, finance, and market dynamics as important parts of the curricula as urban planners deal with land use, which is intrinsically linked to finance and markets.
- ▶ There is an acute shortage of posts for planners in the State governments. Also, many sanctioned posts of town planners in State town-planning departments are lying vacant.

- » Several instances have come to light where non-planners have been hired for posts sanctioned for qualified town planners.
- » There is a need for separate land administration for urban areas, as inaccurate maps can lead to multiple downstream transactional costs.
- » There is a need to increase the quality of planners even in the private sector companies.
- » Regional planning aspects need to be looked into.
- » Haphazard growth is taking place in the villages due to lack of regulatory measures. There is hardly any space left for provision of facilities in the villages.
- » Urban and rural areas differ only in spatial sizes and magnitude of population, and thus, there is a need for uniformity in services like drinking water, energy supply, sanitation, etc., in urban and rural areas.

With the above discussions in place, the scope of the Advisory Committee expanded from 'Urban Planning Education' to 'Urban Planning Capacity'.

v. Meetings with Eminent Experts

The process was strengthened through a set of exclusive meetings undertaken by Dr K. Rajeswara Rao, Special Secretary, NITI Aayog, with eminent experts to identify capacity-enabling mechanisms and ways of enhancing the role of the private sector:

- » Dr P.S.N. Rao, Director, SPA Delhi; and Dr D.S. Meshram, Council Member and Former President, ITPI, on 11 November 2020
- » Dr Bimal Patel, President, CEPT University, on 23 October 2020, 5 January 2021 and 8 January 2021.
- » Mr Srikanth Viswanathan, CEO, Janaagraha, on 31 December 2020.

A series of brainstorming sessions was also held with sector representatives and experts from the Ministry of Rural Development (MoRD), National Institute of Urban Affairs (NIUA), Town and Country Planning Organisation (TCPO), National Institute of Rural Development and Panchayati Raj (NIRDPR), School of Planning and Architecture (Delhi, Bhopal and Hyderabad), Indian Institute of Technology Kharagpur, urban practitioners, and capacity-building organisations like Regional Centre for Urban & Environmental Studies (RCUES) and All India Institute of Local Self-Government (AIIILSG).

vi. Brainstorming Session-I: Educational Capacity, 17 December '20

Dr K. Rajeswara Rao, Special Secretary, NITI Aayog, chaired the first brainstorming session. Refer to Annexure III for the list of participants. The major aspects discussed were:

- » Demand assessment of urban planners in public sector
- » Model curricula of urban-planning education
- » Ways to improve the quality of research and teaching



vii. Brainstorming Session-II: Organisational and Human Capacity, 12 January '21

This session was held under the Chairpersonship of Dr K. Rajeswara Rao, Special Secretary, NITI Aayog. Refer to Annexure III for the list of participants.

Figure 11

Glimpse of the Proceedings of Brainstorming Session II held on 12 January '21



The major aspects discussed were:

- ▶ Factors affecting demand-supply gaps of urban planners



- ▶ Difficulties faced in spatial planning of rural areas under the Shyama Prasad Mukherjee Mission and preparation of the Gram Panchayat Development Plan (GPDP), particularly in the North-Eastern States
- ▶ Need for documentation of best practices at the state, national and global levels

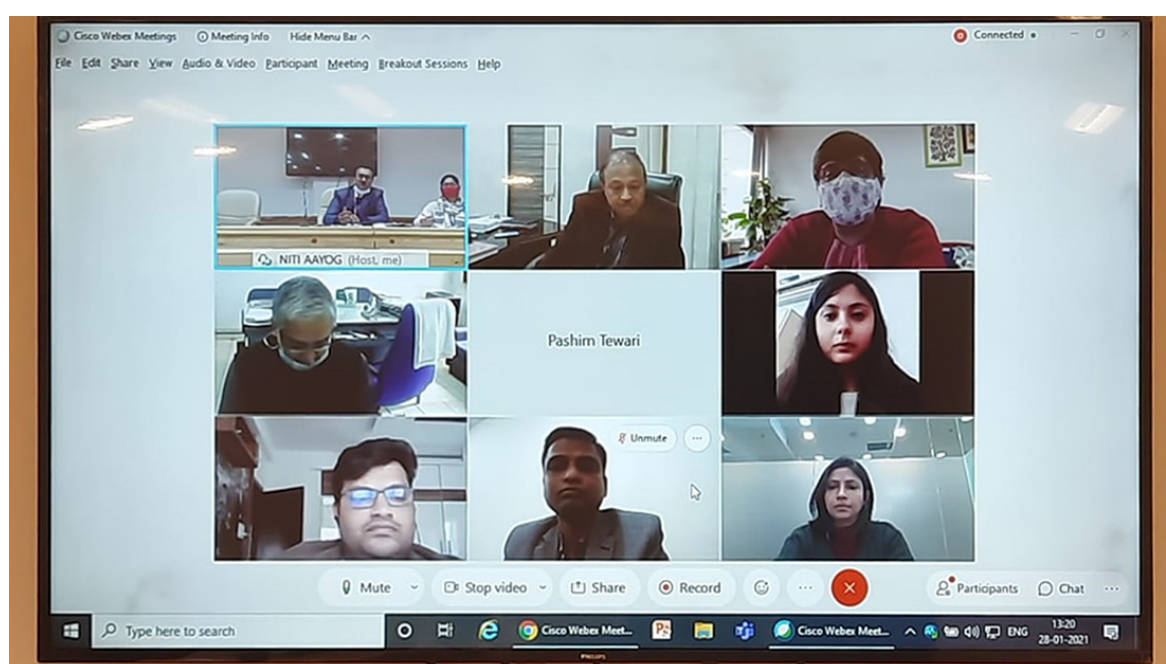
viii. Brainstorming Session-III: Capacity Building on 28 January '21

Sh. Rakesh Desai, Director (Managing Urbanisation), NITI Aayog, chaired this brainstorming session. Refer to Annexure III for the list of participants. The key takeaways from this discussion were:

- ▶ System of capacity-building of town/urban planners
- ▶ Funding provisions
- ▶ Content of the trainings/capacity-building programmes
- ▶ Challenges faced by capacity-building organisations

Figure 12

Snapshot of the Proceedings of Brainstorming Session III held on 28 January '21



- ix. **Need Assessment of Urban/Town Planners for the State Town and Country Planning Departments** was undertaken by a team comprising Mr R. Srinivas, Head Metropolitan and Union Territory Division, TCPO; Dr Debjani Ghosh, Associate Professor, NIUA; and Ms Anshika Gupta, Senior Associate, NITI Aayog, between January–March 2021.
- x. **Preparation of an Interim Report** began from January 2021 onwards. This work was undertaken by the Managing Urbanisation Vertical under the leadership of Dr K. Rajeswara Rao, Special Secretary, NITI Aayog, and Sh. Rakesh Desai, Director, NITI Aayog. The task of preparation of the interim and final reports was led and



coordinated by Ms Anshika Gupta, Senior Associate, NITI Aayog. A team of NIUA, led by Dr Debjani Ghosh, Associate Professor, provided research inputs and support for the compilation of the report.

- xi. Second Meeting of Advisory Committee** was held under the chairpersonship of Dr Rajiv Kumar, Vice Chairman, NITI Aayog, on 12 March 2021. Refer to Annexure III for the list of participants.

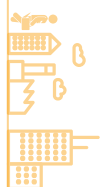
Figure 13

Proceedings of Second Meeting of the Advisory Committee



Following issues were discussed during the meeting:

- ▶ Cities in India have gone through an incremental development over the years.
- ▶ Indian cities are very different from their Western counterparts on various parameters e.g. population density.
- ▶ The ecosystem of spatial planning in the country is still immature to cater to about 8000 urban centres and over 6 lakh villages.
- ▶ There is a dire need to recognize the different roles that the three sectors—public, private and the education and research—play in cumulative planning capacity.
- ▶ The private sector shall be the key pillar in tackling urban-planning problems and bringing about innovations. Actions are needed to improve financial sustainability and effectiveness of the private sector.
- ▶ It is immensely important to integrate the environmental infrastructure in city planning.
- ▶ The current sanctioned posts of town planners is much less than the estimated need. Moreover, a considerable proportion of the current sanctioned posts is lying vacant.
- ▶ The latest model curricula of degree programmes in urban planning has multiple advancements over the previous ones.



- ▶ The educational institutions in this domain are facing difficulty in getting appropriate faculties.
- ▶ There is a lack of awareness amongst the citizens and elected representatives regarding the utility of spatial tools for creating a win-win situation for social as well economic development. It is essential to raise awareness amongst the citizens and administrators about the social and economic benefits of planning.
- ▶ Repositioning and demystification of urban planning from being a technocratic process to a more accessible process is the need of the hour.
- ▶ An in depth review of the State level town and country planning acts and cadre recruitment rules is required.
- ▶ There is a need to revise the URDPFI 2015 guidelines.
- ▶ In ULBs, building approvals have become a major task for which planning skills are not required; so many a time, the ULBs end up hiring engineers.
- ▶ The key role played by the Institute of Town Planners, India (ITPI) includes registration of urban planners as the members of the institute, publication of journals, conducting associateship examinations, giving awards, and organising knowledge sharing events.

xii. Third Meeting of the Advisory Committee was held under Chairpersonship of Dr Rajiv Kumar, Vice Chairman, NITI Aayog, on 18 June 2021, wherein extensive discussions were held on the draft recommendations. Refer to Annexure III for the list of participants.

Figure 14

NITI Aayog Presenting the Draft Recommendations in Third Meeting of Advisory Committee



Figure 15*Deliberations During the Third Meeting of Advisory Committee*

The discussions entailed the challenges in implementation of certain recommendations and a way forward. The key points discussed were:

- ▶ Whether it is Swachh Bharat, Smart Development, or housing, urban planning is the base for everything. Urban planning or urban development is a State subject and they have to be fully onboarded for translating ideas into action.
- ▶ There is no institution in charge of the urban-planning profession and its needs—how many urban planners are needed, the kind of degree required, etc. There is a non-statutory organisation for this purpose; however, there is no recognition for it.
- ▶ There is no law for the field of urban planning, like the Architects Act, 1972.
- ▶ Urban sprawl is taking place in the peripheral areas, and developments are happening haphazardly. Navigation within rural areas/habitations is extremely difficult; no fire tender can get inside the narrow lanes. For that matter, even ambulances find it difficult to go to these habitations. There is a need to undertake planning of rural areas/habitations so they can accommodate a larger population than what they currently have.
- ▶ From the Gram Panchayat to the Block and the Zila Parishad levels, every organisation is extremely short-staffed of engineers and planners.
- ▶ A lot of challenges are being faced in planning and implementation of Cluster plans under the Rurban mission with the country planning wing of the State town and country planning departments.
- ▶ There is a need for specialised courses, focusing on rural and regional planning.
- ▶ A large number of nomenclatures of M. Plan degrees are unnecessary. Due to them, many qualified urban planning graduates face issues during recruitment.
- ▶ There are 40 central universities in India, many of which are at the initial stage of development. The proposal of establishing new departments of planning may not be feasible in all the central universities.



- ▶▶ It is important to create capacity in the private sector as it offers higher salary and good-quality jobs to urban planners.

The members of the Advisory Committee deliberated upon the recommendations at length. The chairperson of the Advisory Committee stated that the draft recommendations would be revised by NITI Aayog while incorporating the feedback received from the members of the committee.



3

EVOLUTION OF URBAN PLANNING IN INDIA



India has a vivid and rich history of planning of human settlements. This section provides a glimpse into this intricate history.

3.1 TRACING ORIGINS AND DEVELOPMENT STAGES

- i. The origins of urban planning in India can be traced back to the Bronze Age. The Indus Valley Civilization, also known as the Harappan Civilization,³ principally covered some parts of Gujarat, Haryana, Punjab, Rajasthan, and Pakistan. The Indus Valley Civilization is known for its advanced town planning, especially the cities of Harappa and Mohenjo-Daro. Excavations have revealed the existence of efficient water supply systems, rainwater harvesting and sewerage systems, and grid -iron patterns of the streets.
- ii. In Ancient India, Mansara's *Shilpashastra* and Kautilya's *Arthshastra*, among others, mention principles on town planning. During this period, the planning of settlements

³ Various terms like 'Indus valley civilisation', 'Harappan civilisation', 'Indus-Saraswati Civilisation', and 'Sindhu-Saraswati Civilisation' have been employed in the literature to refer to this civilisation.

was influenced by religion, region, and security. Ayodhya, Varanasi, Madurai and Kanchipuram are a few examples of planned towns during this time (NCU, 1988).

- iii. The Mauryan Dynasty established a number of strong administrative centres, with a well-planned and fortified capital at Pataliputra (Sridharan, 2016). During the Mughal era, town planning placed significant importance on the 'place of worship' and the location of bazaars. The cities of this period were also known for their gardens and intricately designed monuments. Notable Mughal cities were Fatehpur Sikri, Shahjahanabad, etc. (NCU, 1988).
- iv. During the Colonial period, mainly port cities flourished, such as Calcutta (now Kolkata), Madras (now Chennai) and Bombay (now Mumbai). Kundu (2011) has described the urban development dynamics in the colonial period and its consequences on urban pattern in India:

The colonial economy, through the establishment of few port and administrative towns, generated strong centrifugal pulls manifested in commodity and population flows towards them. This had the inevitable consequence of weakening the centripetal forces exerted by the inter-settlement linkages. [. . .] The pre-existing rural-urban interactions were gradually replaced by export-import oriented commodity flows. [. . .] The interactive system evolved through the centuries, between a large number of handicraft, service and commerce based towns and their hinterland of primary production as also between large cities and smaller towns in the hierarchy, were the major casualties of this process of urbanization. (para. 5, 6)

- v. Major port towns during the British rule comprised a fort area surrounded by civil lines, a cantonment area for the armed forces, and a larger area for the natives around the core. In the princely States, the British earmarked residency areas for the local administration and garrison next to existing native cities. 'Hill station' was another kind of settlement that came up during this period. Town-planning functions during this period were executed by sanitary and civil engineers. They were entrusted with clearing slums, building roads through such settlements, filling up tanks to stem the breeding of mosquitoes, and maintaining civil lines. Social planning was non-existent. (Spodek, 2013).
- vi. The first Improvement Trust was established in Bombay in 1898, in the aftermath of the plague that had struck the city two years earlier. The Trust was to address the key challenges of Bombay city: poor sanitation, over-crowding, lack of building codes and governance. It, therefore, invoked the power of eminent domain and focused on creating new streets, decongesting crowded localities, reclaiming and land for urban expansion, and constructing housing for low-income groups. Improvement Trusts were subsequently also established in other large cities like Agra, Kanpur, Nagpur and Delhi. (Spodek, 2013).
- vii. It was during early twentieth century that town-planning legislations were enacted in India. The Bombay Town Planning Act of 1915 was the first such legislation. It gave the Bombay Municipal Corporation powers to prepare town-planning schemes for urban development or redevelopment. This made zoning, building



- regulations, land acquisition for public purposes, and the collection of funds an integral element of town planning (Ansari, 1977, and Ballaney, 2008, as cited in Spodek, 2018).
- viii. Sir Patrick Geddes prepared the improvement schemes of Tanjore, Madurai, Balrampur, Lucknow, and others in 1915. These were based on the principle of 'place-work-folk', which was divergent from the then prevailing engineering-based interventions of town planning. (NCU, 1988)
 - ix. An Imperial New Delhi Plan was made by British architect Sir Edwin Lutyens in 1912, which was implemented in 1932 (DUAC, 2015). It was based on the principles of garden cities.
 - x. In 1946, the Health Survey and Development Committee published an important report. The committee recommended the creation of a ministry of housing and town planning in every province, well-equipped provincial directorates of town planning, appointment of an expert in the Central ministry of health to advise on and scrutinize town planning schemes and creation of improvement trusts in all large cities (Ansari, 1977, as cited in Spodek, 2013).
 - xi. Chandigarh was planned post-Independence. The 1960s saw the rise of a number of public sector townships. Rourkela, Durgapur, Bhilai, Jamshedpur, Bokaro, etc. were planned as industrial townships. Efforts were also made for planning the capitals of the newly carved North-Eastern States.
 - xii. As the economy was liberalized in the 1990s, India was poised for fast-paced urbanization. Megacities experienced a population boom and a consequent strain on infrastructure. To combat the situation, some State Governments prepared metropolitan regional plans for encouraging the decentralization of economic activities from these cities.
 - xiii. In 1996, the first Urban Development Plan Formulation and Implementation (UDPFI) Guidelines were prepared and circulated to all the States and UTs by the Ministry of Urban Development (now MoHUA). Prior to these guidelines, most Master Plans were prepared along the lines of the first Master Plan of Delhi 1962 which had prescribed norms and standards for locating various functions/activities. The UDPFI Guidelines streamlined the plan-making process.
 - xiv. The noughties witnessed a steep rise in construction activities, which gave a fillip to real-estate development. Satellite towns, IT-BPO townships, industrial growth centres, SEZs, and the export promotion industrial parks came up during this decade. Chhattisgarh initiated steps for developing New Raipur. In 2005, the Jawaharlal Nehru National Urban Renewal Mission was launched with the objective of encouraging reforms and ensuring planned development of identified cities. In the 2010s, cities started realizing the importance of benchmarking urban infrastructure and mainstreaming both climate and disaster resilience in planning.
 - xv. Due to emerging changes in urban development, the UDPFI Guidelines were revised, and the new Urban and Regional Development Plan Formulation and Implementation (URDPFI) Guidelines were prepared in 2014.



- xvi. In 2014, the Swachh Bharat Mission-Urban (SBM-U) was launched. It aimed at making urban India free of open defecation and achieving 100% scientific management of municipal solid waste in 4041 statutory towns.
- xvii. In 2015, a set of sectoral missions was launched by the Government of India in the urban sector: Atal Mission for Rejuvenation and Urban Transformation (AMRUT), Smart Cities Mission (SCM), Heritage City Development and Augmentation Yojana (HRIDAY), and Pradhan Mantri Awas Yojana-Urban (PMAY-U). Significant progress has been achieved under all these missions. For example, the use of GIS and remote sensing, particularly, for the formulation of master plans of the Class-I cities under AMRUT.
- xviii. Over the years, the need has grown for significant reforms to improve the approach towards urban planning. Currently, of the 4041 statutory towns (as per the Census of India, 2011), 52% do not have any approved or under-preparation master plans. It is even more dismal in the case of census towns, where 76% lack master plans. Uncertainties over the implementation of plans also loom in the background (refer to Table 3 for more details).

Table 3*State/UT-wise number of existing Master Plans status – 2021*

S. No.	Town category	Total Towns in category	Approved Master Plans	Under Preparation
1	Statutory Towns	4041	1566	359
2	Census Towns	3892	650	268
	Total cities and towns	7933	2216	627

Note.

Table is based on the data received from the State Governments and compiled by the Town and Country Planning Organisation in July, 2021 for NITI Aayog.

3.2 POLICY NARRATIVE POST INDEPENDENCE: 5-YEAR PLANS (1947–2014)

- The Five-Year Plans prepared by the erstwhile Planning Commission included policy guidelines, planning priorities and patterns of investment for different sectors of the economy. A brief summary of the discourse on urban planning and development in these Plans has been given in this section. A list of key benchmarks⁴ has been included as Annexure IV for reference.
- The **First Five-Year Plan (1951–56)** accorded topmost priority to agriculture,

⁴ The purpose of the key benchmarks is to show initiation of town planning/introduction of legislations/ set up of government departments etc. It is not an exhaustive list, but an indicative list for a broad understanding of the chronology. Many city governments have revised their Master Plans or made new Master Plans post the year indicated. Also, some of the acts may stand repealed or amended, which may not necessarily be reflected in the chronology. All key benchmarks have been referred from the reports of the National Commission on Urbanisation, 1989 reports unless stated otherwise.



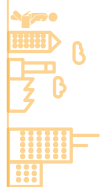
irrigation and power. Housing for those displaced due to Partition was also given importance. At the time of the launch of the Plan, only 6% of Indian towns reportedly had protected water supply. Also, only 23 of 48 cities and 12 towns had sewerage systems. The Plan blamed the dismal condition of towns on haphazard growth and substandard housing, including slums. It suggested:

- ▶ There should be a **National Town and Country Planning Act**, which would provide for zoning and planned use of land, diagnostic surveys, clearance of slums, and master plan preparation.
- ▶ '**Regional planning**' should be undertaken, keeping in mind the implementation of several river valley projects and for the integration of urban and rural areas.
- ▶ **Community Development Programmes should be launched in the rural areas** to address problems such as the availability of drinking water, sanitation, and connectivity via road.

A national programme on water supply and sanitation was consequently formulated by the Health Ministry in 1953.

- iii. The **Second Five-Year Plan (1956–61)** sought to achieve a balanced and coordinated development of the industrial and agricultural sectors to bring about higher standards of living. It also advocated that **slums and urban housing shortage should not be viewed in isolation but as part of the bigger problem of planning for urban areas**. It suggested:

- ▶ **Enactment of town and country planning legislation in all States** and undertaking the necessary steps for its implementation.
- ▶ **Preparation of master plans of all important cities** like Mumbai, Kolkata, Delhi and Chennai.
- ▶ **Preparation of regional plans** for towns like Durgapur, Bhilai, and those likely to come up in the future as industries flourish, and for areas with river valley projects like Damodar, Hirakud, etc.
- ▶ **Expansion of existing facilities for training of town planners** and architects.
- ▶ **Initiation of water supply and sanitation schemes for urban areas.**
- ▶ **Adoption of an administrative system of planning at the district level**—from integration of activities of various departments in the district to regional coordination for development programmes to linking local institutions with government agencies for this purpose.
- ▶ **Need for an agency at the village level that can represent the community** and assume responsibility for development.
- ▶ Need for a **statutory panchayat** in every village, with functions such as civic work, land management and reforms, etc.
- ▶ **Integrated implementation of all multi-sectoral development programmes** and schemes.

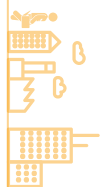


- iv. In the **Third Five-Year Plan (1961–66)**, the pattern of economic development and the approach towards selection of industrial locations were considered to be the most decisive factors in the process of urbanization. Deteriorating living conditions in rapidly growing urban areas were attributed to **high costs of urban development** (e.g., housing, water supply, drainage), unemployment and the growth of slums. The broad objective of the Plan was **to secure balanced development**. It suggested:
- » **New industries** should be established far from large and congested cities.
 - » **The concept of ‘region’** should be adopted while planning and deciding on the location of industries.
 - » There should be economic interdependence between towns and the surrounding rural areas for community development projects. Other areas should be strengthened by **blending urban and rural components of development into a composite plan**.
 - » **Master plans should be prepared.** (A tentative list of 27 metropolitan cities, State capitals and port towns, 27 industrial centres and 5 resource regions was given.)
 - » **A town and country planning act should be enacted.**
 - » **Town planning organizations should be established by State governments with adequately trained personnel.**
 - » **Measures should be undertaken to control land prices.**
 - » **Municipal administration should be strengthened** with resources and personnel.
 - » **Public health and engineering departments** should be established in States.
 - » **Statutory water and sewerage boards should be set up** and empowered to float loans and levy cesses.
 - » **Development at the village,** block and district levels should be entrusted to panchayats, panchayat samitis and zila parishads, respectively.
- v. The **Fourth Five-Year Plan (1969–74)**⁵ observed that during the period 1963–69, interim development plans for 40 cities were completed. However, due to lack of adequate financial and organisational resources, they could not be implemented, except in a few metropolitan towns and new towns. The Plan’s major recommendations were:
- » To prevent the further growth of population in large cities, decongestion and dispersal measures should be undertaken.
 - » For implementation of regional plans, there needs to be legal provisions.
 - » Development plans for cities and towns should be self-financing.
 - » A radical policy on urban land should be developed.
 - » Water supply and sewerage schemes should be formulated.

⁵ The Government of India had declared “plan holidays” (1966–67, 1967–68, and 1968–69) and three annual plans were drawn during this intervening period.



- vi. The main thrust of the **Fifth Five-Year Plan (1974-78)** was on the removal of poverty and attainment of self-reliance. The key objectives were augmentation of civic services, efforts to tackle the problems of metropolitan cities on a comprehensive and regional basis, development of small towns and new urban centres, and support for the enlargement of scope and functions of industrial townships set up by Central Government undertakings. In addition to these, to address the problems posed by rising urban land values, it was stressed that **the objective of urban land policy should be on promoting the optimum use of land**, reducing/preventing the concentration of land ownership and speculations, and allowing **land to be used as a resource for financing urban development**. The key recommendations were:
- ▶ National Urbanisation Policy, National Human Settlements Policy, and National Population Policy should be formulated.
 - ▶ Policy instruments for urban land should be developed.
 - ▶ Differential taxation on urban land depending on the nature of its use should be developed.
 - ▶ Programmes for the construction of housing colonies should be augmented.
 - ▶ Environment improvement programmes for slums should be undertaken.
- vii. The **Sixth Five-Year Plan (1980-85)** made significant observations and suggestions in the context of urbanization and urban development. The process of urbanization was desired to be seen as aiding employment and income generation in rural areas rather than as a competitive process. Further, the deteriorating environment, depletion of non-renewable resources and increasing migration to metro cities should be a focus of planning. The Integrated Development of Small and Medium Sized Towns (IDSMT) was started during this plan. The key recommendations were:
- ▶ Evolution of a National Urbanization Policy.
 - ▶ Provision of adequate infrastructure in small, medium and intermediate towns for strengthening them as growth and service centres for the rural hinterland.
 - ▶ Formulation of water supply and sewerage programmes.
 - ▶ Conservation of energy in the design of urban areas.
 - ▶ Strengthening of the planning machinery at all levels.
- viii. The **Seventh Five-Year Plan (1985-90)** said a proper urban development approach must consist of two constituents. First, the interaction between **physical and investment planning**, and second, the preparation of regional and **sub-regional urban development plans** to realize the first. The key measures and recommendations were:
- ▶ Industrial location policy must be made to sub-serve regional and urban planning.
 - ▶ The procedure for planning of metropolitan areas should be examined and a new approach should be evolved while providing for coordination of city-level plans with Central and State level planning, resource allocations, relationship





between norms and standards of physical planning with socio-economic realities.

- ▶▶ The strategy of urban development to include measures to strengthen capability of local bodies.
- ▶▶ The Central Government should extend aid to a select number of institutions for promoting research in the areas of urban infrastructure planning, finance, administration, etc.
- ▶▶ Emphasis to be placed on major programmes like Environmental Improvement of Slums (EIS), Integrated Development of Small and Medium Towns (IDSMT), Integrated Rural Development Programme (IRDP), Drought-Prone Area Programme (DPAP), Community Development and Panchayati Raj.

ix. The **Eighth Five-Year Plan (1992–97)** stated that **an integrated plan of hierarchy of rural and urban settlements** should be prepared. In order to realise the objective of a more **balanced distribution** of urban growth, small and medium towns should offer economic opportunities to potential migrants, the Plan said. To operationalise this planning approach, **development of small and medium towns in a spatial context with the existing district planning process should be attempted**. It suggested that:

- ▶▶ Urban development programmes should not be implemented in an ad-hoc and isolated manner.
- ▶▶ The aim of land reforms in the Eighth Plan must be the fulfilment of all the five principles of the National Land Reforms Policy: abolition of intermediaries, tenancy reforms with security to actual cultivators, redistribution of surplus ceiling land, consolidation of holdings, and updation of land records.
- ▶▶ An enabling environment must be created to achieve 'Housing for All'.
- ▶▶ An action plan to operationalise development strategy for small and medium towns should consist of strengthening the regulatory/organisational base of ULBs and providing an appropriate investment package on related infrastructure and employment-promoting activities.

x. The **Ninth Five-Year Plan (1997–02)** stated that the **lack of comprehensive urban planning in the past** to promote regular upgradation and renewal resulted in a large backlog of development activities. The plan mentioned that the key urban concern is the growing **gap between demand and supply of basic services**. The plan pointed out the lack of sustainability of the assets created in the planning process, and stated it as the primary reason for the deteriorating conditions of assets and low-capacity utilisation. It also acknowledged the **importance of energy planning in transport sector**. Further, the Plan addressed the need for strengthening the monitoring and evaluation system and accountability of implementing agencies for non-adherence to the plan of work. The major sectoral objectives of the Ninth Plan, among other things, were:

- ▶▶ Development of urban areas as economically efficient, socially equitable and environmentally sustainable entities.





- » Creation of a National Water Policy.
 - » Making India a global information technology powerhouse.
 - » Programmes such as Urban Basic Services for the Poor (UBSP) and Prime Minister's Integrated Urban Poverty Eradication Programme (PM IUPEP) focused on shelter upgradation and neighbourhood development for the urban poor.
 - » Promotion of energy efficiency by encouraging better design of vehicles through fiscal incentives,
 - » Better surfaces of roads, and promoting greater awareness in the driving community.
 - » Development of pollution standards, Environmental Impact Assessment (EIA), river conservation programmes and Integrated Wastelands Development Projects Scheme.
 - » Assistance for planning and development of hilly areas under Special Area Programmes.
- xi. The **Tenth Five-Year Plan (2002-07)** highlighted that importance of the issues that impact the **quality of life in urban areas**. The approach to urban management issues in the Tenth Plan revolved around the **strengthening of ULBs**, with the assistance of State Governments, parastatals and the urban development authorities. It mentioned:
- » **Capacity building** in the urban sector as a relatively neglected area in terms of action.
 - » Lack of progress in the components of the land reforms programme—implementation of ceiling laws, rent control act, security of tenure to tenants, and consolidation of land holdings—remains a matter of serious concern.
 - » **Lack of availability of maps/urban data** is concerning; preparation/maintenance/upgradation of land records through computerisation is suggested.

The Plan, among other things, recommended the following measures:

- » Importance of **benchmarking service standards** for making recommendations regarding the allocation of resources for augmentation and maintenance of services such as water, sanitation, waste treatment and transportation.
- » **Public-private partnership** for improving the efficiency of service delivery in urban areas.
- » Importance of **urban public transport**, its inadequacy and need to redesign the approach towards traffic problems.
- » Restructuring priorities in favour of small and medium towns and slums in larger cities.
- » Redesigning/reconstructing settlements with the participation of residents.
- » Special Area Programmes for the development of hilly areas.





xii. The **Eleventh Five-Year Plan (2007-12)** envisioned cities to be the engines of economic growth over the next two decades. It mentioned that the **Master Plan concept is not well suited for rapidly growing Indian cities**. And that it has also not been useful in addressing the problem of India's large and widely spread slums. Therefore, the Plan suggested that new management and service delivery approaches across the board must be developed. The Plan also focused on interlinkages between water, sanitation, solid waste management, environmental pollution, and health/death of residents. Towards this vision, it suggested:

- ▶ **Formulation of a long-term National Urbanization Policy**, indicating emerging patterns of urbanization and measures to channelize future urban growth in an equitable and sustainable manner.
- ▶ **Interlinking the planning framework at various levels**, comprising the national-level spatial strategies, regional-level strategy plans, metropolitan regional strategy plans, and city- and ward-level land use and development plans.
- ▶ Need to prioritize the availability, quality, and conservation of water in both urban and rural areas.
- ▶ Need to foster the development of various transport modes in an integrated manner, which would lead to the realization of an efficient, sustainable, safe, and regionally balanced transportation system.
- ▶ PPP (BOT model) ventures for the development of logistic hubs, high-speed passenger services and stations.

xiii. The **Twelfth Five-Year Plan (2012-17)** envisioned that urbanization should be guided towards inclusive, equitable and sustainable growth of towns and cities with proper civic amenities. The urbanization strategy under this plan focused on strengthening governance, planning, financing, capacity building and innovation. The Plan observed that:

- ▶ The projects/activities are implemented in the urban areas without adequate or holistic planning.
- ▶ The **Master Plan approach is barely linked to any financial and operating strategy** and, in many cases, has been used as a regulatory tool instead of a blueprint for the development of dynamic and smart cities. Often its provisions do not consider the potential of the city to grow and results in sub-optimal use of land.
- ▶ **Lack of sufficient capacity across all levels of the Government** needs to be resolved.

In this regard, the plan suggested:

- ▶ **Setting up of five Indian Institutes of Urban Management (IIUMs)** to help prepare the future generation of urban managers/regulators with world-class training in urban issues.
- ▶ Improving the quality of land and soil, their rational utilization, conservation of water and sensitizing the farming community about environmental concerns should receive high priority.





3.3 POLICY NARRATIVE 2015 ONWARDS

- i. On 1 January 2015, NITI Aayog replaced the erstwhile Planning Commission of India. NITI's **Three-Year Action Agenda (2017–20)**, published in 2017, stated that poor management of cities leads to scarcity of residential and commercial spaces, slums, absence of greenery, stress on infrastructure, air pollution, traffic congestion, solid waste issues and so on. And so, India needs to introduce more fundamental changes to turn cities into twenty-first century spaces. Further, spatial planning should be able to simultaneously address developmental needs of metropolitan, municipal and ward-level areas. The agenda document, among other things, concluded that Indian cities need to overhaul their municipal staffing and introduce appropriate skills to achieve administrative efficiency.
- ii. In its **'Strategy for New India @75' (2018)**, NITI Aayog referred to the specific constraints faced in multiple sectors. These included: inadequate capacity in ULBs to formulate and design mass housing projects, and absence of a modern spatial planning framework. Heavy under-staffing of the municipalities and significant gaps in the skills required for urban management were also observed. The document identified 41 different areas that require either a sharper focus on implementing the flagship schemes already in place or a new design and initiative to achieve India's true potential. These included multiple aspects in the context of urban planning capacity, such as the need for:
 - ▶ Synchronous and modern national framework for the spatial planning of cities.
 - ▶ Guaranteed land titling to foster a transparent land market.
 - ▶ Capacity building for municipal jobs and strengthening institutions.
 - ▶ Adoption of GIS-based maps.
 - ▶ A dedicated Metropolitan Urban Transport Authority.
 - ▶ Setting up of dedicated cells for integrated planning, coordination and delivery of transport services in smaller cities.
 - ▶ Integrating land-use and transport planning for enhancing economic activity, reducing commuting time and improving environmental quality.
 - ▶ Building on the work done in cities on geographic information systems (GIS) and applying these for geo-locating and mapping public assets in the city such as parks, playgrounds, public toilets, bus stops, streetlights, water and sewerage lines, storm water drains, power lines, etc.
 - ▶ Linking the geo-located assets in the cities to grievance redressal, participatory budgeting, transparent works management, and contractor payments.
 - ▶ Digitization of textual as well as spatial records at the State level.





- iii. The evolution of urbanization-related policies in the national planning framework indicates that the importance on urban development, housing and related infrastructure kept growing with time. However, the approach towards city master planning has largely been on the physical land use planning aspect and the need for integrating spatial with economic planning still persists. Also, the gaps in urban planning capacity at the local level have been only somewhat filled but still pose a challenge.



4

PUBLIC SECTOR CAPACITY



4.1 URBAN

4.1.1 Institutional Framework for Urban Planning

i. Role of the Union Government

The Constitution of India, inter alia, has bestowed power upon the States to frame policies, enact legislations for matters related to land, housing, urban development, and provision of civic infrastructure. The Central Government plays an 'advisory' role for promoting orderly urbanisation and providing financial as well as technical support to the State and Local Governments in multiple ways.

ii. Role of State Governments

The Seventh Schedule of Article 246 (Part XI) of the Constitution of India (Ministry of Law and Justice, GoI, 2020. pp. 111, 216- 18) has put forward following subjects in the State list:



- » **Land-rights in or over land and land tenures** including the relation of landlord and tenant, and the collection of rents; transfer and alienation of agricultural land; land improvement and agricultural loans; colonization.
- » **Land revenue**, including the assessment and collection of revenue, the maintenance of land records, survey for revenue purposes and records of rights, and alienation of revenues.
- » **Taxes** on lands and buildings.
- » **Local government including** the constitution and powers of municipal corporations, improvement trusts, districts boards, mining settlement authorities and other local authorities for the purpose of local self-government or village administration.
- » **Public health and sanitation** including hospitals and dispensaries.
- » **Institutions and monuments like** libraries, museums, ancient monuments that are controlled or financed by the State (other than those of national importance).
- » **Communication Infrastructure** like roads, bridges, ferries, and other means of communication; also, municipal tramways; ropeways; inland waterways and traffic thereon subject to the provisions of Union and Concurrent lists.
- » **Water infrastructure** like water supplies, irrigation and canals, drainage and embankments, water storage and water power, subject to the provisions of the Union list.
- » **Industries** subject to the provisions of the Union list.

iii. Legislative framework for planning and implementation

With respect to planning of urban areas, the relevant legislative frameworks at the State level consist of State Town and Country Planning Acts, Municipal Corporation Acts, Municipalities Acts, and Urban Areas Development Acts. Similarly, the Panchayati Raj Acts are relevant for the rural areas. At the regional/local levels there are several acts that play an important role in planning. For example, the National Capital Region Planning Board Act 1985, Delhi Development Act 1957, and Hyderabad Metropolitan Development Authority Act 2008. Several other Acts also play an important role in urban planning, development and management. These relate to land housing, infrastructure, environment, etc. For example, the Registration Act 1908, Environment (Protection) Act 1986, Right to Fair Compensation and Transparency in Land Acquisition, Rehabilitation and Resettlement Act 2013, Real Estate (Regulation and Development Act) 2016.

iv. Institutional set-up

There are several institutions at the State/UTs and local level that play a role in urban planning, management, and development. The State governments establish the local governments as per Constitutional provisions and empower them with appropriate functions and fiscal powers. Further, the State urban development departments are in charge of the town planning department, urban development



authorities, urban water supply, sewerage and sanitation boards, housing departments etc. (MoHUA, 2016). This institutional framework is not uniform across all the States/UTs. The key institutions have been briefly described in the successive sub-sections. Other than the above, a distinct typology also emerged when Special Purpose Vehicles (SPV) were formed as implementing agencies for the smart cities under the MoHUA's Smart City Mission.

v. State Town and Country Planning Departments:

The foundations of the State town and country planning departments was laid during the British rule. These were further developed during the post-Independence period, particularly, the third five-year plan period.

The State town and country planning departments/directorates play a vital role in the development of the State, as they look after the subject of planning of urban and rural areas.

- ▶▶ Determining the principles and policies for achieving balanced development in the State through planned and systematic growth of urban and rural areas.
- ▶▶ Creating an enabling environment for planned constructions and prevention of haphazard ones.
- ▶▶ Incorporating considerations for basic needs of the poor, environmental upgradation etc. in city master plans.
- ▶▶ Ensuring efficient and optimum use of land.
- ▶▶ Planning of essential urban infrastructure.

The functions of these departments vary from State to State, however, broadly they are listed as follows:

a. Technical functions (statutory and non-statutory):

- Planning: preparation of master plans, development plans, land use plans, town planning schemes, collection, maintenance and publication of statistics, and layouts for rural areas
- Approvals and clearances: technical approval of layouts, building plans as per rules and regulations, commercial complexes, road development plans, installations (industries)

b. Advisory functions:

- Advising and assisting the State Government departments (e.g. housing board, industrial infrastructure corporation, pollution control board, housing corporation), local authorities/parastatals (e.g. municipal governments, urban development authorities, municipal councils) on matters related to planning, development and use of rural and urban lands in the State.
- Suggesting various urban development schemes like road widening, environmental improvement schemes and so on to the State Government.
- Providing technical suggestions to the Government on matters of change in land-use proposals.



c. Implementation:

- Implementing urban development schemes.
- Coordinating with various departments involved in area development.

d. Staffing and Training:

- Training of town planners and other related officers.

vi. Metropolitan/District Planning Committees:

The Constitution (Seventy-Fourth Amendment) Act 1992 gave a thrust to decentralization and mandated the setting up of municipal governments in urban areas. It, inter alia, provided for:

- a. Setting up of **Metropolitan⁶ Planning Committees (MPCs)** to prepare '**draft development plan**' on matters of mutual interest between the municipalities and the panchayats. The matters include **co-ordinated spatial planning** of the area, sharing of water and other physical and natural resources, integrated development of infrastructure and environmental conservation. They also include the extent and nature of investments likely to be made in the area by agencies of the Government of India and of the Government of the State and other available resources whether financial or otherwise;
- b. Setting-up of **District Planning Committees (DPCs)** in every State to prepare '**draft development plan**' on matters of common interest between the panchayats and the municipalities. This includes **spatial planning**, sharing of water and other physical and natural resources, development of infrastructure with environmental conservation, extent and type of financial or other resources.

The Constitution (Seventy-Fourth Amendment) Act 1992 required the State Governments to amend their municipal laws in order to empower the ULBs 'with such powers and authority as may be necessary to enable them to function as institutions of self-governance'.

vii. Urban Local Bodies:

During the British rule, the objective of municipalities was to mobilise fiscal resources for local works such as water supply, drainage, primary education, health, roads and for enforcing building bye-laws.

The Constitution (Seventy-Fourth) Amendment Act 1992 provided for the constitution of three types of ULBs: nagar panchayats for a 'transitional area', municipal councils for a 'smaller urban area' and municipal corporations for a 'larger urban area'. It further expected that the ULBs will assume responsibilities for urban planning, water supply, economic planning, etc.

⁶ The Constitution (seventy-fourth Amendment) Act, 1992 defines a Metropolitan area as-an area having a population of ten lakhs or more, comprised in one or more districts and consisting of two or more Municipalities or Panchayats or other contiguous areas, specified by the Governor by public notification.



Of the 7933 urban entities in India, there are 1772 municipalities, 2023 nagar panchayats, 149 municipal corporations, and 97 cantonment boards. The rest are census towns (Census of India, 2011). The Constitution (Seventy-Fourth) Amendment Act 1992 listed 18 functions, that were to be devolved by the State Governments to the municipal governments. One of the 18 functions is 'urban planning, including town planning' (refer to Annexure V). However, the devolution of these functions was left at the discretion of the respective States.

viii. Parastatal agencies/bodies

- ▶ The ULBs were weak due to poor staffing, limited finances and technical constraints. This led to the creation of a large number of parastatals, including development authorities, water supply and sewerage boards, slum housing and development boards, PWD, etc.
- ▶ These parastatal bodies are generally State- owned and created as nodal agencies for the purpose of planning, infrastructure development and service delivery.
- ▶ They have been performing various functions that could have been vested with the ULBs in accordance with the provisions under the Constitution (Seventy-Fourth) Amendment Act 1992.
- ▶ As per the Association of Municipalities and Development Authorities⁷ (2021), there are 215 Urban Development Authorities in India. Most of such authorities are in Uttar Pradesh (32), followed by Karnataka (32), Assam (25), and Andhra Pradesh (18).

ix. Improvement trusts

- ▶ The first Improvement Trust was set up in Bombay in 1898 following the plague that broke out in the city in 1896. Later, similar such trusts were created in other large cities across India such as Kanpur, Mysore, Calcutta, and Delhi.
- ▶ According to the National Commission of Urbanization (1988), the Improvement Trusts were involved in decongesting closely packed areas through slum clearance and by undertaking housing projects for lower income groups, among the other things. Their main task was to acquire land under the Land Acquisition Act 1894, sub-divide the land into plots for different uses and sell them for private ownership and development in accordance to the rules prescribed.
- ▶ Even today, the improvement trusts co-exist with the elected municipal governments in many cities such as Amritsar and Nagpur.

⁷ The Association of Municipalities and Development Authorities (AMDA) is the flagship organisation having Municipal Corporations, Municipalities, Council and Development Authorities of India as its members. (For more details, refer to: <https://amdaindia.org/>)



4.1.2 Need Assessment of Human Resources

- i. Master plans are statutory instruments to guide and regulate the present and future utilisation of land, expansion, and zoning of cities for 20-25 years. As per the data compiled by the TCPO in 2021 (refer to Annexure VI),
 - a. About 52% of statutory towns and 76% census towns do not have any Master Plans to guide their spatial growth and infrastructural investments.
 - b. Only 3945 sanctioned positions of town planners are there in all State/UTs town and country planning departments put together. Out of these, 42% are vacant.
- ii. A need assessment exercise was conducted by NIUA and TCPO in consultation with NITI Aayog to ascertain the current and the future human-resource capacities of the State level town and country planning departments. Several models were considered in order to ascertain the need of such departments at the State levels (refer to Annexure VII for more details). These were developed based on:
 - a. Urban Development and Plan Formulation Guidelines (Ministry of Urban Affairs and Employment,⁸ 1996)
 - b. India's Urban Awakening: Building Inclusive Cities, Sustaining Economic Growth (Mckinsey Global Institute, 2010)
 - c. Report on 'Professional and Academic Challenges in Town Planning' by TCPO (2020)
 - d. 'Realistic model' derived by TCPO in Consultation with NITI Aayog in 2021 (refer table 5).

A summary of results derived from each model is presented in Table 4.

Table 4

Summary of need assessment models

S. No	Type	Model	Estimated No. of Planners (As Per Population Requirement Of 2011, 2021, 2030 Respectively)	Ratios
1.	Conservative	UDPFI Guidelines (1996)	11,768 (2011) 13,216 (2021) 14,244 (2030)	1 Planner per 1,03,000 Population (Total) 1 Planner per 32,000 Population (Urban)
2.	Sub-optimal	Mckinsey Global Institute (2010)	40,000(2011) 45,378 (2021) 48,836 (2030)	1 Planner per 30,000 Population (Total) 1 Planner per 9,000 Population (Urban)

⁸ Now Ministry of Housing and Urban Affairs

3.	Optimal	TCPO Report (2020)	57,495 (2011) 64,825 (2021) 70,000 (2030)	1 Planner per 21000 Population (Total) 1 Planner per 6500 Population (Urban)
4.	Realistic	TCPO Analysis (2021)	3,743 (2011) 12,213 (2021)	1 Planner per 1,00,000 Population (Total) 1 Planner per 30,000 Population (Urban)

Note.

The analysis on need assessment has been compiled by NIUA and TCPO for the advisory committee.

- iii. The realistic model was considered to be the most appropriate for ensuring adequate human resources of the town planning departments. **As per this model, the requirement of town planners worked out to be 12,213, which means an additional 8,268 posts in all States and UTs** (refer table 5).

Table 5

Realistic model of need assessment of Planners in State Town Planning Departments

S. No.	Category	Number	Number of Town Planners	Total Requirements
1	State/UT Head quarters	36	15	540
2	Million plus cities	53	15	795
3	Non-million plus cities	4347	2	8,694
4	District HQ	728	3	2,184
Total Human resource requirement				12,213

Note:

The analysis on need assessment has been compiled by NIUA and TCPO for the Advisory Committee.

- iv. Therefore, it was concluded that **all the States/UTs cumulatively may need to sanction an additional 8268 posts for the qualified urban/town planning professionals to meet the immediate requirement for improving town planning governance**. Since this is a broad estimate, an independent assessment at the State/UT level may be required to assess the specific needs. It may also be **reviewed after 2025 or earlier as and when the Census of India 2021 is available**.

4.1.3 Key Challenges

- i. Urban planning is a sub-set in the larger context of urban governance. There are several institutions that are responsible for planning and functioning of various land parcels and urban infrastructure. This multiplicity of authorities often creates ambiguity, overlaps and even discord over division of functions and responsibilities. This creates a rather fragmented picture of urban governance that is also reflected in the urban landscape. There is a dire need for horizontal as well as vertical coordination of all the actors that play a role in city planning, management and development.

- ii. The Constitution (Seventy Fourth) Amendment Act 1992 had intended to strengthen the ULBs as 'vibrant democratic units of self-government'. The Act, inter alia, required that the legislature of the State may, by law, make provisions for the respective compositions of MPCs and DPCs, the manner in which the seats shall be filled with some requirements for inclusion of elected members, and the assignment of the functions relating to planning and coordination. However, these committees are not functional in most of the States and in a few States, they are not even constituted yet.
- iii. The Constitution (Seventy-Fourth Amendment) Act 1992 left the notification of the urban local body at the discretion of the Governor of the States. Also, it required the devolution of powers and responsibilities upon the municipalities by the States. However, it did not lay down a revenue base for the ULBs. Most of the ULBs are not allocated the 'urban planning' function, except for the ULBs of some leading metropolitan cities.
- iv. The States have created parastatals like metropolitan development authorities, urban development authorities, etc., to serve the functions mentioned in the 12th schedule of the Constitution (Seventy Fourth Amendment) Act 1992. It is often argued that these parastatals are not directly answerable to the citizens and do not have sufficient provisions for ensuring participative decision making. In the context of urban planning, citizens hardly get an opportunity to participate in decision-making about the use of public money for city development.
- v. An integral part as well as an unresolved question of the municipal governance in India is the municipal leadership. In most Indian cities, the mayor is endowed with limited executive responsibilities, except for Madhya Pradesh and West Bengal. Also, while the term of the corporation is 5 years, the mayor's tenure varies from one State to another and ranges from 1 to 5 years. For example, Andhra Pradesh and West Bengal conduct indirect elections and have a 5-year term for mayors; in Tamil Nadu and Madhya Pradesh, mayors are directly elected directly and have a 5-year term. In States like Karnataka and Assam, a model of indirect elections with one-year term for mayors is followed. A common thread that runs through all the States is that the mayoral system remains weak and the mayors remain titular heads with more powers accumulated with the Municipal Commissioners who are appointed by the State (Jha, 2018). This is in stark contrast to the mayoral models followed successfully in international cities of Tokyo, Bogota and so on.
- vi. Except for Sikkim, West Bengal, Lakshadweep and Ladakh, all the other States/UTs have fully functional departments of town and country planning (for more details, refer to Annexure VIII). However, many States have a skeletal machinery of planning: fewer than 4000 positions for town planners against the estimated figure of 12,000. This divide or gap must be bridged to fully realise urban reforms. As per the data compiled by the TCPO (2021), all the State Town and Country Planning Departments in India are not necessarily headed by qualified urban planners; some of them are headed by engineers or administrators e.g. Bihar, Chhattisgarh, Himachal Pradesh, Madhya Pradesh, Tamil Nadu.
- vii. Owing to insufficient capacities in these departments or ULBs or parastatals, the technical functions of planning like preparation of master or regional plans are



often outsourced to private sector companies. Experts argue that when private sector companies submit their reports or work to certain municipal corporations or parastatal bodies, a lack of professionally trained planners to review the same is observed. As a matter of fact, the development of in-house capacity—both quantitative and qualitative—is essential not only to review the plans and implement them but also to make mid-course corrections, as planning is a cyclical process.

- viii. The in-house capacity of these departments depends on the quality of human resources. Recruitment rules framed by the respective public service commissions of the States/UTs are critical in this regard. A key challenge in this regard is that, in some of the States/UTs, the recruitment rules do not ensure a degree in the domain of town/urban planning as a mandatory eligibility condition (refer to Table 6). Moreover, these rules vary across the country and do not ascertain a level playing field for the workforce (refer Annexure IX). The limitations in the recruitment rules have emerged as a major bottleneck in ensuring a qualified workforce for urban planning.

Table 6

Status of States/UTs Recruitment Rules

S. No.	Details	State/UT
1	States/UTs which have included B.Plan in the RR for entry level post	A&N Islands, Chhattisgarh, Karnataka, Kerala, Madhya Pradesh, Nagaland, NCT Delhi and Uttar Pradesh
2	States/UTs which have not included B.Plan in the RR for entry level post	Andhra Pradesh, Assam, Bihar, Dadra & Nagar Haveli and Daman & Diu, Gujarat, Jammu & Kashmir, Jharkhand, Manipur, Punjab, Rajasthan, Telangana, Tripura, Uttarakhand and West Bengal
3	States/UTs insisting on basic qualifications	Almost all the States/UTs insist on basic qualification
4	States/UTs which have included some non-compatible qualifications	Lakshadweep, Maharashtra, and Sikkim
5	States/UTs RR under Revision	Puducherry and Tamil Nadu
6	States/UTs totally complying with TCPO RR	Arunachal Pradesh, Chandigarh, Goa, Haryana, Himachal Pradesh, Meghalaya, Mizoram and Odisha

Note:

RR-Recruitment rules, DTCP-Department of Town and Country Planning

The data in the table was compiled by TCPO for NITI Aayog

- ix. Over the years, MoHUA has been receiving various representations from the schools of planning and architecture as well as other institutions that many States/UTs do not consider candidates possessing Bachelor's degree in Planning, as eligible for the entry level posts of town planning. This is an ironic situation.



- x. The recruitment rules, prescribed vide Gazette of India, Extraordinary, Part II-Section 3-Sub-section (i) No. 665, dated 27 December 2012 for the entry-level post of urban/town planners are:

Essential qualification:

Post Graduate Degree in Town or City or Urban or Housing or Country or Rural or Infrastructure or Regional or Transport or Environmental Planning from a recognised University or Institute

or

Bachelor of Planning or Bachelor of Technology in Planning from a recognised University or Institute with three years' experience in the field of Urban or Regional Planning in the Central Government or State Governments or Union Territories or Universities or Recognised Research Institutions or Public Sector Undertakings or Semi-Government or Statutory or Autonomous Organisations.

Desirable qualification:

- i. Associate Membership of Institute of Town Planners, India
 - ii. One year experience in Remote Sensing and Geographic Information System Application in the Central Government or State Governments or Union Territories or Universities or Recognised Research Institutions or Public Sector Undertakings or Semi-Government or Autonomous or Statutory Organisations.
- xi. MoHUA has sent various advisories to all the States/UTs for adoption of a standard recruitment rule (refer to Annexure X).
- xii. Over the years, the function of giving building permissions and ensuring compliances has become a major task of the relevant departments/authorities. Planning skills are not actually required for such routine jobs. This may be one of the reasons why there is a tendency to hire engineers or architects as planners in ULBs or town planning departments. It is high time to re-imagine the mandate of all such departments and agencies and ascertain the skills required to justify the job descriptions of each position.

4.2 RURAL⁹

4.2.1 Planning in Rural Areas

- i. The Ministry of Rural Development (MoRD) and Ministry of Panchayati Raj (MoPR) initiated the rural area spatial planning process in 2016-17. The School of Planning and Architecture (SPA), New Delhi, and the Centre for Environmental Planning and Technology (CEPT), Ahmedabad, prepared a model guideline for development

⁹ All the information mentioned in this section has been contributed by MoRD and MoPR for the purpose of this report.



controls, service level benchmark and enforcement mechanism for Rurban clusters. An initiative to bring in long-term development planning in gram panchayats, blocks and districts in conformity with the 73rd and 74th Constitutional Amendments Acts was also initiated during the same time period. While MoPR constituted a committee for drafting the Rural Area Development Plan Formulation and Implementation (RADPFI) guidelines, MoRD embarked upon the implementation of cluster area notification and spatial planning for the Rurban clusters.

- ii. A brief on the schemes under MoRD that require plan preparation is provided below:
 - a. **Gram Panchayat Development Plan (GPDP):** GPDP is prepared for 2,67,000 gram panchayats with the help of 3,27,009 community resource persons (CRPs). All CRPs are annually trained for conducting the People's Plan and Mission Antyodaya (MA) survey, which is jointly carried out by MoRD and MoPR. The data collected from MA surveys highlights the gaps in infrastructure and services available in the village (up to village level granularity) and supports in informed planning of Gram Panchayats.
 - b. **Mahatma Gandhi National Rural Employment Guarantee Scheme (MGNREGS):** The geospatial plan of components permitted under MGNREGS is prepared at the gram panchayat level and is based on a ridge-to-village approach. To date, 40,000 plans have been prepared for a horizon period of 3 years, using GIS tools. A total of 1600 engineers have been trained through Training of Trainers (ToT).
 - c. **Deendayal Antyodaya Yojana - National Livelihood Mission:** The Village Poverty Reduction Plan is a community demand initiative prepared by self-help groups and integrated with GPDP.
 - d. **Saansad Adarsh Gram Yojana:** Under this scheme, a Village Development Plan (VDP) is prepared by charge officer. Currently, 1900 plans have been prepared by 800 VDP charge officers.
 - e. **Shyama Prasad Mukherji Rurban Mission (SPMRM):** An Integrated Cluster Action Plan (ICAP) and spatial plan are being prepared under the Mission. The spatial plan is a long-term settlement plan, which is prepared based on the principle of sustainable and optimum use of regional resources.

4.2.2 Spatial Planning Process Under SPMRM

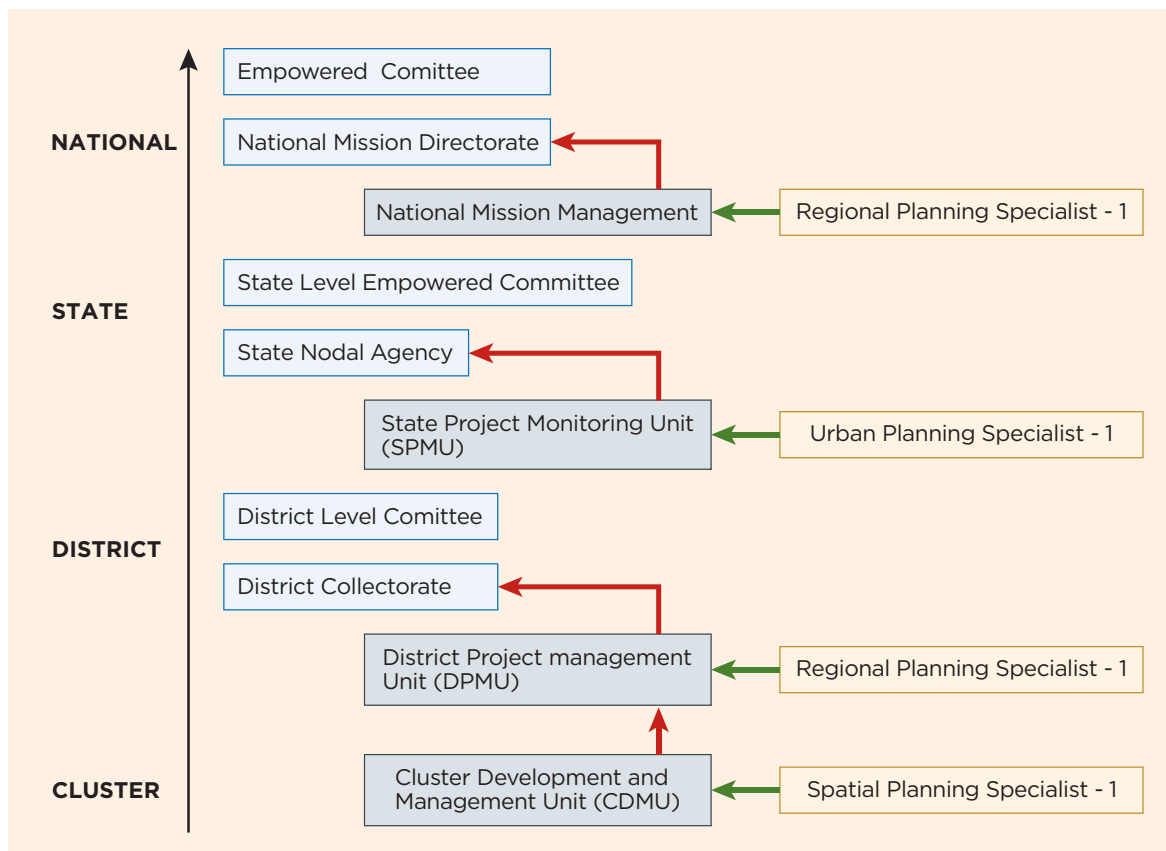
- i. SPMRM is an evolved version of Integrated Rural Development Plan (IRDP), Provision of Urban Amenities to Rural Areas (PURA I & II) and others. It is premised on a cluster approach for viability and scale of economy. It is a centrally sponsored scheme that envisages the development of 300 clusters spread across 28 States and 6 UTs. It is being developed on the ethos '*Aatma Gaon ki aur Suvidha Seher ki*'. Lately, a major thrust has been on the three Es: Enterprise, Employment and Economic Activity.
- ii. The spatial planning process under SPMRM requires cluster identification and notification of the planning area, preparation of the plan, its notification and



enforcement. It is linked with the vision and policy orientation of the Mission, and sustainability orientation through the optimum use of regional resources over the long term.

Figure 16

Baseline Institutional Structure and Requirement (SPMRM)



Note:

Graphic by MoRD, 2021

- iii. As per the institutional structure of SPMRM, the following planning personnel are required:
 - a. National Mission Management Unit: Regional Planning Specialist
 - b. State Project Monitoring Unit: Urban Planning Specialist
 - c. District Project Management Unit: Regional Planning Specialist
 - d. Cluster Development and Management Unit: Spatial Planning Specialist
- iv. The total requirement for regional planning/spatial planning specialists is 301 and urban planning specialists is 34. So far only 30 planning professionals have been recruited.
- v. In order to address the issue of plan preparation and technical capacity development, SPMRM has collaborated with Bhaskaracharya National Institute for Space Applications and Geo-informatics (BISAG - N) for the development of a spatial planning and knowledge platform. The Learning Management System (LMS) is being developed, which will be both online and offline, with the support

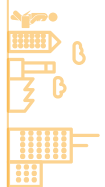


of the National Institute of Rural Development and Panchayati Raj (NIRD&PR), State Institute of Rural Development (SIRD), National Skill Training Institute, and BISAG – N. Research related to innovation and spatial planning is being carried out by other institutes such as National Institute of Public Finance and Policy (NIPFP).

4.2.4 Key Challenges

- i. Human resource: The total number of planning professionals required under the mission is 695, of which 334 could be engaged at the State/UT and DPMU/CDMU level. The shortage of spatial planners in rural areas is one the most challenging areas of the Mission. So far, the Mission has only been able to hire 30 instead of 301 spatial planners—which is just one-tenth of the requirement.
- ii. Expertise: Currently there is no dedicated course for rural planning in India. As such, there is also a dearth of rural planners. Also, universities in the NE and Western Himalayan States hardly offer degree programmes in urban or rural or hill area planning.
- iii. Legislative: Under the Rurban mission, the clusters to be notified. On the one hand, clauses to notify the land are not available under the Panchayati Raj Act and on the other, there is hesitancy to notify the rural areas under the State Town and Country Planning Act because then the town and country planning provisions will be applicable on them. The plans implemented under the State Town and Country Planning Acts will require all development to be carried out with due permission from the authority created under the Act. Therefore, a suitable mechanism is required through which cluster plans under Rurban can become statutory plans and be implemented. Existing norms are urban-centric and mainly governed by Town and Country Planning Acts.

The challenge of planning of rural areas is severe in magnitude and context. There is **a need for in-depth study and deliberation to address the rural planning capacity in India.**



EDUCATION SECTOR CAPACITY



5.1 EVOLUTION OF URBAN PLANNING EDUCATION

- i. The emergence of planning education can be traced back to the latter half of the 19th century in response to challenges posed by rapid urbanisation with environmental pollution affecting human health in Western Europe (UN-Habitat, 2009; Roy et al, 2015). The first course on town planning and civic design was offered by the University of Liverpool in the UK, in 1909. The course focused on urban health and sanitation. In 1910, the journal *Town Planning Review* was launched (Davoudi and Pendlebury, 2010), and soon after, MIT, USA, introduced a course on urban planning in 1912.
- ii. Along with the evolving challenges associated with urbanisation, there has also been systematic revisions of the definitions of urban planning over time.
- iii. Broadly, there are three distinct ideologies representing unique educational models of planning in international schools. These are:
 - a. Planning as one discipline representing a specific specialisation focusing on intuitive, technical, and applied knowledge from the fields of architecture

- and engineering. Spain, Italy, Netherlands, and Greece are some examples of countries where this sort of model can be found.
- b. Planning as an extension of various branches of social science, wherein there are either generalist planners or planners having specialised knowledge in spatial politics, geography or applied economics. The UK, Germany, and Switzerland are leading examples of this model.
 - c. Planning as an independent field specialising in the fundamentals of inter-disciplinary planning and policy development, which are practiced in the Netherlands, UK, France and Italy.
- iv. Currently there are overlaps of the above models in planning education within Europe. Many countries in Europe encourage a mix of different models and ideologies to subsist so as to bring forth multidisciplinary dimensions and collaboration into planning education.
 - v. In Canada, planning schools focus on socio-economic and cultural dimensions of injustice, affirmative and transformative action, and an equity-based approach (Goonewardena et.al., 2004) while designing their planning curricula. Whereas, Australian planning schools stress on environmental sustainability components to be incorporated into their curricula (Hurlimann, 2009).
 - vi. Planning education taught in the USA, Australia, Canada, Africa, and South Asia is similar to an extent in terms of approaches and ideologies possibly due to the shared colonial influence. However, over time it has evolved to align with their respective local contexts and needs. Earlier, the definition of urban planning was limited to physical design, enforced through strict land use regulations. This was replaced by new schools of thought that prompted an institutional shift from top-down approaches to bottom-up models of good governance and decentralised practices.
 - vii. UN-Habitat (2009) notes that urban planning education in many countries has shifted its focus from physical design to a heightened focus on policy and social science. “In the UK, specifically, planning education has emerged as a distinct discipline from its origins as an adjunct of architecture, engineering, and surveying into an independent and highly regarded social science discipline” (Roy et al, 2015).
 - viii. The history of urban planning education in South Asia is relatively recent, as it has only been half a century since the first planning school was established in India (Ansari, 2009).

5.2 REGULATORY FRAMEWORK

- i. **AICTE:** The All India Council for Technical Education (AICTE) is the statutory body and a national-level council for technical education, under the Department of Higher Education, Ministry of Education. It was established in November 1945 as an advisory body, and later in 1987 given statutory status by an Act of Parliament. AICTE has the onerous responsibility for ensuring uniform development and qualitative growth of the technical education system and preparation of syllabi

to maintain uniform standards throughout the country. It executes the following function in the urban planning domain:

- a. **Approval of courses:** As defined in the AICTE Act 1987, technical education means “programs, of education, research, and training in engineering and technology, architecture, **town planning**, management, pharmacy, and applied arts and crafts, and such other programs or areas as the Central Government may in consultation with the Council, by notification in the official gazette”. AICTE provides approval for town planning educational institutions as per prescribed procedures and rules on the sanctioned intake capacity, land area requirements, infrastructural requirements, teacher-student ratio, nomenclatures, etc. Centrally funded technical universities like School of Planning and Architecture, Indian Institute of Technology, etc., are governed by central legislation and therefore they do not require any approval from regulatory bodies. As per the *Approval Process Handbook* of AICTE 2020-21, approval for courses in the open and distance learning modes has not been granted by the Council for certain fields, including town planning.¹⁰
- b. **Nomenclature:** As per the *Approval Process Handbook* 2021-22, AICTE recognizes one name for the undergraduate degree in planning and 25 nomenclatures for postgraduate degrees in planning (refer to Annexure XI).
- c. **Degree programmes in planning:**
 - Bachelor of Planning or Bachelor of Technology - Planning
 - Level:— Undergraduate
 - Duration:— 4 years
 - Eligibility:— Passed 10+2 examination Obtained at least 45% marks (40% in case of candidates belonging to reserved category) in the qualifying Examination.
 - Intake capacity per division- 40
 - Faculty to Student ratio- 1:16
 - Master of Planning or Master of Technology - (25 nomenclatures)
 - Level: Postgraduate
 - Duration:— 2 years
 - Eligibility:— Passed Bachelor Degree in Planning/Architecture/Civil Engineering
or
Passed Master Degree of Geography/Economics/Social Sciences or equivalent Degree.

¹⁰ The Standalone Institution/Institution Deemed to be University in respect of which approval for Courses in Open and Distance Learning mode has not been granted by the Council shall discontinue the Courses with immediate effect, provided that such Courses of an Institution which were approved by the UGC till 2017-18 shall be considered to be a valid Open and Distance Learning Course for the Academic Year 2018-19 and 2019-20. (For more details, refer to Approval Process Handbook 2020-21)

- Intake capacity per division- 30
 - Faculty to Student ratio- 1:10
 - Integrated Degree in Planning leading to Master of Planning
 - Duration:— 5 years
 - Eligibility:— Passed 10+2 examination. Obtained at least 45% marks (40% in case of candidates belonging to reserved category) in the qualifying examination
 - Intake capacity per division- 40
 - Faculty to Student ratio- 1:16 for the first three years and 1:10 for the next two years.
- d. **Curricula:** In exercise of the powers conferred under Section 13(2) and 13(4) read with Section 23 of the AICTE Act 1987 (No. 52 of 1987), AICTE has constituted the All India Board of Town and Country Planning. This board, inter alia, advises the executive committee on academic matters falling under its purview, including norms and standards, model curricula and facilities and structure of courses, etc. Recently, in 2020, this board revised the model curricula of graduate and postgraduate degrees in urban planning. Once the All India Board of Town and Country Planning approves the model curricula for PG and UG courses, it has to be adopted by the educational institutions. This is a suggestive curricula, and the university/institution/board should build on and exercise flexibility in the readjustment of courses within the overall 160 credits. Schools of Planning and Architecture, IITs and NITs however, are not obliged to follow the AICTE model curricula and are empowered to frame and implement their own curricula.
- ii. **UGC:** The University Grants Commission (UGC) of India is a statutory body set up by the Government of India in accordance with the UGC Act 1956 under the Ministry of Education. It is charged with coordination, determination, and maintenance of the standards of higher education. The UGC's mandate includes promoting and coordinating university education, determining and maintaining standards of teaching, examination and research in universities, framing regulations on minimum standards of education, monitoring developments in the field of collegiate and university education, disbursing grants to the universities and colleges, serving as a vital link between the Union and State Governments and institutions of higher learning, and advising the Central and State Governments on the measures necessary for improvement of university education.
- iii. **ITPI:** The Institute of Town Planners India (ITPI) came into existence in 1951-52. It is a non-statutory professional body. After its establishment, ITPI made efforts to establish SPA Delhi and the Town and Country Planning Organisation at the Centre as well as town and country planning departments in the States. It initiated an associate examination in the year 1952-53 for knowledge upgradation of mid-career professionals who could not attend regular classes. This was recognized by the Ministry of Scientific Research and Culture Affairs, GoI, in 1963. So far, 368 candidates have successfully completed this examination. The institute also

provides associate/fellow/corporate memberships to interested town planners based on parameters of age and 'attainment of proficiency in matters relating to town planning'. Currently, there are about 6500-7000 urban planners registered as associate/fellow members of ITPI. The institute is in Delhi and functions through 24 regional chapters located in State capitals and 5 regional centres in major cities.

5.3 CENTRES OF EDUCATION

- i. Urban planning education started with the initiation of a master-level programme in SPA Delhi in the early 1950s, followed by another such programme at IIT Kharagpur in 1956. Later, other institutions started offering courses with multiple specialisations, such as environmental planning, housing, regional planning, transportation planning, infrastructure, etc.
- ii. During the early 1980s, ITPI realized the need for starting undergraduate programmes in planning and accordingly took up the matter with the Ministry of Education, and designed a model curricula. SPA Delhi started a four-year undergraduate programme in planning (B.Plan.) in the academic year 1989-90. Soon afterwards, many other private and public sector institutions started offering this course.
- iii. In order to get a comprehensive picture of the present urban planning education capacity in quantitative and regional distribution aspects, a list of all the institutions with approved degree programmes in urban planning was sought by NITI Aayog from AICTE vide D.O. No. NI/ES/03/2020-MU dated 4 September 2020. The information received was mapped along with the sanctioned intake capacities. It was observed that, currently, urban planning education in India is being offered by 49 institutions. Following inferences were drawn from the analysis:
 - a. There are 49 educational institutions in India that provide degree programmes in urban planning and allied specialisations/nomenclatures like environmental planning, transportation planning, housing, infrastructure planning, and so on. These are distributed across the country barring the North-Eastern States (except Assam), Western Himalayas and UTs (except New Delhi).
 - b. Of these 33 institutions offer only programmes, 12 offer both postgraduate and undergraduate programmes, and 4 offer only undergraduate programmes, as of 2020.
 - c. While the total annual sanctioned intake capacity of postgraduate degree programmes is 1300, that of undergraduate degree programmes is about 550. This means that India has the capacity to supply approximately 1875 planners (generalists as well as specialists) every year.
 - d. Of the total sanctioned intake capacity of postgraduate degree programmes, about 27% is housed in Gujarat. In case of undergraduate programmes, Madhya Pradesh has maximum intake capacity with 22% share.
 - e. Since 2014, 40% of the sanctioned intake capacity has been added to the postgraduate programmes while 84% to undergraduate programmes.



- f. When compared with ITPI's list of recognized institutions, received via email dated 9 January 21, it was observed that of these 49 schools, 29 have full recognition, 15 have provisional recognition while the rest are unrecognized, as of January 2021.
- iv. The **National Institutional Ranking Framework (NIRF)** was launched by the Minister for Education on 29 September 2015. This framework outlines a methodology to rank institutions across the country. The parameters broadly cover teaching, learning and resources, research and professional practices, graduation outcomes, outreach and inclusivity, and perception. So far, this framework does not include urban and regional planning as a distinct discipline.

5.4 MODEL CURRICULA DEVELOPMENT IN INDIA

- i. Model curricula for undergraduate and postgraduate programmes are prepared periodically by AICTE. For the first time, this exercise was undertaken in 2009 with ITPI. A number of experts in the field of planning participated in this endeavor. Thereafter, minor revisions were made in 2012.
- ii. The latest exercise to renew the model curricula for undergraduate and postgraduate programmes started in late 2018 by a committee comprising planning experts set up by AICTE. The first meeting of the committee was held on 13 December 2018 at the AICTE headquarters in Delhi, in which the basic structure of the model curricula was decided. This included core courses, studios, thesis, training opportunities, and professional and open electives. The committee also examined the syllabi of SPA Delhi alongside the existing model curricula of AICTE. The committee decided that the preparation of a new model curricula would be carried out through a consultative process with the relevant stakeholders.
- iii. A workshop with the stakeholders—largely professional planners—was held on 5 January 2019 at ITPI Congress in Chandigarh. The delegates suggested that new subjects such as public policy, public finance, urban and regional governance, climate change, new urban agenda, and SDGs, project evaluation, urban agriculture, village planning, and rural development should be introduced. Students should be taught mapping technologies and a good understanding of data science. It was also suggested that a longer time period should be allocated for professional training. Students should have a deeper knowledge of matters related to land, reading of revenue records, land procurement, development, and management. Equally important are matters pertaining to equity and justice, alongside an understanding of markets. Delegates at the Congress also suggested that students should learn about the energy needs of cities and towns. It was further decided that professional training and studio-related field trips should be made compulsory.
- iv. Currently, all accredited planning institutions largely follow the AICTE-approved model curricula. All the planning schools pursue a comprehensive process to prepare their curricula and the same is approved by the respective academic councils/senate. For example, while revising the syllabus of the BPlan programme, both SPA Delhi and Bhopal followed a long consultative process.



- v. The Model curricula for postgraduate and undergraduate programmes in planning was released by AICTE in 2020 (refer Annexure XII). It has several new features in line with changing pedagogical advancements like:
 - a. The Master of Urban and Regional Planning programme has courses from various categories, namely: humanities and social science courses, urban and regional planning core courses, professional elective courses (branch specific electives), open elective courses (cross disciplinary), audit courses (non-credit), and practicals (studio, dissertation and professional training).
 - b. Each subject is written in a standard format created by the AICTE, starting with course objectives; course content divided uniformly into four units for each subject; relevant texts and references; and course outcomes, i.e., what students are expected to learn from each course.
 - c. More emphasis is laid on professional and open electives in the model curricula, aimed at offering students better choices.
 - d. Courses on public participation, spatial data analytics, etc., are included in the model curricula.
 - e. Grassroots terminologies of local units land like *kanal*, *marla*, *khasra*, etc., have been included.
 - f. New audit courses are also added with zero credits. These are expected to create rounded personalities of professional planners.
- vi. The model curricula of B.Plan. also focuses on rural aspects, with subjects like introduction to regional planning and rural development and management. Practical assignments include planning studios on regional and village planning. The model curriculum of M.Plan. includes subjects like regional governance, metropolitan regional planning, and a regional planning studio.
- vii. NIUA had conducted a study in 2017 supported by the Asian Development Bank (ADB) titled “Recommendations for an Improved Master’s level Urban Planning Curriculum”; the research was further updated in 2021 for the Advisory Committee. Additionally, a comparative assessment of the model curricula of planning developed by AICTE in 2020 (for postgraduate degree programmes) with that of peer programmes in India was also undertaken. It was concluded that the Indian curricula is more or less at par with international peers in terms of course structure and student engagement. However, it was noted that there is a dire need to increase the visibility of planning schools, to present planning as a worthy and efficacious profession.

5.5 SUPPLY ESTIMATION

- i. UN-Habitat (2016) has stated that the “planning capacity is grossly inadequate in much of the developing world. In the UK, there are 38 planners per 100,000 population, while in Nigeria and India the figure is 1.44 and 0.23 respectively”. This comparison indicates of a grim ratio of planners in India and puts forth a need to deeply examine the demand and supply aspects of planners in the country.

- ii. Of the five key mandates of the Advisory Committee on 'Reforms in Urban Planning Capacity of India', the following two raised the requirement of assessing the demand-supply of planners in the country:
 - a. Identify the need and suggest strategic interventions to raise the quality and **quantum of the planning education system** in the context of curriculum, demand, regional distribution and ranking framework of institutions, research environment, faculty development and related aspects.
 - b. Examine the factors affecting **demand-supply gaps of planners** at all levels and sectors of governance and suggest suitable mechanisms for empowering governance with adequately skilled and qualified planning professionals.
- iii. The Advisory Committee acknowledged the need to improve both the demand as well as supply of urban planners in the country in the **first meeting** held on 17 November 2020. Further, during the **brainstorming sessions held** on 17 December 2021 and 12 January 2021, several participants raised the need to assess the supply of available planners in the market.
- iv. In terms of student enrolment at the undergraduate level in major disciplines/ subjects (based on actual response), the All India Survey on Higher Education (AISHE) report 2018-19 (MHRD, 2019) indicates that only 938 students were enrolled in undergraduate planning education (491 males and 447 females), 1028 were enrolled in M.Plan. while only 8 candidates enrolled for Ph.D. in planning. (refer Table 7). AISHE report 2019-20 has shown a better enrolment, particularly, in the Ph.D. (refer Table 8). However, the programme-wise enrolment at all the levels of degrees in planning remains a fraction in comparison to the other fields like arts, sciences, and business administration. As is evident, the urban and regional planning education courses offered in India do not appear appealing (in comparison to other fields) to a wide spectrum of prospective students. It is to be seen whether unclear future employability, return on investments, lack of awareness in the employers and quality of education/infrastructure are the causative factors behind the same.

Table 7*Programme-wise Enrolment, 2018-19 (Based on actual response)*

S. No.	Degrees	Male	Female	Total
1	Bachelor of Planning (B.Plan.)	491	447	938
2	Master of Planning (M.Plan.)	489	539	1028
3	Master of Urban Planning (M.U.P.)	93	119	212
4	Master in Transportation Planning and Management (M.T.P.M.)	44	0	44
5	Ph.D. in Planning	7	1	8

Note:

Compiled from Department of Higher Education. (2019). All India Survey on Higher Education 2018-19. Ministry of Human Resource Development, Government of India.

Table 8*Programme-wise Enrolment, 2019-20 (Based on actual response)*

S. No.	Degrees	Male	Female	Total
1	Bachelor of Planning (B.Plan.)	485	523	1008
2	Master of Planning (M.Plan.)	670	776	1446
3	Master of Urban Planning (M.U.P.)	111	59	170
4	Master in Transportation Planning and Management (M.T.P.M.)	30	15	45
5	Ph.D. in Planning	24	31	55

Note:

Compiled from Department of Higher Education. (2020). All India Survey on Higher Education 2019-20. Ministry of Education, Government of India.

- v. Other than some prominent institutions, these programmes do not seem to appeal to a wide spectrum of students. Possible factors can be lack of clarity about future employability, return on investments, and lack of awareness about the skills imparted. Also, urban planning as a profession is not widely known to the general public, which can be another reason for the low application level in the degree programmes at undergraduate levels. This reinforces the need for increased interaction between planning agencies and citizens.
- vi. During the second brainstorming session, the number of qualified urban planners in India registered as members with the ITPI since 1951 was also discussed. It was advised by the participants that since ITPI is a non-statutory professional body, member register only voluntarily and not compulsorily. Due to this, a true count of the qualified workforce available in the market cannot be ascertained. Therefore, a broad estimation of the supply of urban planners in India is pertinent.
- vii. Based on the data received from AICTE as well as 3 of the major institutions offering postgraduate programmes in urban planning and related nomenclatures (CEPT University Ahmedabad, SPA Delhi, Anna University Chennai), it was found that a total of 6913 urban planners have graduated from these institutions since these programmes were started. Considering there is a total of 49 institutions, the actual supply would have been even higher.
- viii. Towards this, a list of approved institutions offering postgraduate and undergraduate programmes in planning was sought from AICTE and ITPI Delhi. The lists were merged to make a master sheet of all the institutes and courses. Only the institutions offering the courses with the keyword 'planning' were referred to for supply estimation. The courses on urban design, development management and practice were not included due to variation in the title and content (refer Annexure XIII).
- ix. Several scenarios were built for estimating the total workforce of urban planning professionals that may be available in the market based on the data received.

**Table 9***Scenarios of supply assessment*

S. No.	Scenarios	PG*	UG**	Total
1	Estimation of the total number of planners who graduated since the year of approval until 2020	25,345	3,986	29,331
2	Estimation of the total number of planners who graduated in the last 35 years if 100% intake capacity was filled every year in each institution (to discount the retired personnel)	19,878	3,986	23,864
3	Estimation of the total number of planners who graduated in the last 35 years if 50% intake capacity was filled every year in each institution	9,939	1,993	11,932
4	Estimation of the total number of planners who graduated in the last 5 years if 100% intake capacity was filled every year in each institution	5,785	1,640	7,425
5	Estimation of the total number of planners who graduated in the last 5 years if 50% intake capacity was filled every year in each institution	2,893	820	3,713
6	Estimation of the total number of planners who graduated in the last 35 years, if 75% intake capacity was filled every year in each institution	14,909	2,306	17,215 ~ 17,000

Note.

*PG= Post graduate programmes in Urban Planning and related nomenclatures

**UG= Undergraduate programmes in Urban Planning

(refer Annexure XIII)

- x. Scenario no. 6 was selected by the Advisory Committee as a close representative of the estimated workforce of qualified urban planners available in the market. Therefore, it was of the view that through the urban planning education system in India, currently, approximately **17,000 urban planners** may be available in market.

5.6 KEY INFERENCES

5.6.1 INSTITUTIONAL

- i. The genesis of urban (or town and country) planning is in physical planning that was seen as an extension of architecture. In India, therefore, schools of planning and architecture were established in stand-alone mode. However, along with physical design-oriented planning, non-spatial public policy perspective has become equally important. This needs multi-faculty universities environment as it would enable closer interaction in research and teaching amongst various disciplines beyond spatial design and applications in the problem solving studios. However, considering the legacy of design-oriented stand-alone planning schools this does not seem practical in the short term.



- ii. The North-Eastern and Western Himalayan States do not have any institution that offers degree programmes in hill area planning. The Advisory Committee also said there is a dearth of rural area planning professionals for the implementation of the SPMRM programme. Urban planning education and practice are largely urban-centric and there is a need for specialised courses in rural area planning as well as hill area planning.
- iii. While the nomenclature of undergraduate degrees prescribed by AICTE is Bachelor of Planning or Bachelor of Technology (Planning), that of postgraduate degrees vary across the country. For example, 'city planning', 'urban and regional planning', 'town and country planning', 'housing', 'environmental planning', 'transport planning', etc., While the Schools of Planning and Architecture offer postgraduate degrees under the title 'Master of Planning'. Planning being a dynamically developing field may have multiple specialisations. However, such multiplicity in degree nomenclatures and titles causes hindrance in the employment of graduates with similar skills but with different names of degrees/courses.
- iv. Currently, a ranking framework for assessing institutes offering urban and regional planning education in the country is not available. Such a framework may help promote healthy competition amongst the institutions.
- v. Also, there is no statutory requirement/basis to accredit planners for providing professional services. ITPI as a professional body of town planners provides 'memberships' to the eligible planners, however, it is voluntary to register with the institute.
- vi. A serious challenge of faculty shortage was observed by the Advisory Committee members with approximately 25-30% shortage. Also, there are few quality improvements programmes for faculty in the urban planning domain. The faculties also have limited motivation and incentive to heighten their research and expertise. These can be major limitations in the adoption or adaptation of the model curricula.
- vii. The number of PhD-level research scholars as reported in AISHE 2018-19, (MHRD, 2019) is extremely low. This could also limit the development of localized solutions and context-based literature in India.

5.6.2 DEMAND-SUPPLY ASPECTS

- i. Sometimes the number of planners required in urban India is projected by comparing such numbers prevailing in developed countries. In this context, it is pertinent to acknowledge that at present, there is no mandatory system for keeping an absolute count of urban planners that graduate every year in the country or are engaged in jobs, which leads to multiple notions about their shortage – both nationally and globally. Secondly, for a valid projection of planners in the country, it is necessary that they have an equally matching demand. But as of now, this is not the case. Moreover, an urban planner's role within the urban local bodies is getting limited to making statutory plans and granting development permissions.
- ii. Lack of demand is further magnified by the disconnect between the supply of workforce and the workplace. This leads to underemployment, lack of qualified workforce in the public sector, and an overall loss of the urban planning capacity



of India. There are several possible factors for this mismatch that need to be addressed:

- ▶ There is a tendency in employers to consider architecture, civil engineering, and urban planning as equivalent domains.
- ▶ The skills imparted to planners have not been meeting with industry requirements like communication and moderation, financial analysis, project structuring, project management, etc.
- ▶ Lack of an open marketplace that can bring together the potential supply of qualified planners is a missing link.
- ▶ Another issue is the lack of awareness amongst potential employers regarding the existence of urban-planning education programmes.

- iii. It was strongly put forth by the Advisory Committee members and experts, during the second meeting, that even if the number of planners in the country is doubled or tripled, it will not be enough to raise the urban planning capacity in the country. Unless these planners are put together in teams in the public or private sectors, this work-force shall remain unutilized. Therefore, concerted efforts may be made to nurture the same before making a quantum jump towards increasing the supply, should it not be for a specific cohort requirement foreseen already.

5.6.3 CURRICULA, PEDAGOGY AND LEARNING ASPECTS:

- i. Since pre-independence and the narrative of planning in India has largely been focused on the physical aspects of controlling urban land use through strict regulations. This required the skill sets of surveying, plot reconstitutions, basic infrastructure design and execution and valuation.
- ii. The model curricula of planning prepared by AICTE in 2020 stands strong in comparison to international universities and includes the considerations of sustainability, liveability, walkability, inclusion and so on. The real challenge is in the of what? by institutions offering graduate and postgraduate programmes in planning in India.
- iii. The model curricula of B.Plan. and M.Plan. includes topics on rural and regional planning but in a limited way.
- iv. Globally, the planning education has progressed from focusing on just physical design to technological innovation and social science research-based planning and public policy. However, in India, the pedagogy of degree programmes in planning is still more inclined towards physical planning aspects. Also, most students joining postgraduate programmes in planning are from an architecture background. It needs to be taken into account that urban planning deals with the use of land that is intrinsically linked to land and labour markets. Its interventions have an ability to distort or destroy markets. Good governance-based planning that emerges out of public participation and earns a buy-in for effective implementation is essential to be taught and practised. Future urban planners of India need to be trained with considerable emphasis on economics and its applications in urban planning, policy making, and management.



CRITICAL ISSUES



The Advisory Committee found several 'bottlenecks and systemic issues' across the value chain of urban-planning capacity in India. Some of the key gaps are discussed below:

i. Urbanisation and Recognition of 'Urban' Areas:

Around 8000 towns are counted as urban for population estimation under the Census of India (2011); however, half of them, known as census towns, are still administratively 'rural'. The lack of 'urban' status poses an institutional challenge in terms of planning and management of these settlements that have already attained the urban characteristics. Assessment of their contribution to the societal and economic growth, and appropriate recognition as 'statutory towns' is crucial for deriving the benefits of urbanisation in the country.

Further, it needs to be acknowledged that the population of Class V and VI towns had soared by 90% and 151% respectively during 2001-2011 while the Class I towns had a modest growth rate of 35% in the same time period (Census of India, 2001, 2011). Such towns serve as intermediaries in the rural-urban continuum. There is a





huge opportunity and potential for setting robust systems in place for planning and management them, before they get intertwined into the complexities of haphazard growth, lack of space for infrastructure provision, and land use inefficiencies. A stronger policy focus and programmatic intervention is required to revitalize the small and medium towns in the country.

Further, a larger question at the core of urbanisation policy, is the basis of defining and distinguishing the 'urban' and 'rural' areas. The present parameters that define 'urban' in context of India were devised decades ago. There is an emerging need to assess whether these parameters are able to reflect the extent of urbanisation in the country realistically for appropriate policy making and interventions.

ii. Lack of Planning of Cities and Regions:

In the present scenario, about 52% of the statutory towns and 76% of the census towns do not have any Master Plans to guide their spatial growth and infrastructural investments. This implies that three-fourth of the urban centres in the country do not have any spatial strategy for the next 20 years. Such severe lack of preparedness to manage the level of urbanisation that the Indian cities are bound to witness in the coming decades is a huge risk. Clearly, the 'business-as-usual' approach will not be sustainable. This gap needs to be plugged through concerted efforts at multiple fronts – legislative, organisational, procedural, and human resource – as may be relevant.

It is widely debated that 'master plans' of cities become static and do not adapt to the continuous social and economic changes taking place in the cities and their peripheries. They are seldom broken down into simpler implementable projects that can be budgeted for in a sequential manner. Even if that is done, in several cases it is too little or too late. In the meantime, lands are illegally subdivided and unauthorised constructions start deteriorating the urban landscape. It is also critiqued, that many Indian cities face issues like traffic congestion, pollution, flooding, and inefficient waste management, despite having 'master plans' in place.

Lack of implementation of master plans is also a widely raised issue. They often get stuck in disputes and scepticism. There is a perceptible communication gap between the plans and the people. There are limiting factors on both ends. On one hand, the planning agencies engage with the citizens in plan preparation process in a very limited way. On the other hand, the level of literacy, lack of awareness about the principles of planning (like common interest above individual interests), and lack of understanding of complex maps/master-plan reports are some of the factors that limit the effective participation by the citizens.

Given such shortcomings, the fact remains that the cities need master plans or development plans as statutory tools to 'guide' their development, spatial growth and land use management. Nevertheless, weaknesses in plan preparation and implementation processes need to be identified and resolved.

For robust planning, it is essential that both spatial as well as the non-spatial components are taken into account while planning of the cities. For example, migration is an integral element in city growth. Effective provision of public services



and basic facilities like education, transportation, sanitation, electricity and so on can create pathways to prosperity for the people who migrate to the cities in search for a better life (Lamson-Hall et al., 2020). Therefore, inclusivity needs to be considered while planning of cities. There are several mechanisms adopted in India and globally, in this regard. However, these need to be replicated and upscaled. Moreover, an enabling environment needs to be created for bringing them to action.

All the relevant sub-sectors of a city—mobility, land-use, blue-green-grey infrastructure, digital connectivity, energy, natural environment, heritage, etc., need to be integrated in one interoperable map. Specific proposals need to be developed based on data backed analysis of these layers with due consideration about urban poor, migrants, safety, gender, global agendas (like SDGs, Paris agreement), densities, and other relevant concerns of the citizens. More importantly, a thrust on ‘healthy living environment’ needs to be revived and made intrinsic to the planning of the cities.

Furthermore, on-ground performance of the ‘master plans’ is important for transformation of cities. Therefore, technology-based solutions need to be adopted for bringing more transparency and efficiency in plan preparation, implementation and monitoring.

In a larger context, it needs to be acknowledged that a city does not exist and thrive in isolation. It’s regional setting and linkages play an integral role. Therefore, regional planning at the district/metropolitan levels is required for co-ordinated spatial planning, management of physical and natural resources, integrated development of infrastructure, environmental sustainability; efficient mobility, logistics management and so on. These plans further need to be hierarchically linked with the city level master plans for achieving integrated results.

A paradigm shift and new ethos for planning and managing the cities is required to achieve the same. Firstly, specific proposals with clear assignment of responsibilities of the concerned agencies and a financial implementation plan need to be devised within the master plans. Secondly, measurable parameters for monitoring of implementation of these proposals need to be defined at the master planning stage so that adequate mid-course corrections could be undertaken by concerned agencies. Thirdly, relevant legislation needs to be thoroughly reviewed and amended to create an enabling environment for advancement in the urban planning capacity of the country. These may include the town and country planning acts, land related acts, municipal acts, development authority acts, and so on.

iii. Lack of institutional clarity:

The transfer of the urban-planning function from States elected urban local governments did not happen as was envisaged under the Constitutional (Seventy-Fourth amendment) Act 1992. Moreover, there is a host of agencies involved in urban planning, implementation, infrastructure development at the city as well as state levels.



Multiplicity of organisations dealing with planning of land and sectors like water, sewerage, solid waste etc. has led to both siloes of working and overlapping of functions. This often leads to lack of accountability and coordination, time delays, resource wastage, etc.

Therefore, attention needs to be paid towards strengthening the urban and metropolitan governance with focus on— city leadership, systems for horizontal and vertical coordination among multiple organisations, clearly defined mandates and powers for plan implementation, constitution and functioning of Metropolitan and District Planning Committees, human resource to suffice for techno-managerial roles of planning, implementation mechanisms and so on.

iv. Lack of Adequate and Technically Qualified Planners in Public Sector:

A study conducted by TCPO and NIUA for NITI Aayog indicates that over 12000 posts for town planners are required in the country. This is in stark contrast to the present situation. There are fewer than 4000 sanctioned positions for 'Town planners' in State town planning departments. When this figure is compared with the number of statutory towns, it is alarming to find that there is not even one planner¹¹ per urban centre in India.

An inadequate number of Urban/Town planners in the State town-planning departments and a lack of multi-disciplinary structures appear to be serious issues in the present planning capacity.

In addition to this, it has been observed that the educational eligibility criteria for the entry level positions of Urban/Town planners as per the applicable 'Recruitment rules' in respective States/UTs is not consistent across the country. In some States, the graduates of the 'urban planning' domain are ironically not even considered eligible to apply for a 'Town Planner's job'. This is a regulatory bottleneck that needs to be resolved.

v. Demand -Supply Issues:

The current workforce supply was found to be sufficient by the Advisory Committee for catering to the present number of sanctioned posts in the State town and country planning departments in the following context:

- a. Planners are hired by a large number of organisations at the Central, State, and local levels as well as by the public, private, education and research sectors. So, the demand of Urban Planners for State town and country planning departments is a sub-set of the same.
- b. The present sanctioned posts of the State town and country planning departments needs to be revamped. Once the demand of planners would increase, the existing supply may fall short of the requirement.

¹¹ The term Planners, in this chapter, includes the all the relevant streams—Urban and Regional Planning, Infrastructure Planning, Environmental Planning, Transportation Planning, Regional planning, Housing, Industrial areas planning, Rural area planning or any other nomenclature approved by AICTE.



Therefore, both demand and supply of urban planners needs to be increased in tandem. The need for planning of cities may not be met only with an increase in supply of qualified graduates in the market. Planners need to be either organised in the private-sector companies to be able to deliver services, or employed by public-sector organisations to serve mandates or hired as faculties at the educational institutions—in the absence of such consolidation, demand-supply will remain disconnected.

vi. Challenges in Developing the Private Sector:

Massive capacities for problem-solving, innovation, and ideation are required to address the present and future challenges in the planning and management of cities, towns, villages and their infrastructure. It may not be feasible to be create such capacities in the public sector at the size and scale of the urbanisation in India. Private sector would need to be evolved to play a major role in this and support the public sector in a very big way.

Over time, many private sector companies developed in India in the domains of architecture, engineering and construction, however, the ecosystem¹² of private sector in urban planning domain remained under developed. This is primarily because statutory planning has been the role of the public sector—i.e., the state town planning departments, development authorities, ULBs. Also, there has been a lack of preparedness in the public sector that could create opportunities for the development of the private sector.

The Advisory Committee notes that planning consultancies in the private sector failed to flourish due to several impediments like lack of fair contracting practices, heavy-performance-bearing guarantees, lack of appropriate risk allocation and so on. Therefore, appropriate measures may need to be undertaken for increasing the public as well as the private sector capacities.

vii. Disconnect between Urban Planning and Urban Land Records:

A city is a 'system of systems', wherein the spatial components include land use, transport, logistics, heritage, environment, housing, etc., the non-spatial ones include the administrative structures, legislative frameworks, economic policies, labour market, budget allocations and so on. The spatial components, therefore, need to be planned to attain a scenario of compatible and conforming land uses supported by the basic infrastructure. Planning of spatial components cannot be done without good maps with clarity of land titles, ownership, and tenures-as inaccurate maps can lead to multiple downstream transactional costs.

In other words, urban planning deals with interventions in the land uses and therefore land markets. Land is a costly and finite resource-and therefore, accurate cadastral maps and clarity about property rights are very important for successful planning. If the land use plan of a city diverges from the status of land records, it may not get implemented on ground. Moreover, such divergences may become

¹² In the case of urban planning services, the private-sector ecosystem consists of management, planning and design consultancies, among others.



potential cause of unnecessary and time-consuming dispute and litigation. The Advisory Committee notes that accurate and usable maps of many of the major cities in India do not exist with their functionaries or in the public domain. This a major impediment in the planning processes as well as planning capacity.

Moreover, successful implementation of spatial plans, depends to a great extent on how well they stay in sync with the land records. Typically, there are separate departments at the State level that are mandated with the functions of spatial planning and land administration. They function under different acts e.g. State Town and Country Planning Act, the Registration act, 1908 and so on. Real-time coordination amongst the master plans and the land records is seldom given due importance.

Therefore, there is an immense need to bring more synergy and coordination among State level organisations dealing with spatial planning and land administration to achieve orderly and time bound implementation of spatial plans. The members of the Advisory Committee and domain experts suggest several pathways to deal with such complexities like digitisation of urban land records, organisational restructuring, amendments in the relevant legislation and so on. These need to be explored in a greater detail.

viii. Lack of Specialised Professionals:

There is a lack of synergy between urban and rural planning in India. The planning agencies including the State town and country planning departments seldom plan or execute village level or cluster level plans for several reasons. The State town and country planning acts need to be reflected upon to harmonize the urban and regional planning in India.

In addition to this, there is a dearth of experts in the country in the specific areas like rural area planning, coastal area planning, industrial area planning and hill area planning. The present planning education in India is largely urban-centric. This limits the skills that are required for planning of aforementioned areas. However, any increase in the supply of such specialised courses needs to be done with due diligence regarding the job availability for such professionals.

ix. Challenges in Growth of Urban-Planning Profession:

The education system of urban planning and its various allied specialisations have existed in the country for decades. However, until now, the profession of urban planning has not attained a well-defined identity of its own.

Moreover, there is no mandatory system for keeping an absolute count of urban planners that graduate every year in the country, which leads to multiple notions about their shortage – both nationally and globally.

There are about 7000 registered members of ITPI which is a professional body of town planners in India. The Advisory Committee noted that this institute is not a statutory body and membership with it is voluntary in nature. Therefore, an actual supply of qualified urban planners may not necessarily get reflected in the number





of members registered with the Institute. NITI Aayog undertook an exercise to broadly assess the number urban/town planners that could have graduated in last 35 years in India and the estimations indicated a count of 17,000 Planners – which is more than a double of the number of members registered with the ITPI.

Therefore, there is an urgent need for a transparent and user-friendly system through which an accurate supply of qualified urban planners could be ascertained for appropriate policy decisions and institutional investments.

x. Limited Awareness about Urban Planning:

The decision-making and leadership roles of city planning are more often than not either vested with administrators or elected officials, and not urban planners per se. There is an immense need to heighten the awareness about the significance of comprehensive urban planning, its socio-economic benefits and ability to mobilise finances for development of urban infrastructure.



RECOMMENDATIONS



The Advisory Committee has set out the following recommendations for strengthening and streamlining the value chain of urban-planning capacity in India.

7.1 PROGRAMMATIC INTERVENTIONS FOR PLANNING OF HEALTHY CITIES

- i. A city master plan is a statutory requirement and an essential tool for socio-economic development, better liveability, inclusion, citizen engagement, environmental sustainability, and prevention of climate change-related risks. Alarming, **about 52% of statutory towns in India lack any kind of master plan**. Absence of a comprehensive spatial development strategy leads to multiple issues, for example, lack of land for affordable housing, flooding, traffic jams, and wastage of water resources. Moreover, once the city has grown haphazardly, corrective measures and provision of infrastructure are difficult and costlier to undertake. The process of designing a city master plan needs financial and human resources.
- ii. Under the AMRUT Mission, a sub-scheme on the formulation of GIS-based master plans was launched by MoHUA at a cost of Rs 515 crore on 26 October 2016 as



a 100% centrally funded sub-scheme. So far, final master plans are ready for 48 cities, draft plans for 47 cities and the rest are in different stages of development like data collection, preparation of base maps etc.

- iii. **India's urban system has 7933 settlements. These include a small number of million-plus cities (less than 1%) and a large number of small-and medium-sized towns, which together occupy more than half of India's urban land** (refer to Section 2.3, table no. 2). Therefore, ensuring planned development is indispensable for harnessing the benefits of urbanisation and not failing it to its negative externalities like congestion, overcrowding, pollution, etc.
- iv. Covid-19 has revealed the **dire need for planning and management of our cities, with a thrust on health aspects**. In this context, every city must aspire to become a 'Healthy city for all' by 2030. This would need a convergence of multi-sectoral efforts at the intersections of spatial planning, public health, and socio-economic development.
- v. **The Committee recommends a central sector scheme, '500 Healthy Cities Programme', for a period of 5 years.** The detailed design of the scheme would need to be worked out by MoHUA in consultation with the States and UTs. Priority towns (from Class I and other size class categories) would be decided in regional meetings with the States/UTs, jointly organised by MoHUA and NITI Aayog. An indicative criterion of selecting a priority city/town would be built into the design of the scheme for ensuring maximum impact and diversity. The scheme, among other things, would need to consider incentive mechanisms towards: i) Preparation of a spatial multi-sectoral vision by States/UTs in context of the macro level situation and plans like NIP 2019-2025, budgetary allocations, citizens' aspirations as well as regional issues and propensities ii) Constitution and functionalisation of the Metropolitan Planning Committees and District Planning Committees. Also, the scope of the existing Ease of Living Index (MoHUA, 2020) would need to be expanded to cover these 500 cities to measure the outcome and enable healthy competition.
- vi. The key interventions and advancements in existing approaches of master plan preparation, implementation and monitoring must include (but not be limited to) the following:
 - ▶ Assessment of the needs and aspirations of citizens through participatory planning tools, primary surveys, focused group discussions, etc.
 - ▶ Preparation of an interoperable base map of the city on GIS¹³ platform, along with plot-wise details of land such as use, area, ownership, tenure, land value, use, etc. and all existing built as well as natural features.
 - ▶ Mapping of all the relevant sub-sectors of a city—blue-green-grey infrastructure (including rivers, waterbodies, forests, parks, sanitation, water supply, solid waste management, etc.), mobility (including detailed road cross-sections, digital connectivity, EV infrastructure, motorised and non-motorised transit facilities), industrial infrastructure, heritage, and so on.

¹³ Geographic information System



- ▶ Development of a spatial strategy with focus on creating a 'healthy living environment' by focusing on citizens' well-being, including physical and mental health, and measures to achieve cleaner air, water and soil as well as parameters to ensure a balance between the built and unbuilt environments.
- ▶ Development of specific provisions with regard to localisation of the sustainable development goals, local economy, health and education infrastructure, circular economy, gender equality, universal access, inclusivity, environmental sustainability, spatial sustainability, migrants, walkability, inclusionary zoning, and so on. Relevant inclusion of such provisions in the master plan or its detailed layouts as relevant to the scale.
- ▶ Development and inclusion of specific proposals with clear responsibilities of the agencies concerned and a financial implementation plan in the master plan report.
- ▶ Identification of measurable indicators to annually assess the performance of these master plans and at the time of their revision after 5 years. Inclusion of these indicators in the master plan report as well as on the websites of the planning agencies.
- ▶ Creation of technology-enabled solutions for monitoring construction activities to prevent haphazard or unauthorized built-ups. Using GIS-based map to dynamically reflect these changes and other ongoing infrastructure development activities.
- ▶ Development of accessible and easy-to-understand videos/reports/infographics on the plans and proposals on the websites of the local government as well as planning agencies with space for comments from citizens.

Actions suggested for MoHUA, State urban development departments, State towns and country planning departments, and urban local bodies.

7.2 PROGRAMMATIC INTERVENTIONS FOR ADVANCEMENT IN DEVELOPMENT CONTROL REGULATIONS

- i. Urbanisable/developable land is costly as well as limited in supply. The city governments guide and regulate development through planning regulations and building bye-laws. These include sub-division regulations, zoning regulations, floor area ratios (FAR), height limitations, set-backs, parking requirements, plot sizes, and so on. The broad rationale of these regulations is to ensure the safety and health of the people. However, it is argued that they create unintended impacts on citizens and weaken the functionality, efficiency and inclusivity of cities. Also, that they tend to work towards urban sprawl instead of ensuring a compact development pattern.
- ii. At the user end, these regulations impact the cost of construction, return on investments, housing affordability, and so on. Research indicates that at the city level, these regulations often lead to underutilisation of valuable urban land. Larger proportion of land gets consumed in the fragmented and poorly utilised private





open spaces than in the public realm – which in turn creates scarcity of land for provision of infrastructure like roads, water supply, playgrounds and so on. Moreover, they create distortions in the land market that pushes development to the peri-urban areas, reduces availability of serviced land, particularly for low-income groups in the cities, increases commuting distances and their environmental costs. These distortions need to be empirically assessed on city-to-city basis and corrected through informed revisions in the development control regulations

- iii. In many cities, development control regulations were formulated several decades ago and are often updated arbitrarily without sufficient empirical evidence on their impacts on its outcomes in terms of infrastructural and social costs. Recently, most of the States/UTs have revised their respective bye laws based on Model Building Bye Laws, 2016 (MoUD, 2016). It is imperative that the city governments develop or adapt the planning regulations and building bye laws as per their context and economic growth drivers; and shift from blanket regulations to the area-specific regulations to ensure the optimum use of urban land.
- iv. Another short coming that has been argued by experts is that the typical text-based regulations do not enable the end users-citizens, and property developers in determining the permissible building envelopes. Also, these do not enable the decision-makers to assess the resulting sky-lines, urban form, streetscapes, infrastructural costs, land use efficiencies.
- v. Therefore, the Advisory Committee recommends **a sub-scheme for 'Preparation/Revision of Development Control Regulations'** for all the cities/towns—covered under the recommended 'Healthy Cities Programme', as relevant. The objective of this intervention is to strengthen the development control regulations based on scientific evidence to maximise the efficiency of the urban land (or planning area).
- vi. Under the proposed sub-scheme, private sector companies and academic/research institutions shall be engaged by the respective State Governments to work with the planning agencies.
- vii. The key interventions and outputs under this sub-scheme should include (but not be limited to) the following:
 - ▶▶ An empirical assessment of the prevailing development control regulations and building bye-laws and their impact on the health and safety of the citizens, local economy, urban land efficiency, built and unbuilt environment, etc.
 - ▶▶ Development of virtual 3D¹⁴ models to depict various scenarios of urban form, skyline, densities, and streetscapes when the floor area ratios, setbacks, building height, ground coverage, etc.
 - ▶▶ Assessment of the cost of infrastructure provision for each scenario and handholding the State/city Governments to select the most appropriate scenario
 - ▶▶ Propose preparation of development control regulations or specific revisions to the existing ones to achieve the selected scenario.
 - ▶▶ Assist in translating the text-based regulations into form-based ones.

¹⁴ Three-dimensional





Actions suggested for MoHUA, State urban development departments, State towns and country planning departments, and urban local bodies.

7.3 RAMPING UP HUMAN RESOURCES IN PUBLIC SECTOR

- i. In the public sector, the town planners are broadly mandated to conduct techno-legal duties like building/plan approvals, techno-managerial duties like project management, and core technical duties like plan preparation (master plan/regional plan/layout/zonal development plan/local area plan/development plan etc.). **Currently, not even one planner¹⁵ is available per city or town in the States' town and country planning departments** (only 3945 sanctioned posts of town planners, of which 42% are lying vacant). Furthermore, a study conducted by TCPO and NIUA for NITI Aayog indicates that over 12,000 posts of town planners are required in the country (refer to Section 4.1.2 for more details).
- ii. The Advisory Committee notes that the cities are severely understaffed to undertake the tasks of urban planning. The quantity and quality of human resources is crucial to raise the urban planning capacity in the country. Therefore, **the Advisory Committee recommends that the States/UTs may need to a) expedite the filling up of vacant positions, and b) additionally sanction 8268 town planners' posts as lateral entry positions for a minimum period of 3 years and a maximum of 5 years.**
- iii. While these are cumulative requirements, every State may identify specific ones using the criteria as indicative guidelines. A review of human resource requirements would need to be conducted again after 2025 or earlier, whenever the results of Census 2021 are available. Funding for hiring, remunerations, training needs, and other overheads may be met through the central sector scheme proposed under Section 7.1. The State town planning departments may be entrusted with the task of selecting qualified candidates and allocating them to priority cities/towns/urban agglomerations. It may be ensured that only qualified planners are hired for undertaking the planning tasks as per job descriptions.
- iv. A system of lateral entrants would help in multiple ways. It will a) cater to the immediate requirement of planners, b) attract fresh talent from the market, and c) create a positive feedback loop of increasing the overall technical quality in the planning domain. (After completion of tenure, lateral entrants may work with the private sector or academia. They would take back practical and grassroots-level learning to their next workplace/university and vice versa.)
- v. The lateral entrant system may be carried forward after completion of the scheme as per the ratio of internal candidates to laterals decided by the States/UTs. This would need to be reflected appropriately in the recruitment rules. Once this system is in place, a positive feedback loop of transferring knowledge and skills will be created.

¹⁵ The term Planners, in this chapter includes the all the relevant streams-Urban and Regional Planning, Infrastructure Planning, Environmental Planning, Transportation Planning, Regional planning, Housing, Industrial areas planning, Rural area planning or any other nomenclature approved by AICTE.



Actions suggested for MoHUA, urban development departments of States/UTs, state town planning departments, state public service commissions.

7.4 ENSURING 'QUALIFIED' URBAN PLANNERS IN SERVICES

- i. State town and country planning departments face an acute shortage of town planners. This is compounded by the fact that in several States, ironically, a qualification in town planning is not even an essential criterion for such jobs. Over the last few years, MoHUA has sent various advisories to the State/UT Governments in this regard.
- ii. Moreover, there is a tendency to consider architecture, civil engineering and urban planning as equivalent domains. Hiring a professional qualified in other disciplines for urban planning can lead to inefficiencies; or in a worst-case scenario, limit all the interventions and decisions skewed towards the spatial aspects (Dubey, 2016).
- iii. The Advisory Committee is of the view that:
 - » Urban areas and their development complexities have increased over the years. The discipline of urban planning or town planning has a dedicated course curricula with which the graduates acquire a multi-sectoral overview and skill set to address these complexities.
 - » Urban design, architecture, geography and civil engineering play an important role in the development of cities. Nonetheless, considering these streams equivalent to the urban planning or vice versa is a limited approach.
 - » Every year, approximately 1800 planners graduate from Indian universities with various specialisations. They can become potential candidates for town-planning positions.

Therefore, the Advisory Committee strongly recommends that:

- » The **States may undertake requisite amendments in their recruitment rules** to ensure that the **essential qualification**—particularly **at the entry-level positions of town planners** at the state town planning departments, development authorities, improvement trusts and others—is updated to:

Postgraduate Degree (M.Tech. or M.Plan.) in town/city/urban/housing/country/rural/infrastructure/regional/transport/environmental planning/any other specialization approved by AICTE from a recognised university or institute.

or

Bachelor Degree (B.Tech. or B.Plan.) in urban and regional planning from a recognised university or institute with three years' experience in the field of urban planning, housing and real estate, rural planning, regional planning, infrastructure planning, transport planning or environmental planning with the Central or State Governments/UTs or universities or recognised research institutions or public sector undertakings or Semi-Government or statutory or autonomous organisations or private sector companies or academic institutions.



or

Integrated Degree (Integrated degree in Planning leading to Master of Planning) from a recognized university or institute with two years' experience in the field of urban planning, housing and real estate, rural planning, regional planning, infrastructure planning, transport planning or environmental planning with the Central/State Governments/UTs/universities/recognised research institutions/public sector undertakings/semi-government/statutory/autonomous organisations/private sector companies/academic institutions.

- ▶ In non-million-plus cities, where it is generally difficult to mobilise postgraduates/experienced planners, the experience criteria for bachelors and integrated degree-holders may be exempted.

Further, the eligibility conditions for hiring town planners as permanent or lateral entrants or consultants or for part-time jobs at the State/local levels need to take cognizance of this recommendation, as per the skillset required for the job description.

Actions suggested for urban development departments of States/UTs, State town and country planning departments, State urban local bodies department/directorates of municipal administration, State public service commissions, State department of personnel and training.

7.5 MAINSTREAMING CAPACITY BUILDING

- i. Capacity building is often thought to be a one-time training event on a set of relevant topics. However, it should be a continuous and ongoing process.
- ii. Under the Integrated Capacity Building Programme, MoHUA has been funding capacity-building events for town planners and urban functionaries on the preparation of local area plans, town planning schemes and GIS-based master plans.
- iii. During the implementation of these programmes, wider systemic issues were observed by TCPO. For example:
 - ▶ Most of the State town and country planning departments do not have a dedicated capacity-building cell.
 - ▶ There is limited or no budgetary support for such programmes at the State level. This results in dependence on externally funded capacity-building programmes, and the capacity building initiatives of MoHUA.
 - ▶ There is a need to regularly train town planning officials at various levels so that they stay familiar with the latest technological advancements and their applications in urban planning, management and policy development.
 - ▶ Due to shortage of staff and overload of work, some of the North-Eastern States and UTs like J&K and Ladakh find it difficult to depute planners for such programmes.
 - ▶ There are very few opportunities available for town planning officials to get exposure to the 'good' practices and learnings in the national and international contexts.



- iv. Therefore, **the Advisory Committee is of the view that concerted efforts are required by the States/UTs to ensure regular capacity building of their town planning staff.** These include:
- ▶▶ Appropriate budget needs to be earmarked by the States/UTs annually for regular capacity building of the staff.
 - ▶▶ A dedicated cell in the State town and country planning departments can be established to conduct capacity-building activities annually.
 - ▶▶ Participation in capacity-building activities can be made mandatory as far as feasible.
 - ▶▶ Performance of every participant needs to be objectively evaluated, so that the results can be used as a criterion for their career progression.
- v. The National Urban Learning Platform, operationalised by MoHUA, can be leveraged for this purpose. The State/UT Governments may need to identify prominent planning education institutions and sign an MoU with them for participation in academic juries and exhibitions, classroom sessions, and organisation of training programmes, etc.
- vi. A suitable percentage of funds under AMRUT or other relevant missions should be earmarked for this activity.

Actions suggested for MoHUA, State urban development departments, State town and country planning department/directorate, State department of personnel and training.

7.6 REJUVENATION OF CAPACITY-BUILDING INSTITUTIONS

- i. The Central/State level training institutions like Regional Centres for Urban and Environmental Studies (RCUES), State Institutes of Public Administration (IPAs) and Administrative Training Institutes (ATIs) play an important role in building skills and technical capacities of the officials. There is a need to upgrade them to the tune of Lal Bahadur Shastri National Academy of Administration, Mussoorie.

ii. The Advisory Committee recommends -

- a. **Strengthening of existing Centres of Excellence (CoEs) established by MoHUA to regularly build the skills and expertise of urban functionaries.**

Action suggested for MoHUA.

- b. **Identify and strengthen some Central/State level training institutions as lighthouses.** Appropriate budgetary allocations should be made for this purpose by the respective Ministry/State Governments.

Action suggested for MoHUA, State departments of personnel and training.



7.7 RE-ENGINEERING URBAN PLANNING GOVERNANCE

- i. Multiplicity of organisations dealing with planning of land and sectors like water, sewerage, solid waste etc. have created both siloes and overlaps of functions. This leads to lack of accountability, interdepartmental incoordination, delays, resource wastage, etc. The Constitutional (Seventy-Fourth Amendment) Act 1992 has not been implemented in letter and spirit. More specifically, most of the State Governments have not yet devolved the entire 'Urban planning' function to the urban local bodies (Praja Foundation, 2020).
- ii. The need for planners is indisputable for the planning of cities. Nonetheless, in the long term, professionals in the domains of urban design, public policy, civil engineering, sustainable architecture, environmental science, data science, project management, communication technology, infrastructure planning (including mobility, logistics, public transportation, digital infrastructure, telecom, power, renewable energy), etc., may also be made a part of town-planning teams at relevant stages of plan preparation and implementation. Currently, the State town and country planning departments, development authorities, etc. do not consist of such multi-disciplinary teams.
- iii. The **Advisory Committee recommends that States may need to re-engineer and strengthen urban governance structures**. This may be done in the light of recommendations of the second Administrative Reform Commission (ARC). The following components may be looked at, as may be relevant:
 - ▶ Foundation: Clear division of roles and responsibilities among various authorities, appropriate revision of rules and regulations, etc.
 - ▶ Sub-structure: Creation of a more dynamic organisational structure, standardising job descriptions of town planners and other experts, etc.
 - ▶ Super structure: Extensive adoption of technology for enabling public participation, inter-agency coordination, etc.
- iv. Therefore, **a High-Powered Committee (HPC) is recommended to be commissioned for re-engineering the present urban-planning governance structure**.
- v. It is also observed by the Advisory Committee that there is a need to strengthen the position of mayors and standing committees to make them more effective in urban planning and management, as well as more accountable for implementing schemes. Also, a provision for hiring urban planners as advisors/fellows in the offices of the mayors needs to be considered by the States/UTs.

Actions suggested for MoHUA, State urban development departments/directorates, State departments of urban local bodies department.

7.8 REVISION OF TOWN AND COUNTRY PLANNING ACTS

- i. Most States have enacted the Town and Country Planning Act, which enables them to prepare and notify master plans for implementation. These Acts provide a fundamental basis to transform cities, regions, and their character. However,



many need to be reviewed and upgraded to adopt the latest advancements in technology, urban and regional planning approaches and policies.

- ii. Therefore, **the formation of an apex committee at the State level is recommended to undertake a regular review of planning legislations (including town and country planning or urban and regional development acts or other relevant acts).** Coordination may be required between the HPC recommended in Section 7.7 and the State apex committee on town planning legislation.
- iii. The apex committee should comprise key decision makers and multidisciplinary professionals. The scope of work of this committee would need to include (but not limit to):
 - a. Review of the efficacy of the prevailing Act,
 - b. Identification of the issues related to spatial plan preparation, plan implementation, policies towards violations,
 - c. Provisions to ensure interoperability of base maps of the cities and regions among various agencies,
 - d. Provisions to adapt city planning with the technological disruptions that lead to change in lifestyles, mobility patterns, water consumption and so on.
 - e. Provisions to synergise urban and regional planning as well as focus on spatial planning of villages or their clusters.

Actions suggested for NITI Aayog, MoHUA, MoPR, MoRD, state-level urban development departments.

7.9 DE-MYSTIFYING PLANNING AND INVOLVING CITIZENS

- i. A major disconnect between plan preparation and its acceptance on ground is a lack of adequate citizen participation during the planning process. The planning processes have become highly technocratic in nature. While it is important to maintain their technical rigour, it is equally important to demystify them for enabling citizens' participation at relevant stages.
- ii. A perspective needs to be created amongst the citizens about the principles of urban planning, and opportunities for public participation in the planning processes. The usefulness of city planning as to how it impacts the daily life, walkability, safety, open spaces, travel distances, air quality, etc. needs to be conveyed in a comprehensive manner.
- iii. Therefore, **the Advisory Committee strongly recommends a 'Citizen Outreach Campaign' for demystifying and making urban planning more accessible.** The following strategies can be instrumental in this:
 - » Master plans/regional plans/any such plan can be put up on the National Urban Innovation Stack of MoHUA and on the websites of respective city governments in an easy to understand language. A set of customisable templates can be designed for making this task easy for the local governments.



- ▶▶ Interactive or self-explanatory videos can be made to explain how planning can make living more efficient, sustainable, equitable and affordable. The videos need to be simple enough to be grasped by everyone and could be uploaded on ULB websites or broadcasted in public places.
- ▶▶ Videos can be made on how planning helps ease complexities and has a mitigating effect on issues such as inclusive development, gender equality, climate change and air pollution, mobility, universal accessibility, age-friendly and child-safe developments, etc.
- ▶▶ Opportunities for participation by citizens can be advertised on the website or app of every authority/organisation involved in town-planning activities.
- ▶▶ A national urban and rural photography challenge can be conducted annually to cultivate a thought process on the benefits of planning urban and rural areas.

Actions suggested for MoHUA, MoPR, NIUA, NIRDPR, NITI Aayog, by engaging with private sector and civil society organizations.

7.10 BUILDING LOCAL URBAN LEADERSHIP

- i. Elected officials should also be made aware of the benefits of urban planning for socio-economic development. It is important to convey to them the significance of urban planning, which can be used as a tool to achieve orderly development, mobilise finances, ensure affordable housing, and make cities more economically productive, liveable as well as inclusive.
- ii. Short-term courses of about 2-3 days for mayors, councillors, etc., on spatial planning and design will increase awareness on the social and economic benefits of urban/town planning. This is to enable political salience to the function of urban planning bring planning closer to the people through their elected representatives.
- iii. Therefore, **the Advisory Committee recommends design and organisation of 'Short-Term Training Programme for City-Level Elected Officials on Economic and Social Benefits of Urban Planning'**. Positioning the spatial planning as an important catalyst for 'ease-of-doing business' and 'ease of living' would be a useful strategy towards this. These training programmes may be conducted in a local language and cover various aspects, including, but not limited to:
 - ▶▶ Relevance of urban planning in improving life of the citizens and productivity of the cities
 - ▶▶ Spatial planning and design tools to create public open spaces
 - ▶▶ Innovative planning mechanisms that maximise the efficiency of urban land
 - ▶▶ Difference between urban planning and map-making
 - ▶▶ Benefits of integrated multi-sectoral planning at local, city and regional levels

Actions suggested for State Governments, State department/directorates of urban local bodies.



7.11 STEPS FOR ENHANCING ROLE OF PRIVATE SECTOR

- i. Given the magnitude of planning challenges, India needs to be able to generate solutions for city planning and development at a massive scale. It may not be feasible to create such capacities in the public sector at the size and scale of the urbanisation in India. It is also not feasible or advisable to bring in foreign expertise for solving problems in whole of the Urban India.
- ii. Private-sector companies have the capacity and can efficiently organise planners and multidisciplinary professionals into teams, nurture their expertise and create an environment of innovation and problem-solving. Such companies provide consultancy services in multiple areas such as transport, urban, rural, tourism, ports, water, sanitation, architecture, etc. Their services broadly include project planning, master planning, urban design, planning for transit-oriented developments, feasibility studies, research, documentation, surveying, mapping, geo-spatial analysis, project structuring, financial modelling, project management, asset management, detailed engineering design, construction supervision, quality assurance and so on. These services are required by different public-sector organisations for achieving their mandates. Currently, this ecosystem is immature in India.
- iii. Domestic private sector companies need to be integrated into the domain of urban planning as they can penetrate every nook and corner of the country, work with the local bodies and deliver solutions. Moreover, the private sector can envision new ideas, incubate project ideas, bring in high-quality planning and design services, and evolve solutions to manage urban transitions.
- iv. **Therefore, the Advisory Committee, inter alia, recommends that concerted measures must be taken at multiple levels to strengthen the role of the private sector to improve the overall planning capacity in the country.** This may also create gainful employment opportunities in this field. The following measures are recommended:
 - a. **Adoption of Fair Processes for Procuring Technical Consultancy Services:** The 'Least Cost Selection' method may not be appropriate in situations wherein high-level technical expertise is required to undertake urban planning or urban design assignments. This method often qualifies technically poorer companies over stronger ones and becomes a disincentive for the private sector companies to upgrade their technical resources. On the other hand, the technically poorer company may burden the ULB or citizens through suboptimal delivery of work, non-performance, and delays. Often, heavy performance guarantees make it inviable for small companies to grow in the market. The penalty clauses in the agreements are generally skewed in the favour of public sector organisations. Issues such as these create unfavourable conditions for the growth of private sector companies in the planning domain. Therefore, **the Committee recommends innovative and fair procurement processes to ensure an outstanding quality of consultancy services.** A few examples in this regard are:
 - **FIDIC (Fédération Internationale des Ingénieurs Conseils), or the International Federation of Consulting Engineers** that has been developing



contracts as international standards for the consulting industry. A key aspect of these contracts is that they have a balanced take on the roles and responsibilities of the main parties, as well as the allocation and management of risks. FIDIC publishes standard forms of contracts for works and agreements for clients, consultants, sub-consultants, joint ventures, and representatives. They also publish training manuals for quality-based selection, procurement and tendering procedures (<https://fidic.org>).

- **Quality and Cost Based Selection (QCBS)**, as per the Manual for Procurement of Consultancy and Other Services (MoF, 2017), is one of the methods of procurement where the quality of consultancy is of a prime importance. More details are presented in box no. 2

BOX NO. 2: QUALITY AND COST BASED SELECTION (QCBS)

In QCBS selection, minimum qualifying marks (normally 70-80 (Seventy - Eighty) out of maximum 100 (Hundred marks) as benchmark for quality of the technical proposal will be prescribed and indicated in the RfP along with a scheme for allotting marks for various technical criteria/attributes.

During evaluation of technical proposal, quality score is assigned out of the maximum 100 (Hundred) marks, to each of the responsive bids, as per the scheme laid down in the RfP. The consultants/service providers who are qualifying as per the technical evaluation criteria are considered as technically responsive and the rest would be considered technically non-responsive and would be dropped from the list. Financial proposals are then opened for only eligible and responsive offers and other financial offers are returned unopened to bidders. The financial proposals are also given cost-score based on relative ranking of prices, with 100 (Hundred) marks for the lowest and pro-rated lower marks for higher priced offers.

The total score shall be obtained by weighting the quality and cost scores and adding them. The weight given to the technical score may not be confused with the minimum qualifying technical score (though they may in some case be equal). For example, the weightage given to cost score may be 30% (thirty per cent) and technical score may be given weightage of 70% (seventy per cent, but should never be more than 80%). The ratio of weightages for cost and technical score could also be 40:60 (Forty : Sixty) or 50:50 (Fifty : Fifty) etc. However, the weight for the "cost" shall be chosen taking into account the complexity of the assignment and the relative importance of quality. The proposed weightings for quality and cost shall be specified in the RfP. The firm obtaining the highest total score shall be selected.

Note.

Department of Expenditure, 2017

Actions suggested for State urban development departments, State town planning departments, urban local bodies, development authorities and other parastatals.



b. Strengthening Project Structuring and Management Skills in Public Sector:

Public sector organisations need to be technically strong to involve the private sector and ensure 'value for money'. At the same time, more professionalism is required in the public sector to ensure that the i) performance guarantees and penalty clauses are reasonable, ii) payment stages are designed as per the time, resource and magnitude of effort expected, iii) contracts have financially justified provisions for the expansion of scope of work during their validity, iv) payments are made timely.

Adequately qualified and regularly upskilled human resource is, therefore, required in the public sector to meticulously design and manage projects/technical services, particularly those that are outsourced to private sector companies. This may need strong project management as well as communication and negotiation skills. Therefore, **the Committee recommends training and capacity building of all town and country planning department officials, including their administrative heads as well as lateral entrants, on project management skills, communication, project structuring, etc.** These trainings may be implemented by the anchor institutions that are proposed to be identified by the State Governments (refer Section 1.5).

This effort will serve two objectives. First, it will ensure better project management, and reduce delays due to arbitration and disputes that can be pre-empted. Second, it may bring in more professional capacity in the public sector and increase its efficiencies in a long run.

Action by State town planning departments, urban local bodies, development authorities, etc.

- c. Empanelment of Private Sector Consultancies:** It is recommended that the States/UTs may empanel competent private sector consulting companies in the domain of urban planning based on their technical capacities, quality of past deliverables, etc. This list may be updated annually by a committee and have a minimum validity of 2 years, with a provision of supplementing it with additional names of companies/organisations/institutions for specific requirements. A sector-wise list of 'empanelled urban practice and project development companies/research institutes/academic institutions' would help the planning and development agencies to reduce the time consumed in repetitive procurement procedures. It would also motivate the private sector companies to deliver high-quality outputs for getting empanelled.

Actions suggested for State urban development departments, State town planning departments, urban local bodies, development authorities, and other parastatals.

7.12 STEPS FOR STRENGTHENING URBAN PLANNING EDUCATION SYSTEM

i. Develop India-Centric Solutions:

For long, India has drawn learnings and inspirations from the western models of urban planning education. Observing India's urbanization and urban development



through the lens of western viewpoints, and aping their urban planning and development approaches without assessing their relevance in the Indian context is not advisable any more. Experience has shown that such objectivity has led to widespread adoption of western approaches of planning for solving the problems in Indian cities which are completely different from western counterparts in terms of culture, demography, lifestyle and so on. It has also diminished the motivation and confidence to generate innovative solutions for solving the indigenous problems in the country.

Indian academics need to take a deep relook at western as well as Indian urban planning theories and reinvent models suited to the Indian culture and socio-economic ecosystem. This should be done in tune with the National Education Policy 2020 which has been approved by both houses of the Parliament. At the same time, there is no harm at looking at globally reputable institutions in other countries and review our methodologies of teaching and practice.

Indian history has an enormous knowledge of planning and management of human settlements, however these are seldom researched or taught to planning students in requisite details. An in-depth understanding of town planning principles and practices laid out in ancient treatises can be helpful in enriching the overall understanding of the origin and growth of Indian settlements.

Therefore, **the Advisory Committee recommends that the history of human settlements in the Indian subcontinent must be taught to all young planners in a manner that can help them draw learnings about planning and management of ancient and medieval human settlements in India.** The reports of the National Commission on Urbanisation may be used extensively for this purpose in addition to the literature on the planning of ancient Indian cities. Also, peer-reviewed case studies about the best planning practices in the Indian context may be disseminated through NUIS and NULP portals of MoHUA.

Actions suggested for AICTE, UGC, all urban planning education institutions.

ii. Establish a 'Department of Planning' in Each Central University:

The Advisory Committee observed that the model curricula of postgraduate degree programmes in urban planning have a limited focus on the planning of hilly and coastal regions as well as rural areas. Hilly areas require a distinct way of planning and management anchored on disaster resilience, sustainability, and livelihood creation. In addition to this, there is a dearth of planning professionals specialised in the planning of rural areas. Supply of qualified professionals in these streams needs to be created albeit in a limited way.

The demand for planners is also expected to increase with the central sector scheme envisaged in Section 7.1. Currently, the cumulative annual sanctioned intake capacity of existing educational institutions is approximately 1300 in postgraduate degree programmes and 500 in undergraduate degree programmes. The recommendation detailed in Section 7.3 indicates a requirement of about 8000 additional planners in the next 5-7 years.



Therefore, **the Advisory Committee recommends that:**

- a. **The Central universities and technical institutions in all the States/UTs of the Indian Himalayan Region may be encouraged to** establish a 'Department of Planning and Public Policy' and to offer postgraduate degree programmes (M.Tech.) with specialisations in 'hill area planning', 'environmental planning', 'regional planning', and 'rural area planning'. Over time, these departments/schools may emerge as centres of excellence in this domain. The model curricula of these programmes would need to be developed by AICTE. The sustainability and disaster management aspects would be an essential component of the same. Fund allocation may be considered by the Ministry for setting up the requisite infrastructure in a phased manner as per the rules and procedures.
- b. **The Central universities and technical institutions in all the other States/UTs may be encouraged establish a 'Department of Planning and Public Policy' and to offer postgraduate degree programmes (M.Tech. in Planning)** to cater to the requirement of planners for the proposed '500 Healthy Cities Programme'. The Advisory Committee notes that some technical institutions like IITs and NITs have already established degree courses of urban planning under their department of architecture and planning. Others may consider establishing a separate 'Department of Planning and Public Policy'. As the learning environment of these universities is interdisciplinary, students would be able to draw requisite knowledge from the other fields and use it for complex problem-solving in the urban planning domain. MoE may take this forward in a timebound manner.

Actions suggested for MoE, UGC, AICTE.

iii. **Encourage Programmes on 'Rural Area Planning':**

Planning of rural settlements needs a different orientation and understanding of subjects such as water resource management, agriculture, logistics, environmental conservation, regional planning, forestry and so on. As of now, this is a void in the prevailing planning education ecosystem, perhaps, owing to limited job opportunities in the rural planning sector. During the proceedings of the Advisory Committee, both MoPR and MoRD mentioned a serious dearth of experts in the domain of rural area planning to work for the implementation of their programmes, particularly, the Shyama Prasad Mukherji Rurban Mission (SPMRM). Therefore, **the Committee recommends that all planning education institutions may synergise with MoRD, MoPR and the respective state rural development departments/directorates and develop demand-driven short-term programmes on rural area planning.** The target audience of these programmes may be engineers, architects, geographers, economists, planners, etc., so that a talent pool can be created in a short span of time to cater to programmatic requirements. Over time, a cohort of rural area planners may be available in the market once the recommendation in Section 7.12.1 is implemented.

Actions suggested for AICTE, UGC, all urban planning education institutions.



iv. Inclusion of 'Planning' As a Discipline in NIRF:

The National Institutional Ranking Framework was approved by MoE (then MHRD) and launched in 2015. This framework assesses institutions on the parameters of a) teaching, learning and resources, b) research productivity impact and IPR, c) outreach and inclusivity and d) perception. MoE announces 'India Rankings' based on this framework every year.

As of now, it does not enlist the 'planning' domain. Therefore, **the Advisory Committee recommends inclusion of planning as a discipline in NIRF.** Planning may be used as an umbrella term, including all its specialisations such as environment, housing, transportation, infrastructure, logistics, rural area, regional, etc. This can drive institutional development through healthy competition. It will also help institutions draw their future plans for improvements on the back of data.

Actions suggested for MoE, all planning education institutions.

v. Normalisation of Nomenclature:

AICTE has a list of 25 names of courses for post graduate degree programmes in planning. Institutions often award degrees with titles that are a mix of the degree programme, its domain and specialisation (e.g. Master in Urban and Regional Planning). It was also informed to the Advisory Committee that the All-India Board of Town and Country Planning Education, formed under AICTE, undertook an exercise during the tenure of the Committee to re-examine the AICTE-approved names. It was decided to reduce the number of names from 25 to 12.

The Committee is of the view that multiple specialisations may be relevant in this ever-evolving field of planning. However, they may not be merged with degree titles as it creates confusion among employers and are a hindrance during recruitment. Therefore, **the Advisory Committee recommends that AICTE may retain the names of specialisations based on industry requirements. Nonetheless, the names of the degrees should be limited to only two nomenclatures: Bachelor of Technology in Planning and Master of Technology in Planning, with the specialisation in brackets.** For example, instead of Master in Transportation Planning, it may read as MTech Planning (Transportation) and so on. This will streamline the issues that arise due to multiple degree nomenclatures without disregarding the relevance of the specialisations.

Actions suggested for UGC, AICTE.

vi. Encouraging Institutional Collaborations:

For the growth and development of educational institutions, mentoring by peers is essential. The **Advisory Committee recommends that the institutions in the domain of planning education may identify prominent international and national institutes in various disciplines, connect with them and sign MoUs for mentoring.** The town and country planning board of AICTE need to facilitate and accordingly advise all such institutions. Such mentoring from peer institutions may include technical support regarding the revamping of curricula, improving teaching and learning, faculty exchange programmes, strengthening the academia-industry interface, etc. MoE and the State Governments may play an active role as facilitators.



Actions suggested for MoE, State higher education departments, all urban planning education institutions.

vii. Faculty upgradation:

For ensuring robust and quality teaching staff in planning education institutions, the Advisory Committee recommends a three-fold approach.

- a. All the faculty in the urban planning domain needs to be motivated and incentivised by the respective institutions for taking part in the 'quality improvement programmes'. Relevant international institutes can be roped in for bringing learnings from different contexts.
- b. Faculty shortage in the educational institutions conducting degree and PhD programmes in planning need to be resolved in a timebound manner by 2022. In this regard, the faculty recruitment rules, particularly of the centrally funded technical institutions need to be reviewed to identify hurdles, if any, in fulfilling the faculty requirement, and suitable provisions need to be made by amending them as per the rules and procedures.
- c. The faculty needs to be encouraged to write and publish technical papers. This needs to be linked with their promotion so that quality improvement can be incentivised.
- d. Junior faculty members need to be encouraged and allowed by the respective institutions to apply for lateral entrant roles in the public sector on deputation basis as this will create a positive feedback loop.

Actions suggested for MoE, AICTE, UGC, all planning education institutions.

viii. More Exposure in Curricula on Economics:

Urban planning creates interventions in land and labour markets. However, the focus of the curricula and teaching in this domain is largely oriented towards the spatial aspects in most of the higher technical education institutions. This creates gaps in understanding the impact of planning on the local economy on one hand and the relevance of the non-spatial factors in city development on the other. **The Advisory Committee recommends that a deeper focus on the subject matter of economics may be brought in by the educational institutions while educating the future planners.**

Actions suggested for: AICTE, UGC, all urban planning education institutions.

7.13 CREATION OF NATIONAL DIGITAL PLATFORM OF TOWN AND COUNTRY PLANNERS

- i. The Advisory Committee observed following key gaps in the town and country planning profession:
 - » There is no system of keeping a track of the number of students who graduate in this domain every year. ITPI provides a count of planners based on those who register as members with them. However, this enrolment is not a statutory



requirement for planners as ITPI is a professional body and not a statutory body. As a result, it cannot be determined for certain the exact number of planners in the country at a given time.

- ▶ Awareness about the skillsets of the B.Plan/B. Tech Planning graduates is limited. In many instances, they are not considered eligible Town Planner posts in the public sector. This is ironical and needs attention.
- ▶ Demand and supply of planning professionals gets interfaced largely through informal networks or fragmented portals. Due to this, the employment opportunities are possibly not getting tapped or catered to.

- ii. Therefore, **the Advisory Committee recommends that a 'National Digital Platform of Town and Country Planners' may be created within the National Urban Innovation Stack of MoHUA. This portal may function as a marketplace for industry and workforce.** It may also have a provision for self-registration by the planners. Necessary mechanism may be required to ensure that only qualified planners with degrees verified by respective institutions, approved by AICTE and UGC, are eligible to register on this portal. This will create a live database of planners and their experience, skillsets, etc. It may also act as a bridge between potential employers and skilled human resource.

Actions suggested for MoHUA, MoE, AICTE, UGC, all urban planning education institutions.

7.14 CONSTITUTION OF A 'NATIONAL COUNCIL OF TOWN AND COUNTRY PLANNERS' (NCTCP)

- i. The Advisory Committee observed that the planning profession is still largely misinterpreted as an extension of other fields, which leads to inconsistent qualification criteria for jobs in public and private sectors.
- ii. Concerted action is required to bring in more structure, professionalism, and identity to the profession. This will increase its market value and improve the quality as well as quantity of planning professionals in the long run.
- iii. Therefore, the Advisory Committee recommends a **'National Council of Town and Country Planners' to be constituted as a statutory body of the Government of India.** It may need formulation of an appropriate Act of the Parliament of India. As and when the provisions of NEP 2020 are implemented, an appropriate action can be taken within its framework by MoE.
- iv. This reform is aimed to establish higher standards in this profession. The NCTCP may, inter alia, have the following purpose:
 - ▶ Ensure only qualified candidates enter services/posts/jobs of planning,
 - ▶ Provide career counselling to young planners,
 - ▶ Conduct skill-mapping of planners vis-à-vis the market demand biennially





and make suggestions to institutions offering degree programmes in urban planning and other related specialisations.

- ▶ Suggest to the All-India Board of Town and Country Planning Education about the requisite revisions in the curricula.

As the 'National Digital Platform for Town and Country Planners' and 'National Council of Town and Country Planners' has been proposed, ITPI may need to redefine their role and purpose to avoid any duplication in functions.

Actions suggested for MoE, ITPI.



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KEY MESSAGES



“Urban India will be powering the growth of the Indian economy. Urban challenges, including town planning, have not received adequate policy attention in our country so far. There is a compelling need to plug the gaps in urban-planning capacity in the country, else a huge opportunity for rapid, sustainable and equitable growth would be at risk of being missed.”

DR. RAJIV KUMAR

Vice Chairman, NITI Aayog



“India is at the threshold of a massive transition from being predominantly rural to partly urban in the next few decades. At this juncture, it would be vital to get equipped for ensuring planned urban growth across different topographies of India. To achieve this at scale and speed, it would be pertinent to harness private sector efficiencies and leverage technologies in a big way.”

AMITABH KANT, IAS

CEO, NITI Aayog





“Urban planning is the most important thing if the issue of urbanization has to be addressed in the future. Whether it is Swachh Bharat mission, Housing for All, or Smart City Development, for everything urban planning is the base. Therefore, the capacity, regulatory and human resource gaps are important to be filled in.”

SH. DURGA SHANKER MISHRA, IAS

Secretary, MoHUA



“If we want to take a quantum leap, we will have to think and act differently. NEP 2020 clearly emphasizes on multi-disciplinarity and multiple entry and exit points in higher education. This could be a game-changer for not only urban planning but everything else related to education in the country.”

MR. AMIT KHARE, IAS

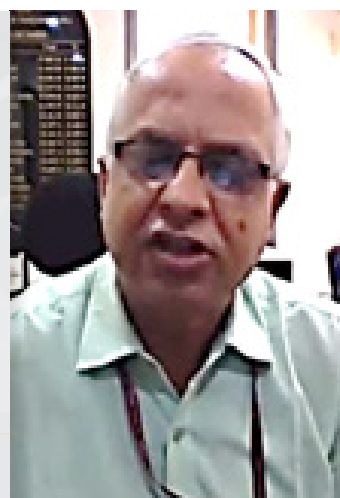
Secretary, Higher Education, Ministry of Education



“The urban and rural areas only differ in spatial sizes and magnitude of population now. There has to be an absolute uniformity in terms of services like drinking water, energy supply, sanitation etc. so that holistic development is possible.”

MR. SUNIL KUMAR, IAS

Secretary, Ministry of Panchayati Raj





“Improving the urban planning capacities of the country will act as an essential bridge towards ensuring value for money for infrastructural investments, accountability towards reforms, and citizen-centric growth.”

DR. K. RAJESWARA RAO, IAS

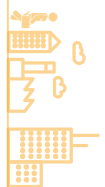
Special Secretary, NITI Aayog



“UGC is committed towards National Education Policy 2020, which is aligned to Sustainable Development Goals of the United Nations that demand multi-disciplinary training and skill sets to achieve the 2030 targets. The NEP 2020 calls for more holistic studies in urban planning education.”

PROF. D.P. SINGH

Chairman, University Government Commission



“Cities require the expertise of urban planners, architects, engineers (civil, electrical, electronics), economists, etc. in all the areas touching upon the lives of the citizens. Unless we understand this and work together collaboratively, the design/planning will fail. A holistic and multi-disciplinary approach needs to be brought in by a large number of electives in the urban planning education.”

PROF. ANIL DATTATRAYA SAHASRABUDHE

Chairperson, AICTE





“ There is a need to plan the cities so that they can meet the aspirations of people and the elected representatives. Integrated spatial planning is a tool that creates a win-win situation. This message has to be exemplified to the people governing the cities. ”

MS. D. THARA, IAS

Joint Secretary, MoHUA & Chairperson, TCPO



“ Urban planning is an intervention in the markets, but Indian planners are not trained that way. If there has to be an advisory, then it should focus on teaching economics to planners. Also, the country might have a whole bunch of Planners available but if they are not organized inside companies to be able to deliver services, this will be a force unutilized. ”

DR. BIMAL PATEL

President & Acting Director, CEPT University, Ahmedabad



Credit: Umang Shah/HCP Design, Planning and Management Pvt. Ltd.

“ If we have to bring about transformation in the country, then reforms must be brought into the urban planning practice and urban planning administration. The supply of Planners is not really the problem, it is important to think about job availability for the planners and their salary. ”

PROF. DR. P.S.N. RAO

Director, School of Planning and Architecture, New Delhi





“India does not offer good job opportunities to planners. The recruitment rules framed by various departments are over sixty years old. Back then, there were very few Planners available in the country and the schools imparting town planning education were not sufficient in number. This is not the case now and so the recruitment rules need to be changed.”

PROF. DR. D.S. MESHRAM

Council Member and Former President, ITPI



“As of now the planning profession has been taken over by engineers and management consultants and planners are not looked as value-added resources. There is a need to match the urban planning education curriculum with the skill requirements of the market.”

MR. HITESH VAIDYA

Director, NIUA





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