



URBAN AND REGIONAL DEVELOPMENT PLANS FORMULATION AND IMPLEMENTATION (URDPFI) GUIDELINES

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**URBAN AND REGIONAL DEVELOPMENT PLANS
FORMULATION AND IMPLEMENTATION
(URDPFI) GUIDELINES**

Volume I



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हक्कर

MINISTER OF URBAN DEVELOPMENT
INDIA



FOREWARD

The Urban and Regional Development Plans Formulation and Implementation (URDPFI) Guidelines, 2014 have been formulated keeping in view the emerging scenario in planned development of cities and towns. The first Guidelines were prepared in 1996 and a lot of changes have taken place in terms of application of latest technology along with spatial growth of cities and towns, and urban dynamism together has contributed to their planning and development. Since the provision of infrastructure facilities has implications beyond the municipal limits of cities and towns, it becomes imperative to formulate City Regional Plan so as to ensure balanced development of all settlements within the region. Hence, the Guidelines have included methodological framework for plan formulation at the Regional level.

With the advances of Remote Sensing and Geographical Information Systems (GIS), the Plan making process can become expeditious and with integration of both spatial and attribute data, detailed assessment can be made in terms of spatial growth of cities and towns, extent of unauthorized and haphazard development and laying of physical infrastructure facilities in anticipation with the projected growth of population. Presently, about 2100 Master Plan have been notified out of total number of 7933 cities and towns. It is expected that with the use of URDPFI Guidelines, 2014, all the cities and towns of the country will have the benefit of Statutory Master Plans.

The Plan making process has to be further strengthened by ensuring that the cities and towns are able to generate enough resources to sustain themselves. This will be possible only if planned development along with transparency in governance is ensured. The vision for planned development for any city or a town should strive for inclusive development with efforts for provision of both physical and social infrastructure facilities for all sections of the population and level of inadequacy to be reduced to the minimum possible extent. In the era of globalization, the urban areas should emerge as *Smart Cities* which now is the main focus of the Ministry of Urban Development.

The URDPFI Guidelines, 2014 will be of great help to State Town and Country Planning Departments, Urban Development Authorities, Urban Local Bodies, Schools of Planning and various Research Institutions. The State Governments have to proactively adopt these Guidelines and complete the preparation of Master Plans for all the cities and towns. Ministry of Urban Development will always be keen to assist the State Governments in terms of adoption of the Guidelines.

(VENKAIAH NAIDU)

PREFACE

Planning for development is an envisioning process which requires a sound assessment of the ground realities and providing options for sustainable development within the bounds of the demographic, physical, socio-economic, jurisdictional and financial aspects. It is a continuous process and must incorporate a regular evaluation of implementation. However, plans have been criticised to be rigid and static having little regard to investment planning efforts and taking very long time in the process of formulation and approval.

During 1995, a *National Workshop on Master Plan Approach: Its Efficacy and Alternatives* was held, which examined the entire process of urban development planning and implementation and as a recommendation of this Workshop, the first national level planning guidelines 'Urban Development Plans Formulation and Implementation' (UDPFI) were framed in 1996 by Institute of Town Planners, India.

UDPFI Guidelines, 1996 provided a framework for plan preparation and implementation process. Since 1996, many developments have taken place in the field of urban planning, especially in view of emerging needs and requirements of urban settlements due to rapid population growth, globalization of economy and phenomenal advances in information and communication technologies. The towns and cities have become more dynamic in nature and are subject to unprecedented changes in terms of requirements of infrastructure and other basic services/amenities. Besides, new emerging aspects like regional development, inclusive planning, sustainable habitat, land use and transport integration at planning stage, Service Level Benchmarks, disaster management concepts, and governance reforms have given a new dimension to the planning process.

To address these emerging aspects, it was felt that the revision of the UDPFI Guidelines should be taken up. The '***Urban and Regional Development Plans Formulation and Implementation Guidelines*** (URDPFI)' were conceptualized as the outcome of widespread consultations with the planning peers in the various Ministries, Experts, Professional and Academic Institutions and other stakeholders. The URDPFI Guidelines, 2014 have been framed to incorporate the provisions of the legal and policy guidelines of the line Ministries, best practices of the States and the planning systems in vogue. A participatory consultative approach has been followed in order to revise the guidelines to holistically understand and proactively involve the Government of India Ministries/Agencies and State Governments for guiding Urbanization.

In line with the approach, the following key actions were undertaken:

- **National Consultation** – Consultative Workshop held in New Delhi to deliberate on the URDPFI Guidelines (1st Draft) to holistically consult with National and State level stakeholders.

- **Regional Workshops** – Six Regional Workshops across country were held covering all the States. The planning aspects varying across States and approach to planning in future were discussed.
- **Technical Core Group (TCG)** – TCG was formed by MoUD and interactions were held periodically with the TCG members formally and informally for getting inputs.
- **Google Discussion Group** – This portal was set up by the TCPO which promoted interface with various planners and practitioners.
- **Monthly Review Meetings with Stakeholders**- Monthly review meetings were held by MoUD with stakeholders for discussing progress of work and receiving their respective comments.
- **Key Consultations**- Interaction with more than 50 Organisations, Agencies, Institutions both public and private have provided technical appraisal and recommendation in the guidelines.

The URDPFI Guidelines, 2014 comprise two Volumes: Volume-I contains planning process, contents of the plans suggested in the planning system, resource mobilization for plan implementation including land and finance as the primary resources for sustainable development, institutional reforms particularly at State level, and approaches and strategies for regional and urban planning. For addressing sustainability, various sections focus on land suitability and urban renewal norms and provide a framework for Crisis/Disaster Management Plans as part of Development Plan. To speed up the process of plan formulation, simplified planning techniques, and norms and standards for social and physical infrastructure planning are detailed along with simplified development promotion regulations. Various cities of all classes across the country from different regions have been covered as best practices for review. The overall recommendations for future actions have also been included.

The urban and regional planning system has been divided under two heads, a) Core Area Planning and b) Specific and Investment Planning. The Core Area Planning comprises of a set of 4 interdependent plans: (i) a long term ***Perspective Plan*** with a vision and policy orientation, (ii) a sustainability based long term ***Regional Plan*** (and District Plan) with optimization of regional resources for development, (iii) a comprehensive long term settlement plan as ***Development Plan*** for urban and peri urban areas (iv) A short term rolling ***Local Area Plan*** within the framework of Development Plan. The Specific and Investment Planning comprises a set of three plans, (i) A rolling ***Special Purpose Plan*** for special areas within the framework of Development Plan, (ii) ***Annual Plans*** to translate the physical and fiscal resource requirement of Development/ Local Area Plan, and (iii) ***Project/Research*** to focus on items of execution.

A separate volume (Volume-II A) on legal aspects covers the implications of 74th CAA, 1992; Land Acquisition, Resettlement & Rehabilitation Act, 2013; a review of the Model Town & Country Planning and Development Law, Model Municipal Law, legal requirements for industrial development, State level planning framework and other National level requirements for heritage and environment conservation with the relevant Acts/ Law/ Notifications/ Guidelines etc. Volume II B consists of Appendices.

A Core Team of TCPO and consultants, M/s Mott McDonald, have worked painstakingly along with the various stakeholders across the country for formulating these Guidelines. The process of preparation of the Guidelines, including the approach, methodology and glossary has been detailed in the Appendix A of Volume II B. The key content of each volume is detailed in the following table.

Table: Structure of the URDPFI Guidelines

Volumes	Chapters	Key Contents
Volume I: Urban & Regional Planning Guidelines		
1	Introduction	Need for Revision of UDPFI Guidelines1996, Recommended planning system for India, overall guiding Sustainable Urban and Regional planning aspects of the guidelines
2	Plan Formulation	Planning Process, Contents of various level of plans
3	Resource Mobilisation	Land assembly, fiscal resource mobilisation, good governance, institutional set-up and key institutional reforms
4	Regional Planning Approach	Aspects of regional planning and classification of region in the Indian context, regional planning approach and its plan implementation
5	Urban Planning Approach	Guidelines for study on location and settlement setting, distribution of land use, city typology, planning for townships.
6	Sustainability Guidelines	Sustainability and aspects of urban development including impact of climate change, environment policies and statutory obligation, planning for disaster management
7	Simplified Planning Techniques	Comprehensively covering data collection techniques, types of survey, analytical techniques, projection techniques, base map & development plan preparation
8	Infrastructure Planning	Introduces the hierarchy of urban development and norms & standards for physical infrastructure, social infrastructure, safety management, commercial activity. Details for transportation planning and provisions for barrier free built environment
9	Simplified Development Promotion Regulations	Lists the simplified urban land use classification and zoning regulations, simplified development promotion regulations for specific land use zones, special requirements
10	General Recommendation	Recommendations to several Ministries, State Governments and Organisations

Volumes	Chapters	Key Contents
Volume II A: National Legal Provisions in Urban & Regional Planning		
1	Implication of 74th CAA	Provisions of 74th Constitution Amendment Act and roles of the State Town and Country Planning Department, status of the provisions of 74th CAA on Urban Local Bodies and development authorities
2	The Right to Fair Compensation and Transparency in Land Acquisition Rehabilitation & Resettlement Act, 2013	Basis of the new Act and the key features of the new Act
3	Model Regional and Town Planning Town and Development Law	Key features of the Law and suggested changes in the law
4	Model Municipal Law	Key features of the Law and suggested changes in the law
5	State Level Planning – Existing Legal Framework	An overview of the key features of various state level legislation(s)
6	Legal Requirements for Industrial Development	Industrial policies and Acts relevant for planning, schemes for cluster development under Ministries
7	Other National Level – Legal Requirements	National level heritage conservation and environmental legal requirements, Cantonment related legal requirements.
Volume II B: Appendices		Description of making of the Guidelines, Compilation of important Documents, Definitions, Best practices, Acts, Laws, policies and notifications referred in Volume 1 & 2A.

The URDPFI Guidelines, 2014 are intended to be comprehensive for promoting balanced and orderly regional and urban planning and development. These Guidelines *inter-alia* provide the framework, necessary techniques, norms and standards, options for resource mobilization including land assembly approaches, and development promotion regulations. Since conditions vary from place to place and even within a settlement, these guidelines may not be uniformly applicable to all situations and places and would need to be modified and adopted depending on local conditions, felt needs and technological innovations so that the Planning process may serve as an efficient and dynamic instrument. The URDPFI Guidelines are expected to provide an integrated framework for urban and regional plan formulation and implementation.

The Guidelines are intended to be a reference for various aspects of planning by State Governments, Development Authorities, Private Sector and Planning Organizations. Private entities can use guidelines as one-stop reference for various Acts, Standards and developing different types of townships.



SHANKAR AGGARWAL
Secretary (UD)

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Ministry of Urban Development acknowledges the work of M/s Mott MacDonald (Consultants) in preparing URDPFI Guidelines, 2014.

The exercise of formulation of the URDPFI Guidelines, 2014 was guided and steered by then Secretary, Ministry of Urban Development (MoUD), Dr. Sudhir Krishna, and Secretary, MoUD Shankar Aggarwal and supported by then Joint Secretary, Dr. Ashok Singhvi, Mr. Neeraj Mandloi, Joint Secretary, MoUD and Mr. Parmod Kumar, Director (LSG), MoUD. Mention also needs to be made about the tireless work by the officers of the LSG Division, MoUD, Mr. Sunil Kumar Pal, Under Secretary and Mr. C. Jeevan Rao, Research Assistant.

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1 Introduction

1.1. Urbanisation Trends

Globally, the more urbanised countries have higher levels of income and prosperity. Indian States also exhibit the same trend. At the same time, urbanisation is also perceived to be correlated with pollution, congestion and inferior quality of life. This would call for developing a paradigm of urban development that would bring in higher levels of prosperity, but without the concomitant negative effects. The URDPFI has attempted to develop such a framework.

Population trends: The Census 2011 and 2001 give useful indicators for the trends in urbanisation in India. The three urban agglomerations, viz. Greater Mumbai, Delhi and Kolkata, have crossed the 10 million mark in population, but with much reduced the rate of growth. The Million Plus population cities have shown a growth of over 48 per cent, but the number of such cities has gone up from 35 to 53 and five cities viz. Chennai, Bengaluru, Hyderabad, Ahmedabad and Pune have attained more than 50 lakh population. The total population in Class I cities (1 lakh +) constitutes 70% of the total urban population, while the total population of million plus cities constitute 42.6% of the total urban population. What is more interesting is that the cities with lower orders of population have exhibited higher rates of growth of population.

Table-1.1 gives the details:

Table 1.1: Trends in Urbanisation 2001-2011

Class	Definition (Population)	Census 2001			Census 2011			Decade Growth Rate 2001 - 2011	
		No. of Towns	Population	% of Urban Population	No. of Towns	Population	% of Urban Population	No. of Towns	Population
Class I	>1 lakh	394	196.3	68.7	468	264.9	70.2	18.8	34.9
Of which,-									
Below Mn+	1 to 10 lakh	359	88.0	30.8	415	104.2	27.6	15.6	18.4
Million Plus cities	>10 lakh	35	108.3	37.9	53	160.7	42.6	51.4	48.4
Of which,-									
Mega cities@	>1 crore	3	42.5	14.9	3	48.8	12.9	0.0	14.8
Class II	50k to <100k	496	27.8	9.7	605	41.3	11.0	22.0	48.7
Class III	20K to <50k	1388	35.2	12.2	1905	58.2	15.4	37.2	65.5
Class IV	10k to <20k	1561	19.5	6.8	2233	31.9	8.5	43.0	63.8
Class V	5k to <10k	1041	6.7	2.4	2187	15.9	4.2	110.1	138.7
Class VI	<5k	234	0.7	0.2	498	2.0	0.5	112.8	180.1
Total		5161	286.1	100.0	7933	377.1	109.8	53.7	31.8
Statutory Towns		3799	265.1	92.7	4041	318.5	84.5	6.4	20.2
Non-Statutory Census Towns & UAs		1362	21.0	7.3	3892	58.6	15.5	185.8	179.0
Total Urban Population		5161	286.1	100.0	7933	377.1	100	53.7	31.8

Source: *Census of India*.

The decadal population growth rate has, however, shown a decline from 21.5% during 1991-2001 to 17.6% during 2001-2011. The growth rate of urban population also seems to be heading for stabilization as the decadal variation remained around 31.5% during the last two decades.

Non-statutory towns: The trend of urbanisation is reflected remarkably in the size of towns that carry the growing urban population. As per Census-2011, there are 7933 towns including 4041 Statutory towns and 3892 Census towns. However, it is notable that the number of statutory towns has increased marginally, by 6.4 per cent only, whereas the number of non-statutory towns has gone up by 186 per cent. Obviously, new towns are developing very fast, but, being not notified as a town, these are kept out of the purview of planned spatial development and become prone to haphazard growth. This would call for a serious effort to introduce the principles of the URDPFI Guidelines to even non-statutory towns, preferably in a regional set up, wherein the spatial plans for such towns are prepared in conjunction with that of the main cities, to which these are generally the satellite towns.

1.2. Framework for a Renewed Planning System

The framework for effective Spatial Planning needs to incorporate certain major issues, which, subject to local variations, can be listed and categorised as follows:

- Current principles, practises and issues in preparation and implementation of plans at National, Regional and Local levels so as to harmonise the same drawing on the best practices.
- Analysis of the latest trend in the Urban Development scenario.
- Address relevant issues related to peri-urban areas and urban planning regions.
- Compilation and analysis of the relevant data available from Census and other sources.
- Urban development issues, especially in newly formed states and backward areas.
- Need for uniformity in planning system in the country.
- Streamlining of planning practices.
- Requirement of coordinated efforts between Departments/ Authorities.
- Legal, funding and decision making aspects in implementation of plans and projects.
- Promoting rapid urbanisation and responding to the impact of climate change.
- Economic aspects of plan implementation while preparing land use development plans.
- Promotion of sustainable development with focus on planning for People, Environment and Financial viability principles.

- Inclusive planning, people's participation and specific issues relating to the elderly, women, the differently abled and the weaker sections of the society.
- Attention to Transit Oriented Development (TOD).
- Planning for and integration of Peri-urban areas in the planning process.
- Influence of industrial areas, such as SEZs, on spatial and urban development.
- CRZ policy and Coastal management in case of coastal cities.
- Special issues of urban development in hill areas.
- Provisions for Affordable housing.
- Safe disposal, mainly by way of recycling and reuse, of solid and other wastes.
- Adoption of geo-spatial data and technology in the planning process.
- Defining measureable benchmarks and milestones for the plan.
- Arrangements for periodic monitoring and evaluation of the implementation of the Plan.
- Integration of sector specific plans among each other and in overall spatial planning.

The last mentioned issue has become particularly significant over the years, as different Ministries advocate preparation of plans for specific sectors, such as Slum Redevelopment Plan, City Development Plan, City Investment Plan, Comprehensive Mobility Plan, City Sanitation Plan, District Credit Plan, Coastal Zone Management Plan, Environmental Conservation Plan, Riverfront Development Plan, Water Resource Management Plan, Heritage Conservation Plan, Tourism Master Plan, etc. It would be of great help to all if the Master Plan of the City/ Region incorporates the relevant features of all such sector specific plan. Also, the sector specific plans need to align with the framework of the overall Master Plan.

1.3. Classification of Urban Settlements

The classification of urban settlements adopted by the Census of India 2011 is as follows:

1. All places with a Municipality, Corporation, Cantonment Board or notified town area committee, etc.
2. All other places which satisfies the following criteria:
 - a. A minimum population of 5,000;
 - b. At least 75 per cent of the male main working population engaged in non-agricultural pursuits; and
 - c. A density of population of at least 400 persons per sq. km.

The first category of urban units is known as ***Statutory Towns***. These towns are notified under law by the concerned State/UT Government and have local bodies like

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Municipal Corporations, Municipalities, Municipal Committees, etc., irrespective of their demographic characteristics as reckoned on 31st December 2009. The second category of Towns is known as **Census Town**. Population trends in respect of statutory towns and census towns are indicated in **Table- 1.1**.

The human settlement classification for planning purposes, its nomenclature and population range is redefined in the URDPFI guidelines based on:

- Census 2011 and reference to census towns.
- Master plan formulation in the states.
- Emerging agglomerations in India.

The classification of urban settlements adopted for URDPFI is indicated in **Table- 1.2**

Table 1.2: Classification of Urban Settlements

S.No.	Classification	Sub-category	Population Range	Governing Local Authority	Number of Cities as per Census of India, 2011
1	Small Town*	Small Town I	5,000 - 20,000	Nagar Panchayat	7467
		Small Town II	20,000- 50,000	Nagar Panchayat/ Municipal Council	
2	Medium Town	Medium Town I	50,000 to 1,00,000	Municipal Council	372
		Medium Town II	1 lakh to 5 lakh	Municipal Council	
3	Large City	--	5 lakh to 10 lakh	Municipal Corporation	43
4	Metropolitan City	Metropolitan City I	10 lakh to 50 lakh	Municipal Corporation/ Metropolitan Planning Committee	45
		Metropolitan City II	50 lakh to 1 Crore	- Same -	
5	Megapolis	--	More than 1 Crore	- Same -	3

Note: Names of Local Authorities may vary as per States' traditions and laws.

Source: Modifications for the UDPFI Guidelines based on census classification and State experiences.

* Any urban centres even having less than 5,000 population may be given a statutory status and be called as a Statutory Town and Census of India follows 6-fold classification as per the population size

Small towns can be referred as 'transitional towns' mentioned in the 74th CAA where a Nagar Panchayat (as a municipality) is to be formed for an area in transition from a rural area to an urban area.

Agglomeration of urban nodes along with its peri-urban and rural areas are currently observed in the Metropolitan cities II (like in Chennai, Bengaluru, Hyderabad, Ahmedabad) and in Megapolis. However, 'Conurbation' of settlements is on much larger scale, which may develop accounting for population more than 5 Crore and with adjoining several large cities and few metropolitan cities.

The URDPFI Guidelines focus on the statutory towns. However, the concepts stated in these Guidelines can be easily made applicable to all human settlements, whether notified as a Municipality, Cantonment, Special Economic Zone, Port trust area or even a village.

1.4. Recommended Planning System

Literature review on the planning systems in India and abroad indicates that each country/territory has evolved its own system suiting specific needs, traditions and legal arrangements. The recommended urban development planning systems in the guidelines have, therefore, taken into account such variations.

The recommended planning system is to consider various plans, both statutory and non-statutory, to be a part of the system. These various plans such as urban revitalisation plan, city development plan, comprehensive mobility plan, city sanitation plan, coastal zone management plan etc. have emerged due to the planning needs and/or funding schemes/ programmes. Similarly, regional plan, which is to cover a larger land area, is included in the system across the scale of planning.

The **Table- 1.3** below, which has been designed based on stakeholder consultations, suggests the planning system framework on the basis of -

- Hierarchy
- Spatial extent
- Scale of planning
- Details provided in the plan
- Function and their speciality

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Table– 1.3: Planning System Framework

Planning system	Scope and purpose of the plan	Time frame*	Various plans; indicative list							
Core area of planning										
Perspective Plan	To develop vision and provide a policy framework for urban & regional development and further detailing	20-30 years	Long Term Perspective Vision document	Concept plan	Mission statement	--	--	--	--	--
Regional Plan	To identify the region and regional resources for development within which settlement (urban and rural) plan to be prepared and regulated by DPC.	20years	Regional Plan (Mobility 1)	Sub-regional plan	--	--	--	--	--	--
Development Plan	To prepare a comprehensive Development Plan for urban areas, Peri-urban areas under control of Development authority/ Metropolitan Planning Committee.	20-30 years (Review every 5 years)	District Development Plan (Mobility 1)	City/ Metropolitan Development Plan (Mobility 2)	Master Plan City Utility (30 years)	Revised Development Plan	--	--	--	--
Local Area Plan	To detail the sub-city landuse plan and integration with urban infrastructure, mobility and services.	5-20 year (Review every 5 yrs)	Town Planning Schemes	Zonal Plan / Sub-city plan	Ward Committee	Coastal Zone Mgmt Plan	Urban Redevelopment Plan	--	--	--
Specific and investment planning										
Special Purpose Plan	To identify the needs of the special areas which require special plan within the framework of the development plan.	5-20 year (within city utilities 30 year plan)	City Development Plan (as per InNURM)	Comprehensive Mobility Plan (as per JnNURM)	City Sanitation Plan (as per JnNURM)	Disaster Management Plan (as per NDMA)	Slum Redevelopment Plan (as per RAY)	Tourism Master Plan	Environmental Conservation Plan	Heritage Conservation Plan
Annual plan	To translate Development Plan in the context of annual physical & fiscal resource requirement. To monitor plan implementation with performance milestones.	1 year	Investment plan	Audit and monitoring plan	--	--	--	--	--	--
Project/ Research	To focus on project related investments, costing and returns & for the studies required prior to or post plan formulation. This should be a continuous process to support planning and implementation at all stages and promotes innovation in practice.	5-20 year	Pre-feasibility & feasibility study	Detailed Project Report	Schemes & Sub-projects	Surveys & Studies	Project such as: Riverfront development projects	--	--	--

Note: Consultative meetings and the regional workshops during URDPFI formulation have pointed out the need to review the plan period of 20 years and extend the same to 30 years. However general consensus was in the favour of 20 years. Intermittent review in 5 year gap would be required.

1.5. Scope and purpose of various plans

The need and roles for the specific plan category, namely, Perspective Plan, Regional Plan, Development Plan, Master Plan, Local Area Plan, Special Purpose Plan and Annual Plan, thereby resolving gaps in the planning system is detailed in the following section.

1.5.1. Perspective Plan

Developing a vision for region is essential for policy framework. The vision stipulates direction of growth and identification of resource potential and innovations to be adopted for the thrust areas of development. It integrates broad level plan with the regional or development plan. A realistic vision helps policy formulation and preparation of Perspective plan.

Perspective plan defines the vision and focuses on the spatio-economic development policies, strategies and programmes towards the intended development of the State. The Perspective Plan of a State could include - State Urbanisation Policy and State Land Utilisation Policy. The plan is based on state resource mapping and analysis and assessment of potential resources. It addresses the long term policies regarding development of infrastructure and resource mobilisation. The scope of this plan covers the social, economic, environmental and spatial development goals, policies and priorities relating to the activities that have spatial and financial implications.

The purpose of a perspective plan is to provide an overall framework for preparation of detailed plans. Therefore it serves as a guide for urban local authorities and regional development authorities in preparation of the regional and development plans.

1.5.2. Regional Plan

For planned and sustainable development of the human settlements, the regional planning approach needs to be promoted. The planning regions could be classified under three heads:

- (a) **Administrative Regions**, which can be District Regions or Metropolitan Regions as per the recommendations of the 73rd & 74th Constitutional Amendment Act,
- (b) **Investment Regions**, which can be new investment manufacturing zones, industrial and freight corridors, special investment regions etc. They could be identified under National Acts/ policies,
- (c) **Special regions**, which are sensitive in terms of environment/ socio economic or political aspects.

States undertake Urban and Regional Planning under a variety of statutes such as the Town and Country Planning Act, Municipal Laws, Urban/Metropolitan Planning/ Development Act, Improvement Trust Act, Industrial Development Act, Cantonment Board Act, Major Ports Act etc. Often these laws are mutually exclusive. For instance,

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a Master Plan for a city would exclude the lands covered under the Industrial Development Act, even though the lands would be adjacent and the movement of the people and of the economic activities may be seamless. This leads to sub-optimal planning for land use as well as for infrastructure. It is, therefore, suggested that the principles for spatial planning recommended by these guidelines are extended to all areas, whether administered by the regular administrative system of the State Government or by special laws such as for the ports, cantonments, railways, industrial zones etc. Furthermore, the concepts of regional planning enunciated in these guidelines should be extended to all contiguous areas that are socially, economically or functionally inter-dependent. For instance, a civilian town and the adjoining port/ cantonment/railway area should be covered by an umbrella regional plan, even though the actual authority for administration of the individual piece of land would continue to vest with the respective organisation, such as the Port Trust, Cantonment Board, Railway Administration, etc. At times, even certain infrastructure could be planned and developed in a regional set up. For instance, the road network/ mobility plan, or the drainage plan could more efficiently be executed in a regional set up, rather than limiting to the jurisdiction of the statutory authorities administering their respective lands.

This would also call for notification of regional planning authorities, for regions that have contours defined by seamless connectivity of people and economic activities. Typically, a town in the vicinity of a industrial zone (SEZ etc.) should become the node for notification of a Regional Planning Authority (RPA), wherein the region would be defined to include the town, the nearby SEZ and the adjoining villages. Similarly, a Port Area and it adjoining city and villages should put together be notified as a Region, with a RPA duly notified to prepare a regional plan and coordinate/ oversee the implementation of the regional plan. Such RPA may be chaired by a senior officer, such as the District Collector or could even have a full-time officer. Senior representatives of the various authorities administering the constituent areas (ports, villages, cantonment, SEZ etc.) should be represented on the executive body of the RPA.

Similar RPAs may be notified for tourist areas, religious places and the influence zones of the transit corridors such as national/ state highways, expressways, and waterways. Areas including and surrounding the airports may also be similarly notified for planned regional development. It would also be desirable to regularly monitor the contours of such RPAs and expand the same, as per need. The State Town & Country Planning Acts may be suitably modified to enable formation of such authorities. Till such time such statutory arrangements are put in place, the State Government could issue executive orders constituting such authorities and Ministry of Urban Development could extend necessary support for the purpose, as required.

Regional plan is to be a comprehensive plan at an appropriate scale (district/inter-district, investment region or special area) for the integration of urban nodes with

the semi-urban and rural areas. The plan is based on understanding of the characteristics of the region such as flow of people, goods, knowledge and money.

Some states have comprehensive town and country planning legislation, which provides for urban planning and development in a regional perspective beyond the city limits and coordinated with the overall framework of economic development, priorities and resource availabilities. Regions, identified in the States, are to be planned holistically or as sub-regions for the holistic approach of planning.

The detailed planning of the urban nodes will be addressed by the development plans at the next stage of planning, while the requirements of the region will be addressed by the regional plan to bring out policies for development and bringing in harmony between the different types of human settlements. Regional plan focuses on balanced development and plan for hierarchy of settlements, both urban and rural (in terms of its geographical area coverage), hierarchy of connectivity network, road, rail, sea and airports and intermodal transport hubs, focuses on land utilisation, resource mobilisation, environmental protection and disaster risk management.

1.5.3. Development Plan

Development plan is a statutory plan prepared (under relevant Act) within the framework of an approved perspective plan. The objective of a development plan is to provide further necessary details and intended actions in the form of strategies and physical proposals for various policies given in the perspective plan and regional plan depending upon the economic and social needs and aspiration of the people, available resources and priorities.

Proposals of a development plan should be definite, supported by an implementation strategy and evaluation criteria. It makes known publicly the intention of the local authority regarding physical, social and economic development, the facilities and the services that are proposed to be provided in the near future. The approved development plan allows the local authority to implement development of the land area specified under the plan with the help of local area plans and projects.

The time frame of the existing Development Plans is for a period of 20 years by most of the Urban Development Authorities/ULBs. For greenfield cities, a longer planning period can be considered, aligned with the infrastructure life of 30 years.

These plans should be in phases of 5 years, to make it convenient for periodic reviews and revision. This 5-year cycle could also be usefully coincided with the State Five Year plans and State Finance Commissions' recommendations, though such an alignment need not be made mandatory. The targets set for each phase can be assessed as the mid-term review against the achievements at the end of each

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phase. For Greenfield area, phasing could include a ‘Zero’ period for approvals, institutional set-up, initial land polling and revisiting any strategy.

1.5.3.1. Master Plan to be referred as Development Plan

The term “Development Plan” is used differently in States. Some States use it for an integrated multi-sector plan, such as the District Development Plan. In some other States, it is a statutory land use plan, approved and adopted by the local authority and its proposals are precise and definite, notifying the property owners the manner in which their properties will be affected. The examples of the later type are the Delhi Master Plan, Chennai Master Plan, Guwahati Master Plan, Ahmedabad Development Plan, Hyderabad Metropolitan Development Plan and Bhopal Development Plan. Here, both the plans, Development plans and Master plans have the same functions and impose similar controls, with variation in the use of nomenclatures by States. Many states prefer and there is a growing consensus to replace the terminology of ‘Master Plan’ with ‘Development Plan’.

In areas under the Schedule 6 of the Constitution, land is not directly State subject such as in the North-Eastern (NE) States, where land title is based on community ownership. The approach to land aspects of the Development Plan may be different in such cases. Therefore, a **Structure Plan** approach to land management may be appropriate in order to allocate land for different land uses in urban infrastructure etc.

In such cases or otherwise, **Structure Plan** is to serve as a planning tool which directs the growth and zones of planning, but is not as precise as the development plan (such as the Structure Plan for Bangalore Metropolitan Region). Structure Plans may be considered as an overarching Development plan for Metropolitan Regions, allowing broad framework and flexibility.

1.5.4. Local Area Plan

The thrust of micro-planning should shift to local area plans, which could encourage decentralisation and improve implementation of Development Plans. In view of the 73rd and 74th CAA, planning decision and implementation of plans should be disaggregated in order to bring the process closer to the local people. This would enhance the significance of Local Area Plans.

Local area plans are to be prepared to guide the development or re-development of land, conservation of buildings and physical features, providing improvements in the physical layout, making infrastructure and amenities available and managing the area to enhance health and safety of the residents to support economic development as well as to enhance the quality of living, environment, and for area specific regulatory parametersⁱⁱⁱ (see endnote) for the area covered.

Local area plans need to specify the implementation details to comply with the Government Policies, such as housing, hi-tech townships, rainwater harvesting, energy, disaster management, industrial and service sector investment, barrier-free environment for the elderly and the physically disabled, e-Governance, tourism and other policies and facilitate formulation of specific projects.

The plan should delineate reservation of land for roads and other public purposes, for construction, reclamation etc. The plan should provide a framework for recovery of the associated costs for public projects, by mechanisms like levy of betterment charges, charges on additional development rights, and appropriate user charges.

1.5.5. Special Purpose Plan

Special Purpose Plan can be prepared for specific development sectors depending on its economic and environmental importance. Depending on the urgency of the need and priority of the sector requiring special treatment and covering special aerial extent, Special Purpose Plans for specific subjects can be prepared. However, these plans are to be within the framework of the Regional Plan, Development Plan or Local Area Plan in the jurisdiction of the local authority.

These plans may also emerge to serve the purpose of urban planning needs under different Central and State Government grants, funding schemesⁱⁱⁱ (see endnote) / programmes with an aim to:

- Encourage reforms and fast track planned development of cities, peri-urban areas, out-growths, urban corridors, and others,
- Scale-up delivery of civic amenities and provision of utilities with emphasis on universal access to the urban poor,
- Special focus on urban renewal programme,
- Supplement to budget documents on ULBs,
- Sustainability, Environmental and heritage protection,
- Theme based development such as tourism, IT etc.

1.5.6. Annual Plan

An Annual Plan would contain the details of the new and ongoing projects that the local authority intends to implement during each financial year for necessary financial resource mobilisation and monitoring its performance.

The annual plan is to be prepared by the local authority in each financial year to identify the new projects, which the authority will undertake for implementation during the year, taking into account the physical and fiscal performance of the preceding year, the priorities, the policies and proposals contained in the approved Regional Plan, Development Plan or Local Area Plan.

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The annual plan is intended to provide the resource requirement during the year and sources of funds including those mobilised by the local authority, grants, aids and project/scheme funds by the State and Central Governments.

It is thus an important document for the resource mobilisation as on the basis of this, the plan funds are to be allocated by the funding body. This plan, therefore, serves as an important link with the budgetary process. Annual plans also provide a mechanism to monitor progress of development plan and various projects.

1.5.7. Project / Research

Projects are derived targets of the sequences of plans, which focus on items of execution, investments, costing and returns. Conceived within the framework of the Perspective plan, Development plan or any of the plans in the planning system, projects are the working layouts with all supporting infrastructure and documents including cost, source of fund and recovery providing all necessary details for execution including finance, development, administrative and management.

These projects could be for any area, old or new, any activity or land use like residential, commercial, industrial, recreational, educational or health related, or infrastructure development, separately or in an integrated manner; for research and development in the field of planning, key surveys to determine statistics, by any agency such as government, semi-government, private or even individual; or any agency prepared by town planners, architects, engineers as the case may be, enjoying maximum freedom of expression in their design within the stipulations of development promotion rules and other regulations as applicable. Research, specifically for background studies preceding Perspective Plan, Regional Plan, Development Plan or even Local Area Plan formulation may be undertaken as required by the State Government and local authorities. Specifically, traffic surveys & related studies to collect current statistics are crucial for making decisions in plan formulation.

*(Details on the contents of the plans suggested above in the planning system are given subsequently in **Chapter 2- Plan Formulation.**)*

1.5.8. Inter-relationship among various plans

Taking into account the entire planning process and also incorporating the suggested planning system, **Figure- 1.1** shows the inter-relationship of the different plans, directly or indirectly related to the land development, at various levels ranging from national to a transitional urban area.

A Perspective Plan is formulation of development strategy generally at the State level or at the regional level. This is detailed further in Regional Plan or Sub Regional Plan as the case may be and in Development Plan. Perspective Plan should be a guiding document for planning. It could also specify the regional planning

authorities, urban/local area planning authorities, regulatory authorities in the State and those responsible for preparing plan at various levels. The State Urbanisation Plan shall give a stock of the urbanisation, planning status and especially of the land suitability.

Regional Plans are to be prepared at district and metropolitan region level, and where economic regions are formulated. This is the linkage for aggregation of plan proposals for consolidation and integration of physical and fiscal planning efforts at District, Metropolitan area, State and also at National level (in case of inter-state regions). As **Figure-1.1** depicts, integration and disaggregation of policies, resources in the planning system occurs at the level of Regional and Development Plan.

Figure 1.1: Relationship of the Planning System



Development Plan and Mobility Plan need to be integrated to ensure transportation oriented spatial planning. It needs to be emphasised here that urban plans should not be considered in isolation from its region as each urban centre is part of a regional system of the settlement which in turn play their respective roles in the process of development of the region as a whole. The Development Plan shall provide policies and development proposals, which are detailed in the local area plan to a greater scale. This interrelationship between planning system is the key to implementation; hence Development Plan and Local Area Plan should be prepared in close coordination.

However, areas that require special plan within the framework of the development plan or planning for specific purpose should be prepared only when the need arrives. The funding schemes, such as JnNURM, RAY, have significant role in the new planning system, where City Development Plan, Comprehensive Mobility Plan, City Sanitation Plan, Slum Redevelopment Plan, Disaster Management Plan are to be formulated. Among all, Comprehensive Mobility Plan should be prepared along with the Development Plan, while City Sanitation Plan, City Development Plan should be prepared in line with the Development plan.

Project reports and Annual plans are necessary requirements of the planning system. These are directly interrelated with each other and are vertical with the entire planning system. Implementation of all intended developments is linked to this stage and hence these can be prepared following any of the above mentioned stages.

1.6. Sustainable Urban and Regional Development

The urban and regional plans, in all its forms and dimensions, should focus on sustainability, from financial, social, governance/ managerial and environmental.

Financial sustainability is to be achieved by working out the details of the capital and operational costs and the options to recover the same adequately. Each development project enhances the economic stature of the influence zone and, accordingly, the development activities in such influence zone should be subject to development charges, computed to recover the capex over the project lifecycle. Similarly, the user charges should pay for the operational expenses. In determining such charges, cross subsidies could be provided for.

Social sustainability relates to inclusion, i.e., the project should provide benefit to all residents in the influence zone equitably. It should also be based on identification of the gainers and losers from the project and to ensure that the gainers are subject to development and other charges that could be passed on in an appropriate form to the losers.

Governance/ managerial sustainability would require the project to meet all the statutory and regulatory requirements and also to have adequate capacities developed with the local authorities concerned for maintaining the project effectively and efficiently throughout the project lifecycle at reasonable costs.

Environmental sustainability would require, for instance, zero land-fill for solid waste management projects. In fact, each project should aim at improvement in the environment, rather than on 'minimising the damage'.

The sustainability issues have been highlighted in numerous policy documents including the **Twelfth Five Year Plan**, which recommends for strengthening urban governance structure/ Local Bodies, augmenting the soft infrastructure including system capacities, inclusive governance, environmental sustainability and enhanced attention to urban renewal as well as to regional approach to planning. These frameworks have been further detailed in the **National Mission for Sustainable Habitat**.

1.7. State Land Utilisation Policy

State Land Utilisation Policy would need to be defined at the Perspective Plan Level, which should be as per the guiding framework of National Land Utilisation Policy, 2013 (draft version is currently in place), brought out by the Department of Land

Resources, Ministry of Rural Development, for different states keeping in context the state-specific needs, potential, priorities and legal provisions.

The (draft) National Land Utilisation Policy, 2013 takes into consideration the predominant (existing or scientifically established) functions of land serving the needs of people, environment as well as different sectors of economy and development. Also, the Policy takes into consideration the existing laws and approaches that govern land uses. It suggests that the land in the country be divided into Land Utilisation Zones¹ (LUZs) based on the predominant use of those lands. Here, each state should formulate the strategy of land development in a spatial concept plan. The following six types of LUZs are indicated:

1. Predominantly Rural and Agricultural Areas;
2. Areas Under Transformation;
3. Predominantly Urban Areas;
4. Predominantly Industrial Areas;
5. Predominantly Ecological Areas, Landscape Conservation & Tourism Areas, Heritage Areas¹;
6. Major Hazard Vulnerable Areas.

It may be desirable to further classify areas under the 'Predominantly Urban Areas' LUZ, where urban development is to be promoted, to be restricted/controlled or to be prohibited, as per the situation.

The perspective of the State, the state resource mapping and LUZs would set the foundation of the long-term policies regarding development of infrastructure and resource mobilisation for the land use plan.

1.7.1. Landuse Transport Integration

In the past decades, urban sprawl has resulted into loss of high quality agricultural land and open space, fragmentation of ecosystems, spatially segregated uses inducing high dependency on private vehicle use and unfavourable conditions for public transport. National Urban Transport Policy (NUTP), 2006 has highlighted the need for integrating land use and transport planning. Land transport integration benefits in making investment decisions in transport infrastructure and services, which in turn are linked to economic, social and environmental outcomes. It also helps in determining the optimal use of land in the influence zones of the transit corridors. Land transport integration would involve two mutually supportive processes:

¹ LUZ to be considered for eco-tourism, sea and river front natural vegetation areas and protected forests.

- Organizing **the physical form and land use pattern of a city** such that the travel demands, trip lengths and travel times are minimized, while accessibility, comfort and efficiency are maximized.
- Organizing all systems of transportation from pedestrian pathways to mass transit systems such that they **integrate well with each other** and enable the harmonious establishment of land use around them, in the process generating a city form that is sustainable².

Conventional development plans for Indian cities have a statutory requirement to plan land uses and channelize growth, whereas transportation plans are not statutory and work with the mandate of arriving at regional and local level projects for improving mobility. Thus, URDPFI Guideline suggests the shift from such an approach to explicitly regarding interactions between various land uses/ activity subsystems and transportation. Therefore, Comprehensive Mobility Plans (CMPs), first mooted under the JnNURM, are to be integrated with all development plans bridging the transportation projects and statutory land use planning.³

Transport networks are among the most permanent element of cities, which change very slowly over decades or centuries. While, buildings are the second most permanent element of cities, with lifetime of hundreds of years, but can be adapted to changes through refurbishment but the integration of the two shapes the urban form of a settlement.

1.7.2. Transit Oriented Development (TOD)

The integration of land use with transport systems is called “Transit Oriented Development”, which is essentially “any development, macro or micro that is focused around a transit node, and facilitates complete ease of access to the transit facility thereby inducing people to prefer to walk and use public transportation over personal modes of transport”⁴. This entails planning for compact cities and reducing urban sprawl and dependency on the large scale developments in the periphery which induce shift from non-motorized to motorized modes of travel. Approach to TOD highly depends on establishing mixed landuse zone as part of strategic densification. The policy includes:

- **Network & Connectivity:** Disperse high traffic volumes over multiple parallel streets rather than concentrating traffic on few major arterial roads. Create a fine network of streets through urban design that provides choice of routes for all modes, reducing distances between places as well as journey times.
- **Last mile connectivity:** Provide fast, convenient interchange options and spatial provision for various modes of Intermediate Public Transport (IPT) at

²A framework for this purpose is provided in the Toolkit for Land Use Transport Integration and Density of Urban Growth brought out by the Ministry of Urban Development under the Sustainable Urban Transport Project (2013).

³Ibid.

⁴Draft UTTIPEC Guidelines, 2012

Multimodal Transit Station for seamless travel. Provide multiple mode choices for last-mile connectivity at various prices and comfort levels. Also, if possible, eliminate the need of IPT by design and engineering⁵.

- **Pedestrian access:** Provide the shortest direct route to pedestrians and non-motorised modes to station as well as between building blocks.
- **High Density, Mixed-Income Development:** Compact neighborhoods for shorter commutes and equity for all sections of society. Mix of compatible use to promote 24 hour activity.
- **Streetscape Design:** Urban places should be designed for enjoyment, relaxation and equity. Pedestrian and bicycle friendly designated space for all activities. Keeping in view the *prevention of heat island effects* from wide and open streets, by proper street and landscaping.
- **Promote Place Making to Create a Sense of Place:** Focus on promoting liveability, quality and uniqueness of each space
- **Direct Business to TOD Locations:** Create transit services to regional job centers, focus job creation investments in transit serviced locations.
- **Public facilities at nodes of public transport:** Plan for public facilities such as schools, universities, sport facilities, stadiums, theatres and concert halls around nodes of public transport.
- **Function/Activities at nodes of public transport:** Promote multi-functional developments around nodes that are otherwise deserted in the evening or at night. Plan a mix of different types of users and inhabitants to create a lively and safe place.

Application of TOD is in context of scales in planning i.e. Regional context, Sub-regional context, city context and area context. It shall require a robust methodology for intervention⁶ and would need to be planned at (a) Regional or Sub-regional level and (b) City or Local Area planning level.

The context of TOD varies in respect to City Core areas, Peripheral areas and Greenfield areas which are equally important and mutually dependent on densification, redevelopment (in context of City Core areas), mode of public transport and intermediate public transport and therefore uses of land in the influence zone. However, in the setting of brownfield cities where transformation of landuse and built form has experienced continuous change, the Development Oriented Transport (DOT) may be used. DOT incorporates redevelopment or readjustment of transit network mediums as per transformation taking place or has taken place in development. Detailed approach of identifying TOD influence zone

⁵In case of China and Japan

⁶Working paper on Transit Oriented Development, Embarq, India

and its planning is covered in **Chapter 8** and Zone wise TOD matrix is provided in **Table- 5.3**

Besides, integrated urban development, TOD can benefit as an alternative revenue generation source from:

- Financing of Urban Transport projects by Unlocking Land Values as Higher FSI in influence zone of Transit corridors within the framework of the overall planning guidelines to be prepared by respective states.
- Transit Corridors (Metro/ Mono Rail, BRTS, Ring Road) attracting economic activities and leading to induced urban development with less efforts.
- Land-use based financing sources along Transport Corridors. For example, periodic revision of property guidance value, higher property tax along transit corridors, impact fees, development charges, conversion charges and betterment charges.

If properly planned and implemented, TOD invariably promotes value added activities including commercial and services.

1.7.3. Flexibility in Plans

Statutory landuse plans have implications on the land use and development control mechanism. Despite statutory backing, due to the controlled conventional (rigid) approach, Development plans are not implemented fully and meaningfully. Plan proposal estimates have not kept pace with the growing requirement of cities or the aspirations of the city dwellers.

Development planning approach is to be for a flexible plan formulation for facilitation and promotion of development in plan making and implementation, where changes in landuse are to be permitted only when necessary by specifically appointed empowered body- 'Urban and Regional Planning & Development Authorities' (suggested in the institutional reforms **Section 3.6.1**). These changes may be guided by large developments, social interest and need for all. Further, fixation of FAR/FSI, density should be based on more rational grounds and any changes therein must be carefully planned. Preparation of City Investment Plan should facilitate easier implementation of Development plan.

For minor changes in the landuse, the planning system is to be improved to allow flexibility in the Development Plans/Master Plans. Such as allowing mixed use of land in the zoning regulation must consider the RoW of the abutting road for industrial and other (residential and commercial) aspects of mix. Vertical mix of use of land is an alternative approach for promoting flexibility and is suggested in **Section 5.3.2. & 9.2**.

1.7.4. Land to generate fund for Infrastructure Development

The URDPFI Guidelines suggest the ways to augment financial resources for implementation of the development/ spatial plan through various innovative sources of revenue generation. Formulation of spatial plan should be such that the plan is able to create economic growth and which could fund the implementation of the plan. Among the land development mechanism, town planning schemes followed in the states of Maharashtra and Gujarat is a successful case to demonstrate financial sustainability (cost recovery) of the plan.

Many schemes and projects are conceptualised without proper techno-feasibility studies or financial viability assessments and therefore projects and research have been integrated in the planning system now. Consequently, in the Plan, there is not much appreciation of the implications of its standards for capital cost, cost recovery and maintenance by the municipalities and the state agencies. The Urban Local Bodies (ULBs) mainly in the small and medium size towns, without exception, suffer from a very weak resource base. Their per capita income is much less than the level of expenditure, which makes it heavily dependent on external funding instead of its self-generated revenues.

To address such issues, fiscal resource generation from land, tax on vacant land, regulation of unauthorised informal development and underutilisation of permitted FAR could be source of financial resource generation (refer **section 3.3**), which can be for dedicated urban development through an infrastructure fund. Here, implementing agencies need to treat land as an asset for infrastructure development through capital gain, stamp duty, auction and other mechanisms in consensus of the State Finance Commission.

1.7.5. Sustainable Waste Management

International agencies working on zero waste have claimed that recycling rates of 75% and plus have been achieved by municipalities large and small throughout the world. The ‘Zero waste’/‘Zero Land-fill’ concept is gaining ground as being practicably achievable in Indian cities too. Indian cities have the advantage of significant recycling and reuse in the solid waste management system. Those can be improved and coordinated with the view to moving towards ‘Zero waste scenarios’.

Zero land-fill can be achieved by adopting systematic approach of segregation at source by planning, by collection facilitation and most importantly by public awareness. The green waste can be converted into fuel cakes, kitchen waste into manure, construction & demolition waste into bricks, plastic waste into oil, paper, glass and steel back into the same and all residuary inert materials can also be converted into bricks. Achieving zero land-fill is more conveniently possible, if (a) the collection is made from house to house and some segregation is done at household level and (b) the recycling is done at decentralized, say, ward or even lower levels.

Besides solid waste, the effective management of waste water would result in availability of treated water for reuse, capture of methane gas for power generation and improvement in the quality of the environment. This could also be done in a zero land-fill concept. More details on Sustainable Waste Management, including the norms for waste water and its reuse, are given in **Chapter 8**.

1.7.6. Inclusive planning

Development plan / Local area plans in India have not effectively earmarked adequate land and spaces for the urban poor / informal sector for residents or other activities at affordable rate. In new townships and new developments of IT / BPO Townships, Satellite Townships, SEZ, etc., where the space standards are normally affluent, informal sector is significantly gaining recognition. Planning norms for urban street vendors, the marginalised and the informal sector to be adopted and developed from this guideline. It is of utmost importance to protect the interest of urban poor by reserving space, extending legal title (ownership) and above all the Master Plans/Development Plans to take this component into account. Hence, Development Plan should allocate space with serious assessment of the requirements of urban poor after ascertaining the ground realities with regard to location of vendors, informal activities, slums and need for in-situ redevelopment /upgradation. Norms for informal sector and street vendors are given in **Chapter 8** and approach to affordable housing is suggested in **Chapter 5**.

The places of employment for most of the citizens are often located far away from their place of residence, which discourages them from accessing the most suitable employment. While this handicap would be applicable for all sections of the society, it is more significant for the women and other weaker sections, including the elderly and the differently able. The effective solution for this situation lies in the 'shelter-transport-livelihood link', which ought to be made a cornerstone for planning. Accessibility requires quality, attractiveness and safety of public spaces for pedestrians, cyclists and people using public transport.

Barrier Free Environment (refer **section 8.8**) is one way to enable people with disabilities to move about safely and freely and to use the facilities within the built environment⁷. In addition, to integrate the disabled and elderly persons fully into the society, the social infrastructure norms suggest co-development of old age home and orphanage facilities with appropriate infrastructure to be included in all the plans especially in the Local Area Plans.

1.7.7. Disaster Risk Management

Over the past couple of years, the Government of India has brought about a paradigm shift in the approach to disaster management. The new policy emanates from the realisation that investments in mitigation are much more cost effective

⁷'Guidelines and space standards for Barrier Free Built Environment for Disabled and Elderly Person', CPWD, Ministry of Urban Development (2013). Also recommended by UN Habitat.

than expenditure on relief and rehabilitation. This approach has been translated in the URDPFI Guidelines in ***Chapter 6*** for disaster planning, covering institutional mechanisms, preparedness, response and capacity building both at State and District level, especially focusing on inclusive planning.

States, metropolitan areas, regions and cities need to collect data, information and undertake mapping for all infrastructure, services and amenities to understand requirements and identify gaps. At the local planning area level, spatial maps need to be created to evaluate neighbourhood, streets and public spaces based on their safety; comfort and convenience (refer **section 2.2.4**).

1.7.8. Speeding the process of planning & implementation

1.7.8.1. Simplifying the planning process

As per the 'Strategy paper on master plan formulation, inclusive planning, prioritization for housing and pedestrian movement', TCPO, there is a widely held view that the urban development planning process in the past has been unduly time consuming and largely confined to the detailing of land use aspects and projecting micro level needs on long term basis when there were dynamic changes in very short terms. In light to the concern, the State Governments would need to modify the respective Town & Country Planning Acts for the following:

- i. Simplification of preparation of plan: making provisions in the Development Plans for detailing only the focused key sectors and preparation of the draft for approval in a limited time to one year, as suggested by TCPO. (refer **Chapter 2** on Plan Formulation).
- ii. Simplification in the implementation of plan: the plans to be easily understandable & acceptable, minimizing conflicting recommendations within a plan, provision for translation of plans and related documents into vernacular languages.
- iii. Simplification in data gathering: user-friendly GIS and remote sensing data to be sourced for simplifying the process for plan formulation by developing a spatial data base useful for planning, decision making and implementation decision (refer **Chapter 7** for Simplified Planning Techniques)
- iv. Simplification of approval/schemes: improving the approval process by developing citizen's charter, approval mechanism for the change in landuse permissions and by developing regulatory body at State and/or local area planning level to bridge the gap between approval and implementation. Provision of Interim development order⁸ in between the period of plan formulation to implementation can be considered.

⁸Kerala Town & Country Planning Ordinance, 2013

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- v. Better public participation: The State planning provisions to be modified to emphasize on involvement of public at early stages, formulation of Grievance & Redress system to address the public grievances and bringing transparency in accounting system. It is suggested to involve Residential Welfare Associations in Local area plans (LAPs) and ULBs to use modern tools for awareness through websites/ on project sites.

Foremost, during the plan formulation, roles and responsibilities for the implementation of the plan are to be well defined in order to achieve the milestones as per the action plan and to bring in transparency in the implementation system. Further, during plan evaluation and monitoring, citizen's charter should be involved, for transparency and accountability.

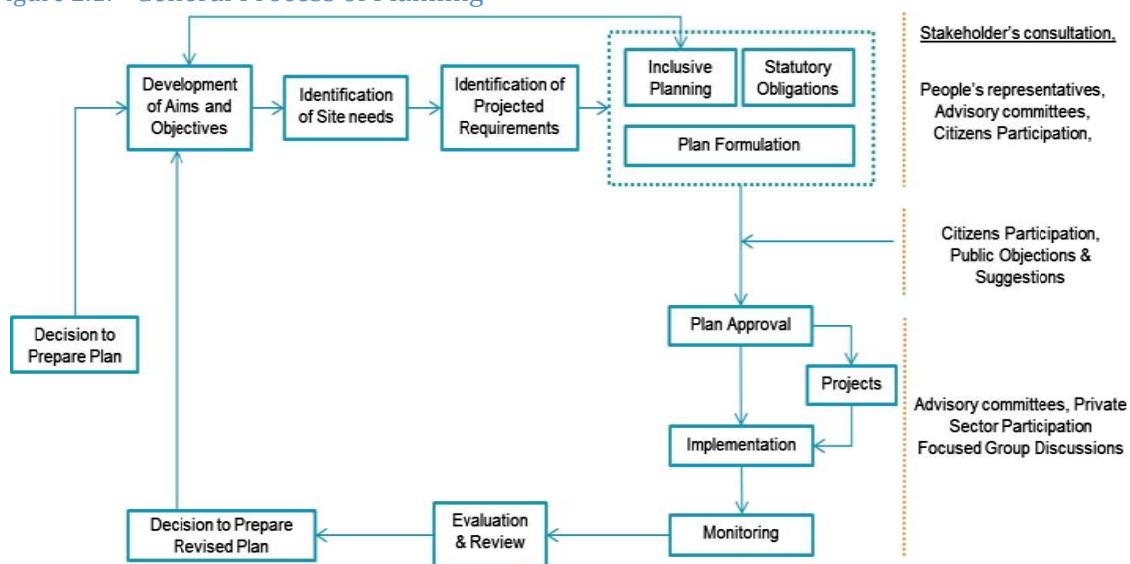
In case of inadequacy in the manpower capacity with the Government bodies for planning, outsourcing to non-governmental and private organisation could be considered as an option, but as suggested by TCPO - Local Bodies and Development Authorities of the States need to take necessary steps in the direction and take a lead to ensure that all the cities and towns of the State have statutory Master Plans by the end of the XII Five year plan. For this purpose, boost to the training of the new planners and provision of adequate planning schools is imperative, since the planning task, complex and interdisciplinary as it is, must be done only by qualified planners.

2 Plan Formulation

2.1. Planning Process

Spatial development planning is a continuous, time-oriented, cyclic process and should be seen and practised as a process where planning, implementation, monitoring, review and plan updating go on as a dynamic process. In this process, the decision to prepare a plan is outside the cycle of planning process. The following diagram portrays the general process of planning.

Figure 2.1: General Process of Planning



Following are the stages of planning process:

- Development of Aims and Objectives
- Identification of site needs
- Identification of projected needs
- Plan formulation
- Inclusive planning
- Statutory obligations
- Decentralisation of plan approval process
- People's participation
- Plan modification
- Review and revision of plans.

2.1.1. Aims and Objectives

The aim of the plan is a broad and general statement indicating the decisions of the policy makers, aspirations of the people and needs of the community. For example, 'To provide job opportunities for all' is a statement of aims.

Objectives are specific statements indicating the ways and means of achieving the set aims taking into account the potentials. For example, for the aim related to job opportunities, the objectives could be:

- Provision of jobs through development of industries / commerce or trade;

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- Provision of incentives and inducements (specific) to industries;
- Provisions of informal sector economic activity sites as part of commercial areas, and such others.

The aims and objectives formulation exercise comprises the following steps:

1. Identification of values cherished by and needs of various stakeholders including citizens, administrators, professionals, politicians, and other group of people.
2. Identification of aims incorporating the values.
3. Identification of criteria that further defines each aim to form basis for formulation of objectives.
4. Formulation of objectives, which could be further defined as design objectives and implementation objectives.

2.1.2. Identification of Site Needs

For comprehensive spatial planning and integration of the sectoral development, site specific needs are to be identified in the beginning of the planning process. The report of the Working Group on Urban Strategic Planning (12th Five year plan), states that due to '*Lack of Comprehensive Planning Approach, haphazard growth and proliferation of slums around industrial locations, peri-urban areas and randomly located new developments such as SEZs and township has taken place*'.

Diverse ground conditions and interrelationships in settlements require different strategies for spatial planning. The growth potential and special functions performed by the urban centres such as marketing, industrial, tourism, pilgrim centres etc. need to be explicitly recognized.

At this stage of the planning process, the site needs should be identified based on the typology of urban development- such as port city, old city, industrial townships, peri-urban areas, corridor development, regional development and accordingly the vision needs to be prepared. **Table 2.1** throws light on some site-specific features for studying urban and regional settlements while planning. The list is comprehensive but not exhaustive.

Table 2.1: Site Specific Needs of Few City Types

Indicators	Port City	Industrial City	Peri-Urban Area	Old City
Common Indicators	Regional Settings & connectivity, Historical background, Location Analysis, Demography, Socio-economic Analysis, Environmental profile, Land Profile, Key Developmental Indicators, Infrastructure, Proposed Developments, Existing regulations, Administrative profile.			
Site Specific Indicators	Cargo and logistics, Railways, Coastal features / details of the port, Analysis of primary economic activities, e.g. fishing.	Logistics and Transportation, Infrastructure, analysis of Environmental parameters (pollution), Common Treatment Facilities, Hazardous and non-hazardous waste disposal system.	Real estate, Housing, Land-use conversion, Natural features, Analysis of socio-economic profile / Primary economic activity e.g. agriculture.	Density, Land use, Built-up, Socio-Economic profile, Infrastructure status, Household industries, Parking and Heritage.

The stage of identification of site needs should be taken as baseline study phase. As this stage has implications on the following stages, a broad-based study should be done for identification and incorporation of as much as elements that are specific to the settlement and are likely to have impact on the future development of the settlements to prepare sound proposals.

2.1.3. Identification of Projected Needs

After identification of site needs, the next stage in the process of planning is identification of projected requirements of various activities, supporting infrastructure and land as the basic input for plan formulation. It is this stage of planning which would require most of the time. Thus, there is need to minimise the time taken at this stage. In this context, it is emphasised that primary surveys and studies should be rationally chosen so that it saves time and minimises delays in the process. The choice of technique of surveys, analysis, synthesis and projections should also be such that it is effective and time saving (refer **Chapter 7** for choosing the planning techniques).

2.1.3.1. Gaps and Projections

Expansion or development of settlement necessarily requires corresponding provision of infrastructure to support residents and economic activities. Thus, infrastructure gap analysis should be carried out mandatorily while preparing the plan. Infrastructure gap can be assessed on the basis of remaining life of existing infrastructure and coverage of infrastructure against benchmarks. Special focus must be paid to the transport infrastructure at this stage. Detailed study/ research of different modes of transportation and their corridors should be carried out to find about travel demand and pattern of the planning area. Using public consultations and carrying capacity techniques (further elaborated in **Chapter 7**), current or future requirements in infrastructure can be identified. The background study of standards and guidelines for disaster mitigation should be completed to find out the gaps that may exist in city infrastructure, landscape and administration.

Aims and objectives of the study should also be considered at this level for setting up priorities of development. To incorporate the element of sustainability in human settlement planning and development, environmental and infrastructural carrying capacity study of the planning area alongwith detailed assessment of space requirements must be carried out at this stage. The capacity to hold the population is an indicator for infrastructure projection.

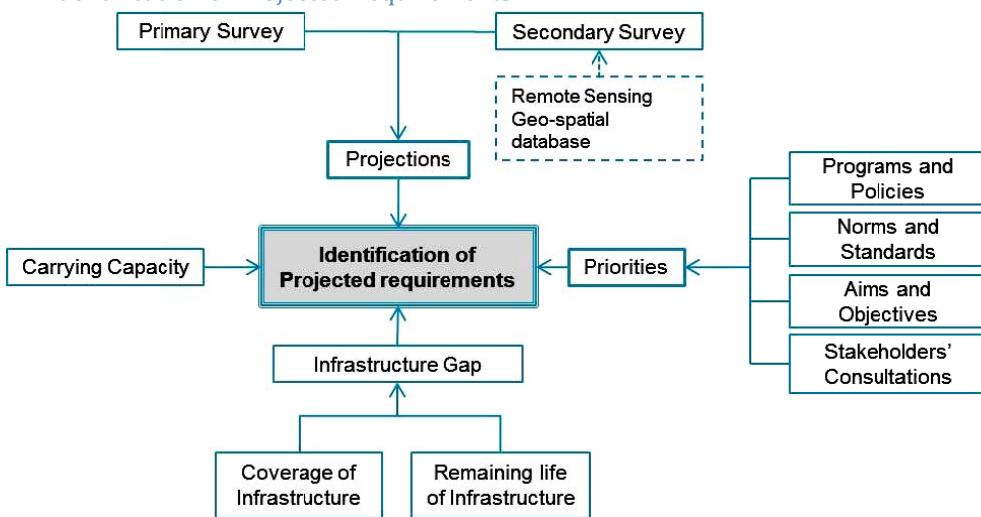
Population projections can be carried out based on past trends, employment and induced growth (of the future proposed economic activity of the land). The corresponding needs of the human settlements on infrastructure are to be projected (refer **Chapter 8**). Priorities for planned development are identified through norms

and standards for buildings, provision of services and infrastructure provided by national agencies, national and state level programmes and policies.

2.1.3.2. Consultation

Public participation is the key to planning exercise and hence different group of stakeholders should be consulted to know the needs and finalise the priorities for projections. Different demographic, social, economic categories of stakeholders can be prepared for wide-ranging public participation such as representatives from agencies and institutions involved in planning and development of the area, elected representatives, associations, experts in the sectors and the resident public.

Figure 2.2: Identification of Projected Requirements



2.1.4. Plan Formulation

Based on planning techniques, planning theories/principles, norms and standards - multiple alternatives of urban planning concepts must be prepared. This level of plan formulation also requires vision development. At all scales of planning, land and transport integration is suggested at this stage of planning, wherein a Comprehensive Mobility Plan (CMP) is to be formulated. All transportation surveys and studies should be undertaken independently by the transport department or jointly under JnNURM or other schemes before this stage.

The opportunities for Transit Oriented Development and multi modal mobility need to be taken into account. Use of non-motorized traffic options and public transport are to be optimised. The role of Intelligent Traffic System (ITS) and Electronic Road Pricing (ERP) has to be introduced. To a large extent these issues will define future development potential and the quality of life in cities.

2.1.4.1. Visioning Exercise

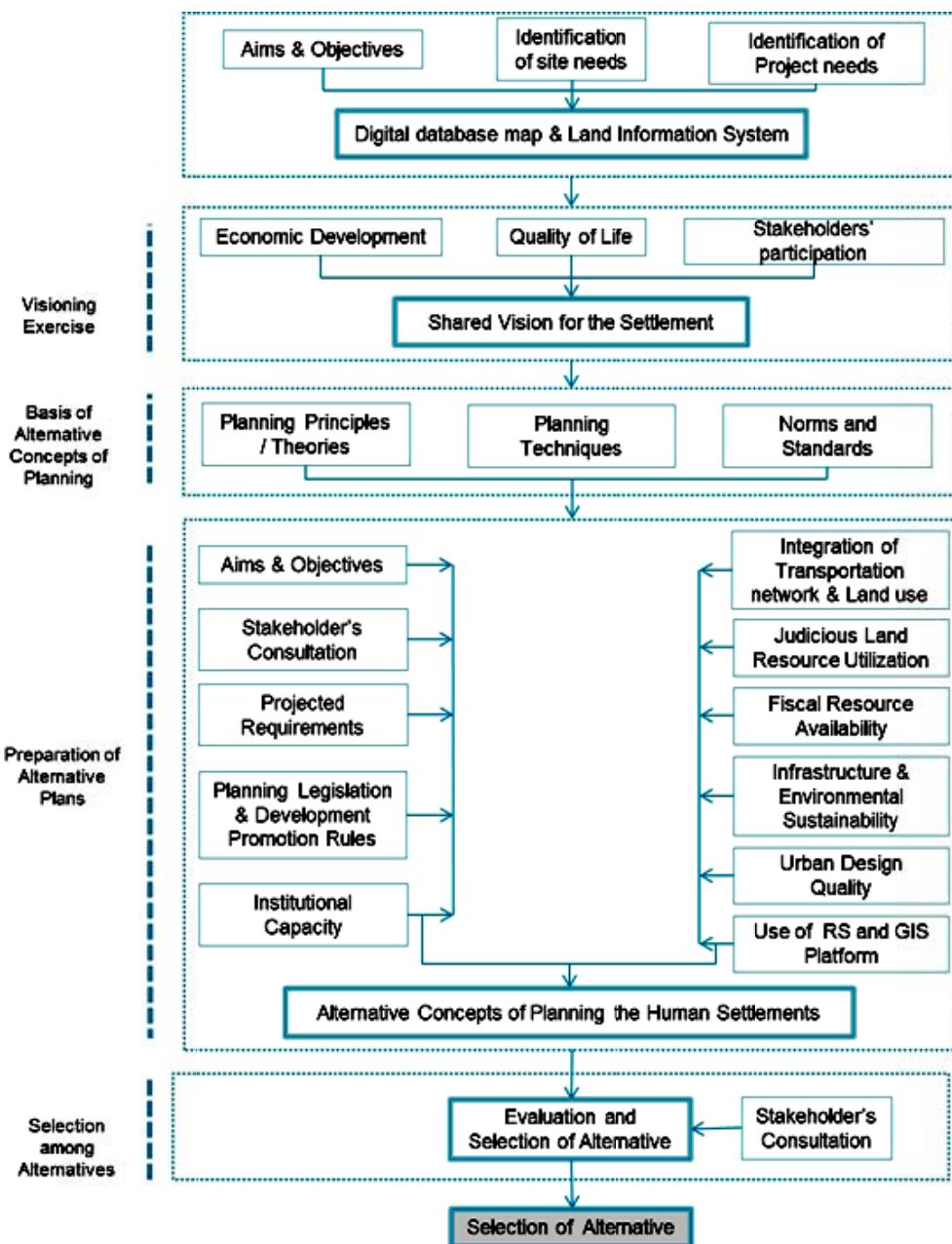
The focus of the plan preparation exercise should be on ensuring adequate stakeholder participation to arrive at a shared vision for the settlements, with regard to economic development and quality of life. The vision thus arrived should form the guiding principle for the Regional or Development plan. These would include inter alia:

- Economic Development Objectives (Increase in GDP, Income, Employment and such others)
- Transportation Objectives
- Utility Services (levels and coverage) Objectives
- Social Infrastructure Objectives
- Safety and security of the citizens
- Growth Pattern/Design Objectives
- Investment Program/ Sustainability Objectives
- Others, if any.

Planning and Development Authority should clearly mention in a plan as to how the plans are likely to benefit the dwellers in economic terms and in this context, the calculation of economic benefits is given in ***Chapter 7***.

Plan Formulation

Figure 2.3: Plan Formulation Process



2.1.4.2. Preparation of Alternative Concept Plans

The outcomes of the first three stages would yield a digital updated Base-map and Land Information System, a complete report on status of the region/city establishing existing situation with regards all elements of development, identification of areas of concern, a shared vision and development goals and objectives. This should form the input for formulation of the plan. The planning horizon for the planning period should be identified based on the recommended planning system and the components should include:

- Estimation of land requirement for different uses (refer **Chapter 5 & 9** for detailing).
- Land suitability analysis: Environmental sensitive areas, social, economic and others (refer **Chapter 7** for further context).
- Delineation of developable area based on environmental land suitability and growth trend.
- Preparation of a general activity structure.
- Preparation of a conceptual land use plan as per the required scale (refer **Table 7.7**).

As projections are estimations of an envisioned pattern, deviation from the projection are always possible and hence projected figures should not be always treated as absolute. Here it is required by planners to build alternative scenarios and situations which may highlight the extremities as pessimistic or optimistic.

The following key remarks to be focused while formulating the plan:

- a. Land is limited and a very important natural resource and must be utilized vigilantly. Care should be taken regarding inter-relation of various activities and land uses with each other. Land use to be planned most solicitously. New concepts like Compact cities, mixed land use etc. can also be explored, if not for the entire jurisdiction, then for the upcoming zones at least.
- b. Deteriorating traffic conditions due to faster increasing travel demand in cities have impact not only on environment but also on economy by wastage of man-hours. Thus, to reduce the trip generation, land use and transport integration should be made at the initial stage by incorporating TOD and mixed land use concepts.
- c. As a part of the plan implementation, a study regarding quality and quantity manpower should be done and suggestions be made concerning human resources requirement for effective implementation of all the aspects of the plan.
- d. Vertical mobility of the vulnerable sections of the population must be integral to the planning goals. Inclusion of the women and population involved or dependent on the informal sector must be consulted while preparing plans.
- e. To prepare and implement all the aspects of the plan for the whole plan period requires steady flow of finance, otherwise the optimum outcome of the plans cannot be realized. Thus, it is imperative to plan and map out all the financial sources in the beginning of planning process so that plan proposals and milestones targeted can get maximum results. It should include financial aspects not only for plan implementation but also for plan preparation. At this stage, revenue generation capacity of plan itself should also be defined with measurable milestone against which plan could be monitored and reviewed from time to time.
- f. Other parameters, based on which plan is prepared and projected for plan period should be provided with distinct measurable milestone against which plan

must be intermittently reviewed at interval of 5 years and finally evaluated at the completion stage. This will work as input for next planning process from the previous plan period.

- g. Remote Sensing and GIS technologies should be used to speed up the plan formulation process. Large amount of spatial and attribute data can be processed through these platforms and alternate concepts of planning settlements can be prepared in shorter time span. The data available with the NRSC, SRSAC, Bhuvan Geoportal and NUIS can be utilised for the plan preparation (refer **Chapter 7** for methodology).
- h. Other elements like planning legislation, development promotion rules and urban design features should also be incorporated to prepare alternatives, which will be further detailed as the proposed plan.
- i. Green areas and related non-economic activities to be preferably proposed on Government land to avoid loss of economic benefit of the private land-owners. In case such activities are proposed on privately owned land, the local authority preparing the plan should provide a fair compensation as per law, to the land owner.

2.1.4.3. Selection among Alternatives

The next level of plan formulation requires evaluation of all the alternatives to reach one selected alternative that would be elaborated to prepare plan for the settlement. At this stage, focused group discussions or selected representative's discussion can be arranged as appropriate. Usually evaluation of alternatives result into another newly developed concept, which derives the best from all the options.

2.1.5. Inclusive Planning (further to the section 1.10.8)

Inclusive development as perceived by Central Government in 12th and 13th five year plans focuses on broad based improvement in the living standards of all residents of the country. 11th five year plan's approach was "Faster and more inclusive growth" while 12th five year plan called for "Faster, more inclusive and sustainable growth".

Inclusive planning means infusion of varying aspects, which lead to growth of whole society into development process, such as integrated trunk infrastructure, sustainable development, poverty elevation, decentralised decision making with special emphasis on women, elderly and disabled friendly infrastructure and financial planning. These facets of development were not traditionally recognised distinctly. Thus, for overall development of residents of human settlements in India, inclusivity in planning must be fundamental feature.

Inclusive development in planning should have focus on the following parameters; other such features to promote inclusivity in development process can be identified based on the needs and requirements of settlements and time⁹:

- Inclusive governance: entire system must function in a manner, which is seen to be fair and inclusive.
- Inclusive Sustainable development: Development is a qualitative indicator rather than quantitative. Development of human settlements should not be unidirectional causing environmental degradation in the process. To direct growth on sustainable manner Environmental Impact Assessment should be essential part of development plans and projects.
- Inclusive access to healthcare and education.
- For inclusive employment and regionally balanced growth, MSME should be promoted through Plans.
- Developing capacities of Infrastructure: Infrastructure plays an important role in growth and development of cities. It also promotes inclusivity in the society by means of easy access to services.
- Agriculture has been identified as very important for promoting inclusivity. Various Laws, Policies and Guidelines make provisions that agriculturally fertile/multi-cropped land be acquired as last resort. Same provision should be followed while planning for human settlements too.
- For holistic development of entire population, issues concerning the people employed in informal sector, besides women, elderly and the disabled must be included in the entire process of plan preparation.
- The Plan should aim at creation of wealth and employment, in an inclusive and sustainable manner.
- Water management including flood prevention, groundwater management, rainwater harvesting, waste water treatment, recycling and reuse to be encouraged.
- Public spaces are crucial for pedestrian movement and accessible public facilities have significant impact on the quality of life.

2.1.6. Statutory Obligations

Numerous laws and policies made by the Central and the State Legislature and Governments impact spatial plans. Missing out on one or more of these could create serious impediment for implementation of the Plan at a later stage. Therefore, at the stage of plan formulation, a study would need to be conducted to list out all legislations and their impact on the plan formulation and implementation, to ensure affirmation with all the relevant laws.

⁹Source: Eleventh Five Year Plan 2007-12 Volume-I; Twelfth Five Year Plan, 2012-17 Volume-I

2.1.7. Decentralisation of Plan Approval Process

Following the spirit of the 74th CAA and also recognising the fact that the current process of approval of urban development plans is time consuming resulting into delays, it is recommended that the plan approval process be decentralised as follows:

Table 2.2: Decentralised Plan Approval Process

Plan	Approving authority
Perspective plan	State Government
Regional Plan	State Government / Regional Development Authority
Development Plan	Municipal Corporation/ Development Authority/ MPC
Annual Plan	Municipal Council/ Municipal Corporation/ Development Authority
Zonal Development Plan	Municipal Corporation/ Development Authority/ MPC
Urban Revitalisation Plan	Municipal Corporation/ Development Authority/ MPC
City Development Plan (terminology to be changed to City Investment Plan)	As above
Comprehensive Mobility Plan	As above
City Sanitation Plan	As above
Projects/ Research	Municipal Corporation/ Development Authority/ MPC

Once the authority approves the Draft Plan, it can be put in public domain as per the State Town & Country Planning Act for inviting objections and suggestions from the public and various stakeholders.

2.1.8. People's Participation

The approach of planning should be shifted from top-down to bottom-up approach to make planning process more inclusive, comprehensive, and sustainable. Greater public acceptability is desirable, to ensure that plans are relevant. People can participate in the development process in the following realms:

- Pre-plan participation in decision making in vision development, for identification of development priorities.
- Post-plan participation before finalisation and implementation of development programmes and priorities.
- Participation during implementation and evaluation of development programmes and project.
- Participation and sharing the benefits of development, managing the assets etc.

e-Platform and crowd sourcing are coming up as new modes of obtaining feedback speedily.

Taking into account the interest, attitude and behaviour of the people, role of urban development professionals and obligations of local authority, a system of participatory plan approach has been suggested as under:

Table 2.3: Participatory Planning Approach

Planning Process Steps	Citizen's & Citizen Representative(s)	Urban development professional(s)	Official (s)
Determining goals and objectives	✓	0	✓
Data collection		✓	✓
Design of criteria and standards		✓	
Developing alternative plans	0	✓	0
Choosing an alternative	✓	✓0	✓
Detailed design of selected plan		✓	
Modification of plan	✓	0	✓
Plan Approval	0		✓
Implementation	0	✓	✓
Monitoring	✓/0		✓
Maintenance	✓/0		✓
Feedback	✓	✓	✓

✓= Major role, 0= Facilitating or supportive role

Source: *Community Planning Assistance Program, Arizona Department of Commerce and UDPFI Guidelines, 1996.*

The suggested indirect participation of the people is ensured through elected representatives in the Municipal Council / Corporation and Ward committees. The direct participation can be through individuals, citizens, neighbourhood, business, consumer and other such groups.

There are several mechanisms and avenues for people's participation available today, few of these have been presented below. Such mechanisms and avenues can be used to bring wider and more interactive participation of public in planning and developmental process¹⁰:

- **Community Design Charrettes**^{iv} (see endnote): It is a multiple-day interactive meetings, workshops and site walks/visits that fosters diverse and community-sourced ideas;
- **Advisory Committees:** Committees made up of representatives guide planning efforts over an extended period of time while regularly meeting during the planning process;
- **Low-Cost Demonstrations and Transformations:** Use of blocks and day to day objects to create a low cost model of proposals for visual understanding. Relatively inexpensive temporary transformations are made to test the project and experience changes.
- **Focus Groups:** Allow small groups of stakeholders to provide their knowledge of a project area and discuss their concerns and issues with local authority staff, planning consultants etc.
- **Other:** Citizens report card, participatory mapping and participatory budgeting etc.

¹⁰ Modification of - Participation Tools for Better Community Planning by Local Government Commission & The California Endowment

2.1.9. Plan Modification

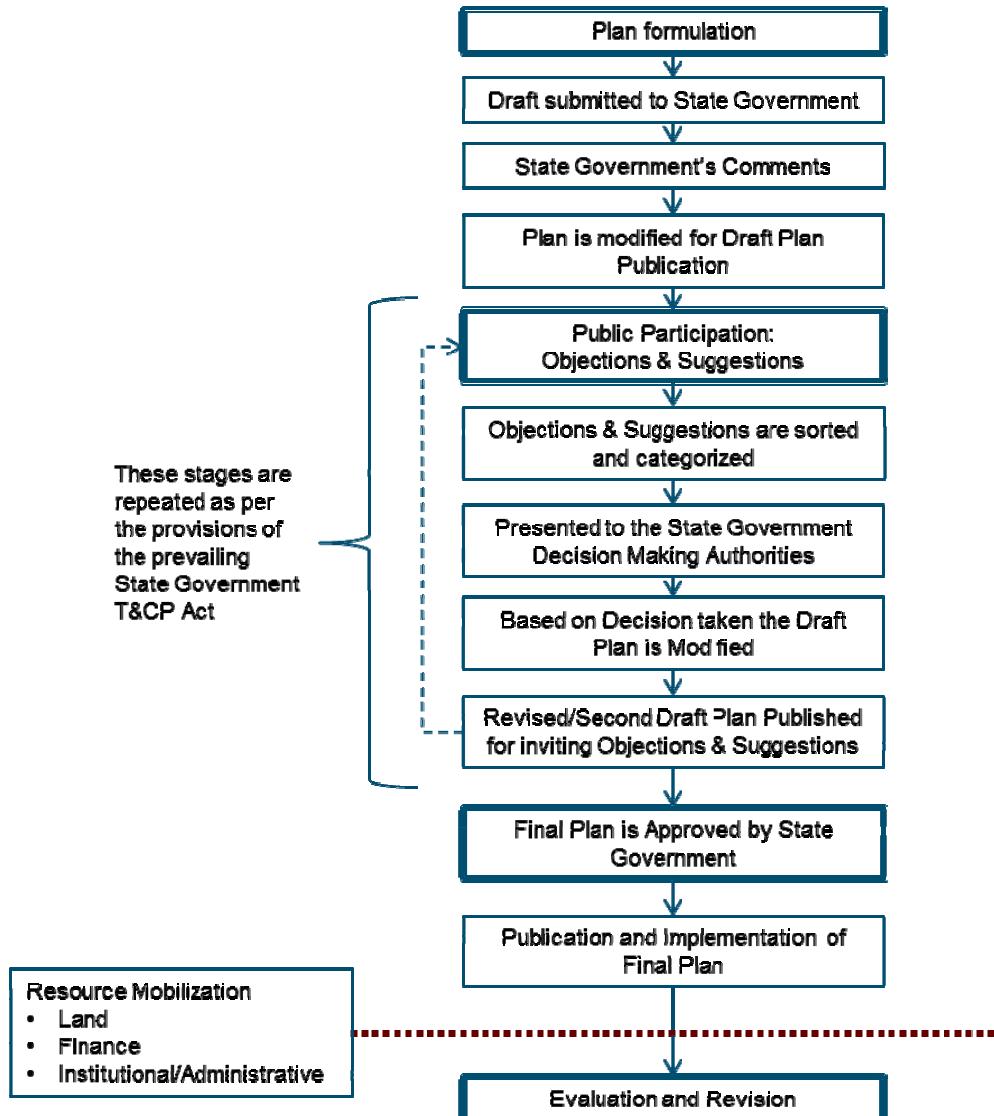
Once the plan is formulated, a draft is to be submitted to the State Government for comments. After incorporating comments in the plan, Draft Plan is published to invite Objections and Suggestions (O&S) from the public. The process of inviting O&S leading to final notification should be based on the provisions of the State Town & Country Planning Act.

2.1.9.1. In between the period of Plan formulation to finalisation

Currently there is no legal provision by many of the States to control or record landuse change in the period between preparation of Existing landuse map and Gazette Notification of the approved Proposed landuse plan. The conversion of the land use is done according to the provisions of Town and Country Planning Act and Urban Development Act of States. The process and time frame varies from State to State.

The State of Kerala has provision to monitor landuse change between the mentioned periods of planning. According to the Kerala T&CP Ordinance, 2013, Interim Development Order may be published by the local authority with the objective to control the interim development of land included in any planning area notified. The expression 'Interim Development' means development during the period between the date of notification of intention to prepare a plan and the date of coming into operation of the plan. Such orders must be approved by DPC or MPC. Further, the plan preparation time should be adequate to support Interim Development order.

Figure 2.4 Plan Modification Process



2.1.10. Review and Monitoring of Plans

A Regulatory body (Urban/ Regional Planning & Development Regulatory Authority) at State level should be established to regulate and monitor the functioning of Urban and Regional Development Authorities/ Agencies. This regulatory body should assess and monitor planning, observe and evaluate impacts of planning, quicken the process of approval of plans in the States.

Plan evaluation after every five years must be built in as permanent process and be mandatorily done at the completion of the planning period. The parameters for evaluation of plan must be predefined in the early stages so as to have a set of parameters as benchmarks towards the end of plan period. The basic parameters are provided in **Table 2.4**, besides these, other specific predefined plan related evaluation parameters could be added.

Table 2.4: Parameters for the Evaluation of Plans

S.No.	Evaluation Parameters	Quantitative benchmarks against the Plan to be evaluated
1	Comparison with the projected population	<ul style="list-style-type: none"> • Comparison of population projected and the present population • Carrying capacity of the developed area <i>vis a vis</i> per person land availability
2	Comparison of existing land use with the planned land use	<ul style="list-style-type: none"> • Percentage deviation from the planned landuse of the major and minor changes
3	Upward trend of economy	<ul style="list-style-type: none"> • Contribution of sectors of economy in GDP of the city • Performance of individual sectors especially MSME • Performance of city GDP in comparison to State/National GDP • Workforce participation ratio • Workers classification • Income generation and participation • Female employment ratio • Vertical movement of the population from Below Poverty Line or lower income groups of the population
4	Funds invested	<ul style="list-style-type: none"> • Percentage share of expenditure <i>vis-a-vis</i> the phase and/or project life budget • Number of proposed projects completed
5	Achievements of targets in Infrastructure development	<ul style="list-style-type: none"> • Comparison against benchmarks provided by National Agencies • Change in the ratio of infrastructure coverage
6	Direction of growth vs Planned growth	<ul style="list-style-type: none"> • Number of planned TP Schemes or Zones developed • Number of Non-Agricultural conversions

The basic objective of the review/ evaluation would be to assess the progress and identify area of success, failure and conflicts to guide/correct the future course of action. This is an important step in the dynamic planning process, which hitherto has not been effectively utilised. This activity should be made mandatory under the respective T&CP Acts.

The following sections provide more details of various stages of this process.

2.1.11. Plan Monitoring Parameters

The plan monitoring parameters should be standardised by Urban/ Regional Planning Development Regulatory Authority for third party evaluation and monitoring report to be submitted annually. The key aspects of monitoring (apart from **Table2.4**) are suggested as:

- **Institutional set-up of the authority in place** (parameter may include adequate staff and required qualifications, health & safety norms followed)
- **Change in jurisdiction of the planned area** (parameter may include extent of the area)
- **Change in density** (parameters may include population density, built-up density)
- **Infrastructure development** (parameter may include actual infrastructure works *vis a vis* the proposed targets or benchmarks)
- **Decongestion** (parameter may include reduced travel time)

- **Investments** (parameter may include proposed investments under various heads and actuals)
- **Public Participation** (parameters may include formulation of citizens' charter and its functioning)
- **Indicators of success and indicators of failures**

Monitoring of performance is detailed in Annual Plan given in **section 2.2.6.**

2.1.12. Evaluation & Revision of Plans

The Perspective Plan, Regional Plan, Development Plan, Local Area Plan, Special Purpose Plan including the Comprehensive Mobility Plan and City Sanitation Plan are prepared usually for duration of 20 years, though some States have attempted even for 30 years. However, in the context of fast evolving social, economic and technological developments, it would be desirable to review these plans regularly, at the interval of 5 years or so. Such reviews should also incorporate the changes in legal framework and government policies, as are notified from time to time. However, care should be taken that the process of revision does not take too long and is completed within 6 to 10 months.

As regards **Annual Plans**, there would normally be no need to undertake any review per se. However, a review of previous year's annual plan should be included in the exercise of annual plan preparation. Performance of the projects/schemes implemented by the local authority, as contained in the annual plan of the previous year should be reviewed in terms of achievements of the physical and fiscal targets. This would ensure a continuous monitoring and review of actions taken by local authority. Results of the review should provide input for perpetration of next annual plan. The monitoring of the plans/projects should be regular so that time taken in review and formulation of annual plan is minimised.

The **Projects / Research** should be reviewed even during the project/research period, to ensure that the data sources, research methodology and analysis are realistic and do not suffer from infirmities.

2.2. Contents of Plans

The approved plan should consist of a report, supplemented by the existing and proposed landuse plans. The Report should include list of tables, list of illustrations and annexures which should be appropriately referenced. More importantly, the aims and objectives, scope of work, limitations and methodological framework should be highlighted.

The contents of various plans could be as follows:

2.2.1. Perspective Plan

The Perspective Plan should be driven by the vision and mission of the exercise being undertaken. Whereas the vision may refer to the end state, the mission should clearly focus on the steps to be undertaken to achieve the end state. At the same time, the Perspective Plan must take into cognizance the relevant policies and statutes of the Central and State Governments and projects/ schemes being implemented at National, State, District, Region and Town levels. Based on the foregoing analysis, clear strategies should be worked out for urban and regional planning and development including for the peri-urban areas, environmental protection, heritage conservation and the linkages between these aspects.

Surveys and analysis form the core issue both in terms of spatial and attribute data sets. Based on this analysis, alternative strategies for development may be worked out and the most appropriate strategy for development indicated for detailing out further. Accordingly, the contents of a perspective plan shall broadly encompass the following:

- Existing Scenario in overall terms.
- Projected requirements for the horizon year based on the total quantum of land available and that can actually be used for development.
- Specific planning studies related to setting, linkages both socio-economic and physical, and likely challenges. In addition climatological studies, identification of areas prone to hazards, environmentally sensitive zones.
- Population projection for the horizon year based on past trends and other statistical methods to arrive at assigned population for the horizon year.
- Economy and employment levels, both existing and projected.
- Shelter-including shortfalls in various categories of housing stock and the total requirement
- Transportation-analysis of the existing network, projected requirement based on detailed OD surveys.
- Institutional uses both existing and required for the horizon year in terms of education, health, socio-cultural, religious, and distributive services like police, fire, telecom etc.
- Infrastructure in terms of water, underground sewerage, drainage, and solid waste management. Vision should include an overview of new technologies and the way to develop and implement.
- Use of alternative sources of energy through new technology.
- Resource base- monetary resources required to implement plan proposals *vis-a-vis* financial health of the local body/implementing agencies.
- Manpower resources both existing and proposed as per requirement.

Given the extent of the planning area and the assigned population to be accommodated, physical proposals may be drawn up driven by transportation and activity nodes.

It is important to ensure that projects/schemes are identified at this level itself including their costing and modalities for implementation.

2.2.2. Contents of Regional Plan

Regional Plan is to be prepared for the area identified as formal or functional region, which could be state/ inter-state/ district/ inter-district, investment region or special area. If region so identified is inter-state, all such states will need to prepare **sub-regional plans** for their respective areas. For a regional plan for a normal region, the following key contents to be included:

1. Introduction of the Region
2. Analysis of regional resources
3. Projected requirements
4. Major proposals and projects
5. Implementation Plan

For Regional Planning for an Investment Region or Special Region, 'delineation of the region' to be included in the above given contents (refer **Chapter 4** for details).

Introduction of the Region

- About the Region
- Constituted areas: Region, Sub-region, Functional areas, Growth centres etc.
- Ratio of Urban and rural development
- Region Morphology

Analysis of Regional Resources & Project Requirements

1. **Physical setting**
 - Administrative profile
 - Connectivity and Economic linkages
2. **Geography of the Region**
 - Topography
 - Geology & Geomorphology
 - Hydrology (Surface and Ground water)
 - Climate
 - Minerals & Resource mapping
 - Study of State Land Utilisation Policy
3. **Demography** (Region and Sub-region wise)
 - Population and its distribution,
 - Population density
 - Age-sex composition and literacy rate (trend analysis)
 - Growth of population (natural and migratory)
 - Population projection based on scenarios (refer **Chapter 7**)
4. **Settlement pattern**
 - Urban and Rural settlement
 - Peri-urban areas and analysis of existing key developments
 - Hierarchy of settlements (refer **Chapter 4**)
 - Density of settlements

5. Transportation

- Mode of transportation - by road, rail, air, water as the case may be
- Network of roads, railways, waterways and their interrelationship with major activity nodes
 - Traffic volume
 - Pattern of movement
- Transport Corridors & Terminals

6. Physical and Socio Economic linkages

Social Infrastructure

- Education
- Health care (multi-speciality hospitals, health centres)
- Recreational
- Religious
- Gap assessment and requirement for the projected population

Physical Infrastructure

- Water
- Energy
- Drainage, sanitation and refuse and solid waste disposal
- Communication
- Police protection, fire protection
- Disaster Management cell
- Cremation and graveyards
- Gap assessment and requirement for the projected population

Heritage & Tourism

- Flow of Tourist (season wise and origin wise)
- Mapping of Natural heritage and Man-made heritage
- Tourism infrastructure analysis and gap assessment

Economic activity and Fiscal policy

- Major Economic sectors
- Distribution of workforce in formal and informal sector
- Workforce participation ratio
- Occupational structure
- Economic nodes

Shelter

- Housing scenario
- Housing stock & supply
- Housing need assessment including typologies

Low cost housing

Night shelters

Slum settlements

7. Environment

- Agro-climatic zone
- Eco-sensitive zones- Protected or restricted areas such as National parks and Wildlife sanctuaries and eco-sensitive buffers around it
- Rivers, water bodies and wetland
- Groundwater
- Coastal/ Hill zone, if any
- Green & Forest cover
- Urban Heat Island
- Biodiversity
- Environmentally Sensitive areas- Hazard prone zones such as earthquake, floods/ flash floods, high winds, cyclone, fire, land slide, tsunami, vulnerability and risk assessment of the region.

- Pollution levels of water, soil, land, air
- Other threat to Natural environment

Major Proposals and Projects

1. Regional policy & Development strategy:

- Policy for zones of development
- Growth poles & Satellite townships: strategy of development of settlement system
- Recommendations on Urban centre jurisdiction changes, if any
- Development corridors and TOD zones
- Economic activity and fiscal policy
- Major economic thrust sectors & its identified markets (focus on encouraging economic activities for formal and informal for women empowerment)

2. Regional landuse and Development Controls:

- Landuse proposal: built-up area, agriculture, protected areas, waste lands, water bodies etc. conforming with State Land Utilisation Policy and State Perspective Plan
- Proposed hierarchy of settlements: Priority towns and Counter magnet areas
- Major economic hubs and industrial estates/ parks for cluster development
- Development Control Regulations for various regional uses

3. Regional infrastructure:

- Mobility: Transportation proposal at Regional level (including locations for integrated freight complexes, multi modal hubs among others)
- Major proposed institutional areas and policy on its location in peri-urban areas
- Proposals for other infrastructures for water supply, sanitation, decentralised treatment and for health, education at regional level (proposal to ensure that facilities and infrastructure are easily accessible to female population and differently abled / physically challenged / disabled).
- Earmark spaces and norms for services like communication (postal and telephone), protection (police, fire) and others at regional level
- Preferred locations for power generating activities
- Preferred locations and norms for regional landfill site. Strategy to minimize waste generation by encouraging Zero-Waste disposal.

4. Disaster Risk Mitigation measures: as per NDMA guidelines (refer **Chapter 6**)

5. Tourism: locations for promotion (even if seasonal) and proposed circuits including strategies to promote *green mobility* (walking, cycling, public transport) for tourism.

6. New and Modified Policies:

- Alignment with State Policies for Environmental, Land Utilisation Policy etc.
- Plan for Slum free City
- Rationalization of Floor Area Ratio (FAR) for villages/ transitional towns
- Policy on Tribal Settlements
- Proposals for MSME clusters or recommendations for separate studies
- Policy and action plan for decentralisation/ dispersal of hazardous and polluting industries and allocation of suitable land for industries clusters
- Policy and priorities for informal residential areas/ slums and unauthorised colonies.
- Other Issues that need New Policies, Incentives and disincentives.

Implementation Plan

- Implementation strategies for the region for land and resource mobilisation
- Co-ordination of local bodies and authorities and integrated management structure for the region
- Estimation of the Fiscal requirement phase-wise and source of fund. Specifying projects to be taken up under PPP

- Capacity building for manpower and preparation of its work plan as per State policy
- Priorities of the developmental projects and further detailing of plans
- Framework of monitoring and its mechanism

2.2.3. Contents of Development Plan

This part recommends the contents of Development Plan document, which would include the written document as well as the map showing the spatial plan and other supporting charts and diagrams. Major heads and sub-heads to serve as a guide for formulation of development plan of an urban centre are given below.

Contents of Development Plan should be formulated in accordance with statutory provisions of the relevant Act. With the view of saving time and also developing a participatory system of planning, necessary information from secondary sources should be utilised, as far as practicable and primary surveys should be conducted only when it is unavoidable. Conceived within the framework of the perspective plan and adjusted as per the Regional District Plan, a Developmental Plan is to be prepared for a period of 20-30 years. While preparing Development Plan, special attention must be paid on safety, security and participation of women, the elderly, and other segments of society requiring special needs.

The Development plan should contain the following major heads:

1. Existing Conditions and Development Issues
2. Assessment of Deficiencies and Projected Requirements
3. Vision and Mission
4. Development Proposals
5. Implementation Plan

The details of each of the major sub-heads of Developmental Plan are given in the following sections:

2.2.3.1. Analysis of Existing Scenario and Development Issues

1. Background:

- Location, regional setting and connectivity
- Brief history of development of the town
- City influence and its characteristics including settlement pattern, rural-urban relationship and fringe area developments
- Physical setting – Topography, Climate, Soil (profile and condition), Geology & Geomorphology, Litho-logy, Neo-Tectonics, Micro-Seismic zones and Hydrology, Sub-surface aquifer systems

2. Demographic Profile:

- Existing population and distribution
- Population growth and its composition of

Natural growth

Migration pattern/

Jurisdictional changes

- Floating population
- Age-sex composition and literacy rate (trend analysis)
- Workforce participation
- Population density (net and gross)
- Household characteristics - Household sizes

3. Land Profile:

- Jurisdiction changes and efforts of planned development
- Existing landuse map with revenue level details (map scale as per **Table 7.7**)
- Developable and non-developable area
- Peri-urban areas and urban villages, if any
- Existing zoning and development within zoned area (including inner city area)
- Built floor space, floor space permitted
- Particulars including - Vending zones, Heritage (sites, buildings and areas)
- Land development and management (Central & State Government land)

4. Economic Profile:

- Primary:

Agriculture, horticulture & forestry

Sericulture and/or Fishing

Mining & quarrying

- Secondary:

Manufacturing – large, medium and clusters of MSME

Household industries

Construction

- Tertiary:

Trade (whole sale / retail trade)

Tourism, Hotels and Restaurants

Transport, Storage and Communication

Financial services such as Banking, Insurance etc.

Real estate and Business services

Public Administration

Others services

Informal sector as informal trade, commerce.

- Work-force & Occupational pattern (Employment data to be analysed gender wise & age wise)
- Employment generation / Major work areas

5. Infrastructure Profile:

Transportation:

- Mode of transportation - by road, rail, air, water as the case may be.
- Network of roads, railways, waterways and their interrelationship with major activity nodes
- Transport Corridors & Terminals.
- Trans-intra city transportation facility
- Pedestrian and bicycle
- Network of city-level non-motorized routes and zones
- Goods movement system
- Transportation land use integration
- Parking
- Signage and way findings

Facilities like:

- Education: schools, technical institutes, universities,
- Health care: Dispensary, health centres, hospitals
- Recreational spaces, Parks and Open spaces

- Religious spaces
- Socio-cultural facilities

Physical Infrastructure: (benchmarks)

- Water supply: network, existing demand and supply scenario, water transmission, reservoirs and distribution, rainwater harvesting
- Energy: existing demand and supply scenario, transmission and distribution network, renewable energy
- Drainage, Sanitation and Solid waste disposal: existing demand and supply scenario, generation and collection system, transportation, treatment, re-cycling and re-use of waste
- Transport and Communication
- Police protection, Fire protection
- Cremation and graveyards
- Disaster management centre

6. Environmental Profile

- Eco-sensitive zone - Protected or restricted areas such as National parks and Wildlife sanctuaries and eco-sensitive buffers around it
- River, Water bodies and wetlands
- Coastal/ Hill zone, if any
- Green & Forest cover
- Pollution levels - air, water, noise, soil pollution
- Disaster Management
 - Hazard prone zones such as earthquake, floods/flash floods, high winds, cyclone, fire, land slide, tsunami
 - Disaster mapping - vulnerability and risk assessment of the region
- All environmentally sensitive areas

7. Shelter (both formal and informal)

- Housing scenario
- Housing stock & supply
- Mapping of slums, squatter settlements/JJ clusters, other informal settlements
- Housing supply mechanism,
- Housing need assessment including typologies
 - Low cost housing
 - Affordable Housing
 - Rental Housing
 - Night shelters
 - Public housing
 - Slum settlements
 - Squatter settlement

8. Administrative profile:

- Legal framework
- Institutional framework & manpower
- Fiscal: Sources of revenue, streams of expenditure – existing and required
- Major policy issues
- Key issues in governance
- Grievance Redress
- City level reforms

9. Maps & Plans:

- Existing landuse / utilisation plan
- Historical city growth map
- Infrastructure maps
- Environmentally sensitive zones map

- Disaster maps

10. Gap analysis:

- Based on the existing conditions and the projected requirements of the planning area, a gap analysis is suggested to be done and issues be identified.

2.2.3.2. Projected Requirements

Assessment of projected requirements should be for a period of twenty to thirty years and it should further be classified under periods of 5 year in line with State five-year plans. Such classification would help in preparation of annual plans and budget.

1. Population

- Projected population: should be guided by environmental and infrastructure (especially drinking water) sustainability and holding capacity of the city. Dispersal of economic activity may also guide population projection
- Floating population, age sex composition, literacy

2. Economic base and employment

- Hierarchy of commercial areas, dispersal of commercial activity and related activities
- Dispersal of industries, environmental restriction on industrial development
- Urban poverty and its alleviation.
- Work force, employment in different sectors of economy: formal and informal sectors
- Proposed hierarchy of trade and commerce area

3. Shelter

- Informal sector housing, slum up-gradation and resettlement strategy
- Housing need and requirement

4. Transportation

- Green mobility strategy with multimodal integration strategy
- Mass transportation system and its integration with activity nodes/facility centres and land use pattern
- Proposed network of city-level non-motorized routes and zones
- Travel demand forecast, Road length, Hierarchy of roads, Transport terminals
- Projection of parking requirements
- Need for Airport, seaport (as the case may be)

5. Social Infrastructure

- Education: pre-schools, schools, technical institutes, universities
- Health care: Dispensary, health centres, hospitals
- Recreational: Parks and open spaces, theme based parks
- Religious
- Socio-cultural: museum, cultural centres
- Cremation/ Burial grounds

6. Physical Infrastructure

- Water: projected water demand, water treatment plant
- Sewerage: estimation of generation and treatment capacity
- Power demand and supply gap with options for transition to renewable energy and Smart Grid electricity
- Drainage: estimation in case of change in jurisdiction, developable area or major change in land use share
- Gap assessment & projection of other utilities

7. Land use requirement for

- Residential areas
- Commercial areas
- Manufacturing area

Plan Formulation

- Public and semi-public
- Parks, Playgrounds and Open Spaces
- Transport and Communication
- Special areas
- Agriculture
- Water-bodies

8. **Assessment of Disaster management infrastructure** to meet the requirement of prescribed in the District Disaster Management Plan

2.2.3.3. Development of Vision

The plan, at this stage is to formulate Vision based on existing conditions and development issues and stakeholder consultation. Goals and objectives related to dispersal of activities, environmental and infrastructure sustainability, mass transportation and informal activities, Information and Communication Technology, women and poorer sections to be incorporated if not already included.

It should consist of the guiding planning principles for the plan formulation. Like whether the city development strategy is for Compact city/ Green city/ Dense cities. Also, if it is a Tourist city, Heritage city, Educational hub, Industrial city etc.

2.2.3.4. Development Proposals

The proposal sub heads are enlisted as:

1. **Land use Plan:**

- Hierarchy: Concept of hierarchy of planning units and spatial development of various activity nodes, facility centres and network of roads
- Proposed land use plan (scale of the plan as per **Table 7.7**)
- Zoning regulations for proposed land use categories (refer **Chapter 9** for details for the land use classification) including:

Residential areas

Commercial areas

Manufacturing area

Public and semi-public

Parks, Playgrounds and Open Spaces

Transport and Communication

Special areas

Old built-up (core) area

Heritage and conservation areas

Scenic value areas

Disaster prone areas / Eco-sensitive area

Primary activities

Water-bodies

2. **Comprehensive Mobility Plan:**

- Mass transportation system and land uses interfaces.
- TOD development with priority for NMV around nodes
- Integration of proposed Comprehensive Mobility Plan

3. Infrastructure Plan/ Utility Plan:

- Layout of plan of trunk infrastructure of each infrastructure and utility at the scale of the proposed land use plan

4. Special Area Planning:

- Plan for Renewal and redevelopment areas or recommendation for the further detailing of Urban Redevelopment Plan for the earmarked area
- Provisions for Heritage and conservation areas
- Regulations for the Hazard zone and protected areas
- Proposals for development of women and vulnerable population

5. Development Promotion Rules / regulations

To regulate and develop landuse as mooted under the Development Plan, development promotion rules / regulations should be mentioned in this section.

6. Annexures:

- Detailed scaled maps of prevailing situation
- Detailed scaled maps of existing Land use
- Detailed scaled maps of proposed Land use
- Detailed scaled maps of proposed infrastructure plans and social services
- Detailed scaled maps of proposed Special purpose plans

2.2.3.5. Implementation Plan

Following inputs from preceding stages and prevailing Statutes, a seamless plan implementation schedule must be prepared for Development Plan. It should contain roles and responsibilities of all stakeholders, resource mobilisation framework and phase-wise implementation schedule for planned project activities. The key aspects to be covered in the Implementation framework should be in line with aims, objectives and prioritised projects and schemes. Implementation framework may include the following:

- Priorities of projects and research
- Phasing of developmental activities
- Proposal for land resource mobilisation
- Investment Strategy and Promotion
- Institutional set-up

1. Priorities: Classify various projects identified as a part of development proposals by priority as under

- Essentials (top priority)
- Necessary (2nd priority)
- Acceptable and desirable (3rd priority)
- Deferrable (4th priority)

Projects and research should be identified by phases and implementing agencies (including private and corporate sectors) to be given as per the institutional set-up.

2. Phasing: Development Plan should advisably be in phases of 5 years to coincide with the State Five Year Plans. The targets set for each phase can be assessed as the mid-term review against the achievements at the end of each phase. For Greenfield area phasing could include a 'Zero' period for approvals, institutional set-up, initial land pooling and revisiting any strategy.

3. Proposal for land resource mobilisation: Implementation mechanism detailing approaches for land polling and development in lines with the suggested mechanism in the State Perspective Plan

4. Investment Strategy: Proposals for fiscal resource mobilisation including:

- Internal revenue
 - Grants & Aids
 - Institutional finance
 - Market borrowing
 - Private sector finance
5. **Institutional Set-up** to clearly provide Stakeholders' role and responsibility and organisation chart.

2.2.4. Contents of Local Area Plan

Once the Development plan is prepared, its proposals can be further implemented by preparing Local Area Plan. This plan can be either Zonal Development Plan or Local Area Scheme and these can have the following contents:

2.2.4.1. Contents of Zonal Development Plan

1. Introduction

- A brief introduction to the city comprising its regional setting, functional character growth trends.
- Development plan / Master Plan context
- Interdependence of Zones on other parts of the city

2. Site Background & Analysis

- Land use distribution and analysis
- Population and density
- Built-up area, character, extent and delineation
- Transportation: Circulation network, traffic flow (people and goods) and terminal facilities
- Physical and social infrastructure
- Land ownership
- Slope analysis
- Micro-zoning hazard mapping
- Green cover: parks/open spaces, forest, orchards, green belts, etc.
- Site potentials and constraints
- Security mapping: specifying relatively safe and unsafe areas, streets etc.
- Types of housing subsystems: low cost housing, affordable housing

3. Conceptual Framework

- Planning parameter
- Planning concept & hierarchy till community level
- Projected requirements
- Urban design framework

4. Proposals and development strategy

- Land use plan (scale of plan as per **Table 7.7**)
- Proposed circulation system
- Proposals for physical infrastructure
- Proposals for community facilities
- Strategy for new development, redevelopment and improvement
- Proposal for integrating and developing urban villages
- Proposals for informal sector
- Strategy for rehabilitation/regularization of unauthorized colonies
- Strategy for maintenance of services
- Provision for facilitating physically challenged and disabled in urban development

- Proposals regarding vending zones: Transit-oriented markets and market streets can be pedestrianized or only NMVs and buses be permitted in vending zones.
- 5. Conservation and Improvement of Environment**
- Conservation and Improvement of land profile
 - Proposals for conservation and improvement of rivers streams, water-sheds.
 - Conservation and Improvement of green cover and landscape
 - Conservation of heritage areas/zones
 - Energy-efficient and environmentally sustainable development
 - Provision for rainwater harvesting & common infrastructure at LAP level
 - Integration of proposals regarding air water and noise pollution control
 - Security mapping: Focusing on provision of appropriate street furniture including lighting, spacing of police booths. Consideration is recommended for providing security for women
- 6. Compliance of Government Policies**
- State Land Utilisation Policy
 - State Perspective Plan and/or State Urbanisation Policy
 - State Urban Housing or Affordable Policy
 - Township and Integrated Township Policy
 - Rainwater Harvesting Policy
 - Energy Policy
 - Disaster Management Policy
 - Industrial and Service Sector Investment Policy
 - Barrier-free Environment for Physically Disabled
 - Information Technology Policy
 - Tourism Policy
 - Other Policies
- 7. Zoning Regulations**
- Definitions of various use zone premises
 - Use restrictions (uses permitted, conditionally permitted and uses prohibited)
 - Proposal for mixed land uses
 - Strategy for non-conforming land uses
 - Strategy for hazard zone and regulations
 - Proposals for meeting women's needs: mixed use development with focus on street activities/TOD/ space for street vendors/encourage areas to be active at various times of day and night
- 8. Development Regulations**
- Building regulations and building bye-laws
 - Urban Design of major hubs, if required
 - Architectural Control, if necessary
 - Specific development controls for heritage areas and other special areas traditional areas as defined by the local authorities if any may be provided
- 9. Resource Mobilization and Implementation**
- Institutional set-up for Implementation
 - Physical Infrastructure development cost including annual and 5 year phasing
 - Resource Mobilization for implementation through public private and other sectors
- 10. Implementation framework**
- Phasing and prioritization of development
 - Development Management
- 11. Annexures:**
- Detailed scaled maps of prevailing situation
 - Detailed scaled maps of existing Land use
 - Detailed scaled maps of proposed Land use
 - Detailed scaled maps of proposed location of infrastructure and social services

Plan Formulation

- Detailed scaled maps of vending zones in the planned local area
- Any other proposal necessary for the development of the zone or ward or area.

2.2.4.2. Specific Contents of Urban Redevelopment/Renewal Plan

Urban redevelopment or renewal plans have following distinct contents, apart from the local area plans' contents as provided in the preceding section:

- 1. Development gaps & projected requirements**
- 2. City Revitalisation Strategy**
- 3. Development proposals:** Typology of the urban development– transportation, infrastructure, congestion areas revitalisation, heritage resources, utilisation of Government properties
- 4. Restructuring of Institutional set-up**, if required
- 5. Annexure**
- 6. Local Area Plan (Ward Plans)** shall be aggregated at the Zonal Development Plan Level coterminous with the Administrative Divisions/Boundaries and Zonal Development Plans shall be aggregated at the Development plan level.

2.2.5. Contents of Specific Purpose Plan (e.g. City Development Plans formulated for accessing funds under JNNURM)

A specific purpose plans should draw upon and align with the objectives of the programmes etc. under which it is to be drawn. The CDP under JnNURM offers an example. The objectives of JnNURM was developing physical infrastructure for achieving MDGs and realising full potential of cities and making them engine of growth of the economy. Mission had objectives focusing on integrated development of infrastructure, ensuring adequate funds, promoting urban reforms, provision of basic services to the poor etc. Preparing CDP is a key strategy to achieving objectives of the Mission. Developmental Plan provides comprehensive proposals for socio-economic and spatial development of urban centre but increasing population and spatial extent of the cities has raised the need for urban planning. As a result various special purpose plans have come up to fill the gap and to cater the specialised planning needs of different aspects of city.¹¹

2.2.5.1. Contents of City Development Plan (may be renamed as City Investment Plan)

CDP is the perspective and vision document, which gives existing condition of the city, sets out direction of change through vision, provides thrust areas and strategies, and investment framework to follow for successful implementation of plan.¹² It is suggested that the terminology of 'City Development Plan' be renamed as 'City Investment Plan' to avoid confusion as in many states statutory plans are named as Development Plan.

1. Introduction

¹¹JnNURM: Formulation of CDP, JnNURM: Overview.

¹²Ibid.

- Background
 - Concepts and principles of City Development Plan
- 2. City Profile**
- Location
 - Geography
 - Profile of city
- 3. City vision and development of goals and strategies**
- Approach and Vision and mission statement
 - Development of goals and strategies
- 4. Demographic Profile**
- Demographic trends
 - Spatial spread and Population density
 - Composition of population growth
 - Natural
 - Migration pattern
 - Jurisdictional changes
 - Literacy rate and Gender ratio
 - Social composition and Income distribution
 - Population projection
- 5. Land Management and Urban Growth**
- Existing city assessment
 - Morphological development of city
 - Existing land use
 - Unauthorized & unorganized colonies
 - Urban villages
 - Industrial development
 - Ecologically sensitive areas
 - Land development and management
 - Efforts of planned development
- 6. Inner city**
- Inner city area
 - Problems of inner city
- 7. Economic Profile**
- Economic profile
 - Primary sector
 - Secondary sector
 - Tertiary sector
 - Formal and informal sector
 - Workforce participation
 - Occupational distribution and structure
 - GDP and per capita income
 - Directions of growth
- 8. Financial Profile**
- Review of the existing fiscal and financial status
 - Status of current assets and liabilities
 - Overview of finances of local authority and departments
 - Inter government transfer in the finances in local authority
 - Sources of revenue and expenditure stream
- 9. Infrastructure**
- Physical infrastructure

Plan Formulation

- City water supply system
- Sewerage system
- Storm water drainage
- Road network and transport system
- Solid waste management
- Electricity
- Social Infrastructure
 - Education
 - Health facilities
 - Other amenities
 - Recreational spaces

10. Environment Profile

- Water quality
- Air quality
- Noise pollution
- Land pollution

11. Disaster Management

- Existing situation
- Disaster prevention and management plan
- Investment estimates
- Training and other programs
- Information management system
- Implementation plan

12. Urban Poor and Slum

- Poverty profile
- Socio-economic profile of poor
- Poverty alleviation programmes
- Slums / JJ clusters
- Squatter settlements/JJ clusters
- Slum development policies & strategies
- Issues of slums/JJ clusters

13. Conservation and Heritage Management

- Inventory of heritage resources
- Legal framework

14. Governance and Institutional Arrangement

- Legal framework
- Institutional framework
- Key issues in governance
- Grievance Redress
- City level reforms

15. Community Consultation

- City stakeholders profile

Women

People employed in informal sector

Youths

Senior Citizens

RWAs

NGOs etcetera

- Sector wise viewpoint of communities
- Stakeholders workshop

16. SWOT Analysis

17. Investment Framework

- Sector wise investment options
- Summary of costs

18. City Investment Plan

A CIP provides an estimate of the level of investment that will be needed to implement the CDP. It is an estimate and provides an order of investment, arrived at by using financial norms or standards for service provision and up-gradation or directly estimating the cost of implementing a reform agenda. A linked aspect is to consider options and strategies for financing the vision as contained in the CDP. These may cover:

- Water supply
- Sewerage system
- Road network & Transportation system
- Storm water drainage system
- Solid waste management
- Heritage conservation and management
- Urban environment
- Urban governance
- Other development projects
- Urban slums and poor
- Summary of project investment plan

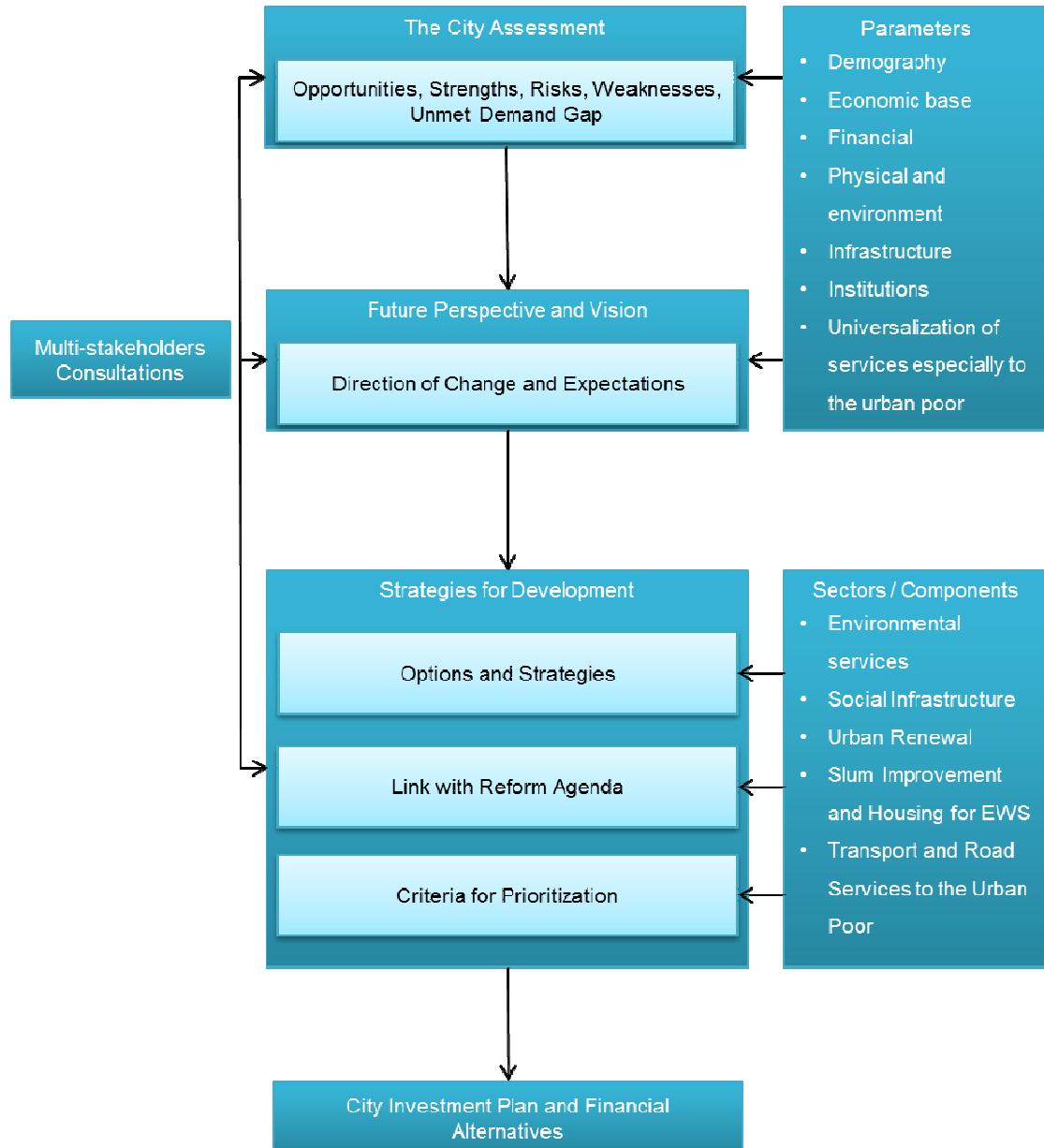
Financing options of the local body could be sourced from its own resources, Central/ State Government grants and loans, market borrowings, capital market, FDI, PPP etc.

19. Institutional Reforms

- Review of issues in governance
- Measures for good governance
- Institutional reforms
- Municipal accounting
- e-Governance
- Poverty reduction
- Other reforms

Plan Formulation

Figure 2.5: Process of Preparing City Development Plan



Source: *JnNURM CDP Toolkit*

2.2.5.2. Contents of Comprehensive Mobility Plan¹³

Increasing population of urban centres has resulted in traffic problems. CMP is the key document providing rationale for the transportation proposals under JnNURM. It draws its rationale and base from CDP, Master Plan and Comprehensive Traffic and Transport Studies (CTTS). It provides the long-term vision of mobility patterns and focuses on integration of land use and transport and improvement of the mobility and accessibility of people and facilities. CMP reviews the future landuse patterns in the

¹³Guidelines and Toolkit for Urban Transport Development.

Master Plan from the mobility optimization point of view and selects a preferred pattern of landuse-transport integration if necessary.¹⁴

1. Existing situation

- Introduction
 - Objective of the CMP
 - Scope of the CMP
- City Profile
 - General background
 - Socio-economic profile
 - Legal framework and standards
 - Institutional and financial situation
 - Environmental and social conditions
- Review of Land Use System
 - Existing reports and documents
 - Landuse patterns and development trends
 - Landuse development policies and strategies
 - Identification of issues
- Existing Transport Systems
 - Existing studies, reports and proposals
 - Existing Road Network and existing transportation infrastructure
 - Public transport systems
 - Urban goods movement
 - Traffic safety and enforcement
 - Other relevant issues
- Analysis of Existing Traffic Pattern /Transport Situation
 - Traffic surveys including Traffic Volume, Origin Destination, Traffic Movement, etc. (refer **Chapter 8** for details)
 - Analysis of travel characteristics
 - Analysis of vehicular traffic and bottlenecks
 - Analysis of social consideration
 - Development of base-year transport demand model
 - Identification of Issues
 - Comparative analysis of urban transport environment

2. Development of urban landuse and transport strategy

- Development of Visions and Goals
 - Vision statement
 - Urban transport development strategies
 - Goals setting
- Development of Alternative Urban Growth Scenarios
 - Urban growth scenarios in the master plan
 - Development of urban growth scenarios& evaluation
- Future Transport Network Scenarios
 - Road network scenarios
 - Public transport development split scenarios
- Development of Urban Land Use and Transport Strategy
 - Evaluation of urban growth and transport network scenarios

¹⁴*Comprehensive Mobility Plans: Preparation Toolkit; Guidelines and Toolkits for Urban Transport development in Medium Sized Cities in India.*

3. Plans and projects

- Public Transport Improvement Plan
 - Bus service improvement plan
 - MRT development plans, if required
 - Trunk and feeder public transport network
 - ITS application
- Road Network Development Plan
 - Hierarchical road network
 - Arterial road construction/improvement
 - Secondary road construction/improvement
 - Intersections and flyovers
 - Railway crossing and underpass
- NMV Facility Improvement Plan
 - Strategy for NMT facility improvement
 - Pedestrian facility improvement
 - NMV facility improvement (bicycles, rickshaws)
- Intermodal Facilities
 - Bus terminals
 - Bus-Rail interchange
 - Park and ride facilities
 - Freight terminals
- Regulatory and Institutional Measures
 - Unified Metropolitan Transport Authority and Traffic and Transportation cell for small and medium size towns
 - Traffic impact assessment mechanism
 - Regulatory changes required for the introduction of TDM measures
 - Traffic safety regulations
 - Parking regulations
- Fiscal Measures
 - Fare policy for public transportation and parking
 - Subsidy policy for public transport operators
 - Taxation on private vehicles and public transport vehicles
 - Potential for road congestion charging
- Mobility Improvement Measures and National Urban Transportation Policy Objectives
 - Introduction
 - Summary of NUTP objectives and the proposed measures
- Social and environmental considerations

4. Implementation programs

Implementation program should provide detailed process of implementing the proposal along with time frame, financing options and implementing agencies for each project.

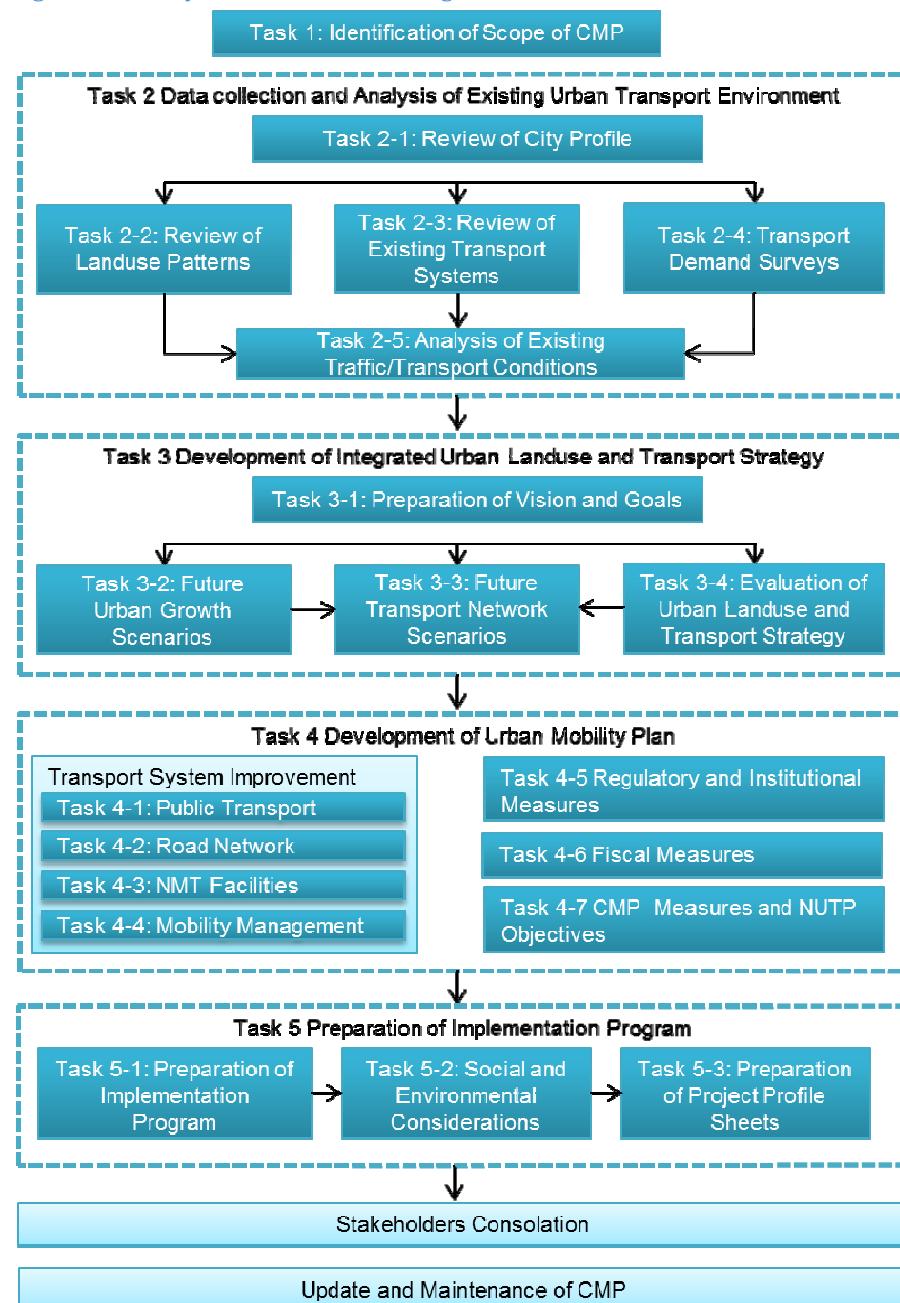
- Implementation Programs
 - List of mobility improvement projects and measures – list to be prepared by reviewing all the existing and on-going projects along with very brief summary of each.
 - Selection of priority projects/measures – while considering timeframe of measures, a selection process should be developed to screen prime candidates based on their importance and constraints to implementation.
 - Implementation agencies/organizations – for each project implementing agency / organisation should be identified and considering existing implementation capacity, new agencies could be proposed.

- Financing options – financing options could be from Local Government, Central Government, private sector financing (or PPP) and international development partners (donor agencies). In addition, the financial share of the local body should also be clarified.
- Implementation programs – followed by above examinations the implementation program should be summarized. An implementation program can be prepared based on time frame of each project, which will indicate a realistic schedule for implementing all recommended projects and measures.

5. Annexures

- Survey data
- Details of traffic demand modelling
- Proposal Plans
- Project profile sheets

Figure 2.6: City Mobilisation Planning Process



Source: Guidelines and Toolkit for Urban Transport Development

2.2.5.3. Contents of City Sanitation Plan¹⁵

Unprecedented growth of urban population in India has resulted in several infrastructural issues. Sanitation infrastructure is important to keep cities healthy and liveable. The National Urban Sanitation Policy (NUSP) was prepared with the vision of making all Indian cities totally sanitized, healthy and liveable for all citizens especially the urban poor. The CSP is a vision document on sanitation with 20 to 25 years horizon with short term town level action plans for 3-5 years to achieve sanitation goals. CSP provides for the preparation of City Sanitation Task Force, stakeholder mapping, situation analysis, current deficiency assessment, prioritising of areas, institutional capacity and financial mapping.¹⁶ The key contents of CSP are listed as under:

1. Introduction

- Background
- Objectives of City-Wide Sanitation Plan
- City Sanitation Planning: Process, detailed steps and limitations
- Activity Update on CSP
- Verification of MoUD checklist

2. Profile of the City

- Introduction
- Location and regional linkages
- Climate
- Topography
- Brief History
- Regional Importance
- Economy
- Demography
 - Population projections
 - Population density
 - Sex-Ratio
 - Literacy
 - Ward wise population distribution and growth potential
- Housing Scenario-Ownership Status
- Slums and squatter settlements
- Existing Landuse
- Municipal Governance

3. Environmental Sanitation – An Assessment

- Sanitation Situation Analysis
 - Introduction
 - Household sanitation
 - Slum sanitation
 - Open defecation areas
 - Community toilets
 - Public toilets

¹⁵Manual on Preparing CSP

¹⁶National Urban Sanitation Policy.

- School sanitation
- Wastewater treatment infrastructure
- Septage management
- Service level benchmarking indicators
- Wastewater projections
- Storm Water Drainage System
 - Introduction
 - Existing drainage network
 - Coverage
 - Outfalls
 - Existing drainage conditions
 - Local flooding areas/ low lying areas
 - Storm water drainage – peak run-off calculations
 - Standardized service level indicators
- Solid Waste Management
 - Primary collection and coverage
 - Street sweeping
 - Waste generation & segregation - quantity and characteristics
 - Secondary collection
 - Transportation
 - Treatment & disposal
 - Institutional setup & Health of sanitary workers
 - Operation & Maintenance (O&M)
 - Service level benchmarking indicators
 - Future demand and gap
- Water Supply
 - Source of water
 - Existing transmission, distribution and storage capacities
 - Service coverage
 - Standardized service level indicators
 - Future demand and gap

4. Institutional Capacity and Finance:

- Existing institutional framework:
 - Details of existing State laws related to slums applicable to the city
 - Institutions engaged in slum improvement i.e. Slum Clearance Board, ULBs, District Urban Development Agency (DUDA), State Urban Development Agency (SUDA), Housing Boards, Development Authorities, District Collectorate, NGO, CDS / Neighbourhood society's, assessment of organizational capacities.
 - Community participation arrangements (Identification of city level Lead NGOs) and the existing community mobilization and development structure
- Financial Capacity Assessment of Local Body

5. Sanitation Situation with respect to National Ranking Parameter

- Sanitation situation with respect to national sanitation ranking parameters: To promote sanitation in Indian cities, National Rating and Award Scheme for Sanitation for Indian cities, was implemented under National Urban Sanitation Policy by MoUD. Cities are rated based on set of objective indicators of outputs, processes and outcomes.

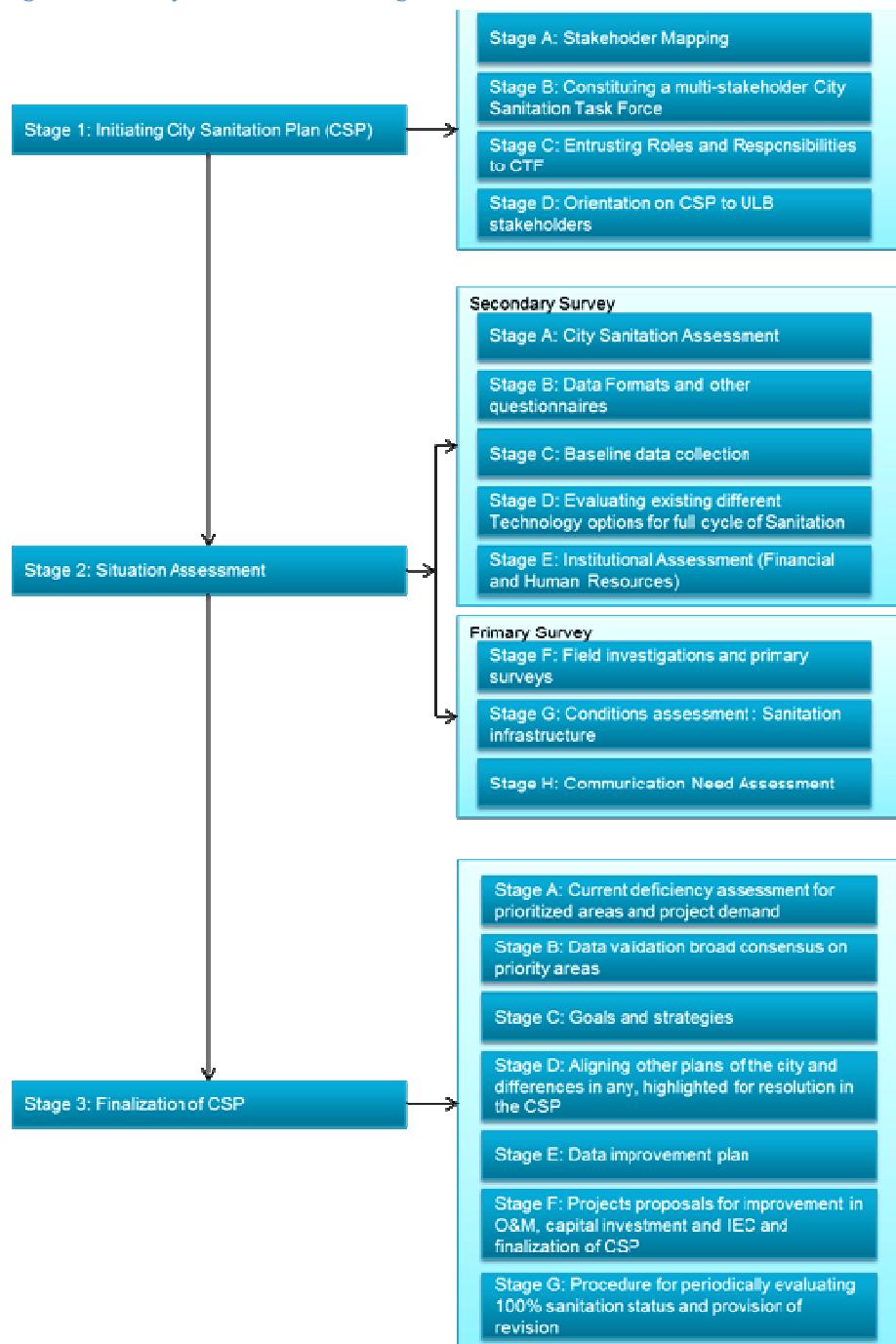
6. City-Wide Sanitation

- Introduction

Plan Formulation

- Vision and City- Wide Sanitation Planning
 - Vision statement
 - Principles of CSP
 - Assumptions, norms and units costs
 - Various occurrences of issues versus consequences
- Sub-sector Strategies
 - Open defecation free status by ensuring access to all (including poor and slum dwellers as well as visiting population)
 - Excreta disposal and waste water management
 - Improvement of integrated solid waste management
 - Improvement of storm water management
- Enabling and Sustaining strategies
 - Awareness raising, hygiene promotion and community participation
 - Institutional arrangement and responsibility
- Monitoring and Evaluation
 - Monitoring and review
 - Launching reward scheme
 - Incentives and dis-incentives

Figure 2.7: City Sanitation Planning Process



Source: CSP Manual – NUSP.

2.2.5.4. Contents of Slum Redevelopment Plan¹⁷

In pursuance of Government of India's vision for "Slum Free India", Rajiv Awas Yojana was launched in 2011 under which Slum Redevelopment Plan is prepared. RAY envisages two-step implementation strategy i.e. preparation of Slum free City Plan of Action (SFCPoA) and preparation of projects for selected slum. RAY provides financial

¹⁷ Rajiv Awas Yojana Guidelines.

support to States/UTs/Urban Local Bodies (ULBs)/Central Government Agencies for providing housing and improvement of basic civic infrastructure and social amenities in each selected slums.

- Preparation for SFCPoA (Slum Free City Plan of Action)
 - Conducting Stakeholder Workshops and meetings to prepare the ground for beginning the processes and surveys required under SFCPoA.
 - Preparation of a City profile
 - Review of existing policies and programmes related to slum improvement and housing.

1. Curative strategy

- Assessment of present status of slums
 - Preparation of a municipal information base for all slums
 - Categorization of slums based on tenability analysis
 - Prioritization of tenable slums through priority matrix
 - Prioritization of untenable and semi-tenable slums
- Formulation of Slum Intervention Strategies
 - Detailed Analysis of all Prioritised Slums
 - Formulation of slum intervention strategies for all prioritised slums

2. Preventive strategy

- Estimating Urban Poor Housing Shortage & Identifying Supply and Demand constraints.
 - Estimating present and future housing shortage for the urban poor
 - Identification of supply and demand constraints in housing
- Identifying Supply and Demand Side Reforms and Framing Future Supply Strategy
 - Identifying policy reforms (Not applicable for smaller cities less than 3 lakh population included under RAY implementation phase)
 - Framing future supply strategy
 - Discussing and sharing findings with stakeholders guidelines for preparation for Slum Free City Plan of Action

Figure 2.8: Slum Free City Plan of Action Process



Source: RAY Guidelines SFCPoA.

3. Investment plan

- Framing Investment Requirements & Financing Plan
 - Estimation of Investment Requirements
 - Financial Planning for Implementation of Slum Improvement and Prevention Strategy
- Formulating a Credit Plan
 - Review of existing housing finance options for the urban poor
 - Review of the credit profile of urban poor

4. Finalisation of SFCPoA

- Framing Institutional Arrangements
 - Preparation of indicative implementation mode and definition of roles and responsibilities of institutions for implementation
- Finalization of Slum Free City Plan of Action

2.2.5.5. Disaster Management Plan (DMP)

The Disaster Management Plan is to be prepared on the lines of proposals made by National Disaster Management Authority. **Chapter 6** on 'Sustainability Guidelines' provides detailed contents for DMP at State and District level.

Other specific purpose plans - Tourism Master Plan and Heritage Conservation Plan to be prepared as required by the State Government and/or Local Authority for specific purposes, but within the framework of the Development Plan or Regional Plan (for the respective scale of preparation at city level or at district level).

2.2.6. Contents of Annual Plan

This section provides the contents of Annual plan prepared in the framework of an approved development plan by the local authority. It is an important document for the local authority as its aggregation at the district planning committee or metropolitan planning committee level will generate the district or metropolitan area annual plan which when further aggregated at State level will form its consolidated annual plan. The State annual plan would indicate the State and Central funds for different sectors, which finally will result in the allocation of funds to the local authorities. The annual plan of the local authority will also help in formulation of its annual budget and monitoring the performance annually.

As annual plan and budget are interlinked it is important that preceding annual plan be evaluated before the next financial year, so that the following plan will have inputs from previous plan and investments for new plan can be incorporated in budget. The contents of annual plan of a local authority, as given in the following sections, are applicable to all sizes of urban centres.

2.2.6.1. Review or Evaluation of Preceding Annual Plan

Review of last year's performance

The review of the performance of the preceding year should include both physical and fiscal achievements. It should cover all the components of the development plan as contained in the last year's annual plan and highlight for each component:

- The physical target set, such as expressway, trunk infrastructure lines
- The status at the end of the annual plan and the level of physical performance by percentage of targets achieved
- The fiscal allocations made vis-a-vis proposed
- The money spent and level of fiscal performance by percentage of money spent

The review should also present an analysis of performance component wise, highlighting:

- Areas where the local authority had a very high degree of performance.

- Areas where the local authority had a very low degree of performance and reasons for such performance as well as the ways and means to correct the course of action.
- A further analysis of the performance by source of funds should also be presented. It should include physical and fiscal performance of the projects implemented through funds from:
 - Central assistance
 - Central and state assistance
 - State assistance
 - National funding agencies
 - International assistance or funding agencies
 - Local authority resources
 - PPP
 - Private sector funds
- Finally, specify the areas/ actions that require attention with particular reference to:
 - Finance
 - Capacity and skill up-gradation
 - Administrative and legal issues
 - Changes in policies, programmes or priorities

Mechanisms of review of Annual Plans Performance:

- Preparation of a pert chart in each annual plan, which shall be reviewed in the next year to rate the performance.
- The physical and fiscal performance to be assessed on the target achieved on quarterly or at least half yearly basis. This will ensure distribution of development and activities throughout the year and not at the end of the annual period.
- Key performance indicators (KPI) to be proposed in the Annual plan for its evaluation in the following year. This will ensure the quality and will be application specific.
- It is suggested to consider disasters, hazards and Act of God, if any, while reviewing the annual plan performance

2.2.6.2. The Annual Plan

Brief Introduction:

A brief introduction of the urban centre as indicated in its Development Plan. The objective in writing this introduction is to make the annual plan self-contained and its section should be as brief as possible.

Aims and Objectives:

Taking the review of the previous year's annual plan and the proposals of the development plan into account, annual plan id prepared. This plan should provide:

- Aims and objectives of development during the year
- Priorities

Fiscal requirements and physical targets:

Such a plan should provide implementation of each component of the plan:

- The funds required; and
- The physical targets to be achieved during the year

Fiscal resource mobilisation plan:

Plan Formulation

The resource mobilisation plan should present the manner of mobilisation of resource required for implementation of the annual plan, specifying the funds proposed to be mobilised through:

- Local authority resources
- PPP
- Institutional financing
- Market borrowing
- Private sector funds
- State assistance
- Central-state assistance
- Central assistance

Land assembly:

Estimate the total land required by the development components and present the manner of assembly of land by the local authority including assembly.

Capacity building and skill up-gradation

This section should incorporate-

- Appointment of staff, both technical and administrative
- Training of staff
- Strengthening of the urban planning department
- Consultancy practice

Other Proposals:

Depending upon the specific needs and local area requirements provide other proposals also.

2.2.7. Contents of Projects /Schemes

The following is the recommended list of contents of plans of projects for execution on site. Depending upon the local requirements of the approving or funding agency, these may be modified. These contents are applicable to all plans of projects for all size of settlements.

Location

- Location and other physical characteristics of the site if it is already available
- Identification of possible sites, if not already available, and :
 - Evaluation of alternative location;
 - Selection of preferred location; and
 - Physical characteristics of the preferred site.

Site Planning

- Aims and objectives and schedule of area requirements as per provision of the development plan.
- Alternative concepts of layout, their evaluation and selection of a preferred concept.
- Layout based upon the preferred concept.
- Planning and design of infrastructure (water supply, sewage, drainage, electricity, road network and other infrastructures).

Detailed drawings

In case of further contracting of projects - detailed drawings shall be provided for estimating cost, working drawing for design and procurements purposes.

Environment Impact Assessment

As per the Guidelines issued by MoEF, Environment Impact Assessment of the project may be undertaken as an independent exercise.

Spatial Impact Assessment

In case of large project, a spatial assessment of the project may be undertaken, if necessary.

Assessment should include:

- Impact of the project on additional demand for housing with specific reference to EWS & LIG sections of the society who would squat near the project site if no proper care is taken in this context
- Impact on the direction of the growth of the settlement
- Impact on the commercial and other ancillary industrial activities
- Impact on resettlement of the population due to compulsory land acquisition
- Impact on city level infrastructure specially- roads, bridges, transportation system, water supply, sewerage treatment plant, electricity generation and supply
- Impact on city level facilities

Financing Plan

- Cost recovery strategy
- Financing terms
- Financing plan
 - Sources of finance
 - Proportion, form and nature of funds
 - Proportion, forms and nature of financing by various participating agencies and local authority
 - Interest rates and terms for borrowed funds
 - Cash flow and repayment schedule

Project Administration and Organisation

- Project administration agency
- Major administrative requirements
 - Advertisement
 - Processing of application
 - Collection of dues
 - System of allotment of plots/units
 - Supervision
 - Monitoring
 - General management
- Requirement of manpower
- Executing agency

Legal Support / Constraints (if any)

- Land assembly laws.
- Land tenure laws.
- Development promotion laws/regulations

These sections may not form part of the documents needed at the time of approval of private sector project by the local authority.

All plans to be formulated in accordance with statutory provisions of the relevant Act.

3 Resource Mobilization for Plan Implementation

3.1. Introduction

Land, finance and manpower are the three main resources for planning and development of urban and regional centres. As a basic principle, allocation of these resources among various competing land uses must be such that it helps in achieving an optimal level of economic efficiency with inclusion and equity¹⁸.

In case of spatial development and various development programmes, the government has been normally considered as the sole source for finance and ownership. However, in the recent years the role of private sector in the development process has been duly recognized. As a general policy on resource mobilization, it would be desirable to have a proper mix of public and private sectors participation, both playing a symbiotic role in such a way that the public infrastructure programmes are implemented with the strength of public authority and efficiency of the private entrepreneur. This should be the framework for PPP. The role of people is also being recognized, leading to development of the PPPP model.

This chapter focuses on the fiscal resource mobilization, land resource mobilization, good governance and manpower resources mobilization strategies for development. The local authorities, chief town planners, city commissioners could select the most appropriate model and combination depending upon the contextual possibilities.

3.2. Land

Land is the medium on which the entire superstructure of human settlement is created and under which a lot of infrastructure find their place. Planning for the use of land leads to socio-economic and physical development of urban and rural areas. However, it is a scarce commodity as its supply is limited and it cannot be mass created.

3.2.1. Land as a Resource

The (Draft) National Land Utilization Policy, 2013 states that land is required for development of essential infrastructure and for urbanization, while at the same time there is also a need to protect land under environmentally sensitive zones and land which provides ecosystem services. Farmers' livelihood options and food security issues make it imperative to protect land for agriculture. Further, the need to preserve natural, cultural and historical areas requires land protection. It is, therefore, most essential to ensure that utilization of the available land is judicious and in the best interest of the community through the instrument of Development Plans.

¹⁸Technology and capacity to handle the various resources can also be defined as a resource.

3.2.2. Land Economics

Land value depends on demand and supply of land. The value increases as the demand exceeds the supply, which is the general case, owing to limited supply of land against its growing demand in the wake of urban growth and development. The Right to Fair Compensation and Transparency in Land Acquisition, Rehabilitation and Resettlement Act, 2013(RFCLARR Act, 2013), defines “land” so as to include the benefits that arise out of land, and things attached to the earth or permanently fastened to anything attached to the earth¹⁹. The Act also requires that the market value of land be calculated as the minimum land value specified under the Indian Stamp Act, 1899 for the registration of sale deeds in the area, where the land is located, or the average of the sale price for similar type of land located in the immediate areas adjoining the land being acquired. It is to be ascertained from fifty per cent of the sale deeds registered during the preceding three years, where higher price has been paid. This approach is suggested for determining the market value of land for acquisition.

The Land Acquisition Act of 1894 was made mainly to facilitate the government to procure privately held land for the purpose of developing public infrastructure and also for companies. After 120 years, this Act was replaced by the RFCLARR Act, 2013. The Act has provided for fair compensation to those whose land is acquired permanently or temporarily, while bringing in enhanced transparency to the process of acquisition of land.

3.2.3. Land Assembly

Land assembly and development mechanism are undertaken for achieving optimum social use of urban land and to ensure adequate availability of land to public authority and individuals. Public Private Participation is achieved in land development through various techniques. Mainly, land assembly techniques prevent concentration of land in few hands and promote its efficient social and economic allocation. Some of the land assembly techniques also promote flexibility in land utilization in response to changes resulting from growing city. The various mechanisms to assemble and/or develop land are enlisted below:

- **Land Acquisition:** bulk land acquisition by State and by private initiatives.
- **Land Pooling:** land pooling approach and redistribution scheme, popularly known as Town Planning schemes.
- **Land Reservations:** the concept of Accommodation Reservation which allows the land owner to develop the sites reserved for an amenity.
- **Transferable Development Rights:** a technique of land development which separates the development potential of a land parcel for use elsewhere.

¹⁹ Appendix B of Volume II B provides definition for land and associated terms.

- **Guided Land Development:** this model uses the provision of infrastructure as an instrument to guide urban development in partnership with land-owners without pooling any land.

3.2.3.1. Land Acquisition

“Land Acquisition” popularly means the acquisition of land for defined public purpose by a government agency from individual land-owners, as authorized by the law, after paying a government-fixed compensation to cover losses incurred by land-owners from surrendering their land. The land acquisition process can be undertaken by the State or through private initiatives. As of now, most of the land acquisition is to be processed as per the RFCTLARR, 2013. Some models of land acquisition are as follows:

Bulk land acquisition method as a State Initiative: In this method, Master Plan is prepared for the entire area encompassing different land uses and involving various activities. Land is developed in accordance to the planning norms for various uses/activities. Bulk land is acquired from farmers by the development agency and compensation is paid to farmers/owners based on the provision of prevailing act.

Bulk land acquisition method with Private Initiative: To defray the cost of land acquisition some state governments and ULBs have developed models in which private sector acquire land by directly paying compensation to the affected families. A variety of models are in existence per which land is acquired for planned development with private partnership.

Haryana Guided Land Development Model: In this model, the private developer can acquire land directly from farmers at market price and at the same time, it permits a land owner to assume the role of a colonizer. This model provides fixed time period of 5 years to utilize that land acquired (initially 2 years, then extension of 3 years, if required) and the developer is expected to complete the projects within this period. Major highlights of this model are that the difficulties and delays in land acquisition are avoided and pressure on government to pay compensation is reduced, overall enhancing investments.

Ghaziabad Joint Venture Model: As per approach followed by Ghaziabad Development Authority (GDA), a joint venture (JV) is formed between the GDA and the builders/developers/co-operative societies through open bid (based on technical and financial capabilities). Twenty per cent of the plots developed are to be reserved for EWS/LIG and the costing and allotting of social facility by developer has to be done as per the government regulations. The balance of the land is to be sold by the developer at profit. For the entire process, the development authority acts only as a facilitator. Project duration is specified in the JV agreement and penalty is imposed if developer requires time extension, thus making sure that land is utilized within the stipulated time period.

Hyderabad Differential Compensation Models: In Hyderabad, the land acquisition technique has been modified into two different models, in which while acquiring land for public and private projects, different level of compensations are arrived at, these are-

Model I: When land is acquired for projects mainly for public purpose such as roads, power generation and distribution, irrigation, schools, welfare housing, environmental projects etc., appropriate compensation is paid to land-owners by consulting them.

Model II: When land is acquired for projects such as SEZ, Industrial Estates, Satellite townships and others where value addition enhances the land prices substantially, mainly for third party use, compensation is normally worked out on profit sharing basis, which is in two parts, namely-

- Basic Value (Government Rate) of Land
- % Equity Sharing in SPV / % of Net Developed Area / Built Space

CIDCO Model of Land Development in Navi Mumbai follows the technique of land banking for land assembly. The compensation to land owners is done by the way of monetary and land compensation. But in Vasai Virar sub-region, CIDCO undertook the land assembly by obtaining power of attorney from land-owners or outright purchase of freehold lands located close to each other by private developers or builder. The promoter is solely responsible for providing and maintaining infrastructure for consolidated land parcel.

3.2.3.2. Land Pooling

In Town Planning or Plot Reconstitution Scheme, the land is pooled and its development is financed with the involvement of land-owners without compulsorily acquiring land. This land assembly technique helps to provide plots for basic services in a planned layout from the original haphazard arrangement. Costs incurred by the developmental authority for development and for infrastructure are recovered from the sale of few of the final land plots reserved by the authority and betterment charges levied on land-owners. The reconstituted plots are allotted to the land-owners in proportion to their original land holdings.

The scheme was first introduced in the Maharashtra Regional and Town Planning Act, 1966 and later in Gujarat Town Planning & Urban Development Act, 1976 and is now widely appreciated model of land assembly. Another deviation of the land pooling mechanism has been recently introduced by the Delhi Development Authority (DDA), wherein DDA facilitated developers and land-owners to pool land for development.

The town planning scheme is referred as 'land acquisition without tears' and has the following key advantages:

- Infrastructure is provided in coordinated way.
- Partial cost is recovered through betterment charges.
- Land for public and community purposes including green & open spaces is acquired without direct expanses.
- Community benefits through unified planning.
- Land-owner shares the project cost and benefits by increased property prices.

However, the Land Pooling Scheme suffers from certain difficulties, such as:

- Delay in process of preparation, approval, arbitration and implementation, mainly due to litigations.
- There are issues related to cost recovery.

- There is also inadequate public participation in such schemes. To overcome the drawbacks of TP scheme, some suggestions are enlisted below:
- Division of scheme into planning and financial part, which has been done in the Gujarat model.
- Appointment of an arbitrator and a project planner by local authority to modify the plan after initial preparation, who would undertake active consultation with original stakeholders pre and post plan preparation.
- The contribution, which is based upon the estimated value of land assuming full development as per the scheme, should be replaced by estimated cost of the scheme.
- Provision of Transferable Development Rights in lieu of compensation to original plot holders can be considered.
- Land pooling schemes to be prepared only for the areas included in current development plan.

Land development for Schedule-6 areas: Some North-east states have areas covered under the Schedule 6 of the Constitution. In such areas, land development and planning are not directly under the control of the State government but vests with the Autonomous District Councils and mainly under community ownership. Therefore, communities can be involved in development process of the settlements as it may be viable and easier approach.

3.2.3.3. Land Reservations

The concept of Accommodation Reservation allows the land-owners to develop the sites reserved for an amenity in the development plan using full permissible Floor Space Index (FSI)/Floor Area Ratio (FAR) on the plot, subject to agreeing to entrust and hand over the built-up area of such amenity to the local authority free of all encumbrances and accept full FAR/FSI as compensation in lieu thereof. The area utilized for the amenity would not form part of FAR/FSI calculation. Reservations such as retail markets, dispensaries, etc. can be implemented in this way wherein local authority is not required to acquire the land by incurring expenditure on payment of compensation. In case of reservations like shopping centres etc., the owner can be allowed to develop these on agreeing to give at least upto 25% of the shops to the local authority for the purpose of rehabilitation of the displaced persons on payment of cost of construction.

In case of road widening/ new construction, the local authority can grant additional FSI on 100% of the area required for the purpose, provided the owner surrenders the land for widening or construction of new roads to the local authority free of all encumbrances and accept the additional FAR/FSI as the compensation in lieu thereof. This mechanism has considerably relieved local authorities from incurring huge expenses for the purpose of acquisition of such lands. The model can be explored for other non-economic activities such as open spaces, public utilities among others.

The concept of accommodation reservation has been incorporated in the Development Control Rules of the Mumbai Municipal Corporation.

3.2.3.4. Transferable Development Rights (TDR)

TDR is a technique of land development, which separates the development potential of a particular parcel of land from it and allows its use elsewhere within the defined zones of the city. It allows the owner to sell the development rights of a particular parcel of land to another. This entitlement is over and above the usual FSI available for receiving plot in accordance with the prevailing laws and regulations, which entitles a land-owner to construct additional built-up area on his existing building or vacant land.

TDR is taken away from the zone and it is tradable which makes it different from Accommodation Reservation. This is also generally used for redevelopment of inner city zones and for reconstruction/ re-development and has been tried out in numerous cities/ States including Bengaluru, Chennai, Mumbai and Rajasthan. However it has its prospects and consequences as experienced from the implementation in various cities. For instance, unbridled pooling of TDRs could damage the urban form, TOD strategies, quality of public spaces, etc. Hence it should be used carefully within a predefined spatial framework. States like Karnataka and Rajasthan have made provisions to mitigate such effects.

3.2.3.5. Guided Land Development

Guided Land Development model uses the provision of infrastructure as instrument to guide urban development. This is done in partnership with land-owners who pay for the cost of providing services to their land and in return donate land for public infrastructure and a payment as betterment levy. This model, also proposed by the United Nations Economic & Social Commission for Asia & Pacific (UNESCAP), has been for guiding the conversion of privately owned land in the urban periphery. It uses a combination of traditional government role of providing infrastructure and the enforcement of land subdivision regulations. The key advantage of the approach is that it is less costly than outright land acquisition and more equitable than land banking.

The principle behind guided land sub-division is that the government agency proactively selects the direction where it feels urban development should take place and provides infrastructure in those areas. This acts as an incentive to encourage developer to invest in the planned area selected by the government agency. The cost effectiveness of guided land development approach results from the fact that land development is planned, designed and implemented with the land-owners of the designated area, who donate land for roads and right of way for infrastructure and public spaces, as well as pay a betterment levy to meet the costs of the project. To finance the scheme, a loan is initially taken to build the infrastructure, which is paid

from betterment levies provided by land-owners either on annual installments or in lumpsum upon sale of land. The infrastructure is provided by the government agency upto the site. Individual land-owners are supposed to subdivide their land for various developments and lay the on-site services.

But guided land is often fraught with difficulties on the ground. First, as the model depends on the consent of the land-owners it cannot be applied in areas with fragmented land-ownership, lack of owners' will and consensus. Second, collection of betterment levies may not be feasible by small landholders and lead to default of payment.

3.2.4. Inclusive Land Development

Most cities in developing countries suffer from land market distortions caused by poor land development and management policies including poor planning, slow provision of infrastructure and services, poor land information systems, cumbersome and slow land transaction procedures, as well as under regulation of private land development, leading to unplanned or ribbon/corridor development of land in the urban periphery. The urban poor suffer most from a dysfunctional city. Distortions in the land markets allow land speculation, which often prices the poor out of the formal land markets and into the informal land markets, which are exemplified by slums, squatter settlements and illegal sub-divisions, mainly in the periphery of cities. This leads to longer commuting time and costs, poor living conditions, inadequate infrastructure and services, adversely affecting the health and financial condition especially of the poor, thereby entrenching the cycle of poverty.

Land and housing have special significance for the poor. Often for poor, a house is not just a shelter, but is also a place for income generation. Urban settlements of the poor in the region are characterized by home based workshops from which the poor earn their incomes. Though slum, squatter and illegal settlements are often used interchangeably but they are different from each other and denote different characteristics of the settlement.

- Slums are legal but substandard settlements, with a lack of adequate services and overcrowding.
- Squatter are settlements where land has been occupied illegally. They are often found on marginal or environmentally hazardous lands, such as close to railway tracks, along rivers and canals etc. They are also found on government land or land whose ownership is unclear.
- While squatter settlements are spontaneous and unorganized, illegal settlements are planned and organized. These usually occur in cities where the government owns large tracts of vacant land, with low opportunity cost.

3.2.4.1. Inclusion of Poor into the Formal Land / Housing Market

Experience has shown that bringing the poor into the formal land and housing markets needs a two pronged strategy: increasing the choices available on the supply side and increasing affordability on the demand side.

Urban Planning Approach

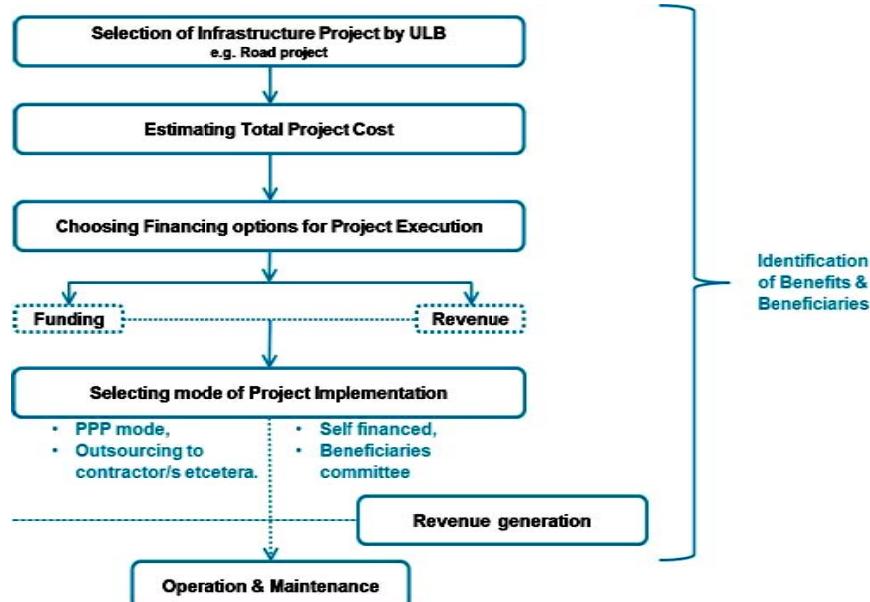
1. Increasing supply of land for the poor includes following:
 - **Sites and Services:** It provides the target group with a plot and basic infrastructure, such as water, roads and sanitation facilities.
 - **Illegal settlements regularization/upgrading:** Settlement upgrading provides existing settlement dwellers land tenure, as well as, basic infrastructure.
 - **Land sharing:** Land-owner and the land occupants reach an agreement whereby the land-owner develops the economically most attractive part of the plot and the dwellers build houses on the other part with full or limited land ownership.
 - **Sites without services- incremental development:** The approach includes mechanisms whereby groups of households are encouraged to organize themselves, accumulate funds and provide infrastructure gradually.
 - Private developers to provide a percentage of FAR (DDA norms provides 15%) for EWS housing to be handed over to LB/ Authority at predetermined price.
 - **Reservation for service population** including domestic help, cleaners, drivers, other small scale and informal services should be made (DDA norm in 50%).
2. The strategy of increasing effective demand for land for the poor has following schemes which can be used to provide better shelter to the urban poor:
 - **Community organization:** Organized communities of the poor can afford housing and they also negotiate with governments and other stakeholders more effectively.
 - **Increasing savings and providing access to finance:** Community-based savings-and-credit schemes preserve organized communities and increase access to finance.
 - **Improving income opportunities** by providing access to the Central and State level schemes for employment (like Swarna Jayanti Shahari Rozgar Yojana, Urban Wage /Self-Employment Programme, Women Self-help Programme) and vocational trainings (like Skill Training for Employment Promotion).

(Source: UNESCAP- *Urban Land Policy for the Uninitiated, DDA Norms and other sources.*)

3.3. Fiscal Resource Mobilisation

Local bodies play an important role in providing social, civic, physical and economic infrastructure services to the public. Municipal finances are critical in initiating many urban and local governance projects, as financial resources' strategic management plays a vital role in ensuring long-term sustainability of local services and infrastructure. With the introduction of 73rd & 74th CAA, local government's role and responsibilities have been increasing continuously. To realize these responsibilities local governments require steady flow and efficient management of financial resources. However, as the traditional system of funding on basis of plan and budgetary allocations will be reduced, the local authorities will have to devise innovative methods of resource mobilization through fiscal instruments and accessing the market. The subsidies will need to be rationalized and urban development plans and projects need to be designed as commercially viable. A general lifecycle of a project is depicted in **Figure 3.1**.

Figure 3.1: Project Life Cycle



Also the estimation of project cost is to be accurately calculated including contingencies. The important head for project cost calculation are:

1. Capital Investment (**Capex**), including-
 - Land cost
 - Common infrastructure cost, like roads, water supply etc.
 - Project specific infrastructure cost like toll plaza, bridge- s
 - Building and civil cost
 - Interest during construction
2. Working capital margin (also incidental expenses)
3. Operations and Maintenance cost(s) (O&M), including-
 - Salary & Wages
 - Recurring raw material cost
 - Repair & Maintenance
 - Administration & Overheads
 - Marketing expenses
 - Project specific operating expenses

Requirement of finance in the project life cycle is for implementation and then later for operation and management. The first activity is raising funds in bulk to initiate a project. Once construction is over, the later stage of operation and maintenance requires steady flow from revenue sources. However, only well planned and implemented infrastructure projects generate revenue income for local authorities in form of fees and charges. **Figure 3.1** depicts general life cycle of a project. Various innovative and traditional approaches for financing developmental activities are available these days and an attempt to prepare a comprehensive list has been made, as presented in **Figures 3.2 &3.3** below.

Urban Planning Approach

Figure 3.2: Funding Sources

Traditional Sources
• Grants and subsidies
• Municipal Bonds & Debentures
• Funding by Bilateral & Multilateral Agencies

Innovative Sources
• Foreign Direct Investment
• Public Private Partnership
• Pooled Finance Public Fund
• Loans from Financial Institutions

Figure 3.3: Revenue sources

Traditional Sources
• Taxes
• Fees and Charges
• Surcharges
• Income from Interest
• Other Income sources

Innovative Sources
• Land Auction
• Betterment Levy
• Betterment charges

3.3.1. Traditional and Innovative approaches for Fiscal Resource Mobilisation

Diverse options of the source finance are available for developmental projects. These traditional and innovative sources of financing projects at State and ULB level through funding and revenue sources are detailed below:

- a. **Taxes:** State Government authorises local governments by law, to collect taxes. Taxes are major source of revenue of Urban Local Bodies. Property tax, profession tax and advertisement tax are major sources of revenue in local governments.
- b. **Charges and fees:** Local bodies levy charges and fees for the services provided to citizens. These charges, for water supply, solid waste management, parking and other such services to cover the cost of undertaking the provision of services.
- c. **Grants and Subsidies:** Grants and subsidies are generally given by Central Government to State/ Local Government or State to Local Government for development and provision of services to citizens.
- d. **Public Private Partnership:** PPP is an agreement between public and private entity for providing services or infrastructure to citizens. It helps municipal authorities to shed some of its functions and evolve alternative institutional arrangement for the performance of such functions.
- e. **Loans from financial institutions:** Public and private organisations come together to pool funds from public and investing it in financial assets. Such loans are for long term.
- f. **Funding by Bilateral and Multilateral Agencies:** These are developmental agencies which provide soft loans for infrastructural projects. Almost all such loans are backed by sovereign guarantee and take long process to access.
- g. **Foreign Direct Investment:** FDI is direct investment from company or entity into a foreign country.
- h. **Pooled Finance Development Fund (PFDF) Scheme of Government of India:** PFDF is meant to provide credit enhancement grants to enable ULBs to access market borrowings to facilitate development of municipal infrastructure.
- i. **Municipal Bonds and Debentures:** Municipal bonds and debentures are issued by ULBs and Infrastructure Funds, to general public or specific institutional investors to raise finance for developing physical infrastructure.

3.3.1.1. Taxes (Property taxes, Vacant developed land tax)

The municipal entities derive their tax powers from the laws enacted by the State legislatures. The sources of revenue – both tax and non-tax are delegated to them under these laws as obligatory and discretionary taxes. However, the municipal bodies are at the liberty to levy a tax and may or may not levy all the entitled taxes.

In order to match the functional domain of municipal bodies with tax power, it is imperative to devolve additional tax powers to municipalities and to provide for transfer of new functions to them as proposed in 73rd & 74th CAA, along with the requisite funds which currently are under the purview of State Government Departments.

In addition to taxes, state governments also provide authority to local bodies to levy 'surcharge' on some taxes to generate additional fund to meet its requirements. Following is the list of taxes and surcharges that local bodies can levy to generate revenue.

Taxes:

- **Property tax on lands and buildings:** reforming the property tax entails bringing in amendment of inherent Rent Control Laws either for delinking its present depressing effect on rental value or for permitting legally the periodical revision of standard rent. The Model Rent Control Act of MoUD provides for refurbishing of standard rent and its periodical revision. This, if adopted by all the states, will go a long way in restoring the base of this tax with some relationship with the market value.
- **Stamp Duty:** This tax is levied on those instruments or documents of transactions when selling and buying property. The proceeds in regard with this duty go directly to State in which the individuals are levied. It can also be shared with Local Bodies.
- **Tax on Land/Property values increment:** It is common phenomenon that land values keep on increasing over the years not because of any individual effort but due to implementation of development schemes. Land values increment may also be due to economic phenomenon of rise in general prices. The basic objective of land value increment taxes is to capture some of this increase for the benefit of the community.
- **Water tax:** The Municipality can levy a water tax on any land or residential building or non-residential building as a percentage of property tax as specified by regulations.
- **Fire tax:** The Municipality can levy a fire tax on any building as a percentage of property tax as may be specified by regulations.
- **Tax on congregations:** It is a tax levied per head or per vehicle for providing municipal services to persons or vehicles visiting the municipal area for the purpose of tourism or in connection with any congregation of whatever nature, including pilgrimage, fair, festival, circus or yatra, within a municipal area for persons or vehicles assembling within the municipal area for the purpose.
- Tax on pilgrims and tourists.
- **Tax on deficit in parking spaces in any non-residential building:** This tax is on the deficits in the provision for parking spaces required for different types of vehicles in any non-residential building.

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- **Advertisement Tax:** Such tax can be levied for the exhibition or display of any advertisement (other than in newspaper) to public view in any manner.
- **Vehicle tax:** It is a tax on purchasing vehicles and using roads.
- **Profession Tax:** Profession tax is levied by municipal authority on individual, company, business owners or merchants' It is levied on the income earned by way of trade, profession, employment or business.
- **Domestic Servants Tax:** This tax is payable by employer on domestic servants.
- **Vacant land tax:** In some urban places, the land is kept vacant without any use by the owner for a period of time. A tax is payable on vacant land to incentivize its development or sale to those who have the interest and access to resources to develop it. It is recommended to levy this tax as per applicable FAR rather than availed FAR.
- **Octroi:** This tax is levied on the entry of goods into a local area for consumption, use, or sale. Many States have replaced octroi by entry tax levied and collected by the State Government, but shared with the Local Bodies.
- **Other taxes:** The municipalities can also levy any other tax, which the state legislature has the power to levy, subject to the prior approval of the state government.

Surcharges:

Some States provide for levy of surcharge on State taxes, to be passed on to the local bodies, though some economists find such surcharges to be distortionary. Examples are-

- **Surcharge on stamp duty:** The Municipality can levy a surcharge on the transfer of lands and buildings situated within the municipal area as a percentage of stamp duty levied on such transfer.
- **Surcharge on entertainment tax:** It is a surcharge on any tax levied by the state government on any entertainment or amusement within the municipal area.
- **Surcharge on electricity consumption:** It is a surcharge on consumption of electricity within the municipal area.
- **Surcharge on petroleum products:** State governments levy sales tax on petroleum products and additional surcharge to cover the financial demands of local bodies.

Tolls:

Toll is a form of tax, typically implemented to help recover the cost of road construction and maintenance.

- **Roads & Bridges:** A Municipal authority can establish a toll-bar on any public street or bridge in the municipal area and levy a toll at such toll-bar on vehicles, over and above the vehicle tax, for specified reason.
- **Ferries:** Where a ferry plies between two points on a water-course and either one or both the points are situated within a municipal area, State Government can declare such ferry to be a municipal ferry and levy toll or tax.
- **Heavy trucks:** It is a toll on heavy goods or passenger motor vehicles, plying on a public street. This is to control heavy passenger motor vehicles movement in the restricted hours of the day and in the restricted areas.
- **Toll collection on navigation channels:** The State Government can levy tolls for use of any navigable channel, which passes through the limits of a municipal area in lieu of the maintenance of navigation channel.

Table 3.1: List of various Taxes, Surcharges, Charges, Fees and Tolls as may be levied for Urban & Infrastructure Development

Heads	Sources of Revenue				
Taxes	Property tax on lands and buildings	Water	Vehicles and other conveyance	Electricity Cess	Conservancy
	Property: (Lighting, water, drainage, general purpose, sanitary)	Drainage	Motor vehicles	Education cess	Congregation
	Profession	Sanitary	Non-Motorized vehicles	Special education tax	Sale of cattle in the market
	Stamp duty on transfer of properties	Fire	Terminal	Pilgrims and Tourist	Carriage and animal
	Stamp duty on transfer of immovable properties	Electricity	Local body tax on entry of goods	Artisans	Scavenging
	Deficit parking space in any non-residential building	Special water tax	Trade	Timber	Animals
	Land according to circumstances & property	Latrine	Markets	Boats	Dogs
	Building application	Garbage Treatment	Advertisement	Menial domestic servants	Dogs Latrine
	Vacant land development tax	Special and general sanitation	Theatre	Octroi*	
Surcharges	Transfer of lands and buildings	Tax/charge/fee on Buildings	Electricity consumption	Entertainment	Petroleum products*
Charges	Development charges	Water-supply	Drainage	Solid Waste Management	Sewerage
	Betterment Levy		Other specific Services rendered	Stacking of material or rubbish	
Fees	Sanction of building plans	Building betterment	Compounding	Hotel / Restaurant	Carts
	Issue of completion certificates	Betterment / Development Fee	Warrant fee	Swimming pool	Carriages
	Licensing: Professionals, activities	Building construction	Nature and cost of Internet services	Food adulteration	Registration of Dogs and Cattles
	Issue of Birth and Death certificates	Advertisement Fee	Street	Compounding	Cattle pounds
	Birth and Death registration	Boats (rental)	Pilgrim	Dangerous and Offensive trade license	Animals
	Mutation	Fire Brigade	Drainage	Market	Slaughter house
	Registration	Public Health	Lighting	Composting	Scavenging
	Trade License	Water Connection		Fee for sale of Goods	Stock Registration
Tolls	Roads	Bridges	Ferries	Heavy trucks	Navigable channel

Source: *Compilation of State wise applicable taxes and fees as in 2004.* * Taxes and surcharges which may be abolished.

Case Study: Canada, British Columbia

In British Columbia province of Canada, a study was undertaken to identify as to how to make better use of taxation powers to increase funding of Local Government needs. Various new sources of revenue by way of sharing or negotiating a greater share of existing taxes, developing new taxation tools were identified. Some of the innovative sources as identified are discussed below in three major categories:

Figure 3.4: Sources for Fund Generation

Taxes

- **Carbon Tax:** Carbon tax was suggested to be introduced in the province on virtually all fossil fuels including gasoline, diesel, natural gas, coal and propane.
- **Sin Taxes:** To discourage behaviours that are considered unhealthy or socially undesirable were suggested to be taxed. These taxes also referred to as "sin taxes", were to be put on alcohol and cigarettes. They were also intended to recoup some of the social costs for additional care services or addictions treatment.

Sales of Services (These were highlighted as significant opportunities for local government to expand their sales of services and take advantage of their existing expertise and infrastructure)

- Like sale of -
- Community Energy Cooperatives (in Denmark, Germany and the Netherlands),
- Land Fill Biogas for capturing and burning bio gas emissions,
- Sale of other services which also produce energy through by-product like Municipal Solid Waste and Anaerobic Digestion,
- Commercial Garbage Collection

Other Revenues

- Transportation related land development influencing land value captured as revenue source

(Source: <http://www.thinkcity.ca/node/289>)

3.3.1.2. Charges and Fees (Development Charges, Levies, Impact Fees, non-tax sources, valorisation charges, service charges)

Charges are a fee charged by a consumer's local body to recover the costs of specific community/physical services. For example, municipal charges of water supply may go to cover costs of laying water supply infrastructure and water treatment plant in a city. Betterment charges are usually imposed on the beneficiaries of the improvement projects to recover the project cost. Development charge is used for recovering the cost of providing new services and infrastructure in an area.

The Municipality can levy user charges for following services provided in the urban areas:

- Provision of water-supply, drainage and sewerage
- Solid Waste Management
- Parking of different types of vehicles in different areas and for different periods
- Stacking of materials or rubbish on public streets for construction, alteration, repair or demolition work of any type
- Other specific services rendered

Transit Corridors attracts economic activities and concerted development where provision of additional infrastructure or its augmentation requires additional financial support. Therefore, such areas call for self-financed urban infrastructure projects. Alternative possibilities to raise revenues in these areas can be by tapping land-based financing sources along dense transport corridors, these options can be:

- Higher Conversion charges especially for commercial and economically lucrative activities.
- Higher Development charges or Betterment levy on land uses which put more pressure on infrastructure Impact fees or higher charges on the purchase of extra FSI/FAR along the corridor upto a maximum prescribed by the authority.
- Overall additional charges and fees such as higher property tax, special water tax (mentioned in the **Table 3.1**).
- Non-tax source for the use of particular services, such as Service charges for parking in the TOD influence zone, fire safety facilities in the zone among others.

Apart from the TOD focused charges, the Municipality can levy fees and fines for the following services and activities to generate revenue:

- Sanction of building plans and issue of Completion certificates,
- Issue of municipal licenses for various non-residential use of lands and buildings,
- Licensing of various categories of professionals, activities such as sinking of tube-wells, sale of meat, fish or poultry or premises used for private markets, slaughterhouses, hospitals, animals, carts or carriages and other activities.
- Sites used for advertisements in roads, parking lots, commercial locations and public building,
- Issue of birth and death certificates.
- Impact Fees: It is a fee imposed on builder, developer or industrialist to compensate the impact and burden new project is going to have on social and physical infrastructure (existing and need for new) and environment.

3.3.1.3. Grant-in-aid and Subsidies

Central Finance Commission (CFC) evolves a comprehensive framework for the distribution of the grants-in-aid between states, including those for the local bodies. Further, the 13th Finance Commission has introduced other grants namely, general basic grant, general performance grant and special area basic grant. Similar provisions are made by the State Finance Commissions. In addition, Planning Commission recommends Development (or Plan) Grants to States, including for the local bodies.

A capital grant is usually utilized for capital expenditure like purchase of land, building, equipment, facilities, etc. The benefits of such expenditure are of an enduring nature and spread over an extended period of time, such as road development grant.

The revenue grant is generally utilized for meeting recurring expenditure, the benefits of which usually expire within the accounting year in which it is incurred. Revenue Grants are usually in the nature of a subsidy. Subsidies are provided directly or indirectly for the provision of services such as water supply, disposal of sewage,

transporting and disposal of wastes, municipal transport, street lighting, hospitals and schools.

3.3.1.4. Public Private Partnership (PPP)

One of the ways to enhance fiscal capabilities of the municipal authorities is to shed some of their functions and evolve alternative institutional arrangement for the performance of such functions. Public Private Partnership is such arrangement between a government / statutory entity / government owned entity on one side and a private sector entity on the other. This partnership is for the provision of public assets or public services, through investments being made and management being undertaken by the private sector entity, for a specified period of time. There is well defined allocation of risk between the private sector and the public entity. The PPP arrangement ensures that private entity receives performance linked payments that conform to specified and pre-determined performance standards, measurable by the public entity or its representative.

PPP models are generally classified in the categories enlisted below and detailed in section 3.3.3:

- Management Contracts
- Turnkey Projects
- Lease
- Concession
- Private Ownership

3.3.1.5. Loans from Financial Institution(s)

A financial institution is either in public and private sector which brings funds from the public and puts them in financial assets rather than physical property. Such institutions are made up of different organizations such as banks, trust companies, insurance companies and investment dealers. Specialized financial institutions e.g. IDFC, NHB, HUDCO and IL&FS are some agencies which provide loans and a variety of instruments for infrastructure financing. Other financial institutions e.g. ICICI, LIC of India, etc. also provide funds for infrastructure projects. These institutions have access to funds which are for longer duration e.g. loans from development agencies, bonds from open market, foreign institutional investors, etc. and are thus able to lend for relatively longer durations than banks.

Credit Rating of the ULB plays an important role here. The better the credit rating for repayment of principal and interest, lower is the rate of interest. Certain financial institutions provide credit enhancement mechanisms to enhance the inherent credit quality to obtain a better credit rating resulting in lower interest rates. This facility is now also being extended by MoUD through its Pooled Finance Development Fund (PFDF) scheme. Institutions may also provide guarantees for funds accessed from other sources. (*Source: Municipal Finance Improvement Programme-JnNURM*)

Banking institutions also provide finance to local authorities. Bank loan is a relatively new avenue and an easier option for finance for Local Bodies, as the banks have prescribed norms and well laid down procedures. The time period of these loans are short to medium term and generally do not cater to the long tenure needs of infrastructure projects. Bank loans are available to finance the short term needs of institutions e.g. working capital loan, bridge loans, loans against property etc.

3.3.1.6. Funding by Bi-lateral & Multi-lateral agencies

Bilateral organizations are government agencies or non-profit organizations of a country that provide aid to other countries. Bilateral organizations receive funding from their national governments, and use the funding to aid developing countries. Few bilateral agencies are as follows:

- US Agency for International Development (USAID)
- Department for International Development (DFID; UK)
- Japan Bank for International Cooperation (JBIC)
- Japan International Cooperation Agency (JICA)
- Australian Aid Agency (Aus Aid)

Multilateral organizations are international organizations whose membership comprises member governments, who collectively govern the organization and are the primary source of funds, while the loans/grants-in-aid are provided for projects in various countries. Some examples of multilateral funding agencies are:

- Various United Nation (UN) bodies
- World Bank
- Organisation for Economic Cooperation and Development (OECD)
- Asian Development Bank (ADB)

Bi-lateral and Multi-lateral bodies are also known as Development Agencies. These provide soft loans and grants for infrastructure projects. Accessing funds from these agencies is relatively a long process and it requires preparation of various project documents - in-depth planning, and studies to assess compliance of the project with respect to environment, rehabilitation / resettlement and social safeguard policies, and pilot testing of new initiatives. As almost all loan projects of bi-lateral and multi-lateral agencies are backed by a sovereign guarantee, the Department of Economic Affairs, Ministry of Finance, Government of India plays an important role during the entire process. In line with the development financing objectives of these institutions, projects funded by these institutions are typically in sectors that are not commercially attractive. Local bodies can receive external development assistance from bilateral and multilateral sources on behalf of the State Governments for State sector projects/programmes.

(Source: Municipal Finance Improvement Programme-JnNURM)

3.3.1.7. Foreign Direct Investment

Funds from Foreign Direct Investment (FDI) have emerged as a major source of funds in infrastructural projects in India – for instance Japan’s (Japan Bank of International Cooperation) FDI support in developing the Delhi Mumbai Industrial Corridor (DMIC).

Under FDI Policy 2013, almost all the sectors have been opened for 100 per cent FDI except agriculture, mining and petroleum and natural gas, manufacturing, service sector and financial services. The sectors in which hundred per cent FDI is permissible are construction (townships, housing and built up infrastructure), Industrial Parks and Airports with few conditions. Hence FDI support for financial resource mobilization is easily available, which could be permitted through financial collaborations, joint ventures/technical collaborations, capital market, preferential allotments etc.

3.3.1.8. Pooled Finance Development Fund scheme by GoI

Small and medium sized cities find it difficult to raise resources from the market for infrastructure projects due to lack of project structuring capabilities and creditworthiness. The Government of India has launched the Pooled Finance Development Scheme (PFDS) to enable these local bodies to bridge this gap through accessing market funds for their infrastructure projects. The scheme is meant to provide credit enhancement grants to enable local authorities to access market borrowings through Pooled Finance Municipal Bonds (PFMB) for investment in urban infrastructure projects.

PFDS facilitates ULBs in municipal infrastructure by helping them access capital and financial market for investment in essential projects. It facilitates local bodies in developing bankable urban infrastructure projects. With appropriate credit enhancement measures it helps ULBs in reducing the cost of borrowing from market, on the other hand strengthening the municipal bond market.

The PFDS creates an incentive structure to support urban reforms, which would also be driven by covenants of financial market lenders to ULBs. These urban reforms are in synergy with urban reform agenda of other central schemes as JnNURM and UIDSSMT. In order to apply for the grant assistance a State Pooled Finance Entity (SPFE) is required to be established in every state. The SPFE could be a trust provided that the entity is just a pass through vehicle. The Central Government will be responsible for the funding of these State pooled finance entities through the PFDF. The cost of each project of the Municipality/ULBs will be estimated. Seventy-five per cent of these costs will be reimbursed by the Central Government and twenty-five per cent by the State Governments.

Other funds at the national level, set-up by Financial Institutions and Banks have also started providing the much required funds. State level Infrastructure funds (from supply side) and Pooled Finance Funds (from demand side) have also started providing funds for infrastructure projects. The examples of such funds are Tamil Nadu Urban Development Fund and Gujarat Infrastructure Development Fund etc.

3.3.1.9. Municipal bonds/debentures

Urban Local Bodies and Infrastructure funds, issue municipal bonds and debentures to general public or specific institutions at fixed rate of interest and are redeemable after a specific period. Municipal bonds can either be taxable or tax-free. These bonds and debentures can be listed on the stock exchange which makes the securities highly liquid and makes secondary market available for the bonds and debentures holders. National Stock Exchange and Bombay Stock Exchange provide a facility for listing of bonds and debentures in their Exchanges. In India, the Municipal bond market is still in its budding stage. Only large ULBs having buoyant revenue base e.g. Ahmedabad, Bangalore were successful in the past in raising funds through Municipal Bonds²⁰.

Some national success cases of Local Bodies in raising bonds for infrastructure projects are given below:

Municipal Bonds by Ahmedabad Municipal Corporation (AMC) for water supply and sewerage program, 1998: To finance the water supply and sewerage program, AMC floated municipal bonds in January 1998. These were rated AA(SO) specifying having high degree of safety regarding timely servicing of financial obligations or carrying very low credit risk. These bonds were floated for seventy-five per cent private and twenty-five per cent public issues. This was a significant accomplishment at the given time, as it was the first municipal bond issue in India without a state government guarantee and it represented the first step towards fully market-based system of local government finance.

Tamil Nadu Urban Development Fund (TNUDF), 2003: Tamil Nadu Urban Development Fund issued bonds for commercially viable water and sewerage infrastructure projects by pooling fourteen municipalities in 2003. A special purpose vehicle, the Water and Sanitation Pooled Fund (WSPF), was set-up to issue the municipal bonds. The Indo-USAID Programme on Financial Institutions Reform and Expansion (FIRE-D) supported the efforts of WSPF to structure the bond issue whose proceeds financed small water and sanitation projects in the fourteen small ULBs. USAID provided a backup guarantee of fifty per cent of the bond's principal through the Development Credit Authority (DCA) mechanism.

Greater Bangalore Water & Sewerage Project (8 ULBs), 2005: Government of Karnataka created debt fund called the Karnataka Water and Sanitation Pooled Fund (KWSFP) and successfully floated tax-free municipal bonds during June, 2005. It was done for the Greater Bangalore Water Supply and Sewerage Project (GBWASP). Government of Karnataka was assisted by USAID under its DCA program and provided a guarantee of up to fifty per cent of the principal amount of market borrowing. The GBWASP was planned to provide water supply to 1.5 million people residing in about 300,000 households.

²⁰ (Source: Indo-US Financial Institutions Reform and Expansion Project - Debt Market Component FIRE(D); Creative Financing of Urban Infrastructure in India through Market-based Financing and Public-Private Partnership Options, Chetan and Hitesh Vaidya)

3.3.1.10. Possible Sources of Funding For Projects

Possible sources of funding various types of projects, but not limited to, are tabulated below:

Table 3.2: Alternate Sources of Funding for Projects

S. No.	Project type	Indicative sources to fund
1	Large Infrastructure Projects (at State/District level)	Funding by Bi-lateral & Multi-lateral agencies Foreign Direct Investment Public Private Partnership (PPP)
2	City Urban Infrastructure	Central Grant-in-aid & Schemes Public Private Partnership (PPP) Loans from Financial Institution(s) (if short to medium term) Municipal bonds/debentures
3	Social Infrastructure, Capacity Building and PMC Projects	Funding by Bi-lateral & Multi-lateral agencies Municipal bonds/debentures Central Grant-in-aid & Schemes Public Private Partnership (PPP) / Corporate Social Responsibility
4	Real Estate Projects	Foreign Direct Investment Municipal bonds/debentures Public Private Partnership (PPP) Loans from Financial Institution(s)

3.3.2. Alternative Financial Avenues by Private Sector Participation

Public-Private Partnership (PPP) is a long term contractual agreement between a public agency (central, state or local) and a private sector entity for providing a public asset or service in which the private party bears significant risk and management responsibility.

The private sector includes consultancy firms, developers, builders and promoters, cooperative societies, Non-Governmental Organisations (NGOs) and Community Based Organisations (CBOs), cooperative bodies, industrialists and businessmen.

PPP means an arrangement between a government or statutory entity or government owned entity on one side and a private sector entity on the other, for the provision of public assets and/ or related services for public benefit, through investments being made by and/or management undertaken by the private sector entity for a specified time period, where there is a substantial risk sharing with the private sector and the private sector receives performance linked payments that conform (or are benchmarked) to specified, pre-determined and measurable performance standards²¹.

²¹(Department of Economic Affairs - DEA, Ministry of Finance, Government of India, 2010)

3.3.2.1. Conditions/Situations for PPP Selection

A project may be considered to be implemented as a PPP project when there are efficiency gains from improved project delivery, operation and management, and access to advanced technology can offset the incidental costs, improvement in human resource etc. In fact, many countries have established value for money as the main criterion in judging the merits of a PPP option for a project. Decision for PPP to be an alternative development mechanism can be selected for a project, if it satisfies the following conditions or is set in the given situations:

- Enhance the supply of much-needed services
- Does not require any immediate cash spending
- Provide relief from the burden of the costs of design and construction
- Transfer of many project risks to the private sector
- Promise better project design, choice of technology, construction, operation and service delivery
- PPP projects are viable essentially when robust business models can be developed

3.3.2.2. Systems of Participation

PPP models vary from short-term simple management contracts to long-term and very complex BOT form. Depending upon type of project and requirements of public entity any single or combinations could be selected. In such models amount of investment, risks, obligations and durations vary. These models vary mainly by:

- Ownership of capital assets
- Responsibility for investment
- Assumption of risks
- Duration of contract

The PPP models can be classified into following broad categories in order of generally (but not always) increased involvement and assumption of risks by the private sector. These are enlisted below and are diagrammatically presented in the figure 3.5.

- Management Contracts
- Turnkey Projects
- Lease
- Concession
- Private Ownership

1. **Management Contracts:** It is a contractual agreement between government and private sector for the management of public enterprise partially or completely by private party.

Control of public enterprise remains with the government. While private sector skills are brought into service design and delivery, operational control, labour management and equipment procurement.

Supply or Service Contracts: In these types of contracts supply of material, equipment or services is provided to public enterprise by private counterpart. The main purpose of such contracts is to ensure the supply of the relevant service at the desired level of quantity and quality. Example of these contracts is catering services for passengers on public railway systems.

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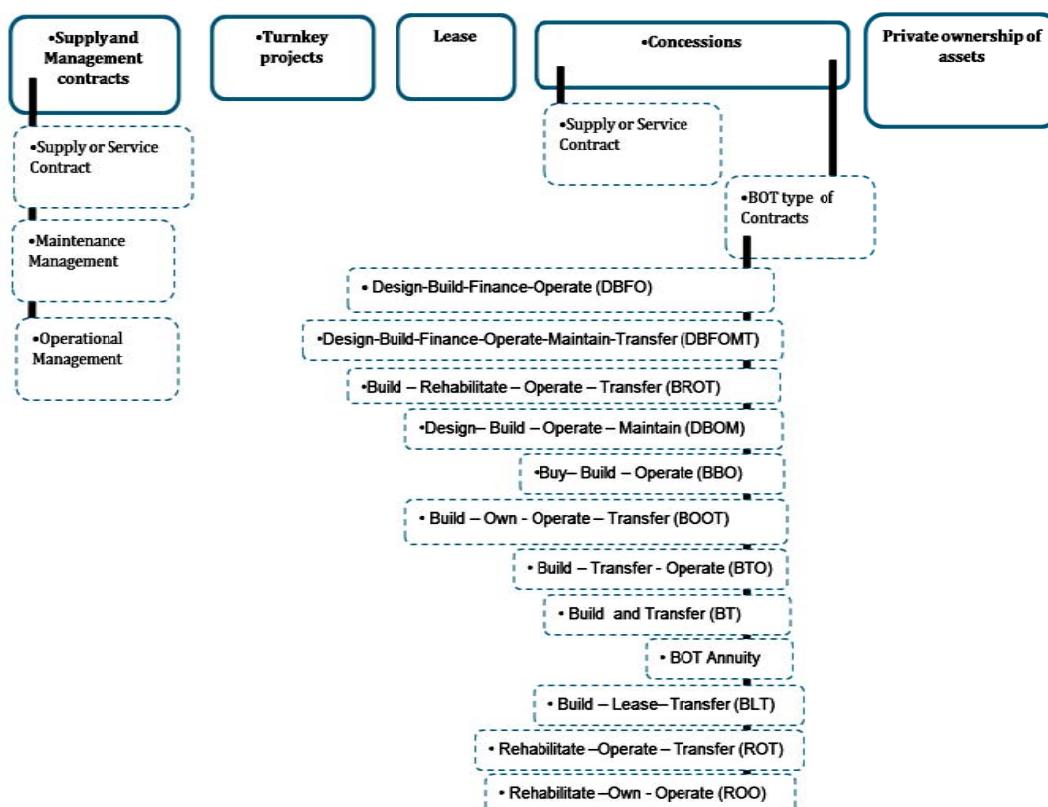
Maintenance Management: Private partner is contracted by public partner to operate, maintain, and manage a facility or system providing a service. Such as in provision of wastewater treatment services, transport projects etc.

Operational Management: Public partner (Centre, State, or Local Government agency or authority) contracts with a private partner to provide and/or maintain a specific service.

Such contracts are useful in major transport facilities (port or airport) when local manpower is limited, in the transport sector for providing management services like ticketing, reservation or of urban transport. In the simplest type of such contract, the private operator is paid a fixed fee for performing managerial tasks. More complex contracts may offer greater incentives for efficiency improvement by defining performance targets and the fee is based in part on their fulfilment.

2. **Turnkey projects:** It is a traditional public sector procurement model for infrastructure facilities. The private contractor designs and builds a facility for a fixed fee, rate or total cost, which is one of the key criteria in selecting the winning bid. The contractor assumes risks involved in the design and construction phases. The scale of investment by the private sector is generally low and for a short-term. This type of private sector participation is also known as Design-Build.
3. **Lease:** In this category of arrangement, an operator (the leaseholder) is responsible for operating and maintaining the infrastructure facility and services, generally without making any large investment. The operator retains revenue collected from customers/users of the facility and makes a specified lease fee payment to the contracting authority. Fixed facilities and land are leased out for a longer period than for mobile assets.

Figure 3.5: PPP Models



Source: PPP, MoUD and A Guidebook on PPP Infrastructure, ESCAP, UN

4. **Concessions:** In this alternative, Government defines and grants specific rights to a private company to build and operate a facility for a fixed period of time. The Government may retain

the ultimate ownership of the facility and/or right to supply the services. Typical concession periods range between 5 to 50 years. Concessions may be awarded to a concessionaire, under two types of contractual arrangements:

- **Franchise:** Under a franchise arrangement the concessionaire provides services that are fully specified by the franchising authority. Commercial risks are carried by private sector and may be required to make investments. This form of private sector participation is historically popular in providing urban bus or rail services.
- **Build-Operate-Transfer (BOT):** Build-Operate-Transfer or its other variants type of arrangement, the concessionaire undertakes investments and operates the facility for a fixed period of time after which the ownership reverts back to the public sector. In BOT type of model the government carries the risk. The various types of BOT combinations are given below:
 - **Design-Build-Finance-Operate (DBFO):** In DBFO approach, the responsibilities for designing, building, financing, operating and maintaining are bundled together and transferred to private sector partners. Varying degree of financial responsibilities is transferred to the private sector. Direct user fees are the most common revenue source.
 - **Design-Build-Finance-Operate-Maintenance-Transfer (DBFOMT):** DBFOMT model is the same as a DBFO except that the private sector owns the asset until the end of the contract when the ownership is transferred to the public sector.
 - **Build-Rehabilitate-Operate-Transfer (BROT):** A private developer builds an add-on to an existing facility or completes a partially built facility and rehabilitates existing assets, then operates and maintains the facility at its own risk for the contract period.
 - **Design-Build-Operate-Maintain (DBOM):** DBOM model is an integrated partnership that combines the design and construction responsibilities of design-build procurements with operations and maintenance.
 - **Buy-Build-Operate (BBO):** BBO is a form of asset sale that includes a rehabilitation or expansion of an existing facility. The government sells the asset to the private sector entity, which then makes the improvements necessary to operate the facility in a profitable manner.
 - **Build-Own-Operate-and-Transfer (BOOT):** BOOT is based on the granting of a concession by the Union/ Government/local authority to the concessionaire, who is responsible for the construction, financing, operation and maintenance of a facility over the period of the concession before finally transferring the fully operational facility.
 - **Build-Transfer-and-Operate (BTO):** BTO is a contractual arrangement whereby the public sector contracts out the building of an infrastructure facility to a private entity such that the concessionaire builds the facility on a turn-key basis, assuming cost overrun, delay and specified performance risks.
 - **Build-and-Transfer (BT):** BT is a contractual arrangement whereby the concessionaire undertakes the financing and construction of a given infrastructure or development facility and after its completion turns it over to the Government Agency or Local Government unit concerned.
 - **BOT- Annuity:** BOT Annuity is the contractual arrangement quite similar to BOT but return on investment is not through the levy and collection of user fee directly from the users. Instead the owner/ Government pay to the Concessionaire an amount annually or bi-annually (Annuity) which he bids for.

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- **Build-Lease-and-Transfer (BLT):** BLT is a contractual arrangement whereby a concessionaire is authorized to finance and construct an infrastructure or development facility and upon its completion turns it over to the government agency or local government unit concerned on a lease arrangement for a fixed period after which ownership of the facility is automatically transferred to the government agency or local government unit concerned.
 - **Rehabilitate-Operate-and-Transfer (ROT):** ROT is a contractual arrangement whereby an existing facility is turned over to the private sector to refurbish, operate and maintain for a concession period, at the expiry of which the legal title to the facility is turned over to the government.
 - **Rehabilitate -Own-and-Operate (ROO):** ROO is a contractual arrangement whereby an existing facility is turned over to the private sector to refurbish and operate with no time limitation imposed on ownership.
5. **Private ownership of assets:** In this form of participation, the private sector remains responsible for design, construction and operation of an infrastructure facility and in some cases the public sector may relinquish the right of ownership of assets to the private sector. The main variants under this form are described below –
- **Build-Own-Operate:** In BOO type, the private sector builds, owns and operates a facility, and sells the product/service to its users or beneficiaries
 - **Private Finance Initiative:** In PFI model, the private sector similar to the BOO model builds, owns and operates a facility. However, the public sector purchases the services from the private sector through a long-term agreement.
 - **Divestiture by license or sale:** A private entity buys an equity stake in a state-owned enterprise. However, the private stake may or may not imply private management of the enterprise.
 - **Joint Venture:** Joint ventures are alternatives to full privatization in which the infrastructure is co-owned and operated by the public sector and private operators. Under a joint venture, the public and private sector partners can either form a new company or assume joint ownership of an existing company through a sale of shares to one or several private investors.

Table 3.3: Possible roles of Private and Public sectors in the urban development process

Model	Main Features	Ownership of Capital Assets (Public/Private/Shared)	Investment By		Assumption of Risk (Public/Private / Shared)	General Duration of Contract (Years)
			Public Sector	Private Sector		
Supply and Management Contracts	Government retains the ultimate control of the Public enterprise	Public	Investment	Investment	Public	1-5
Turnkey projects	Private contractor designs and builds a facility for a fixed fee, rate or total cost	Public	Investment	-	Private /Public	3-5
Lease	Operator is responsible for operating and maintaining the infrastructure facility	Public	Investment	-	Private /Public	5-20

Model	Main Features	Ownership of Capital Assets (Public/ Private/ Shared)	Investment By		Assumption of Risk (Public/Private / Shared)	General Duration of Contract (Years)
			Public Sector	Private Sector		
and services						
Concessions	Specific rights are granted by Government to a private company to build and operate a facility for a fixed period of time	Public /Private	Investment	Investment	Private /Public	15-30
Private ownership of assets	The private sector builds, owns and operates a facility and then public sector purchases the services from the private sector through a long -term agreement	Public /Private	-	Investment	Private /Public	10-20 / Indefinite

Source: PPP, MoUD and A Guidebook on PPP Infrastructure, ESCAP, UN

While the spectrum of models discussed above are possible as individual options, combinations are also possible such as, a lease or (partial) privatization contract for existing facilities which incorporates provisions for expansion through Build-Operate-Transfer. In fact, many PPP projects of recent times are of combination type. Some of case studies of Public Private Partnership Projects in India are enlisted in Appendix C of Volume II B.

3.3.2.3. Toolkits for Decision Making for PPPs

Toolkits for decision making for PPP projects are available and could be used by the partners to identify, assess, develop, procure and monitor the PPP projects. Such toolkits are structured to cover the full life cycle of PPP projects. The toolkits are built on specific approaches for project procurement; approval etc. currently in place in India to ensure that it forms a relevant resource for practitioners in India.

Various toolkits to assist decision making for PPP are provided by Ministry of Finance²². Some of these are as follows:

- 1. PPP Family Indicator** – It gives a starting indication of which PPP mode ‘family’ the particular project might be suited to.
- 2. PPP Mode Validation Tool** – It uses a risk allocation analysis to help decide further whether the selected PPP mode is best for the project.
- 3. The PPP Suitability Filter** –It tests how well suited the project is to being a PPP and checks for barriers that might make it difficult to do the project as a PPP
- 4. Financial Viability Indicator Model** - It allows an analysis of the key questions of financial viability of the project and to test these using ‘what-if?’ scenarios.

²²(www.pppinindia.com).

5. **Value-for-money Indicator Tool** - It provides an indication of the expected range of value-for-money for the public sector from the PPP.
6. **Readiness Filters** – This toolkit checks that all the important steps have been followed and that the important preparations have been made, so that the project is ready to move on to the next step in development as a PPP.

3.3.2.4. Municipal Accounts

Reliable municipal accounting system has come to front as cities are approaching different sources for funding infrastructural projects. To access bank or bond market sound financial management is required. Currently due to lack of good financial and expenditure management, ULBs are wasting scarce resources.

With a view to provide better financial management, improved governance, accountability, and transparency of management, Ministry of Urban Development aims at implementing municipal accounting reforms as a part of the mandatory reform agenda under the Jawaharlal Nehru National Urban Renewal Mission. Hence, JnNURM reform conditions call for “improved municipal accounting, with the objective of having a modern accounting system based on double entry and accrual principles, leading to better financial management, transparency and self-reliance”, as a mandatory reform for local bodies.

The Ministry of Urban Affairs & Employment (erstwhile Ministry) has introduced National Municipal Accounting Manual with the objective of providing support to the state governments in implementing financial management reforms in the ULBs²³. Existing trend of Municipal expenditure pattern is studied.

3.3.3. Existing Trend of Expenditure Pattern

Before an attempt is made to evaluate expenditure pattern of ULBs of India, it's imperative to understand expenditure heads. The details of expenditure categories are given in **Table 3.4**.

Table 3.4: Categorisation of Municipal Expenditure

Expenditure Category	Expenditure Items
Establishment expenditure	Staff salaries, Allowances, wages, Pensions & Retirement benefits etc.
Administrative expenditure	Rents, rates & Taxes, Office maintenance, Communications, Books & periodicals, Printing & stationary, Travel expenditure, Law charges etc.
Operations & Maintenance	Power & fuel, Bulk purchases, Stores, Hire charges, Repairs & expenditure Maintenance and Interest payments made on loans
Capital expenditure	Buildings, Water supply & Sewerage, Energy/lighting, Solid waste management , Roads, Bridges, Culverts, Causeways, Health & sanitation, Parks and recreation spaces, etc., Principal repayments of loans, Furniture & fittings, Tools & plant, Equipment
Other expenditure	Miscellaneous expenses not accounted for in the above

Source: *Budgets of Municipal Corporations*.

As accepted and emphasized by reports of various institutions and committees²⁴, cities are important for national economic growth, while physical infrastructure is

²³(Source: National Municipal Accounting Training Manual- MoUD, JnNURM Primers-Municipal Accounting, ULB level Reforms [http://jnurm.nic.in/wp-content/uploads/2011/01/Mandatory_Primer_2-Mun-Acc.pdf])

²⁴Rakesh Mohan Committee; The High Powered Expert Committee (HPEC) for Estimating the Investment Requirements for Urban Infrastructure Services of MoUD; & Urban Infrastructure in India by FICCI.

driving force for urban economies. Thus, for faster and consistent growth of cities, extensive infrastructure development is being promoted by centre as evident through various Policies, Programmes and Acts. This should reflect in the expenditure pattern of the cities. The development of infrastructure will be reflected in Capital Expenditure, as expenditure on infrastructure development falls under the latter.

In ULBs of India, as given in the table below, majority of expenditure goes into Establishment and Administration expenditure head. In fact, expenditure in O & M of existing infrastructure is higher than for new infrastructure. In absence of adequate infrastructure present in Indian cities, these figures indicate that enough money is not being spent on Infrastructure development as required. A positive outcome of the policies like JnNURM which has been emphasizing infrastructure development in cities and providing finance for same, is that growth rate of capital expenditure is to increase.

Table 3.5: Composition and Trends of Municipal Expenditure (Rs. in Lakh)

S.No .	Composition and Trends of Municipal Expenditure	1999-2000	2000-2001	2001-2002	2002-2003	2003-2004	Average Growth (% of total expenditure)
1	Establishment and administration expenditure	279,216	330414	329,592	411,432	402550	10.19 (36.25%)
2	Operation and maintenance expenditure	107,383	128165	142174	164406	154400	9.96 (14.43%)
3	Other revenue expenditure	51,830	56,120	55,954	58,190	56265	2.17 (5.88%)
4	Revenue Expenditure (1+2+3)	438,429	514,699	527720	634,028	613215	9.2 (56.66%)
5	Capital Expenditure	96,933	105,942	119,463	124,817	150424	11.76 (12.37%)
6	Other Expenditure (not classified)	209744	266611	210685	399205	470925	28.4 (31.07%)
7	Total Expenditure (4+5+6)	745106	887252	857868	1158050	1234564	14.34

Source: Municipal Finance in India: An Assessment by Department of Economic Analysis and Policy, Reserve Bank of India, Mumbai. December 27, 2007.

It is recommended that the urban settlements need to increase spending on capital expenditure head in total Municipal Expenditure which leads to the development of economy and living condition.

3.3.4. Effective Finance Management

3.3.4.1. Uniformity of accounting system

Under the JnNURM, MoUD decided to provide financial resources to states and ULBs that agree to undertake following modern accounting reforms:

- Budgeting, accounting, internal controls and auditing.
- Re-engineering business processes to align with accrual-based accounting system.
- Integrate financial management systems with financial accounting system.
- Staff and building financial management capacity.

To encourage decentralization and improving transparency in the functioning of municipalities of the country, the Government of India has made initiatives for improvements in the accounting and budgeting systems, improved record keeping and maintenance among others. With this objective the Ministry of Urban Development, initiated to develop a **National Municipal Accounts Manual**. The Manual comprehensively details the accounting policies, procedures, guidelines designed to ensure correct, complete and timely recording of municipal transactions and produce accurate and relevant financial reports. The manual is to be adopted and followed by the various State Governments while drafting their state specific municipal accounts manuals.

3.3.4.2. Efficient tax/charges administration and recovery management

Tax administration and recovery mechanisms need to be revised in India to improve tax collection and increase the revenue resources available with local bodies to meet its requirements. Enforcement of tax collection needs to be strengthened. For collection of fees for provision of services, proper techniques should be enforced. Periodic assessment and valuation of properties for tax revision should take place and for expanding the tax base, property tax rolls should be updated via identification of new properties, computerising billing & collection.

3.3.4.3. Fiscal transfer management for ULBs/RDAs

Lack of structured fiscal transfer mechanisms from State to ULBs is one of the major reasons of availability of lesser fiscal resources with local authorities. State Governments and ULBs need to explore the performance-based grants as suggested by the 13th Central Finance Commission (CFC). State Finance Commissions (SFC) generally do not have access to good database at the ULB level and there are no agencies at the state level, which collect and maintain comprehensive databases. State Governments should address this issue of creation and maintenance of database of ULBs rather than depending on databases based on sample surveys.

Timely constitution of SFC and timely submission of SFC Reports is very important. The system of providing grant-in-aid to ULBs is complex and the SFCs should try to introduce the concept of devolution packages after taking into consideration all types of revenue grants and these should be linked with State's own resources.

SFCs should also consider the idea of performance based or incentive grants based on outcomes such as improved service delivery, improved tax collections and improved

financial management etc. SFCs could review and link the grants to performance as suggested by the 13th CFC and reforms under JNNURM. Importantly, the State Governments should give a serious consideration to the recommendations of the SFC Reports and timely issuance of Action Taken Reports (ATR). All State Governments should build a system for predictability and transparency of state transfers to ULBs. The State Governments should follow the system of electronic transfers to ULBs rather than the conventional transfers.

(Source: Tracking Central Finance Commissions and State Finance Commissions Grants to Selected States and Urban Local Bodies in India, NIUA.)

3.3.5. City Infrastructure Fund

The infrastructure plays a vital role in the growth and development of cities in the current context. Keeping in mind the demands and requirements of urban development, Government of India has also been emphasizing and providing finance for development of infrastructure. Following the same line of thought, a City Infrastructure Fund should be established at urban centres by an Executive order. It should be other than the Budget fund and dedicated only for the Urban and Regional Infrastructure development.

The following can be possible sources of funding (whole or part of it):

1. Stamp Duty on transaction of real-estate property,
2. Capital gain tax on real-estate property,
3. Land use conversion fee,
4. Entry tax on vehicles in special areas (inner city, CBD etc.) of cities,
5. Part of the TDS on real-estate transactions valued over 50 Lakh (now mooted by the Finance Ministry),
6. Vacant tax on Municipal FAR rather than vacant land,
7. Toll tax,
8. Part of funds raised through auction of strategic plots,
9. Cess on purchase of luxury vehicles say costing above 10 lakh,
10. Betterment levy on special zones (transport corridors etc.).
11. Cess on electricity bill is imposed to cover the cost street lighting,
12. Urban Infrastructure Bonds,
13. Use idle funds (Provident Fund, various Trusts etcetera) to subscribe to the Bonds.
14. Leverage Urban Infrastructure Bonds with long term loans from multilateral development banks.
15. Land-based financing sources along Transport Corridors tapped through Betterment charges, Development charges, Impact fees, Pricing of Floor Space Index (FSI) above a certain limit.

State of Odisha has developed **Odisha Urban Infrastructure Development Fund (OUIDF)** to strengthen revenue buoyancy at ULB level.

Institutional framework of OUIDF consists of:

- Urban Loan Fund.
- Grant Fund.
- Project Development Fund.

OUIDF has been developed as a Trust under the Housing and Urban Development Department (HUDD) with assistance from KfW (Germany's Development Bank).

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The OUIDF seeks to (a) catalyse development of well-structured pool of bankable projects, (b) build capacity in appraisals and resource mobilization and (c) spur institutional reforms as a pre-requisite for external financing.

Focus sectors and projects for funding under the OUIDF include the following:

- Water supply and water supply improvement schemes,
- Underground sewerage schemes,
- SWM,
- Climate adaption measures,
- Slum development, rehabilitation, provision of basic amenities to informal settlements,
- Bio-medical waste management,
- Development and renovation of bus/train terminals,
- Electric crematories,
- Energy efficient street lighting,
- Reclamation / preservation of water bodies/tanks.

To raise financial support under the fund project needs to clear set of criteria like, positive climate / environment impact, financial soundness of ULB, projects which are expected to achieve economic viability after three years of grant support amongst others.

Source: Odisha Infrastructure Development Fund

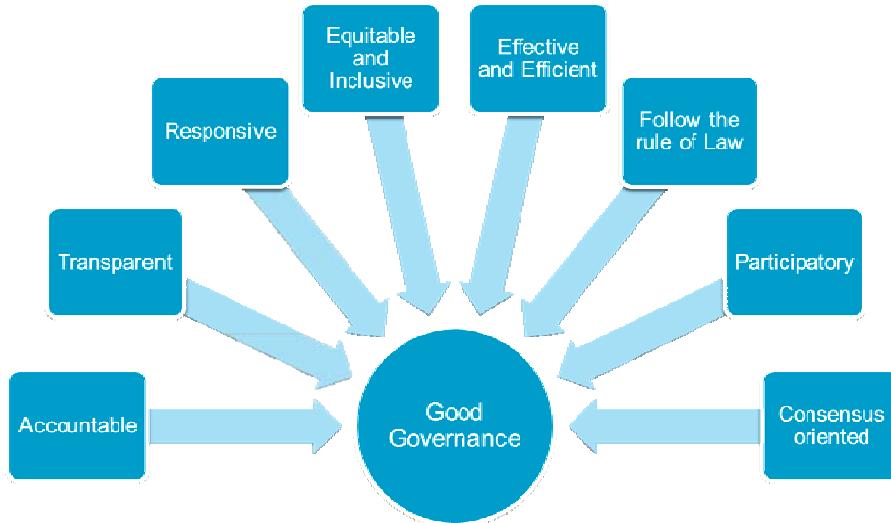
Similarly, State of Rajasthan has developed innovative sources of finance to develop infrastructure in State. The expenditure of the fund is broadly divided into two-

- 50% on Transport
- 50% on Urban infrastructure and buildings

3.4. Governance

The new economic policy of Government of India has changed the role of government from provider to facilitator. With entry of private sector in service provision and improving economic profile of Indian economy, urban public (basically but not only) has started demanding better service provision standards and accountability in the process of governance. Herein comes the role and concept of 'Good governance'. It is an evolving concept, concerning best practices of decision making for conducting public affairs and management of public resources. Good governance is responsive and responsible governance. It is described as accountable, transparent, responsive, equitable & inclusive, effective & efficient, follows rule of law, participatory and consensus oriented. Following are the characteristics of good governance:

Figure 3.6: Characteristics of Good Governance



Source: UN ESCAP, Good Governance guide: Municipal Association of Victoria

3.4.1. Characteristics of Good Governance

3.4.1.1. Public accountability

Accountability is a key requirement of Good Governance and has become key policy priority of the government. In general, an organization or an institution is accountable to those who will be affected by its decisions or actions. Not only governmental institutions but also the private sector and civil society organizations must be accountable to the public and to their institutional stakeholders. Accountability cannot be enforced without transparency and the rule of law.

(Source: Centre for Good Governance)

3.4.1.2. Transparency

Transparency is the basis of Good Governance. This requires management of government institutions so that government officials and agencies are accountable to citizens. Transparency is also essential for accountability, people's participation and efficiency. The working of the public authority should be such that all rules, regulations, decisions should be in the public domain. Transparency is essential for pursuing collective vision of development, determining the locus of accountability, keeps stakeholders' aware of achievements and process.

Emergence of United Nations Convention against Corruption, activism and awareness of civil society for transparency, strong media leading to increased voice of citizens and participation in governance have further emphasized the need for transparency in governance. This means addressing corruption and ensuring accountability in formulation of policies, implementing programmes and delivering services in a convenient, accessible and responsive manner is becoming a non-negotiable priority for governance.

(Source: *Good Governance & Transparency- Their Impact on Development by Saladin Al-Jurf & Transparency and Good Governance at the Municipal Level: Transparency International Canada.*)

3.4.1.3. Citizens charter and Grievance Redress

One of the functions of government is to provide public services to the citizens and to do the same, government i.e. State and Local authorities, Municipalities, Government departments have to operate efficiently and effectively for reaching its optimum performance. For the delivery of public services to the citizens at acceptable performance requires government entities to act in the public interest at all times. It requires transparency, citizen participation in decision making and public accountability. Citizens' feedback plays an important role in service delivery and its improvement.

Citizens' charter and grievance redress brings accountability in the process of service delivery. A Citizens' charter represents the commitment of the organisation towards standard, quality and time frame of service delivery, grievance redress mechanism, transparency and accountability. The concept of Citizen's charter enshrines the trust between the service provider and its users. A grievance can be defined as any sort of dissatisfaction, which needs to be redressed in order to result in service delivery.

Government of India has introduced, 'The Right of Citizens for time bound delivery of Goods and Services and Redress of their Grievances Bill, 2011'. It confers right on every individual citizen to time bound delivery of goods and provision for services and redress of grievances²⁵. The citizen report card is a simple but powerful tool to provide public agencies with systematic feedback from users of public services. By collecting feedback on the quality and adequacy of public services from actual users, CRC provides a rigorous basis and a proactive agenda for communities, civil society organization or local governments to engage in a dialogue with service providers to improve the delivery of public services.

(Source: *Improving Local Governance and Service Delivery: Citizen Report Card Learning Tool Kit-ADB & ADBI*)

3.4.1.4. Inclusive development

The Government of India has put focus on inclusive development in the last two Five-Year Development plan's vision statement. As the title implies, inclusive development means development of all the citizens of an area. If all groups of people contribute in creating opportunities, share the benefits of development and participate in decision-making, the development can be inclusive. This requires all groups, but particularly the most vulnerable have opportunities to improve or maintain their well-being. Here focus should be given to women, poorer & disadvantaged section of society and people employed in informal sector in order to impart social and economic inclusivity.

²⁵(<http://goicharters.nic.in/welcome.html>& Study on Reforms and Restructuring Final Report of Meghalaya State Power Sector)

3.4.1.5. Follow the Rule of Law

Good governance requires fair legal frameworks that are enforced impartially. It also requires full protection of human rights, particularly those of minorities. Impartial enforcement of laws requires an independent judiciary and an impartial and incorruptible police force. Here, need for a regulatory body is felt for planning and development with a legal backing to take decision in such aspects.

3.4.1.6. People's participation

Good governance is linked to the welfare of citizens. Good governance through people's participation ensures development, which is equitable and sustainable. People's participation is not a single stage activity but as suggested in the planning process, it should be taken up at multiple stages. It should take place pre-plan and post-plan preparation at various stages from decision making to implementation and then feedback, for ensuring answerability and transparency in the public governance²⁶.

3.4.1.7. Consensus oriented

There are several actors and as many viewpoints in a society. Good governance requires mediation of the different interests in society to reach a broad consensus in society on what is in the best interest of the whole community and how this can be achieved. It also requires a broad and long-term perspective on what is needed for sustainable human development and how to achieve the goals of such development. This can only result from an understanding of the historical, cultural and social contexts of a given society or community and brought in the planning system right from the State Perspective Plan to be conceived for implementation in Development Plan and Special Purpose Plans. (Source: UN ESCAP)

3.4.2. E-Governance Reforms

E-Governance is the application of ICT in delivery of services to public by government. It brings efficiency, effectiveness, transparency and accountability of informational & transactional exchanges with in government, government agencies of National, State, Municipal & Local levels and citizen. It empowers citizens through access & use of information. In India through National e-Governance Plan (NeGP) both the Union and the State Governments are making efforts to bring in the latest ICT technologies for administration and increase the reach of services to citizens.

Vision of NeGP is to make all Government services accessible to the common man in his locality, through common service delivery outlets and ensure efficiency, transparency & reliability of such services at affordable costs to realise the basic needs of the common man. Under state mission mode projects of NeGP, NRLMP, Road

²⁶(<http://peoplesgoals.org/>)

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Transport, Agriculture, Municipalities, Commercial Taxes, E-Panchayat services, State Governments are responsible for its implementation.

International best practices:

Singapore: E-Governance in Singapore started with computerisation of civil service in 1981. Three relationships on which Singapore's e-Government framework is centred on are – Government to Citizens (G2C), Government to Businesses (G2B) and Government to Employees (G2E). The objectives of e-Governance are integrated on acronym CARE indicating: Courtesy, Accessibility, Responsiveness and Effectiveness. Five thrust areas of e-Governance in Singapore are: (i) reinventing government, (ii) delivering integrated electronic services, (iii) being proactive and responsive, (iv) using IT and Telecommunication to build new capabilities and capacities (v) innovating with IT and Telecommunication.”

Vancouver: The City of Vancouver has defined Digital Strategy as ‘a broad range of technology that enables new methods of engagement and service delivery supported by a robust and accessible digital infrastructure and open government ecosystem’. The Vision is to enhance multi-directional digital connections amongst citizens, employees, business and government. The pillars of digital strategy of Vancouver city are: engagement and access, digital infrastructure and assets, digital economy and organizational digital maturity.

National best practices: E-Governance functions and online services are detailed in Table 3.6.

Table 3.6: Selective e-Government functions and Online Services in India

State	Online Services
Gujarat	Public grievance redress, <u>e-Gram - Vishvagram</u> (connecting villages) <u>e-Dhara</u> (computerisation of land records through), Hospital Management Information System, e-City (delivery of municipal services)
Delhi	Conversion of lease hold to free hold, Booking of community hall, parks, open spaces, <u>Samsyanidansewa</u> , Legal management system, OPD medical claim reimbursement Review of Master Plan for Delhi 2021
Ghaziabad	Vehicle pooling facility (registration for owner), System of feedback for public departments, Online property information system Online complaint system
Tiruchirappalli (under IT Department, Govt. of India)	Dues Payment: property tax, water charges, non-tax, professional tax Birth and Death certificate, Building Plan approval, Trade license

Source: AMDA: Websites of Gujarat and Tamil Nadu Government, DDA and GDA.

3.5. Institutional Set-Up

Planning function is a continuous process and the Planning Department's work continues from plan preparation to plan processing, enforcement, implementation, plan detailing, review and then plan formulation and so on. The plan formulation, implementation, monitoring and review exercises must be statutorily prescribed in the State Acts and completed within the specified time-frame as schedule. In the context of these requirements institutional set-up has a vital role.

3.5.1. Town and Country Planning Departments: State Levels

Most of the States in India have Department of Town and Country Planning (T&CP), under the provisions of State Town and Country Planning Acts. But, not all the Departments of T&CP are headed by qualified planners. Instead of Chief Town Planner, the Departments are headed by Chief Engineers or Administrators and in few cases by Senior Town Planners. Thus, despite of qualified manpower T&CP departments at many states are headed by non-planners which lead to problems, like delayed decision making, lack of appropriate visions and policy in planning, delay in master plan preparation. A review of the various States and detailed study by TCPO has provided (**Table 3.7, 3.8, 3.9 & 3.10**) general manpower requirements at State Departments of T&CP.

Table 3.7: Required manpower of State Town Planning Department

Professionals	Sub - Professional	Administrative
Chief Town Planner	Assistant Town Planner	Head Clerk, Accountants, UDC, LDC, Typists, Stenographers, Peons, Drivers, Cleaners, Gardeners and others
Deputy Chief Town Planner	Village Planner	
Assistant Director of Town Planning	Executive Engineer	
Town Planner	Assistant Engineer	
Deputy Town Planner	Statistical Assistant	
	Research Associates	
	Assistant Consulting Surveyor	
	Assistant Sociologist	
	Urban Designer	
	Planner(s)	
	Architectural/ GIS Draftsman	
	Assistant Architectural/ GIS Draftsman/ CAD/CAM expert	
	Photographer cum Draftsman	
	Quantity Surveyor	
	Supervisor	
	Sub Overseers	

Source: TCPO

3.5.2. District Planning Committee

State Governments have been empowered by 74th Constitutional Amendment Act to constitute District Planning Committee. These committees are to be responsible for the preparation of District Development Plan. However, even after 2 decades of amendment, most of the states have not constituted these committees.

In a study done by TCPO in consultation with State Town & Country Planning Departments and academic institutions, tentative strength of planners required at different planning levels was deliberated. It was agreed that proportion of town planners would vary according to the population and size of the administrative units. The manpower requirement of DPCs, as assessed, is presented in **Table 3.8**.

Table 3.8: Number of Town Planners required at District Level

Designation	Number
Chief District Planning Officer	1
Senior District Planning Officer	1
Associate District Planning Officer	3
Assistant District Planning Officer	5
Total	10

Source: TCPO

3.5.3. Urban Local Bodies (Municipality, Development Authority, MPC)

In view of growing number of cities and towns the number of town planners at Metropolitan Planning Committees was assessed to be around 1,200. It was established that number of town planners may vary city to city depending upon number of zones/wards in the city. It was normated that for every 5 lakh population, 1 town planner is required at metropolitan planning area.

Table 3.9: Number of Town Planners in Metropolitan Planning Area

Designation	Number
Chief Town Planner	1
Additional Chief Town Planner	1
Senior Town Planner	3
Associate Planner	6
Assistant Planner	12
Total	23

Source: TCPO

The Census of India, 2011 has for the first time classified a large number of towns as census towns (3,894). These rural settlements have attained urban characteristics and need support of town planners. It was assessed that about 79,000 planners will be required in small and medium cities alone.

Table 3.10: Number of Town Planners required for non-million plus cities (small & medium cities)

Designation	Number
Chief Town Planner	1
Senior Town Planner	1
Associate Planner	2
Assistant Planner	6
Total	10

Source: TCPO

Thus, the analysis done by TCPO indicates that 85,000 to 90,000 planners would be required in the country at various levels of planning framework, which roughly works out to 1 planner per 14,000 population.

3.5.4. Team Requirement for Plan Formulation

Though the number of cities and the necessity of planning in these cities have increased but the qualified manpower for the preparation of various plans has been not yet met, as well as no statutory framework has been formed to meet the manpower requirement normatively. The TCPO study has concluded 'this has led to regional variations in planning manpower and hinders regional or national integration of ideas and rationales of planning standards followed in States'. In addition the use of modern techniques of planning including advancements in IT systems, Remote Sensing (RS), Geological Information System (GIS) and Global Positioning System (GPS) technologies, use of CAD, CAM is also falling behind due to lack of trained manpower of such disciplines in planning. Thus current situation calls for predefined acknowledgement of minimum team requirements for plan formulation, boosting training of the new planners and provision of adequate planning schools, capacity building. It is also desirable to revisit the curricula of the under- and post-graduate study courses in town planning to bring in the newer concept and technologies, including RS&GIS etc., into every aspect of town planning.

3.5.4.1. Team Requirement

Core Planners' team for holistic planning of cities and regions should necessarily consist of:

- Urban planner and/or regional planner,
- Environmental planner,
- Transport planners and
- Infrastructure planner.

Apart from team of planners certain experts' are also required (as per requirement of the study) such as,-

- Urban designer,
- Legal expert,
- Economist,
- Geographers & Demographer,
- Sociologist/Anthropologist,

- Expert in housing and good governance,
- Heritage conservation expert,
- Tourism expert,
- Urban policy expert,
- Development planner,
- Water & Sanitation expert and others,
- Architectural draftsman / GIS expert or associate.

3.5.4.2. Qualified Planner

A qualified planner should preferably be a member of ITPI. A list of institutions recognized by ITPI is given in **Appendix D of Volume IIB**. However, to bring uniformity in the planning profession, Draft Town & Country Planners Registration Bill, 2012 has been prepared by the TCPO. The Bill also provides for establishment of a Council of Town & Country Planning. The purpose of such council is to regulate the quality of educational institutions and qualified professionals in Town and Country Planning. The Bill has defined "Town and Country Planning" as the profession responsible for planned development of urban and rural areas and the process concerned with control of the use of land so as to guide and ensure planned and orderly development.

Town and Country Planner is proposed to be a person holding a professional undergraduate or postgraduate qualification in Town and Country Planning or in accordance with the nomenclature as specified in the Schedule of the Bill, acquired from a recognized School, Institution, Department of study / University and registered with the Council. The Council will prescribe the standards of Town and Country Planning education. The Council could help ensure that only certified planners carry out the task of urban and regional planning.

3.5.4.3. Policy Options of Manpower Mobilisation

As indicated above, the requirement of planners to perform the function of planning and development at district, metropolitan and local area levels is over 85,000. Currently there are 3700 planners registered with Institute of Town Planners, India (ITPI), working in different organizations. It is therefore suggested that:

- Every state should have a **Planning School**. As of now, N-E States, Bihar, Haryana, Himachal Pradesh, J&K, Orissa and Uttar Pradesh do not have any recognized institute offering courses in Town Planning. This gap needs to be filled in soon.
- Capacity building for enhancing institutional capacities for plan preparation, effectively function as institutions of local governance and for improved service delivery. As per the 'Toolkit for **Comprehensive Capacity Building Programme**', JnNURM, 2013, the efforts should focus on creating an enabling environment at ULB level to improve governance and service delivery functions. Further, capacity building to include training programmes, such as:
 - i. Training /awareness programmes to ULB staff and elected representatives, with special emphasis on the women elected representatives.

- ii. Skill development trainings to ULB/parastatal functionaries to plan and implement development projects.
- iii. Technical and sectoral training programmes for ULB/ parastatal staff in water supply, solid waste management, roads & bridges, urban transport, sewerage, environment, and other sectors related to urban development / management.
- It is also desirable to strengthen the arrangements for training and capacity enhancement of town planners and urban designers in non-government sectors, for which ITPI or similar bodies could act as facilitators.

3.5.4.4. Outsourcing Professional Services

In case of inadequacy in the manpower capacity with the Government bodies for planning, outsourcing to non-governmental and private consultancy/ organisation could be considered as an option. The conditions of engagement of professional services and scale of professional fees and charges are provided by ITPI²⁷. It provides professional fees for preparation of different types of plans based on projected planned population and also as per man-months, which can be referred for estimating the cost of respective plan preparation.

3.6. Institutional Reforms

3.6.1. Regulatory Body at State Level

A Regulatory body ‘Urban- Regional Planning and Development Regulatory Authority’ at State level should be established through statutory support. The role of this body should be to regulate and monitor the functioning of development bodies and also to regulate Urban and Regional Development Authorities/ Bodies / Agencies²⁸. This regulatory body should have following objectives to fulfil its role and functions in an envisioned manner:

- Assess and Monitor the overall Urban / Regional Planning in the State.
- Observer and Evaluate impacts of planning on other elements of development system, especially Environment and Social & Balanced Regional Development.
- Quicken the process of approval of Plans coupled with transparency.
- Promote and direct FDI in Real Estate Sector.
- Prepare Standard monitoring plan and evaluation parameters
- To serve as a Centralised Single Window for clearance and
- Authority to exam the plan modification request and permit (mid-term) landuse changes in the plan which may be guided by large developments, social interest and need for all.

²⁷Document: ‘Conditions of engagement of professional services and scale of professional fees and charges’, ITPI, effective from December, 2011 available at: <http://itpi.org.in/pdfs/DiscussionDraft.pdf>.

²⁸Such arrangements have been introduced in Kerala, where Town & Country Planning Commission under the Kerala Town & Country Planning Ordinance, 2013 is an apex body to advise the Government and guide and assist the MPCs and DPCs on matters relating to spatial planning and development.

3.6.2. Grievance Redressal System

A decentralized grievance redress system should be established in every state upto the level of local development authority, to provide redress for complaints.

A Citizen's Charter could be formed in the framework of the "Action Plan for Effective and Responsive Government, 1997" and the Citizen's Charter and the Grievance Redress Bill, 2011 under consideration in Parliament.

Central Government is providing base for public grievance under Citizen's Charter, for which guidelines are also available in the Compilation of Guidelines for Redress of Public Grievance, 2010 of the D/o AR&PG, which has a dedicated website for citizen's charter: <http://goicharters.nic.in/welcome.html>.

To ensure obligation of transparent modification of schemes, including the updated progress Local Area Planning level, the method of public participation should be utilised.

4 Regional Planning Approach

4.1. Need of Region as Planning Unit

Region is a contiguous geographical area, which has a fair degree of uniformity, in administration, economic linkages or natural environment. It is relatively a large area, with hierarchy of settlements and varying landscape.

Urbanisation has accelerated in the past few decades while planning in India has been largely limited to urban settlements and the space between cities and their surroundings has been growing in an unplanned haphazard manner. Centrifugal forces attract huge volume of migrant population to urban centres, which has rendered short the planning efforts of local bodies. The resultant biases in demography have also had negative implications in the development at the source of migration. Thus, urban centres & its surrounding settlements have two-way interrelationship in terms of cause and effect of many elements. Accordingly, planning as an exercise should not be exclusively limited to urban settlements but a region can be identified to have holistic development of growth promoting centres and surrounding subsequent hierarchy of settlements. This should facilitate optimal planning and development of infrastructure in cities along with the adjoining rural areas and strengthen the economic links in the region.

The paradigm of regional development has evolved through the years after Independence. Most important ones are district planning, metropolitan planning, watershed management and special area development. The Planning Commission has also developed methods for regionalisation and policy guidance for preparation of development plans for regions. A number of such case studies have been taken up by the State Governments for development of special regions. Considering the importance of regional planning at the district level and with the view to integrating the urban and regional development, the DPC and MPC were created through the 73rd and 74th CAA.

4.2. Aspects of Regional Planning

The preliminary aspects of regional planning may constitute the following, which highlight the advantages of the approach:

- 1. Sustainability** - Sustainability leads to balance in Regional Development which implies efficient use of available resources and opportunities for development in all parts of the region. Sustainability of regional planning depends upon:
 - i. Management of major environmental inputs namely water (both surface and ground), minerals, maintenance of green cover, protection of sensitive environmental areas and linking areas with special opportunities for development like religious, archaeological etc.
 - ii. Balanced and equitable spatial and economic development of the region
 - iii. Effective Use of local resources including cultural resources such as art & crafts.
 - iv. Optimisation of regional multimodal mobility and TOD.

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Sustainability based regional development can provide solutions for elevation of urban poverty, minimisation of urban sprawl and managing migration, which are majorly outcomes of lack of regional planning.

2. Environment – Some of the major environmental concerns that can be addressed by regional planning approach are the following:

- i. Control of pollution specially water pollution, use and maintenance of the water courses.
- ii. Maintenance of green cover, forests and eco fragile areas.
- iii. Control and regulation of activities which have impact on environment.

While planning, the environmentally sensitive areas should be identified which are non-conducive for development. Such areas should be either protected or developed while following relevant standards.

3. Disaster Management – The impact of natural disasters is exaggerated by unscientific plus unplanned development. Regional development should promote efficient response and preparedness to disasters such as floods, landslides, land subsistence, fire and earthquake. The Disaster Management Act, 2005 makes it mandatory to prepare Disaster Management Plan at State and District level. Integration of hazard (micro) zoning in planning activities is more facilitative and responding at regional level which can be integrated with the provisions of NDMA. Zoning hazards and its holistic approach can be achieved largely at the regional level scale or better at city level. Thus, regional planning is the solution to integrated response.

4. Promoting Balanced Development – Imbalanced development of the country due to missing regional planning approach to bring development in urban-rural settlements simultaneously has led to lopsided development in favour of urban settlements. As a result centripetal and centrifugal forces of human movement have come to work with intensity in the urban parts of the country. Lack of integrated spatial planning specially in the influence area of metropolitan cities has led to ‘rural push’. Migration across administrative boundaries to the cities without adequate functional infrastructure to support the population puts pressure on the administrative departments. On the other hand the areas from where out-migration takes place suffer with imbalance growth. Thus, an integrated planning approach is required to provide administrative solution for provision of sustainable infrastructure in the region and vision development of the peri-urban areas & counter magnets.

5. Inclusivity – Regional planning can bring inclusivity in broader area by preparing plan after considering issues, strengths and prospects of a large spatial unit. Regional disparities especially peri-urban areas surrounding large cities and metropolitans present contrasting conditions both physically and social-economically. Regional planning can efficiently tackle the problem arising out of the transition of rural area into peri-urban and urban areas. Inclusive development principles can bridge the gap present in terms of regional disparity in India.

4.3. Planning Regions in India

The increasing need of urbanisation further aggravated by the rural push factors is directly affecting the quality of life and environment. Such areas shall not be merely left to the factors of natural growth and can be identified for Regional Planning. A region is a flexible concept and can be referred to as a continuous and localised area intermediate between National and Urban levels.

The District Planning Committees is to be the single decision making committee, which can address to the issues of planning in the District. In many States, DPC's are

not constituted, however, in some of them, the Town and Country Planning Acts provides a legal framework for constitution of Regional Development Authorities. For example, the Bombay Metropolitan Region Development Authority Act, 1974 makes it mandatory to constitute the Metropolitan Regional Development Authority for the planning and development of Mumbai metropolitan city.

Whenever functional areas cut across different State boundaries there may be problems of co-ordination in administration. Ideally in such cases, a unified RDA (for this specified region) may be instituted with representation from each of the State.

In the present scenario, Indian metropolitan cities have planned development, which partially satisfies the aim of the 73rd & 74th CAA, however, incomplete adherence of the Act has resulted into lack of holistic planning. Thus, it is required that state governments amend respective State Town and Country Planning Acts and provide a structure of regional planning with appropriate administrative structure to carry out its preparation and implementation.

Such regions are holistic from administrative point of view and there are little chances of conflict when there is a single administrative unit. The present planning system for only urban settlements has developed islands of growth centres, creating vast disparity. Planning for district as a region is the approach in which country as whole can be covered in planning exercise leaving no intermediate space. Thus, for convenience of administration of regions and entire coverage of country under planned development the structure of regional planning should be followed.

The 12th Five Year Plan has emphasised on regional development particularly DPC composition to control and regulate unplanned development beyond the urban areas i.e. urban sprawl/scatter. The State T&CP Acts provide statutory setup for urban and regional planning and development. In many States, Special Area Planning Acts, similar to Regional Planning, are also in place.

Transport linkages play an integral role in the growth of urban nodes. As movement of goods, services and alignment of infrastructure follow the transport network while the human settlement and economic activities generally follow the transport lines. Lately, Government of India has recognised the potential of transport corridors as instrument of imparting economic push to large region and thus has been implementing programmes, which are spread across a large region like, Delhi Mumbai Industrial Corridor (DMIC) Programme. The objective of DMIC project is to expand India's manufacturing and service base and develop DMIC as a "Global Manufacturing and Trading Hub". The project will provide a major impetus to planned urbanization in India with manufacturing as the key driver.²⁹

The National Highway Development Programme (NHDP) was launched in 2000 to upgrade and strengthen National Highways and one of the advantages identified under the NHDP is all round development of areas. Other transport oriented regional

²⁹<http://www.dmicdc.com>

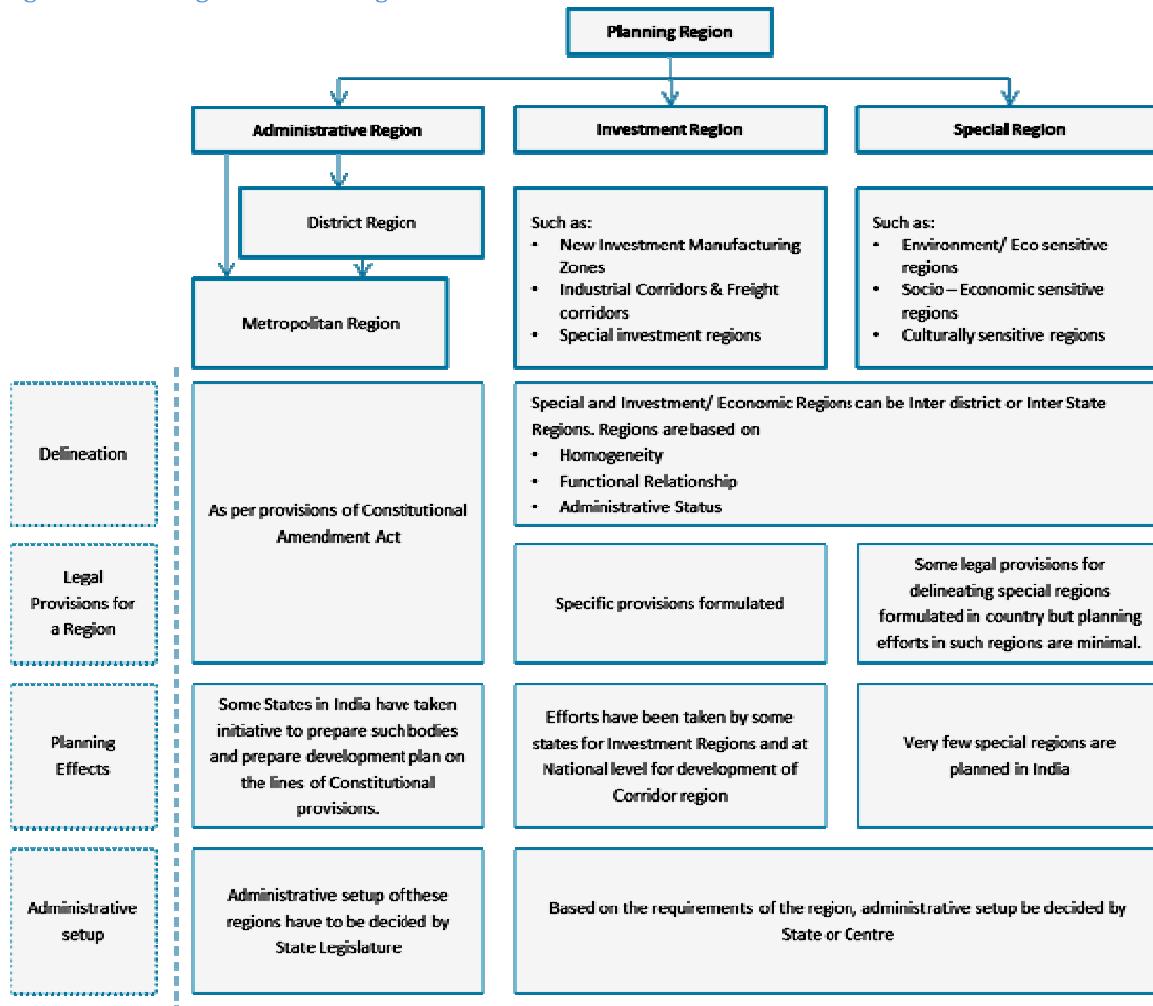
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corridors conceptualised are the Eastern and Western Freight Corridors. Keeping these developments in mind, Transit Oriented Development (TOD) approach to plan and develop regions can be adopted.

There are other types of regions as well, which have homogeneity and linkages in terms of investment, tourism and natural environment. In India, owing to its vast stretch and heterogeneity, multiple/different typologies of regions could be adopted for planned development. The regional planning approach is suggested in these guidelines for planned and sustainable development of the human settlements.

The planning regions in India have been categorised as:

Figure 4.1: Categorisation of Regions in Indian Context



Source: *Compilation from 73rd& 74th CAA, State Administrative set-ups and regional planning cases in India*

4.3.1. District as a Planning Region

India has 640 districts and according to Census of India, 2011, 67% districts are urbanised upto 50% out of which approximately 7% have crossed the line of 40% urbanisation. New Delhi, Central Delhi, Kolkata, Mumbai, Mumbai Suburban, Hyderabad, Chennai, Yanam and Mahe (in Puducherry) are 9 districts which are

100% urbanized. However, there are many other districts which have rural-urban character and have a fast rate of urbanisation. Therefore, the urban trend of these districts should be planned. Efforts to direct urbanisation of such districts will synchronize the growth of cities with goals of national development.

District as a unit is a holistic concept which administratively provides a strong foundation for planning. The hierarchy of settlements and natural resources available in relatively larger region are other additional reasons which make district a unit of planning more logical premise.

4.3.1.1. Need for Administrative Structure

Administrative structure to guide planning at district level is important. The 74th Constitutional Amendment Act provides that the State Legislature should provide for the composition of District Planning Committee (DPC) given that there shall be elected representatives of *Panchayats* and municipalities in committee in proportionate ratio. For this, State Governments are required to amend existing or enact new laws to introduce DPC in planning administration structure.

4.3.1.2. Process of planning at District level

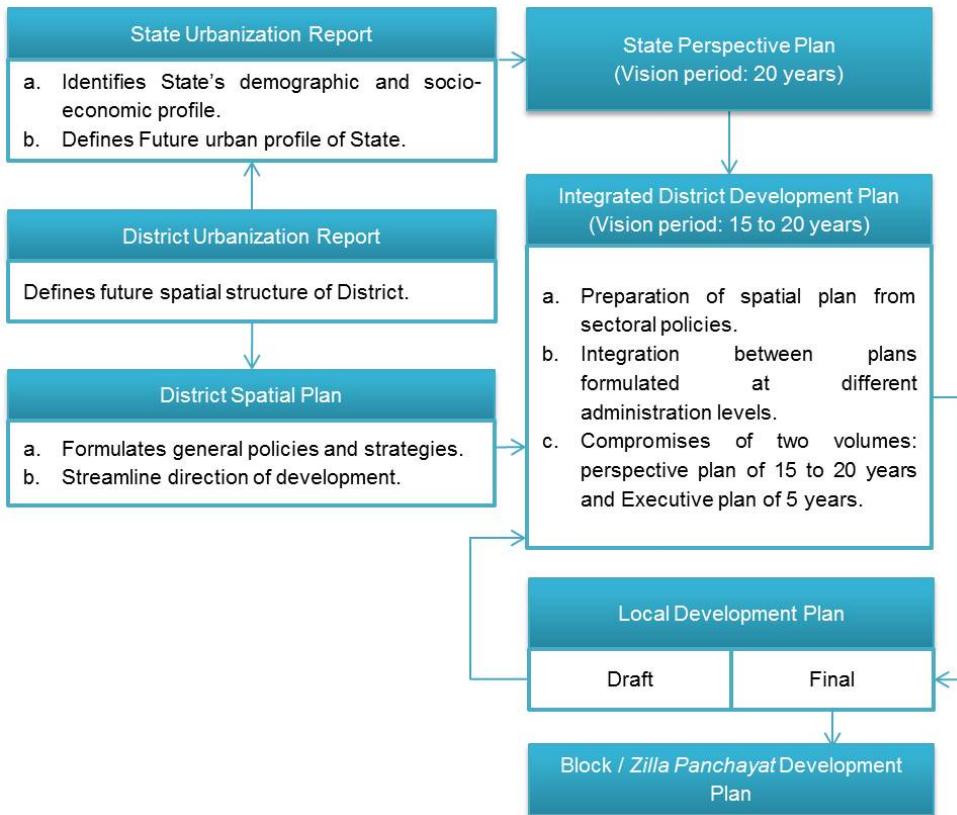
In India, planning process for administrative areas equal to or bigger than district has been attempted.

Kerala: The State of Kerala has provision for DPC and MPC. Its methodology of District plan preparation provides for a decentralised planning process by initiating preparation of an Integrated District Development Plan (IDDP) along with Local Development Plans (LDP) for every local government in the district in an integrated manner. The Integrated District Development Plan (IDDP) aims for an integrated draft development plan with due regard to common interests of *Panchayats* and municipalities (as shown in Figure 4.2) to plan for spatial and sharing of resources: both natural and man-made. The IDDP includes planning of special areas such as tribal areas, coastal areas, economically backward areas, areas for establishment of new towns etc. Also, there are provisions of Joint area planning in case the area comprises more than one Municipal Corporation, Municipal Council, Town *Panchayat* or village *Panchayat*, either in full or in part.

Draft IDDP should be prepared for the district incorporating suggestions of LSGs. The Draft IDDP prepared shall be an input for the identification of development issues and setting up of development goals and objectives of each LSG and thus becomes the frame within which the Draft LDPs are prepared. Based on suggestions and proposals of the Draft LDPs, the Draft IDDP is modified and finalised. Once the draft IDDP is approved by the DPC and sanctioned by the State Government, the Draft LDPs shall be modified and finalised.

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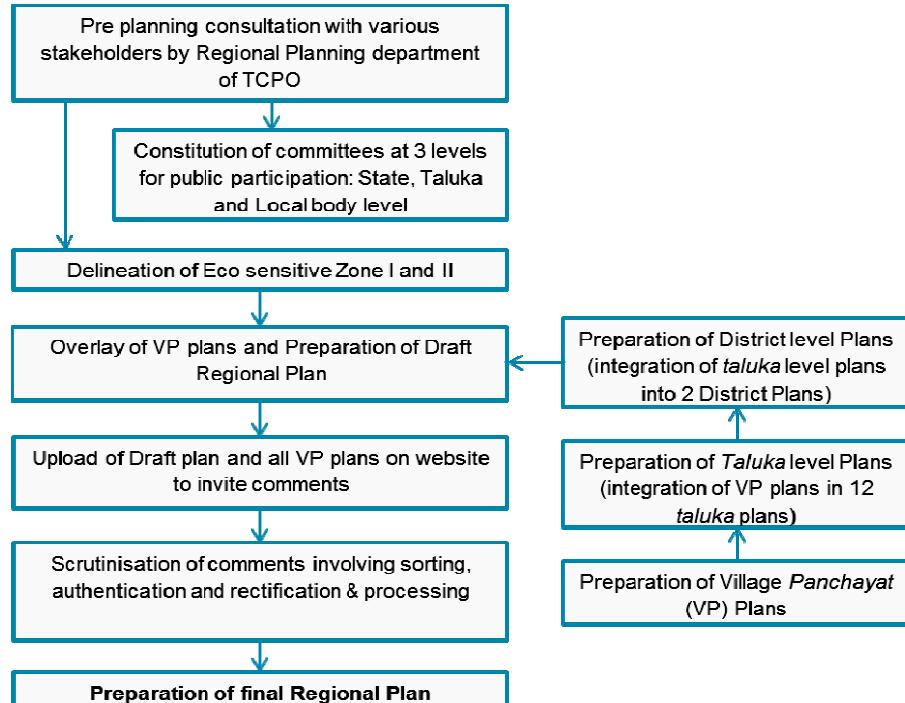
Figure 4.2: Plan Preparation Process of Kerala



Source: *The Kerala Town and Country Planning Ordinance 2013*

Goa: The State of Goa has prepared Goa Regional Plan, 2021. The basic approach for preparation of Goa Regional Plan has been protection of environmentally sensitive area of the State by introducing “Eco Sensitive Zones” and planning details at village *Panchayats* level. The Regional Plan gives a micro level planning of the State of Goa with the village *Panchayats* as the planning units. Multiple level consultative process has been undertaken in preparation of the plan. A decentralised approach was adopted in which a vision document was prepared for the State and was shared with the local bodies/villages. Plans prepared at grass root level were compiled at higher levels to prepare Draft State Regional Plan. Another round of public participation ensured inclusiveness. The approach has been presented in the following diagram.

Figure 4.3: Plan Preparation Process in the State of Goa



Source: *Goa Regional Plan, 2021*

The States of Kerala and Goa have attempted successfully the preparation of District or Regional Plans by adopting 74th CAA. While Kerala has prepared District Plans, Goa has prepared State level Regional Plan (but based on the two district plans) due to its size. Both the states have adopted decentralised approach as prescribed in the Constitution of India and have focused on public participation. The approach and methodology of these two States is influenced by the size and settlement structure and hierarchy present in the States.

A Planning process at district level for the larger States of India would require much more complex procedure to integrate bottom-up and top down approach. Hence considering the above mentioned case studies and keeping in view the constraints of large size States, a District Regional Planning simplified approach is given in Fig 4.4.

Plan preparation process for regional plan must start with preparation of State level Perspective Plan along with pre-plan interactive consultations of government departments, elected representatives, stakeholders, NGOs and Self-help groups. Outcome of such consultations is a Perspective Plan which will be vision document for the entire State either by the State Planning Board, State Town Planning Commission, and State Town & Country Planning Department or by State Urbanisation Committee, such as efforts taken by Kerala and Rajasthan recently.

Perspective Plan must include the LUZs from the State Land Utilisation Policy. In case the State Land Utilisation Policy is not prepared, Perspective Plan should delineate State into developable, prohibited and restricted zones. For this classification, variety of parameters could be used based on development approach of the state. Some of the

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parameters have been shared below but this is only suggestive list, which must be made exhaustive while preparing plan at state level:

- Eco sensitive zones of the state,
- Boundaries of all the urban and rural settlements of the state,
- Mapping of transport and communication networks,
- Mapping of natural features,
- Industrial, mining and related area,
- Disaster Zonation
- All maps/plans must be prepared on GIS platform and geo-referenced.

The State Perspective plan should be distributed to the Districts as a reference for preparation of further plans at district level. At the stage of Perspective Plan preparation, the mapping scale, time lines and roles and responsibilities for the preparation of district plan preparation should be decided which will bring clarity and uniformity in mapping and plan preparation process. District administration should proceed with distributing the plans and maps at *taluka* level and from *taluka* level to village *Panchayats*. The Draft Development plan should then be prepared at each village *Panchayat* level with public participation. Here, capacity building and technical knowhow would need to be percolated from the top administrative set-ups and supporting institutional arrangements. The training to the selected people or people's representatives must be provided along with trained officials through the plan preparation process. Similar process must be followed in settlements of urban hierarchy. Once the plan process at grass root level is over, these plans should be compiled first at *taluka* level or at its urban counter parts by Development Authority/ Municipal Corporation to formulate the draft District Regional Plan.

The Draft District Regional Plan then must be put on public forum for objections and suggestions to impart transparency in the plan process. To meet the purpose of the district plan, interchangeable options and conflict of interest would need to be answered in the regional plan. Once the process of public participation is over and with the approval of State legislature, the final Regional Plan should be uploaded on relevant websites for future reference and use.

Table 4.1: Institutional responsibilities

Administrative Unit	Institutional Body
District	DPC/ Zila Parishad
Taluka	Block Development Level/ Town & Country Planning Department
Village Level	Panchayat/ Gram Sabha
Metropolitan & Megapolis	MPC/ Development Authority / Municipal Corporation
Large & Medium Towns	Development Authority / Municipality / Urban Local Body
Small Towns	Nagar Palika/ Municipal Council / State T&CP Department
Ward	Ward Committee