

Jawaharlal Nehru National Urban Renewal Mission

Toolkit for Preparation of City Development Plan

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TABLE OF CONTENTS

| | |
|--|----|
| 1. Introduction..... | 6 |
| 1.1 What is a City Development Plan? | 6 |
| 1.1.1 The City Development Plan as a Comprehensive Strategic and Integrated Plan | 6 |
| 1.2 Purpose of the CDP Toolkit..... | 7 |
| 1.3 CDP as a Living Document | 8 |
| 1.4 Sectoral Coverage of the CDP | 10 |
| 1.5 Key Steps in the CDP Preparation Process..... | 10 |
| 2. Organisation Framework for the CDP Process | 12 |
| 2.1 CDP Policy Committee..... | 12 |
| 2.2 CDP Technical Committee | 13 |
| 2.3 Roles and Responsibilities of Consultants/Technical Experts | 15 |
| 3. Initiation of the CDP Planning Process | 16 |
| 3.1 Constituting CDP Policy and Technical Committees | 16 |
| 3.2 Identifying Stakeholder Groups..... | 16 |
| 3.3 Conducting Workshops for CDP Preparation..... | 16 |
| 4. City Assessment | 19 |
| 4.1 Why City Assessment? | 19 |
| 4.2 What to Assess and How to Assess? | 19 |
| 4.3 SWOT Analysis | 33 |
| 5. City Vision, Development Goals and Strategies | 36 |
| 5.1 What is “Vision”? | 36 |
| 5.2 How to Develop a “Vision”? | 36 |
| 5.3 What are development goals and strategies? | 38 |
| 5.4 Why the Development Goals Important? | 39 |
| 5.5 How to develop goals and strategic options?..... | 39 |
| 6. Sector Plans | 45 |
| 6.1 Why are Sector Plans Important? | 45 |
| 6.2 Which Sectors to Cover? | 45 |
| 6.3 How to prepare Sector Plans?..... | 46 |
| 6.4 Water Supply | 55 |
| 6.5 Sewerage and Sanitation..... | 57 |

| | | |
|-----------|---|-----------|
| 6.6 | Storm Water Drainage | 58 |
| 6.7 | Solid Waste Management | 59 |
| 6.8 | Comprehensive Mobility Plan | 60 |
| 6.8.1 | Transit-Oriented Development (TOD): | 62 |
| 6.9 | Housing and Basic Services for Urban Poor..... | 62 |
| 6.10 | Preservation and Rejuvenation of Water Bodies | 64 |
| 6.11 | Urban Environment | 65 |
| 6.12 | Cultural and Heritage Conservation | 67 |
| 6.13 | Local Economic Development..... | 70 |
| 6.14 | Disaster Prevention and Management Plan | 74 |
| 6.15 | Capacity Building: | 75 |
| 6.16 | Climate Change and Sustainable Development:..... | 75 |
| 6.17 | E-Governance: | 76 |
| 7. | Financial Assessment and Financial Operating Plans | 77 |
| | Understanding Financial Plan and Capital Investment plan | 77 |
| | Understanding the guidelines..... | 78 |
| 7.1 | Defining Objectives | 79 |
| 7.2 | Data Collection | 81 |
| 7.3 | Business-As-Usual scenario– CFP Version I | 82 |
| 7.4 | Analysis / Interpretation of the results | 82 |
| 7.5 | Identification of areas of improvement..... | 83 |
| 7.6 | Select/ Prioritise areas of Improvement / Reforms | 84 |
| 7.7 | Finalising Basic Assumptions for Resource Mobilization Forecast | 85 |
| 7.8 | Ascertain Investible Surplus for ULB / Parastatal / Development authority | 85 |
| 7.9 | Ascertain Combined Investible Surplus – CFP Version II | 86 |
| 7.10 | Component-wise Allocation of Combined Investible Surplus | 86 |
| 7.11 | Listing of Project Proposals – linkage to CDP | 86 |
| 7.12 | Prioritise Project Investments | 87 |
| 7.13 | Ascertain Source and Amount of Funding, External Borrowing, Debt Servicing Mechanism etc..... | 87 |
| 7.14 | Public Private Partnership (PPP) : | 87 |
| 7.15 | Land resource leveraging:..... | 88 |
| 7.16 | Preparation of draft CFP – CFP Version III & Financial Plan Report: | 88 |
| 7.17 | CFP Appraisal and Public Verification | 89 |
| 7.18 | Finalisation of CFP report..... | 89 |

| | | |
|------|---|----|
| 7.19 | Annual revision of CFP (linkage to annual capital investment and improvements achieved) | 89 |
| 8. | Finalisation of CDP and It's Time Frame | 90 |
| 8.1 | Finalisation of CDP | 90 |
| 8.2 | Review and Monitoring of CDP | 91 |

Annexures

| | | |
|----------------|---|-----|
| Annexure I : | Preparation of Heritage Management Plan | 94 |
| Annexure II : | Financial Ratios and Their Implementation..... | 99 |
| Annexure III : | Suggestive Options for Financial Improvement..... | 102 |

1. Introduction

1.1 What is a City Development Plan?

A City Development Plan is a comprehensive document outlining the vision and development strategy for future development of the city, prepared in consultation with a wide range of stakeholders to identify the thrust areas to be addressed on priority basis in order to achieve the objectives and the vision. It thus provides the overall framework within which projects are identified and put forward in a City Investment Plan.

1.1.1 The City Development Plan as a Comprehensive Strategic and Integrated Plan

Unlike the current planning process, popularly known as the ‘preparation of Master Plan’, which places a greater emphasis on the spatial aspects and its regulation, the planning process outlined in this toolkit takes a more strategic view of the development of a city and aligns infrastructure development and service delivery to the vision for development in a consultative and participatory manner. The process is cyclical with an in-built periodical review mechanism so that it can respond to the evolving aspirations and needs of the citizens keeping the constraints and opportunities in mind.

It is suggested to follow a resource-based approach to planning and development, embracing the following principles of social equity and sustainable development:

Equity : Equity is addressed in the planning process by means of representation by and participation of all stakeholders including those below the poverty line, and a focus on the socio-economic aspects of urban development in the planning process.

Social resources: The planning process captures the aspirations and the vision of the citizens, and it is therefore imperative that the engagement of all civic stakeholders is facilitated throughout the entire cycle of the preparation of the CDP. Various tools such as Stakeholder mapping and cobweb analysis, as well as the need to have proper representation from across various stakeholder groups have been emphasized in the process as outlined in this toolkit.

Economic resources: The conventional planning process lays greater emphasis on formal economic structures even in planning for local economic development. The informal economy is dealt with in a cursory manner. The impact of exogenous factors with a critical impact on the local economy, both formal and informal, is seldom considered. The approach suggested in this toolkit takes into consideration both the formal as well as the informal economy and encourages planners and managers entrusted with sustainable municipal development to identify and manage the linkages between the local economy, infrastructure development and the broader operating environment.

Natural and Cultural resources: Natural and cultural resources are the basis of the very existence of a city. They determine why the city was built in this place, how it survived over the centuries, and gives valuable clues on how to develop it for the future. They also give credence to settlement footprints and enhance heritage value of the city. These resources also play an important economic role as they are closely linked to the most needed services (such as water) and to the livelihood of the people (such as the craft sector) or tourism. The CDP is expected to provide for the conservation of

sites, remains, ruins and buildings of archaeological, historic, cultural, architectural and ecological value as part of city development.

The following box summarizes the key features of the CDP

Box 1. Key features of a CDP

1. Presents current stage of city's development – *where are we now?*
2. Projects aspirations of the city – *what/where do we want to be?*
3. Attempts a Resource Based Planning – *is city planning inclusive of all resources; social, economic, natural and cultural?*
4. Identifies the thrust areas – *what are the sectors we need to address on a priority basis?*
5. Sets goals for different sectors –inter sectoral and intra sectoral - *what specific goals should be targeted?*
6. Suggests alternative routes, strategies – *what are the practical and implementable approaches to achieve the goals?*
7. Identifies specific interventions and their resource requirements – *what are the specific projects and initiatives to be undertaken, and what will be the investment needs?*
8. Adopts a transparent and consistent framework and prioritizes these interventions - *collectively what do we agree are the priorities?*
9. Identifies a financial plan that can be operationalised at the institutional level and then as an aggregate at the city level – *how do we balance the resource availability (social, economic, cultural and natural) with the requirements of the plan for the medium term? Can the internal resources finance priority investments? Are there other options for leveraging finances?*
10. Identifies the actions for developing institutional synergy, drawing on resources from private sector and the civil society, and build the organizational capacity to meet the challenges of implementing these plans – *what are the resources we need to put together to be able to implement these plans?*
11. Ensures that focused strategies and plans are evolved to address issues of urban poverty - *how do we ensure that the goals, strategies and plans promote inclusive growth, and provide the environment to alleviate poverty?*
12. Evolves through a process of participatory planning with involvement of all stakeholders – *how do we ensure that the CDP has collective ownership and reflects the voice of all sections of society?*

1.2 Purpose of the CDP Toolkit

Mission Cities under the JNNURM were required to prepare City Development Plans. These “first generation CDPs” were prepared with significant enthusiasm and energy and outlined their overall vision for development of the city in terms of infrastructure development and service delivery. While these plans have been approved by the Ministry, it is important to keep in mind that preparing the CDP **is not a one time activity** seen as a mandatory requirement of the JNNURM. The cities will need to revisit their plans on a periodic basis, engaging their citizens to participate in the update / revision of the existing plans. Cities will also need to commence the preparation of a new plan following the completion of the tenor of the current CDP. The CDP has to be considered as a “living document” which goes through a continual cycle of updation, modification and renewal. This toolkit provides the necessary guidance to cities for taking a re-look at the current plans and also serves as a

reference point for cities which are in the process of putting together a CDP for the first time (e.g. non-Mission cities) or are preparing plans for the next planning period.

This toolkit should not be used rigidly as a manual, but as a ‘guidebook’. This toolkit has been developed by building on the earlier *Toolkit 2: Formulation of a City Development Plan*. Drawing on the experience of preparation of CDPs for the Mission cities under JNNURM, feedback from experts involved in appraising the CDPs, ULB officials and other stakeholders engaged in this process, this toolkit seeks to provide more detailed guidance on the process to be adopted and the final output to be achieved.

1.3 CDP as a Living Document

The CDP has to be looked at in a context of the dynamic nature of the issues involved. The timelines and processes for changes and mid-term course correction related to varying aspects of the CDP have to be dynamic, to reflect the changing physical as well as policy environment. The CDP should also integrate developments in the ULBs with its immediate spatial continuum extending to the peri-urban ULBs and panchayats. In context of urban agglomerations, the CDP could be for the Metropolitan Planning Area. This could also help in expediting the creation of MPCs. Thus the CDP becomes a comprehensive and implementable document including a long term Vision of the city, short term sectoral plans defining specific projects and annual Financial Operating Plan (FOP).

Since a CDP is both a **perspective and a vision** for the future development of a city, it should not limit itself only to provide for existing and projected shortfalls but to provide for better quality of services, infrastructure and built environment. All the three aspects of **curative, preventive and betterment** approaches have to be part of a comprehensive and inclusive planning for an enhanced quality of life of the citizens.

Inter-sectoral as well as intra-sectoral linkages need to be addressed through the CDP. For example, while dealing with water supply in the city, the entire value chain beginning with the assessment of traditional water systems and their usefulness for current day solutions, the assessment of the existing water resource management in the area, down to storage, treatment, supply, distribution, monitoring and collection of user charges have to be planned for. Integration of all the **intra-sectoral** aspects of water supply with other sectors like road networks, power supply, drainage, sewerage, natural and cultural resources has to be undertaken so that meaningful **inter-linkages** for sustainable development can be achieved. All the services should follow a ‘**common network**’ approach, which in turn should be related to the activity pattern or land-uses in the city.

1.3.1 Planning Processes

A CDP should follow the processes underlined below to make it a comprehensive plan reflecting the development needs of the people while taking into account the trends and requirements of the city as a whole.

A. Consultative Aspects: A consultative planning process will ensure that the CDP focuses on the comprehensive development of wards through Local Area Plans (LAPs) prepared in consultation with Ward Committees / Area Sabhas in line with the expectations of the citizens. The importance of LAPs for ULB wards gets punctuated in the process. The issues regarding urban poverty can be addressed

through adequate representation of the economically weaker sections of the society in the consultation process.

B. Morphological Aspects: In the CDP, the baseline data on morphological aspects has to be robust and sufficiently exhaustive. Indicating jurisdictions of ULBs, location of proposed projects and their influence area, new growth and peri-urban areas, land uses of sub-standard areas, infrastructure networks, environmental and heritage areas, are critical to making the CDP a comprehensive document.

C. Financial Aspects: Financial sustainability of ULBs is a central issue as this will enable the ULBs to implement quality infrastructure projects, manage operations and maintenance processes, and sustain urban infrastructure through effective cost recovery mechanisms. Hence all municipal reforms aimed at improved delivery of urban services should be linked to the financial sustainability of ULBs

D. Socio-Economic Aspects: The linkage between capital investment, socio-economic development, spatial development and urban poverty alleviation should be established. The CDP should assess the impact of investment in urban infrastructure improvement and other development projects on the local economy through the creation of jobs, improvement in the living and working conditions, and generation of other direct and indirect socio-economic benefits.

E. Urban Reforms under JNNURM and Institutional Processes: Urban reforms triggered by JNNURM should be articulated in the CDP as these directly impact transparency and accountability of operations and also facilitate the strengthening of the ULBs as institutions of local self governance. Establishing institutional processes to equip ULBs for carrying out urban reforms, implementation of projects, addressing issues arising out of overlapping jurisdictions, inter agencies co-ordination for maintenance and operation of urban infrastructure, spatial planning, capacity building will make the CDP a more effective document. The importance of LAPs for ULB wards gets punctuated in the process.

F. Need for National-Level Reform-Linked Investments: The reforms which are do-able should be developed on a bottom up approach. ULBs should be asked to furnish the reforms and propose a time line to achieve the same. Administrative and structural reform should be made mandatory and carried out as soon as possible. Financial thresholds need to be decided and adhered to in terms of the central assistance under JnNURM being given as a soft loan or a grant. The strategies to arrive at the vision for the city should be linked to the reform agenda. The outcome of the implementation of the mandatory and optional reforms at the state and ULB levels shows a lot of variations. Some states have taken reforms initiatives ahead of others; have implemented urban development infrastructure projects while some are at different stages of implementing the reforms. However, it is encouraging to see efforts to follow the reforms path triggered by JnNURM. These reforms are tailored to lead to increased revenue, efficiency, transparency, accountability, self dependency and equity in service. They are a must for improving quality of urban life and meeting the desire and aspirations of the people leading to sustainable and enhanced level of development across cities of the country. CDP should include man power requirement keeping in mind their multifarious activities. A separate municipal cadre may be created along with initiation of capacity building/ training for such staff.

G. Capacity Building Aspects: There is a serious human resource shortage for planning, development and urban management activities (including operations and maintenance, monitoring and evaluation, financial management and procurement). The CDP should articulate how the civic agencies plan to address such a deficit.

H. Urban Regeneration Aspects: The CDP should reflect on the cumulative and measurable influences of the proposed investments on socio-economic development; improvement of physical infrastructure; road and transport systems and related urban mobility; conservation, sustainable use, or destruction of available resource; and the improvement in the overall quality of life of the citizens.

I. Aspects of cultural and natural heritage and environment: Any planning process must also take into account detailed documentation including mapping, condition and value assessment of the natural and cultural resources such as topography and geology, traditional water systems, traditional road and transport systems, the historic buildings and open spaces, the trees and vegetation cover, etc. Over and above these aspects of the physical environment, a documentation of living traditions and intangible heritage may also be conducted. This includes festivals, yatras, etc. All these aspects must be taken into account for sectoral planning, be it housing, road infrastructure, water and sanitation or local economic development.

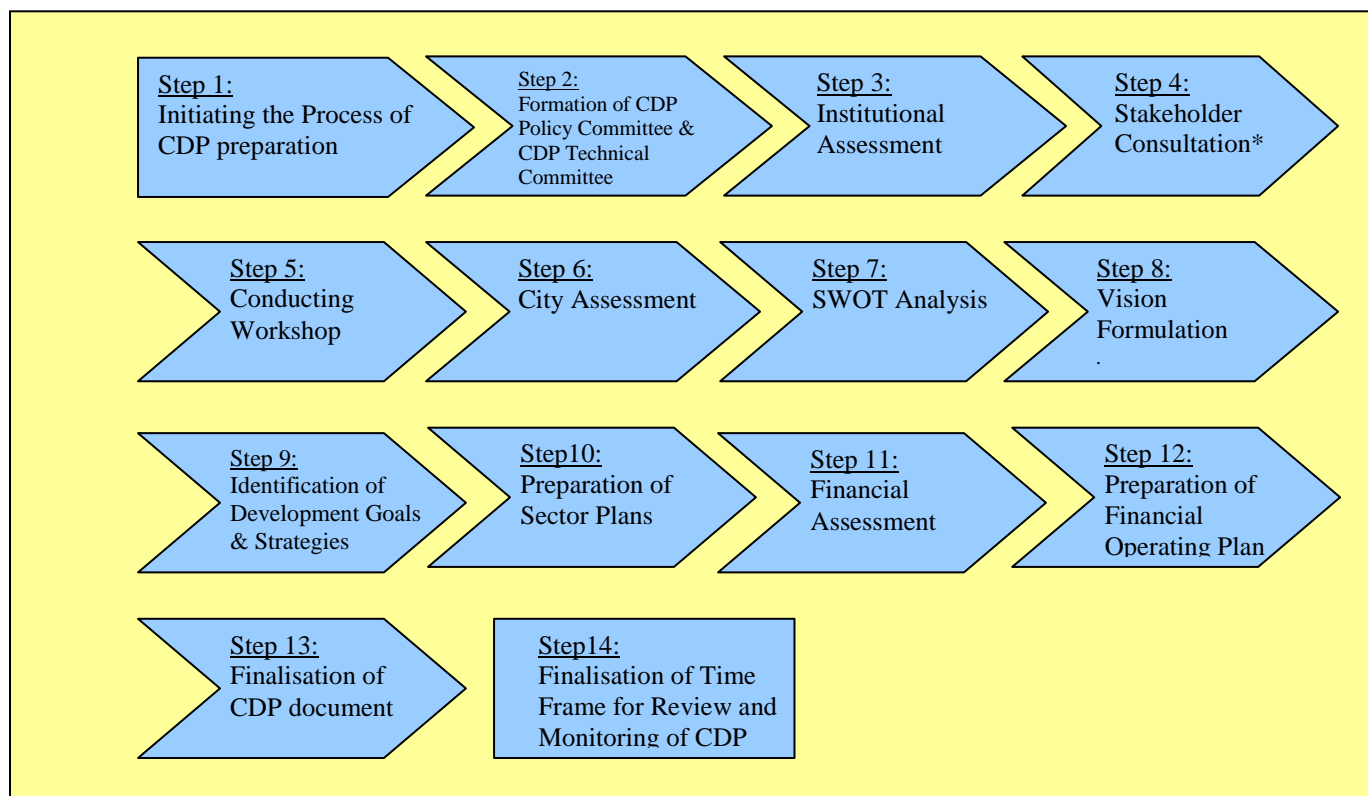
1.4 Sectoral Coverage of the CDP

While the CDPs for many of the Mission cities have been prepared in the context of the JNNURM, the specific sectors covered in the plan should not be restricted to those eligible for funding under the JNNURM. All sectors that make a difference to the quality of life experienced by urban citizens should be covered in the CDP. Projects/Initiatives in sectors that lie outside the mandate of ULBs and other urban sector institutions (city or state level agencies) need not be considered under the CDP. However, the impact of these sectors on social, cultural and natural resources, economy, and urban infrastructure services should be taken into account in the planning process. Moreover the emphasis on the coverage of the CDP shall be futuristic, in identifying the developmental impacts on the city's urban fabric and the morphological changes this may have on its geographical coverage.

For e.g. sectors such as power supply, rail transport, or higher education are outside the ambit of urban sector institutions. While the CDP itself may not plan for the growth and development of these sectors, the needs, demands and requirements from these sectors will need to be factored into the plans for land use, water supply and other basic urban infrastructure services, transport services and overall impact on the socio-economic development in the city.

1.5 Key Steps in the CDP Preparation Process

The following Box highlights the major steps in the CDP preparation process. Each of these steps is covered in detail in subsequent sections of the toolkit.

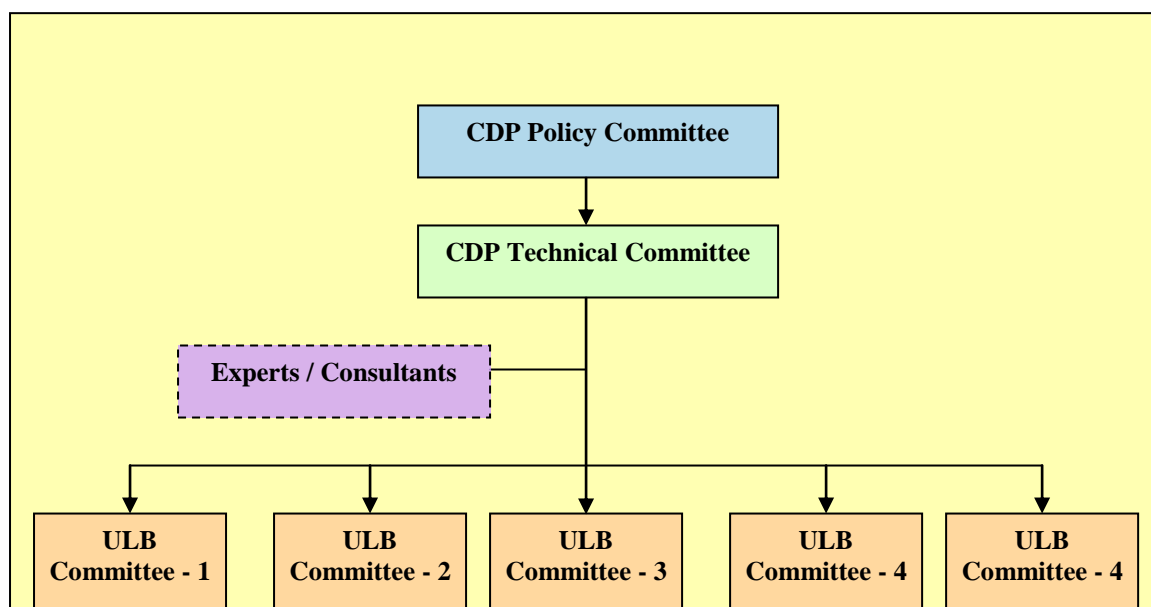


** It should be noted that stakeholder consultations need to be conducted time and again during the CDP preparation process*

2. Organisation Framework for the CDP Process

The process for preparation of the City Development Plan should be based on the principles of participation, stakeholder involvement and greater interaction between the various urban institutions. While leveraging the available technical capacity in the urban institutions, steps should be taken to augment the same through the use of external consultants or experts as deemed necessary.

Given the complex institutional arrangements for planning, implementing and managing urban infrastructure and service delivery, a framework has been proposed in this toolkit for guiding the CDP preparation process. This framework identifies key urban stakeholders and provides a platform for each of them to contribute to the planning process. The following diagram depicts the broader organization framework for preparing the CDP.



The following section outlines the suggested structure for each of the committees identified above. Please note that the structure as highlighted below is illustrative and individual cities will need to arrive at their own structures based on the local institutional arrangements. The list of tasks and responsibilities for each of the committees are also indicative.

2.1 CDP Policy Committee

The Policy Committee/Group will provide all the Guidance and Strategic support for the preparation and implementation of CDP. The Policy Committee should have the support of all the city level institutions namely; the ULB, the Development Authorities and Parastatals.

Structure:

The CDP Policy Committee should be headed by the Mayor / Chairperson of the City. In case of an Urban Agglomeration constituting more than one ULB/ City under its fold, the Mayor/ Chairperson of

the largest city should be the committee head. The Mayors/ Chairpersons of other ULBs shall also be represented in the CDP Policy Committee.

- Chairman (Mayor of City or largest ULB in UA)
- Vice- Chairman (Deputy Mayor or Mayor of Second largest ULB in UA)
- Municipal Commissioner / Deputy Municipal Commissioner / Chief Executive Officer
- Head of the Urban Development Authority/Improvement Trust
- Head of the Urban Utilities (e.g. Water Supply & Sewerage Board)
- **Members from the MPC and DPC**
- Head of all Technical Committees
- Any other member the Committee may wish to co-opt

Roles / Responsibilities:

The role of CDP Policy Committee shall encompass the following, but not be limited to

- Ensuring compliance to the CDP preparation process as per the guidelines, by all working Committees / Groups
- Ensuring the preparation of CDP in line with the Master Plan of the city and the District Plan, Metropolitan Plan and other Regional Plans affecting the City / Urban Agglomeration Area, in line with the State Vision.
- Ensuring participatory approach in CDP preparation and inclusive planning, by appropriately addressing the concerns of stakeholders with special focus on inclusive planning and balanced development of all groups, especially the urban poor and other socially disadvantaged
- Advising and directing the Technical Committees for conducting the stakeholders meeting backed by appropriate awareness campaigns and sensitization initiatives
- Ensuring that the feedback received from the stakeholders' are duly taken care of and properly addressed in the CDP
- Responsible for project prioritization according to the resource commitment / availability and timelines drawn as per the CIP
- Drawing up time frame for the Implementation and Revision of CDP
- Ensuring the implementation and revision of CDP as per the agreed timelines.
- Approving the CDP prior to approval by the state level authorities
- Any other policy guidance necessary for preparation of the CDP.

2.2 CDP Technical Committee

The Technical Committee / Group will work under the overall guidance and advice of the CDP Policy Committee and shall coordinate with all other stakeholder groups as necessary.

In case of single ULB cities, the CDP Technical Committee will be constituted by office bearers from the sole ULB. In case of multi-ULB cities, each ULB will constitute the various Technical Committees. An Apex CDP Technical Committee will be formed, the composition of which will be decided by the CDP Policy Committee. The role of the Apex CDP Technical Committee will be to consolidate the CDP at the urban agglomeration level.

| | |
|--|--|
| <p>CTG 1 – Land Use and Infrastructure Headed by Deputy Municipal Commissioner (Technical) / City Engineer Members:</p> <ul style="list-style-type: none"> ▪ HoD - Town Planning, or his representative ▪ HoD – Public works, or his representative ▪ HoD – Water Supply, or his representative ▪ HoD – Solid Waste Management, or his representative ▪ Chairman of CDP Policy Committee – Ex officio Member ▪ Chairman-in-council – Public Works/ Solid Waste Management/ Water Supply ▪ Chairman of the Heritage Cell ▪ Other specialists as may be required | <p>CTG 2 - Municipal Institutional Strengthening Headed by Municipal Commissioner/ Chief Executive Officer</p> <ul style="list-style-type: none"> ▪ Deputy Municipal Commissioner ▪ HoD - Accounts and Finance, or his representative ▪ HoD – Establishment, or his representative ▪ HoD – Stores, or his representative ▪ HoD – Assessment and Collection, or his representative ▪ Chairman of CDP Policy committee – Ex officio Member ▪ Chairman of – Finance/ Accounts – Ex officio ▪ Other specialists as may be required |
| <p>CTG 3 –Environment, Sustainable Development & Disaster Mitigation Headed by HoD, Health Department</p> <ul style="list-style-type: none"> ▪ HoD – Solid Waste Management, or his representative ▪ HoD – Drainage, or his representative ▪ HoD – Public Works, or his representative ▪ HoD – Health, or his representative ▪ Chairman of CDP Policy committee – Ex officio Member ▪ HoD - Urban Poverty Eradication Cell, or his representative ▪ Chairman of the Heritage Cell ▪ Other Specialists as may be required | <p>CTG 4 - Social & Livelihoods and Local Economic Development Headed by HoD - Urban Poverty Alleviation Cell</p> <ul style="list-style-type: none"> ▪ HoD – Health, or his representative ▪ Chairman of CDP Policy committee – Ex officio Member ▪ Chairman of the Heritage Cell ▪ Representative from local NGO working in related field ▪ Representative of Minority and Tribal Population ▪ Other specialists as may be required |
| <p>CTG 5 - Heritage, Conservation, Culture & Tourism Development Headed by chairman of the Heritage Cell Members:</p> <ul style="list-style-type: none"> ▪ HoD – Department of Archaeology, or his representative ▪ Representative of local unit of conservation/ heritage society / Temple Trust ▪ Representative from Indian Institute of Architects, Local Chapter ▪ Representative from Institution of Engineers (India), Local Chapter ▪ Representative from Department of Culture / Tourism ▪ Chairman of CDP Policy committee – Ex officio Member ▪ Town Planner/ Urban Designer and Environmentalist ▪ Other Specialists as may be required | |

Roles / Responsibilities:

The role of CDP Technical Committee shall include the following, but not be limited to:

- Working closely with the CDP Policy Committee and ensuring all the suggested policy level changes are included in the CDP
- Drawing up the Terms of Reference and appointment of consultants / experts for the CDP preparation and monitoring the functions and timelines of the consultants / technical Experts on the assigned activities
- Drafting and updating the CDP and sharing with all the stakeholders for consultation
- Analysis on all aspects of CDP and co-ordination consultants / technical experts on CDP preparation / implementation process

- Incorporating the inputs and feedback from the stakeholder's consultation and submitting the revised draft to the Policy Committee for finalization
- Finalising strategy papers on various technical and sectoral issues for policy / strategic decisions by the Policy Committee
- Ensuring the linkages and cohesiveness among the sub-components of the CDP
- Submission of Project Proposals and Prioritisation of Projects for approval by the Policy Committee
- Submission of proposals to the Policy Committee on revenue mobilization and revenue enhancement measures for meeting the CIP requirements
- Submission of broad level analysis and fiscal and taxation measures for augmentation of city revenue
- Suggesting tariffs and charges for collection of user fees for the various services provided by the city and conducting willingness/ ability to pay for surveys
- Suggesting measures for sustainability and implementation of projects for maximizing the benefits to the City
- Submitting the final draft CDP to the CDP Policy Committee for their approval.

2.3 Roles and Responsibilities of Consultants/Technical Experts

The CDP preparation requires a multi disciplinary team with sectoral and technical expertise. The role of consultants/technical experts should complement the expertise available within the various urban agencies and should not be seen as a substitute. One of the critical success factors for formulating high quality CDPs is the synergy between the local knowledge and experience of the functionaries in the urban local bodies, and expertise of the consultants. It should also be noted that involving consultants/experts in the CDP preparation process should not absolve the urban local bodies of the responsibility of owning the CDP. Any involvement of a consultant should also bear an aspect of capacity building. The consultants should work closely with the city administration.

The CDP Policy Committee and the CDP Technical Committee have a critical role in clearly defining the contours of engagement of the consultants/experts, as well as monitoring and overseeing their work. In turn, the consultants/experts should be clear about their respective roles and responsibilities during the CDP preparation process. The following section lists some of these roles and responsibilities.

2.3.1 Roles / Responsibilities of Consultants

The role of consultants in the CDP preparation is to:

- Act as facilitators of the planning process and not as sole drivers of the planning process
- Ensure that all the inputs and analysis for the Policy Committees, and Technical Committees are presented and facilitated
- Collate and submit drafts/ appraisal notes to the concerned committees for further action.

3. Initiation of the CDP Planning Process

Each ULB individually or as part of Urban Agglomeration will prepare a City Development Plan (CDP) according to these Guidelines. Four essential steps required for initiating the CDP preparation process, are discussed below.

As discussed in chapter 1 the ethos of the CDP lies in the comprehensive planning process which aims to ensure equity through a consultative process. Hence the CDP preparation process is as important as the final recommendations. Therefore it is important to create awareness of the CDP among the key stakeholders including councillors, ULB staff, ward committees and local citizens. The section provides the steps for initiating the planning process for preparing the CDP.

3.1 Constituting CDP Policy and Technical Committees

As discussed in **section 2.1** the CDP Policy committee will help to anchor the CDP process at the ULB level. Thus the first step is the constitution of the CDP Policy Committee (CPC) followed by constitution of the CDP Technical Committees (CTC). As part of the CDP Technical Committee, five CDP Technical Groups (CTGs) shall be formed by the City for each of the five areas of planning. The composition of individual CTGs and their role and responsibilities are discussed in section 2.2. The minimum recommended number of members in a CTG is six and the maximum recommended number is twelve.

The CTGs may also include specialist resources, from outside the city, as deemed necessary by the CPC at any point in time. Such resources may either be leading professionals from different sectors or may include experts from state-level Support Agencies such as Development Authorities, Housing and Slum Development Authorities, Urban Finance Development Institutions, and Pooled Finance entities involved in funding urban infrastructure projects.

3.2 Identifying Stakeholder Groups

The city should identify all the key local stakeholders right in the initial stages, in order to actively involve them in the preparation of the plan. Adequate representation of all interest groups/ community based organizations /citizens (including interest groups for women) should be ensured.

Once the identification of stakeholders is complete a pre-launch consultation workshop with the stakeholders may be organized to disseminate the CDP preparation process. This will provide a platform to various stakeholders to express their views and opinions on the CDP preparation process and their involvement in such a process.

3.3 Conducting Workshops for CDP Preparation

| Stage - 1 | CDP Launch Workshop |
|------------|--|
| Why | This Workshop will launch the CDP preparation process and will disseminate information on the concept of City Development Planning, the components of the CDP, the planning process and the key stakeholders to be involved in the planning process. |
| Who | <ul style="list-style-type: none">• Chaired by: Mayor / Chairperson• Participants:• City/ Cities(U.A): Council, Administration• Invited representatives from Civil Society – Prominent Citizens, Business/ Trade |

| | |
|-----------------|--|
| | Associations, Community Based Organizations, NGOs and local media. Note: There should be sufficient media publicity for the CDP Launch Workshop |
| Outcomes | Better informed citizens, municipal councillors and municipal staff (Minutes of the workshop should be shared with all stakeholders) |
| Timing | The Launch Workshop should be held at the commencement of the CDP preparation process. |

| Stage - 2 | Orientation & Sensitisation Workshops: |
|----------------|---|
| Why | These workshops will be held in order to sensitise and ensure the participation of the citizens, the elected representatives and other stakeholders in the CDP preparation process. |
| How | <ul style="list-style-type: none"> Subsequent to the Launch Workshop, municipalities should organise Orientation and Sensitisation Workshops at a ward level, to roll-out the process of participation at the ward level Councilors should lead the process at the ward level to disseminate information about the CDP, the planning process, and the process of participation by Ward Committees, CBOs, trade associations and local resident welfare associations |
| Outcome | Better informed citizens, CBOs, and other stakeholders at ward level |
| Timing | Sensitisation workshops at ward level should be held soon after the launch workshop, while the awareness campaigns may be undertaken throughout the CDP preparation process. |

| Stage - 3 | CDP Planning Workshop |
|----------------|--|
| Why | <ul style="list-style-type: none"> To launch the CDP planning process and give a wider coverage To estimate the timeline and overall resource availability for the CDP Planning Period (primarily resources required for planning) |
| How | <p>CPC, CTC and CTGs should discuss the timeline, resource requirements and budget (financial and personnel) for the CDP preparation.</p> <p>The workshop should focus on the following:</p> <ul style="list-style-type: none"> Sub-components of each of the 5 components to be taken up for planning as well as the areas to be covered in each of the sub-components. Roles and responsibilities of each of the 5 CTGs Roles and responsibilities of each member of the CTGs and CPC External support required for preparing plans for each sub-component Overall time frame for CDP preparation and time frame for each stage of CDP preparation Dates of key workshops, including “Municipal Visioning & Problem Identification Workshops”, future “Sensitisation Workshops” and meetings with Ward Committees Estimate budget for preparation of CDPs – <i>approval for this budget should taken from the City Council(s)</i> |
| Who | <ul style="list-style-type: none"> CDP Policy Committee CDP Technical Committee and Technical Groups |
| Outcome | A Report outlining planning components and sub-components, external support required, specific allocation of responsibility among various members of CTG, budgets etc |

In addition to the above workshops, an Awareness Campaign in the city may be undertaken amongst CBO members, citizens' groups (such as youth clubs, senior citizens) and others, through meetings, distribution of pamphlets, hoardings, street plays, etc.

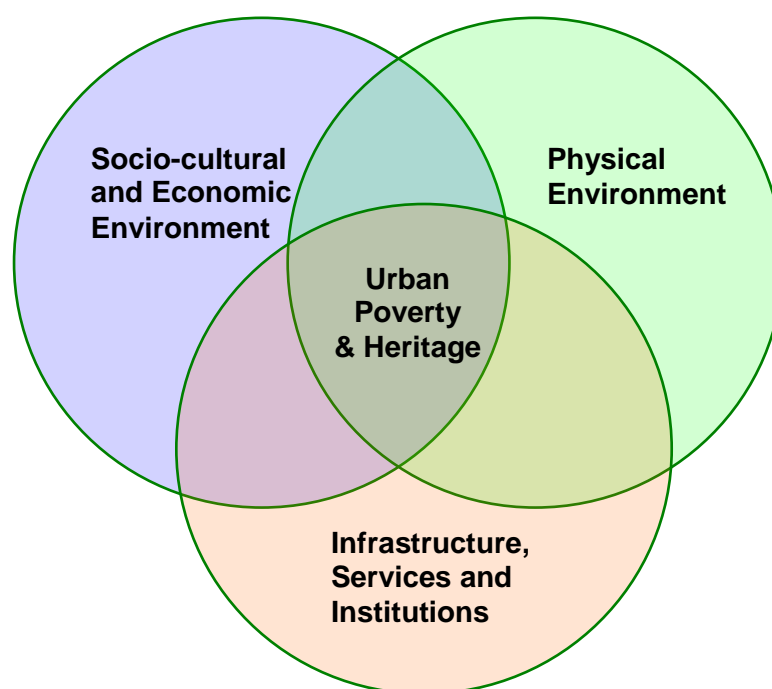
4. City Assessment

4.1 Why City Assessment?

City assessment should provide a reality check for visioning, through a basic understanding of the city, its environment and various resources, the context for strategy formulation, a baseline for assessment of the demand-supply gap, past trends to influence projections for the future and a basis for measurement of achievement of the plan. Thus various aspects of the city's development should be examined and understood – from a macro as well as a micro perspective.

4.2 What to Assess and How to Assess?

Ideally the city assessment should cover three broad areas namely, socio-cultural and economic environment; physical environment and infrastructure and municipal services. Urban Poverty and Heritage need to be treated as crosscutting components while assessing these three areas.



It is recommended that before initiating the process of city assessment, a good base map of the city should be prepared to help assess the spatial distribution of the above mentioned areas to be assessed. Importance of Base Map is discussed in the box below.

Box: 4: Importance of a good Base Map in preparation of CDP

The most crucial information for preparing a good plan is an accurate and updated Base Map of the planning area, indicating road networks, spatial extent of development and the information on the use of each parcel of land. However it is observed that, the plan preparation process is severely constrained by lack of availability of basic information starting with accurate maps, data pertaining to the land uses, road networks, structures, open spaces, water bodies etc. The available city maps with many of the ULBs are old and have not been updated for long time, and thus redundant for preparing a comprehensive CDP.

Further most of the secondary information is spread across departments/sources, not updated and the process of collecting it is time consuming. Moreover, there is no systematic way of collecting, maintaining and analyzing data/information that may be relevant for planning purposes.

Given the resource constraints, availability of satellite images has made the task of correcting and updating the existing city maps much easier and faster. A reasonably accurate Base Map can be prepared using the satellite images (PAN and IKONOS) as a base and integrating information from various sources such as aerial photographs, revenue maps, SOI sheets, maps from various departments etc. Probable sources of maps and information is given in the table below. Appropriate corrections are required to ensure geographical accuracy such as geo-referencing and registration of satellite images with topographical sheets. Accuracy can be ensured depending on the resolution of the satellite images used. Certainly the use of such maps is limited as compared to the ones based on topographical surveys.

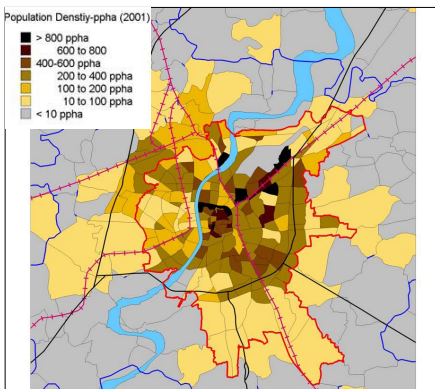
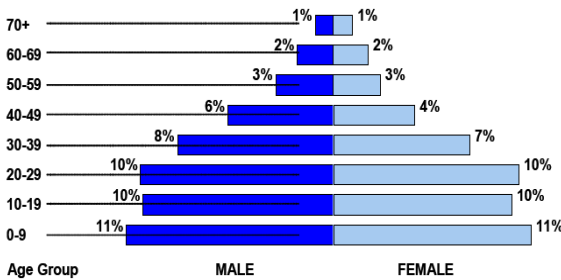
Features and their probable sources

| Features | Probable Source |
|--|--|
| Administrative boundaries of all spatial Units: Municipal area, Notified Areas, Cantonment Boards, Wards, Town Survey Plots, Revenue Survey Plots etc. | Drawings from Urban Local Bodies, Village Maps, Town Maps, District Maps, Block Sheets, Census, SOI Sheets |
| Survey plot numbers | Drawings from ULBs, village maps, town maps, block sheets etc. |
| Water bodies: rivers, streams, channels, ponds and tanks | Satellite Images, SOI Sheets, Aerial Photographs, Village Maps, Development Plans, etc. |
| Contours, Drainage | SOI Sheets, Available total station surveys |
| Reserved / Protected Forests | SOI Sheets, State Department of Forest and Environment |
| Roads | Satellite Images, SOI Sheets Aerial Photographs, Village Maps, Maps from Roads and Bridges Dept, Development Plans |
| Railways | SOI Sheets |
| Layouts | Drawings from ULBs / Development Authorities / Town and Country Planning Dept. |
| Settlements | Satellite Images, SOI Sheets, Aerial Photographs, Village Maps |
| Historic information (natural and cultural assets) | Historic maps are available from private and public collections of all periods including Mughal, British era |

4.2.1 Socio-cultural and Economic Environment

A) Demographic Profile

The City Development Plan shall focus on human resource endowments which would include spatial distribution of city population, density and distribution over administrative boundaries. The population characteristics in terms of population composition, age-sex distribution, and workers, marginal workers and non-workers being considered as human resources required for city development. The growth trends and patterns across various population/ demographic attributes, disaggregated to ward level, including occupational structure, floating population, in-migrants and out-migrants shall constitute the baseline data for Demographic profile.

| Parameters | Significance |
|-----------------------------------|---|
| Trend in Population Growth | It is important to analyze population trend to understand growth rate which is subsequently needed for future population projection. It also helps in analyzing the holding capacity of the city. |
| Population Distribution | <p>The analysis of population distribution is needed to ascertain intra-city density variation, at Zone/Ward level. The intra-city variation in the population distribution will help in population assignment, population redistribution and in earmarking areas for densification / de-densification.</p>  |
| Population Composition | The population composition by religion, language, proportion of SC/ST and Economically Weaker Sections needs to be assessed in terms of concentration of population in various parts of the city. This will enable the understanding of problems being faced by them in terms of access to basic services, and accordingly necessary actions may be taken to ameliorate their problems. |
| Age-Sex Distribution | <p>The age-sex distribution helps in understanding the population in various age groups and sex ratio of the city. This will enable the analysis of the proportion of economically productive population, proportion of dependencies on earning population <i>et al.</i></p>  |
| Migration | Migration is also a determinant of population growth of the city. Both inter-city and intra-city migration helps in analyzing the trends of population growth and |

| | |
|--|---|
| | also potential of a city in terms of employment opportunities, infrastructure and housing. Migration has both direct and indirect impact on the demography of the population at origin and destination. |
|--|---|

B) Social and Cultural Environment

While assessing the Social and Cultural environment, it is essential to include social infrastructure, cultural traditions and lifestyle in the context of the development environment. The parameters that should be covered and their significance are discussed below;

| Parameters | Significance |
|-----------------------------|--|
| Health | While analyzing health care facilities in the city, it is important to assess the key health indicators like disease prevalence, infrastructure for public health management; primary / secondary / tertiary health care facilities, break-up of public and private facilities etc. A comprehensive assessment of these indicators will help identifying the issues and concerns in the sector and further in preparation of sector strategies and action plans. |
| Education | It is essential to assess the current levels of literacy, reasons for the same, education levels, access to education, and prevailing infrastructure for primary, secondary, higher education, vocational training, key institutions and their impact on the city. |
| Recreation | Recreation facilities available in a city are also a determinant of quality of life of the citizens. It is therefore essential to assess the options available for recreation and entertainment for different income levels, those with public access and those with paid access, maintenance issues, places of interest for visitors / tourists, implications on urban infrastructure and services etc. |
| Social Environment | An assessment of social environment in the city, in terms of, inter alia, social inclusion, gender sensitivity, human rights, should be undertaken. This will enable the city to promote and strive for inclusive development, duly taking into consideration the interests of economically weaker sections, minorities and gender sensitive issues. |
| Cultural Environment | An assessment of cultural environment in the city needs to be done in terms of data on the traditional communities living in specific areas, and their history (have they lived there for several generations, etc.), traditional crafts villages and areas that are part of the city and, cultural heritage aspects like festivals, performing arts, cultural practices, religious practices, rites and rituals, the use of public spaces during festivals etc. |

C) Economic Base

| Parameters | Significance |
|---|---|
| Economic structure | The type of economic activities determines the economic base of a city. The formal sector of economic activities viz primary, secondary and tertiary occupation pattern, characterize the economic structure of a city. The proportionate distribution of working population gives an indication of the functional classification and accordingly future thrust of development could be arrived at depending upon the trends of employment in various sectors. |
| Sectoral analysis (including informal sectors) | <p>Three broad sectors of the economy constitute the economic base of a city. However, the sectoral analysis shall depend on the distribution of work force as per the following categories;</p> <ul style="list-style-type: none"> • Primary Sector: Urban Agriculture, Dairying, Mining and Quarrying, • Secondary Sector: Construction and Manufacturing • Tertiary Sector: Transport, Trade and Commerce and other Services <p>In addition to these formal sectors, informal sector activities like weekly markets, street vendors, household industries, traditional arts and crafts, building crafts and other heritage related income also contribute substantially to the city economy. Therefore it is important to assess the potential for informal sector as well.</p> |
| Land (land use, public and private ownership, land market) | Land is the most crucial input for housing and urban development programmes. The formulation of development programmes and the implementation process is highly dependent on the availability of developed land at appropriate locations and the potential for further development through extension of infrastructure. Therefore it is important to assess the efficiency of the land market and its environmental sustainability. Further, it is essential to identify the imperfections in land market, inequitable distribution of land, undesirable land prices and interest of the stakeholders. |

4.2.2 Physical Environment

Physical environment needs to be assessed in terms of its physical setting, natural resources, cultural resources and base line environmental conditions. Significance of different parameters is discussed below:

A) Physical Setting

| Parameters | Significance |
|---------------------|--|
| Physiography | Physiography plays an important role in determining the spatial expanse of the city. The topography and terrain of the city need to be ascertained for determining the future expansion of the city duly highlighting the constraints and limitations or potential for future development. In addition, how the city has grown in the past and whether it is located along the river, sea side, in mountainous area or desert, needs to be studied to assess how topographic |

| | |
|----------------------------|--|
| | conditions have influenced its growth. |
| Climatic Parameters | The climatic parameters like temperature, relative humidity, rainfall, wind direction and circulation in a city determines the level of comfort and factors conducive for developing various activities. A number of city level functions are influenced by the climatic conditions. |
| Geology | Geology is an efficient tool which helps in handling projects related to urban development and planning, waste management, land stability etc. Geological findings can be considered as the best source for various surveys related to natural resources, especially with Remote Sensing and GIS Technologies being widely used for assessing the land suitability for various urban uses. |

B) Natural Resources

| Parameters | Significance |
|-------------------------|--|
| Water Resources | <p>It is necessary to have a complete inventory of available surface water as well as ground water resources in and around the city. Utilizable surface water flow and ground water reserves need to be estimated to assess the exiting water supply potential. It is essential to estimate the quantity of water that can be harvested by different available technologies, and revival of the traditional water systems in the city which are otherwise unutilized. For the coastal cities, potential for desalination of sea water should be assessed.</p> <p>Utilization pattern of ground water resources needs special attention, as many of the urban and peri-urban areas are dependent on ground water and ground water is overexploited. Groundwater is often degraded because of lack of knowledge of the aquifer system and/or uncontrolled groundwater extraction. For socio-economic development and ensuring availability of potable water, scientific assessment of groundwater recharge characteristics over time and space, the extent of the groundwater pollution and impact of over-exploitation on the resource base are very important factors.</p> |
| Forest Resources | Forests provide vital lung space and help in mitigating the impact of pollution in an urban area. Therefore while preparing CDP, compliance with the National Forest Policy, the maintenance of environmental stability through preservation and, where necessary, restoration of the ecological balance that has been adversely disturbed by serious depletion of the forests in urban areas, need to be taken into consideration. |

C) Baseline Environment

The baseline environmental status is to be established by determining the baseline levels of significant environmental parameters, which could be affected by the implementation of the developmental activities. Baseline data serves as a reference point against which potential or actual activity induced changes can be measured.

| Parameters | Significance |
|--|--|
| Air quality | For ensuring environmental quality there is a need for assessment of existing status of seasonal ambient air quality (winter, summer and monsoon seasons). Collection of meteorological data like wind speed, wind direction, temperature and cloud cover in concurrence with ambient air quality monitoring studies would help in monitoring the air quality. The estimation of available assimilative capacity in polluted areas of a city for various pollutants vis-à-vis air quality standards for sensitive receptors could help in ascertaining the extent of air pollution and stipulation of permissible emission levels for pollutants, enabling the city to prepare necessary action plans. |
| Water Quality | The existing scenario of the water environment needs to deal with the availability of water resources of acceptable quality vis-a-vis the prevailing utilization pattern. The quality of water will in turn be used in determining the assimilative capacity of the water bodies, and also determine the areas of concerns and location of hotspots. |
| Areas of natural heritage and environmental sensitivity | Natural heritage and environment, in the context of the city requires a proactive and sensitive approach in order to conserve and protect the valuable and often irreplaceable resources. It is important to outline areas of natural heritage and environmental sensitivity based on the presence of natural features like river front, hills, watershed, sea coast, wet lands, forests, groves, tree-lined streets, gardens and bio-diversity spots, and others, and to take immediate steps to protect the natural resources. |

D) Cultural Resources

| Parameters | Significance |
|--|---|
| Areas of historic and cultural significance | The areas of the city of historic and cultural significance may be identified. This would include compilation of existing records of protected and unprotected heritage, and other areas of heritage value. It may include not only the historic cores of the city, but also its urban villages. A general survey may be conducted to assess condition and heritage value of the built environment including the monuments, public buildings, historic areas, open spaces (of social, ecological and historical importance) etc. This general assessment is the precursor of the Listing of historic properties. |

Please see Annexure 'X' for a template City Environmental Profile to be included in a CDP.

4.2.3. Infrastructure and Services

It is essential to assess the existing infrastructure and basic services in terms of its availability, efficiency, sustainability and satisfaction level of users. It should be noted that assessment of infrastructure should also include the assessment of existing facilities including historic and traditional systems. Parameters that need to be assessed and its significance are discussed below;

| Parameters | Significance |
|--------------------------------|--|
| Water Supply | <p>While assessing the water supply scenario in the city, the following parameters need to be considered:</p> <ul style="list-style-type: none"> ▪ Identification of the watersheds and delineation of watersheds based on topography. ▪ Identification of perennial sources of water and their designated usages. ▪ Identify all traditional water systems including tanks, under and above ground channels, wells, etc. and assess their condition, technology, and potential value for augmenting the future water supply. Note that traditional water systems, if built for less people, have often supplied the city for centuries if not millennia. A thorough analysis of their function may help to reduce cost and make the new systems more sustainable. ▪ One must pay attention to the water systems that are of historic and religious value and ensure their upkeep. ▪ Assess coverage of water supply network, with special focus on inclusion of the EWS, LIG and slum areas into the coverage of the network. ▪ Per Capita availability of water and availability through different sources at the ward level as well. ▪ Regularity and reliability of water supply at user end ▪ Detailed analysis of water supply network, water works mains and location of water treatment plants. ▪ Identification of bodies receiving water especially barrages, water tanks, etc. depending on the source of water. ▪ Identification of present and designated usages for various stretches of water body. ▪ Analysis of hydrological data in critical seasons ▪ Inventory of point and non-point sources of water pollution and estimation of capacity in critical season vis-à-vis the designated best usage of identified stretches |
| Sewerage and Sanitation | <p>While assessing the status of sewerage services, it is important to assess the scenario in terms of type of source (water or dry toilets), collection, treatment and safe disposal, rather than talking only about collection. The important assessment criteria should include the following:</p> <ul style="list-style-type: none"> ▪ Coverage and types of toilets used, ecological implications, use of water of each type, effectiveness and cleanliness, especially in slum areas. ▪ Extent of existing sewer lines and area coverage. ▪ Areas not served by underground sewerage and to be covered by the underground sewerage. ▪ Areas where sewer lines have become obsolete and require replacement. ▪ Mapping of the network and also additional areas of the city likely to be |

| | |
|-------------------------------|--|
| | <p>brought under the coverage of the underground sewerage.</p> <ul style="list-style-type: none"> Other types of sewerage systems may be assessed based on condition, ecological implications, and financial assessment. Location, capacity, technology and efficiency of sewage treatment plants. Potential for alternative sewerage systems. Potential for reuse and recycle of the treated waste water |
| Storm Water Drainage | <p>Assessment of storm water drainage should essentially include:</p> <ul style="list-style-type: none"> Inventory of the existing storm water drain networks in the city (traditional and modern). Inventory of surfaces within and outside the city where storm water can be stored during peak times; Inventory of surfaces for groundwater recharge / where water drains away naturally; Need for redesign of drains to carry current load depending on the surface runoff as well as peak monsoon load. Careful determination of drainage routes for developed and undeveloped areas upstream of proposed development sites. Existing drain desilting mechanism and its efficiency Existing specific measures in low lying areas and potential measures that can be implemented Identification of areas where there is a chance of mixing sewage and storm water Existing disposal sites for collected storm water and potential sites. Potential for ground water recharge, specially in water scarce regions |
| Solid Waste Management | <p>It is essential to assess the Solid Waste Management practices in the city in terms of collection, segregation, transportation, recycling and disposal in a scientific manner. Therefore, it is essential to assess the following:</p> <ul style="list-style-type: none"> Analysis of collection systems and its coverage, on a geographic basis, preferably ward-wise. Generation of municipal and industrial solid wastes and its composition. Mode of collection of solid waste and extent of segregation of waste and method of disposal Possibilities for waste segregation, re-use and recycling, like vermiculture, fossilization, bio-composting, local reuse, small and large scale industrial recycling etc. However these models may be assessed for long term sustainability in financial and ecological terms. Existing municipal solid waste dump sites in terms of spatial distribution, clearly highlighting the existing and proposed location and also extent of degraded/wastelands and productive lands presently in use for waste disposal. |

| | |
|-----------------------------------|---|
| | <ul style="list-style-type: none"> ▪ Development of criteria for selection of sites for sanitary landfill, compatible with city conditions. ▪ Identification of appropriate landfill sites from the available alternate sites in and around the city. |
| Urban Roads | <p>The road network in a city is developed as per the hierarchy of roads which are classified as a) Arterial Roads, b) Sub-Arterial Roads, c) Collector Streets, d) Distributor Streets and Local roads depending on the right-of-way. While preparing the blueprint for the future road network, it would be essential to assess detailed Road Network Inventory of the city in terms of:</p> <ul style="list-style-type: none"> ▪ Alignment vis-à-vis land use and assessment of Right of Way (RoW); ▪ Physical characteristics of the identified road network in terms of right-of-way, carriage-way, number of access points, surface type, abutting land use etc; ▪ Traditional road systems and their relation to the historic environment of the city; value judgment on the need for preservation, ▪ Physical constraints and bottlenecks along the city road network; ▪ Capacity of the city road network. ▪ Improvement of the road connectivity with the satellite towns. ▪ Provision of bridges, flyovers and subways as per the traffic conditions at the major intersections. ▪ Mapping of the road network (preferably through GIS) clearly identifying the city's existing road network and the future "urbanizable" areas. |
| Traffic and Transportation | <p>Depending on the growing traffic needs of the city, it is necessary to analyze the following with an objective to provide integrated and viable traffic and transportation system.</p> <ul style="list-style-type: none"> ▪ Analysis of the modal split. ▪ Generation of passenger trips on different traffic corridors both inter and intra city. ▪ Analysis of Traffic Volume duly taking into account directional flows, pattern of movement / Segregation of traffic. ▪ Analysis of the need of facilities like Bus Terminal, Truck Terminal, and Integrated Freight Complex especially in terms of size, space usage and different type of facilities within the premises. ▪ Provision of Mass Rapid Transit System in terms of its viability vis-a vis growing vehicular population. ▪ Analysis of Para-transit Study and Traffic Accident Study. ▪ Analysis of Activity Place Study with regard to activity pattern and impact of transportation on the land use pattern. |
| Housing | <p>The demand and supply of housing stock by and large determines the overall housing scenario in the city. In order to make a detailed assessment, the following analysis is to be carried out.</p> |

| | |
|--|---|
| | <ul style="list-style-type: none"> ▪ Present availability of housing stock, Quality of housing stock with regard to building condition, availability of in-house and area-wise infrastructure facilities etc. ▪ Housing requirement as per the future projected population in different zones of the city. ▪ Areas identified for future housing. ▪ For houses in historic areas specify existing or planned building regulations and urban design guidelines and the related possibility or restriction for extensions to the existing constructions. ▪ Restructuring and up gradation of the existing areas where housing units are in a dilapidated condition. ▪ Proportion of population living in slums and identification of slum areas. ▪ Housing in Inner City, unplanned areas, urban villages and unauthorized colonies. |
|--|---|

4.2.4 Cross-cutting themes

Urban Poverty

Although, cities are widely acknowledged to be associated with increasing national production and higher levels of per capita GDP, poverty remains a persistent feature of urban life, both in terms of income and sub-human living conditions. The urban poor need to be taken into consideration while developing an inclusive strategy for development of a city. It has to be ensured that the economic conditions of the urban poor improve so that proportion of population living below the poverty line gets minimized over a period of time. It would be desirable to indicate the percentage of population living in slums in the cities and population living below poverty line. This will help in fine-tuning the policies for urban poor.

| Parameters | Significance |
|---|--|
| Socio-economic Profile of urban poor | <p>Population: While the proportion of the urban poor could be ascertained by population living in slums, it is well accepted that the homeless constitute a significant proportion of the urban poor. The vulnerable section within the urban poor living in blighted areas belonging to lower strata of the society need to be assimilated within the mainstream of society. Further, the supporting service population is also broadly constituted by the urban poor and this section of the population also contributes to the economic development of the city. Hence, distribution of the population of these sections of society needs to be assessed in order to draw up specific strategies for the city.</p> <p>Economic Profile: The economic condition of the urban poor has to be assessed so as to ascertain the number of households living below poverty line and steps to be taken to uplift them in terms of the generation/identification of employment opportunities for them.</p> |

| | |
|--|--|
| | <i>Spatial Distribution:</i> The spatial distribution of slums inhabited by the urban poor shall enable the identification of areas which need to be accorded basic facilities and services. This will also enable the provision of formal housing facilities to the urban poor and provision of housing for service personnel in the plans. |
| Infrastructure for the urban poor | Infrastructure for urban poor needs to be addressed in terms of <i>in situ</i> up gradation by extending facilities of water supply, drainage, sewerage and solid waste disposal. In addition to these, provision of health and education facilities, open spaces and community centers also need to be provided. An assessment is to be done to ascertain the number of slums located in the city and requirements for augmentation and strengthening of the infrastructure and services in them. |

Heritage

It should be noted that urban cultural and heritage is a cross-cutting theme, an aspect of general planning, that is part of any other sector in the city, be it water, drainage, mobility, housing or poverty alleviation. The process of integrating heritage concerns in other sectors shall be called ‘mainstreaming’.

| Parameters | Significance |
|-----------------|---|
| Heritage | <p>Heritage is special theme that merits a sectoral approach with its own system of documentation, assessment, visioning, planning, protection, conservation and maintenance. Therefore it is suggested to assess the following:</p> <ul style="list-style-type: none"> ▪ Legislation, policy, and planning framework; ▪ Institutional framework (Heritage cell, Heritage committee, etc.) ▪ Governmental and non-governmental institutions and organizations responsible for or involved in heritage preservation; ▪ Conservation programmes and initiatives by governmental organization and NGOs; ▪ Sectors in which heritage concerns play a role; ▪ Awareness amongst locals; ▪ Heritage professionals, crafts people, and other practitioners, traditional building crafts and building techniques in use; ▪ Education institutions involved in the sector; ▪ Tourism (historical, cultural and religious) ▪ Threats to heritage such as unplanned development, natural causes, deterioration, misuse, inappropriate conservation techniques, traffic, etc. |

4.2.5 Assessment of Institutions, Systems and Capacities

Institutional assessment is a comprehensive approach for mapping the capacity and performance of the institution against the services delivered. The assessment should be broadly based on the following factors

- Implementation of 74th CAA
- Inter- Institutional linkages
- Institutional arrangement – human and financial resources, formal and informal management systems
- External environment – administrative, legal, political, economic, social and cultural

In the context of the roles envisaged under the 74th CAA, the multiplicity of functions and agencies involved in urban service delivery, it is necessary to carry out a detailed mapping of functions, mandates and jurisdictions of agencies to identify and measure the quality of services delivered, and to fix responsibilities. The jurisdictions of the important agencies should be depicted on a city map for ease of understanding.

Functional Mapping:

| Name of the Agency | Function | Mandate | Jurisdiction |
|---|----------|---------|--------------|
| Urban Local Body | | | |
| Urban Development Authority | | | |
| Water and Sanitation Board | | | |
| Town Improvement Trust | | | |
| Metropolitan Planning Committee / District Planning Committee | | | |
| | | | |
| Other relevant agencies | | | |

Organisational Mapping of all Agencies at the City level:

| Name of the Agency | Structure | Staffing | Management Structure | SWOT Analysis |
|---|-----------|----------|----------------------|---------------|
| Urban Local Body | | | | |
| Urban Development Authority | | | | |
| Water and Sanitation Board | | | | |
| Town Improvement Trust | | | | |
| Metropolitan Planning Committee / District Planning Committee | | | | |
| | | | | |
| Other relevant agencies | | | | |

Institutional study should assess the need for capacity development and training for the elected representatives, staff of local body and parastatals agencies, vendors, community groups, etc. A template for training need assessment has been developed under the Jawaharlal Nehru National Urban Renewal Mission (www.jnnurm.nic.in) and can be used as a reference by the states and cities.




Key objective behind these assessments is to ascertain the need for urban reform initiatives such as decentralization of responsibilities as envisaged in the 74th CAA, association of elected municipalities with the planning function, introduction of GIS and double entry accrual accounting in municipalities. The ULB(s) could broadly categorise these initiatives under Process reforms, Governance reforms, Land and Market Reforms. The initiatives / reform measures could be taken up at the Urban Local Body level and State Government level, the need and prioritisation for which is to be determined based on achieving maximum institutional impact. The initiative should also aim at using technology driven process re-engineering to enable improvements in service delivery in a transparent manner. The table below provides an indicative listing of some reform measures / initiatives that could be pursued at the ULB / State level.

| Level of Government | Measure for strengthening institutions, service delivery and external environment |
|---------------------------------------|---|
| Urban Local Body | <p><i>Governance reforms</i></p> <ul style="list-style-type: none"> • Adoption of Model Municipal Law <p><i>Financial and Accounting reforms</i></p> <ul style="list-style-type: none"> • Adoption of modern accrual-based double entry system of accounting in ULBs • Reform of Property Tax with GIS, so that it becomes the major source of revenue for ULBs • Levy of reasonable user charges by ULBs with the objective that full cost of operation and maintenance is collected within next five years • Internal earmarking within local body budgets for basic services to urban poor <p><i>Process reforms</i></p> <ul style="list-style-type: none"> • Introduction of system of e-Governance using IT applications like GIS and MIS for various services provided by ULBs |
| State Government and Urban Local body | <p><i>Governance Reforms</i></p> <ul style="list-style-type: none"> • Transfer of Schedule 12 functions to the Local Body <p><i>Process Reforms</i></p> <ul style="list-style-type: none"> • Revision of bye-laws to streamline the approval process for construction of buildings, development of sites etc. • Simplification of legal and procedural frameworks for conversion of agricultural land for non-agricultural purposes • Introduction of computerized process of registration of land and property • Administrative reforms i.e. reduction in establishment by bringing out voluntary retirement schemes, non-filling up of posts falling vacant due to retirement etc., and achieving specified milestones in this regard • Structural reforms <p><i>Land and Market Reforms</i></p> <ul style="list-style-type: none"> • Rationalization of duty structures • Introduction of Property Title Certification System in ULBs • Encouraging Public-Private Partnerships |

The template for ‘Memorandum of Agreement / Urban Reform Checklist’ developed under the Jawaharlal Nehru National Urban Renewal Mission (www.jnnurm.nic.in) could be used as a reference document to compile the baseline and target for these initiatives and other similar initiatives.

4.2.6 Stakeholder Participation

Stakeholders primarily comprise of the citizens, public institutions, businesses and industries, civic organizations, professional organizations, training and educational institutions, and others with an interest in the development of the city. It should be noted that, stakeholder are not there just to give support or opposition, but they may make valuable contributions to the planning process. They also are the ultimate owners of the planning process and projects, so their partnership is much needed for the process to succeed. The following table shows a sample technique to identify critical stakeholders.

| Key Questions | List of stakeholders |
|---|---|
| Who might benefit or be negatively affected (e.g. groups such as the urban poor, policy proponents such as environmental NGOs)? |  |
| Who should be included because of their relevant formal position (e.g. government authority)? |  |
| Who should be included because they have control over relevant resources (e.g. financial resources, technical expertise)? |  |

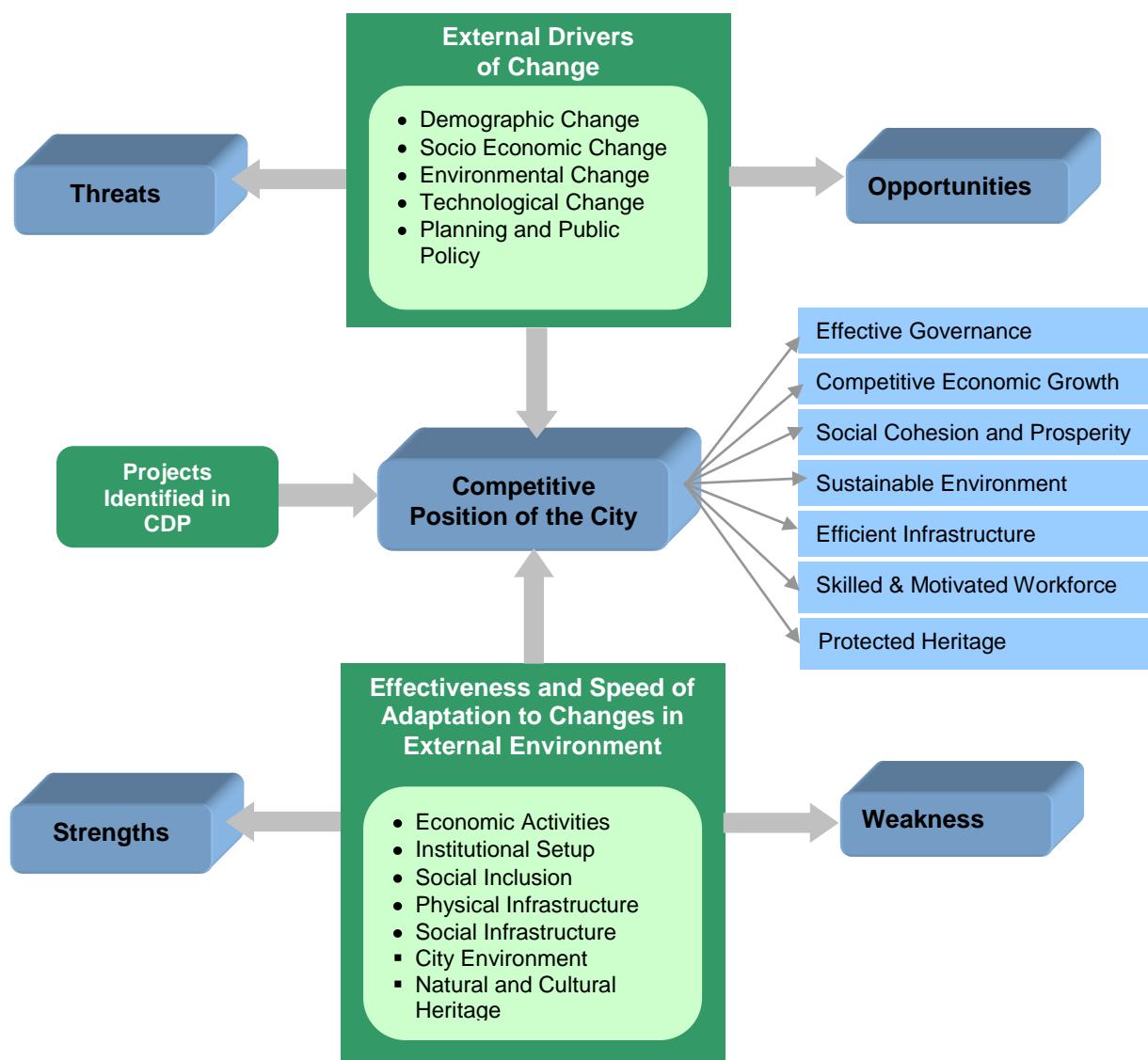
Role of stakeholder at different stages of the CDP preparation process is discussed in subsequent chapters.

4.3 SWOT Analysis

On the basis of the city assessment as discussed above, stakeholders (municipality, private sector, NGOs, service providers, etc.) should be able to analyse the city's strengths, weaknesses, opportunities, and threats (S-W-O-T).

The strengths and weaknesses, or aspects of the city that are especially good or bad, need to be identified in an inter-sectoral manner. Each major identified sector should be assessed and, where appropriate, its strengths and weaknesses identified. The degree of importance of these identified strengths or weaknesses then can be rated as high, medium, or low. Not all sectors, however, will have identifiable strengths or weaknesses. From the S-W-O-T analysis of each sector, a number of common strengths and weaknesses are likely to emerge. Others are likely to be similar and can be combined into one. Opportunities and threats, representing general trends and events that may affect the future development of the city should also be identified and ranked similarly. The SWOT analysis can be summarized as given in the chart below.

Framework for SWOT Analysis



Format for Identifying and Ranking Strengths and Weaknesses:

| Strengths | | Importance (Ranking in High, Medium or Low) |
|-----------|--|---|
| 1 | | |
| 2 | | |
| N | | |
| Weakness | | |
| 1 | | |
| 2 | | |
| N | | |

Format for Identifying and Ranking Opportunities and Threats

| Opportunities | | Probability of occurrence (High, Medium or Low) | Impact on the City (High, Medium or Low) |
|---------------|--|---|--|
| 1 | | | |
| 2 | | | |
| N | | | |
| Threats | | | |
| 1 | | | |
| 2 | | | |
| N | | | |

Format for S-W-O-T Analysis

| Strengths | | Weaknesses | |
|---------------|--|------------|--|
| 1 | | 1 | |
| 2 | | 2 | |
| N | | N | |
| Opportunities | | Threats | |
| 1 | | 1 | |
| 2 | | 2 | |
| N | | N | |

5. City Vision, Development Goals and Strategies

5.1 What is “Vision”?

“Vision” in the context of the CDP is a vivid and idealized description of a desired outcome that inspires, energizes and helps the stakeholders create a future picture of the city with positive changes. It can also be defined as that position which the city aspires to reach in the medium to long-term (beyond 5 years but within a 15-20 year period). It can also be said that “VISION IS A DREAM WITH DEADLINES”.

While ‘**Vision Statements**’ are typically encapsulated in a few comprehensive sentences, the articulation of the vision in itself can be more elaborate. Different sets of stakeholders within a city will most likely articulate a vision which they can relate to, given their respective backgrounds and aspirations. It is important that the vision for a city is defined in simple terms, which all citizens can share and identify with.

5.2 How to Develop a “Vision”?

The challenge for the city leadership is to not just capture and absorb the vision of all stakeholder groups, but also evolve a common vision for the city that incorporates the aspirations of all sections of society. The city leadership is expected to formulate the vision for their city in line with the regional strategies by DPC/ MPC which in turn depend on state level vision. There are many ways to develop a vision, however a comprehensive step by step method is suggested below.

Task 1: Review the SWOT (Outcome of the city assessment)

Task 2: Identify potential stakeholders

Task 3: In a workshop setting, explain the SWOT to the stakeholders

Task 4: Let the stakeholders think through and answer the following questions

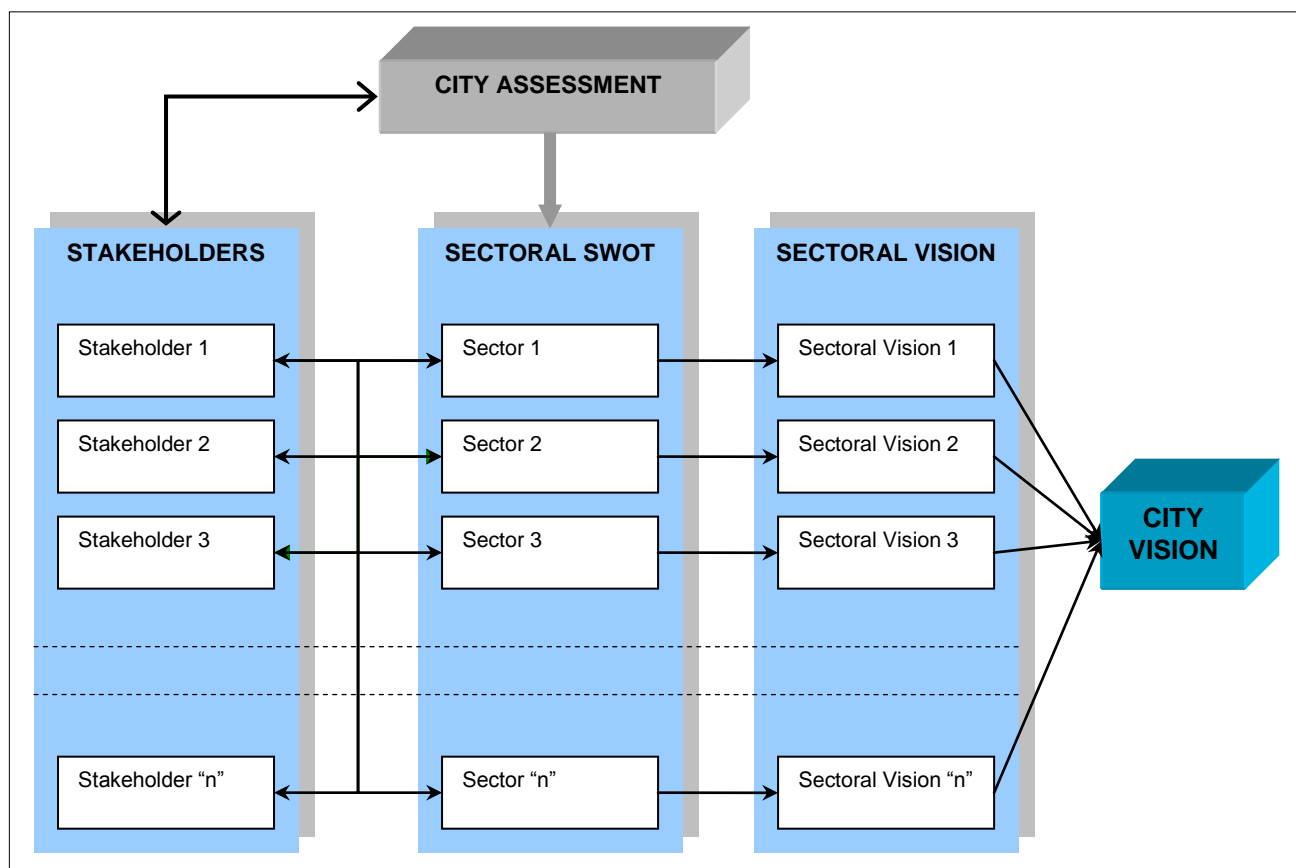
- What would you like the future of the city to be?
- What are the most important attributes of the desired future (e.g., employment, infrastructure, poverty reduction, etc.)?
- What is different about your vision of the future from what you see today?
- Which are the elements of the SWOT which you think
 - Must absolutely be retained
 - Must be improved / changed

Task 5: Collect and group similar ideas to develop Sectoral Visions

Task 6: Develop draft City Vision

Task 7: Finalise the City Vision and get it approved by potential stakeholders

Framework for Developing City Vision



5.2.1 Vision Statement

As part of the visioning process, the city may also identify its unique positioning or identity what it aspires to achieve, that will distinguish it from its peer cities. Such peer cities may either be within the state, or the country, or across the world. Some such vision statements are given below for reference.

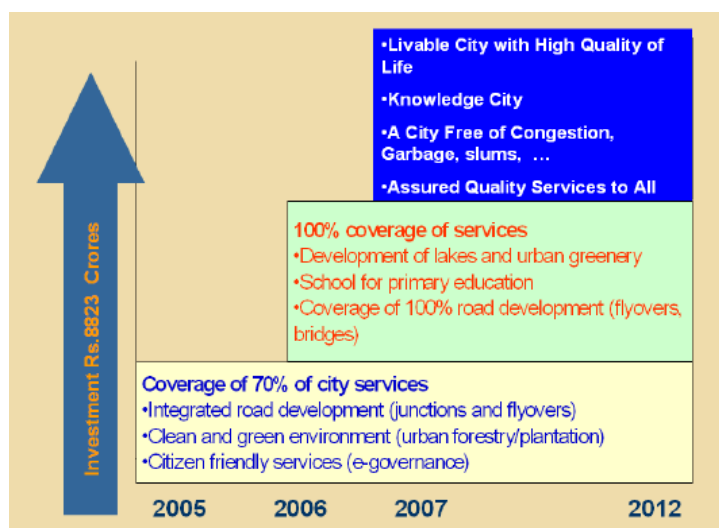
Box 5: Sample Vision Statement from CDPs prepared in 2005

| Vision | Key word |
|---|--|
| Ahmedabad City envisioned as “Vibrant, productive, harmonious, sustainable and environmental friendly, clean and livable city having a responsive local government offering its citizens a good quality of life”. <i>Source: CDP of Ahmedabad</i> | <i>Sustainable and Environment Friendly</i> |
| The City of Ajmer aspires to be an international destination for religious and heritage tourism and a centre for learning by leveraging the existing regional setting, historical significance, religious and educational institutions and government establishments and by making the city efficient and improving the quality of life for all. <i>Source: CDP of Ajmer</i> | <i>International destination for religious and heritage tourism</i> |

| | |
|---|--|
| <p>“Bangalore has evolved as a cosmopolitan and livable city, with a global presence. To retain its pre-eminent position as a city of the future, the city shall enable and empower its citizens with: 1. Growth opportunities to promote innovation and economic prosperity; 2. A clean and green environment; 3. High-quality infrastructure for transport and communication; 4. Wide-ranging services aimed at improving the quality of life for all; 5. Conservation of its heritage and diverse culture; and 6. Responsive and efficient governance.”</p> <p><i>Source: CDP of Bangalore</i></p> | <p><i>Pre-eminent position as a City of the future</i></p> |
| <p>City of Kolkata envisioned to provide sustained and improved quality of life through basic urban services in an inclusive manner and create enabling environment for attracting domestic and international investors to live, work & invest in Kolkata Metropolitan Area.</p> <p><i>Source: CDP of Kolkata</i></p> | <p><i>Attracting domestic and international investors</i></p> |
| <p>Ujjain city envisioned making the city a knowledge and pilgrim centre – maintaining its great religious and cultural image and providing a better and sustainable environment for people from all walks of life.</p> <p><i>Source: CDP of Ujjain</i></p> | <p><i>Knowledge and Pilgrim centre</i></p> |

5.2.2 Milestones:

Developing a common vision requires a significant effort of consensus building in order to balance the competing demands arising from different economic infrastructure sectors, as well as from different interest groups within the city. In order to achieve an understanding on a common vision, it is useful to choose “milestones” and targets such as provision of a minimum level of services to all, public disclosure and transparency in the formulation of budget proposals, introduction of a single window in matters of service delivery and management and the like. It is important that when cities define outcomes and milestones, they ensure that these are measurable and have a time frame, as shown in the chart below.



Source: CDP Ahmedabad

5.3 What are development goals and strategies?

The city leadership will need to translate the vision into specific development goals. Development goals will be more specific targets that the city plans to achieve in a given timeframe, for e.g. access to safe drinking water and sanitation to all citizens in 10 years, or, emerge as the most preferred

business location for automobile ancillary industry in India in next 15 years. Goals should ideally be **Simple, Measurable, Realistic and Time-bound**.

Goals may be defined for the different sectors in which the city needs to develop, and therefore goals may be defined not just for achievements in infrastructure services, but also in terms of economic indicators, human development or social indicators, environmental indicators, etc.

A strategy by its very definition implies selection of a preferred approach amongst a set of alternatives. With the context available from the city assessment, for each major constraint within each sector, a strategy will need to be carefully chosen after evaluating various alternatives. For e.g. if source augmentation is required for improving the quality of water supply, the alternate approaches may include – raw water source development through catchment area development, or bringing raw water from a large distance, or recycling and reuse of waste water on a large scale.

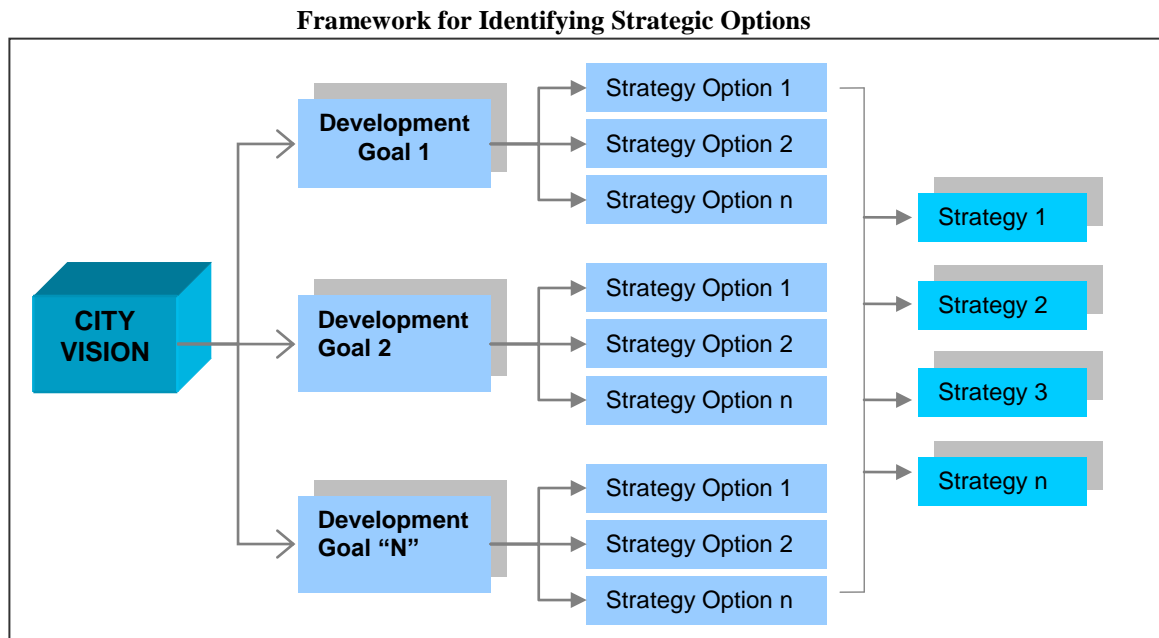
5.4 Why the Development Goals Important?

Developments goals are important as,

- They answer the question: “What matters?” and ask: “What is important for the city development?”
- They form the basis for generating and designing strategy options
- They clarify directions of preference that can be compared and traded off
- They provide decision criteria for evaluating strategic options

5.5 How to develop goals and strategic options?

Extensive consultation and expert inputs are both critical in developing goals and strategy options. First the City vision and the SWOT need to be reviewed and based on that, a number of simple, measurable, realistic and time bound development goals need to be set. The next important step is to identify the potential strategy options to achieve the development goals. This is perhaps the most tangible point in the planning process – where “thinkers” and “doers” need to connect, where specific actions are envisioned. A framework for development of strategy options is suggested in the box below.



Ideally the process of developing the strategic options should follow the following steps:

Step 1: Consider the SWOT analysis and review the development goals

Step 2: Organize a stakeholder consultation to identify the action ideas. Participants in the consultation process are expected to come out with their proposed action points towards achieving the development goal. Ideas should be discussed widely, so that other participants may come out with more suggestions.

Step 3: Review the list of action ideas and assess if there are common actions that are likely to be a part of every strategy (e.g., institutional capacity building)

Step 4: Review the list and identify any obvious, simple actions that are easily attainable, commonly desired, universally agreed upon and that can be implemented quickly

Step 5: Group actions by common themes. Once the actions are grouped, refine the strategies by considering the following points:

- Is there an order to the actions, do some actions need to happen in advance of others?
- Are any actions mutually exclusive?
- Can these actions be designed to contribute to other development goals?
- What is the opportunity cost of not implementing this action?
- What are the long-term effects? Will this action have undesirable or inequitable impacts?
- What are the financial implications?

5.5.1 Sectoral Strategies

For ease of understanding a few examples of development goals and sectoral strategies for some of the key infrastructure sectors are illustrated below:

| Suggestive Sector | What could the Vision be? | What development goals could mean? | How could strategies be articulated? |
|---|--|---|--|
| Urban Growth Management & Inclusive growth. | <i>“To promote a spatial structure of the city that supports economic activities and growth by integrating land use and transport development and conserving natural and built heritage”</i> | <ul style="list-style-type: none"> • Optimal allocation of land based on changing needs of the city. • Conserve environmentally fragile areas – hills, lakes, natural and cultural heritage, etc. • To match the housing demand • Inner city renewal through improvement of infrastructure and services to maintain the cultural fabric | <ul style="list-style-type: none"> • Review and Updation of the Master Plan • Leverage Town Planning Schemes, as tool for equitable allocation of land use • Special Development Control guidelines for Inner City Area and other areas of natural and heritage significance • Public Participation and Consultation at Neighbourhood level • Promotion of ambient environment through afforestation, conservation and improvement measures for lake, hills and other environmentally sensitive areas; Set-up / designate a dedicated authority for these functions. • Leverage recreational value of natural assets • Creation of New Housing Stock • Improve connectivity, and encourage development of commercials in newly developing areas • Inner City Area Development strategy and Plans • |
| Traffic and Transport | <i>“To develop a transport system commensurate with the growth and spatial structure of the city and to provide improved access, safety and efficient mobility across the city”</i> | <ul style="list-style-type: none"> • To improve accessibility to all parts of the city • To reduce travel time • To facilitate safe and smooth traffic flows • To facilitate safe pedestrian movement | <ul style="list-style-type: none"> • Develop ring-road and divert regional traffic to decongest the inner city; • Improve connectivity to developing areas and improve road network; • Introduce bus-based public transport system • Remove traffic bottlenecks - Improve road intersections, geometrics, lane design, parkings, build ROBs / Flyovers etc. • Traffic management – through one way systems and one side parkings, especially in dense areas; signalization of major traffic junctions; • Improve road surface quality and undertake regular maintenance • Improvement of parking facilities and pedestrian facilities |
| Heritage and Tourism | <i>“To make the City an international tourist destination by</i> | <ul style="list-style-type: none"> • To conserve natural and cultural heritage in the city and promote tourism | <ul style="list-style-type: none"> • Identify, list and conserve heritage areas • Develop and promote circuit plan, city level and regional circuit, to promote heritage areas; • Community involvement through |

| Suggestive Sector | What could the Vision be? | What development goals could mean? | How could strategies be articulated? |
|-------------------------|--|--|---|
| | <i>leveraging historical, natural, cultural heritage in addition to present religious attractions”</i> | <ul style="list-style-type: none"> To increase the number of tourists (domestic & foreign) visiting the city in a sustainable manner To prolong the average stay of tourists | <p>measures like fiscal incentives, grant for development;</p> <ul style="list-style-type: none"> Improve connectivity of all heritage sites and provide facilities for parking and other tourist amenities; Marketing and promotion of festivals and events; Promote budget hotels and resorts, to prolong visitors stay and increase economic benefits; Improve safety and security of tourists; Develop and promote new tourist locations. |
| Water Supply | <i>“To assure adequate and equitable daily water supply at reasonable hours”</i> | <ul style="list-style-type: none"> To achieving equitable spatial growth through planned provision of Supply in Newly Developing Areas. To improve service quality – provide 24 X 7 supply or To provide at least 4 hours of water supply daily at 135 lpcd To increase the coverage under water supply Tariff on water supply should necessarily cover all operational and maintenance charges, and should attempt to address debt servicing and capital investments. | <ul style="list-style-type: none"> Augment existing source / identify new source to meet future water demand Increase coverage through individual service connections; Provide water supply to newly developed/ developing areas and other uncovered areas Augment the water storage capacity for more equitable supply of water; augment capacities for dedicated storage for areas of tourist and cultural significance Improve water distribution system by controlling leakages, and installing bulk domestic water meters, to control Unaccounted for Water (UFW) Scientific designing of water distribution network using hydraulic models, establishing hydraulically independent District Metering Areas (DMAs) and increase customer connections Rejuvenate water bodies and make Rainwater Harvesting Scheme (RHS) mandatory for every new development Rationalize water tariff to meet Operations and Maintenance (O&M) expenses Conduct leak detection study and carry out rehabilitation of the water supply system based on the outcome of the study Provide incentives to legalise unauthorized connections |
| Sewerage and Sanitation | <i>“To attain environment friendly citywide</i> | <ul style="list-style-type: none"> To achieve universal coverage in the City and improve service | <ul style="list-style-type: none"> Increase network reach and population coverage by encouraging citizens to connect to the system; Adopt incentive measures like subsidizing connections |

| Suggestive Sector | What could the Vision be? | What development goals could mean? | How could strategies be articulated? |
|-------------------|--|---|--|
| | <i>coverage of sewerage and sanitation system”</i> | <p>levels</p> <ul style="list-style-type: none"> • To develop environmentally safe Collection, Treatment and Disposal system • Provision of safe and hygienic Sanitation Facilities to major Tourist/Pilgrim locations, Slum Areas and other city-wide locations • Prevent flow of sewage and sullage into natural drains and water bodies | <p>charges in pre-commissioning stages, IEC activities, etc.</p> <ul style="list-style-type: none"> • Rehabilitate old and dilapidated systems and encourage connections in Inner City Areas • Expand coverage to slum areas; Provide Low Cost Sanitation facilities in low income areas; • Scientific designing of sewer zones using hydraulic models; • Optimize costs and develop sustainable systems for collection, treatment and disposal; Explore decentralized systems for sewage collection and treatment; • Rehabilitate existing facilities to avoid the higher cost of deferred maintenance • Launch communication campaigns and IEC activities to encourage citizens to connect to the system • Provide intercept works around water bodies / nullahs to improve water quality |

5.5.2 Service Level Benchmark (SLB)

CDPs may be linked to the Service Level Benchmark (SLB) parameters and be the part of the ongoing endeavour to measure service delivery in the urban sector. The Ministry of Urban Development has now adopted National Level Benchmarks in the key sectors—Water Supply, Sewerage, Solid Waste Management, Storm Water Drainage, Urban Transport and e-Governance. Investments in urban infrastructure have not always resulted in corresponding improvements in levels of service delivery. Therefore, there is a need to focus in service delivery.

ULBs/Service Providers have to generate performance reports on SLBs periodically. Data can be captured either regularly through systems on the ground or through specific surveys, carried out at defined intervals. In parallel, the ULBs/Service Providers shall also need to institutionalize the systems for entire cycle of performance management.

www.urbanindia.nic.in/programme/uwss/slb/Handbook.pdf,

www.urbanindia.nic.in/programme/ut/Service_level.pdf

www.jnnurm.nic.in/wp-content/uploads/2010/12/SLB-egovernance.pdf

Establishing Systems to monitor service delivery:

Lack of resources often results in dilution of service delivery standards by the local bodies, but lack of information systems to measure the current level of performance or availability of performance indicators on a disaggregated level within the local body/service level utility also leads to ambiguity in setting goals against meeting service delivery against the set benchmarks at the National level.

5.5.3 Operation and Maintenance (O & M) Plan:

The CDP should not be just about one-time capex; it should estimate the O&M for all projects and suggest how these will be obtained. Maintenance of existing assets has remained largely unattended by most ULBs. Recognizing the importance of maintaining assets for better service delivery, estimates of operations and maintenance (O&M) cost is necessary. The O&M cost estimation should include the cost of O&M of physical assets, staff, and related administrative cost for the respective sectors. The O&M computation should take into account both the cost of O&M of existing assets as well as of assets planned for future.

6. Sector Plans

It is important to understand that city assessment and SWOT analysis discussed in chapter 4 paves the way towards preparation of sector plans. It should be noted that further detailed technical assessment may be required, while preparing the sector plans. It is also suggested that GIS may be used whenever possible, based on the availability of technical resources.

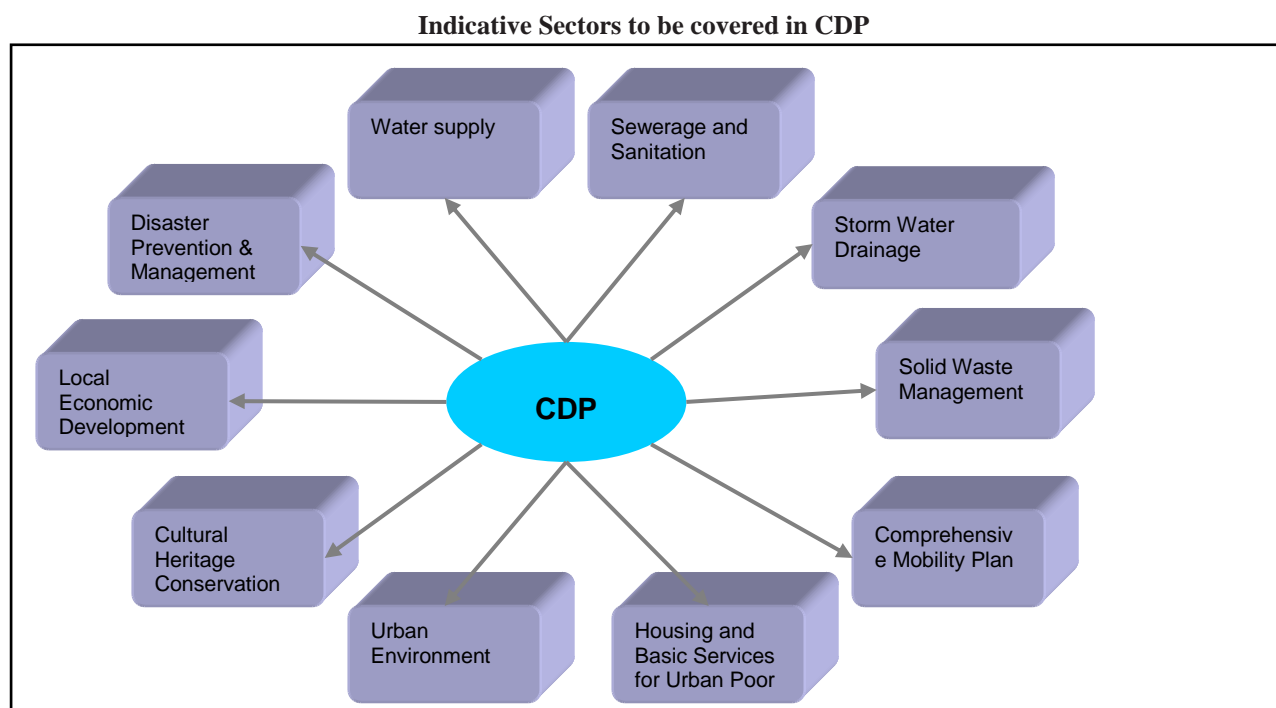
6.1 Why are Sector Plans Important?

This is a critical stage of the overall CDP preparation process, wherein plans for all the key sectors are prepared. The purpose of preparation of Sector plan can be explained as follows:

- To provide a realistic and time-bound plan for prioritised ULB-level projects to be implemented in 5 to 10 years time frame.
- To arrive at this shelf of projects through a technically sound, participatory and transparent process
- To develop a shelf of projects which the ULB may finance through its own sources, government grants, borrowings or public-private partnerships
- To initiate a set of improvement initiatives in operations and maintenance of municipal assets.

6.2 Which Sectors to Cover?

It is not necessary that the CDP should focus only on the sectors or projects which are admissible for funding under JnNURM. It is strongly recommended that a CDP should be as comprehensive as possible and should include all required sectors of planning towards achievement of vision and development goals set for the city. Sector Plans should also cut across municipal boundaries and plan for the urban agglomeration as a whole. For example, a large drain may cut across municipal boundaries or its outfall may be outside the municipal limits. The drainage plan will take into account such issues and not take a limited view of addressing the issues only within municipal limits.



Some of the sectors, which should be incorporated in the CDP, are shown in the chart above, however it should be noted that the sectors mentioned are only indicative.

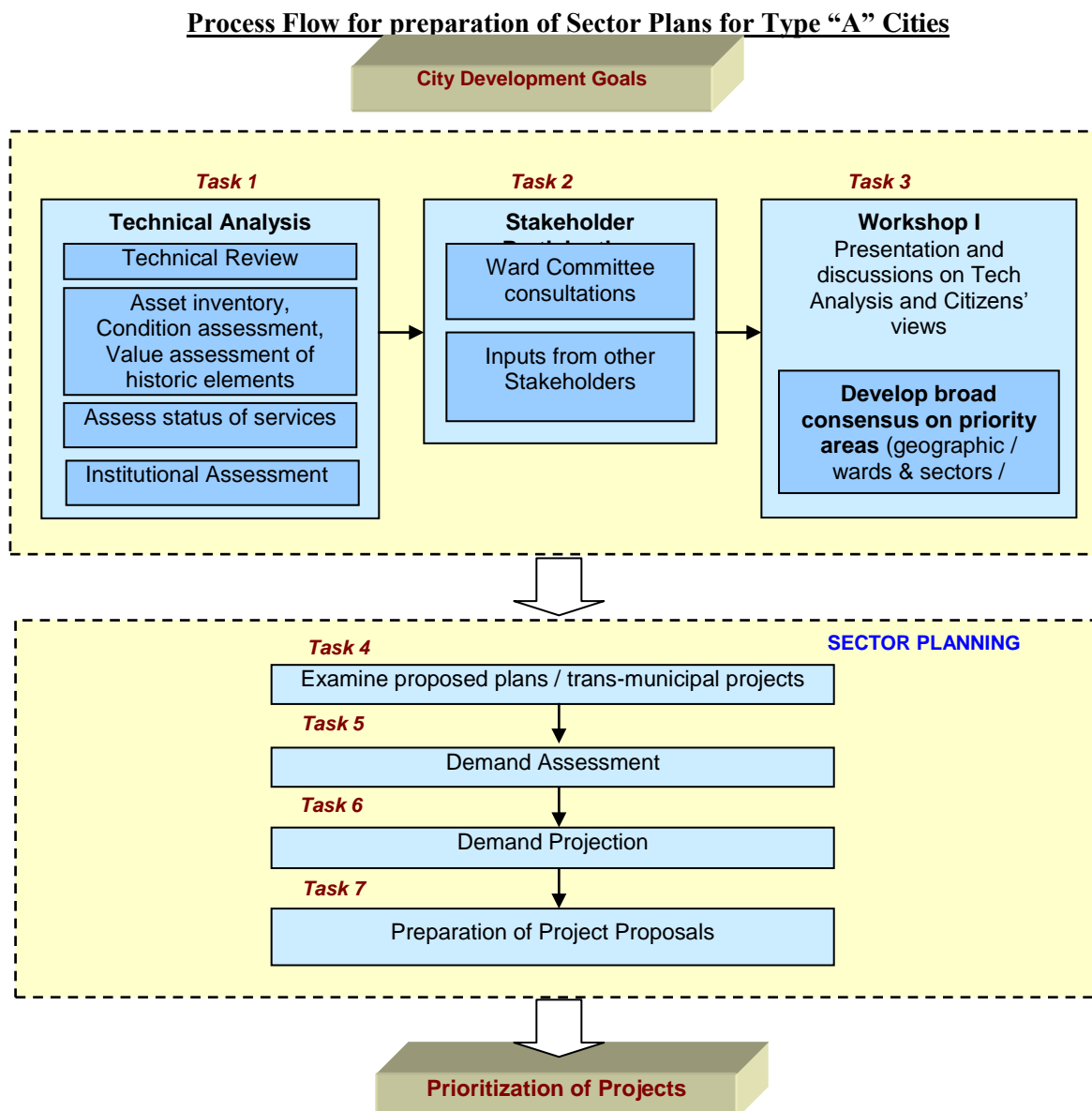
6.3 How to prepare Sector Plans?

The process of Sector Plan preparation essentially depends on the type of administrative setup in the city. There can be two broad categories:

- Type A Cities: Cities with single urban local body which provides all the basic infrastructure and services
- Type B Cities: Cities with single or multiple local bodies, and dependent on parastatals for crucial common infrastructure and services.

6.3.1 Type A Cities: A city with single independent urban local body

The process flow of sector plan preparation in case of a city with single independent urban local body is explained in the flowchart below.



The process of sector planning should essentially follow the following tasks:

Task 1: Technical Analysis. Technical analysis will primarily be carried out by the ULB in association with required external experts / consultants and will involve the following activities:

- a. **Technical review:** Technical review should begin with preparation of a base map of the city (importance of base map and process of preparation of base map is given in box no. 4) putting together all maps, survey results, GIS maps and datasheets, past technical studies and reports. In addition, there may also be studies carried out by other state agencies, which need to be collected. All on-going projects concerning the ULB, whether executed by ULB or not, but those linked to basic municipal services should be identified and listed.
- b. **Asset inventory, condition and value assessment:** With the combined inputs from field visits, technical inputs mentioned above, asset registers and other sources, a detailed asset inventory and condition assessment should be conducted. It is important to assure for each sectoral plan that the historic assets (old tanks, water channels, etc.) are included and assessed not only for their condition, but also for their historic values. This will later determine if they should be included in a future system or preserved without being in use, or if they are to be declared redundant.

The asset inventory should focus on services mentioned earlier and also focus on those assets that have a direct bearing on the services provided to citizens. This assessment focuses on listing the key assets / infrastructure available for service provision, their quantum, age, condition and need for repairs.

- c. **Assess status of services:** On completion of the asset inventory and condition assessment, a review should be taken up with a focus on the quality of services being rendered. This assessment intends to qualify the services being offered, preferably at the ward level.
- d. **Institutional assessment:** Institutional responsibility and mandates as currently practiced should be identified and examined. Line of reporting within and among the agencies involved in each sector, should be highlighted. The ULB should clearly identify the agencies responsible for specific sectors and functions within those sectors. This institutional assessment should not be a limitation for ULBs to identify project proposals in certain sectors.

Task 2: Stakeholder Participation. This task constitutes activities pertaining to ensuring the participation and capturing the voice of the stakeholders across the three tiers in the ULB as indicated in the box below.

1st Tier – “Area Sabha” –

Registered Voters in each Polling Booth constitute themselves as “Area Sabha”. As per 74th CAA provisions, Area Sabha will have a right to submit their requirement of funds or for provision of services or for information and data regarding the utility and efficacy of services provided in their area by the Corporation and Ward Committee. This will provide the voters with a legitimate platform to have their voices heard.

2nd Tier – “Ward Committee”–

The jurisdiction shall be electoral ward. The elected Corporators from that ward will become the Chairperson. The other members will be elected by each of the Area Sabhas falling within the electoral ward. In other words, if the ward has 25 polling booths, there will be 25 Area Sabhas and 25 representatives will be elected from 25 Area Sabhas as members of the Ward Committee.

3rd Tier – “At the ULB Level” –

This will consist of elected corporators and will continue to have reservation of seats for the Scheduled Castes and Tribes and Women. “Mayor” will be directly elected. He will be the Chief Executive Officer under whom the “Commissioner” and all the employees of ULB will work. “Mayor” will be member of the Metropolitan Planning Committee. Any conflict in terms of interests and jurisdiction between various, parastatal agencies, State Government and Central Government agencies may be resolved by him to harmonize the efforts of all to ensure that the activities of multiple agencies do not have an adverse impact, but improve the quality of life of people.

The activities involved are:

Consultation with Ward Committees: Citizen Participation is a key to the planning process. Citizens' views on quality of services received are an important feedback to the municipal management. Ward Committee is the primary instrument of citizen participation in this planning process. Therefore, it is ideal to capture views of the ward committee on status of services received by them. This activity should therefore be repeated for each ward and the consolidated feedback examined. However, this does not exclude other citizen's groups such as Resident Welfare Associations, Shopkeepers' Associations, etc. to participate in this planning process. Such associations should engage with the Ward Committee and participate in the consultative processes.

Consultation with other stakeholders: On specific infrastructure issues, concerned citizen groups may be consulted. It is important to note that different types of municipal services require different planning approaches on account of their technically unique nature. eg. Network services, where networks need to be planned on city / ULB-wide basis or at least trans-ward basis a wide range of stakeholders need to be consulted which could include city leadership, representatives of ward committees, Resident Welfare Associations, business establishment, subject matter experts, NGOs, CBOs and other state and city level institutions. For projects with heritage and conservation focus, state/ national level agencies which have traditionally been involved should be consulted.

Task 3: Integration of technical analysis and citizens' feedback to develop broad consensus on priorities. Outputs of both the technical analysis and citizen's feedback should be presented in **Workshop I**. Summary of the technical analysis should be presented by the Municipal Engineer / Urban Planner and summary of citizen's feedback, consolidated from all ward committee meetings and other inputs should be integrated with the technical analysis.

Task 4: Review of proposed plans at the regional level: There may be different regional schemes of the state or central government in a particular sector, which is going to be implemented in the city. In that case it is important, at this stage, to review those larger plans. For example, if there is a regional water supply scheme already planned by the state government, it needs to be incorporated in the water sector plan for the city, as a potential source of water supply.

Task 5: Demand Assessment: The current demands of the city for the prioritised municipal services need to be assessed using different tools such as Household Surveys, Rapid Appraisals, City Monitoring Surveys, Benchmark Surveys, City Report Cards, Public Consultations, Stakeholder Assessments, Focused Group Discussions. However, a suitable method needs to be chosen based on the parameters to be assessed. Most widely used methods are household survey, public consultation and focus group discussion. It needs to be noted that household survey should include questions for specific sectors as well as overall city development on qualitative and quantitative information as well as perception of the respondent. The Survey should also provide space and platform to the respondents to express their concerns and vision. It is important that the survey sample represents the population size, class, economic groups and vulnerable groups (women, children, senior citizens, disabled etc) across the city.

Based on the assessment of the current demand and the actual level of service the gap in service levels can be identified. However, instead of assessing the deficiency with reference to a single 'ideal' standard it may be assessed with reference to different incremental levels of service, i.e. improvement from current levels of service (For e.g., in case of water supply - either 90 lpcd or 110 lpcd or 135 lpcd. Please note that these figures are arbitrarily chosen to illustrate the different levels of service and actual numbers will be decided based on rational judgement, acceptability and good practices). Benchmarks specified as per

Government of India norms and urban planning guidelines should be examined. However, the ULB should set practical and achievable targets of quality of services, seeking to achieve significant improvement over current situation.

The service levels and their gaps, and the target service levels for core urban sectors may be captured in the 'Standardised Service Level Benchmark' document prepared under JNNURM (www.jnnurm.nic.in). This handbook can currently be used for compiling and benchmarking indicators related to services like water supply, sewerage and sanitation, solid waste management and drainage. ULBs are advised to use the handbook as guide for preparing similar indicators and as reference for other sectors. The objective is to undertake the benchmarking exercise on a periodic basis, preferably along with the CDP revision, so as to set realistic targets for service delivery. The indicators may also be used for public disclosure of information related to service delivery. Brief of service level benchmark parameters have been discussed in para 5.5.2

Task 6: Demand Projection: Once the gaps in service levels have been quantified, future demand over a 10 - 15 year period, at the very least, should be projected as per targeted norms. This future demand should be based on projected population growth and patterns of urban development the ULB is experiencing. (e.g. focus on added areas / wards within the ULB that are showing urban growth). Projection of future demand may be based on prudent technical judgment in most cases, and need not necessarily be detailed planning exercises. On the basis of this current deficiency and projected demand for the future, projects should be conceived to bridge this infrastructure gap for improved, incremental and quantifiable levels of service.

Task 7: Preparation of project proposals: In line with the broad consensus on priorities agreed during Workshop I, specific projects should be identified to meet the projected demand for the specific time period. Project proposals may either be for significant improvements in Operations and Maintenance of existing services and / or investments in new projects. ULBs are encouraged to take on initiatives involving significant improvements in operating and maintenance methods that will involve low levels of capital expenditure, but will result in significant improvement in services.

With limited capital resources available to ULBs, and large infrastructure gaps, it is important that the projects are carefully identified and developed. Solutions that need creation of new assets may be based on examining possible alternatives based on their capital cost as well as incremental O&M requirements. Apart from such immediate and short term solutions, medium to long term projects may be required to meet the future demand of services according to the desired norms and the development goals set in the CDP.

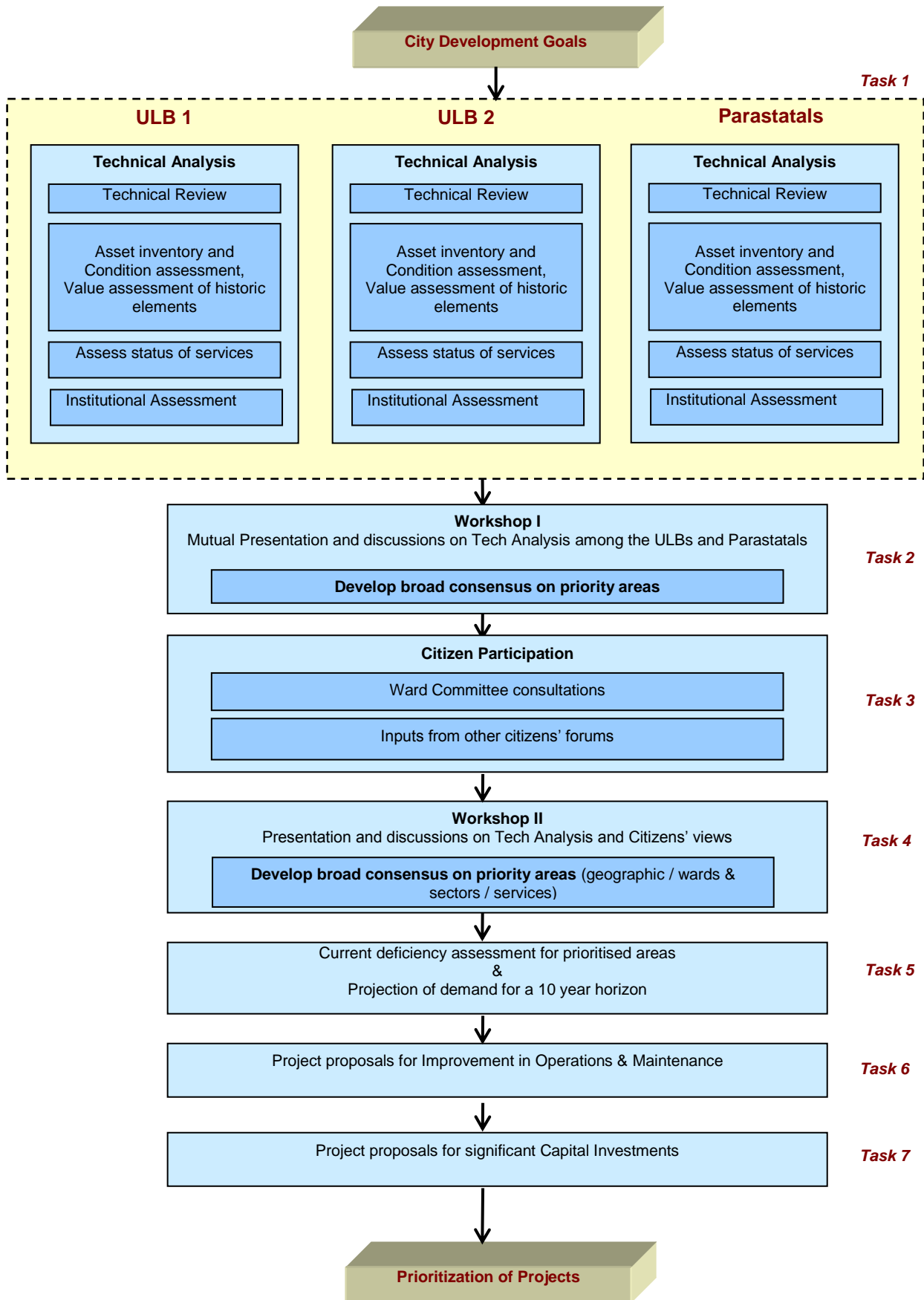
In seeking solutions and formulating proposals the emphasis should be on finding "least cost" (in terms of project life cycle cost) solutions. Alternate technologies should be consciously explored. For example, promoting separation of organic waste and vermiculture in a decentralized manner may help reduce the transport cost of solid waste. The selected proposal may then represent a least cost solution to achieve certain objective.

6.3.2 Type B Cities: A city with single or multiple local bodies, and dependent on parastatals for crucial infrastructure services

There are cities which are urban agglomerations, constituting multiple ULBs and where many of the infrastructure services are provided by parastatals organizations. In this kind of scenario, the sector plan preparation requires a little different approach, as explained in the flowchart below. Most of the tasks are same as the "Type A" cities, as discussed above. However the first task has to be repeated for all the institutions/agencies in the city, such as the ULBs, parastatal bodies, and other service providers.

It is essential that all the organizations first undertake a technical analysis of the sectors as explained in case of “Type A” cities. The second task is very crucial as in this workshop it is expected that all the organizations present their analysis of a specific sector, its strength and weakness and the potential improvement avenues. The rest of the tasks will follow the same process as in case of “Type A” cities.

Process Flow for Preparation of Sector Plans for Type “B” Cities



Sector Assessment

This section discusses the key parameters to be assessed for preparing sector plans for basic municipal services such as water supply, sewerage, solid waste management, transport etc.

a. Water Supply: While assessing the water supply sector in the city it is important to look at reliability of the service. It is important to look at the following parameters:

- **Source Augmentation:** In many cities of India, the existing source of water is not adequate to meet the requirements of the people, and augmentation is essential to meet future requirements. There is a need to assess rainfall patterns, catchment areas, groundwater recharge, rainwater harvesting mechanisms, traditional water supply systems such as wells, step wells, tanks, etc. to explore any possibilities of reviving these to supplement the existing water source.
- **Storage facility:** Many a times a lake or dam is the main source of water supply in a city. However, over time due to siltation, live storage of the dam starts getting reduced. It is therefore important to identify such problems and suggest required measures. It is also required to maintain an O & M Schedule, for water supply assets, for regular maintenance and energy consumption optimization. Inadequate summer storage may be a major problem in the cities located in arid and semiarid zones, due to erratic rainfall pattern. Therefore it is important to analyse the rainfall pattern and probability of rainwater harvesting and ground water recharge potential.
- **Treatment Capacity:** The city may have an advanced treatment facility or treatment may be through a simple disinfection facility. However, based on the quality criteria as mentioned in national norms, an appropriate treatment facility needs to be commissioned. Based on the present and future demand it is essential to augment the treatment capacity too.
- **Distribution System:** The existing water distribution system may be old and suffering from leakages etc. thus reducing its carrying capacity. Therefore the existing distribution network may need complete overhauling by replacing old and obsolete pipe line with new distribution network. On the other hand, the existing distribution network may be inadequate in its capacity. Therefore the system may need comprehensive rehabilitation which needs to be assessed through a detailed study. Assessment of historic water systems by qualified conservation architect for conservation and possible reuse may be undertaken.
- **System Losses (Transmission & Distribution):** Losses and Unaccounted for Water ranges between 20 to 30 percent in many Indian cities. Apart from unaccounted for water, leakages leads to contamination of water at household connections and low pressure in Water Supply. Only rehabilitation of the old pipe lines is not the solution and it is important to carry out necessary studies to identify the underlying technical causes of the problems.
- **Service Levels:** It is a reality that in many Indian cities, coverage of water supply is limited. Thus, the pockets which are not covered need to be identified along with number of house service connections. There may be some pockets where the situation becomes worse in the summer season, like the frequency of supply in some pockets may be daily in normal season, which deteriorates to once in three or seven days in the summer season. It is also important to identify the peripheral areas of the city, where water supply is inadequate in terms of quantity and quality. The inadequate service coverage may also be due to inadequate network coverage which is mostly along the road network.

b. Sewerage, Sanitation and Waste Water: While assessing the Sewerage and Sanitation sector in the city, it is important to look at the following parameters:

- **Existing system** – Separate sewerage or combined sewerage system
- **Existing and future sources of waste water** – Existing as well as likely future sources of water e.g. domestic, commercial, industrial should be analysed
- **Conveyance system** – Existing city level conveyance system their capacities and capacity currently utilised should be analysed. Gap between exiting conveyance system available and current as well as future projected demand should be identified
- **Treatment facilities** – Treatment facilities, location, their capacity and capacity currently utilised, possible locations for new facilities to be proposed should be analysed. Gap between existing treatment facilities available and current as well as future projected demand should be identified
- **Collection network** – Some of the aspects to be analysed in the collection network are:
 - Existing areas and population covered and not covered
 - Existing network, pipe diameters, capacities and condition of the pipelines
 - Pumping facilities, location, capacity and capacity currently utilised
 - Losses, infiltration and leakages in the collection network
 - Gap between existing conveyance network available and current as well as future projected demand should be identified
- Existing waste water generated and per capita waste flow should be analysed. Rate of waste water flow depends up on quantum of water supplied to the community and rate of infiltration.

c. Solid Waste Management: For any solid waste management projects the following aspects should be studied and analysed:

- Existing waste generation (Land Use Wise) – domestic, institutional, industrial, construction, bio medical waste composition
- Major Generation/Litter Points
- Waste collected, waste segregated and waste recycled
- Existing areas and population covered and not covered under waste collection system
- Gap between existing system available and current as well as future projected demand
- Waste transportation system
- Waste Treatment and scientific disposal
- Waste to Energy options
- Options for involving private players in various components ranging from waste collection to disposal to reuse.

d. Transport: The transport sector includes aspects of movement of people and goods, means of transportation, traffic management and the road infrastructure. Therefore it needs to be reviewed with a holistic perspective. The key issues pertaining to the transport sector can be summarised as:

- Absence of integration of land use and transport
- Absence of integration of different modes of transport
- Absence of adequate mass rapid transportation systems (density, area coverage, quality of services) leading to uncontrolled growth of personal vehicles

- Absence of adequate studies to find appropriate solutions for the ever growing private vehicles
- Absence of policy and implementation to regulate public versus private transport
- Insufficient carriageway width to accommodate high volume of traffic
- Absence of travel demand management measures
- Improper traffic junctions
- Chronic parking problems in core areas
- Very high risks for pedestrians and cyclists from motorized traffic
- Absence of pedestrian walkways, separated paths, and level crossing facilities
- Absence of appropriate bicycle paths and separated lines.
- Narrow bridges and inadequate number of railway over bridges.
- Various types of encroachments
- Absence of proper link roads
- Unscientific route selection of public transport
- Inadequate bus terminals
- Lack of awareness of traffic rules by general public

For road projects following aspects should be studied and analysed:

- Missing linkages
- Intersections on the road
- Existing and proposed land use
- Employment generation nodes
- Traffic and circulation pattern
- Condition of roads
- Right of Way
- Existing road network and road hierarchy
- Freight corridors
- Existing and proposed carrying capacity
- Existing infrastructure on the road
- Accident data
- Over Bridges – Carrying capacity and utilised capacity

Traffic surveys required to be conducted in connection with the preparation of road projects are:

- Traffic Counts
- Origin Destination Surveys
- Pedestrian surveys

Transportation in historic urban areas: The historic areas are typically characterised by very high density, busy markets, very limited street spaces, many public and private open spaces, high living qualities, and a great potential for tourism. The high density of these areas does not lend itself to the large number of private transport (cars), fast vehicular movement, large trucks and buses, or indeed the most modern above-ground mass transport systems. It must be accepted that only specific types of transport are suitable for these areas.

The widening of roads in historic areas to accommodate more vehicles is a measure that will not lead to the desired end, because any widened street will again and again be congested by the ever growing number of cars. Road widening is very destructive to the historic fabric, which in turn will reduce the historic value and attractiveness for tourists of the city.

Any transport related intervention must keep these facts in mind. Fast, heavy, and dense traffic may be lead around the historic areas. Park and ride facilities with cycle rickshaws, electro buses, etc. may be developed in connection with pedestrianised zones in the historic areas.

Sector Plans

The following sections provide guidance on technical analysis for various indicative sectors to be covered in CDP. It should be noted that the sectors discussed below are not in any hierarchy, however while preparing the CDP, cities may prepare these plans as per the priority set during the city assessment, SWOT analysis and stakeholder consultation. Further it may be noted that for basic services like water supply, sewerage, drainage, solid waste management, transportation etc, it is essential to assess the demand-supply gap, however sectors like heritage conservation, environmental management etc. need special innovative approaches.

6.4 Water Supply

While preparing the water sector plan, based on the assessment and sectoral vision, its essential to set goals for the sector, to be achieved within a time horizon. Some examples are given in the table below.

Goals and Service Outcomes in Water Supply

| Goal | Current Status | 2011 | 2013 | 2016 | 2021 |
|--|----------------|---------|---------|---------|---------|
| Network coverage to households | 50% | 70% | 90% | 100% | 100% |
| Per Capita Supply | 100 lit | 135 lit | 135 lit | 200 lit | 200 lit |
| 24/7 Water Supply | Nil | 50% | 80% | 90% | 100% |
| Quality of water | Good | Potable | Potable | Potable | Potable |
| Non revenue water | 50% | 30% | 15% | 10% | 10% |
| Consumer Metering | Nil | 50% | 80% | 90% | 100% |
| Cost Recovery (Percent of Operation and Maintenance) | 40% | 70% | 80% | 90% | 100% |

6.4.1 Strategies

Next, it is important to prepare some strategies for the sector to provide a roadmap for the sectoral goals. For indicative strategies, refer section 5.5.1.

6.4.2 Action Plans

Next, it is important to prepare some strategies and action plans for the sector, covering policy level planning, reforms, institutional strengthening, source augmentation and service delivery aspects. Some examples are highlighted below:

- **Water Supply System Rehabilitation Plan:** It should focus on the need for partial or complete overhauling of existing water distribution pipeline and/or need for replacing old, defunct and inadequate piping system by proper distribution network.
- **Comprehensive Water Supply Plan:** The comprehensive plan should focus on the source augmentation, yield increase (if needed), adequate storage, and adequate distribution network reach and treatment facilities for future requirements.
- **Asset Management Plan:** It should address the condition assessment and the performance of the water supply assets including the traditional structures, which need to be conserved and managed according to their historic and functional significance.
- **Water Supply Operation and Maintenance Plan:** The plan should explore the potential options of involving the private sector for O&M (e.g. management contract).
- **Water Management Plan:** The plan should include comprehensive strategy for water management through leak detection, conducting energy audit study for checking of unaccounted for water and strategy for use of recycled water for non potable use, based on a pilot study.
- **Institutional Strengthening and Capacity Building:** There should be a Human Resource Development Plan for the agencies involved in the sector namely the ULB and the para statal organisations which should highlight the staffing requirements and training needs for medium and long term.
- **Non revenue water (NRW) reduction:** CDPs may also provide greater focus on areas such as Non revenue water (NRW) reduction.

Use of modern tools and good practices for technical analysis is recommended. Mapping and establishing a GIS system is pertinent to detail out system location, characteristics, age and condition, and in order to address the issues related to system rehabilitation. It would enable identification of dilapidated sections of the network and those that require replacement. It is important to develop key performance indicators to monitor and improve the sustainable performance of the water supply system.

It is essential to have a time frame to achieve the above mentioned plans. A sample time frame for water sector planning is given below.

Timeframe for strategy implementation

| Strategy | 2009 | 2010 | 2011 | 2012 | 2013 | 2014 | 2015 |
|----------------------------------|------|------|------|------|------|------|------|
| Water Supply Rehabilitation Plan | | | | | | | |
| Comprehensive Water Supply Plan | | | | | | | |
| Asset Management Plan | | | | | | | |
| Water Management Plan | | | | | | | |
| Mapping and GIS | | | | | | | |

| | | | | | | | |
|---|--|--|--|--|--|--|--|
| Piloting 24x7 water supply | | | | | | | |
| Source Augmentation | | | | | | | |
| Storage Capacity Augmentation | | | | | | | |
| Network Coverage for Households | | | | | | | |
| Performance Benchmarking and Monitoring | | | | | | | |

6.5 Sewerage and Sanitation

It is essential to prepare the plan in line with the National Urban Sanitation Policy and the City Sanitation Plan prepared under the same. While preparing the sewerage and sanitation plan, incorporating the assessment and sectoral vision, it is essential to set some goals for the sector, to be achieved within a time horizon. Some examples are given in the table below.

Goals and Service Outcomes in Sewerage and Sanitation Sector

| Goal | Current Status | 2011 | 2013 | 2016 | 2021 |
|--|----------------|------|------|------|------|
| Sewer network coverage to households | 30% | 80% | 90% | 100% | 100% |
| Treatment and Disposal arrangements against collection | Nil | 100% | 100% | 100% | 100% |
| Recycling and Reuse | Nil | 30% | 40% | 50% | 50% |
| Cost Recovery (Percent of Operation and Maintenance) | Nil | 50% | 70% | 80% | 100% |
| Safe sanitation facilities | 10% | 80% | 90% | 100% | 100% |

Action Plan

The sewerage and sanitation sector plan should include some action plans for policy level planning, reforms, institutional strengthening, creation of STPs, network coverage etc. Historic areas of the city need to be assessed separately in order to provide appropriate solutions for the specific locations. Eg. historic city core, areas along river. Some examples of plans pertaining to sewerage and sanitation sector are given below:

- **Comprehensive Sewerage Plan:** The plan should include enhanced coverage (preferably 100 percent population of the entire ULB area), replacement of existing outdated sewerage lines, and creation of cost effective Sewage Treatment Plants (STPs) to meet the present and future demand for entire ULB area. Both traditional and cutting edge technologies should be included while planning the improvement of the sewerage systems (consider onsite systems such as dry toilets; decentralized systems; energy efficient or zero energy systems etc.)
- **Mapping and Geographical Information System (GIS):** To address the issue of system rehabilitation, mapping and establishing a GIS system is pertinent to detail out system location, characteristics, age and condition. This would also enable identifying dilapidated sections of the network and those that require replacement.
- **Asset Management Plan:** To address the condition assessment and the performance of the sewerage system, it is recommended that an asset management plan be prepared for the assets of sewerage system of the city.

- **Performance Benchmarking and Monitoring:** It's essential to develop key performance indicators to monitor and improve the performance of the sewerage system.
- **Institutional Strengthening and Capacity Building:** The proposed and existing staff members of the concerned ULB and parastatals organizations should undergo training in project planning, implementation, monitoring and evaluation.
- **Waste Water Reuse and Recycle:** CDPs may also provide greater focus on areas such as waste water reuse and recycle.
- **Operation & Maintenance Plan:** The plan should also explore the potential options of involving the private sector for O&M (e.g., management contract)

The above mentioned plans must be time bound to ensure effective implementation and monitoring.

6.6 Storm Water Drainage

While preparing the storm water plan, based on the assessment and sectoral vision, it is essential to set some goals for the sector, to be achieved within a time horizon. Some examples are given in the table below.

Goals and Service Outcomes in Storm Water Drainage

| Goal | Current Status | 2011 | 2013 | 2016 | 2021 |
|---|----------------|------|------|------|------|
| Storm Water drainage network coverage | 30% | 80% | 90% | 100% | 100% |
| Rehabilitation of existing pucca drains | Nil | 50% | 100% | 100% | 100% |
| Up gradation of existing kutchra drains to pucca drains. | Nil | 50% | 100% | 100% | 100% |
| Rehabilitation of existing primary nallahs and primary drains | Nil | 80% | 100% | 100% | 100% |

The key issues pertaining to storm water drainage and primary drainage in many Indian cities include absence of safe disposal system, dearth of safe sanitation facilities and inadequate and ill maintained public sanitation facilities, mixing of storm-water and sewerage leading to unhygienic living environment in the city. Therefore the sectoral plan should include some strategies and action plans as mentioned below.

- **Storm Water Drainage Rehabilitation Plan:** This plan can play a crucial role in creating flood free cities. The plan should essentially include identification of the flood spots within the ULB, based on the past history of floods and contour survey of all the drains and their conditions, assessment of the percentage of open and sealed surfaces in the city, identification of drains which need cleaning and desiltation, and a regular as well as pre-monsoon special maintenance plan and evaluation of new technologies and systems. Traditional drainage systems such as nallahs need to be evaluated to assess their importance for ground water recharge.

- **Rehabilitation and Strengthening of Primary Drainage / Nallahs:** Many a times the primary drains are inadequate to handle the flash floods as they are not systematically designed and are not fully constructed in some sections. A rehabilitation plan should ideally take care of encroachment and siltation of the primary drains.
- **Construction and up gradation of Road-side Storm Water Drains:** Existing road side storm water drains may be inadequate to meet the current and future requirements and hence construction and up gradation of road side storm water drains may be taken up.
- **Rejuvenation of Water Bodies:** This plan should include rejuvenation and rehabilitation works for water bodies, through de-silting, bunding works and intersection and diversion of sewage, wherever required.
- **Efficient and Effective Operation and Maintenance Plan:** A separate operation and maintenance plan should be prepared to maintain the existing as well as proposed drains and water bodies.

It is essential to have a time frame to achieve the above mentioned strategies.

6.7 Solid Waste Management

The key issues pertaining to solid Waste Management in many Indian Cities are absence of effective primary collection mechanism, irregular street sweeping, poor waste collection performance and absence of safe and scientific disposal mechanism leading to unhygienic and unhealthy living environment in the city. Therefore, a comprehensive sector plan needs to be prepared covering policy level reforms, capacity building of ULB staff, effective collection and safe disposal mechanism, and above all, a participatory awareness campaign.

Goals and Service Outcomes in SWM

| Goal | Current Status | 2011 | 2013 | 2016 | 2021 |
|--------------------------------|----------------|---------------------------------|----------------------------------|--|--|
| Door to door collection system | 30% | 75% | 100% | 100% | 100% |
| Segregation at Source | 20% | 50% | 80% | 90% | 100% |
| Mechanised waste handling | Nil | 50% | 75% | 80% | 100% |
| Scientific waste disposal | Nil | 50% | 75% | 80% | 100% |
| Cost recovery of O & M | Nil | 30% | 60% | 80% | 100% |
| Private sector participation | Nil | 50% of Primary waste collection | 100% of Primary waste collection | Complete collection and transportation | Complete collection, transport, treatment and disposal |

An integrated solid waste management plan for the city should be developed to include collection, transportation, treatment and safe disposal of solid waste. However some critical actions recommended are :

- **Door to Door collection of domestic waste:** To cover maximum population (preferably 100%) for door to door collection of domestic solid waste, 'Bin system of Solid Waste Storage' at source is

recommended. The potential for private sector participation in waste collection should be explored. Awareness for use of separate bins/ containers for biodegradable and non-biodegradable waste should also be propagated.

- **Source Segregation and Collection of Commercial Waste:** It is important to segregate and collect the commercial waste from commercial establishments like hotels, shops, markets etc. Only recommended type of containers should be used for storage of particular type of wastes, like construction waste, meat and fish market waste, slaughterhouse waste etc. Community education and awareness campaigns can play a crucial role in the success of such initiatives.
- **E- Waste Management:** CDPs may also provide greater focus on areas such as e-waste management.
- **Community Participation and Enforcement of By-laws and Waste Collection and Handling Rules:** It is recommended that the community be involved in primary collection through segregation at household level to minimize the number of steps in the waste handling operation. Properly designed multi-bin carts (Push carts / Tricycles) should be provided for efficient collection even in inner and remote areas of the city. Dual Loaded Dumper Placers (DLDPs) can be introduced to improve the collection efficiency and to eliminate the need for secondary collection points.
- **Composting of Organic Waste.** Approximately 50-60% of the domestic solid waste generated in Indian cities is organic in nature, which can go for composting. The land requirement for compost facility needs to be examined properly while exploring the potential for the same.
- **Sanitary Land Filling of Inorganic Waste and the Compost Rejects:** Land requirement for land filling of inorganic wastes and compost rejects needs to be examined properly, to accommodate present as well as future land requirement. The plan should essentially adopt CPHEEO design guidelines for Sanitary Landfills.
- **Awareness Campaign:** Educating the community on 4R strategy (Reduce, Reuse, Recycle and Recover) needs to be an important component of the plan.
- **Institutional Strengthening and Capacity Building:** Training programme and exposure visit for the existing and proposed staff members of the Sanitation Department of the ULB should be incorporated in the plan. Training should focus on project planning, implementation, monitoring and evaluation.
- **Solid Waste Management Operation and Maintenance plan:** The plan should also explore the potential options of involving the private sector for O&M (e.g. management contract)

The time frame to achieve the above mentioned plans need to be mentioned in the CDP.

6.8 Comprehensive Mobility Plan

It is essential to identify distinct sectoral goals and service outcomes, within a time horizon. Some such goals and service outcomes are given below.

Goals and Service Outcomes- Transportation

| Goal | Current Status | 2011 | 2013 | 2016 | 2021 |
|--|----------------|------|------|------|------|
| Percentage reduction in travel time | - | 20% | 25% | 30% | 30% |
| Riding Comfort | 25% | 50% | 75% | 100% | 100% |
| Transport Safety (to reduce accidents) | - | 70% | 80% | 100% | 100% |

The transportation sector plan should therefore include the following strategies and action plans.

- Equitable allocation of road space for different users.
- Encouragement of Mass Transport Systems;
- Traffic management initiatives like, restricting usage of road space by heavy vehicles and private cars in congested streets during the peak hours, or full time;
- Facilitation of smooth flow of traffic through measures such as one-way routes, speed controls at necessary locations and emphasis on enforcement of traffic regulations;
- Promotion of sustainable means of transport such as cycle rickshaws, CNG.
- Improvement of pedestrian situation through level crossings, strengthening and widening of pavement, provision of footpaths, median, railing, road signage and other street furniture; Pedestrian movement through mid-road railings should not be obstructed without giving acceptable alternative crossing;
- Provision of separate lane for slow moving vehicles to avoid congested streets;
- Promotion of park and ride facilities, linking private and public transport systems;
- Improved connectivity by covering the missing links in the city;
- Junction improvement including proper geometric design of rotary, island and intersections and signalization; construction of pedestrian subways and pedestrian crossings at selected heavy traffic locations in the city;
- Identification of potential parking areas and provision of authorized parking lots;
- Road safety and pollution control checks including the inspection of fitness of vehicles as well as training and testing of the IPT drivers;
- Co-ordination of maintenance of other infrastructure facilities to avoid the regular digging of roads for laying utilities, development of underground utility ducts with the provision of all utility cables including water, sewer pipe lines, telephone cables and etc;

- Construction of Road Over Bridges /Road Under Bridges and Elevated roads at selected locations/corridors to release the traffic congestion;
- Construction of By-passes and Ring Roads;
- Improvements to existing bus terminus on BOT basis;
- Building institutional capacity of officials to plan, execute and monitor critical transportation projects.

6.8.1 Transit-Oriented Development (TOD):

CDPs may include aspects of Transit-Oriented Development (TOD). TOD is generally characterized by compact, mixed use development near new or existing public transportation infrastructure that provides housing, employment, entertainment and civic functions within walking distance of transit. Pedestrian-oriented design features of TODs are essential to encourage residents and workers to drive their cars less and ride public transit more. TOD can also be a significant source of non-fare box revenue for the participating transport agency. Development of business models to encourage mass transit, development of ring roads and identification and notification of corridors for TOD to make it economically viable and commercially sustainable. www.iutindia.com, www.delhimetrorail.com, www.cept.ac.in, www.urbanindia.nic.in/theministry/subordinateoff/tcpo

The Primary Goals of TOD are to:

- a) Densification and development of economic activities on transit corridor.
- b) Reduce private vehicle dependency and induce public transport use – through design, policy & enforcement measures.
- c) Provide PT access to the maximum number of people through densification and enhanced connectivity.

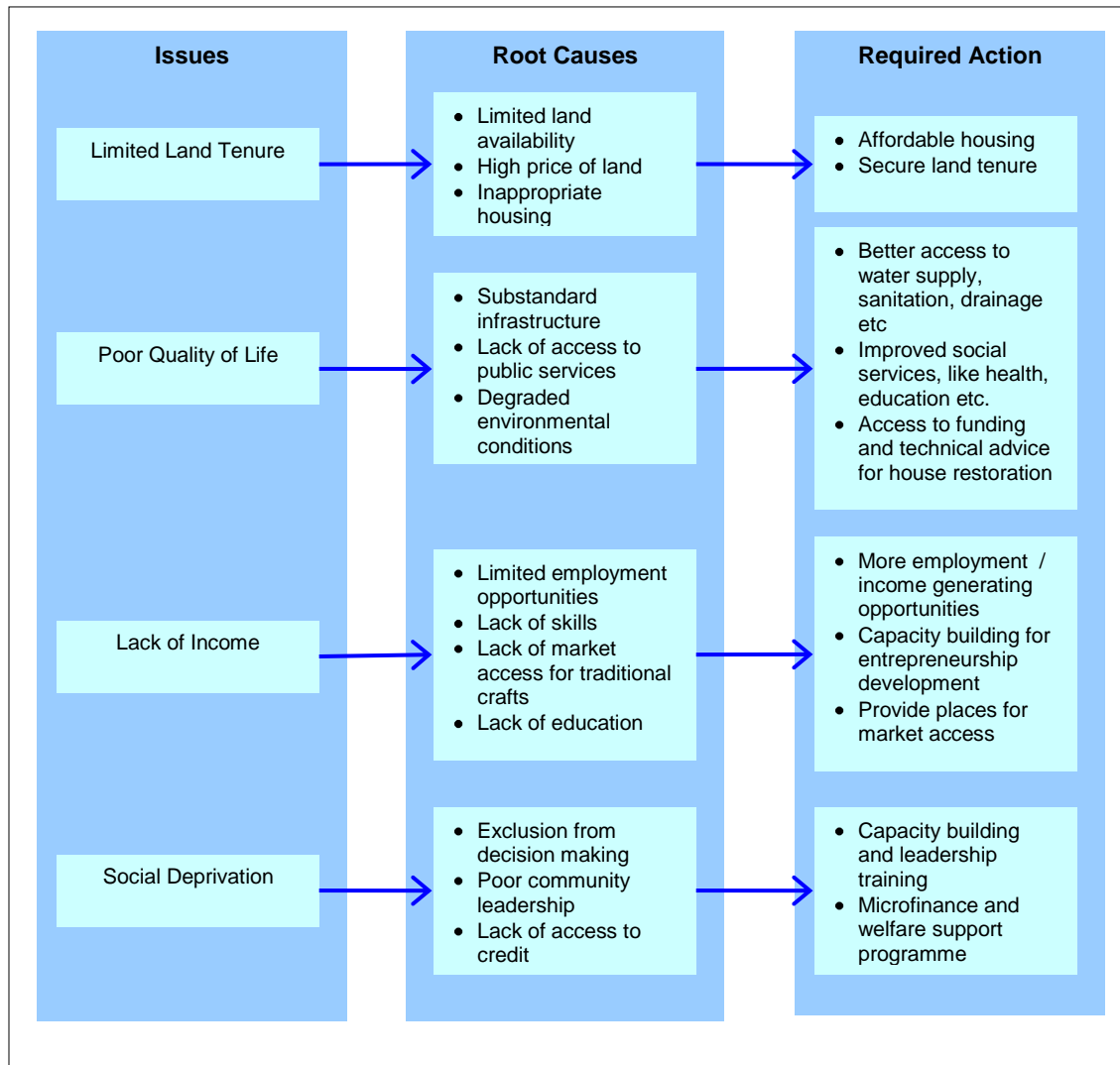
6.9 Housing and Basic Services for Urban Poor

The key issues pertaining to Basic Services for Urban Poor is lack of basic infrastructure facilities in slums like inadequate access to sanitation facilities, water supply (public stand posts), dearth of access to health, education and other social infrastructure facilities. Therefore, the sectoral goals and service outcomes in the CDP may include the following (however before preparing any kind of strategies and action plans, it is essential to understand the linkages between the issues and the root causes):

Goals and Service Outcomes Alleviating Urban Poverty

| Goal | Current Status | 2011 | 2013 | 2016 | 2021 |
|---|----------------|------|------|------|------|
| Housing for urban poor | 50% | 80% | 100% | 100% | 100% |
| Adequate access to water supply | 20% | 50% | 100% | 100% | 100% |
| Provisions of sewer lines to all slums | Nil | 50% | 100% | 100% | 100% |
| Access to sanitation for all slum dwellers | 20% | 80% | 100% | 100% | 100% |
| Collection facilities of Solid waste from the slums | Nil | 50% | 75% | 100% | 100% |
| Up gradation of <i>kachcha</i> roads | 30% | 70% | 90% | 100% | 100% |
| Improved drainage facilities | Nil | 50% | 100% | 100% | 100% |
| Adequate social infrastructure facilities like health and education | 30% | 70% | 100% | 100% | 100% |

Understanding the Issues in Poverty and their Root Causes



To achieve the above mentioned goals the city may outline the strategies and action plans as mentioned below.

- **Categorization of Slums:** While assessing the existing situation, slums may be categorised keeping in mind the historic aspects of city development (*special attention should be given to minority and tribal population for social inclusion*). Many slums are actually traditional villages, and as such very different from other slums. They include historic buildings, streets, public spaces, etc. and local communities that have lived in them for many generations. This means that such historic slum areas also are a repository of traditional crafts and trades, and an important social resource for the city as a whole. The approach to poverty alleviation must therefore be different in such slums.
- **Integrated Development of Slums:** Slums should not be treated as isolated islands. On the contrary, the spatial spread of slums over the city together with contiguity between informal settlements gives an opportunity to strengthen the city level infrastructure networks. There is always a close correlation between the slum locations and the natural drainage paths of the city which need to be tapped and improved upon with the infrastructure services. This approach shall help in building low cost service trunks, particularly for gravity based systems of sewerage and storm drainage.

- **Rehabilitation of slums.** Rehabilitation of existing infrastructure facilities in slums should be taken up. It should essentially include replacement of water supply stand post, distribution network, renovation of septic tanks and other facilities.
- **Redevelopment of slums.** Redevelopment of slum settlement in the same area by constructing low rise housing schemes with basic infrastructure facilities should be encouraged in a participatory manner.
- **Construction of housing for urban poor:** A housing need assessment should be carried out for the people in the city who do not have adequate shelter, including the homeless. Based on the assessment, a plan needs to be developed for acquisition of land and construction of housing.
- **Access to health and education:** Quality health care leading to healthy lives is an essential condition for coming out of the poverty and deprivation trap. Thus, as ULBs work towards the larger objective of urban poverty alleviation, they can aspire to go beyond the regular agenda of the Government Programmes they implement. The ULB should devise strategies and prepare action plans to improve access to health care, including physical and mental health, and emergency medical services, as well as education for the urban poor. The strategies and action plans should also target the reduction of health risks and behaviours leading to chronic and infectious diseases and infant mortality.
- **Livelihood Restoration and Social Security.** A comprehensive plan may be formulated to enhance livelihood opportunities through enabling skill development, activity centers and micro financing. The plan should also include social security through convergence of programmes on health insurance and asset protection.

6.10 Preservation and Rejuvenation of Water Bodies

The key issues pertaining to the preservation of water bodies in Indian cities include pollution of water bodies through direct discharge of domestic sewage, industrial and chemical wastes, encroachments of water bodies, lack of institutional coordination and resources ultimately leading to unhygienic condition of lakes and ponds in the city. On the other hand, the water bodies of Indian cities also are part of its most important secular and sacred heritage. Therefore the sector plan should include strategies and action plans for the sector covering, policy level planning, reforms, institutional strengthening and enforcement of national environmental legislations, towards achieving the sectoral goals. Some indicative sectoral goals with their time horizon are given below.

Goals and Service Outcomes

| Goal | Current Status | 2011 | 2013 | 2016 | 2021 |
|---|----------------|------|------|------|------|
| Preservation of water bodies | Nil | 80% | 100% | 100% | 100% |
| Linking of water bodies and ground water recharge | Nil | 50% | 100% | 10% | 100% |
| Water front development | Nil | 50% | 70% | 80% | 100% |

The sectoral strategic and action plans should include the following:

- **Cultural, natural and social heritage assessment:** It is important to assess the values of the water-body with regard to its natural, cultural and social heritage. Frame a strategy in which the valuable assets and aspect can be preserved while improving the quality of the water and its use, and the quality of the public space around the water body.
- **Eviction of Encroachments:** On a priority basis, the lakes and ponds which are encroached upon need to be identified and a strategy for eviction should be framed. A simple but effective strategy may be a participatory awareness campaign followed by a relocation and resettlement plan for the temporary settlements in and around the water bodies, prepared in consultation with the affected individuals.
- **Preservation of Water Bodies:** Under this programme a study needs to be taken up to identify lakes and ponds which are polluted in the city. The next step will be to re-route the domestic sewage outfalls, nallahs and chemicals wastes which are directly discharging into the water bodies. Desilting of ponds and lakes may be taken up to increase the holding capacity. Proper catchment treatment is also required to maintain the quality of water.
- **Linking of Water Bodies:** A comprehensive plan may be prepared to link the water bodies to distribute the collected storm water equally, and thereby reducing the chances of overflow and flooding.
- **Ground Water Recharge:** A plan for construction of recharge wells at the bottom of the water bodies can be prepared, leading towards better ground water recharge, especially in the cities located in arid and semiarid regions and in the cities where rainfall pattern is very erratic.
- **Development of Amusement Park / Water front development:** A comprehensive water front development plan can be prepared (e.g. river front development / lake front development). It can cover aspects like amusement park, walk ways, cycle track, boating facilities, open air theatre etc. However, compliance with environmental legislations and social and cultural sanctity of the place is essential.

The time frame to achieve the strategies needs to be presented in the CDP.

6.11 Urban Environment

A successful city cannot operate efficiently in isolation from its environment. It must balance social, economic and environmental needs. It is therefore important to understand the linkages between urban development and the natural resources / urban environment. While healthy urban ecosystems provide cities with a wide range of services essential for their economic, social and environmental sustainability, damaged ecosystems have a very negative impact on urban residents, and in particular on the urban poor. Most importantly, one needs to understand that the environment cuts across all sectors, income groups and management areas. An *ad hoc* approach to environmental issues is fragmentary, expensive and inefficient. Therefore, it is essential to undertake a Strategic Environmental Assessment (SEA)

Sustainable Cities and the Millennium Development Goals (MDGs)

In September 2000, at the United Nations Millennium Summit, world leaders agreed to a set of time bound and measurable goals and targets for combating poverty, hunger, disease, illiteracy, environmental degradation and discrimination against women. These goals—the Millennium Development Goals (MDGs)—are at the heart of the global development agenda. The effective achievement of many of these goals will depend heavily on cities and urban communities.

<http://www.un.org/millenniumgoals/MDGs-FACTSHEET1.pdf>, accessed February 2007.

as a part of the City Development Plan (CDP). Convergence of the environmental assessment and the development plan is explained in the following steps:

Step 1: Context and Baseline: When starting to prepare a CDP, the ULB should consider the availability of background information, possible objectives and indicators, and who will undertake the SEA. These matters must be resolved before issues and options are developed for the CDP.

Step 2: Scope: The ULB, in conjunction with local stakeholder groups, must determine the likely scope of an environment report and the level of detail to be examined during the SEA. Statutory environmental bodies like state pollution control board, department of environment and forest etc, should be formally consulted during this process in addition to being represented in the stakeholder group. It is at this stage, that sectoral vision, goals and strategies for the CDP are formulated.

Step 3: Assessment and Mitigation: An assessment needs to be made of the likely impact on the environment of the sectoral goals, strategies and action plans being developed as part of the evolving CDP. Where it appears that aspects of the CDP would have significant adverse effects on the environment, recommendations need to be made as to how the impacts could be reduced, prevented, mitigated or offset.

Step 4: Consultation and Plan Preparation: The environment plan is a key output of the SEA process and must be made available for public consultation. After responses to the consultation document have been received, a public statement must be made explaining how the environment report and the public response have been incorporated in the CDP, through strategic action plans.

Step 5: Monitoring the Implementation of the CDP: This activity ensures that action conforms to the expressed intention of minimizing the impact of development on the environment. Monitoring highlights any unforeseen adverse effects of implementation of the CDP. This step must include reporting and feedback activities to reassure elected members and the public that agreed mitigation measures have been honoured.

Strategic action plans at the ULB level can be developed to cover crucial issues like water quality, air pollution, noise abatement, land contamination and soil quality, sustainability of natural resources, green cover, urban agriculture, promotion of community awareness and education etc. Some of these issues are explained below:

- **Water quality:** To ensure good quality drinking water supply, the ULBs can have a programme of water quality monitoring at the main sources, online and at the user end of water supply system, with help of State Government Agencies. It can also carry out periodic testing of water quality by procuring low cost kits for field testing. The major thrust however, should be in the field of maintenance of the existing infrastructure.
- **Air pollution:** A city level air pollution management plan can be formulated to take care of point sources as well as non point sources of air pollution within the city. In case of stationary and point sources of pollution like industrial units, enforcement agencies like State Pollution Control Board may be alerted. In case of small industries that function under municipal license, the industries may be asked to switch to cleaner fuel as a condition of renewal of license. In case of moving and line sources like automobile traffic, if the cause of pollution is congestion at certain stretches of roads and intersection, measures like traffic diversion, banning of heavy vehicle traffic during peak hours, building by-passes etc may be identified in conjunction with roads and traffic component of intra-municipal infrastructure.

In case of serious and persistently high levels of pollution, a proposal for establishing air quality monitoring station may also be considered.

- **Noise Pollution:** An action plan may be developed based on the analysis of sources of noise. In case the source of noise pollution is public loud speakers, applications may be made at the appropriate levels to enforce restrictions on use during specific hours such as between 10.00 p.m. and 06.00 a.m., supported by strict enforcement. Where traffic, particularly horns, is the source, “no horn zone” may be declared and the restriction strictly enforced. Where high speed traffic on highways is the source, noise barriers may be proposed particularly near sensitive uses like schools and hospitals.
- **Solid Waste:** Please refer to the section above on Solid Waste Management Sector Plan.
- **Sustainability of Natural Resource** – For sustainability of water sources, priority should be given to water conservation, rain water harvesting, and revival of traditional water harvesting techniques. Sustainability also arises from training the community to take over the created assets for operation and maintenance. For sustainability of land and soil, it is important that the ULB should identify the sources of pollution and adopt measures to mitigate it. To prevent soil erosion, the ULB should first identify areas prone to heavy erosion, categorise the type of erosion, and adopt measures to arrest the same. For example, tree plantation and river front development, and various landscaping techniques may be carried out to prevent soil erosion.
- **Wetlands/Lakes**– Please refer to the section above on preservation and rejuvenation of water bodies.
- **Green Cover** - Protecting the green cover through changes in land use zoning and creating and developing parks for that purpose can be considered. This also indirectly helps in preventing soil erosion mostly near river banks.
- **Urban agriculture** - Urban (or peri-urban) agriculture (mostly located in the fringe areas of the ULB) is the practice of agriculture (including crops, livestock, fisheries, dairy farming activities) within or surrounding the boundaries of cities. Urban agriculture not only provides fresh fruits and vegetables for the consumption of people living in the urban area but forms a breathing space for the ULB. It is therefore imperative that the ULB keep this space intact and through its various regulatory mechanisms prevent destruction of these areas.
- **Promotion of community awareness and education** - Community awareness with respect to causes and sources of air, water, soil and noise pollution is important. It is also important that the effects of environmental pollution and its long term impact be understood by the community.

6.12 Cultural and Heritage Conservation

Urban Cultural Heritage includes both tangible and intangible elements. It is closely linked to the natural environment, and must be looked at with this strong connection in mind. Urban Cultural Heritage in India comprises not only of archaeological sites, remains, ruins, and monuments protected by the Archaeological Survey of India (ASI) and State Archaeology. but also the natural and man-made water systems, the *ghats*, ponds, tanks and water harvesting systems; the street patterns, pathways, *bazzars* and *chowks*; the private and public buildings, gates and walls, birdfeeders and statues; the parks and gardens; the temples, mosques, and

churches, the sacred geography underlying its physical fabric and the related *yatras*, pilgrimage ways and congregation places; the trees; the views to and from the city.

Urban heritage also includes **intangible components** such as the way people live, work and own the city as their space for life and death. It includes practices, representations, expressions, knowledge and skills, recognized by communities, groups and individuals recognized as part of their cultural heritage. It further includes oral traditions, visual and performing arts, music, literature, language, dialects, traditional medicine, culinary traditions, handicrafts, social practices, myths, legends, spirituality, rites and rituals and festivals, knowledge and practices concerning nature and the universe, and traditional craftsmanship.

The **values** associated to these heritage resources may be historic, artistic, scientific, aesthetic, ethnological or anthropological. Age is not the defining aspect – cultural heritage may be 30, 300 or 3000 years old. Any type of heritage is worthy of recognition, be it high or low status, decorated or simple, large scale or very small. Urban heritage is to a large degree unprotected and privately owned.

Urban Conservation deals with the living environment, multiple ownership, variety of legal and planning provisions, different layers of governance, administration and management. It must be focused on the socio-economic development, regeneration of the historic city, on housing and mobility, the linkages to the other areas of town, etc. while keeping alive the natural, social and historic resources. Urban Conservation is closely intertwined with Urban Regenerating. It must balance the needs of modernization and investment in historic cities and city centers without compromising the historic character and identity.

The tools of urban conservation are much more varied than the tools for monumental conservation and the number of stakeholders are much larger. This adds to the complexity but also the opportunity of urban conservation.

The aim of urban conservation is not in creating sanitized historic islands and tourism spots within the urban settlements. The aim is for heritage to serve as a basic resource for the socially, ecologically, culturally and economically rich and sustainable development of the city.

As mentioned in chapter 4 (City Assessment), Urban heritage must be treated in two different ways. It is

- **A crosscutting theme**, an aspect of general planning, that is part of any other sector in the city, be it water, drainage, mobility, housing or poverty alleviation. The process of integrating heritage concerns in other sectors shall be called ‘mainstreaming’.
- A theme that merits a **sectoral approach** with its own system of documentation, assessment, visioning, planning, protection, conservation and maintenance.

This means urban conservation

- *Is a part of all sectoral plans such as water, drainage, transport, etc.*
- *In addition needs a heritage sectoral plan (furthermore called the Heritage Management Plan).*

The **Heritage Management Plan** must outline the heritage values in a city and develop policies to guide their conservation, restoration, future use and development. It should be noted that the Heritage Management Plan as a Sectoral Plan should form an integral part of the main CDP and should comprise of the following:

- Documentation / Listing of Cultural and Natural Heritage (Database)
 - Listing of built heritage, urban open spaces, water bodies and any other element of heritage value in the city

- Mapping of natural heritage (see chapter 6.11)
- Documentation of intangible heritage
- Listing of artistic heritage
- Condition assessment
- Grading of heritage values
- Identification of Heritage Zones and Precincts
- Defining the importance of urban heritage in the socio-economic and cultural profile of the city;
- Determining the legal and statutory framework for conserving urban heritage;
- Identifying the institutional set-up;
- Identifying and prioritising projects to maintain, conserve, restore, use and develop heritage assets and heritage areas, including the infrastructure needed for servicing assets and areas of urban heritage.

Detailed actions for preparation of a heritage management plan in elaborated in **Annexure I**

The Heritage Management Plan may select, but is not limited to the following urban heritage based projects to be taken up in DPR:

- a. **Conservation Plans for Heritage Zones and Grade I Monuments/Precincts** - The most significant heritage of the city including major heritage zones and Monuments/precincts of Grade I have to be specifically addressed through comprehensive conservation plans that include – special policies/guidelines for the area, restoration, reuse, maintenance plans, interpretation plan, risk management plan, funding strategies etc. for the entire zone or complex. Hence important projects such as the conservation of ghat stretches, bazzars, a walled city area, fort complexes etc can be included as important projects for the city.
- b. **Physical Restoration** - The physical restoration of private and public buildings and the public spaces surrounding them; ensembles of buildings and their open spaces etc. can be carried out (*Admissibility of a project for funding under JnNURM however depends upon the criteria fixed in the Guidelines of the Mission*). This restoration of private buildings should be seen in a wider context and may also include up gradation of basic infrastructure and services in these areas. e.g. The conservation of a typical market square will include restoration of private building facades, of maintaining the surrounding open spaces like pavements and streets, of finding solutions to improve accessibility to and mobility within the area - introducing park and ride systems, of creating pedestrian zones, reducing the use of private transport, reinforcing the use of cycle-rickshaws in inner city areas; emphasizing these as energy efficient and environmentally sustainable solutions that also help in reducing atmospheric and acoustic pollution. This conservation process shall also be coupled with the up-grading of water supply, sewage and solid waste facilities of the market square.
- c. **Maintenance** - This means continuous preventive care of historic buildings and elements like cleaning of facades, removing vegetation from buildings and structures, cleaning the streets, pavements and open spaces etc.
- d. **Adaptive Re-use** - The abandoned/ unused public heritage buildings can be put to functional use, especially for community purposes. A *Heritage House* can be set up in one of the heritage buildings in each city. This will act as a benchmark of physical restoration and illustrate how new interventions can be carried out in historic structures, revive arts and crafts of the area and help train craftsmen, help provide space for exhibitions and events and act as an advisor to the local population (especially the private owners) on heritage services.

- e. **New Buildings** - This could include setting up of new infrastructure to help promote heritage in the city like interpretation centre, museums, exhibition centres and art galleries, training centre for arts and crafts, heritage institutes (educational) etc.
- f. **Public Spaces** - Restoration of historic public parks and gardens can be undertaken. Improvement of public places and streets through pavements, tree planting, lighting; physical up-gradation of the religious routes, pilgrimage ways and congregational spaces in the city etc. and illumination of prominent historic landmarks of the city can be carried out.
- g. **Awareness programs** - Raising awareness and providing opportunities to learn about the heritage resources of the city should be an integral part of the heritage development projects. Heritage walks and heritage festivals are interesting ways of communicating the values of the place to the community. Other heritage programs could include publication materials like brochures and guides, auditory information systems, setting up of information kiosks, signage in heritage zones etc.

6.13 Local Economic Development

Local Economic Development is essentially an outcome based local initiative, driven by local stakeholders. It involves identifying the local resources, local skill sets and seeks to generate ideas so as to initiate and identify activities involving full utilization of the available skills so as to stimulate economic growth and development. The process of Local Economic Development aims to create employment opportunities, improve the living standard of the residents, especially the poor, and redistribute resources and opportunities to the benefit of all citizens.

Local Economic Development (LED) involves a series of activities and interventions tailored according to the local problems and prospects rather than any single one-time generic intervention catering to a particular section of population. Moreover, the process of LED at the municipal level needs to complement wider State and National level policies and initiatives so as to be comprehensive and sustainable.

Although the 74th Constitutional Amendment Act 1992 (Schedule 12) devolves the role of planning for economic development to ULBs, this has not been taken up in earnest as the ULBs have focused primarily on livelihood and poverty alleviation schemes without necessarily considering their role as a key stakeholder in the process of economic development. Therefore, the LED Plan should focus on institutional, regulatory and infrastructure initiatives that should be undertaken by ULBs to stimulate local economic growth, provide a conducive local environment to attract and retain businesses both small and large, and create sustainable employment opportunities for the local population.

The Local Economic Development Plan can be framed around three themes:

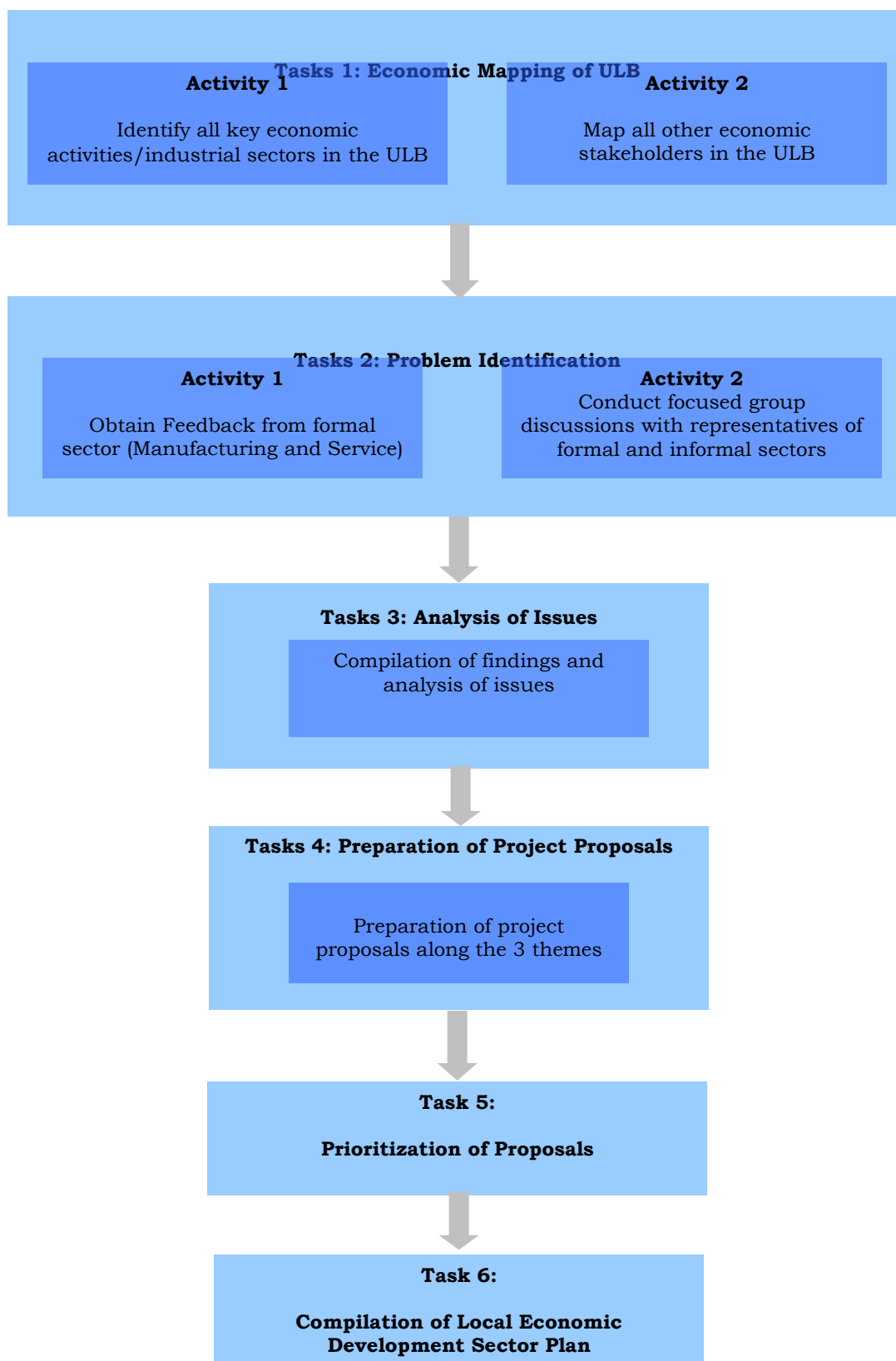
- **Regulation:** This deals with the role of the ULB as a regulator and will seek to identify ways in which the ULB can improve transparency in its regulatory function and reduce transaction costs, time and harassment while undertaking its role as regulator. A suggested project for this theme could be the creation of single window clearance mechanism for building permits and trade licenses.

- **Targeted Infrastructure and Basic Services:** With a focus on providing quality infrastructure and basic services to existing businesses within the ULB and also to work with higher levels of government to attract investment into the ULB. Suggested projects for this theme could be: a). Develop infrastructure for housing “studios” for local craftsmen and artisans. b) Develop common infrastructure for cluster development.
- **Facilitation and Promotion** – with promoting local arts and crafts and small scale enterprise, provide market linkages for small scale industry and access to finance through partnerships and linkages with financial institutions. Suggested projects for this theme could be: a) Setting up a local business promotion cell within the ULB providing information, assistance in setting up small enterprises *etc.* and b) Host an annual trade fair to show-case local arts and crafts.

Task 1: Economic mapping of the ULB: The following activities need to be undertaken:

- **Identify all the key economic activities/industrial sectors in the ULB.** This will include both formal (manufacturing as well as services) as well as informal (manufacturing as well as services) sectors. Ward Councillors are expected to play a vital role in preparing this list. Other sources of information will include local trade and industry associations, trades unions, register of trade licenses, etc.
- **Map all other economic stakeholders in the ULB:** This will involve listing all agencies/organisations that have a stake in the local economy either as provider of utility services, as a regulator, provider of finance etc. It is recommended that Ward Councillors are consulted in preparing this list as they are well placed to provide some of the inputs required.

Process Flow for Preparation of Local Economic Development Plan



Task 2: Conducting Problem Identification Exercises. The following activities need to be undertaken to understand the problems faced by key economic stakeholders in the ULB.

- **Obtain feedback from formal sector:** A feedback should be obtained from key organisations in the formal sector (both manufacturing and services) from list prepared in Task 1, Activity 1, in order to ascertain the key municipal services and infrastructure facilities which are currently being provided to manufacturing units and service sector industries located in the ULB, as well as key deficiencies and problems faced by organisations related to these services and facilities. The feedback should also capture issues related to operational sustainability such as access to finance, labour problems etc.
- **Conduct focussed group discussions with identified group of stakeholders:** The objective of these discussions is to discuss the issues which have been raised by the organisations by way of a feedback through the surveys. In these group discussions, ULBs should invite representatives from stakeholder groups directly/indirectly associated with these economic activities so as to obtain their views. For example, representatives from banks/financial institutions will be able to provide inputs on improving credit availability for local enterprise if they are present in the discussions.

Another set of focussed group discussions should be held with representative groups from the informal sector, covering both manufacturing and services. These representative groups can include the following:

- Non-mechanised transport workers (e.g. cycle rickshaw pullers and van pullers)
- Hawkers/Street Vendors
- Construction workers
- Factory workers
- Micro-entrepreneurs involved in small scale unorganised manufacturing (e.g. soft toy manufacturer, foam bag manufacturer)

The objective of these focused group discussions is to obtain feedback from each of these groups on some of issues faced by them (e.g. lack of availability of finance, health problems impacting number of productive working days, lack of secure storage areas for goods and cycle-vans etc). It is recommended that representatives from other stakeholder groups who are directly/indirectly connected with these economic activities are present during these focused group discussions so as to provide their inputs. For example, representatives from the local police force can be present and provide their views on how to reduce harassment of van-pullers operating within the municipal boundaries.

Task 3: Analysis of issues: The ULB should make a compilation of all the key issues and deficiencies identified, under three major themes as explained earlier.

- Issues relating to regulation (e.g. related to issue/renewal of trade licenses, related to issue of rickshaw permits)
- Issues relating to infrastructure and basic services (e.g. related to lack of market facilities)
- Issues relating to facilitation and promotion (e.g. related to lack of finance, poor market linkages)

Once the issues have been classified into these themes, ULB should discuss various options to resolve these issues and select one option for addressing each of the issues.

Task 4: Preparation of project proposals: Based on the issues and selected options for addressing the issues in Task 3, ULB should prepare project proposals for those issues which fall in the overall mandate of the Municipality. In preparing project proposals, the ULB should keep the following points in mind:

- Emphasis on projects that directly impact a large number of poor.
- Emphasis on completion of on-going projects. Linkages with other sub-components should be highlighted
- Projects that can be completed in a reasonable time-frame should be preferred (availability of land, no clearance from higher levels of government required etc.).
- Opportunity for public-private partnership should be explored

Task 5 and Task 6: Prioritization of project proposals is a very crucial and need to be done through a transparent and well-defined process.

6.14 Disaster Prevention and Management Plan

India has been traditionally vulnerable to natural disasters on account of its unique geo-climatic conditions. Floods, droughts, cyclones, earthquakes and landslides have been recurrent phenomena. About 60% of the landmass is prone to earthquakes of various intensities; over 40 million hectares is prone to floods; about 8% of the total area is prone to cyclones and 68% of the area is susceptible to drought (GoI, 2004).

The super cyclone in Orissa in October, 1999; the Bhuj earthquake in Gujarat in January, 2001 and the aftermath of the Tsunami in 2004 in Tamil Nadu, Kerala, Andhra Pradesh and Union Territories of Pondicherry, and Andaman & Nicobar Islands, underscored the need to adopt a multi dimensional endeavour involving diverse scientific, engineering, financial and social processes; and the need to adopt multi disciplinary and multi sectoral approach and incorporation of risk reduction in the developmental plans and strategies of our cities .

It is therefore essential for the ULBs to be equipped with a Disaster Management Plan, in order to avoid extreme and severe damage to the environment and economy of the city. While preparing the plan it's important to identify some strategic action plans which may include the below mentioned points.

- The ULB should review its capability to respond to any disaster situation. ULB should be well equipped to deal with the situation and reduce damage caused due to disasters such as floods, continuous period of water logging etc.
- It should put into place a coordinating mechanism with the State level agencies/ District level agencies for early warning in case of impending disaster. Proposals for setting up mechanisms for receiving timely/prompt information from concerned State Government agencies on sudden/unprecedented rise in river water levels, unprecedented increase in air and water pollution in the area, cyclones, high or unexpected amount of rainfall etc. can be taken up
- The ULB can also identify buildings and other spaces which could, in the event of any threatening disaster situation, be used as relief centers or camps, and make arrangements for water supply and sanitation in such buildings or places

- It can establish stockpiles of relief and rescue materials or ensure preparedness to make such materials available at a short notice;
- The ULB should encourage the involvement of non-governmental organizations and voluntary social-welfare institutions working at the grassroots level, and ensure communication systems are in order.
- The ULB can also facilitate community training and awareness programmes for prevention of disaster or mitigation with the support of local NGOs and CDS.

6.15 Capacity Building:

Capacity building of Urban Local Bodies to take up the challenging task of implementing projects and reforms under JnNURM is recognised as a priority of the Mission. The Capacity Building Framework comprises of a broad set of interventions including institutional development and human resource development which build the capacity of ULBs to perform their roles and responsibilities in an effective & efficient manner, and to improve the efficiency and effectiveness in the delivery of services.

www.jnnurm.nic.in/wp-content/uploads/2012/03/CBToolKit.pdf

www.jnnurm.nic.in/toolkits-report-primers

6.16 Climate Change and Sustainable Development:

Cities, especially fast growing cities in developing countries, are highly vulnerable to the impacts of climate change. Overall risk in the Indian cities typically is associated more with existing vulnerability than the hazard exposure. Vulnerability, if not addressed, is bound to intensify in the coming decades. Cities that have not been able to prepare themselves for the effects of climate variability (extreme weather) have suffered severe damage to infrastructure, disruption to life and will take decades to overcome the economic losses (floods in Mumbai, Surat etc). Cities, especially fast growing cities in developing countries, are highly vulnerable to the impacts of climate change. The CDPs can and should facilitate adaptation to vulnerabilities arising out of climate change like adverse impacts on near and distant water resources, increased frequencies of extreme weather like droughts, floods, cyclones, storm water surge, rise in sea levels, urban flooding and public health. Cities can showcase green and climate informed development through the CDPs. Each city needs to develop a Climate Resilience Strategy that will mainstream climate concerns in the urban development process.

The National Mission on Sustainable Habitat (NMSH) states that appropriate changes in the legal and regulatory framework, viz. building byelaws, development control and, regulation etc, need to be made by mainstreaming of climate change and sustainable development concerns in city planning through city development plans, including those related to adaptation, promotion of modal shift in public transport through comprehensive mobility plans, capacity building and outreach; and implementation of pilot projects. Cities thus need refer to the approved State Relief plans. <http://www.urbanindia.nic.in/programme/uwss/NMSH.pdf>.

6.17 E-Governance:

E-Governance is the public sector's use of information and communication technologies to improve information and service delivery, encouraging citizen participation in the decision-making process and making government more accountable, transparent and effective. Its objective is to engage, enable and empower the citizen. Introduction of e-Governance in municipalities will assist municipal bodies to improve service delivery mechanism, achieve better information management and transparency and ensure citizens' involvement in governance.

What Services are to be covered?

| No. | Services/ Management Functions | Classification |
|-----|--|--|
| 1 | Registration and Issue of Births/ Deaths Certificate | Citizen Centric Service |
| 2 | Payment of Property Tax, Utilities Bills and Management of Utilities | |
| 2.1 | Property Tax | Citizen Centric Service / Organization specific function |
| 2.2 | Water Supply & Other Utilities | Citizen Centric Service / Organization specific function |
| 3 | Grievances and Suggestions | Citizen Centric Service |
| 4 | Building Approvals | Citizen Centric Service |
| 5 | Procurement and Monitoring of Projects | |
| 5.1 | e-Procurement | Citizen Centric Service / Organization specific function |
| 5.2 | Project/ Ward works | Organization specific function |
| 6 | Health Programs | |
| 6.1 | Licenses | Citizen Centric Service |
| 6.2 | Solid Waste Management | Organization specific function |
| 7 | Accounting System | Organization specific function |
| 8 | Personnel Information System | Organization specific function |

The infrastructure for e-Governance implementation spans across the domains of physical infrastructure (including networking and computing/server components), technological infrastructure (including application, hosting and service architectures), financial infrastructure (including funding for Capital and Operational expenses as well as sustainability of continued operations, planning for upgrading of physical and technological infrastructure) and most importantly, Human Resource infrastructure (including development of both capacity and capability of human resources required and available). It is recommended that PPP options be explored from initial stage of the project.

7. Financial Assessment and Financial Operating Plans

Given the multiplicity of institutions discharging city level functions, the financial plan for a city should cover a number of institutions, apart from the ULB. Various types of institutions which may be involved in service delivery at the city level are:

- Urban Local Body
- Specialised institutions (Parastatals) – Institutions formed under an Act of the State Legislature e.g. Urban Improvement Trust or Development Authorities or Boards formed to execute specific functions e.g. Water and Sewerage Board.
- Departments of State Government – these are part of the State Government and act as its Departments e.g. Public Works Department, Public Health and Engineering Department.

The City Level Financial Plan shall incorporate all measures and initiatives taken by all institutions, engaged in service delivery, to improve the City's fiscal and service level position each year over the next five years.

Understanding Financial Plan and Capital Investment plan

The purpose of preparing a Financial Plan by the City can be enumerated as follows:

- To have a financial plan for the City for a long term horizon which will assist in better management and achieving financial stability
- To identify and undertake measures that would lead to better financial control
- To ensure better allocation of resources available for capital expenditure based on prioritisation
- To understand the composition and trends of the past finances
- To link financial data with service delivery indicators for better synergy and interpretation
- To assess and initiate measures for building the resource gap in achieving the relevant service delivery standards

The foremost step for the City involved in the CDP preparation process is to develop -

- A thorough understanding of the City Financial Plan (CFP)
- Clarity on the entire process to be followed
- Objectives of preparing the City Financial Plan
- The linkages of CFP with the CDP process, timelines and outputs

The two important components of a CFP are management of operating finances and capital investment planning.

a. Management of operating finances - It should look at initiatives to manage revenue, expenditure and assets, and try to address the following set of questions:

- Revenue Enhancement Initiatives – *What are the avenues for increasing revenue?*
- Expenditure Management Initiative – *What are the avenues to manage and reduce expenditure?*
- Asset Management Initiatives – *What are the avenues for management and leveraging assets?*

b. Capital investment plan -

- It consists of specific “project proposals” generally in the nature of capital expenditure plans (along with revenue expenditure and revenue income, if any) from the various sectors
- Costing all these Proposals and incorporated as a part of the CFP document, which will form the Capital investment plan over the plan period
- The identified sources of funding, whether through user charges or tied funds or surplus generated internally, should be reflected in the CFP.

c. Planning of CDPs:

CDPs may be prepared for 20 years horizon, but reviewed in every 5 years interval. It must include;

- Short term plans for 5 year;
- Mid tem plans 5-10 year;
- Long term plans 10-20 years.

Understanding the guidelines

The guidance presented in this chapter will assist the user in providing a step by step help for preparing the CFP. The CFP, which is a part of the CDP document, has been divided into 10 major tasks for convenience of the users.

| | | |
|---------------|----------------|---|
| Task 1 | Step 1 | Defining Objectives |
| Task 2 | Step 2 | Data Collection |
| | Step 3 | Business-As-Usual scenario --- CFP Version I |
| | Step 4 | Analysis / Interpretation of the results |
| Task 3 | Step 5 | Identification of areas of improvement / reforms |
| | Step 6 | Select / prioritise areas of improvement / reforms |
| Task 4 | Step 7 | Finalizing basic assumptions for resource mobilisation forecast |
| | Step 8 | Ascertain investible surplus for ULB / Parastatal / Development authority |
| Task 5 | Step 9 | Ascertain combined investible surplus ----- CFP Version II |
| | Step 10 | Component-wise allocation of combined investible surplus |
| Task 6 | Step 11 | Listing of Project Proposals – linkage to CDP |
| | Step 12 | Prioritise Project Investments |

| | | |
|----------------|----------------|---|
| Task 7 | Step 13 | Preparation of draft CFP --- CFP Version III & Financial Plan report (prioritized project investment loaded on combined investible surplus) |
| | Step 14 | Ascertain source and amount of funding, external borrowing, debt servicing mechanism, etc. |
| Task 8 | Step 15 | CFP Appraisal and Public Verification |
| Task 9 | Step 16 | Finalisation of CFP report |
| Task 10 | Step 17 | Annual revision of CFP (linkage to annual capital investment and improvements achieved) |

It has to be kept in mind that this toolkit only navigates the user through the process and provides indicative ideas for the content. The user is free to include/ exclude any content related point and come up with its own strategy. e.g. when the toolkit mentions the initiatives for increasing revenue through Property Tax / Cess, the list is only indicative to generate ideas. The agency has the option of adopting a different approach for revenue enhancement through property tax. What is important is that the agency has taken some measures for increasing revenue.

The final output shall project finances for all users over the plan period after incorporating implications of capital expenditure along-with revenue income and expenditure as a result of the capital projects.

Each task has been elaborated below:

| | | |
|---------------|---------------|---------------------|
| Task 1 | Step 1 | Defining Objectives |
|---------------|---------------|---------------------|

7.1 Defining Objectives

Development Objectives for the Financial Plan should be set by the **CDP Policy Committee**. The development objectives should be achievable over the plan period and should not be too optimistic. Illustrative development objectives are as follows:

a. Revenue enhancement initiatives

- i. The share of Property Tax Income in total Revenue Income should double in the next five years.
- ii. Coverage ratio for Property Tax Assessment should go up to 85% for current assessments
- iii. Collection Ratio for Property Tax should go up to 90% for current demand.
- iv. Improvement in collection of arrears, to reach a Total Outstanding Arrears of less than or equal to 10 % of Current demand for previous year
- v. Share of Non Tax revenue to Total Revenue Income to increase by at least 20% on a year-on-year basis.
- vi. Levy of user charges on identified services e.g. water supply, sewerage, solid waste collection to be done to achieve full cost recovery to all recurring operating costs over a five year period.

- vii. Generation of revenue surplus so as to initially cover capital deficit and finally finance the majority of capital expenditure.
- viii. Increase revenue from heritage properties by protecting and restoring the same for attracting tourists.

b. Expenditure management initiatives

- i. Avoiding wasteful expenditure in all areas of operation by better financial control, competitive bidding and planning.
- ii. Redeployment of staff with adequate training thus reducing contractual staff.
- iii. Cost efficiency in water supply and solid waste management by reducing cost incurred per MLD of water produced and supplied or per ton of waste collected and disposed.
- iv. Competitive bidding of all works and empanelment of contractors. This will result in better pricing of the tender and ensure responsibility of quality of materials supplied on the contractor, as no materials should be supplied by the ULB to the contractor.
- v. Construction along with Operations and Maintenance for at least the initial 3 years to be contracted together. This will result in significant reduction of expenditure on O & M.
- vi. Set priority in better maintenance, conservation and restoration instead of new construction.
- vii. As far as possible local materials, local craftsmanship and construction techniques may be adopted for public buildings.

c. Asset management initiatives

- i. Complete and comprehensive listing of all assets of the ULB. Include the 'real' long term value of resources such as natural resources (lakes, ponds, etc.) and heritage assets, etc.
- ii. Introducing Property Title Certification System in ULBs
- iii. Streamlining building approval processes through revision of building byelaws. An advisory service for home owners in heritage zones may be introduced.
- v. Introduction of computerized process of registration of land and property.
- vi. Identification of assets which can be used commercially and can be leased for rental income.
- vii. Public Private Partnership with real estate developers for construction of shopping complexes on land owned by the ULB.
- viii. Maintenance schemes of public heritage properties may be improved. This may substantially reduce the need for new buildings
- ix. Analyze of economic potential of cultural and natural resources and related services may be done.

d. Financial Management initiatives

- i. Allocate the available surplus after all regular expenditure towards the capital investments plans being developed under the various sub-components.
- ii. Help in achieving a sectoral balance across the various components of the CDP.
- iii. Allocation of available funds first towards projects that have started, before allocating it towards any new project.

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| Task 2 | Step 2 | Data Collection |
| | Step 3 | Business-As-Usual scenario --- CFP Ver I |

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| | Step 4 | Analysis / Interpretation of the results |
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7.2 Data Collection

The preparation of the CFP will require an assessment of the existing financial situation of the institution. Once the present situation has been assessed, possible areas of improvement will be identified and actions to be taken in that respect will be ascertained. This will require a significant amount of data collection and analysis. The broad process will involve the following measures:

a. Identify sources of information - The sources of information that shall be considered are:

- i. Annual Accounts for the last 5 years (i.e. the last completed year and 4 preceding years. The current year should be excluded from the study since it is ongoing)
- ii. Annual Administrative Reports for the last 5 years
- iii. Budget Estimates for the last 5 years
- iv. Opening Balance Sheet as on last two financial years
- v. Demand and Collection and balance statements of tax revenues of last 5 years
- vi. Other Registers as maintained under the respective Acts, Rules, etc pertaining to Finance and Accounting.
- vii. Fixed Asset records (as compiled during preparation of the Opening Balance Sheet).

The data that has to be collected and compiled are of two types. The first being financial data and the other being service level data. The financial data analysis will give the trend ratios and provide an insight into the composition of the various sources of income, expenditure and asset. The service level data will indicate the quality of service delivery and provide an insight into the various service level indicators.

b. Past Trend Analysis (Financial) – Data for the past five financial years should be used for the analysis. The last five financial years should be the last completed financial year and four financial years before the last financial year. The analysis should be done in three parts, the first showing the total figures for revenue and capital receipts and expenditure along with opening and closing balances, the second showing the details of the revenue and capital receipts and expenditure and disclosing the revenue and capital surplus or deficit, and third detailing out some of the important individual components of the revenue and capital receipts and expenditure.

c. Past Trend Analysis (Service Delivery) - A Past Trend analysis of the Service Delivery components should be done for areas covering Property Tax, Trade License, Advertisement Tax, Rental Income, Water Supply, Sewerage and Sanitation, Solid Waste Management and Roads, Storm Water Drainage and Street Lighting.

- i. In case of a ULB, ward-wise past trend analysis should be done since certain sources of income and expenditure will have to be analysed in greater detail so as to understand the issue at its core, e.g. property tax should be analysed on a ward wise basis considering number of holdings,

- number of taxable holdings, number of holdings for which assessment has been done, number of exempted holdings, tax demand, and arrears.
- ii. Analysis should be done for existing resources and their potential, economic value and benefit for the future development (natural, built, traditional services, ground water recharge versus cost of water, restoration versus new construction, etc.)

- d. The output for the Past Trend Analysis should determine the **Compounded Annual Growth Rate (CAGR)** and **Weighted Average** for the individual line items over the last 5 years. The objective of the exercise is to look at some of the important ratios and identify areas for improvement.

To make the exercise output driven and as a decision making tool, the user should incorporate the benchmarks for the specified items so as to compare the benchmarks with the actuals over the past 5 years.

Exception Handling - It should be noted that, in case there has been an abnormal deviation in any indicators in the last 5 years as compared to the past two years, the user should exclude the same from all calculations.

7.3 Business-As-Usual scenario– CFP Version I

A Business-As-Usual case is prepared to understand the financial position of the institution in case no initiatives are undertaken. This shall be prepared based on the weighted average and CAGR of the last five years as has been calculated.

The report shall work out the revenue and capital receipts and expenditure and calculate the closing balance of funds available for the next 5 years.

7.4 Analysis / Interpretation of the results

Once the past trend analysis has been done, and trends and ratios have been identified, the task of interpretation of data will have to be done.

Interpretation of data means assigning meaning to these numbers and understanding whether the performance has been below par or good. This will have to be done by comparing it with the past ratios, comparison with other agencies / parastatals / ULBs in the State and in the Country. The assessment shall help the user identify the key issues affecting optimal performance, which are resulting from the existing set up and processes.

The various ratios that can be calculated along with their interpretation are presented in **Annexure II**, for reference of ULBs / Parastatals / other agencies.

The primary objective of the interpretation of data should be to answer questions like the ones listed in the Annexure II. The list presented here is suggestive and indicative, and the institution should try to think about more such questions which will assist it in developing a meaningful strategy for the CFP. It may be required

to get into a more detailed analysis of supporting records, comparison with other institutions, expert opinion, etc to find answers to some of these questions.

Once the interpretation of results is done and the generated indicators are compared, the user will be in a position to move on to the next activity to identify the areas for improvement.

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| Task 3 | Step 5 | Identification of areas of improvement / reforms |
| | Step 6 | Select / prioritise areas of improvement / reforms |

7.5 Identification of areas of improvement

The earlier activity has given an insight of the following:

- The current position of the ULB / Specialised Institution / State Department in terms of finances.
- Comparison of the institution's position with other institutions of similar nature, in the State and Country.
- Comparison with other good practices of institutions in the country, preferably in the State.
- Preliminary understanding of the areas to be targeted in order to improve finances.

In this activity, the respective institution shall list down all the areas which they think can be targeted for improvement (areas of improvement shall include those proposed to be targeted under JNNURM and other initiatives outside JNNURM). The list of areas should be exhaustive, irrespective of whether it will have a major impact or not. Whether the options will be feasible or not and what impact it will have on the finances will also be analysed in this stage.

Under JNNURM, the States and Cities (the ULB / specialized institutions for service delivery / departments of state government) are committed to implement identified urban reforms, as per the Memorandum of Agreement, so as to affect improvement in governance, service delivery, financial management and ensure sustainability of cities. ***The areas of improvement committed under JNNURM, should be phased in the CFP as per timelines committed in the Memorandum of Agreement.***

Of the 23 reforms mandated under JNNURM, a number of reforms can be implemented at the state and local level, which will impact revenue enhancement or expenditure management. These reforms may pertain to areas of accounting systems, user charges, encouraging PPP, etc.

As has been mentioned earlier, it is suggested that all available options for improvement be listed under the three areas of initiatives. i.e., Revenue Enhancement Initiatives, Expenditure Management Initiatives and Asset Management Initiatives. Suggestive options for improvement under these initiatives are elaborated in **Annexure III**.

Compilation of all Options for Improvement - Once the options as mentioned above have been listed, the same shall be compiled in a structured manner along with its detailed impact and estimated time required for implementation. It is to be understood clearly that, the areas of improvement committed under JNNURM, should be phased in the CFP as per timelines committed in the Memorandum of Agreement. This compilation shall be a draft and will be finalized in the next activity.

7.6 Select/ Prioritise areas of Improvement / Reforms

All possible areas of intervention have been listed down in the above steps in the specified format. The next step is to select the ones that are implementable and have an impact on the overall ULBs finances. The selected areas for improvement will be then taken up for preparation of detailed Proposal.

- a. **Preparation of detailed Proposals** – Once the options for improvement have been finalized, the next activity that shall be done is preparing a ‘proposal’, formalizing each option. A proposal shall indicate the following important details:
 - Likely increase in revenue
 - Likely decrease in cost
 - Capital expenditure involved
 - Net contribution over the plan period
 - Department responsible for implementation
 - Time period required for implementation including start and completion date
 - Any change required in relevant statutes, and
 - Monitoring indicators
- b. **Prioritisation of Proposals** – The Proposals as listed above will have to be prioritized in a sequence for implementation. *Prioritisation may be done through a workshop or meeting of CDP Policy group*, where each of the Proposals shall be taken up, discussed and prioritized. Prioritisation should be done keeping in view points like implementability of the reform; resistance that is likely to be faced from citizens, employees and others; likely positive impact; time-frame for implementation; and change in policies required. A Prioritisation Matrix, incorporating the above, may be used for the same. Some of the points that should be taken into account while developing the matrix are as following:
 - Proposals / Projects which have the maximum contribution over the plan period
 - Proposals / Projects which have a positive impact (of at least 5%) on the Average Revenue Receipt or Average Revenue Expenditure, in the plan period.
 - Proposals / Projects which will require least time
 - Proposals / Projects that require policy changes

Key Responsibility

The technical group, constituted for coordinating this financial planning sub-component, shall be responsible for undertaking this exercise in a detailed manner in which all estimates of increase of revenue, increase/decrease in costs and capital expenditure shall be done. The reason for conducting a detailed exercise at this stage is to provide the **CDP Policy group** with an unbiased and complete picture of the options and informing them of the consequences in detail.

The output of this workshop / meeting will be finalization of the list of selected / prioritized options for improvement in the three areas for initiatives.

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| Task 4 | Step 7 | Finalizing basic assumptions for resource mobilisation forecast |
| | Step 8 | Ascertain investible surplus for ULB / Parastatal / Development authority |

7.7 Finalising Basic Assumptions for Resource Mobilization Forecast

These are some of the important points that should be considered while preparation of the CFP:

- Impact of all the proposals will have to be estimated in monetary terms. The impact shall be considered in percentage terms for the purpose of preparation of CFP.
- Growth in revenue should be considered on a year on year basis.
- Growth in revenue and expenditure should at least match or be higher than the CAGR of the last five financial years.
- All initiatives may be calculated on a mutually exclusive basis and the cascading effect of one on the other may be ignored.
- In cases where a ward wise analysis has been done, assumptions shall also be made on a ward wise basis and consolidated at the ULB level.

7.8 Ascertain Investible Surplus for ULB / Parastatal / Development authority

This stage will calculate the available investible surplus with the institution, for taking up capital expenditure based on proposals identified in the CDP. The exercise is to be conducted individually by all city level institution, participating in the CDP process, and then aggregated in the next step.

After finalizing the assumptions with respect to all the areas of revenue and expenditure, figures based on the assumptions shall be compiled under categories like Revenue Receipts, Revenue Expenditure and Capital Receipts.

In case the institution feels that the growth rate will be same as in the past five years, the CAGR figure of the last five years should be used. It has to be noted here that the capital expenditure planned is not being considered. This shall be considered while we prepare the CFP Version III, i.e. alongwith capital investments planned as a part of other sub-components of the CDP.

Based on the above, the Revenue Income, Revenue Expenditure and Capital Receipts shall be calculated at this stage. This will indicate the 'Closing Balance' for the year. The closing balance is the 'Available Capital Surplus' for the year.

From the 'Available Capital Surplus' for the year, the funds which are for specific purposes i.e. 'Grants, Contributions for specific purposes' shall be deducted to arrive at the 'Available Investible Surplus' (untied fund available for investment).

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| Task 5 | Step 9 | Ascertain combined investible surplus ----- CFP Version II |
| | Step 10 | Component-wise allocation of combined investible surplus |

7.9 Ascertain Combined Investible Surplus – CFP Version II

Consolidation of the ‘Investible Surplus’ figures, calculated for the individual institutions in the previous task, will generate city level ‘Combined Investible Surplus’ for the year.

City level institutions are encouraged to target self improvement initiatives in order to further augment the available finances, whereby the available ‘Combined Investible Surplus’ in each of the next five years may be marked-up by approximately 20% to 30%. The total capital expenditure being planned in the CDP proposals shall be in line with this marked-up figure of ‘Combined Investible Surplus’.

7.10 Component-wise Allocation of Combined Investible Surplus

Allocation of investible surplus across major components like infrastructure provision, provision of service to poor, capacity building, etc shall be decided by the **CDP Policy Group**.

The CDP Policy group in the process of allocation can ensure that:

- Minimum 20% of the combined investible surplus be allocated for provision of services and facilities to the poor
- Minimum of 5% of the combined investible surplus be allocated to institutional strengthening and capacity building.

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| Task 6 | Step 11 | Listing of Project Proposals – linkage to CDP |
| | Step 12 | Prioritise Project Investments |

The CFP is the financial reflection of the ‘project proposals’ that will be prepared for various sub-components under CDP. The combined investible surplus generated in the CFP - Version II will have to be allocated to the proposals under the CDP. It is recommended that this shall be done only for those proposals which do not have tied funds to it and are initiatives from the participating institution’s side. However, the CFP should also reflect the utilization and execution of projects through tied funds.

A consultative process is recommended so as to ensure that the prioritized areas are properly reflected in the estimated receipts and expenditure of the CFP projections.

7.11 Listing of Project Proposals – linkage to CDP

In the preparation of Draft CFP (Version III), the most important exercise that will be required to be done is identification of capital expenditure projects that will be undertaken by the respective institution in the plan period.

As a part of this activity, sub-component wise listing of project proposals involving capital expenditure has to be undertaken separately for projects having tied funding from the government and its agencies and for projects on which there are no tied funds.

The proposal shall provide details of an indicative cost. However for the purposes of CFP, the proposals will have to be allocated across the individual year of expenditure.

7.12 Prioritise Project Investments

The list of prioritized projects shall evolve out of the overall CDP process and CIP process. It shall need to be prioritised based on a number of parameters. One of the important parameters is financial availability. In case of projects that have tied funding, the same will be high on preference, as availability of finance will not be a constraint.

The projects which are high in priority and do not have any tied fund, should be given priority in implementation (incorporate in first or second year) and the surplus would be first allocated towards it. The **CDP Technical group** will have to work towards prioritising those proposals involving capital expenditure which do not have any tied funding and will have to be implemented from own resources. This is where the 'Combined Investible Surplus' identified as a part of CFP - Version II will be used.

Even in case of tied fund projects, the proposals which are high in priority could be given funds within the component.

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| Task 7 | Step 13 | Ascertain source and amount of funding, external borrowing, debt servicing mechanism, etc. |
| | Step 14 | Preparation of draft FOP --- CFP Version III & Financial Plan report (prioritized project investment loaded on combined investible surplus) |

7.13 Ascertain Source and Amount of Funding, External Borrowing, Debt Servicing Mechanism etc.

Based on the previous sections, a list of all proposals (sub-component wise that involve capital expenditure and may have tied funding from the Government or its agencies under a scheme or programme) shall be compiled and the total capital expenditure shall be calculated.

The local body at this stage may explore options for raising finances for financially viable projects through other options like public-private partnerships, pooled financing mechanism, external borrowing, urban infrastructure funds like NUIF, etc.

The local body should target to leverage an amount that is equivalent to the amount of 'Grants and Contributions for Specific purpose' ascertained in CFP - Version II.

7.14 Public Private Partnership (PPP) :

Public Private Partnership (PPP) is an important instrument of alternative source of funding and in bringing about the much needed significant improvements in development, augmentation and rehabilitation of infrastructure facilities and in enhancing the efficiency in the delivery of urban services. Successful business

models which have resulted in positive financial outcome and better service delivery need to be implemented to improve the urban fabric of the country.

The CDPs shall prepare a funding plan, and identify the sectors which are relatively easily amenable to PPP should be encouraged to explore this route to ensure improvement in urban governance and service delivery, so that the ULBs become financially sound and sustainable for undertaking new programmes. It is also envisaged that, with the charter of reforms that are followed by the State governments and ULBs, a stage will be set for PPPs.

Public private partnerships are innovative methods used by the public sector to contract with the private sector who bring their capital and/or their ability to deliver projects on time and to budget, while the public sector retains the responsibility to provide these services to the public in a way that benefits the public and delivers economic development and improvement in the quality of life. PPP aims at financing, designing, implementing and operating public sector facilities and services for delivering an infrastructure service on payment of user charges.

The '4P' framework—People-Private-Public Partnerships are being promoted as experience across the world indicates that in urban renewal and management, the role of 'People' in design of projects and partnerships is crucial. Therefore, best practices and models for 'PPPP' should be promoted and deployed for India's urban management agenda to succeed.

7.15 Land resource leveraging:

While preparing the CDPs, the ULB shall focus on preparing the inventory of available land. Land-based financing offers powerful tools that can help pay for urban infrastructure investment. For an urban region considering this strategy, a logical place to start is with an inventory of land assets owned by government agencies. At the core of many Indian cities, large underutilised tracts of land belonging to central, state, and urban local bodies. They are in strategic city centre area and are often very valuable. Such an inventory would identify current land use and the market value of land. Leveraging such land assets unlocks funds which can be used for infrastructure development.

7.16 Preparation of draft CFP – CFP Version III & Financial Plan Report:

The Draft CFP - Version II has identified the 'Combined Investible Surplus' in each of the years. As discussed earlier, the projects may be identified with total value up to 120% to 130% of this surplus. All such proposals should be listed down component wise, in order of priority.

The capital expenditure for each year, available from the CIP, shall be planned and phased depending upon the 'Combined Investible Surplus' available for each year. This shall also be based on allocation of investible surplus across sub-components. It should be understood that the loading of prioritized project investment on the 'Combined Investible Surplus' is an interactive process, trying to balance the project priority, project phasing to match the available surplus for each year.

In case the project is a funded project or has tied funds attached to it, it shall be mentioned here. In case, there is no clarity of the funding, the CFP team will have to ascertain the same. In case the project is also generating any revenue, this fact should be clearly mentioned.

The next step is to calculate the revenue expenditure related to all the proposals thus identified for the next 5 years. In case there is going to be any revenue income (in the form of user charges, etc.), calculate the same. Similarly, the above capital expenditure, capital receipts, revenue expenditure and revenue receipts should be captured.

Consolidation of the current calculations with those in Draft CFP - Version II should be done to prepare Draft CFP - Version III. This will include the following:

- Add the additional Revenue Receipts with the one calculated in CFP - Version II;
- Add the additional Revenue Expenditure with the one calculated in CFP - Version II;
- Clearly mention the Capital Expenditure.

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| Task 8 | Step 15 | CFP Appraisal and Public Verification |
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7.17 CFP Appraisal and Public Verification

At this stage, the Financial Plan may be shared with the citizens in a public workshop in order to obtain their feedback.

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| Task 9 | Step 16 | Finalisation of CFP report |
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7.18 Finalisation of CFP report

Once the feedback is received from the public and suitably incorporated as necessary, the financial plan is ready.

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| Task 10 | Step 17 | Annual revision of CFP (linkage to annual capital investment and improvements achieved) |
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7.19 Annual revision of CFP (linkage to annual capital investment and improvements achieved)

The financial plan should be updated and revised on an annual basis.

8. Finalisation of CDP and It's Time Frame

8.1 Finalisation of CDP

8.1.1 Stage: 1- CDP Draft Version I

The **CDP Technical Committee** shall consolidate the outputs from the city visioning exercise, development goals and strategies set by the CDP Policy Committee, into a unified document for arriving at the comprehensive planning document.

This will also contain the city assessment and the modalities and factors which led to the drawing up of the Sector Plans. All the strategies adopted for arriving at the Development Goals and Sector Plans shall be clearly delineated

This CDP –Draft Version 1.0 shall also contain the financial operating plan. The draft CDP is based on the Business-As-Usual scenario incorporating the CFP Version I, which does not include any revenue enhancement or Financial Management initiatives or reforms

8.1.2 Stage: 2- CDP Draft Version II

The **CDP Policy Committee / CDP Technical Committee** will draw up alternative scenarios based on the analysis and the different financial and revenue enhancement initiatives. This will consider the revenue and income aspect from the proposed measures and will prepare the CFP Version III. This CFP Version III shall be used for project prioritization and project structuring. The project prioritisation / structuring shall be realistically reflected in the CFP Version III and meet the expected revenue enhancement and capital requirement needs.

The CFP prepared incorporating the concerned initiatives and the alternative scenarios shall be incorporated in the draft CDP and shall be put up for public perusal and stakeholder's information by giving wide publicity, followed by a public verification. The draft will incorporate the listing the structured projects and the basis of prioritization of projects.

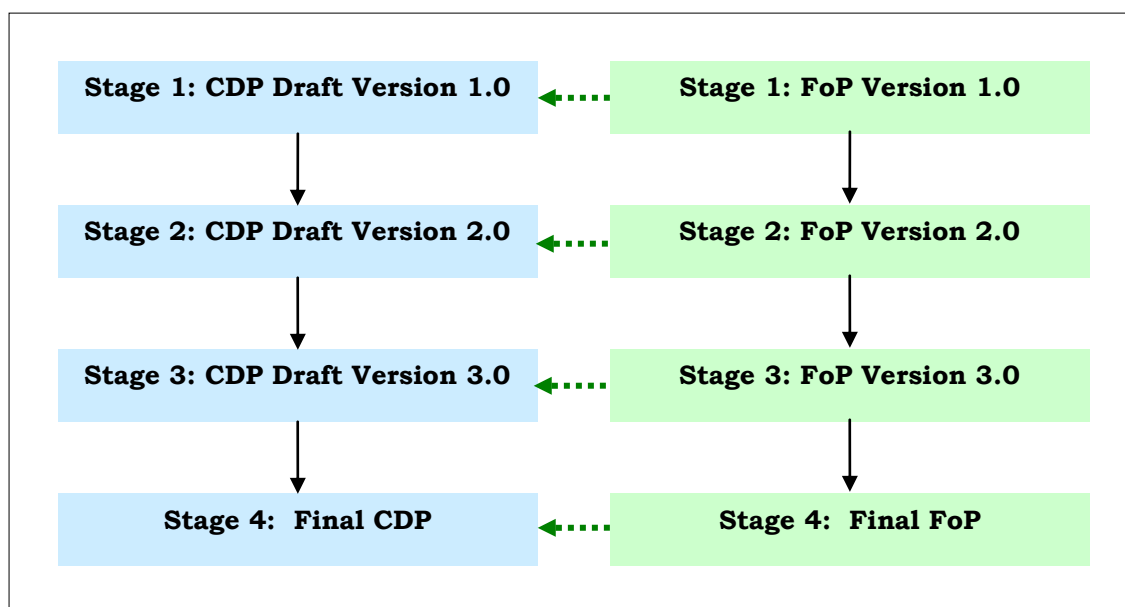
8.1.3 Stage: 3 - CDP Draft Version III

After the public verification of the CDP draft Version 2.0, comments from the public verification and appraisal process shall be incorporated by the **CDP Policy / Technical Committee** and shall place the draft before the ULB/s for its adoption.

The resolution and observation by the ULB/s shall be reflected in the FoP Version 3.0 and this shall form the basis for the final CDP

8.1.4 Stage: 4 - Final CDP

Incorporating the resolution and discussions and comments of the elected representatives, the final CDP shall be prepared, published and placed for public information and comments. The comments received may be incorporated in the subsequent and the due course of revision of CDP.



8.2 Review and Monitoring of CDP

In the context of the ever changing landscape of the developments in the City, the impacts on the growth of the City will have wide ramifications if it is not factored into the City Development Planning process in a dynamic manner.

The CDP should have a fixed time frame for its implementation, and shall be followed by a review to study and analyse the impact of the implementation of the plan in order to make mid-term course corrections, wherever necessary. A monitoring mechanism should also be established for measuring the identifiable indicators for the implementation of CDP formulated.

The table below gives a framework for updating and review of the City Development Plan, this may be strictly followed.

| Sr. No. | Framework for Updating and Reviewing City Development Plan (CDP) to make it a living document | | | | | | | |
|---------|---|--------|--------|--------|--------|--------|--------|--------|
| | Activity | Year 1 | Year 2 | Year 3 | Year 4 | Year 5 | Year 6 | Year 7 |
| 1 | Reviewing CDP Document | √ | | | | | √ | |
| 2 | Community and Stakeholders' Consultation | √ | | √ | | √ | | √ |
| 3 | Data update and Mapping the City | √ | | | | | | |
| 4 | Capacity Building | √ | √ | √ | √ | √ | | |
| 5 | Planning and Building Regulations Reforms | √ | | | | | | |
| 6 | Property Tax Reforms | √ | | | | | | |
| 7 | Institutional Reforms | √ | √ | √ | √ | √ | | |
| 8 | Financial Reforms | √ | √ | √ | √ | √ | | |

| Sr. No. | Framework for Updating and Reviewing City Development Plan (CDP) to make it a living document | | | | | | | |
|---------|---|--------|--------|--------|--------|--------|--------|--------|
| | Activity | Year 1 | Year 2 | Year 3 | Year 4 | Year 5 | Year 6 | Year 7 |
| 9 | Sectoral / Ward Development Plans | √ | | | | | | |
| 10 | Review of Projects Priorities | √ | | √ | | √ | | |
| 11 | Financial Operating Plan | √ | √ | √ | √ | √ | | |
| 12 | Capital Investment Plan | √ | √ | √ | √ | √ | | |

Annexure

Annexure I

Preparation of Heritage Management Plan

The **Heritage Management Plan** must outline the heritage values in a city and develop policies to guide their conservation, restoration, future use and development. It should be noted that the Heritage Management Plan as a Sectoral Plan should form an integral part of the main CDP and should comprise of the following:

Documentation / Listing of Heritage Assets

The majority of the unprotected urban heritage in India lies unidentified and undocumented, endangered by decay and neglect and threatened by immense urban pressures. Listing (and documenting) is the process of identifying, recording and compiling information on culturally significant structures (with historic, architectural, aesthetic, scientific etc. value), public spaces and other heritage assets. Both protected and unprotected heritage structures and places require being located on a map. Only their location on the map will ensure that any planned infrastructure and proposed road networks will suitably address the context of the historic environment.

Listing acts as the primary tool for the conservation of built heritage, whereby the identified structures can be safeguarded and prevented from further decay and destruction/demolition. The information should be compiled in a form (or template) supported with drawings and pictures of the heritage asset. Where possible, the heritage assets should also be included in the GIS system.

The conservation of historic sites in urban areas primarily concerns its owners and users, thus the participation and involvement of the owners and users (residents and others) in the listing of the historic structures in urban areas is essential and should be encouraged. Listing is a technical activity, normally exercised by trained personnel, but it should be a participatory process, involving civil society organizations, industry, trade, and of course, the local and state governments.

Condition assessment

A physical assessment of the condition of the listed and documented heritage buildings, structures, elements, spaces etc. should then be undertaken. A condition assessment includes the state of intactness, deterioration, and decay of the different heritage assets. It later helps prioritize the projects. This will be a preliminary condition assessment included with the listing format. Detailed condition assessment will be taken up at DPR stage.

Grading of heritage values:

In order to take informed decisions it is vital to assess the value of the heritage assets. The values are based on historical, associative, architectural, archaeological, cultural etc. aspects. These should also be ascertained for their levels of significance - local, state or national, as well. The combination of value and condition assessments will prepare the ground for protection, conservation, and in identifying appropriate heritage related development projects.

Identification of Heritage Zones:

Areas within the wards of the city with a significant concentration of listed buildings, open spaces, or other heritage resources; intangible values or ensembles of heritage assets (i.e. public and private architecturally significant buildings) along with their surrounding open spaces that holistically combine to provide a certain character and identity to the city, shall be delineated as Heritage Zones. These therefore include not only the

individual buildings/monuments of exceptional importance (protected) but also the non-monumental buildings and spaces (unprotected) surrounding it.

The Heritage Management Plan should focus on areas identified as Heritage Zones of the city, wherein the conservation shall be perceived in a much wider perspective. This will also help overcome the piecemeal protection and conservation of historic urban areas as is usually undertaken. In as much as possible, these Zones should be co-terminus with the defined Wards of the city. This enables undertaking planning and making investment decisions in discrete areas of the city. The Heritage Zones shall later be integrated in the Master Plan and building regulations be drawn up for the protection of the existing heritage.

Defining the Importance of Heritage: outlining Vision and Policies

It is essential to begin by recording and analyzing the role that heritage plays in the socio- economic and cultural life of the city, by using qualitative and quantitative indicators like number of people living in heritage zones, number of people living on traditional crafts, number of people owning a heritage building, number and composition of visitors (i.e. domestic and foreign) to heritage sites, and the number of visitors expressing interest in non-tangible component of heritage, number of persons dependent for their livelihood on heritage, estimated annual income generation from heritage etc.

Tourism though should not be the overarching goal of revitalizing the historic areas. The rehabilitation of historic urban areas should as far as possible ensure that the existing communities will stay and live in their original areas, and the social composition of the residents is not altered. Urban Conservation should aim at benefiting all sections of the society and is a great tool for the alleviation of inner city poverty.

An assessment of Heritage resources and their use should lead to a clear vision for the cultural heritage of the city along with a set of policy guidelines that can guide future conservation projects and legislation.

Legal and Statutory Framework:

The Heritage Management Plan should provide details in respect of:

- The process of conferring or designating heritage status to buildings, groups of buildings, public spaces, landscapes, etc. as well as Heritage Zones; together with the criteria used for this purpose, including the Act (or Acts) under which it is being done;
- Scope of the Act, including provisions for the conservation and protection of the heritage; their grading or ranking; rights and obligations of the owner of the heritage as related to reconstruction, additions and alterations, demolition, change of use, displaying of signage etc.
- Adequacy of the Act for meeting the contemporary challenges faced by heritage, including provisions for acquisition of privately-owned heritage or transferring public ownership to private trusts or corporate or leveraging public-private partnership arrangement for heritage protection and maintenance.

Identifying and listing elements of heritage is only the first stage but an adequate framework of protection and management has to be in place to help save these community assets. The concerned city may go for non-statutory heritage listing, apart from the statutory heritage listing as carried out by the Centre or State (ASI and SDA's List of Protected Monuments).

Identifying the institutional set-up

Along with the legal and statutory framework, the Heritage Conservation Plan should contain a review of the institutions that are responsible for the management of the heritage in the city. The review should essentially analyze the following,

- Institutions that are responsible for the management (or any other aspect) of heritage with appropriate details on their mandate and responsibilities relating to the upkeep and maintenance of heritage, maintenance of records, publicity, etc.,
- Inter-institutional linkages, if any and the methods of coordination between them for the advancement of heritage within the city;
- Role of the ULBs in heritage protection and conservation either direct or indirect
- Existence of heritage officer, heritage cell, heritage committee, and any sort of advisory service for private home-owners in heritage matter;
- Role of civil society groups and of industry and trade, in heritage protection, maintenance and development.

It is important to provide a record of the ownership of the heritage, i.e., whether it is publicly-owned or privately-owned by trusts, individuals, or others, and to identify the weaknesses in the existing institutional arrangements, and to determine the needed improvements.

The agencies involved in giving reduced loans to private owners to help restore historic buildings (like HUDCO) should be promoted. Other options like heritage grants/ schemes if any set up by the Govt.

Identifying and Prioritising DPR Projects

Cultural Heritage is an important resource of the city. In order that this resource maintains its importance and place in the economic and cultural profile of the city, it is necessary to ensure that modern amenities are integrated in historic areas and buildings. This applies to private buildings (toilets, link to sewerage system), public buildings (provision of drinking water, toilets, internal road network, arrangements for waste collection,) and open spaces (i.e. lighting, resting spaces, etc.). There are on- and off-site infrastructures (e.g., connectivity, public and private transport links, traffic directions and management; publicity and advertisement). Determining the adequacy of heritage infrastructure – both on-site and off-site - is critical to the Heritage Management Plan and should be brought out in as much detail as possible.

The Heritage Management Plan may select, but is not limited to the following urban heritage based projects to be taken up in DPR:

a. Conservation Plans for Heritage Zones and Grade I Monuments/Precincts

The most significant heritage of the city including major heritage zones and Monuments/precincts of Grade I have to be specifically addressed through comprehensive conservation plans that include – special policies/guidelines for the area, restoration, reuse, maintenance plans, interpretation plan, risk management plan, funding strategies etc. for the entire zone or complex. Hence important projects such as the conservation of ghat stretches, bazzars, a walled city area, fort complexes etc can be included as important projects for the city.

b. Physical Restoration

The physical restoration of private and public buildings and the public spaces surrounding them; ensembles of buildings and their open spaces etc. can be carried out (*Admissibility of a project for funding under JnNURM however depends upon the criteria fixed in the Guidelines of the Mission*). This restoration of private buildings should be seen in a wider context and may also include up gradation of basic infrastructure and services in these areas. e.g. The conservation of a typical market square will include restoration of private building facades, of maintaining the surrounding open spaces like pavements and streets, of finding solutions to improve accessibility to and mobility within the area - introducing park and ride systems, of creating pedestrian zones, reducing the use of private transport, reinforcing the use of cycle-rickshaws in inner city areas; emphasizing these as energy efficient and environmentally sustainable solutions that also help in reducing atmospheric and acoustic pollution. This conservation process shall also be coupled with the up-grading of water supply, sewage and solid waste facilities of the market square.

c. Maintenance

This means continuous preventive care of historic buildings and elements like cleaning of facades, removing vegetation from buildings and structures, cleaning the streets, pavements and open spaces etc.

d. Adaptive Re-use

The abandoned/ unused public heritage buildings can be put to functional use, especially for community purposes. A *Heritage House* can be set up in one of the heritage buildings in each city. This will act as a benchmark of physical restoration and illustrate how new interventions can be carried out in historic structures, revive arts and crafts of the area and help train craftsmen, help provide space for exhibitions and events and act as an advisor to the local population (especially the private owners) on heritage services.

e. New Buildings

This could include setting up of new infrastructure to help promote heritage in the city like interpretation centre, museums, exhibition centres and art galleries, training centre for arts and crafts, heritage institutes (educational) etc.

f. Public Spaces

Restoration of historic public parks and gardens can be undertaken. Improvement of public places and streets through pavements, tree planting, lighting; physical up-gradation of the religious routes, pilgrimage ways and congregational spaces in the city etc. and illumination of prominent historic landmarks of the city can be carried out.

g. Awareness programs

Raising awareness and providing opportunities to learn about the heritage resources of the city should be an integral part of the heritage development projects. Heritage walks and heritage festivals are interesting ways of communicating the values of the place to the community. Other heritage programs could include publication materials like brochures and guides, auditory information systems, setting up of information kiosks, signage in heritage zones etc.

Defining Urban Design Guidelines

As individual cases of urban heritage in each city will present specific problems, adequate policies and guidelines will have to be appropriately developed to achieve the objectives of heritage conservation. This would include the historic area's character defining issues like scale, volume, colour, materials, texture, decorative elements, open spaces etc. Conservation Building Manuals and booklets should also be developed and made publicly available as they would equip the residents / private owners with the requisite knowledge regarding repairs, alterations, additions and new interventions within historic structures.

Heritage based Industries

The use and promotion of traditional building materials, technology and skills in physical restoration of historic areas or in the development of new structures will help revive traditional arts and crafts and consequently these trades and cultural industries.

Emphasis on energy efficient and non-polluting public transport will result in new industrial set-ups. Increased awareness and interest in historic sites will give a boost to tourism industry- tourist guides, operators etc.

Annexure II

Financial Ratios and Their Implementation

The various ratios that can be calculated along with their interpretation are mentioned in the table below:

| Sr. No. | Particulars | Description of the Ratio |
|---------|--|---|
| | Income Ratios | |
| 1. | Tax Revenue to Total Income Ratio... (%) | These Ratios depict the share of each income in the Total Income of the agency. Higher share of an individual income in the total income shows a high dependability on that source and probably a high risk. Since if that particular source of income is affected, major part of total revenue will be affected The agency should try and develop other sources of income to reduce this risk. |
| 2. | Property & Other Taxes to Total Income Ratio... (%) | |
| 3. | Assigned Revenues & Compensations to Total Income Ratio... (%) | |
| 4. | Rental Income from Municipal Properties to Total Income Ratio... (%) | |
| 5. | Fees & User Charges to Total Income Ratio... (%) | |
| 6. | Revenue Grants, Contributions & Subsidies to Total Income Ratio... (%) | |
| | Expense Ratios | |
| 7. | Establishment Expenses to Total Expenditure Ratio... (%) | These Ratios depict the composition of each expense in the total expenditure of the agency. These ratios should be kept within a reasonable level after comparison with good practices, so that one source of expenditure is not abnormally high and affects the entire finances of the agency. However, this should not be at the sacrifice of service to the citizens. |
| 8. | Administrative Expenses to Total Expenditure Ratio... (%) | |
| 9. | Operations & Maintenance to Total Expenditure Ratio... (%) | |
| 10. | Interest Expense to Total Expenditure Ratio... (%) | |
| | Net Income Ratios | |
| 11. | Cash Surplus / Deficit to Total Income Ratio... (%) | This ratio indicates the cash surplus or deficit generated as a percentage to the total income of the agency. The ratio should be as high as possible since it will depict the surplus generated out of total income. |
| | Efficiency Ratios | |
| 12. | Gross Property Tax Receivables Ratio... (No. of Days) | This ratio indicates the average number of days for which the receivables are outstanding on an average. The ULB should try and keep these days very low so that arrears are not too long. |

| Sr. No. | Particulars | Description of the Ratio |
|---------|---|--|
| 13. | Property Tax Receivable to Property Tax Income Ratio... (%) | This ratio indicates property tax outstanding as a percentage of current year's demand of property tax. Efforts should be made to keep this ratio as low as possible so as to reduce arrears. |
| 14. | Operations & Maintenance to Gross Fixed Assets Ratio... (%) | This ratio indicates expenses incurred towards repairs & maintenance as a percentage of gross block of fixed assets. Although this is an essential expense to keep the assets in good working condition, higher ratio could indicate either bad maintenance or inefficient usage of the asset or frequent repairs to the same asset, both of which needs to be investigated. |
| | Performance Ratios | |
| 15. | Income per Employee... (Rs.) | These ratios indicate average income earned and average expenditure incurred per employee, for all agencies. The later ratios indicate average income earned and expenditure incurred per citizen of the ULB. These ratios should be compared with other agencies, ULBs and Government Bodies to benchmark the performance with others. |
| 16. | Expenditure per Employee... (Rs.) | |
| 17. | Income per Citizen... (Rs.) | |
| 18. | Expenditure per Citizen... (Rs.) | |
| | Capital Ratio | |
| 19. | Capital Expenditure to Capital Receipts Ratio ... (%) | This ratio indicates whether the capital receipts are adequate to meet all the capital expenditure or the ULBs is resorting to other means of financing. |
| 20. | Financial Leveraging ration - Capital Expenditure less Capital Receipts to Capital Receipts Ratio ... (%) | This ratio indicates how much the ULB has been able to leverage its capital receipts with other means of financing to meet its needs for capital expenditure. |
| 21. | Capital expenditure per citizen – Total capital expenditure/ urban population | This ratio indicates the capital expenditure per person. It should be compared with other similar cities so that the city can benchmark itself with the same |
| 22. | Growth in capital expenditure vs growth in city population | This ratio will indicate as to whether the growth in capital expenditure has been able to keep pace with the growth in population in the city |
| 23. | Value of Projects approved to capital expenditure | This ratio will indicate what is the pace of implementation of capital expenditure in the city |
| | Debt Ratio | |

| Sr. No. | Particulars | Description of the Ratio |
|---------|---|---|
| 24. | Debt Service Coverage ratio – Total income before interest payments/ interest and principal repayment | This ratio indicates the ability of the ULB to finance its debt obligations from its current income. The ratio should ideally be more than 1 or else it would indicate bad financial planning/ position |
| 25. | Asset Coverage Ratio – Total value of assets/ total debt liability | This ratio indicates whether the total debt is adequately covered by the net book value of assets. In case it is less than 1, it gives a negative signal to the lenders |

Annexure III

Suggestive Options for Financial Improvement

During preparation of Financial Operating Plan, it is suggested that all available options for improvement be listed under the three areas of initiatives. i.e.,

- Revenue Enhancement Initiatives,
- Expenditure Management Initiatives and
- Asset Management Initiatives.

a. Revenue Enhancement Initiatives

In most of the organizations there are revenue leakages due to internal deficiencies rather than external governing factors. Most institutions, especially the ULBs, are plagued with systemic problems such as time consuming processes, lack of incentives for innovation and efficiency and poor management of records and assets. There is also a scope for increasing the assessment, billing and collection efficiencies through concerted efforts.

The revenue enhancement initiatives that can be adopted by the ULBs/Specialised Institutions/State Departments have been discussed in this section. Typically, some of the revenue enhancement initiative to be adopted at ULB level can pertain to the following areas:

- Property Tax
- Water Charges
- Solid Waste Management Charges
- Trade License
- Advertisement Tax
- Rent from Properties
- Identifying new source of revenue

For specialized institutions / state departments, certain reforms implemented can lead to initiatives for revenue enhancement. The initiatives may pertain to the areas indicated below.

- User Charges
- Encouraging Public Private Partnership models

Improvement measures - The indicative measures that can be undertaken by the institutions are as follows:

- **Property Tax** - Improving coverage and collection efficiency of PT assessment, can lead to a substantial revenue enhancement. JNNURM mandates cities to achieve a minimum of 85% property tax assessment coverage and a minimum of 90% collection efficiency for property tax, within a set timeframe. Beyond this the cities should gradually improve upon the same, targeting universal coverage and collection. Some of the steps that can be initiated are:

- Identification of Un-assessed properties through surveys** - Detailed house to house survey of the entire municipal area can be done to detect un- assessed properties. It

should however be kept in mind that a detailed survey would be time and effort consuming as well as being costly. As an alternative strategy, the ULB can identify localities where incidence of un-assessed properties is likely to be high, such as upcoming areas or areas recently developed and then undertake a comprehensive survey. This will prove to be cost effective as well.

- ii. **Physical verification of major categories of properties** - In order to determine under assessed properties, a selective survey of properties needs to be undertaken. For this, the holdings may be divided into different distinct categories, such as commercial complexes, hotels, lodges, restaurants, theatres, function halls, educational institutions and residential complexes. The aim should be to cover 20% of the holdings which presently contribute 60%-70% of the property tax demand. The under-assessment list thus prepared can be forwarded to the Valuation Board when the next valuation is due. Supplementary bill for collecting additional tax can be served immediately where ever applicable
- iii. **Cross verification with other data** - Un-assessed properties can also be identified through cross verification of data from other government and non government units such as State Electricity Board (SEB), Electricity Distribution Company, local cable operators and telecom operator. The ULB can check the records available in other departments of the ULB itself such as Trade License or Building Plan Department.
- iv. **Verification of Exempted Holdings** - Certain categories of holdings, which enjoy exemptions, need to be physically verified through field visits to ascertain that no commercial activity is being undertaken in the premises. Firstly, a list needs to be prepared of such holdings from the assessment registers and then a physical verification needs to be carried out. The most likely categories where selective verification is essential are places of worship, public charity holdings, medical relief holdings and educational holdings.
- v. **Computerizations of Property Tax records** – It is understood that many ULBs across the country are in the process of undertaking GIS development for property tax records. Computerization would ensure updated records, timely issue of demand notices, regular tracking of defaulters and efficient monitoring. Online linking of payment counters would ensure automatic updation of records and minimize human omissions. Property tax, water tax and trade license are all linked to a fixed property. Many benefits could be derived if these databases could be combined and integrated.
- vi. **Timely dispatch of Demand Notices** - Computerization shall ensure timely processing of demand notices for property tax. The demand notice should contain both current and arrears, if any, so that the tax payers can reconcile the missing payments. Timely dispatch shall ensure the willing taxpayers plan in advance and pay accordingly. In many ULBs there is inadequate staff for serving the demand notices on time which may have gone up due to increase in assessment. In such cases, the ULB can outsource the dispatch to any courier agency at negotiated rates.
- vii. **Periodic review and revision of taxes** – The taxes should be reviewed and revised on set periodicity, atleast once a year.
- viii. **Making Property Tax clearance compulsory for granting a trade license and water connection** - Most departments in the ULB operate without any data sharing with other departments. Compulsory clearance of Property Tax to obtain trade license and water connection will ensure improved collection from otherwise defaulting tax payers.
- ix. **Decentralized or Outsourcing collections** - Collection centers in many ULBs are situated within the ULB's premises. This acts as an inconvenience to willing tax payers

who reside at a distance. ULBs should open decentralized collection counters by liaising with banks or post offices. An alternative can be to allow collection in ward offices or area sabha offices. Collections can also be outsourced by appointing collection agents who may be paid a commission based on the density of population of the ward and the amount of collection.

- x. **Focus on Government Holdings** - Efforts should be directed in collecting arrears from State Government and Central Government holdings. For this, regular monitoring is required at the level of the EO/Commissioner and Chairperson/ Mayor, who should discuss with relevant departments for provision of property tax and service charges payment in the respective state/central government department's budget.
 - xi. **Ward wise classification and focus on defaulters** - With computerisation of property tax records, ward wise classification of defaulters would be simplified. A list of top defaulters in the ward could be made and then aggressively persuaded for payment. The responsibility for collection should be on the official responsible for that ward and the entire process should be supervised by the Executive Officer/ Commissioner of the ULB.
 - xii. **Regular monitoring and rewarding efficiency** - In many ULBs there are no routine or regular reports generated of defaulting tax payers and status of collection. It is usually done at the year end or on specific demand of the Executive Officer/ Commissioner or Chairperson/ Mayor. Regular monitoring should be done by fixing targets both for raising demand notices and collection on the respective officers. Officers who meet their targets should be rewarded suitably.
 - xiii. **Publicising on the local cable channel and website** - Names of major property tax defaulters may advertised on the local cable channel to draw attention. This would help in putting an indirect pressure on the tax payer to pay up. Where ULBs have websites, the amount of property tax due can be put on the website of the ULB, to allow citizens to ascertain their obligation even if the demand notice is not served due to any reason.
 - xiv. **Issue of distress warrants** - There is a general conception that issue of distress warrants and attachment of defaulting property would bring a bad name to the ULB. But at the same time it should be understood that inadequate revenue would also affect the quality of services being delivered by the ULB and would create a negative impression in the entire ULB population rather than with few individuals who have regularly defaulted. It is therefore essential that provisions relating to distress warrants and property attachments could be followed and adhered to. The responsibility of compliance should lie with the Chairperson of the ULB.
 - xv. **Use of community groups** - The ULB can seek support of community groups such as residents' welfare associations or neighbourhood groups for spreading the importance of paying property tax and encourage the people to pay up on time.
- **Levy of User Charges** – Levy of user charges for different municipal services, like water supply, sewerage, public transport, solid waste management, hiring of municipal assets, etc., is desirable so as to achieve the objective of securing effective linkages between asset creation and asset maintenance and ultimately leading to self-sustaining delivery of urban services.

JNNURM requires the States / Cities to implement reforms relating to levy of User Charges and target to achieve full realization of O&M cost by the end of the Mission period.

i. **Water Supply Charges** – Some of the measures that can be adopted by the ULB or the parastatal institution for enhancement of collection relating to water supply charges are as follows:

- Implementation of water charges - The first task of the institutions that are yet to levy charges for water supply is to act immediately and start levying these charges, wherever mandated. For this they need to disseminate information through community groups, local cable operators, advertisement on hoardings about the rationale behind levying water charges, the date from which it is coming into effect and the consequences of non payment.
- Survey of commercial and bulk connections - Commercial holdings and bulk water users should be identified through a selective field survey. For this, a ward wise analysis should be done and only those wards with a relatively higher concentration of commercial and bulk users should be surveyed. Identification shall require coordination between various department including engineering and water supply.
- Self declaration and regularisation of irregular connection - The institution can adopt a liberal policy of self regulation by the citizens by asking them to declare their unauthorised connections voluntarily. These connections should then be regularised without any delay or penalty. For this, the institution also needs to undertake proper advertisement campaign through newspapers, community groups and local cable operators.
- Revision of Charges on periodic basis
- Compulsory clearance of water charges - Clearance of water charges should be made mandatory for attending to any water related grievance. For this, the Water Supply Department and Engineering Department should also be involved. Moreover, clearance of water charges dues should be made compulsory for issuing and renewing Trade License.
- Token levy on Public Stand Posts - Stand posts used by the public in general should be brought under the ambit of water charges as well. For this, a token levy may be done depending on the number of estimated users. The responsibility for collection from individual household should be with the ward offices or community groups. The money generated should be passed on by these community groups to the respective ward offices after deducting necessary administrative charges.
- Computerisation of Water Charges Demand - The GIS initiatives that are being undertaken should address the water charges demand as well. As water tax is linked to a fixed property similar to that for property tax, both should be integrated in the GIS. Computerisation would bring in the benefits of real time updations, minimising process delay and efficient monitoring.
- Phased Metering of Water Connection - A phase wise metering exercise should be undertaken in the area of service provision, by the ULB / the responsible institution. In the first phase, all commercial and bulk users should be metered to make them accountable for the water they use. In the next phase, wards with high population density should be undertaken and then the remaining holdings should be metered.
- Decentralised Collection - Just like in the case of property tax, charges for water supply should also be collected in a decentralised manner by coordinating with banks and post offices situated in different parts of the city. In cases where collection agents for property tax have been appointed, by the ULB, they may double up to collect water charges as well. Also, the institutions may consider the

use of ward/area sabha offices for collection. In fact, the current practice of adding water charges with the property tax bills in some ULBs is also encouraged.

- Regular Monitoring - Fixing targets for individual officers involved both in raising demand and collecting water charges should be adopted. The officers should be made responsible for one or more wards and targets fixed. Outsourced collection agents should work under these officers. An incentive and disincentive scheme should be introduced for measuring performance against the given target. Overall responsibility for monitoring lies with the respective Head of the Departments.
- Procedural Changes – Integration of functions is required at departmental levels. In case of an ULB, the respective Revenue Department may be given a dedicated team to disconnect water connection for non payment of user charges. Presently it has to depend on the Water Supply/Engineering Department which causes considerable delay.

ii. **Solid Waste Management Charges** – Some issues prevalent in the city, with respect to SWM are the slow pace of implementation of door-to-door mechanism, non levy of charges / tipping fees, lack of optimal utilization of staff and vehicles. Some of the steps which can be undertaken in this regard include:

- The ULB/the parastatal agency may encourage the public to take up door-to-door collection of garbage in their area by the appointment of their own sanitation workers. In this case, the institutions may provide a primary collection vehicle free of cost to a colony/group of 100-150 houses. The latter may engages a rag picker for collecting the garbage from their door-steps every day and pay him Rs.10 per household per month, as tipping fees. By adopting this scheme, the people get a garbage-free locality and a rag picker gets gainful employment. The collected garbage may be deposited at one convenient spot, for the secondary collection and transportation vehicles to pick-up. Prompt and timely lifting of this garbage by vehicles may be ensured every day. In this way the ULB/parastatal may save money in diesel consumption as garbage is picked only from one spot. The institutions need to implement and promote systems for source segregation of waste, in a phased manner, in all area.
- The ULB/Parastatal institution may levy charges for the removal of solid waste. If necessary, required amendments to the Act under which the institution was created, may be carried out to enable levy of the charges. In most the ULBs, the Board of Councilors are empowered to make regulations in this regard. This can act as an important source of non tax revenue and would also help in improving service delivery relating to solid waste management. The system of user charge collection may be introduced in phased manner, with the first phase in commercial areas and office areas, the second phase in high density residential areas and the third phase in remaining areas. A system for revision of charges should be built-in.
- Involve community groups in operations through a system of tipping fees.
- Use of vehicle tracking systems and route optimization for effective utilization of vehicles
- Collection of waste in slums with the help of community groups which can be engaged on annuity basis, with a token amount collected from slums by the ULB.

- Cost sharing schemes could be considered for services such as sanitation and garbage collection. In fact, the ULB/parastatal can outsource certain activities to the community as well. PPP arrangements for collection and transportation operation, to improve efficiency, may be encouraged through engagement of contractual labourers and vehicles.
- Scientific disposal of waste – through mechanisms like composting of waste

iii. Trade License or Enlistment Fees – Major issues in the ULB, with respect to trade license, are existence of unlicensed trades, lack of updated registers, centralized collection and inadequate monitoring for renewals. Some of the steps that can be initiated to enhance revenue collection under the above initiative are:

- Computerisation of Records - The records relating to issue and renewal are not up to date in most ULBs and in some they are not maintained at all except for the counterfoils of receipts. Immediate computerisation of license department is required for creation of a proper database. Computerisation will ensure identification of individual payer, his location and the type of business run by him. Tracking of renewals annually will also be made easy.
- Identification of unlicensed trades including self declaration - ULBs should allow unlicensed trades to voluntarily declare and get registered without penalty and fine. Selective surveys of wards at the time of survey of property tax will automatically help in such identification.
- Decentralised collections - Just like property tax, special counters should be opened at different ward or area sabha offices for decentralised collection. Banks and post offices should also be approached for collection with nominal service charges.
- Linkages with Property Tax and Water Charges - No license should be issued if the address mentioned has arrears relating to property tax or water charges.
- Help of Trade Associations - Trade Associations could be approached and persuaded to exert pressure on their members for compliance. Their membership lists could also be used to identify defaulters.

iv. Advertisement Tax - Some of the steps that can be initiated to enhance revenue collection under this initiative are:

- Registration of Advertisement Agencies - Registration numbers may be given to advertising agencies for proper monitoring and tracking of taxes paid. Prompt reminders should be issued to all registered advertisers for paying their annual tax.
- Advertisement Tax from Bus Shelters - ULB should approach bus operators and unions to collect tax on advertisements on bus shelters. Bus shelters maintained by private operators and used for advertisement should also be brought under the tax net.
- Outsourcing Collections & Survey - Private agencies could be contracted out through open tender for collection of advertisement tax. These agencies may also be made responsible for identification of unauthorised advertisements.

v. Rent from Properties – Some of the issues with respect to recovery of rent on properties own by the ULBs / Departments of State government / specialized

institutions are low rate of return due to various reasons and lack of regular monitoring and follow-up.

- Lump sum receipts instead of monthly rent - As a principle, the institutions may avoid entering into rental agreements which involve a significant effort in collection. They should opt for outright sale or long term lease with one time payments. Sale would bring these shops under the Property Tax net, which would then again contribute periodic revenue.
- Regular Revision - In many instances it is seen that the rent collected does not reflect the true market rate of the premises. For this, regular revision of rent at least every 3 years should be done or a limited duration rent agreement should be entered into. This activity should be preceded by bringing the present rents close to the current market rates. However the increase should be spread over a period of time, say 5 years, to reduce any undue financial burden on the tenants. Market rates can be obtained from the Stamp Duty rates published by the State Government.
- *New sources of income*
 - Extension of Parking Zones – Paid parking zones could be extended to all commercial streets and the reserve price fixed in auction should be increased. Proper studies relating to traffic volume in the area should be conducted before fixing such reserve price so as to reflect the true revenue potential.
 - Use of Public Private Participation models – Private participation should be leveraged where ever it is found advantageous, backed with proper studies. The surplus land of the ULB / the parastatal institutions could be utilized through these models to generate revenue. Similarly, land in prime commercial or residential area which is other wise not used could be used to develop property and sold off to generate revenue. Suitable PPP models should be employed to minimize redeployment of own staff in these development activities.
 - Out of court settlements - In certain cases where revenue has been locked up in litigations, out of court settlement and compromise settlements could be considered. To safe guard against controversy, a retired judge or a person with legal background, could be asked to advise the institution, on cases where such approach could be followed.
 - Regular and committed grant from the Government – Although Government Grants are not a new source of revenue for the ULB, they lack in predictability and periodicity. The ULB should approach the Finance Department for committing the funds it will receive from the State for the year and when the same will be received.

b. Expenditure Management Steps

Expenditure management initiatives that can be adopted by the ULBs/Specialised Institutions/State Departments have been discussed in this section. These initiatives may pertain to the following areas:

- Implementing a costing system, which may be based on unit rates

- Classification of expenditure heads so as to reflect the nature of services (whether essential or discretionary), timing of expenses (whether deferrable or non-deferrable) and nature of expenses (Salaries, fuel, contracted, electricity, contingencies and others)
- Implementing accrual based accounting system (apart from ULBs, this initiative may be applicable to specialized institutions, which are independent organizations)
- Introducing Proper Cash and Working Capital Management
- Encouraging Public Private Partnership.

Improvement Measures: Indicative list of strategies / Improvement measures that can be implemented for expenditure management are mentioned below:

- i. ***Deferment of expenses on discretionary services and deferrable expenses*** - Discretionary services and deferrable expenses should only be undertaken in the case of a surplus cash position except for matters relating to basic health, elementary education and social well-being particularly of the poor citizens.
- ii. ***Energy audit*** - Growth rate of electricity tariffs are beyond the control of the institution, so it should undertake energy audits on electricity consumption to manage expenditure.
- iii. ***Regular and timely bill payments*** - Introducing time bound bill movement procedure would also help in reduction of expenses for a ULB. The respective departments should prepare the bill on the basis of the supplier's invoice, within 30 days of completion of works/receipt of invoice and accounts department should make the payment within 15 days of receipt from the respective department. When the supplier/contractor is assured of his payment within 45 days, his quote would automatically be lower as it would then be free of the implicit interest charges.
- iv. ***Improved tendering procedure*** – The may include Unit Cost tendering procedure. The ULBs / Departments of State government / specialized institutions should establish unit cost of services, loaded with instances of escalation where permissible, based on which they can go in for unit rate tendering. Here, the tender is awarded to lowest unit quote after comparing it with the institution's in-house unit cost. This would help in detecting spurious tenders submitted by cartels of contractors/suppliers, who quote higher than warranted. Contractors performing poor quality work should be black-listed and not allowed to participate in the unit rate process. This will also call for improved monitoring of the contractors against established quality indicators.
- v. ***Introduce Proper Cash and Working Capital Management*** – Preparation of monthly cash budgets would help in estimating the fund requirement of the institution, which would then guide the expenditure. In case of ULBs and parastatal agencies, engaged in service delivery, the routine and regular income of the ULB should be matched with the urgent and essential expenditure. The net resultant cash flow should then be used in prioritizing the expenditures.
- vi. ***Public Private Partnerships*** - Public Private Partnerships can be used as a vehicle for expenditure management and also as a source of revenue in certain cases, as mentioned earlier. Cost sharing schemes could be considered for services such as sanitation and

garbage collection. In fact, the ULB can outsource certain activities to community as well.

- vii. ***Community Contracting through Women's Groups*** – By way of an example, community contracting is a novel scheme implemented by the Municipal Corporation of Hyderabad. The Corporation has allotted 14 sanitation units to DWCUA (Development of Women and Children in Urban Areas) Self-help Groups of women on the same terms and conditions for sweeping and garbage lifting as applicable to private contractors. These groups are the direct contractors to the Corporation and they no longer operate through middlemen.
- viii. ***Bulk metering*** - To manage the service better and ensure that there are no leakages during distribution especially of water, the ULB/parastatal agency can install meters at key points in the distribution network. This will enable it to plug these gaps and ensure better service at same O & M costs.

c. **Asset Management Initiatives**

The ULBs / Departments of State Government / other specialized institutions need to develop a comprehensive asset management strategy to make optimum use of their portfolio of fixed assets. Once the composition analysis of the assets has been done, they need to be further classified on the basis of the nature of use they are put into. The classifications would be:

- **City Use Assets-** which are being used for providing the primary functions of the ULB/Parastatal and is essential for day to day functioning such as sewerage treatment plant, water treatment plant, stores, office building, vehicles.
- **Social Use Assets-** it is that property which is being utilised to satisfy the social goals such as housing, parks, playgrounds.
- **Surplus Assets-** these properties are surplus and are not in use either for city use or social use such as parking lots, land given on lease or small idle plot of land. These assets can be commercially exploited.

Improvement Measures - Some strategies / improvement measures, that may be followed depending upon the class of the assets, are as follows:

- i. **City Use Assets** – Efficient use of facilities should be promoted, by requiring departments to justify their demand for space. This may also be achieved by locating departmental offices and services in functional, not prime areas. Measures should also be undertaken to minimise operating costs.
- ii. **Social Use Assets** – It is suggested to quantify the subsidies provided, so as to optimize them and target subsidies properly. The decision to subsidize is usually political and can change, or other alternatives can be considered, if quantified information on the amount of subsidy are presented to decision makers along with the program. However, the main aim of accomplishing the social objectives at the same time should not be lost.

- iii. **Surplus Assets** - Surplus property may be leased out, with proper contractual arrangement, to generate revenues and minimize maintenance costs. Privatizing surplus property through sale to generate sale revenues and property taxes, may also be explored. Another option could be the lease back of sold property. If the property cannot be leased or sold, the institution should target to reduce maintenance costs and liability on the property.