Manual on Preparation of City Sanitation Plans (CSPs)

Contents

Abbreviations

BOD	Biological Oxygen Demand
BOT	Buy-Own-Operate
BPL	Below Poverty Line
BSUP	Basic Services to the Urban Poor
CAA	Constitution Amendment Act
COD	Chemical Oxygen Demand
CPHEEO	Central Public Health and Environmental Engineering Organization
CSP	City Sanitation Plan
CT	Community Toilets
CTF	City sanitation Task Force
DMA	Directorate of Municipal Administration
DMHO	District Medical Health Officer
DPR	Detailed Project Report
ELSR	Elevated Service Reservoir
FGD	Focus Group Discussions
FY	Financial Year
GIS	Geographic Information System
GoI	Government of India
HHs	Households
HSC	House Service Connections
IEC	Information, Education, Communication
ILCS	Integrated Low Cost Sanitation
JnNURM	Jawaharlal Nehru National Urban Renewal Mission
MEPMA	Mission for Elimination of Poverty in Municipal Areas
MSL	Mean Sea Level
MSW	Municipal Solid Waste
NMC	Nalgonda Municipal Council
NRW	Non Revenue Water

NUSP	National Urban Sanitation Policy
ODF	Open Defecation
O&M	Operations and Maintenance
PHED	Public Health and Engineering Department
PSP	Public Stand Posts
RVM	Rajiv Vidya Mission
RWA	Residents Welfare Association
SI	Sanitary Inspector
SLB	Service Level Benchmarking
SJSRY	Swarna Jayanti Shehri Rojgar Yojana
SSA	Sarva Shiksha Abhiyan
SSHE	School Sanitation and Hygiene Education
STP	Sewage Treatment Plant
SWM	Solid Waste Management
ULB	Urban Local Body
UGD	Under Ground Drainage
WC	Water Closet

Units of Measure

lpcd	litres per capita per day
m	metre
MLD	Million Litres per Day
sq.m	square metre
TPD	Tonnes Per Day

Glossary

Activated sludge: An aerobic treatment process in which oxygen and micro-organism concentrations in wastewater are artificially elevated to facilitate rapid digestion of biodegradable organic matter.

Aerated pond or lagoon: A natural or artificial wastewater treatment pond in which mechanical or diffused air aeration is used to supplement the natural reoxygenation processes.

Aerobic treatment: Treatment of wastewater with the help of micro-organisms that rely on oxygen.

Anaerobic digestion: Decomposition of organic material by anaerobic bacteria in the absence of air.

Anaerobic lagoon: A system for treatment of high-strength wastewater and sludge that involves retention under anaerobic conditions.

Biochemical oxygen demand: A measure of the organic pollutant strength of wastewater.

Biosolids: See Sewage sludge.

Blackwater: Wastewater discharge from toilets.

Bucket latrine: A traditional but unhygienic form of sanitation in which feces is deposited into a bucket which is collected regularly (usually at night) and taken away (usually by 'sweepers').

Composting latrine: A latrine designed to receive both feces and waste vegetable matter with the aim of reducing moisture content and achieving a carbon-to-nitrogen ratio that promotes rapid that promotes rapid decomposition.

Community toilets are toilets shared by a group of households in a community. In some cases each household will have a key to one of the toilets within a block: this may be one toilet per household, or one toilet for a group of households. Communal toilets may be owned by the group of households.

Dry latrines: All forms of latrines that do not require water for flushing.

Desludging: Removal of sludge or settled solid matter from treatment tanks such as septic/Imhoff tank, interceptor tank or sedimentation tanks.

Disposal: Discharge, deposition or dumping of any liquid or solid waste onto land or water so that it may enter the environment.

Domestic sewage: All forms of wastewater derived from residential properties, as well as blackwater and greywater from commercial and institutions buildings.

Dry sanitation: Disposal of human excreta without the use of water for flushing or anal cleansing.

Ecological sanitation (ecosan): A form of dry sanitation that involves separation of feces and urine in order to facilitate recycling of nutrients in local agricultural systems.

Effluent: Any form of wastewater or liquid waste that flows from an operation or activity.

Excreta: Feces and urine.

Fecal sludge: The undigested sludge that is collected from pit latrines and leach pits.

Greywater (also know as sullage): Wastewater produced by washing and bathing activities.

Household toilets: toilets used only by a single household, typically a single family or extended family. However, facilities classified as "household toilets" often serve very large households, or they may be regularly used by neighbours. So the boundary between household toilets and shared toilets is not clear-cut.

Lagoon: See technology data sheet on 'Wastewater and Fecal Sludge Treatment: Waste Stabilization Ponds' (page 104).

Leachfield: A trench filled with sand, soil, gravel and brickbats for disposal of septic tank overflow into the surrounding soil.

Leach pit (sometimes known as a cesspit): An underground tank that is used where there is no sewer and household wastewaters are drained into them to permit leaching of the liquid into the surrounding soil.

Night soil: Human excreta, with or without anal cleansing material, which are deposited into a bucket or other receptacle for manual removal.

On-plot sanitation: A sanitation system that is wholly contained within the plot occupied by a private dwelling and its immediate surroundings. Commonly, on-plot sanitation is equivalent to 'household latrine', but may also include facilities shared by several households living together on the same plot.

On-plot facilities: The components of a sanitation system located within a householder's plot.

Off-site sanitation: A system of sanitation that involves collection and transportation of waste (wastewater either by sewerage or septage/fecal sludge by vacuum truck) to a location away from the immediate locality.

Pathogens: Micro-organisms such as bacteria, viruses and protozoa that cause disease.

Percolation rate: The rate at which liquids move through soil.

Pit latrine: A form of on-plot sanitation with a pit for accumulation and decomposition of excreta from which liquid infiltrates into the surrounding soil.

Pour flush toilet: A type of latrine where a water seal trap is used to prevent smells and to reduce insects.

Public toilets are toilets open to anybody, in public places or in residential areas: typically there will be a charge for each use. Sometimes charging will be monthly: each user pays for a monthly ticket. Users of public toilets will generally feel less "ownership" than users of communal toilets.

Sanitation: Interventions (usually construction of facilities such as latrines) that improve the management of excreta and promote sanitary (healthy) conditions.

Septage: Mixture of wastewater and sludge removed from a septic tank during cleaning operations.

Septic tank: A form of on-plot sanitation for the anaerobic treatment of sewage/blackwater.

Sewage: A mixture of wastewater from all urban activates from residential, commercial properties. It may also contain a component of industrial wastewater.

Sewer: A conduit, usually a pipe, which is used to collect and convey wastewater away from its point of production to its point of disposal.

Sewage sludge (sometimes referred to as biosoilds): A semisolid residue generated during the treatment of domestic sewage including both solids removed by sedimentation and biological sludge produced by biological treatment.

Sewerage: A network of interconnected sewers in a area, district or town.

Shared toilets are toilets shared between a group of households in a single building or plot. This can cover very different situations: for example, a toilet shared by 20 tenant families each occupying one room in a large building; or a toilet shared by 3 related families living within a single plot or compound.

Soak pit/Soakaway: A pit, typically after a septic tank from where wastewater slowly seeps into the ground through perforated sides and bottom.

Sullage (also know as greywater): Wastewater from bathing, laundry, preparation of food, cooking, and other personal and domestic activates.

Superstructure: Screen or building enclosing a latrine to provide privacy and protection for users.

Suction truck: A vehicle used for mechanized sludge removal from septic tanks and lined latrine pits.

Ventilated improved pit latrine (VIP): A dry latrine system, with a dark interior and a screened vent pipe to reduce odor and fly problems.

Public toilets are toilets open to anybody, in public places or in residential areas: typically there will be a charge for each use. Sometimes charging will be monthly: each user pays for a monthly ticket. Users of public toilets will generally feel less “ownership” than users of communal toilets.

Vent pipe: A pipe that facilitates the escape of gases and odors from a latrine or septic tank.

Wastewater: Liquid waste from households or commercial or industrial operations, along with any surface water/storm water.

Wastewater treatment: A combination of physical, chemical and biological processes to remove suspended solids, dissolved pollutants, and pathogens and render the water harmless to the environment.

Water closet: A pan, incorporating a water seal, in which excreta are deposited before being flushed away using water.

Water seal: Water held in a U-shaped pipe or hemispherical bowl connecting a pan to a pipe, channel or pit to prevent the escape of gases and insects from the sewer or pit.

Introduction

Today in India, 30.66 million urban households which form 35.49% of the urban households suffer inadequate access to sanitation facilities and either defecate in the open or use shared and community latrines. Besides, being an issue of human dignity, this practice results in unsafe disposal of human excreta which has a severe impact on environmental and health outcomes. Inadequate treatment of excreta is the main cause for the pollution of most of our rivers. It also severely impacts health outcomes. The loss due to diseases arising out of poor sanitation for children under 14 years in urban areas alone is estimated at Rs. 500 crores at 2001 prices. A related concern is that of manual scavenging which has not been eliminated in our country even sixty years after independence. This is the situation on the ground despite various efforts having been made over the years at various levels to grapple with the issue of sanitation. The National Urban Sanitation Policy (NUSP) which has the vision of making all Indian cities totally sanitized, healthy and livable for all citizens especially the urban poor was formulated by the Ministry of Urban Development and was launched in the year 2008 which was declared the International Year of Sanitation by the United Nations. The aim to this policy is to address the issue of sanitation in a comprehensive manner through the preparation of state sanitation strategies and city sanitation plans. The goals of the policy are to create awareness regarding the linkage between sanitation and health and

Pune Declaration

Workshop Declaration (19-20, March, 2004, Yashada, Pune)

Provision of Universal Sanitation in Urban India

- One of the major development challenges in the present millennium is to ensure insulation of the community, especially the poor, against fecal oriented contamination.
- Out of the eight Millennium Development Goals (MGD), three are directly dependant on sanitation provision.
- Sanitation situation in most urban areas is serious and improvements in the current situation especially for the poor will positively impact public health, livelihoods and environment.
- Although there are some pockets of successes in provision of sanitation, very few delivery models have been replicated or scaled up to citywide.
- Success in meeting this challenge requires wide spread reforms and finding creative solutions to policy, legislation, finance, institutional mechanisms, technology etc.
- Community-local government partnerships ensuring local choice are essential to the above goals. Pune, Tirchy, Bangalore and other successful experiences are strongly indicative of the replicability and scaling up of the community-empowered models for providing universal sanitation in urban India especially to low-income communities.
- Large-scale capacity enhancement of various stakeholders is needed to achieve the mission of universal sanitation in urban areas in India.
- The role of Ministry of Urban Development and Poverty Alleviation, GoI as an enabler is vital in achieving universal sanitation goal.

Recommendations

To take forward the universal sanitation agenda, it is recommended to:

- Establish an inter-ministerial task force on Universal Sanitation in Urban Areas under the aegis of the Ministry of Urban Development & Poverty Alleviation, GoI. The task force will include representatives of one or two lading states, key NGO's

and concerned international agencies. SPARC-ASCI-YASHADA (SAY) partnership offered to be secretariat of this task force.

- Utilize urban networks such as Change Management Forum (CMF) and City Managers Association and Mayors Association to promote universal sanitation agenda and disseminate best practices.
- The task force will identify states (initially 5-6 states) willing to be the vanguard of this process. State level strategies will be developed and actively promoted.
- Within these states, on a demand led process, cities will prepare their strategic sanitation plan and actively implement the same with state and central government support in partnership with the local communities and NGOs.

Process mechanisms

- Engage policy level dialogue on this subject.
- Organize state level workshops and consultations to raise awareness and develop local commitment to the universal sanitation agenda.
- Support the preparation of state level frameworks and city level strategies.
- Advise on effective and efficient implementation processes.
- During implementation, provide hand holding support and advice as requested.
- By establishing a knowledge management network, document and disseminate innovative experiences and lessons (website, newsletter, case studies, multimedia materials, academic papers etc)
- All the above initiatives can be orchestrated under the slogan of “Clean City Campaign” (CCC), led by the Ministry of Urban Development and Poverty Alleviation.

National Urban Sanitation Policy NUSP (2008)

In order to address these issues in a holistic manner National Urban Sanitation Policy (NUSP) has been formulated by the Government of India in 2008 with a vision to provide appropriate sanitation facilities in all cities/ towns. States have to prepare state sanitation Strategies and Cities/ towns are required to prepare city Sanitation Plans (CSPs) as per NUSP guidelines, so as to improve health and environmental outcomes. The CSP is a vision document on sanitation with 20 to 25 years horizon with short term town level action plans for five years to achieve sanitation goals. CSP envisages achieving the following outputs:

- Open defecation free cities.
- Elimination of manual scavenging and safety of sanitary workers.
- Proper disposal of municipal wastewater and storm water drainage.
- Recycle and reuse of treated wastewater for non-potable applications.
- Solid waste fully collected and safely disposed of scientifically.
- Serving the un-served with basic minimum services.
- Measures for improved public health and environmental standards.

City sanitation Plan(CSP)

Need for CSP ….

It is in this context, City Sanitation Plan (CSP) is essential to address cities become free from Open Defecation by ensuring universal access and start planning to achieve 100% sanitary and safe disposal of human waste. The National Urban Sanitation Policy (NUSP) recognizes cities should consider a fully integrated approach to city sanitation, covering safe management of human excreta, solid waste management, safe disposal of industrial and other specified hazardous wastes, drainage, and the management of drinking water supply. The objectives of the CSP are:

- To achieve the goal of universal sanitation.
- To develop access to safe and hygienic sanitation facility and arrangement (individual or community toilets) to all urban population so that no one defecates in the open.
- To develop adequate availability and 100 percent upkeep and management of Public Sanitation facilities in all urban areas like commercial areas, offices, institutions and service centres etc.
- To ensure scientific collection, treatment and safe disposal and establish appropriate and feasible technology of disposal system for human excreta & liquid waste from all sanitation facilities and establish appropriate system of operation & maintenance of the disposal system.

What is CSP?

The CSP is a vision document on sanitation with 20 to 25 years horizon with short term town level action plans for 3-5 years to achieve sanitation goals as per above stated objectives. Broad areas to be covered in CSP are:

1. Awareness Generation
2. Sanitary Choices and Technical Options
3. Operation & Maintenance and Service Delivery Systems
4. Institutional Responsibilities

5. Reaching The Un-Served And Poor Households
6. Legal and Regulatory Institutional Responsibilities
7. Planning and Financing
8. Capacity Building & Training
9. Implementation Management
10. Monitoring & Evaluation and Supervision.
11. City Reward Schemes

Approach and Methodology:

The approach followed in developing CSP manual was done in consultation with the Ministry of Urban Development (MoUD), Government of India.

Content of the Manual and Intended Users:

This manual basically designed for small and medium towns. This has been prepared based on a variety of sources as described earlier and recognises the inherent capacity limitations and information availability constraints faced at the ULB level. Further, while the Manual provides a generic process approach to prepare City Sanitation Plan and complements this with a set of useful model templates. In the context of the dynamic and evolving nature of the PPP landscape and complex nature of issues confronting the MSWM sector in India, this document definitely provides a useful starting point and would need to be reviewed periodically to keep the content relevant.

This manual has been prepared from the perspective of an Urban Local Body and is intended as a high-level guide for to prepare CSP and its strategies so as to develop, structure and implement PPP projects in MSWM at the ULB level. This Manual has three primary audiences: a) Practitioners responsible for implementing PPP projects at the local and state government level, b) Policy makers responsible for conceptual clarity on PPPs and for developing sector level PPP programs and c) the support eco-system of Transaction

advisors and other agencies that work with Practitioners and policy makers in conceptualising and implementing PPPs in the MSWM sector.

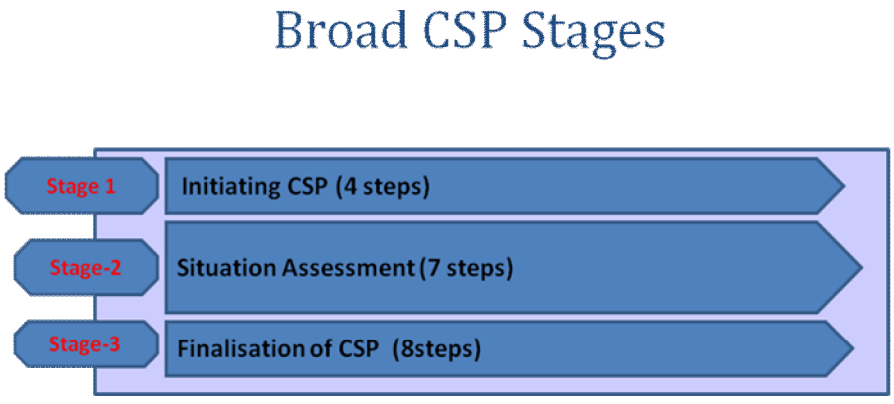
This Manual has following primary target users, in sanitation sector.

- CSTF members, executive Committee members
- Operations Manager
- Accountant
- Technicians
- Advisors and other agencies that work with Practitioners and policy makers

Chapter: 1 - CSP Preparation Process and stages

CSPs basically will detail out how the city plan to deliver the sanitary outcomes defined in NUSP to ensure a well collaborated approach engaging all stakeholders including governmental and nongovernmental service providers. Broad stages in CSP preparation includes following major tasks:

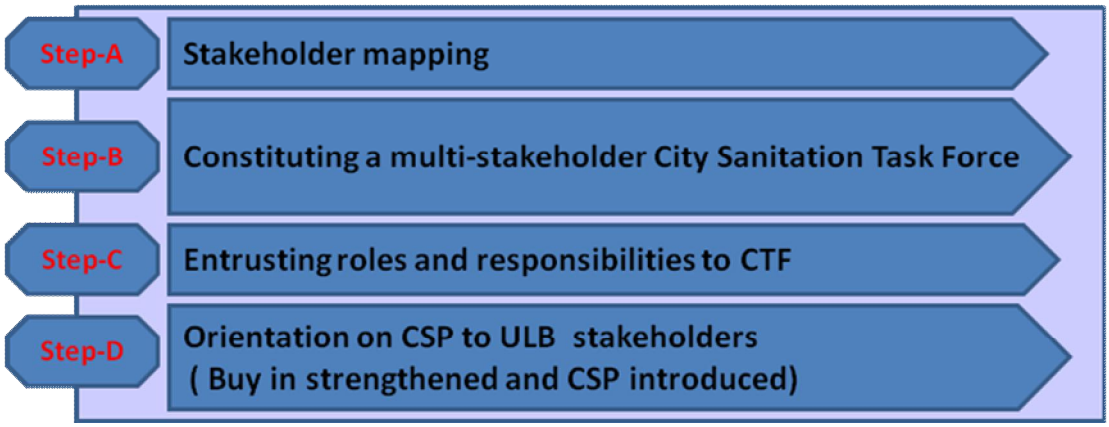
This Chapter introduces a step – by – step CSP preparation process that ULBs could follow. Following diagram summarizes the process in a nutshell.



Preparatory Phase

Stage 1: Initiating CSP

Stage:1Initiating CSP



The preparatory phase would form the base for the detailed plan of action to be prepared for making the CSP. A suggested schedule of information is described below1.

NOTE: Primary data collection and analysis should not be carried out at this stage and only information from reliable secondary sources such as City Development Plan/Master Plan/existing database of ULB should be used.

1. **Physical characteristics of the city-** Topography, area and geographical features

2. **Demographic and social profile –**City and slum population growth trends, estimated future population and proportion of low income population, migration estimates, density patterns.

3. **Economic profile -** Economic base, income level and types of employment, affordability2 to pay,extent of urban poverty (BPL, APL)

6. Local conditions of soil, topography and other features that affect sanitation in the city.

5. **Physical Infrastructure:** Spatial coverage and adequacy of water supply, sewerage (as perstandard of CPHEOO norms), drainage, solid waste management, carrying capacities of existing networks and proposals for augmentations. This can be reported ward/zone wise.

6. **Existing Institutional framework for intervention in sanitation**

a. Details of existing State laws related to slums applicable to the city

b. Institutions engaged in slum improvement i.e. Slum Clearance Board, ULBs, SUDA/DUDA, Housing Boards, Development Authorities, District Collectorate, NGO, CDS/Neighborhood societies etc. Assessment of Organizational capacities.

c. Community participation arrangements (Identification of city level Lead NGOs/UPA Cell and the existing community mobilization and development structure (Refer separate Community Participation Guidelines).

7. **Review of existing policies, programmes and projects for safe sanitation provision**

a. Impact of existing slum improvement policies/programmes (effectiveness, coverage, targeting, institutional set up ,and sustainability of programmes)

b. Evaluation of different programmes- status and review of implementation of national programmes at city level i.e. BSUP/IHSDP and Integrated Low Cost Sanitation Programme/City Sanitation Plans (if any) etc.

c. Review of existing Master Plan policies for slums, CDPs, review of planning standards, Development Control Regulations prevalent in the city and applicable for slum improvement or redevelopment.

d. Provisions for unorganized sector – SJSRY –livelihood plans, if any

e. State of Municipal Financial (budgets of last 5 years) and allocations for urban poverty alleviation.

f. Social welfare schemes of State/city governments especially health and education programmes (e.g. Mission convergence) at government level, review of ongoing and completed urban poverty related programmes of different departments.

Based on the above analysis, the ULB should define key output parameters and performance indicators that need to be achieved.

Stakeholder Mapping

At the ULB level, every municipal authority within the territorial area of the municipality is responsible for implementation of the provisions safe sanitation which is friendly to environment and MSW 2000 rule (any infrastructure development for collection, storage, segregation, transportation, processing and disposal of municipal solid waste).

Given the city context, a cross section of important players from the city; like NGOs, academics, journals, local councilors, industry owners, consultants, representatives of private sector, members of institutions, organizations, individuals, etc., who can influence society needs to be identified and listed. Especially NGOs and civil society/social workers often take lead in forming Ward Committees and community participation. The NGOs can use existing contacts with the Municipality and other influential bodies to ensure maximum support. These organizations can involve unemployed youth in the area for various jobs such as managing collection of garbage, helping the organizers in conducting road-shows, etc. They can also organize/sponsor Clean City campaigns. Communities and the Public in general could potentially play a vital role. Conservancy workers at the local level are an important category of stakeholders. It is critical that initiatives taken at the ULB level include aspects relating to safety, hygiene and working conditions of conservancy workers.

NUSP mention the formation and establishment of an institutional platform for stakeholders so as to enable their participation in the policy and decision making at city level. The stakeholder workshops will enable consensus building on issues such as, programme objectives, methodology, broad targets, role of stakeholders, NGOs, programme design and implementation of the CSP. It will clearly identify the role of stakeholders at the following levels:-

- City level
- Zone/Ward Level
- Neighbourhood level etc
- Slum (Settlement) Level

The stakeholders workshops (Ref Annexure ----- for format) will discuss the roles and responsibilities between state government, local government, communities, NGOs and role of subsidiaries-in financing, implementation, design, maintenance, etc. who initiates, who executes, who supports and who finances. Ref Indicative list of stakeholders in annexure:…….

City Sanitation Task Force (CSTF) constitution:

Then a multi stakeholder body - CSTF drawing members from these groups in consensus with ULBs needs to be constituted and notified (eg of letter in annexure:) who can constantly support the CSP preparation by analyzing the strengths and competencies required to overcome the current situation and for better sanitation facilities. Refer Annexure 4 and 4.a for more information on CSTF and the workshop. As per the requirement of CSP, major role is to be played by the CSTF in formulation and implementation of CSP.

CSP initiating workshop at ULB level: The planning workshop is a key point in the process. It provides the opportunity to 1) involve all stakeholders in problem analysis, 2) establish a structure for coordinated planning, and 3) agree priorities and assign short-term tasks to team members. It also shows the need to:

1. Develop an improved information base, including improved maps and records where appropriate (Developing a good information base and base maps are necessary for a number of reasons, in particular for drainage planning, mapping existing facilities and for showing the status of various areas. If initial investigation has revealed that some essential information is not available in a useable form, that information has to be developed). Next a detailed reviews of specific services: Though some improvements can be made immediately, in most cases a full review of specific services will be needed before lasting improvements can be made.
2. Review specific services and programmes in order to obtain more detailed information on specific problems identified in the course of the previous stage; and
3. Identification of Pilot projects to test ideas, approaches and technologies before they are introduced on a citywide scale. Because of their relatively small scale, pilot projects can be prepared and implemented fairly quickly.

Preparatory work (Profiling of ULB and preparing city report): The baseline status of Sanitation services reviews the existing sanitation system and gaps, identifies key issues and possible technical options and required investments and analyses possible options for implementing PPP projects in these selected satellite towns. As a preparatory work, a preliminary profiling of ULBs (Refer Annexure 5) will be undertaken using SLB indicators and City Ratings to highlight the open defecation free (ODF) status, sanitation situation, health indicators and current projects. This will also guide further investigation through field visits and primary data collection.

Outputs

- **CSTF Constitution and establish institutional mechanism and a platform for stakeholders for their effective participation and involvement in policy decision making.**
- **Awareness building/brainstorming and consensus building workshops with stakeholders.**

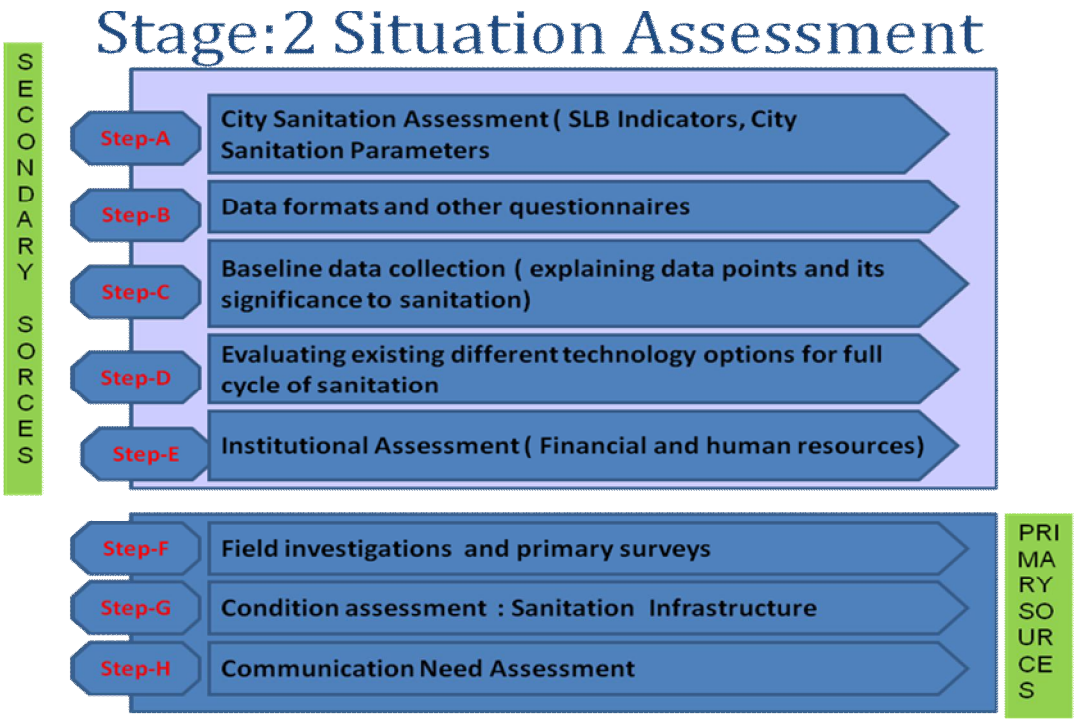
Stage 2: Situation Assessment

The starting point for preparing CSP is to undertake a holistic and thorough sanitation situational analysis covering an assessment on the access to toilets, liquid waste inventorisation including quantum of liquid and solid waste generated & quality of in different spatial units. This is followed by a detailed assessment of the sanitation condition in its full cycle (access, collection, conveyance, treatment and disposal in the given city/town).

This section outlines the key activities to be carried out in conducting a Needs Assessment for provision of safe sanitation condition in a given city , a necessary action for effective sanitation situation of a city. It is important to recognize that aspects of Environmental/

safe sanitation management are inter-related. There are four steps involved in the Needs Assessment stage each of which are described below:

1. Situation Assessment
2. Firming Issues and Gaps
3. Evaluation of Technical options
4. Identification and Prioritisation of Actions



Collection of secondary data: Secondary data collection and review of available data from various sources as per demands of CSP (the officials of City Municipal Corporations, Water Boards, or any other parastatal agencies).

What information are you likely to require?

Your information requirements will depend on who you are and the level at which you are working.

Those working at the local level will require information on the local situation and the

options for intervening in that situation.

Those working at the municipal level, you need sufficient information to be able to compare what is happening in different areas and to link proposed actions in different areas into a coordinated whole. CSP need information on:

the existing situation - what facilities and services exist, how do they perform and who has access to them;

people's attitudes – particularly their views on sanitation and their willingness to pay for improved facilities;

the options for change – including available technologies and their costs;

available resources – including physical, financial, institutional and human resources;

What forms can information take?

Information take a number of forms. It can be:

Spatial Information – providing an indication of **where** things are. Spatial information is best recorded on maps and plans. The routes of sewers, location of Public and Community toilets vis a vis land use and floating population density, Open defecation areas, dumping yards, outfalls of main drains, sludge disposal areas and the extent of areas subject to regular flooding are examples of spatial information.

Quantitative Information - informing you about numbers and/or percentages, for instance the number or percentage of households that have on-plot sanitation facilities.

Qualitative Information – informing you about the quality of a process or service for instance that municipal sweepers come irregularly and do not remove all the solid waste from local waste collection points. Photographs and videos are a particular form of qualitative information. They have the advantages that they are fairly easy to use and are easily accessible to community members.

Definitive Information – in the sense that it defines a particular item, usually by providing a drawing or some other form of illustration to show exactly how a facility is to be built.

What form of information is appropriate to city needs?

Collecting information requires time and effort, which could be put to other purposes.

Key to success in collecting and using information is to make sure that:

- the information is **recognisable** to those who will use it; an
- the resources required to collect and manage it are available.

Local information systems should therefore use qualitative information whenever possible, supplemented by simple maps, graphs and tables where necessary. Information on possible technical options should be kept as simple as possible. Those working at the municipal level require all forms of information. Qualitative information will provide a feel for problems and people's perceptions of them. Spatial information will tell you where services are in relation to the people who need them.

Quantitative analysis of subjects such as sanitation coverage in different areas, income levels and willingness to pay for services will help you to make decisions on priority areas and the interventions that you might make to improve services. Information on the various sanitation technologies will help you to choose between sanitation options and then implement the preferred option successfully. It is necessary to present information in a way that will convince that proposals are sound. In order to allow comparison, information used for purposes will usually have to be quantitative.

Combining and developing different forms of information

More detailed information, including all four basic types of information is then likely to be required. Different types of information must be combined in a way that allows problems and their causes to be understood so that solutions can be developed.

Once recorded on plans, spatial information can be analysed to produce quantitative information on services. For instance, the lengths of sewers shown on a plan can be converted in to lengths and its geographical spread in terms of area.

List of maps to be prepared

1. City base map , growth pattern of the city, density and landuse
2. Hazardous prone HHs (Flood prone etc)

3. Water supply connections (HHs having individual water connections- pl show all houses in one color who have water connections)
4. Toilets (HHs having individual toilets - pl show all houses in one color who have toilets)
5. Thematic maps: Public toilets/ Community toilets
6. Sanitation infrastructure showing sewerage lines, problem areas, STPs, dumping and MSW treatment plants etc..
7. Map showing all the slum pockets in the city base map demarcating the municipal boundary and ward boundaries

Primary data collection and sampling: Supplementary data collection to a limited extent through rapid field surveys, case studies, consultations, transacts walks, FGDs, etc. The data will be collected as per formats/templates and questionnaires after brief orientation to the stakeholders. Random stratified sampling in typical cases (slums, schools, wards commercial places, public latrines, surface drains, solid waste arrangements, industries, health and educational Institutions etc.) evenly distributed all over the town to cover all representative types of situations.

Condition assessment: Choices of toilet in the city and their effectiveness along with pictures on super structure, below ground, design models and materials used for different uses like residential, industries, public spaces and new areas. Field tests facilitation (soil percolation, waste water effluents, water bodies contamination) in critical points in drains, ground water after a reconnaissance survey.

Ward profiling as per City Sanitation Ranking parameters: City as a number of spatial units will look at indicators pertaining to the practice of open defecation, access to sanitation (individual, community and public), collection, treatment and disposal of solid and liquid wastes, proper upkeep and maintenance of the sanitation infrastructure, clear institutional roles and responsibilities and improvements in health and environment as per the “City Sanitation Rating”.

Review/study of the current practices: This includes a review of sector strategies in water , sanitation and solid waste management at state and city level. DPRs prepared on these sectors will be studied in detail and analysed. Also regional and state urban strategies to know the dynamics of urbanisation pattern will be looked in to.

Developing a situation analysis report: The situation analysis, prepared by taking into consideration the ground realities, local conditions, and assessment of the present sanitation situation. It will include inputs from all the above activities with the details of existing household sanitation arrangements, public sanitary conveniences, wastewater disposal, solid waste management and water supply. The report will also include an analysis of the ULB legal framework and byelaws, financial analysis of the ULB, data on key public and environmental health, user charges, willingness to pay, etc.

Formulation of vision: This involves understanding the major aspirations with respect to urban development in the State through consultations and building an overarching vision that may be appropriate to the articulations. This involves following;

- Secondary information, data analysis and report review
- Brainstorming with key stakeholders and focus groups
- Understanding visions of concerned sectors and other constituents e.g., cities and development agencies and concerned authorities.

Development of strategy: This involves understanding the major issues of the sector, major priorities laid down and an assessment of how the current arrangements are working with respect to urban development in the city. Also, the key strengths, major weaknesses, potential opportunities as well as likely threats would also be analysed to move towards the identification of the action areas/intervention areas that form the strategy development. This involves:

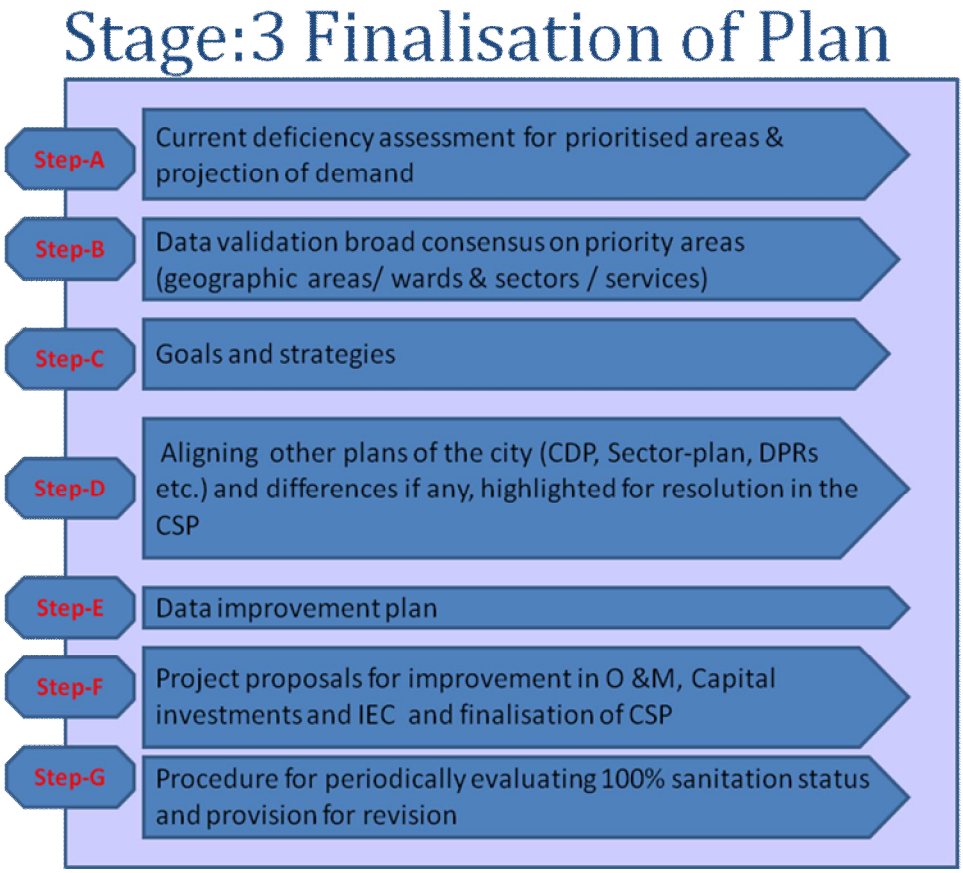
- Completion of information analysis, even with quick estimates, and review of current policies and priorities
- Consultations with key stakeholders/ focus groups concerning
- Detailed discussion with departments/ agencies/ cities/ authorities

Preparation of draft CSP: Finalization of CSP along with recommendations based on the situation and solutions for making city open defecation free and totally sanitized, public toilet and community toilets models and operational models; proto - type design recommendation for all typical situations, waste disposal mechanisms, starters for sewerage layouts and estimation of requirement in terms of capacities, quantity and finances.

- Set priorities for action and investment, and explain clearly how these priorities have been established, and
- Have realistic ambitions, in other words the targets it sets must really be achievable within the specified time frame. Achievement of the first year's objectives will build confidence amongst everyone involved. Conversely, if targets are set too high and not achieved, however, people will lose confidence in the plan and may ignore it.

It is important that both municipal and state authorities formally endorse the plan so that from now on, all concerned departments and agencies work within the framework it has established.

Preparation of implementation road map: This involves identifying and documenting interventions for the improvement of sanitation. The cost estimates of such interventions (only ball park figures); the institutional responsibility as well as broad timelines for implementation will be indicated in the CSP.



Stage 5 – Implementing the Plan

Links between planning and implementation. Note the importance that it gives to *monitoring* and evaluation of plan outcomes and the use of that information to review progress with the plan and evaluate its effect from time to time. Source: TAYLER et al. (2000)

In one sense, implementation is the end of the plan process. However, this should not be seen as an end, but rather as a beginning. There'll be a lot of learning from the process of implementation and it will be important that the lessons learned are fed back into future initiatives. See alsoexecuting a project for more info.fter the plan has been implemented, it is important to monitor and evaluate whether it is having the desired effect and whether it has been implemented properly. Links between planning and implementation. Note the importance that it gives to *monitoring* and evaluation of plan outcomes and the use of that

information to review progress with the plan and evaluate its effect from time to time. Source: TAYLER et al. (2000)

After the plan has been implemented, it is important to monitor and evaluate whether it is having the desired effect and whether it has been implemented properly.

Communication gap and needs assessment:

Sanitation1, despite being a basic human need and a critical need for improved quality of life, has not got the necessary attention in the past. Also, the different aspects of sanitation starting from collection of human feces to the safe disposal (the whole process cycle) have seen different stakeholder institutions being made responsible, and thus presenting a splintered picture of the situation

[1] For the purpose of this document, sanitation is defined as the safe management of human excreta. It includes both hardware (e.g. latrines and sewers) and software (e.g. regulatory and policy framework, advocacy and adoption of good hygiene practices). The full cycle of sanitation would thus include safe sanitation, including sanitary collection and safe disposal of human feces, i.e. the full process cycle of sanitation management.

For the purpose of this document, sanitation is defined as the safe management of human excreta. It includes both hardware (e.g. latrines and sewers) and software (e.g. regulatory and policy framework, advocacy and adoption of good hygiene practices). The full cycle of sanitation would thus include safe sanitation, including sanitary collection and safe disposal of human feces, i.e. the full process cycle of sanitation management.

The research stage of the process was undertaken through eight interdependent steps.

Step 1: City Specific Stakeholder Mapping which included:

- ✓ Segregating Key Stakeholder Categories for e.g
  - Residents (categorized into various Socio-Economic (SEC) Groups and thereafter on demographic parameters like age, sex, levels of literacy, etc.)
    - Lower Income Groups (includes slum dwellers)
    - Middle Income Groups (includes building owner's / resident's welfare associations)
    - High Income Groups
  - Media
    - Print (news papers, magazines, internet, newsletters, etc.)
    - Audio (radio)
    - Audio-visual (television, internet)
    - Visual (posters, signages, billboards, leaflets, etc.)
    - Folk (theatre (jatra), songs, street plays)
  - Politicians
    - Members of Legislative Councils (both from the ruling as well as opposition parties)
    - Members of Legislative Assembly (-do-)
    - Members of Parliament (-do-)
  - Religious Leaders[2]

[2] N.B.: during the course of the field visits in April-May 2009 and November 2009, this category of stakeholders could not be contacted. However, at the detailed strategy development and implementation phase, it may be important to take the views of this category of stakeholders into account.

- Academicians
- Civil Society Organizations
- Industry & Commercial Organizations[3]
- Educational Institutions[4]
- Others

Step 2: Understanding stakeholder's levels (degree and nature) of awareness, knowledge, attitudes, perceptions, opinions and beliefs and behaviour vis-à-vis the issue of sanitation and its association with related issues like health, hygiene, civic responsibilities, etc.

- ✓ For each category of stakeholder identified above, their degree and extent of awareness and about the concept of sanitation was assessed. Gaps between the stakeholder's extent of knowledge and awareness and that what the DHUD wishes to address through the sanitation policy / take into cognizance whilst developing the sanitation policy was identified.
- ✓ Given the extent of knowledge and awareness, attempts to understand their particular attitudes, beliefs, perceptions, opinions and behavior around sanitation and its related issues was attempted to be identified. These inputs played a crucial role for developing appropriate messages in the communications strategy.

Tools and Techniques for Receiving Community Feedback

Tools	What is the technique	When and where is it applied
Social Map	Social map is a map that is prepared while doing a community feedback survey by the people of the community. The focus of the map is on the depiction of roads, drainage systems, schools, drinking water	It is applied when community feedback is required when understanding the broad facets of settlement pattern, infrastructure, in wards or slums where people's perception of what is more

[3] -do-
[4] -do-

	facilities, source of drinking water, community infrastructure etc. It focuses on the spatial dimension of people's realities. It is a map of a particular locality, ward or a group of wards which depicts all features of infrastructure, right from road networks to school, post offices and other community assets. It is not drawn to the scale and is largely done by the local people. It depicts what the local people believe is relevant and important for them	important or relevant to them is reflected in the map. Helps in developing broad understanding of physical aspects of a ward or a slum.
Resource Map	Resource map is very similar to the social map and it helps in mapping the various aspects related to natural resource management in the locality. It depicts, land use, command area, land tenure, ownership , water bodies, rivers, drainage, various soil and water conservation measures , denuded areas etc.	This is also done by the local people, since their understanding of the local area is accurate. They provide spatial structure for discussion and analysis. It helps analyse problems, looking at solutions and planning for action. It helps generate discussion on natural resources, their entitlement, utilisation etc. It is particularly helpful in planning interventions for natural resource preservation.
Transect	Transect is a cross sectional representation of different ecological zones and their	It helps in first glance understanding of slums with respect to their settlement

	comparison against various parameters including, topography, land type, land usage, access, infrastructure, problems, opportunity and solutions	pattern, living pattern, resource allocation and building initial rapport with the community. It helps in overall understanding of slums with respect to infrastructure, community assets, type of slum, the land etc.
Matrix, scoring and ranking	Matrix is a tool with a set of columns and rows to assess the situation of more than two parameters related to infrastructure. Performance of each component against selected indicators needs to be represented in respective rows. After completion of exercise, discussions need to be held on variations in performance of different parameters and reasons for the same.	This is used for assessment of any kind of situation on different component and different parameter. This tool may be administered to understand the issues related to infrastructure of the slum areas.
Service and Opportunities map	A Services and Opportunities Map represents all the services – infrastructure and institutional that are there in a particular locality. The Slum is represented in the middle of the map in a small circle representing the locality and the services are mentioned all around. This is done by the local people again gives an idea of the people's perspective in terms of what type of	This is done while mapping infrastructure and services of the locality /slums. Ideal for slums and ward level feedback of the status /needs of the people of the slums.

	services and infrastructure that they think is important.	

Step 3: Determining factors that influence stakeholders' awareness, knowledge opinions, perceptions, beliefs. For example:

- ✓ One stakeholder group affecting another / many others (for example media, politicians, civil society organizations affecting other stakeholder groups)
- ✓ Opinion leaders
- ✓ Levels of literacy (in individuals of every stakeholder group)
- ✓ Socio-economic environment in which the stakeholder group functions, etc.

Step 4: Understanding stakeholders' groups influence (*degree* – high, moderate, low; and *nature* – positive, neutral, negative) on the policy development and policy implementation process

Step 5: Understanding underlying factors behind the practice of open defecation and other unhygienic sanitation practices

This included a rapid assessment of the cultural, religious, contextual, legal and institutional factors that are / may be relevant causes on unhygienic sanitation practices.

OBJECTIVES OF THE PROPOSED COMMUNICATIONS STRATEGY

Based on the findings from the research phase, the main objectives of the proposed communications strategy would be:

(i) To facilitate the development of a holistic understanding of "sanitation" amongst service providers and primary stakeholders (i.e. the citizens) and focus on what constitutes "good sanitation practices" at the end user level (i.e. at the level of citizens especially the urban poor / slum dwellers).

(ii) Provide clarity to the stakeholders (i.e. the service providers – ULBs, PHED and end users i.e. the citizens) about their respective the roles and responsibilities vis-à-vis management of human excreta and liquid waste

(iii) Involve and engage opinion influencers (viz. political and religious leaders, academicians, media personalities, eminent civil society representatives and others) to promote sanitation consciousness; and very importantly,

(iv) To foster a culture of consultations and communications among front line sanitation service providers (i.e. city level officials from various departments) and state level officials (as opposed to the use of communications in one-off or sporadic events).

The subsequent sections of CAN should outline the possible measures that could be adopted to address the challenges and objectives mentioned above. Broad messages for each stakeholder group and proposed message intent and few examples should be developed as an outcome of CAN.

Key findings of Communications needs assessment to be captured based on the following:

- Secondary information collection, collation and analysis
- Field visits
- Stakeholder consultations (in person and telephonically)
- Assessment of stakeholders' knowledge, attitudes and behaviours vis-à-vis sanitation
- Institutional assessment to ascertain ability to plan and implement communication campaigns / activities

Target audiences for the comm. strategy

- Primary –
  - Citizens (especially residents of urban slum settlements and members of lower and middle income groups)
  - Service providers – officials of ULBs, PHED and other parastatals
- Secondary –

- Media
    - Civil Society Organizations
    - Opinion influencers (local and state level politicians, eminent personalities, religious leaders)
- A set of powerful mnemonics[5] related to sanitation could be one of the ways of beginning the process of developing sanitation consciousness. The suggested messages[6] for target stakeholders that would need to underpin all communication activities recommended can be put in following format:

Stakeholder Group	Message Intent	Example of Messages that could be used (in English)	Message Translation (in locale language)

[5] Mnemonic refers to a short rhyme, phrase, or other mental technique for making information easier to memorize and recall.

[6] Please note that these messages have been provided as an example only. In the field of communication strategy development, message development, testing and dissemination is a rigorous scientific exercise requiring multiple rounds of stakeholder interviews and consultations before selecting and finalizing the messages.

Annexure: 1 Data Formats (Will be enclosed in CD)

Annexure: MOUD check List

An aid to Cities for ensuring quality while finalizing the draft CSP for submission

This Checklist will help cities assess the quality of the draft version of the CSP. The indicators in the Checklist are drawn to measure whether the key dimensions of sanitation are addressed in the contents; and ensure that the process followed in the preparation of the CSP was consultative and has full ownership of the city stakeholders. This is a *self-assessment* and needs to be done in-house by the ULB. The results should indicate the gaps in contents and process that need to be remedied – and thereby ensure that CSP is ready for submission, and presentation as one of the model CSPs prepared for implementation under the NUSP.

The Checklist is in two parts: CONTENT and PROCESS. In the city self-assessment, please fill in YES or NO in the relevant column, and provide remarks in the column.

1. CONTENT SELF-ASSESSMENT

TABLE (1): CSP *CONTENT* SELF-ASSESSMENT			
	Item	**Yes/No**	**Remarks/ Status**
	Baseline Data Collection & Situational Analysis in terms of identification of short term or mid – term or long term measures		
	Has the city carried out a baseline data collection (secondary and primary) and Situation Analysis of different aspects of sanitation viz:	(Score overall "Yes" if at least nine indicators below score "Yes", else "No")	
	i. Access to household level sanitation arrangements in general residential and slum areas		

TABLE (1): CSP *CONTENT* SELF-ASSESSMENT			
	Item	**Yes/No**	**Remarks/ Status**
	ii. Community and Public Toilets – location and status		
	iii. Safe collection and conveyance of human excreta (on-site and sewerage) – infrastructure and management (including status of de-sludging services)		
	iv. Treatment and safe disposal of human excreta		
	v. Solid waste collection, transport and safe disposal		
	vi. Drainage and flooding		
	vii. Drinking water quantity, quality and coverage		
	viii. Institutional arrangements and finances for capital creation and O&M management of environmental services (water, sanitation, solid waste, drainage)		
	ix. Current population and socio-economic categories; and projections by different categories		
	x. Arrangements and practices of commercial, public and other institutions in respect of sanitation and solid wastes		
	xi. Maps and physical features of settlements		

TABLE (1): CSP *CONTENT* SELF-ASSESSMENT			
	Item	**Yes/No**	**Remarks/ Status**
	(wards, slums, etc.) and key city infrastructure (water, sewerage, drainage, roads, treatment plants, water and sewage pumping stations, etc.)		
	xii. Data on health-related indicators of sanitation and water supply		
	xiii. Other important and locally relevant details (specify)		
	Has the draft CSP identified specific data gaps and developed a plan for detailed data collection?		
	Institutional Roles and Issues		
	Has the city identified an institutional home/s for sanitation planning, implementation, monitoring and regulation?		
	Has the draft CSP proposed specific actions to resolve institutional gaps and overlaps for:	(Score overall "Yes" if at least five indicators below score "Yes", else "No")	
	a. Planning and financing		
	b. Creation of physical infrastructure		
	c. O&M Management		
	d. Training and Capacity Building		

TABLE (1): CSP *CONTENT* SELF-ASSESSMENT			
	Item	**Yes/No**	**Remarks/ Status**
	e. Monitoring of Outcomes		
	f. Communications		
	g. Regulation		
	City-wide Sanitation Campaign		
	Does the draft CSP contain a plan for the launch of a 100% Sanitation Campaign in the city?		
	Technology Options and City-wide design		
	Has draft CSP detailed and evaluated different technology options (on or off-site as well for collection, transport and safe disposal – i.e. full-cycle) for sanitation?		
	Do the proposed sanitation interventions (rehabilitation, retrofitting or new investments) consider the whole city? (not just a part thereof)		
	Urban Poor and Unreached		
	Has the draft CSP identified the locations or settlements of the urban poor and other unreached population segments with have no or limited access to sanitation?		
	Does the draft CSP identify actions for assisting unreached/poor households with individual, community or public sanitation facilities (in that order); and efficient disposal from these facilities?		

TABLE (1): CSP *CONTENT* SELF-ASSESSMENT			
	Item	**Yes/No**	**Remarks/ Status**
	Has the draft CSP identified or proposed sources of financing the CSP (schemes, grants, loans, etc.) for extending access to sanitation and related behavior change communication activities?		
	Financing and O&M management		
	Does the draft CSP consider an appropriate time-frame and spatial and demographic dimensions to remain relevant (at least for the 12th Five Year Plan period, even if investment numbers are indicative or work-in-process)?		
	Were the different sanitation options (hardware plus software) evaluated on the basis of financial viability? (i.e. Cost Benefit Analysis done)		
	Whether O&M implications of each of the investment options evaluated i.e. implications on tariff increases and willingness to pay for services; personnel number and capacities etc.?		
	Has the draft CSP considered options for partnering with private sector, NGOs etc. for implementation or O&M management of sanitation facilities?		
	Expedient and Other Actions		
	Has the draft CSP identified the steps for		

TABLE (1): CSP ***CONTENT*** SELF-ASSESSMENT			
	Item	**Yes/No**	**Remarks/ Status**
	implementing improved enforcement of existing laws and provisions? (e.g. prohibiting hazardous discharge of untreated sewage, scrutiny about sanitation arrangements before issue of building permits)		
	Have gaps and overlaps in existing regulations identified for resolution? (e.g. provisions in development regulations or building bye-laws to promote sanitation including safe disposal)		
	Does the draft CSP have a plan for *improving septage management*?		
	Whether the draft CSP includes an Implementation Plan and Timeline?		
	Whether the draft CSP has a disaster preparedness component?		
	Whether the draft CSP identifies Short term/Medium Term/Long Term Measures to achieve identified outcomes?		
	Does this draft CSP leads to improvement of service levels with respect of SLB related to MSW/Storm Water Drainage/Solid Waste Management?		
	Outline of expected improvements on rating as per		

TABLE (1): CSP *CONTENT* SELF-ASSESSMENT			
	Item	**Yes/No**	**Remarks/ Status**
	NUSP?		

GUIDE FOR SELF-ASSESSMENT OF CSP CONTENT

PLEASE ENSURE THAT THE DRAFT CSP SCORES:

*** AT LEAST ONE "YES" IN EACH OF THE 7 SECTIONS IN THE TABLE**

AND

*** AN OVERALL MINIMUM SCORE OF 12 "YES" IN THE TOTAL OF 18 INDICATORS.**

a. PROCESS SELF-ASSESSMENT

TABLE (2): CSP *PROCESS* SELF-ASSESSMENT			
No	**Item**	**Yes/No**	**Remarks**
I	**Stakeholder Participation**		
1)	A multi-stakeholder City Sanitation Task Force has been formed and has met at least sufficient consultations have been held?		
2)	All agencies working in the City (ULB, State Government, NGOs, private sector involved in planning, implementation, management or		

TABLE (2): CSP ***PROCESS*** SELF-ASSESSMENT			
No	**Item**	**Yes/No**	**Remarks**
	regulation of environmental services (water, sanitation, solid waste, drainage), representatives of different community groups, and key waste-generating segments have been consulted in the process of preparation of the draft CSP?		
3)	Number of Area Sabhas/Mohallas/RWA's etc. consulted?		
4)	Whether sufficient consultations have been held with urban poor groups in the city? Indicate the number.		
II	**Ownership of the Draft CSP**		
5)	Has the draft CSP gone through an appropriate process of "appraisal" or "agreement" at the ULB and the City Sanitation Task Force?		
6)	Is the draft CSP aligned to other plans of the city (CDP, Master-plan, Development Plan, etc.) and differences if any, highlighted for resolution in the CSP?		
7)	Are there are any current or pending/ proposed projects (under various schemes) that are in conflict with the recommendations and decisions in the CSP? Have these been highlighted for resolution?		
III	**Communications**		
8)	Has the CSP process formally recognized the importance of communicating with		

TABLE (2): CSP ***PROCESS*** SELF-ASSESSMENT			
No	**Item**	**Yes/No**	**Remarks**
	stakeholders, right from the beginning of the process, and drawn up as a *Communications Plan*?		
9)	Have the basic steps of the communication plan started being implemented?		
10	Level of awareness in the city about CSP (Indicate Yes/No)?		
IV	**Links with Related Exercises**		
11)	If the city is participating in the Service Level Benchmarking (SLB) exercise, have the relevant indicators been measured and uniformity ensured between that and the CSP?		

GUIDE FOR SELF-ASSESSMENT OF CSP PROCESS – followed including evidences, solutions suggested & cost thereof, financial projections as well as measures to meet them.

PLEASE ENSURE THAT THE DRAFT CSP SCORES:

*** AT LEAST TWO "YES" IN SECTIONS I AND II, AND AT LEAST ONE "YES" IN SECTIONS III AND IV IN THE TABLE.**

Annexure: A

City Sanitation Task Force (CST) : Constitute a multi-stakeholder CST comprising representatives from :

- Agencies directly responsible for sanitation including on-site sanitation, sewerage, water supply, solid waste, drainage, etc including the different divisions and departments of the ULB, PHED, etc;
- Agencies indirectly involved in or impacted by sanitation conditions including representatives from the civil society, colonies, slum areas, apartment buildings, etc,
- Eminent persons and practitioners in civic affairs, health, urban poverty,
- Representatives from shops and establishments,
- Representatives of other large institutions in the city (e.g. Cantonment Boards, Govt. of India or State Govt. Enterprise campuses, etc.),
- NGOs working on water and sanitation, urban development and slums, health and environment,
- Representatives of unions of safai karamcharis, sewerage sanitary workers, recycling agents / kabaris, etc
- Representatives from private firms/contractors formally or informally working in the sanitation sector (e.g. garbage collectors, septic tank de-sludging firms etc.)
- Representatives from educational and cultural institutions
- Any other significant or interested stakeholders

The City Sanitation Task Force will be responsible for:

- Launching the City 100% Sanitation Campaign
- Generating awareness amongst the city's citizens and stakeholders
- Approving materials and progress reports provided by the implementing agency, other public agencies, as well as NGOs and private parties contracted by the Implementing Agency, for different aspects of implementation (see below).
- Approving the CSP for the city prepared.
- Undertaking field visits from time to time to supervise progress

- Issue briefings to the press / media and state government about progress
- Providing overall guidance to the Implementation Agency.
- Recommend to the ULB fixing of responsibilities for city-wide sanitation on a permanent basis

Annexure 4: Stakeholder participation

S No	Level of stake holder Participation	Possible stakeholder
1	City Level	Municipal councillors Municipal administrative and technical staff NGOs/ NGO representatives/private non profit organisations working on slum issues. Intermediaries/subject experts on slum issues/academicians. Various public authorities with jurisdiction over the area. Ie District administration, TCPO, Urban Development authorities Private land owners, private developers/real estate companies. Foundations, micro finance institutions, and other financial entities. Private firms providing services in slums.
2	Zone/ward	Ward Committes, CBOs, CDS and NHGs. Various public authorities with jurisdiction over area ie District administration, U.DA, slum rehabilitation authorities. Cooperatives in slum areas. Municipal councillors. Municipal administration and technical staff. NGOs, Ngo reps. Private land owner on whose land slum is located. Private firms providing services in slum areas

3	Slum settlement level	The slum dwellers or groups of slum residents to be benefitted from program. Municipal councillors. Municipal administration and technical staff Community based slum development organisations. NGOs and NGO representatives
4	Neighbourhood level	The slum dwellers or groups of slum residents to be benefitted from program. NGOs and NGO representatives. Community based slum development organisations Ward Committes, CBOs, CDS and NHGs. Municipal councillors. Municipal administration and technical staff Private land owners.

Annexure: City sanitation Ranking Parameters and Methodology

TABLE (1): INDICATIVE OBJECTIVE RATING CHART FOR SANITATION IN CITIES (DRAFT)		
No	**INDICATORS**	**Points***
1	**OUPUT-RELATED**	**50**
A	**No open defecation sub-total**	16
i.	Access and use of toilets by urban poor and other un-served households (including slums) - individual and community sanitation facilities	4
ii.	Access and use of toilets for floating and institutional populations - adequate public sanitation facilities	4
iii.	No open defecation visible	4
iv.	Eliminate Manual Scavenging and provide personnel protection equipment to sanitary workers	4
B	Proportion of total human excreta generation that is safely collected (6 points for 100%)	6
C	Proportion of total black waste water generation that is treated and safely disposed off (6 points for 100%)	6
D	Proportion of total grey waste water generation that is treated and safely disposed off (3 points for 100%)	3
E	Proportion of treated waterwater that is recycled and reused for non potable applications	3
E	Proportion of total storm-water and drainage that is efficiently and safely managed (3 points for 100%)	3
F	Proportion of total solid waste generation that is regularly collected	4

TABLE (1): INDICATIVE OBJECTIVE RATING CHART FOR SANITATION IN CITIES (DRAFT)		
No	**INDICATORS**	**Points***
	(4 points for 100%)	
G	Proportion of total solid waste generation that is treated and safely disposed off (4 points for 100%)	4
H	City wastes cause no adverse impacts on surrounding areas outside city limits (5 points for 100%)	5
2	**PROCESS-RELATED****	**30**
A	M&E systems are in place to track incidences of open defecation	4
B	All sewerage systems in the city are working properly and there is no ex-filtration (Not applicable for cities without sewerage systems)	5
C	Septage / sludge is regularly cleaned, safely transported and disposed after treatment, from on-site systems in the city (MAXIMUM 10 marks for cities without sewerage systems)	5
D	Underground and Surface drainage systems are functioning and are well-maintained	4
E	Solid waste management (collection and treatment) systems are efficient (and are in conformity with the MSW Rules, 2003)	5
F	There is clear institutional responsibility assigned; and there are documented operational systems in practice for b)/c) to e) above	4
G	Sanctions for deviance on part of polluters and institutions is clearly laid out and followed in practice	3
3	**OUTCOME-RELATED**	**20**
A	Improved quality of drinking water in city compared to baseline	7
B	Improved water quality in water bodies in and around city	7

TABLE (1): INDICATIVE OBJECTIVE RATING CHART FOR SANITATION IN CITIES (DRAFT)		
No	**INDICATORS**	**Points***
	compared to baseline	
C	Reduction in water-borne disease incidence amongst city population compared to baseline	6
* The marks for the above indicators will be revised every two to three years. Over time, indicators about more stringent conditions e.g. no-urination, or spitting in open/public spaces, etc. will be introduced as indicators. The weights accorded to each category and specific indicators will also be revised. ** In this context, bigger cities may consider instituting good practice systems that comply with ISO (International Standards Organization) and/or BIS (Bureau of Indian Standards) process systems.		

On the basis of the above rating scheme, cities can be placed in different categories as presented in below.

Table (2): City Colour Codes: Categories		
No.	Category	Description
1	Red	Cities on the brink of public health and environmental "emergency" and needing immediate remedial action < 33
2	Black	Needing considerable improvements 34-66
3	Blue	Recovering but still diseased – 67-90
4	Green	Healthy and Clean city – 91 – 100

Annexure: Check List for Collecting Data for City Sanitation Plan during Reconnaissance Visit

I Base Maps

1. Map showing ward boundaries with population
2. Map showing zone wise boundaries with population
3. Map with location of notified and non-notified slums
4. Map showing location of different types of areas by activities (industries, commercial activity, recreational activity
5. Map showing location of public and community toilets
6. Map showing open defecation areas
7. Maps showing water supply network, sewerage network, storm water drainage network and SWM facilities
8. Map showing location of water bodies
9. Mapping Drain outfalls, STP, Dumping yard.

II Secondary Information

1. District census handbook
2. Data on access to services from census and NSSOS studies
3. CDP for the city
4. Master Plan for the City
5. DPRs for Water Supply, Sewerage including STPs, Sanitation, Storm Water Drainage, SWM, Environment including water bodies and Slum Development
6. Data on number of water bodies and extent of pollution
7. Data on extent of grey water generation, collection and treatment and a comparative assessment with sewage waste
8. Data on number of STPs, volume of waste generated and treated, extent of reuse and recycle of waste water

9. Arrangements for septage treatment
10. Data on access to toilets by type (connected to sewerage, septic tanks, pits) and by wards – in terms of households and properties
11. Data on number of notified and non-notified slums by wards along with population and access to services
12. Data on community toilets by wards and by slums
13. Data on public toilets by wards and by type of areas (residential, industrial, commercial etc.)
14. Data on manual scavenging practices and areas
15. Data on length of sewerage network and percentage of area and population covered by sewerage network by wards
16. Data on length of drainage network , types of drains, location of drainage outfalls and impact areas
17. Type of existing technological choices and feasibility of the same
18. Number of government and private primary, secondary and higher secondary schools and the sanitation status for both boys and girls in terms of number and type of toilet facilities
19. Mapping of key institutions along with roles and responsibilities with a specific focus on sanitation
20. Organogram for each key institution
21. Data on programmes and schemes implemented by various institutions with special focus on ULB schemes and sanitation schemes
22. Existing regulatory arrangements for sanitation
23. Number of workers engaged in sanitation
24. Extent of cost recovery and user charges
25. Type of O&M system
26. Monitoring and evaluation arrangements for sanitation
27. Complaint registration and grievance redressal mechanisms
28. Special focus on historical monuments and major recreation areas

29. Data on health indicators with a special focus on water and sanitation related diseases
30. Data on drinking water quality
31. Roles of NGOs
32. Collection of existing IEC materials including news paper clippings

III Primary Information

1. Household survey for about 50 households
2. Focus group discussions in slums – 4 to 6
3. Focus group discussion in areas with public activities
4. Physical inspection of community and public toilets, open defecation areas
5. Physical inspection of leakages in sewerage system or septic tanks
6. Physical inspection of open defecation areas
7. Discussions with relevant stakeholders on manual scavenging
8. Physical inspection of SWM collection points, transfer station, treatment facilities and dumping sites and verify impact on nearby areas
9. Physical inspection of water bodies and if possible assessment of quality by third party
10. Discussions on gender issues
11. Working conditions and social security for workers
12. Understanding of cultural and behavioural practices

Annexure: Contents of City sanitation Plan (CSP)

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