

CHAPTER 2: LEGAL FRAMEWORK AND POLICIES

2.1 INTRODUCTION

This chapter covers the legal framework for the sewerage and related sectors in India and should be updated from time to time to reflect new statutes that are enacted. Articles, constitutional amendments, acts, designated best-use, general standards, discharge standards, notifications and policies relevant to the sewerage sector are covered briefly in this chapter and references to the relevant topics are given for the reader requiring more details on specific topics.

2.2 THE EASEMENTS ACT, 1882

The Easements Act is perhaps the most important act for public services. Any vacant space of the ULB earmarked or proposed to be earmarked for sewerage components and lying unutilised for a reasonably long period shall not be alienated anew by the ULB unless it is enacted by the state legislature under the relevant act. If such a land has been earmarked for a specific purpose at the time of town planning the same shall not also be questioned by the public later on.

2.3 THE 74th CONSTITUTIONAL AMENDMENT

The 74th Constitutional Amendment, enacted by the Parliament in 1993, mandates the State Government to transfer responsibility of water supply and sanitation (WSS) services to the urban local bodies (ULBs) such as Nagar Panchayat (City council), Nagar Palika (Municipality) and Nagar Nigam (Municipal Corporation) in the ascending order of magnitude. This amendment is aimed to strengthen ULBs through devolution of powers towards decentralization.

The Twelfth Schedule, which has been added to the 74th Constitutional Amendment, includes the following 18 functions in accordance with Article 243:

- i. Urban planning including town planning
- ii. Regulation of land-use and construction of buildings
- iii. Planning for economic and social development
- iv. Roads and bridges
- v. Water supply for domestic, industrial and commercial purposes
- vi. Public health, sanitation conservancy and solid waste management
- vii. Fire services
- viii. Urban forestry, protection of the environment and promotion of ecological aspects
- ix. Safeguarding the interests of weaker sections of society, including the handicapped and mentally retarded
- x. Slum improvement and up-gradation

- xi. Urban poverty alleviation
- xii. Provision of urban amenities and facilities such as parks, gardens, playgrounds
- xiii. Promotion of cultural, educational and aesthetic aspects
- xiv. Burials and burial grounds; cremation grounds and electric crematoriums.
- xv. Cattle pounds; prevention of cruelty to animals.
- xvi. Vital statistics including registration of births and deaths
- xvii. Public amenities including street lighting, parking lots, bus stops and public conveniences
- xviii. Regulation of slaughter houses and tanneries.

In this context, the MoUD prepared and circulated the 'Model Municipal Law' with the objective of facilitating implementation of the 74th amendment, which among other features cites the following:

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- a. Participation of private sector, NGOs, and CBOs in delivery of services
- b. Service charges to reflect O&M and capital costs
- c. Provision to meet the Hazardous and Bio-medical Waste Handling Rules of MoEF, GOI
- d. Provision to meet the Solid Waste Handling Rules of MoEF, GOI
- e. State-level regulatory commission on municipal services.

The issue of relevance here is the listing in item b) above, which aims at levy and collection of service charges to reflect O&M and capital costs.

The objective of the amendment has not been realized in practically all the centres in the country because the receipts are inadequate to varying degrees. This is the thrust area to focus upon. It has been reported that there are administrations where even the deposits are stated to be foreclosed to disburse salaries with no hope of meeting the actual O&M charges and the capital costs. Unless this issue is overcome and the said item b) above is achieved, the sewerage services will show no improvement, and will possibly start deteriorating in adequacy and efficiency. The simple requirement is the firmness on the part of the local body to levy realistic charges and the willingness of the user population to pay for it.

2.4 BIS DISCHARGE STANDARDS, 1973

The BIS discharge standards were issued as IS: 4764 in 1973. As per this a BOD of mg/L and SS of 30 mg/L were prescribed for discharge into surface water sources. This standard is inactive now and national discharge standards, issued by CPCB and SPCB, are being adopted widely as for example Table 5.20 for the recommended discharge guidelines as in Chapter 5 of Part- A manual. .

2.5 WATER (PREVENTION AND CONTROL OF POLLUTION) ACT, 1974, AND ITS AMENDMENTS

The purpose of this Act is “to provide for the prevention and control of water pollution and the maintenance or restoring wholesomeness of water for the establishment, with a view to carrying out the purpose aforesaid by Boards for the prevention and control of water pollution, for conferring on and assigning to such Boards powers and functions relating thereto and for matters connected therewith.” This is the Act that established the Central and State Boards and also the authority and power to constitute as many committees as it feels essential to carry out specific functions. The Act specifically prohibits ‘any poisonous, noxious or polluting matter’ into any stream or well. Consent from the State Board is required for issues of any type of new discharge into any new stream or well. It also includes consent for “temperature” discharges as done by cooling tower users. In general, this means that a State consent or permit is required for all types of intake and/or discharge of any type of liquid or water either from a running stream or from a well. Under these rules, “effluent standards to be complied with by persons while causing discharge of sewage or sullage or both” have been specified. Standards for small scale industries have been specified separately. Penalties for non-compliance with the permit or polluting in any way are imprisonment for three months and fine of Rs. 10,000 or fine up to Rs. 5,000 per day of violation or both plus any expenses incurred by the Board for sampling, analysis, inspection etc. Penalties for contravention are specified. Any “director, manager, secretary or other officer of the company may also be deemed to be guilty” if proved that the offense occurred with their “consent or connivance.” In case of the government, department head could be held liable.

(A) Functions of the Central Board: Subject to the provisions of this Act, the main functions of the Central Board shall be (a) to promote cleanliness of streams and wells in different areas of the States. (b) In particular and without prejudice to the generality of the foregoing function, the Central Board may perform all or any of the following functions, namely, advise the Central Government on any matter concerning the prevention and control of water pollution;

(B) Functions of the State Board: Subject to the provisions of this Act, the functions of a State Board shall be (a) to plan a comprehensive programme for the prevention, control or abatement of pollution of streams and wells in the State and to secure the execution thereof, (b) to advise the State Government on any matter concerning the prevention, control or abatement of water pollution, (c) to collect and disseminate information relating to water pollution and the prevention, control or abatement thereof, (d) to encourage, conduct and participate in investigations and research relating to problems of water pollution and prevention control.

(C) Powers to Give Directions: In the performance of its functions under this Act (a) The Central Board shall be bound by such directions in writing the Central Government may give to it; and (b) Every State Board shall be bound by such directions in writing as the Central Government or the State Government may give to it: Provided that where a direction given by the State Government is inconsistent with the direction given by the Central Board, the matter shall be referred to the Central Government for its decision.

2.6 DESIGNATED-BEST-USE BY CENTRAL POLLUTION CONTROL BOARD, 1981

The Central Pollution Control Board (CPCB) has developed the concept of “designated best use”. According to this concept, out of several uses a particular water body is put to, the use that demands the highest quality of water is called its “designated best use”, and the water body is designated accordingly.

For each of the five defined “designated best uses”, the CPCB has identified water quality requirements in terms of few water quality criteria. The “designated best uses” along with respective water quality criteria is given in Table 5.2, Chapter 5 of Part- A manual. This classification helps the water quality managers and planners to set water quality targets and identify needs and priority for water quality restoration programmes for various water bodies in the country.

2.7 ENVIRONMENT (PROTECTION) ACT, 1986

The provisions of this Act, passed in 1986, have strengthened the enforcement of the Water Act, 1974. The Act was enacted to “provide for the protection and improvement of environment and for matters connected therewith.” This act defined the environment, which includes “water, air, and land and the inter-relationship which exists among and between “water, air, land, human beings, other living creatures, plants, micro-organisms and property”. It also defined a hazardous substance as “any substance or preparation which, by reason of its chemical or physico-chemical properties, or handling, is liable to cause harm to human beings, living creatures, plants, microorganisms, property or the environment”. This law enlists general powers of the central government which includes “all such measures as it deems necessary or expedient for the purpose of protecting and improving the quality of the environment and preventing, controlling and abating environmental pollution”. The law also included “the standards of quality of air, water, or soil for various areas and purposes, the maximum allowable limits of concentration of various environmental pollutants, procedures and safeguards for the handling of hazardous substances”.

Important points of the Act that are more relevant to sewerage and sanitation are as follows:

- a. The Act empowers the Centre to take all such measures, as it deems necessary or expedient for the purpose of protecting and improving the quality of the environment and preventing, controlling and abating environmental pollution.
- b. The Central Government has the power of entry for examination, testing of equipment and other purpose and power to take samples of air, water, soil or any other substance from any place for analysis to ensure compliance with the Act.
- c. The Act explicitly prohibits discharge of pollutants in excess of prescribed standards and prohibits handling of hazardous substances except in compliance with regulatory procedures and discharges.
- d. Persons responsible for discharge of pollutants in excess of prescribed standards must prevent or mitigate the pollution on a continual basis and must report the discharge to government authorities at pre-determined time intervals.

- e. The Act empowers the central government to establish standards for the quality of the environment in its various aspects, including maximum allowable concentration of various environmental pollutants (including noise) for different areas. These standards could be based on ambient levels of pollutants' sufficiently low to protect the public health and welfare.
- f. Penalties for contravention are specified.

2.8 GENERAL STANDARDS FOR DISCHARGE OF ENVIRONMENTAL POLLUTANTS UNDER THE ENVIRONMENTAL PROTECTION RULES, 1989

Under the Environment (protection) Rules, the following standards have been stipulated.

- a. Industry specific standards for emission/effluent discharge (Schedule I)
- b. General standards for discharge of environmental pollutants (Schedule VI)
- c. Ambient air quality standards (Schedule III)
- d. Standards for emission of smoke, vapour, etc., from motor vehicles prescribed in Schedule IV.

Schedule VI of the Environment (Protection) Rules, 1986 contains the General Standards for Discharge of Environmental Pollutants, as in Table 5.3 and recommendation in Table 5-20. Chapter 5 of Part- A manual. The State Boards may specify more stringent standards for the relevant parameters with respect to specific industry or locations after recording the reasons in writing. Also refer to concluding para of section 5.1 of chapter-5 of Part-A manual.

2.9 HAZARDOUS WASTE (MANAGEMENT AND HANDLING) RULES, 1989

The MoEF has come out with Wastes (Management and Handling) Rules, July 1989 under the Environment (Protection) Act, 1986. The main purpose for promulgation of these Rules was for management and handling of hazardous substances. These rules may apply to the conduct of the business of sewerage and sewage treatment also, if any of its component activities result in hazardous residues as decided by the respective court of law and not arbitrarily by any ULB or other statutory agency.

2.10 THE PUBLIC LIABILITY INSURANCE ACT, 1991

The purpose of this Act is "to provide for public liability insurance for the purpose of providing immediate relief to the persons affected by an accident occurring while handling any hazardous substance and for matters connected therewith or incidental thereto. The Act defines an "accident" as involving a fortuitous, sudden or unintentional occurrence while handling any hazardous substance resulting in continuous damage to any property but does not include an accident by reason of war or radioactivity. Penalty for not taking insurance coverage has also been mentioned in this act. The applicability is contingent on the activity being hazardous.

2.11 THE PROHIBITION OF EMPLOYMENT AS MANUAL SCAVENGERS AND THEIR REHABILITATION ACT, 2013

The aforesaid act was notified by the GOI in September 2013. As per the Gazette of India dated October 2013, the act shall come into force from 6th December 2013. The text of the act as in the Gazette is in Appendix C 2.1

2.12 NATIONAL ENVIRONMENTAL TRIBUNAL ACT OF 1995

The National Environmental Tribunal Act of 1995 was enacted to provide for strict liability for damages arising out of any accident occurring while handling any hazardous substance and for the establishment of a National Environment Tribunal for effective and expeditious disposal of cases arising from such accidents, with a view to giving relief and compensation for damages to persons, property and the environment and for matters connected therewith or incidental thereto.

2.13 WATER (PREVENTION AND CONTROL OF POLLUTION) CESS ACT, 2003

This provides for the levy and collection of a cess on water consumed by persons carrying on certain industries and by local authorities, with a view to augment the resources of the Central and State Boards for the prevention and control of water pollution constituted under the Water (Prevention and Control of Pollution) Act, 1974. The various types of industries are specified in Schedule I. They are: 1. Ferrous: Metallurgical, 2. Non-Ferrous: Metallurgical, 3. Mining, 4. Ore processing, 5. Petroleum, 6. Petro-chemical, 7. Chemical, 8. Ceramic, 9. Cement, 10. Textile, 11. Paper, 12. Fertilizer, 13. Coal (including coke) , 14. Power (thermal and diesel) generating, and 15. Processing of animal or vegetable products. Collection of cess was based on the quantity of water consumed. The State government has the authority to collect the cess from the industry.

The definition of “industry” in the earlier Act of 1997 has been amended to read as “industry includes any operation or process, or treatment and disposal system, which consumes water or gives rise to sewage effluent or trade effluent, but does not include any hydel power unit” and levy of cess for water used for domestic purpose has been duly authorized.

2.14 COASTAL REGULATION ZONE NOTIFICATION, 2011

The Coastal Regulation Zone Notification, 2011 (herein after referred as CRZ Notification 2011) came into force on 6th January 2011. The 2011 notification is based on three objectives: the need to protect the livelihood of seven million fishermen families, protect the ecology of the coastal area and the ecological infrastructure, and to generate economic activities in the coastal area. The Notification tries to ensure:

- a. Livelihood security to the fisher folk communities and other local communities, living in the coastal areas, to conserve and protect coastal stretches
- b. Development through sustainable manner based on scientific principles taking into account the dangers of natural hazards in the coastal areas by sea level rise due to global warming
- c. Declaration of the coastal stretches of the country and the water area up to its territorial water limit
- d. Restricting the setting up and expansion of any industry, operations or processes and manufacture or handling or storage or disposal of hazardous substances.
- e. Example on delay in obtaining clearance related to STP construction in coastal areas.

The Nagapattinam Municipality, Nagapattinam proposed the construction of sewage treatment plants at Nagore and Nagapattinam together with outfall pipelines.

The project involves the construction of following facilities:

Construction of STP one each at Nagore and Nagapattinam, sewer system to a length of about 1200 m, Pumping station, Pumping main of size 600 mm dia. DI pipes for 300 m, Elevated pipe carrying bridge, Outfall pipe line from STP @ Nagai of size 500 mm dia. RCC Pipes for 370 m, Outfall pipe line from STP @ Nagore of size 400 mm dia. and RCC Pipes for 300 m. Total project cost is Rs.48.95 crores and the project area is falling in CRZ – I(ii) , CRZ – II and CRZ – III areas.

The Tamil Nadu State Coastal Zone Management Authority held a meeting on 29 Jan, 2010, and the Authority resolved the matter as follows:

“Regarding the Construction of Sewage treatment plants at Nagore and Nagapattinam together with outfall pipelines, the Authority is of the opinion that the treated water should not be let out into the rivers and the Authority recommended to re-utilize the treated water for gardening, cultivation etc. Hence the Authority resolved to request the applicant to revise the proposals accordingly and re-submit the proposals.

The discharge of water, if any, proposed to dispose into the rivers, then the details such as quantity of discharge of water, its quality, the impacts on the river due to the discharge etc., with detailed study reports and baseline data should be provided. Detailed EIA studies based on the hydraulics of the river and the details of river flow and contents, quality, species present therein, etc., with adequate base line data should be provided.”

The TWAD Board, Urban Division, Thanjavur proposed in writing to supply the treated water from the 2.96 MLD capacity of Nagore STP to M/s. Chennai Petroleum Corporation Limited (CPCL), at its nearby Narimanam unit. Further, they also proposed to discharge 6.97 MLD of treated water from the Nagapattinam STP into the river Devanathi (out of the expected quantity of 7.87 MLD) and the balance quantity of 0.9 MLD would be re-utilized for gardening. A study report based on the river hydraulics, furnished by the TWAD board was submitted.

As per para 3 (2) (ii) of the CRZ Notification 1991, the above activity required clearance from the MoEF, GOI. Further as per para 3 (2) (v) of CRZ Notification 1991, the above activity also required clearance from the MoEF, GOI as the project cost was more than five crores.

The Authority would consider the case based on the data submitted.

Source: <http://www.environment.tn.nic.in/doc/56thsczma%20meeting.doc>

2.15 SEWERAGE ACT AND RULES IN GOA

Legislation related to sewerage sector has been enacted in GOA called “The Goa Sewerage System and Sanitation Services Management Act, 2008 and Rules, 2010”. The Act and Rules are reproduced in Appendix C 2.2. While formulating such acts by the States, an affordable scheme for the poor may be given in the Sewerage Act.

2.16 REUSE OF TREATED SEWAGE BY INDUSTRIES

It has been discussed in chapter 7 of Part-A of this manual that reuse of sewage by industries will require incentives. A major reservation by industries is on the disposal of final R O rejects. Normally, its TDS will be much higher than that of the raw sewage. Industries do not want to inherit thermal evaporators for this. Instead, it needs to be absorbed by the ULB in the sewer system at a designated point. After all, the volumes of reuse by industries will be much lesser than the overall volume of sewage and hence, such disposal may be possible as reportedly happening even in the early sewage reuse plant in the 1970's by the Air India building at Mumbai. At the same time, sewage reuse can only be for non-human contact, non-food processing like uses and invariably this narrows down to makeup cooling water only. Thus, sewage reuse by industries has to be a voluntary action by the industries but it is for ULBs also to suitably amend their byelaws to promote these industrial uses by resolving the R O rejects disposal back into the sewer system. At the same time, much of the treated sewage is being consciously used in irrigation and organized agricultural practices as a matter of practice. Even though such uses do not generate revenue for the ULB, as long as the treated sewage is meeting the relevant upper limits as in Table 7-19 of Chapter 7 of Part-A manual, there is a reuse and yield of agricultural produce which will otherwise become absent. Thus, as long as the treated sewage is not flowing out into the wilderness, there is a reuse, the only issue being whether it is yielding revenue directly as in industrial reuse or indirectly as in the case of agricultural users in downstream. Please also refer item 6 of Table 1.1 of this manual

2.17 DRAFT SANITATION WORKERS (REGULATION AND CONDITIONS OF SERVICE) ACT

Refer Section 9.4.2 of Part- B Operation and Maintenance of the Manual.

2.18 POLICIES

2.18.1 Central Government

The MoUD, GOI prepared a report on NUSP and published it in October 2008. The overall goals of this policy are to transform urban India into community-driven, totally sanitized, healthy, and liveable cities and towns. To achieve this, the Government of India shall support the following components:

a) Awareness generation

A countrywide Information, Education and Communication (IEC) Strategy will be designed and implemented for raising awareness on the public health and environmental importance of sanitation. The socio-cultural biases against sanitation and sanitary work need to be targeted, and dignity and humane approach has to be promoted in the elevation of priority to sanitation in public affairs. Further, the public-good nature of urban sanitation necessitating collective action needs to

be highlighted in the minds of all stakeholders. In connection with this, the Model communication participation law aiming to institutionalize community participation platforms/systems has been developed. Also refer to Section 7.5. of this manual.

b) Institutional roles

The GOI will support clear assignment of roles and responsibilities, resources and capacities and institutional incentives in relation to setting standards, planning and financing, implementation, knowledge development, capacity building and training, monitoring and evaluation (M&E) and regulatory arrangements. The government will help states and cities in ensuring sanitation as a core responsibility of ULB as envisaged in the Constitutional (74th) Amendment Act, 1993. The special roles of NGOs and CBOs will be recognized in mobilizing communities, raising awareness and in working with poor communities to assist them in finding affordable, community-managed solutions to sanitation.

c) Reaching the un-served and poor households

The national policy will help urban areas adopt a citywide, demand-based participatory approach to individual (resolving tenure, space and affordability constraints), and community sanitation where individual sanitation facilities are not feasible. Special slum and community sanitation plans will be formulated as a part of the City Sanitation Plan. Provision of public sanitation facilities will also be supported.

d) Knowledge development

The policy recognizes the importance of developing and disseminating knowledge on institutional development, technology choices and management regimes, planning new developments and up-gradation, and sustainability issues.

e) Capacity building

The GOI will help formulate and implement a national level strategy on capacity building and training to support states and cities to build their personnel capacities and organizational systems for delivery of sanitation services.

f) Financing

The GOI, wherever possible, will explore possibilities of providing assistance for funding projects proposed as part of City Sanitation Plans through its schemes like JnNURM, UIDSSMT, Lump Sum Provision for the Projects/Schemes for the Benefit of North Eastern Region including Sikkim, Satellite Township Scheme, etc. However, the emphasis will be on improving the efficiency of existing sanitation infrastructure and service delivery.

g) National monitoring and evaluation

At the national level, the GOI will support periodic rating of cities by independent agencies. A national annual award shall be instituted on the basis of the rating.

h) Coordination at the National level

National investments in urban infrastructure and housing shall accord high priority to sanitation. Towards this, sanitation will be in the mainstream in all relevant programmes of all the relevant sectoral ministries.

i) Service level benchmarking on sewage management

As already mentioned, the MDGs enjoin upon the signatory nations to extend access to improved sanitation to at least half the urban population by 2015, and 100% access by 2025. This implies extending coverage to households without improved sanitation, and providing proper sanitation facilities in public places to make cities and towns free of open defecation. The Ministry has proposed to shift focus on infrastructure in urban water supply and sanitation sector (UWSS) to improve service delivery. The Ministry has formulated the set of Standardized Service Level Benchmarks for UWSS as per International Best Practice and brought out a “Handbook on Service Level Benchmarking” on water supply and sanitation sector in the year 2008. The SLB on Sewage Management (Sewerage and Sewage Treatment) which are required to be achieved within a specified time frame, preferably matching with the MDGs benchmarks are given in Table 1.1. These deadlines as mentioned above, aim to extend access to improved sanitation to at least half the urban population by 2015 and to 100% access by 2025.

2.18.2 State Government

State strategies are recommended to detail out the following generic headings or areas requiring attention similar to the national policy,:

a) Clear assignment of institutional responsibility, resources and capacities

State Urban Sanitation Strategies must ensure clear ULB responsibility as envisaged in the 74th Constitutional Amendment (CA). Where this is partial or incomplete, states will need to make concerted efforts to devolve powers, roles and responsibilities along with financial and personnel resources necessary for ULBs to discharge their functions. The ULBs will also have to be accorded wide-ranging powers over agencies that currently carry out sanitation related activities in the city but are not directly accountable to them, such as parastatal agencies and PHEDs.

b) Setting standards at the State level (within the overall frame of national standards)

1. Environment outcomes (for example, State Pollution Control Board standards on effluent parameters, diminishing water resources, impact of climate change, use of low energy intensive onsite/decentralised sewage treatment technologies, distributed utilities, etc.)
2. Public health outcomes (for example, State health departments)
3. Processes (for example, safe disposal of on-site septage) and infrastructure (for example, design standards) (PHEDs/Parastatal) and coverage of the informal sector activities like disposal of sewage, solid waste, etc.

4. Service delivery standards (for example, by urban development departments)
5. Manpower issues such as adequate remuneration, hazardous nature of work, employment on transparent terms and conditions, use of modern and safe technologies, provision of adequate safety equipment such as gloves, boots, masks, regular health check-ups, medical and accident insurance cover, etc.
6. States are recommended to not just emulate but also set their own standards higher than the national standards in order to encourage its institutions and citizens to target higher standards of public health and environment.

c) Planning and financing at the State level

ULBs will need to be made responsible for planning (including preparation of “City Sanitation Plan” (CSP) and financing public infrastructure, and leveraging such private investments as may be required for achieving outcomes (as stated in their State Strategies). The problem of shortage of funds needs to be factored in. In this regard, States will need to devolve adequate and predictable resources to ULBs including setting tariffs, inter-governmental fiscal transfers and devising targeting of subsidies to the poorest of the poor households. The issue of recovery of O&M cost through the introduction of usage charges and collection of dues needs to be emphasised as a means of ensuring accountability as well as financial sustainability. In doing so, State Government’s support to ULBs will need to be increasingly reoriented to reward the achievement of outcomes (moving away from input, process and hardware funding per se). State governments should also be encouraged to launch awards for best performing cities to bring about a competitive spirit in achieving total sanitation by cities. Considerable coordination will also be required across other government agencies and institutions, private and community institutions to highlight the priority to sanitation, as well as in planning and implementation of programmes.

d) Reaching the un-served populations and the urban poor at the State level

States will need to resolve tenure, space and affordability constraints to providing individual sanitation facilities preferentially, and community facilities where individual provision is not feasible. The provisioning of basic sanitation should be de-linked from the issues of land tenure. Every urban dweller should be provided with minimum levels of sanitation, irrespective of the legal status of the land in which he/she is dwelling, possession of identity proof or status of migration. However, the provision of basic services would not entitle the dweller to any legal right to the land on which he/she is residing. At least 20% of the funds under the sanitation sector should be earmarked for the urban poor. The issues of cross subsidy to the urban poor and their involvement in the collection of O&M charges should be considered. States will need to issue guidelines to support cities in adopting participatory approaches to community sanitation and rational planning for appropriate and adequate sanitation for floating population, institutions and public place workers, with explicit recognition of cost recovery for sustainable management, service delivery and repairs and maintenance.

Special role of NGOs & CBOs needs to be recognized in this respect, especially for community sanitation facilities.

e) Service delivery in cities

ULBs will need to be responsible for asset creation and managing systems including service delivery. In this context, the ULB may bring in public, private and community agencies / groups to provide services on its behalf. However, the final accountability with regard to performance in sanitation will have to be that of the ULB. Departments and parastatals currently carrying out these responsibilities should be accountable to the respective ULBs (including, e.g., financing through the ULBs). The State governments will need to make explicit directions in this regard, including roles for NGOs and CBOs and the urban poor.

f) Regulation of cities and regulation within cities

State strategies will need to address this issue carefully strengthening existing state level institutions that are charged with ensuring compliance of ULBs to environmental standards (e.g., State Pollution Control Boards), health outcomes (e.g., Health Departments), and Service Delivery Standards (e.g., State Urban Departments). Wherever these responsibilities or action on deviance are not spelt out clearly, the state strategy will need to make these clear. The strategy will also have to identify the ULB as having the key regulatory limit over all properties and agencies / households in the city in respect of outcomes and process standards stipulated by it.

g) Monitoring & evaluation at the state and city levels

The State government will be responsible for M&E of its cities' performance, and hence needs to devise data collection and reporting systems using outcome indicators. ULBs in turn need to track compliance of households (establishments, etc.) with outcomes and process standards that it has adopted. Introducing citizens' report cards, citizens' monitoring committees, self-assessment system, inter-city competitions, etc., will be considered. NGOs and CBOs will also play key roles in M&E.

h) Capacity building & training

The state strategy needs to identify agencies that will train its state level ULB personnel and orientation of elected representatives. These agencies could be specialist agencies of the State government, and/or NGOs and private sector organizations. It will also need to focus on capacity building, i.e., not just training but also developing systems and capacities of ULBs in sanitation, in line with the Urban Sector Reforms that the State may be implementing. ULBs will need to provide training on sanitation to their own staff, using State level resource agencies.

They will need to utilize GOI and State government schemes for training and capacity building in order to achieve these.

2.18.3 Urban Local Bodies

Under decentralized governance (74th Amendment), the ULBs have some power to form bylaws in conformity with the State and Central Government policies and the Environment Protection Act.

The ULBs on their part may frame their policies as follows:

a) Cost recovery

The local bodies must frame a policy and make serious efforts to initiate cost recovery for the sewerage and sanitation services being provided to the households and for the provision of special services to commercial and industrial units.

b) Levy of sanitation tax

The ULB should impose adequate sanitation tax to cover the cost of sewerage and sanitation services. Whereas efforts should be made for cost recovery from the beneficiaries who get doorstep service, the shortfall in funds should be made good from general sanitation tax, which should be adequately imposed as a matter of policy by the ULBs.

c) Public private partnership

There is a need to promote a healthy competition in the sewerage and sanitation services being provided by the ULBs and the private sector. The manpower cost is rising steeply in the local bodies and efficiency levels are declining. There is, therefore, a need to induct private sector to provide sewerage and sanitation services in un-served and under-served areas in a cost effective and efficient manner. This will reduce the costs and promote an element of healthy competition between public and private sector. The reason why PPP has not taken off in sewerage ever since the Alandur sewerage PPP is the fact that the ULB's are not able to generate and collect the revenue for the O & M of the sewerage to pay the dues to the PPP operator. This is due to the fact that right now, not availing a sewer connection wherever it is otherwise available and thus not contributing to the revenues subsequently are not cognizable offences by a suitably enacted act.

Moreover, sewer servicing of economically weaker sections are always cost and cross-subsidized. Hence, the revenues of ULBs are not strong enough to generate confidence in the PPP operator. The GOA sewerage Act seems to have taken note of this and has initiated a process where the ULB can prevail upon the public to avail the sewer connections and enabling the ULB to penalize the non-compliance by disconnecting the water and electricity to the concerned premises. At the same time, the levy of sewerage charge is to be levied incrementally over a time-period by taking the public on board through consultative processes. The fact that since the Alandur project PPP has not taken off as anticipated in the financial sense is related to this and has resulted in the Government bailing out the situation by subsidizing the revenue deficit of the ULB.

Another issue is the fact that except for the machinery in pumping stations and treatment plants, the other components of the sewerage and sewage treatment system are not bankable. Thus, the bankable portion of the infrastructure cost is almost negligible. This is also a handicap for the PPP operator to generate a loan for investing in the PPP. Hence, as a first step, the states must bring out their legal enactments like the Goa Sewerage System and Sanitation Services Management Act 2008 and taking the people along by a persuasive approach is called for. The said Goa Act stipulates in its rules in notification 1-05/PCE-PWD-EO/10-11/102 under rule 10 (5) that, "As soon as the sewerage facility is made available within 30 meters from the premises, the Executive Engineer shall issue a notice to avail sewerage facility developed by PWD and the owner / occupier shall immediately connect his sewerage system to the sewerage system developed by PWD at his

own cost within the period mentioned in the notice, failing which, the essential services like water supply, electricity shall be liable for disconnection at any time after expiry of the period mentioned in the notice". The persuasive approach will be to go through a public consultation and explain to the stakeholders the need to prima facie sort out with the ULB the affordability of payments vis-a-vis the type and scope of sewerage and sanitation services acceptable to them and commit to the same. The minutes of the said public consultation shall be part of the DPR when it is put up for seeking funds.

d) Private sector participation (PSP)

The ULBs may promote PSP. As a policy, they may decide to set up treatment facilities with PSP on suitable terms and conditions for which standard concession agreements/formats may be drawn up with legal assistance to ensure protection of the interest of ULBs.

e) Provision of sewerage and sanitation services in slums

The local bodies should frame a policy of providing sewerage and sanitation services for the slums to ensure sanitary conditions in the slums irrespective of their legal or illegal status in the city to maintain overall public health and sanitation in the urban areas. The local body may also prohibit open defecation and provide adequate toilet facilities to slum dwellers either on "pay and use" basis or through the provision of low-cost sanitation facilities in the slums.

f) Allotment of adequate funds for capital and revenue expenditure

The local body should give priority to management of sewerage and sanitation services and provide adequate funds in the annual budget for capital investment as well as day-to-day O&M of sewerage and sanitation services. Appropriate percentage of the budget of the local body should be earmarked for efficient management of sewerage and sanitation services.

g) Human resources development

The local body as a policy should provide adequate training to the staff engaged in the management of sewerage and sanitation services and arrange for short term and refresher courses for updating the knowledge of the supervisory staff to maintain the high standards of service. All components of these services, including the workshop, should be under one umbrella to ensure effective supervision and control.

h) Public grievance redressal mechanism

The local bodies should draw up a citizen's charter and create a system to register public grievances in all the wards and set up a mechanism for expeditious redressal of grievances through decentralized municipal administration.

i) Enforcement

While all efforts may be made to build awareness among the community for public participation in management of sewerage and sanitation services in the urban areas, a mechanism for enforcement should be simultaneously created to instill discipline in the citizens who do not adhere to the directions of the ULBs.

j) Obligations of Municipal Bodies to Provide Drains

The Municipal Act of India casts a duty on the municipalities to construct and maintain “drains” on the sides of the road. The act also states that “drain” includes a sewer. Thus, the historical trend in India of houses discharging their wastewater from the houses into the drains holds good even now. The underground sewerage costs are prohibitive and nearly 70% of the cost is for the underground sewers. It is further compounded by the fact that it takes a minimum of five years to complete a sewerage scheme in the field. Considering all these, there is a need to implement the incremental sewerage system as detailed in section 8.4.4 of Part-A of the manual. The twin-drain system can be considered as a right choice in this situation. The stagnation of sewage can be avoided. It can also be treated and reused for tree growing, farm forestry, initial watering of road medians etc. In as much as drains are mandatory, it may not cost much to add one more drain for sewerage before the full-fledged underground sewerage takes shape. Such a policy can achieve great progress in sewerage with minimum financial outlay and minimum time in the initial stages of sewerage both in existing as well as new habitations.

2.19 SUMMARY

The 74th Constitutional Development includes 18 functions aimed at strengthening ULBs through devolution of power. The Water (Prevention and Control of Pollution) Act and its Amendments aims to prevent and control water pollution and ensure wholesomeness of water. The Water (Prevention and Control of Pollution) Cess Act provides for the levy and collection of cess on water consumed by consumers. The Environment (Protection) Act provides for the protection and improvement of the environment. The National Environmental Tribunals Act provides for liability for damages arising out of any accident while handling any hazardous substance for effective and expeditious disposal of cases arising out of such accidents. The Hazardous Waste (management and handling) Rules are mainly meant for management and handling of hazardous substances. According to the concept of “designated best use” developed by the CPCB, out of several uses a particular water body is put to, the use that demands the highest quality of water is called its “designated best use”, and the water body is designated accordingly. The General Standards for Discharge of Environmental Pollutants under the Environmental Protection Rules stipulate specific standards for emission and effluent discharge, general standards for discharge of environmental pollutants, ambient air quality standards, and standards for emission from motor vehicles. The BIS Discharge Standards have been withheld as at the time of this writing because national discharge standards are being adopted widely.

The Prohibition of Employment as Manual Scavengers and their Rehabilitation Act, 2013 was passed by the Parliament. As per the Gazette of India dated October 2013, the act shall come into force from 6th December 2013. This Act prohibits manual cleaning of sewers and septic tanks, aims to eliminate insanitary latrines, and rehabilitate identified manual scavengers in alternative occupations.

The Coastal Regulation Zone Notification aims to protect the livelihood of fishermen families, protect the coastal area ecology and generate economic activities in coastal areas. The Central and State Government and the ULBs have announced various policies to transform the nation to sanitized, healthy and liveable cities, towns and villages.