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Part II—Section 2

**Notifications or Orders of interest to a Section of the public
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NOTIFICATIONS BY GOVERNMENT

MUNICIPAL ADMINISTRATION AND WATER SUPPLY DEPARTMENT

IMPLEMENTATION OF THE SOLID WASTE MANAGEMENT RULES-RULE 11 OF THE SOLID WASTE
MANAGEMENT RULES 2016 - SOLID WASTE MANAGEMENT POLICY AND STRATEGY FOR THE STATE

[G.O. Ms. No. 84, Municipal Administration and Water Supply (MA. IV), 24th August 2018,
ஆவணி 8, விளம்பி, திருவள்ளூர் ஆண்டு-2049.]

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CHAPTER-1. BACKGROUND

Municipal Solid Waste Management is a complex issue posing a formidable challenge to local authorities. Rapid pace of urbanization coupled with uncontrolled industrialization and changing life styles has resulted in high consumption pattern and generation of large volumes of solid waste. Waste management requires good planning & management skills, technical knowhow, adequate financial resources, co-ordination among various stakeholders and community participation.

Though primarily responsible for managing solid waste, Municipal authorities lack in-house capabilities for managing waste. They neither have financial resources nor technical knowhow for efficient collection and safe disposal of the waste produced.

Some years back, a Public Interest Litigation was filed in the Hon'ble Supreme Court of India against Central and State Governments, as well as major Urban Local Bodies (ULBs) of India alleging that the Municipal authorities as well as state and central governments have failed to perform their duty of managing Solid Waste scientifically. The Hon'ble Supreme Court appointed an Expert Committee to look into all aspects of Solid Waste Management (SWM) in class-I cities of India. The committee deliberated on all the issues and identified the following deficiencies in the SWM system in India and made detailed recommendations for improving solid waste management services in class I cities of India. The deficiencies identified by the committee were:

- No storage of waste at source
- Partial segregation of recyclable waste
- No system of Primary collection of waste at the doorstep
- Irregular street sweeping
- Inappropriate system of secondary storage of waste
- Irregular transport of waste in open vehicles

- No treatment of waste
- Unhygienic disposal of waste at open dumping sites
- No sanitary landfill facility

Based on the recommendations of the expert committee, the Hon'ble Supreme court directed all Class-I cities to follow the recommendations and also directed the Government of India to expedite Notification of Rules under Environment Protection Act, 1986.

1.1 Solid Waste Management Rules, 2016.

The Ministry of Environment & Forests, Govt. of India notified Solid Waste Management Rules, 2016 on 8th April 2016, making them mandatory for all Urban Local Bodies in the country. The said Rules directed the Municipal authorities to take following measures within the time -line specified in the rules.

S.No	Activity	Time limit from
1.	Identification of suitable sites for setting up solid waste processing facilities	1 year
2.	Identification of suitable sites for setting up common regional sanitary landfill facilities for suitable clusters of local authorities under 0.5 million population and for setting up common regional sanitary landfill facilities or stand alone sanitary landfill facilities by all local authorities having a population of 0.5 million or more.	1 year
3.	Procurement of suitable sites for setting up solid waste processing facility and sanitary landfill facilities	2 year
4.	Enforcing waste generators to practice segregation of bio degradable, recyclable, combustible, sanitary waste domestic hazardous and inert solid wastes at source,	2 year
5.	Ensure door to door collection of segregated waste and its transportation in covered vehicles to processing or disposal facilities.	2 year
6.	Ensure separate storage, collection and transportation of construction and demolition wastes	2 year
7.	Setting up solid waste processing facilities by all local bodies having 100000 or more population.	2 year
8.	Setting up solid waste processing facilities by all local bodies and census towns below 100000 populations.	3 year
9.	Setting up common or stand alone sanitary landfills by or for all local bodies having 0.5 million or more population for the disposal of only such residual wastes from the processing facilities as well as untreatable inert wastes as permitted under the Rules	3 year
10.	Setting up common or regional sanitary landfills by all local bodies and census towns under 0.5 million population for the disposal of permitted waste under the rules	3 year
11.	Bio-remediation or capping of old and abandoned dump sites	5 year

The role of solid waste management in public health & environmental protection cannot be over-emphasized. Improper solid waste management not only creates health hazards to the community, but also has, far reaching socio-economic, political and ecological consequences. Absence of a clear State policy on the subject and a well – defined strategy to implement Solid Waste Management Rules, 2016 are primarily responsible for successful implementation. Serious, holistic efforts therefore need to be made to improve systems of solid waste management in the State.

1.2 Status of Solid Waste Management (SWM) in Tamil Nadu

Due to rapid pace of urbanization in Tamil Nadu, problems and issues of municipal solid waste management have overwhelmed most municipal authorities as far as efficient provision of this basic essential service is concerned.

The State is ahead of many other States in the country and has been able to achieve 96% efficiency in collection of municipal solid waste and 67% efficiency in door-to-door collection; however, almost 90% of the waste is not treated and 98% of municipal solid waste continues to be deposited in open dumps, causing serious problems of public health and environmental degradation. Segregation of waste at source is practiced only by 28% of waste generators and multiple manual handling of waste is prevalent to the extent of 72%. Door to door collection has been introduced in most of the municipal authorities in the State. However, 33% of the waste generators continue to throw the waste indiscriminately on the streets, drains and open spaces thus contributing to unsanitary conditions and to spreading disease and causing environmental degradation.

Solid waste also contains human and animal excrement and it gets mixed with hazardous chemical pollutants, bio-medical waste, etc causing disease and injury, especially among children, rag pickers and employees in the waste management sector. Poor people living in slums and informal settlements suffer most from deficiencies in service and requisite infrastructure, thus worsening poverty, ill health, and social marginalization. In low income or squatter settlements, waste collection is often non-existent, either because the settlements are informal, unplanned and unauthorized or because of low priority to municipal service delivery in slums.

1.3 Major Issues in Solid Waste Management

1.3.1 Inadequate Planning

Solid Waste Management is more of a managerial issue than a technical one. It requires proper planning, budgeting and implementation strategy to ensure that the services are provided efficiently in an uninterrupted manner in all the urban and rural areas in the entire state, rural areas also face issues of waste management due to changing life styles, with increased use of plastics and consumer goods. Meticulous planning at the State level for both urban and rural local bodies is essential to address the ever growing challenge of municipal solid waste management.

ULBs need to invest and plan for replacement of tools, equipment & vehicles after their useful life is over and augment the capacity of treatment and disposal facilities from time to time, though a special solid waste management fund has been earmarked with the recent assistance from the Swachh Bharat Mission financial support there is still a need to create adequate SWM budget at ULB level, i.e. a fund that is built from year to year over a period of time. Most of the ULBs lack this Capacity. Most of the local bodies make annual budgets and allocate funds only to meet their immediate needs. Long – term visioning and therefore, financial provision is generally missing.

1.3.2 Inadequate in-house capabilities

The in-house capability to effectively handle waste in local bodies is substantially lacking in the State. They do not have adequate trained manpower as well technical know-how to manage solid waste in terms of Solid Waste Management Rules, 2016.

This issue needs to be resolved through training and capacity building, induction of Professionals and adopting PPP models for service delivery to minimize manpower requirement. Such initiatives are substantially lacking in the state.

1.3.3 Low level of Public Awareness & Community Participation

For keeping the cities, towns and villages clean, community participation is very essential. No effort, howsoever big, can bring about the desired results without active community participation in the matter of storage of waste at source, segregation of recyclable and handing over the waste to the waste collector without littering on the streets. This awareness is substantially lacking.

1.3.4 Partial Segregation of Waste

Salvaging recyclable materials for sale to waste purchasers is a traditional practice in Tamil Nadu. Many informal entrepreneurs are active in collecting recyclable materials and selling it to industries for conversion of these wastes into useful products. However, a lot recyclable material is still disposed off on the streets clogging drains and ultimately, such waste ends up at the dumpsite. Part of this waste is picked up by Rag Pickers from the streets, bins and dump sites to earn their living; the rest remains on the dump site unrecovered.

1.3.5 Absence of Treatment & safe Disposal of Solid Waste

The Processing of organic matter and final disposal of inert waste is a major issue in most of the municipalities in the State. Ninety percent of the ULBs do not have waste processing facilities, 98% do not have sanitary landfills. All the waste that is collected is dumped unscientifically in low-lying areas thus creating a serious problem of environmental pollution and a threat to public health. Non-availability of suitable, large parcels of land, and financial resource required to create such facilities as well as technical knowhow for setting up treatment and disposal facilities is lacking in the State.

1.3.6 Need for Implementation Strategy

Solid Waste Management needs to be strategized to ensure that services are provided in a well synchronized manner to all sections of the society. Communities, Community Based Organisations and private sector participation need to be promoted to make the services efficient, cost effective and sustainable. Still in some of the ULBs in the State such strategies do not exist.

1.3.7 Need for Integrated Approach

SWM comprises of seven(7) steps, beginning from storage of waste at source to final disposal of waste. These steps need to be taken in a well synchronized manner. Most of the ULBs adopt piece meal approach leaving gaps in service delivery. An appropriate packaging of SWM components for efficient and integrated service delivery is lacking. This gap needs to be bridged.

1.3.8 Inadequate / absence of levy of Service Charges

Levy of user fee is essential to make SWM service sustainable. However, this source of revenue has largely remained untapped. For the sustainability of SWM services, it is essential to structure the mechanism of levy of service charges and its recovery. If good quality and reliable service is provided, people will come forward to pay for the service willingly. This mechanism to make SWM services self-sustaining is absent in general.

1.3.9 Development of proven Public Private Partnership Mechanism

With the complexities involved in SWM service, it is imperative to consider the option of delivery of service in a Public Private Partnership mode. It requires a very professional structuring of contracting mechanism to encourage Public Private Partnership in the State. This mechanism needs to be strengthened. Private Sector is not attracted towards SWM sector in the absence of any incentives and clear policies on the subject. There are very few players who are overloaded and therefore, unable to provide desired level of services.

1.3.10 No linkage between Urban & Rural Local Bodies

With the rapid pace of urbanization, urban – rural linkages have become essential. Urban and Rural areas are merging often giving rise to urban sprawls. Waste in rural areas need to be handled along with urban waste. Cities are getting congested and do not have adequate land for creating necessary infrastructure for solid waste management. Besides, laws and rules require certain parameters to be observed while selecting site for treatment and disposal of waste. These parameters usually cannot be met locally and cities have to depend on neighboring villages for setting up facility of processing and disposal of waste. The problem and issues of both urban and rural areas need to be indentified and remedial measures planned holistically.

1.3.11 Concept of Regional Approach not yet popular

It is mandatory to construct scientifically engineered, sanitary landfill for safe disposal of waste. ULBs are of different sizes generating different quantities of wastes. Construction of individual land fill for small cities for disposal of small quantities of waste is impractical and unviable due to economy of waste is impractical and unviable due to e scale of economy and because of the need for a buffer zone around the landfills. Concept of having professionally managed large regional landfills encompassing cluster of cities, towns and villages for safe disposal of waste at a shared common facilities is yet to be accepted as a preferred mode of waste disposal.

1.3.12 Need for proven Technologies

Processing of waste is mandatory as per Solid Waste Management Rules, 2016. Efforts made so far have not been encouraging. Only 10% waste is being treated in the State. There is a need to identify proven technologies conducive to local conditions and the same needs to be propagated in the State.

1.3.13 Land acquisition

Acquiring land for setting up of processing and disposing of the solid waste is an uphill task for many of the ULBs in the State.

1.3.14 Lack of uniformity

There is no uniformity or common system for handling and management of solid waste among Urban Local Bodies; each Urban Local Bodies is following its own way. Hence, it is necessary to arrive at the common strategies and guidelines in handling of solid waste.

1.3.15 Need for State Level Agency to guide and monitor

The State has a large number of Municipal Corporations, Municipalities and Town Panchayats. They need to implement Solid Waste Management Rules, 2016. It is high time that a State agency is created to guide and assist ULBs in implementing the rules.

Need for a State Policy for Solid Waste Management

Given the slow pace of implementation of Solid Waste Rules, the mammoth task ahead, the complexities involved like selection and application of technically, economically and socially appropriate solutions for waste collection, transfer, treatment & disposal and lack of technical know-how at the local government level, the Government of Tamil Nadu has felt it necessary to frame a State policy on SWM giving clear directives to facilitate expeditious implementation of the present SWM Rules 2016 to improve the quality of life of people.

CHAPTER -2. VISION, GOALS, OBJECTIVES & GUIDING PRINCIPLES**2.1 Vision**

To have an integrated solid waste management (ISWM) system in the State that is sustainable, improves the quality of life of the people and makes the cities livable.

2.2 Goal

- 1) To have high standard of cleanliness in the urban and rural areas of the state by effective management of solid waste
- 2) To ensure 100% Door to Door collection of waste and abolition of unhygienic system of disposal by the households.
- 3) To make local bodies capable of managing Solid Waste efficiently and cost effectively.
- 4) To promote the practice of Reduce, Reuse, Recycle and Recover (4Rs) to achieve 80% reduction in waste.
- 5) To make the Solid Waste Management services sustainable.
- 6) To minimize waste going to landfill.

2.3 Policy Objectives

The State of Tamil Nadu shall endeavor to:

- i. protect public health and environment by improving urban & rural Solid waste management systems and practices;
- ii. make the local bodies as well as citizens responsible and Accountable in their respective spheres of SWM;
- iii. minimize generation of Solid Waste by motivating industries, commercial establishments and households to reduce waste generation in the first place, and make serious efforts to reuse and promote recycling of the waste generated by them through effective Information, Education and Communication (IEC) methods;
- iv. promote formation of community groups, residents welfare associations, Community Based Organisations and other people's institutions to ensure community participation in managing and minimizing municipal solid waste locally;
- v. promote integrated solid waste management for cost effective and efficient delivery of service;
- vi. promote public private partnerships and encourage community, Community Based Organisations and private sector to participate in SWM services to make the services efficient and cost effective;
- vii. build in-house capacities of local bodies and State level institutions through training & capacity building and induction of professionals;
- viii. introduce innovative, sustainable waste processing technologies that are appropriate for use in local conditions;
- ix. promote concept of regional landfills to ensure safe disposal of residual municipal/rural solid wastes in a professional and cost effective manner;
- x. make SWM services self-sustaining by motivating local bodies to levy user charges to cover Operation and Maintenance cost of the services and levy taxes to meet cost of capital investments;
- xi. promote research and development to keep pace with advancements in SWM sector.
- xii. establish linkage between Urban and rural local bodies for ensuring mutual co-operation for sustainability of SWM services.

2.4 Guiding Principles**2.4.1 Inclusive Services**

Solid Waste Management service shall be provided to every citizen irrespective of caste, creed and religion, social, financial or gender status. Special attention will be given to ensure that people living in slums and informal settlements are included within the ambit of the services.

2.4.2 Shared Responsibility

Solid waste management shall be a shared responsibility and requires partnerships and collaborations between all sectors of the Government, industry, research institutions and the general community.

2.4.3 Effective Public Participation

ULBs alone cannot meet the challenge of keeping their areas clean, if the community fails to participate actively in managing the municipal solid waste. Information Education Communication Programmes shall be launched State wide as well as at local level to educate the masses to ensure community participation and compliance with law.

2.4.4 Towards Zero Waste Target

Zero Waste shall be the ultimate target to be achieved through practicing the concept of reduce, reuse and recycle and recover in a concerted manner. Extended Producers' Liability shall also be insisted. A maximum of 20% waste shall be allowed to go to the landfill for safe disposal.

2.4.5 Promote 4R

A systematic 4R (Reduce, Reuse, Recover and Recycle) waste Management hierarchy is essential for restoring environmental eco-systems to reduce environmental and health impacts on the society.

Reduce

Reducing the waste creation at source is the first and most effective components of the waste hierarchy. Households/ Commercial establishments/Industries shall adopt appropriate system, resources to generate less waste and pollution. The Industrial/ Manufacturer shall adopt suitable technologies with required resource material so as to reduce the waste and pollution.

Reuse & Recover

A substantial amount of waste is created even with waste reduction strategies. A large proportion of this waste can be collected for reuse to reduce future environmental damage. Materials such as glass bottles and second hand electronic products can be reused in their existing forms so that minimal labour, material, water and energy are required.

Recycle

After exhausting reduction and reuse opportunities, waste is still generated. Through proper segregation, collection and processing, materials such as glass, newspaper aluminium, plastics, tins cardboard and other valuable components can be recycled. These resources can be transformed to become an input to a new process with technical viability and financial feasibility.

2.4.6 Polluter Pays Principle

Whoever is responsible for damaging the environment shall bear the costs associated with it.

2.4.7 Make services self –sustaining

SWM service shall be made self-sustaining through waste reduction, community/Community Based Organisations and private sector participation, levy of user fee to cover Operation and Maintenance costs and taxes to cover capital investments.

2.4.8 Creation of SWM Fund to ensure sustainability

Each city shall create a dedicated corpus/SWM fund for the sole purpose of solid waste management over a long term. The fund will be augmented annually based on the projections of the future requirements including replacement costs of tools, vehicles and equipments at the end of the useful life.

2.4.9 Public Private Partnership / outsourcing / Citizen Participation to be encouraged for improving service Delivery.

In areas where the ULBs are currently not providing or inadequately providing Solid Waste Management services, Residential Welfare Associations, Community Based Organisations, and Private Sector Participation shall be encouraged by local bodies and State agencies to improve efficiency and cost effectiveness of SWM services.

2.4.10 Escrow Account

The municipal authorities shall create escrow account dedicated for the timely payments to the private operators for the sustainability of the projects and to bring in financial discipline.

2.4.11 Professional structuring of PPP projects

Private sector participation in SWM sector is a recent phenomenon in the country. Its success largely depends on proper structuring of the PPP mechanism and selecting an appropriate private partner through a professional and transparent procurement process. The local bodies and the State agencies may take professional help for structuring such projects.

CHAPTER-3. POLICY STATEMENT

Management of Municipal Solid Waste though a mandatory function of a local body, cannot be a "do it all" or "go it alone" function. ULBs would require stakeholders' active involvement and support of State agencies.

3.1 Responsibilities of ULBs

a) ULBs shall ensure social inclusiveness in delivery of service covering all sections of the society with special focus on the poor and disadvantaged.

b) Public awareness programmes shall be taken up by local bodies on a continuing basis and as an integral part of SWM services to educate the general public on the following aspects: (a) not to litter (b) store the waste at source in a segregated manner by using minimum two bins; one for biodegradable waste and another for recyclable and other inert wastes (c) dispose waste at the place designated at pre-informed timings or handover the waste to the waste collector as per the arrangements made by the local body.

c) ULBs shall make serious endeavor to minimize the waste by promoting the concept of 4Rs and extended producers' liability and restrict the proportion of waste going to landfill below 20% of the total waste generated in their jurisdiction. Further at least 10% waste must be reduced from going to landfill each year. Excessive use of plastics shall be restricted to minimize generation of non-biodegradable waste.

d) Urban local bodies shall construct or facilitate construction of integrated waste processing facilities such as composting and/or waste to energy plants for processing all components of waste adopting proven technologies.

e) Open dumping and open burning practices shall be immediately stopped. Local bodies shall construct Sanitary Landfill Facilities (SLF) for the disposal of waste from the processing plants or may come together to construct a common/regional facility for economy of scale and professional management of Solid Waste.

f) ULBs may adopt integrated SWM approach covering primary collection of solid waste from the doorstep, its transportation, processing and safe disposal of wastes at the SLF in a manner that is cost effective.

g) Municipal authorities in the State, while passing orders on any building plan for residential or commercial complex, shall clearly earmark easily accessible location, where municipal solid waste generated from the complex can be safely stored for collection and transportation by the Municipal authorities or any of its agencies. The minimum storage space shall be 15 litres per dwelling unit or 1 cubic mt up to 10,000 sq.ft commercial spaces. Also shall insist on in-situ SWM in gated communities and zero waste generation.

h) ULBs shall prohibit littering and install litter bins on streets and public places and provide for primary collection of solid waste from the doorstep of the waste generators in daily.

i) Rural local bodies shall manage their solid waste locally by practicing concept of 4Rs, resort to composting of organic waste for application to farm land; avail regional facility for disposal of inert waste, and handover recyclable to recyclers.

j) In cases, where the treatment or disposal facility is more than 10 km away from the collection area, the ULB may construct transfer stations for bulk transportation of waste. While selecting the site for transfer stations, care shall be taken that it does not have adverse impact on health and environment within the transfer station.

k) ULBs may promote PPP arrangement or contracting arrangement with private sector adopting a very fair and transparent method of selection of preferred bidders.

l) ULBs shall impose user fees to make the services sustainable. At least full O&M cost may be recovered from beneficiaries through user fees over a reasonable period of 3 to 5 years. The tariff may be fair and reasonable for all sections of the society. Different rates may be prescribed for various categories of households, institutions and commercial establishments depending upon the quantity and type of waste generated and their capacity to pay. The element of cross subsidization may be introduced for providing the services to the poor at low a cost. SWM tax may be levied to cover the capital costs to the extent possible.

m) ULBs shall create a SWM fund and deposit proportionate funds annually to meet future needs of replacement of tools, equipment, vehicles, plants and machineries at the end of their useful life.

n) ULBs shall take adjoining rural areas into consideration and allow the rural areas where Municipal landfill / treatment facilities are constructed or planned to be constructed to use such facilities for treatment / disposal of their waste.

o) ULBs shall initiate punitive action against the defaulters in accordance with laws in force and may levy special cleaning charges from those who litter. State will periodically review the penalty in order to overcome littering.

p) ULBs shall furnish half yearly information about the status of SWM services in its jurisdiction to the commissioner in a proforma prescribed in SWM Rules, 2016 to facilitate planning of technical and financial assistance to the local bodies.

3.2 Responsibilities of Waste Generators

a) Waste generators/citizens shall be responsible for the management of their waste at the source of its generation. They shall refrain from littering and segregate bio-degradable, recyclable and inert waste at source, reduce the waste by its reuse and recycling to the extent possible and handover the residual waste to the waste collector at the place and time that may be specified by the local bodies from time to time.

b) Domestic hazardous if and when generated, shall be kept separately for safe disposal by the waste generator.

c) Waste generators shall pay the service fee/user charges and taxes as may be prescribed by the local body from time to time for the provision of SWM services and protection of their health and environment.

d) Make honest efforts to follow the 4Rs.

3.3 Support from Commissionerate of Municipal Administration. The Commissionerate, as a State agency, shall provide following support to the ULBs:

- a) to provide technical support to ULBs towards:
 - i. Enhancing their capacity to deliver SWM services effectively and in a sustainable manner,
 - ii. Selecting appropriate technology for treatment and disposal of waste; and
 - iii. Monitoring and Evaluation of the performance of local bodies in the implementation of Solid Waste Management Rules 2016, State SWM Policy and directions that may be issued by G.O. Tamil Nadu from time to time;
- b) to conduct studies and research on SWM to keep pace with advancements in the sector and help local bodies in improving the level of SWM services;
- c) to guide the local bodies in determining SWM service fees / charges to make the services sustainable over a period of time and in its recovery from various levels of waste generators;
- d) to provide technical assistance to local bodies in entering into public private partnerships or private sector participation. The Commissionerate/Directorate may, for that purpose, empanel consultants that can provide support to ULBs in contracting mechanism and in monitoring the implementation of the SWM projects;
- e) to promote setting up of regional landfill facilities for safe and scientific disposal of solid waste for a cluster of cities and facilitate a working arrangement, cost sharing mechanism and signing of Agreements/MoUs among the participating ULBs; establish modalities through which rural local bodies can avail the facility of regional landfills;
- f) to explore the possibilities of raising funds from donor agencies and national and international financial institutions for funding SWM projects through grants and soft term loans to local bodies;
- g) to design and share standard bidding documents with urban local bodies for development of SWM projects on PPP basis; guide and monitor development of PPP projects; and
- h) For those ULBs who take initiative in setting up an appropriate system of waste segregation, storage, collection and transportation at their own cost, the Commissionerate may recommend to the Government to give financial support on priority for setting up treatment and disposal facilities as an incentive to such ULBs.

3.4 Support and guidance from state Government

- a) The Directorate of Town and Country Planning/ Chennai Metropolitan Development Authority or Municipal Administration and Water Supply Department in consultation with Land Administration Department shall identify and reserve suitable large parcels of land (preferably wastelands or lands having low productivity) in various parts of the State for setting up regional waste processing facilities and engineered landfills for future use.
- b) The State Government shall allot lands to the ULBs on a token lease rent or at free of cost for setting up waste treatment plants & disposal facilities in a situation where local bodies do not have their own land for setting up such facilities.
- c) In cases where it is considered desirable to set up regional landfills in lieu of individual landfills, the government will allot suitable parcel of land for regional facility in the name of a Special Purpose Vehicle (SPV) that may be created for such facility.
- d) Declare 'No development zone' around the sites identified for construction of sanitary landfill and prohibit development in such buffer zones.
- e) The Government may through the Commissionerate, shall advice ULBs to levy minimum fees and taxes to make the SWM services sustainable.
- f) The Government may declare an incentive scheme to promote ULBs to levy service fees, in the form of matching grants to cover the capital costs of construction of treatment and disposal facilities.
- g) The Government may direct ULBs to allocate a minimum percentage of annual budgets for solid waste management and to maintain separate account of recurring expenditure and capital investments on SWM.

State Policy should focus the technology suitable to the Urban local bodies based on the Quality and the Quantity of waste that is being generated.

- Smaller ULBs with lesser population and upto 30 ton per day waste generations can opt the indigenous composting and vermi composting technologies with Material recovery facilities for recyclables.
- The ULBs where the waste generation account more than 30-50 ton per day can go for the Decentralized way of Waste Management at Zone and Ward level so that the waste going to the common processing facility get reduced. The ULBs can also establish material recovery facilities for recyclables.

- The ULBs generating municipal solid waste more than 50 ton per day can think of roping different technologies ranging from smaller Bio-methanation unit to various other technologies concepts by clear-cut feasibility study suitable to that area by analyzing the physical and financial viability of the project for its sustainability.
- The Corporations such as Chennai, Coimbatore, Madurai, Tiruchirapalli which generates more than 300 ton per day can go for separate Construction and Demolition Waste Management and other such improved technologies by strong analysis based on its feasibility.
- Adopting the concept of regional landfills as common facilities for economy of scale and professional management at landfill.

CHAPTER -4. IMPLEMENTATION STRATEGY

4.1 Create special purchase vehicle for SWM in Commissionerate

a) Commissionerate shall be the Nodal Agency for extending technical and financial support to ULBs towards improving SWM services and monitor their performance.

b) Commissionerate shall have Solid Waste Management Cell to give necessary support and technical assistance to the municipal authorities of the State to enable them to create essential infrastructure and provide efficient service delivery.

c) The Cell shall have professionals having expertise in SWM Systems Design, Financing Infrastructure, public private participation /Contracting Mechanism, Processing and Disposal Technologies.

d) Commissionerate may take help from External Agencies/Experts to provide technical support to Urban Local Bodies.

4.1.1. Functions of special purchase vehicle for SWM

The special purchase vehicle for SWM in the Commissionerate shall take up the following activities, namely:-

i. Assess system deficiencies: Prepare status reports of SWM services in the local bodies; identify the deficiencies in the service delivery.

ii. Public Awareness to promote Community Participation Information, Education and Communication (IEC) programmes covering the following aspects shall be developed centrally within 6 months from the date of declaration of State Policy and shall be shared with local bodies that will take up the awareness campaigns as follows:-

- Not to litter
- Practice the 4Rs (reduce, reuse, recycle and recover)
- Segregation of waste at source
- Domestic hazardous waste to be kept separately
- Handover the waste to the waste collector on a daily basis
- Health risks associated with improper solid waste management

To make the campaign effective, the implementation strategy of information education communication shall include sensitizing school children who in turn will put pressure on parents to participate in the cities efforts towards waste management;

iii. Preparing State Action Plan: Draw up short term, medium term & long term action plans for improving SWM systems & services; such plans shall be drawn within 6 months from the date of declaration of State SWM Policy, spelling out the strategy to implement the same.

iv. Capacity Building

- a) Facilitate training need assessment at various levels of stakeholders;
- b) Get training modules prepared encompassing all important aspects of solid waste management;
- c) Arrange orientation training and technical training to officers and staff of local bodies and other stakeholders at regular intervals as per the training need assessment;
- d) Facilitate handholding of local bodies, where considered necessary.

v. Identify suitable Technologies

Assist the ULB in identifying and adopting appropriate technologies for treatment and disposal of waste suitable to the size of the ULB, characteristics of waste & the local conditions.

vi. Decentralized Compost facilities in Markets

Large/wholesale markets for perishable farm produce and other organic wastes shall be assisted in setting up composting or biogas plant within the market area premises and in Zone/ward level with the approval of State Pollution Control Board.

vii. Technical Support for Sanitary Landfill Sites

Provide technical assistance in assessing the suitability of land identified by ULB for sanitary landfill sites. Guide the ULB in design, construction and technical management of sanitary landfills and post-closure management activities as and when required.

viii. Regional Facilities

Motivate the Municipal authorities in adopting the concept of regional landfills for economy of scale and professional management of landfills and bring them together to create such common facilities.

ix. Promotion of Joint Venture

Promote joint venture between international and local companies and promote technology, knowledge transfer.

x. Establish SWM Cell in a Local Body

Advise ULBs to have SWM cell if they do not have such department/cell and appoint qualified persons as per the National Manual on SWM.

xi. Promote Public Private Partnership /private Sector partnership

a. Advise the Municipal authorities on common PPP issue such as:

- ✓ What type of SWM services may be considered for private sector participation?
- ✓ How many contracts be packaged to get the right people to bid?
- ✓ How to ensure fair competition among bidders on a contract?
- ✓ What size of contract will be attractive for the private operator?
- ✓ How bids be evaluated in transparent manner?
- ✓ What is the best payment structure to make the contract sustainable levy of user fees, charges, or taxes?
- ✓ What should be the institutional arrangement at the ULB level for monitoring the contract?
- ✓ How can municipal or government land be leased to a private sector for setting up treatment and disposal facilities?
- ✓ How can hardships arising out of unforeseen situations be mitigated during the contract period?

b. To prioritize the areas where Public Private Partnership / Private sector partnership may be promoted.

c. Advise on the roles and responsibilities of parties to the contract.

d. Draft/improve standard tender documents.

e. Establish monitoring mechanisms payment mechanisms.

f. Guide local bodies in observing transparent bid process management.

g. Local bodies make to involve sector experts to promote public awareness programs.

xii. Judicious utilization of State allocations

Judiciously utilize any State allocation for SWM; priority may be given to the construction of Waste Processing and Disposal facilities in the State.

xiii. Prepare Benchmarks, Guidelines, manuals, etc.

Prepare phase-wise benchmarks for various levels of ULBs, guidelines and simple operating manuals to enable the local bodies to implement the laws, rules and regulations to improve SWM services effectively.

4.2 ULBs to adopt Integrated Approach to Solid Waste Management (ISWM)

Solid Waste Management being a complex task requires an integrated approach to deal with it effectively. Piecemeal approach leads to multiple handling of waste and lack of accountability. ULBs shall assess the suitability of packaging of large contracts in consultation with commissionerate to ensure that project can be executed in well synchronized and cost effective manner with clear lines of accountability of the operator of the service / facility. An integrated approach, which may ensure use of / recycling of all component of waste for profitable use such as composting or waste to energy technology and ensuring disposal of minimum waste at the landfill, may be adopted in the State.

4.3 ULBs to make SWM Services financially sustainable

a) ULBs should levy adequate user fee from time to time as may be advised by commissionerate to at least cover full O&M cost of collection, transportation, treatment and disposal of waste over a period of 3 to 5 years and have a sound mechanism to recover the fees from the beneficiaries. The local bodies may also levy adequate taxes to cover the capital investments in SWM sector.

b) Soft loans may be taken from international funding agencies like Asian Development Bank, World Bank, Japan Bank for International Co-operation for meeting part of the capital costs in consultation with commissionerate.

c) Promote public private partnership to minimize financial burden of capital investments on the local bodies.

HARMANDER SINGH,
Principal Secretary to Government.