

**KAYALPATTINAM MUNICIPALITY**

KAYALPATTINAM MUNICIPALITY URGENT COUNCIL MONTH OF JUNE 2019

FORM 3

Minutes of the Meeting held on 25.06.2019

Date of council meeting	Deceison number	Subject of the Agemda	Resolution
25.06.2019	1857	<p style="text-align: center;"><b>SOLID WASTE MANAGEMENT POLICY</b></p> <p>AS PER COMMISSIONER OF MUNICIPAL ADMINISTRATION, CHENNAI LETTER ROC NO 228/2019/B3 DATED:25.02.2019. SOLID WASTE MANAGEMENT POLICY FOR KAYALPATTINAM MUNICIPALITY</p> <p style="text-align: center;"><b>1. CHAPTER BACKGROUND</b></p> <p><b>1.1. INTRODUCTION</b></p> <p>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 wastein the urban areas, over the past few years, just the handling this Municipal Solid Waste (MSW) has assumed the proportion of a major organisational&amp; financial environmental challenge.</p> <p>Recognising this Ministry of Environment, Forests&amp; Climate Changes (MoEF &amp;CC), Govt. of India had notified Municipal Solid Waste (Management &amp; Handling) Rules, 2000 which was subsequently revised into Solid Waste Management Rules 2016 on 8<sup>th</sup> April 2016.<b>The above rule mandates each Urban Local Body (ULB) to frame Policy on Solid Waste Management and Solid Waste Management Action Plan to address the growing concern of waste management in the concerned town.</b></p> <p><b>1.2. SOLID WASTE MANAGEMENT RULES 2016</b></p> <p>The responsibilities of various Ministries and local bodies for sustainable solid waste management have been highlighted in the SWM Rule 2016.</p> <p><b>1.3. DUTIES OF LOCAL BODIES</b></p>	அனுமதிக்கப்பட்டது

It has been emphasised that it is the **Duty of local bodies** (as the prime responder for Solid Waste Management) to carry out the Collection, Transportation and Disposal of Solid waste in a scientific manner on day to day basis. The rule further facilitates the local bodies to apply penalty clause for the **effective enforcement** of the rule apart from the **user charges**. Accordingly by law had been framed by the Kayalpattinam Municipality published in the district gazette.

#### **1.4. DUTIES OF WASTE GENERATORS**

Moreover, it is the **Duty of Waste Generators** to segregate the waste at source as Biodegradable & Non-biodegradable waste and handing over the same to sanitary workers authorised by the local bodies, has also been prescribed in SWM rules 2016. In a bid to encourage this and improve stakeholder participation for achieving zero littering (in open public spaces, drains, water bodies, etc.,) and to slash open burning, extensive awareness programs have been directed to be carried out by the animators in local bodies engaged for IEC activities.

#### **1.5. DECENTRALISING THE WASTE MANAGEMENT PROCESS**

Further the rule reduces the burden of local bodies by introducing the concept of Bulk waste generator and Decentralising the waste management, process. Considering this, Government of Tamil Nadu has adopted a holistic State policy on 24<sup>th</sup> August 2018, towards sustainable waste management and local bodies are now engaging in the preparation of action plan for the same. In accordance with this, Action plan for Kayalpattinam Municipality is framed.

#### **1.6. STATE POLICY ON SOLID WASTE MANAGEMENT, GOVERNMENT OF TAMIL NADU**

The changing urban life style has resulted in both positive and negative effects. While the standard of living condition has considerably improved, a large volume of solid waste has become its bye product. Many new approaches have been adopted to process these wastes in a sustainable manner.

#### **1.7. ZERO-WASTE CONCEPT**

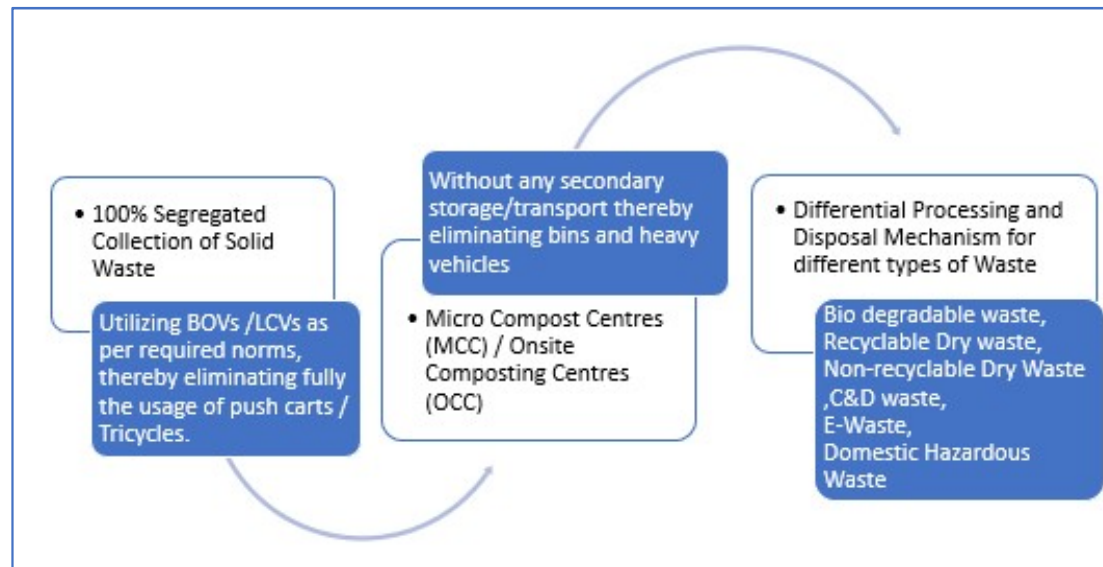
The Government of Tamil Nadu has felt the necessity to frame a State policy to cater to the needs of Solid Waste Management covering right from Primary collection to scientific processing and disposal of the Municipal Solid Waste in an eco-friendly manner. The policy is drafted in such a way that it provides necessary guidance to

dispose all type and nature of waste generated scientifically to achieve the **Zero-Waste Concept**. Every aspect such as Bio & Non-biodegradable waste (both recyclable and Non-recyclable), domestic hazardous waste, E-waste, street sweeping waste, highly littered public places with mixed wastes etc., are considered. The policy focuses on the technology suitable for the urban local bodies based on the Quality and the Quantity of waste that is being generated.

### 1.8. INFORMATION EDUCATION AND COMMUNICATION (IEC) ACTIVITIES

Apart from this, Bulk Waste Generators are activated to develop onsite facilities for handling the waste generated by them. Moreover, continuous and rigorous **IEC Programs are emphasized** to inculcate behavioral changes among the public to encourage Source Segregation.

**Figure 1: Approach of waste management-Government of Tamil Nadu**



## 1. CHAPTER

### PRESENT STATUS OF SOLID WASTE MANAGEMENT IN KAYALPATTINAM MUNICIPALITY

### 1.1 DOOR TO DOOR COLLECTION AND SEGREGATION

Kayalpattinam Municipality comprises of 18wards with a population of 40542 as per 2011 census. The current population on 2018 is 55450. It consists of 14450residential households with 1100 commercial establishments. The town is spread over an area of 12.50 Sq. km.

- ✓ The wet waste are collected on Door steps every day
- ✓ The dry waste is being collected once in a week i.e Wednesday
- ✓ The Domestic Hazardous waste such as Napkin, Diaper collected along with wet waste collected.
- ✓ E Waste, other domestic hazardous waste and C&D waste collection to be practiced.
- ✓ Animators are involved in imparting the practice of Source segregation through Behavioral change.

**Table 1: % of D2D collection & source segregation**

Waste Generation	14TPD
Door to Door Collection%	100 %
Source Segregation %	76 %

### 1.2 QUANTITY OF WASTE GENERATION

Kayalpattinam Municipality generates a total of 14 Metric Ton of Solid Waste Per Day (14 TPD). The per capita generation is 237gms/day. The sources and types of waste are obtained by conducting random sample survey in two different areas – Residential and Commercial during two different occasions –week days, holidays and festival occasion and the same is indicated in Table 1.

**Table 1: Waste Generation**

Source of Waste	No. of HH/Assessment	Waste Generation in TPD			Inert, Silt, C&D waste (MT)	Total Waste Generated in TPD
		Wet Waste	Dry Waste	Total		
Domestic	14450	8	4.750	12.750	0.750	14.0
Commercial	1095	0.8	0.450	1.250		

<b>TOTAL</b>	-	8.8	5.2	14.0		
<b>BWG</b>	4	1.5	1.0			2.5

Note: BWGs are handling their waste themselves with their own risk  
0.750 MT is not include in Dry waste. Inert, Silt and C&D wastes are handled by waste generator.

### 1.3 COLLECTION AND TRANSPORTATION

- BOV are used at 400 HH/Vehicle /day (covering 3 Trips)
- LCV are used at 1200 HH/Vehicle/day (covering 3 Trips)
- Primary collection at Door steps is being done and wastes collected are directly transported to processing center. This is being done using
  - ✓ 1 BOV and 3 LCV for 4000 HHs
  - ✓ 2 no. Tipper and 1 No. Dumper placer use for balance HHs
  - ✓ 1 Tipper lorry for commercial
  - ✓ Secondary collection and Transportation partially achieved.
- Collection of Wet waste is not being done from identified 4Nos. of Bulk Waste Generator and instructed them to create their own processing at their premises.
  - ✓ 4Nos of BWGs doing composting Process
- The bio medical waste from 3 Hospitals and clinic are being collected by the IMA authorized facilitator M/S. Aseptic Systems Biomedical Waste management Company.

### 1.4 PROCESSING STATUS ON DISPOSAL OF SOLID WASTE

- ✓ Micro level compost center are being established on Decentralized basis by dividing the town into 5 segments in 4 Locations covering 1 to 18 wards.
- ✓ Saleable Dry wastes such as Recyclable plastic waste are sold to recyclers and the workers are permitted to share the monetary benefits.

## 3.CHAPTER

### ISSUES AND SHORTFALL

The Major issues such as (i) Inadequate planning (ii) In-house capabilities (iii) Lack of Public awareness

and Community Participation in segregation of Waste and handling of Waste (iv) Inadequate processing facilities (v) Improper implementation strategy have been considered and accordingly the gap analysis in each activity of Solid Waste Management is done for Kayalpattinam Municipality.

#### **1.5 ISSUES IN COLLECTION AND TRANSPORTATION**

- Requirements of primary collection vehicle are arrived based on the type of vehicles, capacity of the vehicle and number of trips per vehicle based on the types of source from where the waste has to be collected. Finally the “Gap” is analyzed to take action to procure adequately.
- Route chart and Trip chart for each vehicle with designated sanitary workers are to be planned and followed.
- Adequate awareness among the citizen has to be done sustainably

#### **1.6 ISSUES IN SCIENTIFIC PROCESSING AND DISPOSAL**

- The centralized compost yard (So called Dump yard) is located about 2 KMs out of the town in other Village panchayat area, which caused more secondary transportation cost and make the system fiscally overburden.
- Insufficient manpower with processing at compost yard
- Wet waste disposal technology has to be finalized based on the quantity, quality and characteristic of solid waste at Kayalpattinam Municipality.
- Dry waste disposal mechanism has to be derived.

#### **1.7 ISSUES IN IN-HOUSE CAPABILITIES**

- All the staff involved in SWM have to be periodically provided with training on methodology and technology to keep them with updated skill knowledge
- The shortfall in man power to address the SWM has to be determined by conducting GAP analysis
- Kayalpattinam municipality is entitled to engage 33 no. of sanitary workers as per GO Ms. No. 101 dated 30.4.97.
- At present, only 73 Nos.of sanitary workers (33 permanent and 50 outsourced) are engaged in the collection process.
- Action has to be taken to have adequate sanitary workers and supervising staff.

#### 4. CHAPTER

##### VISION, GOALS, OBJECTIVES ON SWM FOR KAYALPATTINAM MUNICIPALITY

###### a. VISION

To provide better quality of life to the people of Kayalpattinam Municipality and to make the town livable through sustainable Solid Waste Management strategy

###### b. GOAL

- (i) To have high standard of cleanliness in Kayalpattinam Municipality
- (ii) To ensure 100% Door to Door collection of the waste and oblation of unhygienic system of disposal by the households
- (iii) To ensure 100% waste segregation at source
- (iv) To promote the practice of Reduce, Reuse, Recycle and Recover
- (v) To have “**No Landfill Concept**”
- (vi) To achieve “**Zero Waste Concept**”

###### c. POLICYOBJECTIVE

Objectives shall endeavour to

- (i) Protect public health and environment
- (ii) Make the citizen to realize the responsibility and accountability on SWM
- (iii) Minimizing the generation of Solid Waste through sustainable IEC on 4R Concept
- (iv) Involving the community groups RWA, CBOs, SHGs to ensure community participation in Managing and minimizing the municipal solid waste locally.
- (v) Through periodical meeting and discussion dispose the wet waste through composting process and to promote bio Manure
- (vi) Provide integrated solution to dispose the solid waste (both wet and dry waste) with cost effective and efficient delivery of service
- (vii) Dispose the dry waste through the vendors
- (viii) Build in capacity of Municipal staffs through periodical training.
- (ix) Promote “**Green Cross**” society at educational institution to impart the necessity of SWM to keep

the town with livable condition.

- (x) Promote the town to have better star rating in SWM
- (xi) Make the SWM services self-sustaining by collecting user charges to cover Operation & Maintenance cost of the services and levy taxes to meet out the cost of capital investment.
- (xii) Follow the polluter pay principle to bear the cost associated for damaging the environment to realize the responsibility of concern to keep the pollution free environment.
- (xiii) Culminate the practice of throwing the waste in to the water bodies and culminate the practice of burning the garbage on road sides.

## 5. CHAPTER

### IMPLEMENTATION STRATEGY

#### 1.1 IMPLEMENTATION STRATEGY

Door to Door Collection	<ul style="list-style-type: none"> <li>• Wet waste collection on daily basis</li> <li>• Dry waste collection on weekly basis (every Wednesday)</li> <li>• Domestic Hazardous waste               <ul style="list-style-type: none"> <li>i. Such as Napkin, Diaper and etc., will be collected separately during wet waste collection on daily basis.</li> <li>ii. Other Domestic and Hazardous waste such as Discarded paint containers, garden pesticide and chemical detergent container etc., will be collected separately on monthly basis.</li> </ul> </li> <li>• E waste collection on monthly basis</li> <li>• C &amp; D waste on need basis</li> <li>• Waste will not be collected from the Bulk waste generators</li> </ul>
Segregation	<ul style="list-style-type: none"> <li>• 100 % at Source Segregation ensured through sustainable IEC activities engaging Animators( Green Ambassadors)</li> </ul>
Transportation	<ul style="list-style-type: none"> <li>• Primary collection at door step using Battery Operated vehicles and Light commercial vehicles with proper route chart and trip chart</li> <li>• Eliminating Secondary storage Bins on roadside</li> <li>• Minimizing secondary transportation</li> </ul>



		<p>Scientific Disposal of Waste</p>	<ul style="list-style-type: none"> <li>• Disposal of wet waste through composting and Establishing Micro level Compost Centers, On Site Composting Centers on Decentralized approach for processing and disposal of wet waste and green waste.</li> <li>• Bio gas technology for food waste and slaughterhouse waste</li> <li>• Plastic waste and other recyclable waste to dispose to the recyclers</li> <li>• Other non recyclable and non combustible waste and silt are disposed along with C &amp; D waste.</li> <li>• Dead animals disposed scientifically through burial method in the earmarked site</li> <li>• Hazardous waste and E waste to collect and store at Resource Recovery Centre by Municipality and periodically dispose the same to PCB for further process.</li> <li>• C &amp; D waste to collect and store in the earmarked location and to use it on needy basis.</li> </ul>	
		<p>IEC activities , Capacity buildings and motivation</p>	<ul style="list-style-type: none"> <li>• Periodical meeting with RWAs, SHGs, NGOs, elected body members and Bulk Waste Generators periodical training to sanitary workers.</li> <li>• Updating the knowledge of the personnel involving in SWM</li> </ul>	
<p><b>1.2 SWM Monitoring Cell</b></p> <p>The Municipality will constitute a SWM Monitoring Committee under the Chairmanship of Municipal Chairman comprising the Commissioner as Member secretary and five other member including Health officer/ Sanitary officer, Engineer, Town planner, and two elected representatives.</p> <p>This committee will meet once in a month and discuss the implementation strategy and facilitate the ULB for implementation of SWM</p> <p><b>1.3 Home Composting</b></p> <p>Municipality will take all effort to promote the Home Composting practice among the citizen through the intensive campaign.</p>				

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**அலுவலக குறிப்பு:-**

அ) அனுமதிக்கலாம்.

ஆ) மாவட்ட அரசிதழில் பிரசுரம் செய்ய ஆகும் செலவுத்தொகையை  
இந்நகராட்சி மூலதன நிதியிலிருந்து வழங்க மன்றம் அனுமதிக்கப்படுகிறது.