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**KERALA STATE POLLUTION CONTROL BOARD**  
**കേരള സംസ്ഥാന മലിനീകരണ നിയന്ത്രണ ബോർഡ്**

Pattom P.O., Thiruvananthapuram – 695 004  
പട്ടം പി.ഒ., തിരുവനന്തപുരം - 695 004

PCB/HO/SEE2/Annual Report SWM/2020-21

Dated: 06/09/2021

From

The Member Secretary

To

The Member Secretary  
Central Pollution Control Board  
Parivesh Bhavan  
East Arjun Nagar  
New Delhi – 110032.

Sub: Annual report 2020-2021 on implementation of Solid Waste Management Rules, 2016-Reg

Ref: Solid Waste Management Rule 2016

Sir,

Annual Report for the year (2020-2021) as per the provision of 24 (3) of the Solid Waste Management Rules, 2016 is submitted herewith.

Yours faithfully

  
**MEMBER SECRETARY**

Encl: As above.

Copy to:

1. Regional Director, CPCB, Bangalore
2. All ROs and Dos
3. IT Cell
4. CA to Chairman
5. CA to Member Secretary

**Form V**  
**[See rule 24(3)]**

**Format of annual report to be submitted by the State Pollution Control Board or  
Pollution Control Committee to the Central Pollution Control Board**

**PART A**

To,

The Chairman  
Central Pollution Control Board  
Parivesh Bhawan, East Arjun Nagar  
DELHI- 110 0032

**ANNUAL REPORT '2020 – 2021'**

1)	Name of the State/Union territory	<b>Kerala</b>
2)	Name & address of the State Pollution Control	<b>Kerala State Pollution Control Board Plamoodu, Pattom P.O., Thiruvananthapuram, Kerala - 695004</b>
3)	Number of local bodies responsible for management of solid waste in the State/Union territory under these rules	<b>93 (6 corporation; 87 Municipality)</b>
4)	No. of authorization application Received	30
5)	A Summary Statement on progress made by local body in respect of solid waste management	Attached as <b>Annexure I.</b>
6)	A Summary Statement on progress made by local bodies in respect of waste collection, segregation, transportation and disposal	Attached as <b>Annexure II for Urban Local Bodies Annexure II A for Rural Local Bodies</b>
7)	A summary statement on progress made by local bodies in respect of implementation of Schedule II	Attached as <b>Annexure III</b>
8)	Date: 03/09/2021  Place:Thiruvananthapuram	Chairman or Member Secretary State Pollution Control Board/ Pollution Control Committee

## PART B

### Towns/cities

Total number of Town's/ Cities: **6 Corporations & 87 Municipalities**

Total number of ULBs: **93**

Number of class I & class II cities/towns: **Class I- 16; Class II- 23**

Authorization status (names/number)

Number of applications received: **30**

Number of authorizations granted: **21**

Authorizations under scrutiny: **9**

### SOLID WASTE Generation status

Solid waste generation in the state (TPD): **3543 TPD**

Collected: **964.76 TPD**

Treated: **2550 TPD**

Land filled:

### Compliance to Schedule I of SW Rules (Number/names of towns/capacity)

Good practices in cities/towns: Windrow composting, Vermi composting, aerobin, biogas plants, kitchen bins, bio composter, Biobins, pipe compost, ring compost, compost pits, Material Collection facilities, Resource. Material collection and recovery facilities are provided. (Details attached as **Annexure I for Urban Local Bodies**).

House-to-house collection:

Segregation:

Storage

Covered transportation

### Processing of SW (Number/names of towns/capacity)

#### Solid Waste processing facilities setup:

Sl.No.	Composting	Vermi-composting	Biogas	RDF/Pelletization
1	Centralised windrow composting plants - 2(Large); 12(Small)	Community level-7	Community level-287, Household level- 21,550	Nil
2	Community level- 869 (aerobin, Biobins)			
3	Household level- 411,009			

#### Processing facility operational

Sl.No.	Composting	Vermi-composting	Biogas	RDF/Pelletization
1	Centralised windrow composting plants - 2(Large); 12(Small)	Community level-7	Community level-287, Household level- 21,550	Nil
2	Community level- 869 (aerobin, Biobins)			
3	Household level- 411,009			

**Processing facility under installation/planned:**

Sl.No.	Composting	Vermi-composting	Biogas	RDF/Pelletisation
1	Being Planned/installation for decentralized units		Being planned/installation for decentralized units	

**Waste-to-Energy Plants: (Number/names of towns/capacity)**

Sl.No.	Plant Location	Status of operation	Power Generation (MW)	Remarks
1	Thiruvananthapuram	Land not Identified		
2	Kollam	Work awarded		
3	Kochi	Retendering completed		
4	Munnar	Tendering		
5	Thrissur	Land identified		
6	Palakkad	Work awarded		DPR stage
7	Malappuram	Land identified		
8	Kozhikode	Work awarded – Construction to be started Clearance obtained. Power Purchase agreement will be executed		Construction to be started by August Biomining is being done
9	Sulthan Bathery	Work dropped		
10	Kannur	Work awarded		DPR stage

**Disposal of solid waste (number/names of towns/capacity):**

Landfill sites identified: **1** (One at the regional level at Ernakulum)

Landfill constructed: Nil

Landfill under construction: 1

Landfill in operation: Nil

Landfill exhausted: Nil

Land filled capped: Nil

**Solid Waste Dumpsites (number/names of towns/capacity): (list enclosed) Annexure: IA**

Total number of existing dumpsites: **41**

Dumpsites reclaimed/capped: Nil

Dumpsites converted to sanitary landfill: Nil

**Monitoring at Waste processing/Landfills sites**

Sl.No.	Name of facilities	Ambient air	Groundwater	Leachate quality	Compost quality	VOCs
1.	Windrow composting plant, Kozhikode		Analysis Report attached as Annexure III	Analysis Report attached as Annexure III		
2.	Windrow Composting Plant, Brahmapuram		Analysis Report attached as Annexure III	Analysis Report attached as Annexure III		

**Status of Action Plan prepared by Municipalities**

Total number of Corporations/municipalities: **97**

Number of Action Plan submitted: Being submitted

## ANNEXURE I

### SUMMARY STATEMENT ON PROGRESS MADE BY LOCALBODY IN RESPECT OF SOLID WASTE MANAGEMENT

The Government of Kerala has taken efforts to implement the Solid Waste Management Rules, 2016 in the State. There are 6 Corporations, 87 Municipalities and 941 GPs in the State. The Kerala State Pollution Control Board (KSPCB) issued repeated directions to all local bodies to ensure compliance of the Solid Waste Management Rules, 2016. 3543 TPD of solid waste is generated from the cities and towns. The status of the present facilities is given below:

FACILITY	TYPE OF PLANT	NUMBER	DETAILS
Centralisedplant	Windrow composting plants(large)	2	1. Ernakulam 2. Kozhikode (100TPD)
	Windrow composting plant(Small)	12	1. Attingal (13TPD) 2. North Paravur (3TPD) 3. Chalakkudy (2 TPD) 4. Kodungallur (4 TPD) 5. Kothamangalam 6. Kunnamkulam 7. Guruvayoor (2 TPD) 8. Chittur -Thathamangalam (4 TPD) 9. Ottappalam (5 TPD) 10. Palakkad (4 TPD) 11. Thaliparambun 12. Payyannur
CommunityLevel	Vermi composting plants(Small)	7	1. Attingal (0.25TPD) 2. Thodupuzha 3. North Paravur (1 TPD) 4. Chavakkad (1.5 TPD) 5. Manjeri (0.5TPD) 6. Koothuparambu 7. Mattannur (5 TPD)
	Aerobins	406	
	Biogas plants	287	
	Bobbins in flats	500+	1. Thiruvananthapuram, 2. Ernakulam, 3. Trissur
	Material Collection Facility	685	
	Resource recovery facility	77	
House holdLevel	Pipe compost	1,31,559	Total- 4,32,559
	Kitchen bin	79,146	
	Biogas plant	21,550	
	Bio composter, Biobins, pot bin	1,09,441	
	Ring compost	40,036	
	Bucket compost	6,903	
	Compost pit	75,454	
Institutional level	Biogas plants, aerobins, biobins		
Rendering plant	Rendering plant	26 units	250 TPD
Steel mills	Scrap recycling	18 units	
Plastic recycling units	Plastic recycling units	187 units	200 TPD
Road tarring	Used for road construction by PWD and LSGD		10 TPD

The Government of Kerala constituted a State Level Advisory Committee on Waste Management chaired by the Chief Secretary; this Committee has conducted 36 meetings, till date, for monitoring solid waste management on monthly basis. The Government has accorded sanction for establishing Waste to Energy plants in 8 cities having 1 Lakh or more population and in two local bodies having population below 1 lakh. The progress is given below:

### STATUS OF SETTING UP OF WASTE to ENERGY PLANT

Sl. No.	Waste to Energy plant	Land Identified	Procured	Status	Work Initiated
1	Kozhikode Njaliyanparambu	Kozhikode corporation	(Govt. land)12.67 acre at Njaliyanparambu	1.1 Waste to Energy Plant  Work awarded to Zonta Infratech Private Limited for the construction of Waste to Energy Plant at Njaliyanparambu. A company namely M/s.Malabar Waste Management Limited was formed.The Concessionaire has informed that the Financial Closure for the project has been achieved – SBI has agreed for a debt funding of Rs 146 crores. Consent to establish was issued to the waste to Energy plant.	M/s Zonta Infratech Pvt Ltd started the work of clearing of legacy waste on 3rd March, 2020.  The clearing work of legacy waste resumed at the dumpsite on 4th May 2020 and 40% of legacy waste in Zone I has been removed.  The work is in progress at the site.

				<p>Clearing of ground for the plant is undergoing. Land development works are undergoing. Alternate road has been constructed on the periphery and vehicles started moving through alternate roads. The main road through the Centre for the site has now been closed. Request submitted to Social Forestry department for cutting trees in the site. Laying of water supply line to the site is nearing completion.</p> <p>M/s. MITCON Consultancy and Engineering Services has been appointed as the project management consultant for the development of the project with WtoE facility at Kozhikode</p>	
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2	Kannur Chelora	Kannur Corporation	(Govt. Land) 9.7 acres at Chelora	<p>Blue Planet Kannur Waste Solutions Private Limited was formed to take up the development of the project. Waste Characterisation study was conducted by SPCB</p> <p>SLAC directed MD, KSIDC &amp; Secretary, Kannur Municipal Corporation to take immediate steps to execute the Lease Agreement and Concession Agreement for the project.</p> <p>KSIDC has completed the tender process and the final offer along with details of the contractor, draft agreement to be executed with the Contractor and the technical proposal submitted by the Contractor has been</p>	<p>Agreement has been executed with M/s Zonta Infratech Pvt Ltd, the selected bidder on 21st October for carrying out the rehabilitation of MSW dumpsite at the site.</p> <p>Asked Secretary Kannur Municipal Corporation to take immediate steps with the Contractor to expedite the works for rehabilitation of MSW dumpsite at Chelora.</p>
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				<p>forwarded to Kannur Corporation on 07th August 2020 for further proceedings.</p> <p>KSIDC modified the Lease Deed addressing the Kannur Corporation's concern on alienation of 9.7 acres of land at Chelora. The modified lease deed was submitted to the Secretary Corporation for execution. Further a stake holder meeting was held to explain the project details to the councilors on 24th August 2020 and all concerns raised were discussed and explained. Despite all these steps, Kannur Corporation has not leased the land at Chelora to KSIDC and a council resolution authorizing the Secretary Kannur Corporation</p>	
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				<p>on to execute the concession agreement has not been passed. Concession agreement can be executed only on receiving land to KSIDC. The concessionaire has reported that the field studies including waste characterization and waste quantification studies, as part of DPR preparation will be commencing next week. Govt vide GO(Rt) No. 714/2020/LS GD dated 27-3-2020 issued direction to Kannur Municipal Corporation to hand over the 9.75 acres of the land identified at Chelora on lease basis to KSIDC for the development of Waste to Energy project and to execute</p>	
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				<p>MoU with KSIDC for clearing the existing legacy waste at dump site in Chelora.</p> <p>Detailed waste characterization of study of dumpsite at Chelora was done by the Pollution Control Board. SLAC directed the Board to submit final study</p>	
3.	Palakkad Kanjikode	Palakkad Municipality	<p>(Land taken over from Kerala State Electricity Board Ltd. in advance possession)</p> <p>15 acres at Kanjikode</p>	Blue Planet Palakkad Waste Solutions Private Limited was formed to take up the development of the project.	The Concession Agreement for the project has been executed and the Concessionaire has taken steps for preparing the DPR for the project. The Concessionaire has engaged M/s Dun & Bradstreet for preparing the DPR and that the study is in the final stages. As instructed by the Committee, modifications are incorporated in the DPR. Final DPR will be submitted by the end of February 2021.
4	Kollam Kureepuzha	Kollam Corporation	(Govt. land) 7.05 acres at kureepuzha	M/s Venad Waste Management Solutions Pvt Ltd has submitted the draft DPR for the Integrated	For biomining the site, the Corporation informed that draft agreement to be executed with M/s. Zonta Infratech Pvt Limited is vetted

				<p>Solid Waste Management project with a Wasteto Biogas facility of 200 TPD processing capacity.</p> <p>DPR was evaluated by the Committee and it has been modified and final DPR submitted to LSGD Concensionaire hastaken steps to submit applications to the concerned departments and agencies for statutory approvals and clearances.</p>	<p>by the Corporation's Standing Counsel and the same will be placed in the next Council meeting for approval.</p> <p>SLAC directed the Secretary Kollam Corporation to take necessary steps to ensure either the Contractor follow the tender conditions or cancel the present tender and go for re-tender immediately.</p> <p>Again the project has been retendered by the Corporation.</p>
5	Thiruvananthapuram Vizhinjam	Thiruvananthapuram Corporation	Land not identified	<p>KSIDC re tendered the project on Swiss Challenge mode on 27th May 2020 and 30th June was the last date for the submission of bids. The pre bid meeting as part of tender procedures was held on 08th June 2020. The last date for the submission of bids was 14th July 2020. KSIDC did not receive</p>	Tendering in advanced stage

				<p>any challenging bids for the project. KSIDC directed M/s Essential Sustainability Services Incorporated to submit details regarding the technical and financial capabilities of the Consortium members and in response received certain details from them which was then evaluated. The Bid Evaluation Committee is satisfied with the technical plan presented by the consortium, and resolved that the consortium led by M/s. Pan American Communication Services S.A. is technically qualified and recommended that the financial bid submitted by the Consortium be evaluated. Bid Evaluation Committee further</p>	
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				<p>resolved that the following details shall be Obtained from Consortium before the opening of the financial bid – Testimonials of technology use, operating videos of the waste plants under this technology, Undertaking from the technology partner, Consortium members consent, analysis reports of the exhaust gas and ash. The above details were sought from the consortium and the consortium in response submitted certain details.</p> <p>Directed State Pollution Control Board to evaluate the Technical proposal submitted by the Consortium for confirming</p>	
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				the uniqueness and authenticity of the proposed technology.	
6	Ernakulam Brahmapuram	Kochi corporation	(Govt. land) 20 acres at Brahmapuram	<p>KSIDC was authorized to take immediate steps to float an RFP for the selection of suitable concessionaire to setup Waste to Energy plant at Brahmapuram. The last date for submission of bids has been extended to 14th September 2020.</p> <p>Technical bids submitted by the Bidders needs to be evaluated by the Bid Evaluation Committee and the proposal has been submitted to Government to re constitute the Bid Evaluation Committee. It was reported by LSGD that steps have been taken to re constitute the Bid Evaluation Committee</p>	<p>KSIDC floated e-tender to identify a suitable agency for the rehabilitation of MSW dump site at Brahmapuram. KSIDC submitted a proposal to constitute a Technical Evaluation Committee for technical evaluation of the bids. Evaluation of technical bid is in process.</p> <p>LSGD issued directions to Kochi Corporation to examine the quantity of legacy waste assessed and rate quoted by the bidder in consultation with PCB within 30 days</p>



				<p>and order in this regard will be issued soon. Also expressed that a restriction can be brought in the tender conditions to prevent one particular company being awarded more than 3 WtE projects on PPP mode at a particular project development time, so as to ensure more competition and also easier financial closure.</p>	
7	Idukki Munnar	Idukki Municipality	2 acres of land at munnar	<p>Evaluated the technical bid submitted by the Consortium of M/s Al Bucheeri General Transport Est, Pathanamthitta, M/s Al Bucheeri Transporting Est UAE and M/s Organic Recycling Systems Pvt Ltd, Mumbai on 19th August 2020.</p> <p>The Committee observed</p>	<p>Biomining started at Munnar Panchyath. Macro particles like plastic, tyres, metal particles etc already finished with the help of JCB. Action for installing machinery for further process is going on for turning it into briquets for construction purpose</p>

				that the Consortium is meeting the technical and financial minimum eligibility criteria. The consortium made a detailed presentation of their technical plan before the Bid Evaluation Committee. SLAC after detailed discussion resolved to accord sanction to proceed with the Financial evaluation of the Bid	
8	Wayanad Sulthan Bathery	Wayanad Municipality	0.5 acres at Sulthan Bathery	Work dropped	
9	Thrissur	Thrissur corporation	Identified land at Ollookkara village	Thrissur Corporation identified land at Ollookkara village in Thrissur district.  Vide GO (Rt) No 111/2020 /LSGD dated 13/01/2020 State Government has accorded sanction to Thrissur Municipal Corporation to purchase the identified land at	Proposal submitted to Suchitwamission for sanction

				<p>Ollookkara Village in Thrissur district and to hand over the same on lease basis to KSIDC for the development of the project</p> <p>Secretary, Thrissur Municipal Corporation to report the status of price negotiation done with the owners of the land identified.</p>	
10	Malappuram	Malappuram municipality	8.09 acres of land at Kurumbathoor village in Tirur Taluk	KSIDC reported that Land Board has issued orders to District Administration Malappuram to handover 8.09 acres of land at Kurumbathoor village in Tirur Taluk to KSIDC .	KSIDC has submitted necessary application in prescribed format to District Administration. SLAC directed to expedite the process.

The progress achieved is as follows:

- Setting of Waste to energy plants at 10 locations is at various stages
- **Single use plastic products were banned** all over the State and action being taken for its strict implementation. Task force for the elimination of SUP Action Plan is being prepared by the Task Force.
- **Implementation of EPR registration under Solid Waste Management Rules, 2016** for the collection of EPR fee for meeting the expenditure of Door-to-door collection by the local bodies is in an advanced stage. Development of online portal is also under progress.

- For **Regional Sanitary Landfill**, land (25 acre) has been identified at site of FACT at Ambalamedu, Ernakulam and action is being taken for take over.
- **Biomining** started at Njalianparmbu dumpsite and work awarded at Kureepuzha Kollam. Tendering stage at Kottayam, Bhramapuam, Chelora. Out of the 41 dumpsites, drone survey to be done in 10 large dumpsite and total station survey in remaining dumpsites.

**Annexure - IA**  
**DUMPSITES IN KERALA AS ON MARCH 2021**

<b>Major Dumpsites locations</b>			
Sl. No:	Location	District	Status
1	Vilappilshala	Thiruvanthapuram	
2	Kureepuzha	Kollam	M/s. Zigma Global Environ Solution Pvt. Ltd. started biomining
3	KottayamVadavathoor	Kottayam	Tendering in progress forthe disposal of non biodegradable waste
4	Sarvodayapuram	Alappuzha	Action being taken.
5	Brahmapuram	Ernakulam	Bidder has been identified and action is being taken to award the work to successful bidder. Drone survey has been done to quantify the dumpsite.
6	Laloor	Thrissur	Some area is reclaimedand construction of stadium is progressing and remaining area is taken up for biominingwith Clean Kerala mission and KIEL. Proposal under consideration of Suchitwa Mission.

<b>Sl. No:</b>	<b>Location</b>	<b>District</b>	<b>Status</b>
7	BPL Koottupatha, Palakkad	Palakkad	Under Consideration
8	Njeliyamparambu, Calicut	Kozhikode	<p>M/s Zonta Infratech Pvt Ltd started the work of clearing of legacy waste on 3<sup>rd</sup> March, 2020.</p> <p>The clearing work of legacy waste resumed at the dumpsite on 4<sup>th</sup> May 2020 and approximately 15000 cum of legacy waste was cleared from the project site as on 12<sup>th</sup> May 2020. Some disruption due to Covid and Monsoon. Machineries have been installed and resumed clearing of dumpsites.</p>
9	Chelora	Kannur	Work awarded to Zonta Infratech Private Limited. Corporation directed contractor to expedite the work.
10	Thalassery	Kannur	-

Other Dumpsite locations			
Sl. No:	Location	District	Status
1	Attingal	Thiruvanthapuram	Tendering process
3	Palayam	Thiruvanthapuram	Clearing is in an advanced stage
4	Varkala	Thiruvanthapuram	Clearing going
5	Changanassery, Fathimapuram	Kottayam	Project worth 13.5 Lakh completed. 20 lakh project to be implemented soon. Project for bioremediation and under consideration in Suchitwa Mission.
6	Erattupetta- Thevarrupara	Kottayam	Planned a proposal with Suchitwa mission, Kerala. Project taken by DPC
7	Mundakkayam - Vettukallamkuzhy	Kottayam	-
9	Kattapana-Vandenmedu	Idukki	-
10	Thodupuzha	Idukki	-
11	Munnar	Idukki	Tendering in Progress
12	Kalamassery	Ernakulam	-
13	Kothamangalam	Ernakulam	-
14	Moovattupuzha	Ernakulam	-

<b>Sl. No:</b>	<b>Location</b>	<b>District</b>	<b>Status</b>
15	North Paravoor	Ernakulam	Central Financial grant 25 Lakhs to disposal of legacy waste.
16	Chavakkad	Thrissur	-
17	Chalakkudy	Thrissur	50 cents reclaimed
18	Irijalakuda-Kuthuparamba	Thrissur	Some area is reclaimed and construction of windrow compost plant is going on.
19	Kunnamkulam		One acre reclaimed
20	Kumblagad, Wadakkancherry	Thrissur	Biomining project for this site is undertaken as part of SBM Urban DPR. A DPC project on the same is also approved for 30 lakhs
21	Ottapalam	Palakkad	-
22	Karathodu-Puliyettummal	Malappuram	-
23	Manjeri	Malappuram	SEUF is entrusted to prepare DPR
24	Thirur – Pottilathara Trenching ground	Malappuram	-
25	Vadakara, Puthiyapp	Kozhikode	Capping done over a part of legacy waste
26	Kalpetta	Wayanad	-



<b>Sl. No:</b>	<b>Location</b>	<b>District</b>	<b>Status</b>
27	Sulthan bathery, Karuvallikunnu	Wayanad	-
28	Koothuparamba	Kannur	-
29	Payyannur	Kannur	-
30	Kanjangad, Chemmatam vayal	Kasargod	-
31	Vidyanager, Kasargod	Kasargod	-

**ANNEXURE II (URBAN LOCAL BODY)**

Sl.No	Corporation /Municipality	District	Name of the City/Town	Population as per 2011 Census	Projected population (2021)	Quantity of Waste generated based on population	Percentage of D2D Collection (Dry waste)		No of collectors	As reported by localbodies		Quantity of waste processed (TPD)	Waste treatment technology used	Institutional level SWM Plants	Community Level SWM Plants	Household Level SWM Plants	Centralised	Non-Bio Degradable Waste Management	Site identified for Sanitary land fill	Dump sites identified	Authorization Applied	Authorization granted
1	Corporation	Thiruvanthapuram	Thiruvanthapuram Corporation	958000	996204	448	19.4	90	25	Not properly documented and submitted	242.23	222	De centralized units	Biobin 109 of 15 TPD	Biogas Plant - 18 Nos of 18.4TPD Aerobin (Thumboornuzhi model ) - 53 Nos having 12 TPD	Pipe compost- 87000 Nos., (50,000 working) of 43.5TPD Kitchen Bin- 19000 Biocom poster-15833 Biogas plant- 3982 Nos of 2.39TPD; other units- 109	Land identified for the solid waste processing plant for setting up the plant at Vizhinjam. The approval of the Board of VISL is to be obtained by the Board for the transfer of 15 acres of land on lease to KSIDC. The Board approval is to be communicated to the Port Department to issue necessary orders. KSIDC awarded the project on Swiss challenge on 27-5-2020 and prebid meeting on 8-6-2020. No challenging bids received on 14-7-2020. KSIDC directed Essential Sustainability Services to submit the technical and financial capabilities of the consortium members. The bid evaluation committee resolved that M/s. Pan American Communication Services is technically qualified and also sought to furnish some more details from the consortium before opening the technical bid and submitted certain details.	Material Collection Facility in 54 locations Resource Recovery Unit - 4 numbers	Regional landfill site identified at Kochi	3 (Of which one dumpsite cleared)	Yes	Under processing
2		Kollam	Kollam Corporation	397000	412832	186	83	70	124 (HKS)	10.5	50.32	50.32	De centralized units	Not reported	13 biogas plants of 5.6TPD; 13 aerobins of 3.9 TPD	Biogas plant- 1273 Nos. (working) of 2.5 TPD; Pipe compost - 462 (working) of 1 TPD; 720 biocomposter, biopot of 1.5 TPD	M/s. Venad Waste Management Solutions Pvt Limited has submitted the draft DPR for the integrated solid waste management with a waste to biogas facility of 200TPD. DPR was evaluated by the Committee and its has been modified and final DPR submitted to LSGD. Concessionaire has taken steps to submit applications to the concerned departments and agencies for statutory approvals and clearances.	MCF-7; RRF-1; Mini MCF-185	Regional landfill site identified at Kochi	Zigma solutions have been selected for carrying out biomining and they have started the work	Yes	Yes
3		Ernakulam	Kochi Corporation	677000	703999	317	89.8	59.8	1200	308	215	304	Centralized treatment - Windrow composting at Brahmapuram	Not reported	Nil	Biogas plant- 60 Compost pits- 1212	Windrow compost plant at Brahmapuram and retendering for the selection of proponent	MCF- 8, RRF-5	Regional landfill site identified at Kochi	1(Retendering of biomining of dumpsite at Brahmapuram)	Yes	Under processing
4		Thrissur	Thrissur Corporation	315957	330189	177	100	70	145		97	97	Decentralised units	Total quantity of biodegradable managed- 6.71TPD Non biodegradable 0.7TPD Non biodegradable 0.7TPD	Organic Waste Converter-2 Nos of 4TPD and 8TPD Biogas plant- 9	Biogas plant- 632; Compost pit- 20118; 50 pit- 20118; 50 biocomposter, biobin and four other units	Thrissur Corporation identified land at Ollokkara village in Thrissur district. Vide GO (Rt) No 111/2020/LSGD dated 13/01/2020 State Government has accorded sanction to Thrissur Municipal Corporation to purchase the identified land at Ollokkara Village in Thrissur district and to hand over the same on lease basis to KSIDC for the development of the project. The matter is being placed before the Council for approval and further proceedings.	Material collection facility-8 Resource recovery facility-3	Regional landfill site identified at Kochi	1 (Laloor)	No	No
5		Kozhikode	Kozhikode Corporation	550000	571934	257	49.72	95	645	98	95	140	Non- biodegradable- 0.75TPD	Biogas plant at public utility place- 4Nos Aerobins-28	Biogas-261 Pipe compost-10250	Windrow Composting. Work awarded to Zonta Infratech Private Limited for the construction of Waste to Energy Plant at Njaliyan parambu. A company namely M/s.Malabar Waste Management The company obtained NOC from State Environmental Impact Assessment Authority. Suchitwa Mission submitted the proposal to Ministry of Housing and Urban Affairs for approval of their share in the VGF for the project.Limited was formed and they applied for registration in Kerala Single Window Clearance Portal (KSWIFT) and to individual departments for clearance. Clarification on the points was called for by the Ministry and the same is being processed.	MCF-12;RRRF-2	Regional landfill site identified at Kochi	1(Njaliyanparambu) Biomining started	Yes	Yes	

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6		Kannur	Kannur Corporation	2,32,486	370197	167	63.5	89.3	44	85	75	70	Land Filling	Not reported	Trenching Biomehanati on of 0.25 TPD	Kitchen bin- 102 Biogas - 40(working) Pipe Compost 1682(working)	M/s Organic Recycling Systems Private Limited and M/s. Blue Planet Environment Solutions India Limited have completed the incorporation of SPVs in the name of Blue Planet Kannur Waste Consortium has selected agency for the preparation of DPR, waste quantification and characteristic study in Kannur district and the agency could not commence due to lock down announced in connection with Covid 19 pandemic. Govt vide GO(Rt) No.Solutions Private Limited to take up the development of the project.714/2020/LSGD dated 27-3- 2020 issued direction to Kannur Municipal Corporation to hand over the lease basis to KSIDC for the development of Waste to Energy project and to execute MoU with KSIDC for clearing the existing legacy waste at dump site in Chelora.	MCF-2; RRF-1	Regional landfill site identified at Kochi	1(Chelora)MoU with KSIDC for clearing the existing legacy waste at dump site in Chelora	Yes	Under processing
7	MUNICIPALITIES	Thiruvananthapuram	Attingal	37648	39150	16	48.5	100	44	16	16	16	Centralised and decentralised systems	Biogas Plant(Dheebanabandhu) 6 Nos with capacity of 1TPD Biogas plant (Portable) 5 Nos with capacity of 107.5	Windrow composting plant of 13TPD, Biogas Plant 6 Nos - 3.25 TPD Vermi Compost 1 No with capacity of 0.25 TPD	Biogas Plant 407 Nos - 0.85TPD	Windrow composting plant, vermicomposting plant, and biogas plant	MCF-1; RRF-1	Yes	1	Yes	Under processing
8			Nedumangad	60161	62561	25	6.2	62.5	88		2.8	2.8	Decentralised treatment units	Not given	37 biogas plants	2700 pipe compost; 2617 kitchen bin; 163 biogas plant-working; 15 ring composts	Nil	MCF-1; RRF-1	Yes	1	Yes	Under processing
9			Neyyattinkara	70850	73676	29	48	18.3	22	3	3	10	Decentralised treatment	Boiogas plant-20	Aerobins 21 Biogas plant - 10	Biogas plant- 104 Compost pit- 14360	Nil	MCF- 1	At regional level	Nil	No	No
10			Varkala	40048	41646	17	51	96	18	4.8	4.8	9	Decentralised treatment	500 ring omposts; 180 pipe compost; 82 compost pits	Biogas Plant - 1 No - 100Kg		Nil	MCF-3; RRF-1	At regional level	Yes -one	Yes	Yes
11	MUNICIPALITIES	Kollam	Paravur (South)	37189	43023	17	1	0	35	1.5 tons	1.5 tons	1.5 tons	55 biogas plants; 300 pipe compost	Nil	Aerobic bin compost units	Biocomposter bin (Kitchen bin)		1 MCF, 1 RRF, Plastic shredding unit and bailing unit	No	No	Yes	Yes
12			Karunagapally	47483	51420	21	29	22	32	6.5 tons	6.5 tons	6.5 tons	For Biodegradable waste treated in Houshold using pot compost and ring compost Non degradable waste treated using 1 MCF 1 RRF and 1 mini MCF	Nil	Nil	pipe compost-600 ring compost-5000 pot compost 70 biogas plant -26	Nil	1 MCF 1RRF 1Mini MCF plastic Shredding unit and bailing unit	No	No		
13			Punalur	46702	46702	19	90	80	127	3.5	3.5	10.5	For biodegradable waste aerobic bin compost units at community level and pipe compost at household level . 200mini MCF , 1RRF plastic shredding for processing non bio degradable waste.Door to door collection through harithakarmasena and given to clean kerala company and a private company(Agri tech Green Technoogies, Pathanapuram)	Nil	Aerobic bin compost units	Pipe compost 5000 unts(2 pipes / unit) ; 1250 biogas plants	Nil	200 mini MCF, 1 RRF, Plastic shredding unit	No	No	Yes	NA

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14			Kottarakara	30055	42050	17	66	20	58	HKS	1 ton	7.25	7.25	For biodegradable waste aerobic bin compost units at community level and biocomposter bins at household level . 1 MCF , 1RRF plastic shredding and bailing units for processing non bio degradable waste.Door to door collection through harithakarmasena and given to clean kerala company	nil	Aerobic bin compost units	Bucket compost,Biobin,Biogas plant		1 MCF, 1 RRF, Plastic shredding unit and bailing unit	No	No	yes	
15	MUNICIPALITIES	Pathanamthitta	Adoor	29143	30921	12	0	4	4				6.3	Bio composting(community level) ,bio bin,biodigester pot,Biogas plant(Domestic level)	Thumpurmoozhy 10 unit(21 bins)	0	1210 pipe compost,326 Ring compost,105 biobin	0	1 MCF	NA	Nil	NA	NA
16			Pandalam	42793	49099	20	72	28	16+1	(1 agency)	1.5	1.5		Decentralised treatment	0.89TPD of waste is managed	Compost bins - 2650	Nil	Not given	At regional level	Nil	no	NO	No
17			Pathanamthitta	37545	39500	16	41	95			6	6	6	Community level, Household level	0.92TPD of biodegradable waste and 0.35TPD of non biodegradable waste managed	Biogas Plant - 2 Nos Aerobin-5	Biogas plant - 400 Compost pits- 520	Nil	MCF-3; RRF-1	At regional level	Nil	Yes	Under processing
18			Thiruvalla	52883	54992	22	60	0	55			1.4	12	Decentralised treatment	4.79TPD of biodegradable waste and 1.5TPD of non biodegradable waste	Biogas Plant -2 with capacity of 350 kg Biogas Plant - 1 with capacity of 750Kg	Biogas Plant - 170Nos Pipe Compost 2360 Nos	Nil	MCF-1	At regional level	Nil	No	No
19	MUNICIPALITIES	Alappuzha	Alappuzha	174176	241219	96	95	80	76	46	36		Aerobic composting Plastic Shredding	Not given	Aerobic Compost (Thumboormuzhi Model) - 29 units	Biogas Plant - 1964 Nos.Pipe compost- 1263 Nos. Biobin- 6000 Nos	0	MCF 23; RRF-3 ;Plastic Shredding unit 3 units	Yes	Nil	Yes		
20			Chengannur	23456	24393	10	11.12	60	25	0.5	0.85	3	Decentralised treatment	Not given	Aerobic Compost (Thumboormuzhi Model) - 12 bins at 1 location		Nil	MCF-1	At regional level	Nil	Yes	Under processing	
21			Cherthala	45827	47658	19	73.76	80	35	0.6	0.6	6	Decentralised treatment	Not given	Aerobic Compost (Thumboormuzhi Model) - 26 bins at 2 locations	Composting units-90 Biogas plant- 350 Compost pits- 850	Nil	MCF-1 RRF - 1	At regional level	Nil	yes	Under processing	
22			Haripad	15588	16211	6	88	6	30	1	1	5	Decentralised treatment	2.02TPD is managed	Aerobic unit - 5	Composting units-783 Biogas plants- 87 Compost pits- 1579	Nil	Plastic Shredding Machine - 1 Number	At regional level	Nil	Yes	Under processing	
23			Kayamkulam	68634	75861	30	65	45	9	5	3		Aerobic Compost	0.06 TPD is managed	Biogas Plant Aerobic compost (Thumboormuzhi Model 4 bin) Location with capacity of 24 kg/day	Composting unit-1431 Biogas plant- 364 Compost pits- 4450 Pipe Compost 1950	Nil	MCF-1 RRF - 1	At regional level	Nil	Yes	Under processing	
24			Mavelikara	264121	27516	11	80	25	30	3.2	2.5		Composting	Not given	Aerobic Compost (Thumboormuzhi Model) - 12 bins at 1 location with capacity of 10kg/day	Biogas plant- 242 Pipe Compost 165	Nil	MCF-1 RRF - 1	At regional level	Nil	Yes	Under processing	
25	MUNICIPALITIES	Kottayam	Changanassery	127987	133102	53	0	50	Haritha Karma Sena			3	20	Decentralised treatment	Not given	Aerobins -36 treating 2TPD	8800 Ring compost 1800 Biobin unit included in 2019-20 project and is under process	Nil	MCF-1 RRF - 1	At regional level	1	No	No
26			Erattupetta	34814	40000	16	70	100	56	3	3	3	Aerobic composting	Not given	Aerobic composting (Thumboormuzhi mode) - 24 bins Biogas plant: 28 nos	750 biobin included in 2019-20 project and will supply from march 2020	Nil	MCF-1 RRF - 1	At regional level	1	No	No	

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27			Ettumanoor	26423	27479	11	10	56.9	62			4	Decentralised treatment	Not given	Biogas Plant at location with capacity of 500kg	Ring Compost - 450 Nos Bucket Compost-150 Nos	Nil	MCF-1 RRF - 1	At regional level	Nil	No	No
28			Kottayam	137812	172365	69	80	15	104	30	4.5	5	Aerobic Compost	Not given	Aerobic Compost (Thumboorm uzhi Model)- 62 Biogas Plant - 52	Biogas plant - 1400 Nos Pipe Compost- 2300 Nos	Nil	MCF-1 RRF - 1	At regional level	1 (Vadavathoor)	No	No
29			Pala	123000	127915	51	34	94	14	2	7	26	Decentralised treatment	Not given	Aerobic Compost (Thumboorm uzhi Model) - 6 bins at 1 location with capacity of 30kg Biogas Plant - 1 location with capacity 100 Kg	Compost - 26 Nos Biodigester Pot - 4 Nos Ring Compost - 59 Nos Bucket Compost - 170 Nos Pipe Compost 5162 Nos	Nil	MCF-1	At regional level	Nil	No	No
30			Vaikom	23234	24162	10	0	0	64			3	Decentralised treatment	Aerobic composting (Thumboorm uzhi mode) - 4 bins at 2 locations Biogas Plant - 1 bin at 1 location	Aerobic composting (Thumboorm uzhi mode) - 3 bins at 1 location	Biogas Plant - 135	Nil	MCF-1	At regional level	Nil	No	No
31	MUNICIPALITY	Idukki	Kattapana	42646	44350	18	79.4	100	81	3.24	3.24	11	Decentralised treatment	Not given	Not given	Composting unit-1505 Biogas plants- 345 Compost pit- 450	Nil	MCF- 1 Nos RRF- 1	At regional level	Nil	No	No
32			Thodupuzha	52025	62000	25	80	0	82		N		Not given	Not given	Vermi compost - 7bin at 1 location	Biogas Plant - 928	Nil	MCF- 2 RRF 1	At regional level	Nil	No	No
33	MUNICIPALITY	Ernakulam	Aluva	22428	23312	9	43	24		7.05	6.14	NA	NA	0	Centralised plant at Brahmapuram	Pipe compost - 43 Kitchen bin - 10	Centralised plant at Brahmapuram	RRF - 1	At regional level	Nil	No	No
34			Angamaly	33465	34802	14	0		Nil	0.5	0	4	Decentralised treatment	Aerobins-2	Biogas plant - 1No	Pipe compost - 979 Biogas - 504 Nos		RRF-2Nos; MCF-1:Biodigester bins-300Nos SWAP shop-1 No.	At regional level	Nil	No	No
35			Eloor	31468	32726	13	0		81	0.87	0.87	5	Decentralised treatment	Biogas Plant - Hospitals, Hotels, TCC, Canteen	Aerobic Compost (Thumboorm uzhi Model) 4 bins at 4 locations with capacity 1TPD	Biogas Plant - 310 Nos Biodigester Pot - 350 Nos	Nil	MCF-1	At regional level	Nil	No	No
36			Kalamassery	71038	73877	30	42.3	40	19	Not given	Not given	9	Centralised treatment	Not given	Centralised plant at Brahmapura	Compost pit-800, Biogas plant-9	Centralised plant at Brahmapuram	MCF-1;MRF-1	regional level	1	No	No
37			Koothattukulam	17253	18659	7	0.1	10	19	1	1	1	Decentralised treatment	Not given	Biogas Plant - 1 No with capacity 150kg	Biogas 16	Nil	Nil	At regional level	Nil	No	No
38			Kothamangalam	114574	119153	48	3.8	10	2	6	6	14	Decentralised treatment	Not given	Windrow compost plant	Kitchen bin 10000 Biogas plant- 202 Compost pit- 2303	Nil	MCF-1; MRF-1	At regional level	1	No	No
39			Maradu	44704	46490	19	12.2	6.8		0	0	6	Centralised treatment	Not given	Not given	Bucket Compost - 2330 Nos Pipe Compost 940 Nos	Centralised plant at Brahmapuram	MCF-4; RRF-1	At regional level	Nil	No	No
40			Muvattupuzha	30397	31612	13	68	35	Nil			7	Decentralised treatment	Not given	Composting - 5 bins at 1 location (not working)	Kitchen bin 24	Nil	MCF-1	At regional level	1	No	No
41			North Paravur	31503	32762	13	68	79	Not given	2	2	7	Decentralised treatment	Aerobic composting (Thumboorm uzhi model) -1 bin at 1 location with capacity 4 Cubic (Not Operating)	Biogas Plant - 1 bin with capacity 100kg (not working) Vermi Compost - 1 bin with capacity 1 TPD Windrow Compost - bin with 3 TPD Capacity	Pipe compost - 2500 Nos Biogas Plant - 25 Nos	Nil	MCF-1; RRF-1	At regional level	1	No	No
42			Perumbavoor	28110	29233	12	0	0		2.32	1	8	Decentralised treatment	0.75 TPD of non of biodegradable waste is managed	Bio-gas, aerobic compost, MRF	Ring Compost - 1000 Nos Biogas Plant - 161 Nos Biodigester Pot - 1500 Pot compost- 894	Nil	MCF-1; RRF-1	At regional level	Nil	No	No
43			Piravam	29105	32015	13	40.7	47.2	66	2.04	2.04	5	Decentralised treatment	Not given	Not given	Biogas -150 Pipe compost- 874	Nil	MCF-1; RRF-1	At regional level	Nil	No	No
44			Thrikkakkara	77319	80409	32	100	71	12	7	7	10	Centralized treatment	Not given	Not given	Biogas 31	Centralised plant at Brahmapuram	Nil	regional level	Nil	No	No

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45			Thripunithura	92522	96219	38	87.1	85.9	64	Not given	Not given	14	Decentralised treatment	Aerobic composting (Thumboormuzhi model) - 2 bins at 2 locations with capacity 14 units & 18 units. Biogas plant - 1no with 100 kg capacity	1.62TPD of biodegradable waste is managed 0.124 non biodegradable waste is managed. Thumboormuzhi model at Anapparambu -41 ward	Biogas Plant - 300 Nos Biodigester Pot - 125 Nos Bucket Compost - 2400 Nos Pipe Compost 10000 Nos	Centralised plant at Brahmapuram	Material Collection Facility - 1 No (Non Operation)Plastic Shredding Machine - 1 No Baling Machine - 1 No	At regional level	Nil	No	No	
46	MUNICIPALITY	Thrissur	Chalakkudy	49525	51504	21	100	100	54	7.31tpd	7.31tpd	10	Decentralised treatment	Plants(50kg capacity) 5 SWM	Thumboormuzhi model at Anapparambu (41 ward ) Vermicomposting Biogas - 3(33kg/day)	Plants(207.5 kg capacity) 83 SWM	Windrow composting (2tpd)	MRF-1; RRF-1	At regional level		yes	yes	
47			Chavakkad	39098	40660	16	36.2	51	31	4	Not given	14	Decentralised treatment	Not given	Vermi composting 1.5TPD	Pot Compost - 548 Nos Biogas Plant - 614 Nos	Nil	MCF-1; RRF-1	At regional level	1	No	No	
48			Guruvayur	70012	72810	29	24.5	100	58	4	4	15	Decentralised treatment	Biogas Plant(3.5tpd)	Bio organic management	Biogas Plant- 400 Composting units-2545 Compost pits- 1899 Kitchen Gardening	Windrow Compost (2TPD),	MCF-1; RRF-1	At regional level	Nil	No	No	
49			Irinjalakuda	62532	67542	27	48	86	130	4TPD	3TPD		Shredding Unit	17Aerobic Bin in Hill Park,Municipal office,Park	2Biogas Plant-Main Market,Evening Market	3471 Nos(Ring Compost 1865,Kitchen Bin 906,Biogas 700)	1	Segregated Non Bio waste Collected through Harithakarmasena and it transported to MCF and Stored in RRF after Shredding .It hand over to Clean Kerala Company	At regional level	1	no	No	
50			Kodungallur	71440	85150	34	75	48	84	4 TPD	3TPD		Composting Shredding	20 Aerobic bins	20 Aerobic bins	Aerobic Compost (Thumboormuzhi Model )-6 bins at 3 locations with capacity of 10 kg/day	1	Segregated Non biodegradable waste collected through Harithakarmasena and it is forwarded to MCFand RRF.SCrapp hand over to scrap dealers and rejects handover to Clean Kerala LTD	NIL	NIL	Yes	NO	
51			Kunnamkulam	54071	56232	22	100	100	56	3	3	10	Decentralised treatment	Aerobic compost (Thumboormuzhi model)	composting plant 1.889 TPDbiodegradable waste managed, 0.81 TPD Non biodegradable waste managed	Bio bin -1628 Nos Biogas-73, Compost pits- 2906, Compost unit- 508	Windrow Composting Plant- 4.5 TPD; 5 Acres of land is available with the local bodies for waste processing.	MCF-1; RRF-1	At regional level	Nil	No	No	
52			Vadakkanchery	15674	16300	7	34.3	100	40	1.6	Nil	9	Decentralised treatment	1.93TPD waste managed( Bio&Nonbiodegradable)	Not Given	Compost units- 1918, Biogas-100,Compost pits-4471	Nil	MCF-2; RRF-1	At regional level	1	No	No	
53	MUNICIPALITY	Palakkad	Cheruplassery	30730	31958	13	60	77	22	HKS	0.2	1.2	4	Decentralised treatment	0.427 TPD Non biodegradable waste managed.	1.43 TPD Nonbiodegradable waste managed.	Pipe Compost 1000 Nos Biogas Plant - 200 Nos Composting units-1050	Nil	MCF-1; RRF-1	At regional level	Nil	Yes	Under processing
54			Chittur-Thattamangalam	33000	34319	14	51.7	11.6	56	Nos	2		Decentralised treatment	bins at 5 locations	Not given	Ring Compost - 239 Nos Composting units-1407	Aerobic Windrow Composting Plant -1 bin with capacity 3 Tons/day	MCF-7; RRF-1	At regional level	Nil	Yes	Under processing	
55			Mannarkadu	39463	41040	16		83.7	58			0	6	Decentralised treatment	Not given	Not given	Pipe compost- 40; biogas plant -20; Biocomposter- 315	Nil	MCF-1	At regional level	Nil	No	No
56			Ottapalam	53792	55942	22	57.7	50.3	56	1.4		8	Decentralised treatment	Not given	Not given	Biogas plant- 58 Pipe compost 182	Windrow compost	MCF-1; RRF-1	At regional level	1	No	No	
57			Palakkad	131000	136235	54	40.1	10.6	156	0.2	1	29	Decentralised treatment	Not given	Biogas plant - 1	Pipe compost- 2500; Ring compost-60	Windrow composting is in operation. 15 Acres of land is available at Kanjikode for setting up solid waste processing plant. Tendering process is going on. As per annual report 2.1 Hectre of land is available.	MCF-7; RRF-1	At regional level	1(BPL) Koottupatha)	Yes	Under processing	

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58			Pattambi	28632	29776	12	0	60	20	1		3	Decentralised treatment	Not given	Open composting in trench	Biogas plant- 69	Nil	MCF-1; RRF-1	At regional level	Nil	Yes	Under processing
59			Shornur	43533	45273	18	100	81.8	65	4.5	2.8	6	Decentralised treatment	Not given	Biobin	Biogas 276	Nil	MCF-1; RRF-1	At regional level	Nil	No	No
60	MUNICIPALITY	Malappuram	Kondotty	28794	29945	12	79.7	60	160	0.12	0.12	4	Decentralised treatment	Not given	Not given	Pipe compost- 420; Biogas plant-18(45kg/day); Ring compost- 123	Nil	MCF-1	At regional level	Nil	No	No
61			Kottakkal	48640	57430	23	35	20	15	1.1	1.1	1.1	Segregation	Nil	Nil	Bio Bin and Bio Gas	Nil		Nil	Nil	Nil	Nil
62			Malappuram	68088	79645	32	45	15	24	20	10	10	YES	NIL	NIL	.Biogas plant,Bio bin,Bucket compst	nil	.HKS	Nil	Nil	Nil	nil
63			Manjeri	97102	112000	45	30	43.7	16	30	100		Bio degradable = Bio Bin , Pipe Compost Pig Farms no Bio degradable Segregation and Transfer to Recycling Plants using 4 MCF and 1 RRF	Nil	Nil	Bio bin And Pipe Compost	Nil	4 MCF and 1 RRF	Nil	Nil	Nil	Nil
64			Nilambur	46366	48219	19	0		29	0.3	0.3	8	Decentralised treatment	Not given	Not given	Biogas Plant - 71 Nos. Pipe compost-135; Biocomposter- 75	Nil	Temporay	At regional level	Nil	No	No
65			Parappanangadi	71239	79888	32	98	80	90	0.5	0.5	20	Ring compost,kitchen bin,pipe compost,biogas,bio pot, MCF,MINI MCF, Non bio degradable send for recycling	bio gas plant,ring compost	composting	Ring compost,kitchen bin,pipe compost,biogas,bio pot, MCF,MINI MCF, Non bio degradable send for recycling	nil	collecting through Harithakarma sena,send for recycling to clean kerala co.	na	na	no	na
66			Perinthalmanna	49723	55290	22	35	40	52	10	10	10	MCF,MRF,Vermi composting,Wintro composting,Bio gas plant,Bio bin	nil	MCF,BIO GAS	BIO BIN,BIO GAS	NILL	Collecting through Harithakarma sena	na	na	yes	no
67			Ponnani	90491	93370	37	48	52	49	0.5	0.5	22.5	composting Bio gas plants Aerobic units Bottle booths MCFs, Mini MCFs RRF	28 Aerobic units	MCF and RRF	Composting & Bins Bio gas plants	Nil	1RRF,2MCFs 6Mini MCF Bottle booths Plastic bailing	0	0	No	NA
68			Thanoor	69534	77053	31	52	20		0.5	0.5	21.5	Ring Compost, MCF	Nil	MCF	Ring Compost	Nil	Collecting through Haritha karmasena send for recycling to clean kerala company	0	0	0	NA
69			Thiroorangi	56632	63220	25	30	10	28	0.25	0.25	14	Ring compost,kitchen bin,pipe compost,biogas,, MCF,MINI MCF, Non bio degradable send for recycling	Biogas plant	Composting	Ring compost,kitchen bin,pipe compost,biogas, MCF,MINI MCF, Non bio degradable send for recycling	no	collecting through Harithakarma sena,send for recycling to private agency on agreement basis	0	0	Yes	Pending before KSPCB
70			Tirur	56058	62173	25	80	100	38	4	4	4	Bio degradable waste-bio methenation & composting,Non bio degradable -send for recycling through forward linking agency.	bio gas plant	composting	composting & bio methenation units	1 with 90 ton capacity	send for recycling through for word linking agency	na	na	na	na
71			Valanchery	40318	45306	18	0	0	13	1	1	1	biogas plant ring compost bio bin house hold level	bio gas	nil	biobin, ring compost,biogas plant	nil	HKS	nil	nil	yes	nil
72	MUNICIPALITY	Kozhikode	Faroke	57074	60000	24	63.5	4	18	4tpd	4tpd	4tpd	various Composting methods	Nil	Thumbar Muzhi	Biobin, Ring Compost, Biogas plant, Pipe compost	Thumbar Muzhi	Collection and Segregation and legacy waste hand over to clean kerala	No	No	No	No
73			Koduvally	48678	50623	20	0		72 (Haritha Karma Sena)	0.6	0.6	7	Decentralised treatment	Not given	Not given	Not given	Nil	MCF-1	At regional level	Nil	Yes	Under processing
74			Koyilandy	71873	74745	30	59.7	7.9	100	10	2.5	11	Decentralised treatment	Not given	1. Thumboor muzhi model composting - 11 unit 2. biogas plant - 500 kg per day	1. Portable biogas 250 nos; 2. pipe, ring; and vermicompost -1933 nos	Nil	MCF-2 MRF-1; Plastic shredding machine -2 bailing machine-1	At regional level	Nil	No	No
75			Mukkam	40670	42295	17	62.45	55.41	38	3.5	0		BIOGAS, RING COMPOST, AEROBIC PLANT	AEROBIC	AEROBIC	BIOGAS, RING COMPOST,	NA	NA	NIL	NIL	YES	

Sl.No	Corporation /Municipality	District	Name of the City/Town	Population as per 2011 Census	Projected population (2021)	Quantity of Waste generated based on population	Percentage of D2D Collection (Dry waste)	No of collectors	As reported by localbodies	Quantity of waste processed (TPD)	Waste treatment technology used	Institutional level SWM Plants	Community Level SWM Plants	Household Level SWM Plants	Centralised	Non-Bio Degradable Waste Management	Site identified for Sanitary land fill	Dump sites identified	Authorization Applied	Authorization granted	
76			Payyoli	23576	24518	10	0	Nil	0.25	0.25	3	Decentralised treatment	Not given	Pipe compost 100;Kitchen bin 300	Nil	Not given	At regional level	Nil	No	No	
77			Ramanattukara	35937	37373	15	0	Nil	0.01	0.2	4	Decentralised treatment	Not given	Ring Compost- 320 Nos	Nil	Not given	At regional level	Nil	No	No	
78			Vadakara	75295	77325	31	72	60	63	7	7	Biogas plant, biobin, pipe compost, ring compost, bucket compost, aerobic compost	Thumburmuzhi	Thumboormuzhi	Biogas plant, biobin, pipe compost, ring compost, bucket compost	NA	YES	NIL	NIL	YES	NIL
79	MUNCIPALITI	Wayanad	Kalpetta	31580	32842	13	26.6	81.5	32	6	6	Decentralised treatment	0.508 TPD Biodegradable waste managed,0.561 TPD Non biodegradable waste managed.	1.3 TPD Biodegradable waste managed, 0.869 TPD Nonbiodegradable waste managed.	0.4 TPD Biodegradable waste managed, 0.11 TPD Nonbiodegradable waste managed	8 Acres of land is available in Vellaram kunnu Kalpetta.	MCF-1; RRF-1	At regional level	1	Yes	Under processing
80			Mananthavady	59497	62450	25	40	47	26	.5TPD		BUCKET COMPOST,BIOGAS,PTT COMPOST.	NIL	NIL	NIL	Not given	NIL	YES	NIL	NIL	
81			Sulthanbathery	23333	24265	10	0	0	23	0.5	9.1	Decentralised treatment		Not given	Biogas plant - 192	0.5 Acres of land is available in Sulthan bathery construction of the plant is going on.	MCF-1	At regional level	1	No	No
82	MUNCIPALITI	Kannur	Anthoor	28212	32693	13	11	0	28	9 TPD	9 TPD	plastic shruing and bailing	collectors school bin	ring compost BIOGAS KITCHEN BIN	0	0	nil	nil	NIL	NIL	
83			Iritty	40369	48501	19	65	30.71	40	2.5	2.35	windrow compost	collectors school bin	ring compost	windrow compost	0	nil	nil	yes	not granted	
84			Koothuparambu	32404	38000	15	100	90	64	2 TPD	2 TPD	COMPOSTING & BAILING	1	0	0	0	0	NIL	NIL	NIL	NIL
85			Mattanur	47078	60000	24	90	90	39	5	5	windrow compost unit,plastic shruing and bailing	collectors @school bin	Mini M C F in all wards	pipe compost,ring compost,vermi,biogas	windrow compost unit,plastic shruing and bailing	plastic shruing and bailing	NIL	NIL	NO	NOT GRANTED
86			Panoor	58916	68751	28	51.5	25.7	52	0.1	0	NA	NA	NA	950 RING COMPOST, 190 KITCHEN BIN	NIL	NIL	nil	nil	NO	NA
87			Payyanur	72131	90684	36	80	20	44	4.2	4.2	Bailing ,Shredding and Thumboormuzhi composting	NA	NIL	Ring compost, Biogas plant, Kitchen bin	1 MCF, RRF, Thumboormuzhi	Bailing & Shredding	nil	nil	Applied	applied
88			Sreekantapuram	33489	37000	15	95	90	30	2	2	ringing compost,calender waist collection door to door including plastic shruing and bailing	nil	2 mcf, 1 rrf	ring compost,compost pit etc	nil	plastic shruing bailing	nil	nil	applied	applied
89			Thalassery	92864	96257	39	85	90	97	3	2	plastic shruing	NA	NIL	biobin,biopot,pipecompost	NIL	plastic shruing	NIL	NIL	applied	NA
90			Thaliparambu	44827	47965	19	85	39.6	34	3.5TPD	3.5TPD	Windrow compost, plastic shredding unit, thumboormuzhi, 1MCF,1 RRF	NA	Thumboormuzhi		water treatment plant,windrow compost, plastic shredding unit, thumboormuzhi, 1MCF,1 RRF	MRF, RRF	NIL	NIL	NA	NA
91	MUNCIPALITI	Kasaragod	Kanhangad	73536	76475	31	80	65	36	2.5	2	Plastic shredding, bailing, ring compost, kitchen bin, thumboormuzhi, 2 M C F, 1 RRF	No	Thumboormuzhi	ring compost, kitchen bin, bio gas,	Plastic shredding, bailing, ring compost, kitchen bin, thumboormuzhi, 2 M C F, 1 RRF	2 M C F, 1 RRF PLASTIC SHREDDING, BAILING	NIL	NIL	NA	NA
92			Kasaragod	54172	59589	24	86	32	17	7	6		YES	YES	YES	-	MCF, SHREDDING, PETTELIZATION	NIL	na	-	-
93			Nileshwaram	40802	47502	19	90	85	30	10	10	Plastic shredding, bailing, ring compost, 3 M C F, 1 RRF	NIL	YES	YES	Plastic shredding, bailing, ring compost, 3 M C F, 1 RRF	MCF, RRF, PLASTIC SHREDDING, BAILING	NIL	NA	NA	NA
						3571				964.76				1077.19							



**ANNEXURE II A - STATUS OF WASTE MANAGEMENT IN RURAL LOCAL BODIES**

Sl. No.	District	Local Body	No of Wards	No of Household	% Household DDD-Dry	% of Household-DDD-Wet	No of establishments	Householdness DDD-Dry	% establishments_DDD-Wet	% of houses in which source level treatment	% of establishments in which source level treatment	% disposing to controlled system	% disposing to uncontrolled system	Quantity of Waste generated (TPD)	Quantity of Waste collected (TPD)	Quantity of Waste treated (TPD)	Quantity of Waste processed in Composting Sheds (TPD)	Quantity of Waste processed in Bioremediation (TPD)
1	T	Adilnagar	13	2914	100	0	818	84	0	90	100	0	0	0.4	0	0	0	0
2	H	Adich	76	11844	52	47	1813	30	1	100	100	0	0	0.8	0	0	0	0
3	R	Adicholapur	24	4900	41	0	30	80	30	41	80	0	0	0.1	0.1	0	0	0
4	I	Adicholapur	28	8188	83	0	2198	30	0	13	28	0	0	0.11	0.1	0	0	0
5	U	Adicholapur	20	13418	100	0	117	21	100	0	0	0	0	0.26	0	0	0	0
6	V	Adicholapur	18	11321	78	0	1194	73	0	18	1	0	0	0.1	0.005	0.001	0	0
7	A	Adicholapur	16	7820	100	0	214	100	0	1	0	0	0	0.11	0	0	0	0
8	H	Adicholapur	17	9181	100	0	237	0	0	0	0	0	0	0.001	0.1	0.728	0	0
9	A	Adicholapur	18	9478	0	0	178	0	0	0	0	0	0	0.001	0.1	0.728	0	0
10	T	Adicholapur	20	10380	47	0	1343	48	0	0	0	0	0	1.4	0	0	0	4.8
11	H	Adicholapur	19	4218	77	21	428	80	0	13	20	0	0	0.20	0.1	0	0	0
12	T	Adicholapur	21	17301	28	100	2000	148	1	100	100	0	0	0.20	0.1	0	0	0
13	A	Adicholapur	14	4913	100	0	4312	6	0	100	100	0	0	0.43	0	0	0	0
14	P	Adicholapur	19	8688	51	0	734	40	0	0	0	0	0	0.4	0.1	0	0	0
15	U	Adicholapur	17	3271	100	0	420	100	0	0	0	0	0	0.278	0.17	0	0	0
16	R	Adicholapur	16	9884	86	0	112	70	0	80	0	0	0	0.1	0	0	0	0
17	M	Adicholapur	16	10147	0	0	1078	0	0	0	0	0	0	0.1	0.8	0	0	0
18	M	Adicholapur	23	25734	0	0	2126	1	0	93	11	0	0	0.2	0.11	0	0	0
19	M	Adicholapur	17	9421	100	0	926	100	0	100	100	0	0	0.2	0	0	0	0
20	M	Adicholapur	13	4601	68	0	317	67	0	100	100	0	0	0.2	0	0	0	0
21	M	Adicholapur	21	14733	0	54	0	0	0	18	1	0	0	0.2	0	0	0	0
22	M	Adicholapur	14	5511	100	0	821	0	0	10	11	0	0	0.2	0	0	0	0
23	M	Adicholapur	23	18000	78	28	61	100	0	47	100	0	0	0.2	0	0	0	0
24	M	Adicholapur	18	11648	0	0	108	100	0	30	0	0	0	0.1	0.01	0.01	0	0
25	M	Adicholapur	19	11254	100	0	1310	100	0	70	0	0	0	0.3	0.13	0	0	0
26	M	Adicholapur	18	7182	43	0	816	31	0	100	100	0	0	0.2	0	0	0	0
27	M	Adicholapur	21	14310	0	0	2197	12	0	96	67	0	0	0.1	0	0	0	0
28	M	Adicholapur	20	9436	92	0	861	100	0	100	100	0	0	0.842	0	0	0	0
29	M	Adicholapur	13	6113	100	0	187	84	67	0	4	0	0	0.1	0	0	0	0
30	M	Adicholapur	16	8090	0	0	1084	0	0	100	100	0	0	0.3	0.170	0	0	0
31	M	Adicholapur	19	13312	80	28	1071	1	83	0	0	0	0	0.41	0.27	0	0	0
32	M	Adicholapur	20	10186	100	0	1121	18	82	11	30	0	0	0.4	0.21	0	0	0
33	M	Adicholapur	21	11367	10	0	202	0	0	15	100	0	0	0.10	0	0	0	0
34	M	Adicholapur	14	6663	100	0	1801	0	100	0	0	0	0	0.10	0	0	0	0
35	M	Adicholapur	11	3801	75	0	201	80	0	72	80	0	0	0.12	0.11	0	0	0
36	M	Adicholapur	20	10738	100	0	2017	31	100	42	0	0	0	0.12	0.11	0	0	0
37	M	Adicholapur	16	8401	1	0	1314	1	0	80	0	0	0	0.10	0.01	0	0	0
38	M	Adicholapur	20	14134	83	0	1674	36	0	1	1	0	0	0.10	0	0	0	0
39	M	Adicholapur	21	11600	80	0	800	63	0	0	0	0	0	0.1	0	0	0	0
40	M	Adicholapur	21	14121	0	0	1499	0	0	0	0	0	0	0.81	0	0	0	0
41	M	Adicholapur	30	12811	0	0	1012	100	0	0	0	0	0	0.4	0	0	0	0
42	M	Adicholapur	17	9543	0	0	1142	2	0	100	100	0	0	0.10	0	0	0	0
43	M	Adicholapur	18	10191	100	100	1151	100	100	100	100	0	0	0.63	0.1	0	0	0
44	M	Adicholapur	22	14361	6	0	2942	1	0	0	0	0	0	0.63	0	0	0	0
45	M	Adicholapur	16	9943	90	0	1113	43	4	0	0	0	0	0.11	0	0	0	0
46	M	Adicholapur	17	10112	90	20	117	100	8	28	100	0	0	0.28	0.14	0	0	0
47	M	Adicholapur	14	4718	0	0	1111	4	13	0	0	0	0	0.1	0	0	0	0

Sl. No.	DISTRICT	LOCAL BODY	NO OF WARDS	No of Household	% Household DID-Dry	% of Household DID-Wet	No of establishment	Establishment DID-Dry	% establishment DID-Wet	% of houses in which source level treatment	% of establishment in which source level treatment	% disposing to centralized system	% disposing to centralized system	Quantity of Waste generated (TPD)	Quantity of Waste collected (TPD)	Quantity of Waste treated (TPD)	Quantity of Waste processed in Composting sites (TPD)	Quantity of Waste processed in biogas plants (TPD)
48		Pulicat	23	16342	330	0	140	100	0	100	100	0	0	0.0	0	0	0	0
49		Pulicat	13	2875	5	0	712	0	0	0	0	0	0	0.13	0	0	0	0
50		Pulicat	13	7338	86	0	2303	71	0	0	0	0	0	0.05	0	0	0	0
51		Pungudi	19	11278	100	0	683	100	0	100	100	0	0	0.08	0.41	0	0	0
52		Puravali	22	17800	27	0	2478	0	0	0	0	0	0	0.08	0.08	0	0	0
53		Puravallam	17	30772	73	0	4780	73	0	0	0	0	0	0.28	0.28	0	0	0
54		Purayalankulam	19	22997	62	0	1310	71	0	0	0	0	0	0.7	0	0	0	0
55		Puravankulam	16	8571	93	0	1131	100	0	80	84	0	0	0.7	0.71	0	0	0
56		Puruchal	20	13428	100	0	1420	100	0	0	0	0	0	0.18	0.4	0	0	0
57		Puruchal	13	4543	24	0	740	10	0	0	0	0	0	0.87	0	0	0	0
58		Puruchal	18	18638	0	0	3048	0	0	0	0	0	0	0.7	0	0	0	0
59		Puruchal	19	11159	69	0	121	61	0	0	44	0	0	0.43	0	0	0	0
60		Puruchal	13	4778	0	0	278	0	0	100	100	100	0	0.1	0.03	0	0	0
61		Puruchal	14	9336	0	0	563	0	0	0	0	0	0	0.19	0	0	0	0
62		Puruchal	16	8402	0	0	1154	0	0	100	0	0	0	0.22	0	0	0	0
63		Puruchal	13	7982	0	0	1154	0	0	0	0	0	0	0.34	0	0	0	0
64		Puruchal	14	3240	0	0	560	0	0	0	74	0	0	0.23	0	0	0	0
65		Puruchal	13	7045	0	0	262	17	0	0	27	0	0	0.4	0.11	0	0	0
66		Puruchal	18	7045	67	0	212	32	0	0	100	100	0	0.1	0	0	0	0
67		Puruchal	18	11826	13	0	680	17	0	100	100	0	0	0.3	0	0	0	0
68		Puruchal	23	11990	29	0	1317	100	100	100	100	0	0	0.10	0	0	0	0
69		Puruchal	21	13401	89	0	191	44	0	0	0	0	0	0.41	0	0	0	0
70		Puruchal	20	14780	0	0	736	0	0	100	0	0	0	0.1	0	0	0	0
71		Puruchal	16	8704	0	0	205	100	0	0	100	0	0	0.8	0	0	0	0
72		Puruchal	20	36420	0	0	1717	0	0	0	0	0	0	0	0	0	0	0
73		Puruchal	17	12798	100	0	219	20	0	0	0	0	0	0.2	0	0	0	0
74		Puruchal	17	12798	100	0	219	20	0	0	0	0	0	0.2	0	0	0	0
75		Puruchal	17	12798	100	0	219	20	0	0	0	0	0	0.2	0	0	0	0
76		Puruchal	17	12798	100	0	219	20	0	0	0	0	0	0.2	0	0	0	0
77		Puruchal	17	12798	100	0	219	20	0	0	0	0	0	0.2	0	0	0	0
78		Puruchal	17	12798	100	0	219	20	0	0	0	0	0	0.2	0	0	0	0
79		Puruchal	17	12798	100	0	219	20	0	0	0	0	0	0.2	0	0	0	0
80		Puruchal	17	12798	100	0	219	20	0	0	0	0	0	0.2	0	0	0	0
81		Puruchal	17	12798	100	0	219	20	0	0	0	0	0	0.2	0	0	0	0
82		Puruchal	17	12798	100	0	219	20	0	0	0	0	0	0.2	0	0	0	0
83		Puruchal	17	12798	100	0	219	20	0	0	0	0	0	0.2	0	0	0	0
84		Puruchal	17	12798	100	0	219	20	0	0	0	0	0	0.2	0	0	0	0
85		Puruchal	17	12798	100	0	219	20	0	0	0	0	0	0.2	0	0	0	0
86		Puruchal	17	12798	100	0	219	20	0	0	0	0	0	0.2	0	0	0	0
87		Puruchal	17	12798	100	0	219	20	0	0	0	0	0	0.2	0	0	0	0
88		Puruchal	17	12798	100	0	219	20	0	0	0	0	0	0.2	0	0	0	0
89		Puruchal	17	12798	100	0	219	20	0	0	0	0	0	0.2	0	0	0	0
90		Puruchal	17	12798	100	0	219	20	0	0	0	0	0	0.2	0	0	0	0
91		Puruchal	17	12798	100	0	219	20	0	0	0	0	0	0.2	0	0	0	0
92		Puruchal	17	12798	100	0	219	20	0	0	0	0	0	0.2	0	0	0	0
93		Puruchal	17	12798	100	0	219	20	0	0	0	0	0	0.2	0	0	0	0
94		Puruchal	17	12798	100	0	219	20	0	0	0	0	0	0.2	0	0	0	0
95		Puruchal	17	12798	100	0	219	20	0	0	0	0	0	0.2	0	0	0	0
96		Puruchal	17	12798	100	0	219	20	0	0	0	0	0	0.2	0	0	0	0
97		Puruchal	17	12798	100	0	219	20	0	0	0	0	0	0.2	0	0	0	0
98		Puruchal	17	12798	100	0	219	20	0	0	0	0	0	0.2	0	0	0	0
99		Puruchal	17	12798	100	0	219	20	0	0	0	0	0	0.2	0	0	0	0
100		Puruchal	17	12798	100	0	219	20	0	0	0	0	0	0.2	0	0	0	0

Sl. NO.	DISTRICT	LOCAL BODY	NO OF WARDS	No of Household	% Household D2D-Dry	% of Household D2D-Wet	No of establishment	% establishment -D2D-Dry	% establishment -D2D-Wet	% of houses in which source level treatment	% of establishment in which source level treatment	% disposing to centralised system	% disposing to centralised system	Quantity of Waste generated (TPD)	Quantity of Waste collected (TPD)	Quantity of Waste treated (TPD)	Quantity of Waste processed in Composting Sites (TPD)	Quantity of Waste processed in biogas/landfill (TPD)
74	K O L A M	Adichanallur	20	11069	90	85	696	80	47	90	0	2	1	2	0.4	0	0	0
75		Alangal	16	5931	70	0	384	58	0	0	1	0	1	0	0	0	0	0
76		Alayamon	14	7350	0	0	1177	0	0	0	0	0	0	0.2	0.1	0	0	0
77		Aractal	19	12968	70	0	1748	65	0	19	15	0	12	4	4	4	0	0
78		Arumave	13	3244	65	0	232	0	0	0	1	0	1	0.1	0.1	0	0	0
79		Chelvanangalam	15	7661	80	0	1356	80	0	0.6	0.6	0	1	1	1	1	0	0
80		Chettiarvoor	18	10927	35	0	252	15	0	90	90	8	0	2	2	2	0	0
81		Chovva	23	13568	60	0	1490	60	0	13	2	2	0	2	0.6	0.5	0.5	0.1
82		Chirakkara	10	8029	90	0	1300	40	0	1	0	0	0	0	0	0	0	0
83		Chitara	23	15164	49	0	450	48	0	3	1	0	1	0	0	0	0	0
84		Chigga	15	8532	81	0	1013	6	0	3	1	0	1	0	0	0	0	0
85		East Kallakudi	15	7234	0	0	8555	0	0	0	0	0	0	0	0	0	0	0
86	Elamankal	22	6300	0	0	1360	0	0	0	0	0	0	0	0	0	0	0	
87	Elanadu	17	7728	35	0	83	71	0	1	36	0	36	0	0	0	0	0	
88	Elampattinam	21	5253	79	0	25	62.4	0	19	44	0	44	0	0	0	0	0	
89	Elakudi	16	8569	22.94	0	1200	13	0	18	0	0	0	0	0	0	0	0	
90	Eluru	21	12278	40	0	1780	20	0	1	3	0	3	3	2.2	2.2	0	0	
91	Kadakkal	19	9800	98.00	0	2700	2100	0	237	6	9.8	2.1	2	1	1	0	6	
92	Kalivanchikal	23	16005	80	0	2474	74	0	33	4	0	11	3	1.8	1.8	0	0	
93	Karavallur	16	8644	71	0	1470	69	0	1	1	0	1	0.27	0.27	0	0		
94	Karappra	18	6000	0	0	0	0	0	1	0	0	0	0	0	0	0	0	
95	Kottankara	21	12978	45	0	552	109	0	1	0	1	0	0.5	0.35	0.35	0	0	
96	Kulakkudi	19	11253	0	0	536	126	0	1	0	0	0	0.45	3 ton	3	0	0	
97	Kulasekharapuram	23	15978	78	0	2642	38	0	1	8	0	0	0.25	0.35	0.175	0	0	
98	Kulathompu	20	11210	59	0	1250	8	0	3	7	0	7	0.3	0.3	0.2	0	0	
99	Kumil	14	8210	55	0	211	31	0	1	5	0	5	0.2	0.1	0.1	0	0	
100	Kundara	14	4561	72	0	220	25	0	0	0	0	0	0	0.1	0	0	0	
101	Kunathoor	17	8843	63	0	0	0	0	19	0	0	0	1	1	0	0	0	
102	Mayyad	23	15657	55	0	2890	5	0	39	81	0	0	16	8.5	8.5	4.3	2.5	
103	Mulla	15	3888	60	0	157	100	0	60	60	0	0	0.25	0.25	0	0	0	
104	Munambuthu	13	3238	15	0	113	33	0	75	70	0	0	0.2	0	0	0	0	
105	Mylam	13	3238	0	0	115	23	0	75	70	0	0	0.2	0	0	0	0	
106	Myrappally	22	150	0	0	0	0	0	0	0	0	0	0	0	0	0	0	
107	Naduvampara	23	17193	80	80	173	68	68	3	68	80	68	16	11	0	1.5	2	
108	Neduvethoor	18	8521	41	0	1130	38	0	52	63	0	0	0	0	0	0	0	
109	Neendakara	13	3083	38	0	713	0.65	0	0.15	0.3	0	0	0.25	0.25	0.25	0	0	
110	Nilamal	13	5827	80	0	1564	35	0	60	58	0	0	0.15	0.25	0	0	0	
111	Oachira	17	8422	39	0	1023	36	0	0	8	0	0	0.21	0.21	0.21	0	0	
112	Palayam	16	8771	0	0	0	0	0	0	0	0	0	0	0	0	0	0	
113	Palayam	23	16013	90	0	2449	0	21	0	0	0	0	0.15	0.125	0.125	0	0	
114	Pathanapuram	23	11372	790	60	0	34	0	13	83	0	0	6.5	6.5	0	0	0	
115	Pattabi	13	6265	85	0	199	90	0	61	100	0	0	1.5	1.5	1.5	0	0	
116	Pattabi Vazhakkara	13	6251	80	0	192	90	0	80	100	0	0	1.25	0	0	0	0	
117	Pavithrasaram	19	12977	51	0	786	81	0	30	35	0	0	8	8	5	4	0	
118	Pattanam	14	6450	0	0	250	0	0	0	0	0	0	0.25	0.25	0.25	0	0	
119	Perinad	20	11380	33	0	2201	28	0	0	0	0	0	3	3	24	4	0	
120	Pinnathoor	21	3609	42	0	1038	12	0	36	32	0	0	3	0.5	0	0	0	
121	Poonthakulam	21	9621	36	0	368	65	10	39	55	0	0	8	3	2	0	0	
122	Poosopilly	18	8870	79	0	976	40	0	85	10	0	0	3	1.5	1.5	0	0	

SL. NO:	DISTRICT	LOCAL BODY	NO OF WARDS	No of Household	% Household D2D-Dry	% of Household-D2D-Wet	No of establishment	% establishment -D2D-Dry	% establishment _D2D-Wet	% of houses in which source level treatment	% of establishment in which source level treatment	% disposing to centralized system	% disposing to centralized system	Quantity of Waste generated (TPD)	Quantity of Waste collected (TPD)	Quantity of Waste treated (TPD)	Quantity of Waste processed in Composting Sites (TPD)	Quantity of Waste processed in biometanation (TPD)
121		Paruvally	16	9581	47	0	1200	42	0	0	0	0	0	4	1	2	0	0
124		Sathamedda	19	13243	0	0				0	0	0	0					
123		Soramed North	18	9971	0	0	1933	0	0	0	0	0	0					
126		Soramed South	16	8228	70	0	1120	67	0	0	0	0	0	4	3	3.5	0	0
127		Thalavoor	20	7200	0	0	0	0	0	0	0	0	0	2	1	1	0	0
128		Thathava	22	11019	70	34	5256	50	30	2	6	0	0	3.8	2.9	2.9	0	0
129		Thikkumbhagam	13	5600	62	0	372	70	0	2	1	0	0	4	2.5	2.5	0	0
130		Thiruvalla	16	8369	70	0	239	65	0	0	0	0	0	4	3.5	3.5	0	0
131		Thiruvallikara	23	8000	0	0	1568	78	0	0	4	0	1	0	0	0	0	0
132		Thodiyoor	23	14237	73	0	2324	82	0	1	2	0	2	5.5	3.5	0	0	0
133		Thirikkavu	16	12238	0	0	3005	86	0	1	1	0	1	4.9	1.8	0	0	0
134		Thirikkovilattom	23	21027	0	0	4460	0	0	0	0	0	0	0	0	0	0	0
135		Ummannoor	20	11584	80	0	2153	80	0	10	10	0	0	0.026	0.026	0	0	0
136		Velinjloor	17	9010	82	0	2250	4	0	4	1	0	1	0	0	0	0	0
137		Velloor	19	10513	81	0	1983	1	0	1	1	0	1	0	0	0	0	0
138		Vetikkavada	21	1850	0	60	805	0	0	3	0	0	0	0	0	0	0	0
139		Vilakkudy	20	10897	46	0	3256	32	11	16	12	0	0	0	0	0	0	0
140		West Kallada	20	5813	78	0	909	74	0	0	0	0	0	0	0	0	0	0
141		Yener	14	14321	1	0	613	1	1	0	1	0	1	0	0	0	0	0

Sl. NO:	DISTRICT	LOCAL BODY	NO OF WARDS	No of Household	% Household D2D-Dry	% of Household-D2D-Wet	No of establishment	Nonestablishment -D2D-Dry	% establishment -D2D-Wet	% of houses in which source level treatment	% of establishment in which source level treatment	% disposing to centralised system	% disposing to centralised system	Quantity of Waste generated (TPD)	Quantity of Waste collected (TPD)	Quantity of Waste treated (TPD)	Quantity of Waste processed in Composting Sites (TPD)	Quantity of Waste processed in biogasplant on (TPD)
142	P	Arniad	13	5067	0	6	0	0	0	0	0	0	0	20kg	20kg	0	0	0
143	A	Aramala	18	9671	0	100	1697	0	100	0	0	0	0	2	2.5	2	0	0
144	T	Annapoosam	15	6816	0	9	175	0	0	1	2	0	0	20	15	0	0	0
145	H	Ayoor	16	6548	0	33	835	0	77	0	0	0	0	200kg	20	0	0	0
146	A	Chennockara	14	6515	0	0	0	0	0	0	0	0	0	0	0	0	0	0
147	N	Cherukole	13	4398	0	0	321	0	0	0	0	0	0	50kg	50kg	50kg	0	0
148	A	Chizar	13	5715	0	0	42	0	0	0	0	0	0	48 KG	48kg	48kg	0	0
149	M	Elanthar	13	4583	0	0	3990	0	0	0	0	0	0	310kg	310kg	0	0	0
150	T	Endimangalam	15	7261	0	58	380	0	0	0	0	0	0	300 KG	100 KG	0	0	0
151	H	Enthu	17	9011	0	0	510	0	0	0	0	0	0	55 Kg	55kg	0	0	0
152	I	Evaypetoor	17	8920	0	73	490	0	81	1	2	40	0	1300kg	123g	0	0	0
153	T	Ethankulam	20	11552	0	78	2526	0	76	0	0	0	0	1400 kg	1400kg	0	0	0
154	T	Ethamthar	14	4807	0	100	1226	0	100	50	50	0	0	0.034	0.034	0.034	0	0
155	A	Kadavanal	17	9094	0	0	1497	0	0	0	0	0	0	320kg	320kg	0	0	0
156		Kadiga	13	8608	0	74	803	0	76	0	1	0	0	0.8	0.6	0	0.2	0
157		Kanjoor	20	12860	0	51	882	0	44	0	0	0	0	900	900	0	0	0
158		Kalampara	14	6043	0	1	797	0	0	0	0	0	0	24	20	0	0	0
159		Kanjoor	14	6450	0	1	260	0	97	0	0	100	100	16kg	0	0	0	0
160		Kedamon	18	8972	0	0	10495	0	0	0	1	0	0	2000 kg	720 kg	0	0	0
161		Kolapuram	17	10486	0	0	2191	0	0	0	0	0	0	0.5	0.5	0.5	0.5	0.5
162		Kozhi	18	10028	7	59	1000	0	30	95	30	1	10	500	250	250	300	0
163		Kottand	13	4919	0	59	31	0	0	0	0	0	0	55	55	0	0	0
164		Kottasal	13	5699	0	0	760	0	0	0	0	0	0	0	0	0	0	0
165		KOZHANCHERU	13	4133	2	12	2191	0	2	0	0	2	2	900 kg	210kg	210kg	160 kg	0
166		Kulmala	16	8229	0	100	420	0	100	0	100	100	100	0.033	0.033	0.033	10	10
167		Kunnamthalam	15	6414	0	52	401	0	70	0	0	0	0	200kg	150kg	0	0	0
168		Kuttur	14	6958	0	0	3088	0	0	0	0	0	0	0	0	0	0	0
169		Makalappada	14	6324	0	74	930	0	100	98	100	0	0	3.4	2.9	0	0	0
170		Mallapally	14	6091	0	96	1370	0	100	0	0	0	0	250 ton	200 ton	0	0	0
171		Mallurthasery	13	4087	0	70	1054	0	3	2	1	0	0	4	0.01	0.01	0	0
172		Methurill	13	5145	1	80	871	0	80	3	4	0	0	800kg	290kg	0	0	0
173		Muliyar	13	3600	0	0	445	0	12	0	12	3	1	540 kg	540 kg	50	50	50
174		Narasimmoor	13	4831	2	91	31	0	102	60	102	2	2	630 kg	630 kg	50	50	50
175		Narasipam	14	5276	0	59	126	0	38	100	100	100	100	380 kg	380 kg	380	0	0
176		Nederapuram	13	4595	0	77	230	0	44	98	87	0	0	450kg	450kg	450kg	0	0
177		Niranam	13	4477	2	92	216	0	88	73	82	0	0	412	412	412	0	0
178		Ondur	14	6448	4	0	350	90	229	90	72	0	0	950kg	5 (plastic only)	5	400kg	0
179		Pakkal	23	14820	1	60	79	0	25	0	0	0	0	0.5	0.5	nil	nil	nil
180		Pandalam	14	7003	4	80	371	0	216	80	68	0	0	0	0	0	0	0
181		Peringala	15	6700	0	0	320	0	0	0	0	0	0	65 kg	60 kg	0	0	0
182		Ponnam	19	11502	0	79	1236	0	205	0	0	0	0	0	0	0	0	0
183		Puzhattem	13	5049	0	52	232	0	78	1	2	0	0	0	0	0	0	0
184		Razhi	13	6358	4	100	325	0	71	100	96	1	2	0.3	0.3	0.3	0.3	0.13
185		Razhi Angali	13	5005	4	100	300	10	32	95	96	5	3	300 kg	300 kg	300	100 kg	0
186		Razhi	13	5005	4	100	300	10	32	95	96	5	3	300 kg	300 kg	300	100 kg	0
187		Razhi Perumal	15	7356	0	69	842	0	20	0	0	0	0	20kg	16kg	18kg	0	0

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188		Seetharode	13	5841	0	100	723	0	100	0	0	0	0	60kg	38kg	21kg	0	0
189		Tharimboli	13	4390	0	0	195	0	0	0	0	0	0	0	0	0	0	0
190		Thotapuzhassery	13	5450	0	0	636	0	13	2	2	0	0	350kg/month	350kg/month	350kg	0	0
191		Thampamon	13	2887	0	100	367	0	100	52	0	0	0	168 tpd	168 tpd	168	0	0
192		Vadasserikara	15	6854	0	0	401	0	129	0	2	0	0	450 kg	450 kg	450	0	0
193		Vallicode	15	7724	0	70	498	0	21	0	0	0	0	0	0	0	0	0
194		Vechocchira	15	5600	0	100	250	0	100	0	0	0	0	1870 KG	1870 KG	1870 KG	0	0
195	A	Ala	13	4670	0	0	136	0	0	15	0	0	0	0.04	0.04	0.04	NA	NA
196	L	Amalapurba	18	8738	0	0	164	0	0	0	0	0	0	0	0	0	0	0
197	A	Amalapurba south	15	7323	0	0				2		0						
198	P	Arattupuzha	18	9077														
199	P	Arattupuzha	13	6245	60	0	324	50	0	2	2	0	0	0.3	0.3	0	0	0
200	U	Arer	22															
201	Z	Arzal	18	9188	100	0	426	100	0	3	2	0	0	0.5	0.1	0.5	0	0
202	H	Bharanikkavu	21	13420	46	0	340	64	0	32.8	69.2	0	0	0.4	0.29	1.1	0	0
203	A	Budhanoor	14	6323	0	0	130	0	0	23	34	0	0	0	0	0	0	0
204		Chumbakulam	13	4900	0	0	122	0	0	15	0	0	0	0	0	0	0	0
205		Chinnampallayam	17	9441	28	0	348	45	0	74	100	0	0	0	0	0	0	0
206		Chinnihala																
207		Chirpenchur	18															
208		Chiyad	14	7460	0	0	232	0	0	0	0	0	0	0	0	0	0	0
209		Cheriyani	15	8320	60	0	128	30	0	10	50	0	0	0.5	1	0	0	0
210		Cherthala south	22	11458	80	95	587	85	40	35	28	0	0	1	0	0	0	0
211		Chendhara	13	4347	100	0	90	100	0	0	57	0	0	2.21	1	0	0	0.2
212		Cherthala	21	10832	0	0	1542	0	0	0	0	0	0	1.3	1.3	1.3	0	0
213		Chingali	13	5078	40	0	974	50	0	1	0	0	0	0	0	0	0	0
214		Chunakkara	15	7747	0	0	1340	0	0	0	0	0	0	0.1	0.2	0	0	0
215		Devikulam	15	6523	100	0	235	100	0	20	100	0	0	0.002	0.002	0.002	0	0
216		Dathas	15	6994	58	0	113	80	0	40	58	0	0	0	0	0	0	0
217		Elayam	16	9018														
218		Kadavallur	14	6302	0	0	388	0	0	0	0	0	0	0	0	0	0	0
219		Kadavallur	14	6302	0	0	388	0	0	0	0	0	0	0	0	0	0	0
220		Kandallur	15	2440	86	14	1304	90	10	91	90	0	0	0.32	0	0	0	0
221		Karikkudi	18	8300	100	0	450	100	0	90	100	0	0	0.5	0.5	0.5	0.5	0
222		Karthikappally	13	4479	95	0	98	100	0	0	0	0	0	0	0	0	0	0
223		Karyatt	15	7216	0	0	1417	0	0	0	0	0	0	0	0	0	0	0
224		Kavalam	13	4136			471							1.1	0.9	0.9	0	0
225		Kodanthuruth	15	6055	80	20	268	75	25	30	100	0	0	0	0	0	0	0
226		Krishnapuram	17	7055	0	0	435	0	0	0	0	0	0	0	0	0	0	0
227		Kumarapuram	15															
228		Kuttikalath	16	5400	97	0	372	0	0	0	0	0	0	0	0	0	0	0
229		Mannanchery	23															
230		Mannar	18	7566	90	0	592	53	0	23	1	0	0	4 T	3T	3T	0	0
231		Mararikulam North	18	8373	100	0	469	0	100	1	1664	2	0	0	0	0	0	0
232		Mararikulam south	23	15018	95	0	2437	401	0	76	83	0	0	0	0	0	0	0
233		Mavelikara	17	8953	59	0	2883	0	5	0	0	0	0	0	0	0	0	0
234		Mavelikara	18	11661	40		1633											
235		Mavelikara	18	11661	40		1633											
236		Muhanna	18	7777	50	0	10	70	0	70	50	5	90	1000kg	782kg	0	7195kg	0

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235		Melkudra	18	8370	100	0	560	0	0	0	0	0	0	1.5	320kg	320kg	0	0
236		Melkudra	15	8403	0	0	30	0	0	0	0	0	0	0	0	0	0	0
237		Mannar	17	2884	100	100	229	0	0	100	100	0	0	0.05T	0	0	0	0
238		Nehansaly	15	3186	0	0	1578	0	0	1	33	0	0	1.2 T	0.8T	0	0	0
239		Nelampetoor	13	2841	100	0	460	0	0	0	0	0	0					
240		Nocranal	17	9328	70	0	469	88	0	0	0	0	0	0	260KG	0	0	0
241		Palani	19	8546	85	0	502	0	0	0	0	0	0	1.3 T	1.4 T	1.4T	0	0
242		Paluppi	13	6029	80	0	573	10	0	95	98	0	0	2T	1.33T	1.33T	0	0
243		Paravally	18	7283	8	0	632	30	0	55	0	0	0	0	0	0	0	0
244		Parasani	13	2946	0	0	110	0	0	0	0	0	0					
245		Pattinam	19	11952	100	0	1249	100	0	1	1	0	0	0.000331	0.0002	0.0002	0	0
246		Pattinam	19	11002	100	0	2400	100	0	100	100	0	0	1.5	0	0	0	0
247		Pattinam																
248		Pattinam	19	5389	0	0	185	0	0	0	0	0	0	2.3T	2.3T	2.3T	0	0
249		Pattinam	13	6612	0	0	158	75	0	23	12	0	0	3T	2T	1.5T	0	0
250		Pattinam north	17	8669	0	0	321	0	0	100	100	0	0					
251		Pattinam south	17	8560	0	0	346	0	0	0	0	0	0					
252		Pattinam	18	9354	20	0	1159	0	0	10	1	0	0	0.01	0.001	0	0	0
253		Pattinam	13	2959	30	0	506	0	0	100	100	0	0	889.73kg	0	0	0	0
254		Thalavady																
255		Thalavady	15	7210	0	0	247	0	0	98	98	0	0	1200kg	1000kg	0	0	0
256		Thalavady	23	10203	40	0	396	30	0	30	100	0	0	0.02	0	0	0	0.003
257		Thalavady	21	12128	30	0	2141	0	0	3	0	0	0	0	0	0	0	0
258		Thalavady	13	4686	0	0	258	0	0	15	0.32	0	0	0	0	0	0	0
259		Thiruvananthapuram	17	7272	62	0	263	43	0	3	2	0	0	300KG/MON	300KG/MON	300KG/MON	0	0
260		Thiruvananthapuram	18	8707														
261		Thiruvananthapuram	15	2928	30	0	928	40	0	15	15	0	0	1800KG/m	1000kg	0	0	0
262		Thiruvananthapuram	18	9679	20	0	1918	20	0	20	20	0	0	3	2	0	0	0
263		Thiruvananthapuram	16	3817	0	0	218	0	0	15	28	0	0	0	0	0	0	0
264		Thiruvananthapuram	13	3678	0	0	212	0	0	0	0	0	0	0	0	0	0	0
265		Thiruvananthapuram	13	3680	0	0	248	0	0	0	0	0	0	0	0	0	0	0
266		Thiruvananthapuram	15	7433	0	0	574	0	0	0	0	0	0	1500kg/m	1000kg/m	1000kg/m	0	0
267	K	Akathalam	15	5580	436	74	0	70	0	67	64	0	0	2160 kg	2160 kg	2160kg	40 kg	130 kg
268	O	Arappalam	16	6214	362	50	0	45	0	52	0	0	0	1400	0	0	1400	0
269	T	Athirapuzha	22	12380	2608	70	0	58	0	8	3	16	3	3 ton	0	0	550kg	0
270	T	Ayakkattam	20	10445	1102	69	49	609	424	3	4	0	0	1379 kg	1379 kg	1379 kg	33 kg	110 kg
271	A	Ayazham	20	10121	1150	100	0	71	0	13	10	0	0	2230 kg	2230 kg	2230 kg	115 kg	0
272	V	Bharanganam	13	2840														
273	A	Chempu	15	6240	1444	73	0	49	0	13	4	0	0	2230Kg	2230Kg	2230 KG	450 Kg	0
274	M	Chirakkadavu	20	10985	3122	100	0	81	0	100	81	0	0	2000	2000	2000	0	0
275		Elukudi	16	7290	370	48	0	72	0	40	72	0	0	248KG	205KG	35KG	0	0
276		Erumeli	23	16843	2302	5	0	15	0	26	15	0	0	250	303kg	68	6500kg	2500kg
277		Kadavil	14	5717	1482	0	0	0	0	0	0	0	0	220	0	0	0	0
278		Kadavil	13	3317	398	100	0	160	0	100	100	0	0	100kg	75kg	75 kg	0	0
279		Kadavil	19	10128										3350	390	3350	0	330
280		Kalra (Vakkam)	13	3903	234	85	0	100	0	90	90	0	0	0.039	0.039	0.039	0	0
281		Kanakkay	15	7567	284	23	0	33	0	8	10	0	0	103kg	75kg	75kg	0	0
282		Kanakkay	15	6382	117	45	0	30	0	15	20	0	0	0.5	0.5	0.5	0	0
283		Kayyapally	23	12478	3000	85	0	75	0	85	75	0	0	0.6	60 kg	0	0	0
284		Kayyapally	15	7119	35	32	0	14	0	100	100	0	0	0.15	0.15	0.15	0	0

Sl. NO-	DISTRICT	LOCAL BODY	NO OF WARDS	No of Household	% Household DSD-Dry	% of Household-DSD-Wet	No of establishments	Establishment -DSD-Dry	% establishments -DSD-Wet	% of houses in which more level treatment	% of establishments in which more level treatment	% disposing to sewerage system	% disposing to controlled system	Quantity of Waste generated (TRB)	Quantity of Waste collected (TRB)	Quantity of Waste treated (TRB)	Quantity of Waste processed in Composting Sheds (TRB)	Quantity of Waste generated in (TRB)
285		Kandukal	16	8040	1093	0	0	0	0	0	0	0	0	2	1	0.1	0.5	0
286		Killemoor	13	6038	512	0	0	29	1	13	3	67	30	3	0	0	0	0
287		Koeriyada	17	8113	241	0	0	0	0	24	17	0	0	1	0	0	0	0
288		Koeriyada	13	3363	139	0	0	0	0	0	0	93	42	3	0	0	2	0
289		Koeriyada	13	4800	475	71	33	33	23	14	109	0	0	40	28	0	0	0
290		Koeriyada	13	4100	256	0	0	0	0	2	1	0	0	2.8	0	0	1.2	0
291		Koeriyada	16	6472	814	0	0	0	0	4	0	0	0	0	0	0	0	0
292		Koeriyada	14	5811	1239	0	15	15	0	73	2	0	0	2	2	0	0	0
293		Koeriyada	20	10990	148	0	0	29	0	1	2	0	0	3.1	0.2	0	0.1	0
294		Koeriyada	20	10718	1100	70	70	70	0	20	0	0	0	1.45	1.01	0	0	0
295		Koeriyada	17	9221	824	0	0	0	0	0	100	100	0	110 KGD	60 KG	0	0	0
296		Koeriyada	15	5410	50	0	0	0	0	0	30	0	0	0.41	0.21	0	0	0
297		Koeriyada	18	8210	1608	100	100	100	0	1	2	0	0	400	220	220	160	25
298		Koeriyada	14	5354	1107	64	64	64	0	1	2	0	1	1000 kg	400 kg	400 kg	0	0
299		Koeriyada	15	3480	482	100	100	100	0	0	73	0	0	0	0	0	0	0
300		Koeriyada	12	4800	482	100	100	100	0	4	14	0	0	237	279	279	0	0
301		Koeriyada	13	4151	524	0	0	23	0	0	5	0	0	0.066	0.066	0	0	0
302		Koeriyada	13	2300	69	0	0	43	0	0	82	0	0	110	60	60	0	0
303		Koeriyada	12	2973	169	0	0	58	0	0	94	0	0	0	0	0	0	0
304		Koeriyada	17	7255	232	8	0	50	0	40	10	0	0	900 kg	900 kg	900 kg	0	0
305		Koeriyada	21	11801	700	3	0	100	0	89	0	0	0	590 kg	350 kg	350 kg	0	0
306		Koeriyada	13	5348	1178	0	0	37	0	0	0	0	0	0.2	0.1	0	0	0
307		Koeriyada	13	6922	1241	46	0	25	0	48	26	0	0	1840 kg	1840 kg	1840 kg	0	0
308		Koeriyada	15	6902	702	0	0	100	0	43	90	0	0	0.1	0.1	0.43	0.1	0
309		Koeriyada	14	4752	1265	66	0	71	0	49	2	2	8	2.2	0.43	0.43	1.4	0
310		Koeriyada	16	7766	1472	50	0	24	0	20	0	0	0	1200 KGD	1200 KGD	0	0	0
311		Koeriyada	13	5647	1472	0	0	0	0	0	0	0	0	3.66	3.66	0	0	0
312		Koeriyada	20	10700	2823	40	0	7	0	12	0	0	0	0	0	0	0	0
313		Koeriyada	22	12190	899	29	0	11	0	12	0	0	0	0	0	0	0	0
314		Koeriyada	19	11418	271	31	0	27	0	17	0	0	0	0	0	0	0	0
315		Koeriyada	13	3966	690	100	100	100	0	48	1	0	0	12.165	12.165	0	0	0
316		Koeriyada	14	3408	1077	0	0	100	0	0	13	0	0	0	0	0	0	0
317		Koeriyada	18	7050	1510	0	0	0	0	40	42	0	0	0.31	0.15	0	0	0
318		Koeriyada	18	5183	1132	11	0	18	0	5	12	0	0	2.50	75	0	0	0
319		Koeriyada	14	6161	139	90	60	60	66	0	0	90	65	3.224	0	0	1.24	0
320		Koeriyada	12	5628	424	70	0	35	0	0	0	0	0	0.645	0	0	0	0
321		Koeriyada	12	2130	73	0	0	27	0	0	18	0	0	0	0	0	0	0
322		Koeriyada	12	2935	872	82	0	31	0	18	27	0	0	0.394	0	0	0	0
323		Koeriyada	15	4093	158	100	0	100	0	2	0	0	0	2.750	1.7	0	0	0
324		Koeriyada	15	8377	630	42	0	100	0	0	0	0	0	0.01	0	0	0.01	0
325		Koeriyada	14	6311	838	75	0	18	0	20	15	0	0	27 TON	27 TON	0	0	0
326		Koeriyada	18	8663	121	70	0	67	0	0	0	0	0	5.704	5.704	0	0	0
327		Koeriyada	20	11373	1390	0	0	12	0	5	21	0	0	4 TON	4 TON	0	0	0
328		Koeriyada	17	8462	44	50	0	18	0	10	5	0	0	3000 KG	5 TON	0	0	0
329		Koeriyada	13	3210	205	16	0	13	0	4	10	0	0	0.8	0.3	0.3	0	0
330		Koeriyada	20	10599	1490	60	0	40	0	45	15	0	0	0.1	2.5	0.3	0.1	0
331		Koeriyada	21	11900	1490	70	0	65	0	20	10	0	0	1.64	0.88	0.3	0	0
332		Koeriyada	16	8184	517	100	0	100	0	15	14	0	0	0.4	0.3	0	0.25	0
333		Koeriyada	17	5461	847	58	0	20	0	35	13	0	0	0.4	0.3	0	0.1	0



SL NO.	DISTRICT	LOCAL BODY	NO OF WARDS	No of Household	% Household D2D-Dry	% of Household-D2D-Wet	No of establishment	% establishment -D2D-Dry	% establishment -D2D-Wet	% of houses in which source level treatment	% of establishment in which source level treatment	% disposing to centralised system	% disposing to centralised system	Quantity of Waste generated (TPD)	Quantity of Waste collected (TPD)	Quantity of Waste treated (TPD)	Quantity of Waste processed in Composting Sites (TPD)	Quantity of Waste processed in biogas plants (TPD)
334		Velivayoor	13	3846	436	72	0	5	0	73	80	0	0	0.23	0.05	0.3	0.02	0.075
335		Velivayoor	13	6265	818	20	0	7	0	3	0	0	0	0.01	0.02	0.03	0	0
336		Velloor	16	6184	846	73	0	32	0	0	0	0	0	0.8	0.4	0	0	0
337		Vilavapuram	19	10741	1129	83	0	5	0	4	0	83	0	0.2	0.2	0.2	0	0
338	I	Adimaly	21	10163	1140	92	3	75	20	70	80	25	25	30	3	3	1	0
339	D	Athode	13	2662	76	85	0	82	0	25	30	0	0	1	0.1	0.1	1	0.5
340	U	Azhalam	13	6445	182	23	0	32	0	75	68	23	32	1.3	0.3	0.3	0	1
341	K	Ayyappancoil	13	4981	93	10	0	27	0	12	8	25	22	0.5	0.1	0.1	0	0
342	K	Bhoominilay	13	2833	168	18	0	31	0	34	20	43	24	1.5	0.3	0.3	0	0
343	K	Chakkupattam	13	7120	407	0	0	80	0	29	0	24	78	2.3	2.3	2	0	0
344	I	Chinnakal	13	4632	923	72	0	18	0	18	65	62	23	1.5	0.75	0.75	0	0
345		Devikulam	18	7894	105	40	0	70	0	71	75	83	80	0.4	0.2	0.2	0	0
346		Edamakkudy	13	764	19	0	0	0	0	1	16	25	20	0	0	0	0	0
347		Edavetty	13	5316	763	88	0	48	0	23	22	0	0	4.37	4.18	4.18	1.67	0
348		Elappan	17	8160	950	90	0	83	23	65	50	30	80	3.5	3.1	3.1	2.5	0.2
349		Erattayar	14	4695	492	80	0	75	0	30	25	100	100	1.3	0.3	0.3	0	0
350		Idakkil Karikkurthy	18	10560	320	65	0	0	0	50	75	60	80	3.1	1	1	0	0
351		Kankolay	15	6234	450	80	0	75	0	90	80	0	0	4	4	3.5	0	0
352		Kanhiyil	16	6718	962	83	0	80	0	20	10	65	0	4.7	1.9	1.9	0	0
353		Kanthalloor	13	4580	0	75	0	100	100	75	75	100	25	1.39	0.5	0.5	0.5	0
354		Karimanoor	14	5964	768	70	0	75	0	50	50	0	0	0.6	0.3	0.2	0.2	0
355		Karimkulam	13	4135	301	0	0	67	0	50	50	0	0	0.43	0.43	0.43	0.84	0
356		Karapattanam	17	8107	1034	88	0	65	0	80	75	0	0	6.5	4.5	4.5	2	0
357		Kodikulam	13	3984	117	92	0	90	0	38	90	0	0	2.89	2.95	2.95	0	0
358		Kokkayar	13	4728	133	95	0	92	0	20	65	0	0	3.65	2.3	0.6	0	0
359		Konathady	19	8730	650	85	0	80	90	87	72	23	32	1.5	0.5	0.5	0	1
360		Kudayathoor	13	3456	163	30	0	68	0	35	20	0	0	3.9	2	2	0	0
361		Kumarasagalam	13	4512	122	30	0	20	0	40	40	0	0	3	1.3	1.3	0.5	0.25
362		Kumily	20	11850	2280	95	13	95	95	87	4	13	95	4	4	3.9	3.5	3.5
363		Mankkad	13	4739	138	94	0	80	0	45	25	0	0	4.53	2.45	2.45	2	2
364		Manjulan	13	4588	632	68	0	74	0	64	48	34	0	2.219	0.012	0.012	0	0
365		Manjeri	13	6659	381	73	0	100	100	75	75	100	75	1.38	0.5	0.5	0.5	0
366		Mariyapuram	13	3592	15	0	0	100	0	98	60	0	99	0.9	0.6	0.3	0.15	0
367		Masoor	21	9197	3132	70	0	80	70	100	100	40	0	44485	44485	44485	6	4
368		Mutton	13	2563	2300	75	0	90	0	60	70	30	50	2.1	0.5	0.6	0.2	0
369		Nedumkandam	22	13132	10361	73	0	90	0	25	30	0	90	13.31				
370		Pallassal	14	5800	1200	70	0	65	0	70	50	80	75	3.26	0.5	0.5	2	0.2
371		Pampalampara	16	6832	150	70	0	70	0	75	75	20	20	0.35				
372		Peermada	17	9099	1423	100	0	83	0	30	15	85	85	1.5	1.5	1.5	0	0
373		Peruvanthanam	14	4242	1630	0	0	72	0	30	35	60	25	2	1.5	0.9	0.5	0
374		Parappada	13	3170	414	100	0	70	0	50	100	70	0	0.33	0.33	0.33	2.4	0
375		Rajshah	13	3819	880	85	85	85	80	75	75	100	80	0.49	0.49	0.49	0.49	0.49
376		Rajukunary	13	6052	250	75	75	90	0	70	75	50	50	0.68	0.68	0.68	0.68	0.68
377		Santhapattam	13	4843	170	95	0	100	90	81	80	91	91	4.69	4.26	4.26	0.6	0
378		Seppathy	13	4300	150	78	0	100	84	80	72	74	74	3.39	2.75	2.75	0.8	0
379		Udumbanchola	14	7607	248	0	0	75	0	90	80	50	50	0.4	0.2	0.2	0.2	0
380		Udumbanoor	16	6254	1115	60	60	70	70	40	70	60	60	0.5	0.3	0.15	0.15	0
381		Upputhara	18	8184	1211	0	0	100	0	98	60	60	90	0.9	0.6	0.3	0.15	0
382		Vandazhodu	18	10373	1509	0	11	0	5	85	96	3	3	8.17	0.6	0.6	0.6	0.2
383		Vandoreyyar	23	13969	1011	0	60	80	60	40	70	70	70	3	3	3	3	3

SL-NO:	DISTRICT	LOCAL BODY	NO OF WARDS	No of Household	% Household-D2D-Dry	% of Household-D2D-Wet	No of establishment	% establishment-D2D-Dry	% establishment-D2D-Wet	% of houses in which source level treatment	% of establishment in which source level treatment	% disposing to centralised system	% disposing to centralised system	Quantity of Waste generated (TPD)	Quantity of Waste collected (TPD)	Quantity of Waste treated (TPD)	Quantity of Waste processed in Composting Sites (TPD)	Quantity of Waste processed in biogas plants (TPD)
384		Vannappuram	17	11001	1122	30	0	50	0	25	20	0	0	3.3	1.1	1.1	0	0
385		Varkkudy	18	10194	1412	30	0	70	0	88	10	0	0	9.79	0.1	1.1	0	0
386		Vattavada	13	2747	198	51	0	60	0	0	20	0	0	0.1	0.1	0.1	0.1	0.1
387		Vechalhope	14	4300	450	55	0	64	0	90	23	75	0	1.1	1.1	1.1	0	0
388		Vellathoval	17	6448	1072	03	0	62	0	53	85	0	0	7.89	4.1	4.1	0.1	0
389		Velliyannam	15	6970	1003	75	0	83	0	83	79	0	0	0.1	0.1	0.1	0.1	0.1

Sl. NO.	DISTRICT	LOCAL BODY	NO OF WARDS	No of Household	% Household D2D-Dry	% of Household-D2D-Wet	No of establishment	% establishment -D2D-Dry	% establishment _D2D-Wet	% of houses in which source level treatment	% of establishment in which source level treatment	% disposing to centralized system	% disposing to centralized system	Quantity of Waste generated (TPD)	Quantity of Waste collected (TPD)	Quantity of Waste treated (TPD)	Quantity of Waste processed in Composting Sites (TPD)	Quantity of Waste processed in biogas plants (TPD)
390	E	Akkaramadu	14	7889	1549	24	0	0	0	0	0	0	0	5.02	0.3	0.3	0	0
391	B	Alingadu	21	16317	920	60	0	89	0	10	10	0	0	4.12	0	0	0	0
392	N	Antalur	16	8454	1690	19	0	12	0	8	1	0	4	0.06	0.0012	0.00036	0.00012	0.00012
393	A	Apulatha	13	4965	189	0	0	0	0	0	0	0	0	0	0	0	0	0
394	K	Asanapur	14	6329	150	8	0	0	0	8	490	0	0	0	0	0	0	0
395	U	Avul	14	6424	1635	0	0	0	0	1	10	0	0	0	0	0	0	0
396	L	Avyasa	14	6021	268	0	0	0	0	0	0	0	0	0	0	0	0	0
397	A	Avyasa	13	1706	668	0	0	0	0	10	25	0	0	0	0	0	0	0
398	M	Chellanur	21	10535	62	0	0	0	0	0	0	0	0	0	0	0	0	0
399		Chendrasagalam	18	9665	1108	36	0	4	0	49	19	0	0	6.3	6.3	6.3	0	0
400		Chengamandal	18	10166	468	100	0	64	0	95	75	0	0	6.99	6.99	6.99	0	0
401		Cheranthur	17	10832	368	74	0	67	0	74	67	0	67	3.7	3.7	3.7	0	0
402		Chittanayakan	18	2583	412	16	0	0	0	99	28	0	0	4.3	3	1	0	0
403		Chittoor	18	10805	1996	75	0	0	0	0	0	0	0	9 TDP	9TDP	9TDP	0	0
404		Chittoor	14	9997	480	92	0	88	0	95	88	3	88	4.3 TPD	4.3 TPD	4.3 TPD	0	0
405		Edakkavayal	14	6133	900	49	0	100	0	49	44	0	0	7 TPD	7 TPD	7 TPD	0	0
406		Eduthala	21	17007	4134	59	0	91	0	22	45	0	0	3.5	0	0	0	0
407		Eduvankadu	15	6346	954	0	0	100	0	0	0	0	0	6	3	3	0	0
408		Elankunthapur	23	15479	1562	93	0	100	0	23	42	0	0	7	4	4	0	0
409		Elani	13	5552	127	64	0	100	0	100	100	0	0	0	0	0	0	0
410		Elakkara	14	6162	196	69	0	100	0	100	100	0	0	0	0	0	0	0
411		Kadavur	13	4021	819	0	0	0	0	0	0	0	0	0	0	0	0	0
412		Kadavur	21	16221	3595	0	0	0	0	0	0	0	0	0	0	0	0	0
413		Kalady	17	9733	2532	82	0	0	0	12	4	0	0	7.06	1.6	0.9	0.5	0.3
414		Kalooradu	15	7511	320	0	0	0	0	2	6	0	0	0	0	0	0	0
415		Kanjor	13	4792	242	0	0	0	0	9	14	0	0	0	0	0	0	0
416		Kanukaly	17	9699	2686	0	0	0	0	0	0	0	0	0	0	0	0	0
417		Kanamoor	20	11233	1215	0	0	0	0	1	3	0	0	0	0	0	0	0
418		Kavayal	18	9880	1770	0	0	0	0	0	0	0	0	0	0	0	0	0
419		Korambur	13	4106	720	0	0	0	0	0	0	0	0	NOT ASSESSED	0	0	0	0
420		Korambur	19	12788	716	0	0	0	0	7	21	0	0	No data available	0	0	0	0
421		Kothakkulam	19	9253	539	0	0	0	0	0	0	0	0	0	0	0	0	0
422		Kottappalli	13	6172	685	0	0	0	0	100	100	0	0	0	0	0	0	0
423		Kottavelli	22	14873	2103	30	0	0	0	86	1	0	0	0	0	0	0	0
424		Kumbham	18	10129	1725	0	0	0	0	4	3	0	0	7.2	0	0	0	0
425		Kumbham	17	8719	1430	100	0	90	0	100	90	0	0	not estimated	not estimated	0	0	0
426		Kumbham	18	12419	2940	23	0	0	0	4	0	0	0	0.3	0	0	0	0
427		Kumarak	15	6300	250	54	0	60	0	46	40	0	0	0	0	0	0	0
428		Kuttanadu	17	0	220	0	0	0	0	0	0	0	0	0	0	0	0	0
429		Kuvempudi	20	12123	0	10	0	0	0	3	0	0	0	0	0	0	0	0
430		Kuthupatti	13	3615	185	24	0	51	0	0	0	0	0	0	0	0	0	0
431		Malayanoor - Nellikuzhal	17	8386	971	0	0	0	0	0	0	0	0	0	0	0	0	0
432		Manal	13	3948	219	0	0	0	0	0	0	0	0	0	0	0	0	0
433		Manaloor	13	5253	1585	81	19	0	0	0	0	0	0	0	0	0	0	0
434		Manjara	13	3857	173	0	0	0	0	4	0	0	0	17860	0	0	0	0
435		Manjara	19	10995	72	0	0	0	0	0	0	0	0	0.05	0.001	0.001	NIL	NIL
436		Mathuram	14	6499	353	0	0	0	0	0	0	0	0	nil	nil	nil	0	nil

Sl. No.	DISTRICT	LOCAL BODY	NO OF WARDS	No of Household	% Household D2D-Dry	% of Household-D2D-Wet	No of establishment	Establishment -D2D-Dry	% establishment D2D-Wet	% of houses in which source level treatment	% of establishment in which source level treatment	% disposing to centralised system	% disposing to centralised system	Quantity of Waste generated (TPD)	Quantity of Waste collected (TPD)	Quantity of Waste treated (TPD)	Quantity of Waste processed in Composting Sites (TPD)	Quantity of Waste processed in biogas plants (TPD)
437		Mookkannur	14	5394	200	0	0	0	0	0	0	0	0	nil	nil	nil	0	0
438		Mudakkuzha	13	7386	700	0	0	0	0	0	0	0	0	100KG	0	0	0	0
439		Muzhenkurathi	10	7728	11	0	0	0	0	0	0	0	0					
440		Muzhenkuzha	16	9479	1105	0	0	0	0	0	0	0	0					
441		Narasambalam	19	12909	3522	27	0	10	0	0	0	0	0					
442		Nedumbazery	21	12271	0	0	0	0	0	0	0	0	0	24	0.5	0.5	0	0
443		Nellikuzhi	16	7801	0	0	0	0	0	0	0	0	0	0	0	0	0	0
444		Nerakkal	16	2957	1974	0	0	0	0	0	0	0	0	0	0	0	0	0
445		Okkal	16	4780	2	0	0	0	0	0	0	0	0	0	0	0	0	0
446		Palingattar	13	4920	133	76	0	100	0	0	0	0	0	0	0	0	0	0
447		Pakkiluzha	13	3030	1317	0	0	0	0	0	0	0	0	0	0	0	0	0
448		Pallarimangalam	23	13549	1141	75	0	70	0	92	90	0	0	0	0	0	0	0
449		Pallippuram	23	13549	1141	75	0	70	0	92	90	0	0	11	0.01	0	0	0
450		Pambalkuda	18	9690	2022	0	0	0	0	71	92	0	0	1	4.9			
451		Parakkadu	22	11745	315	0	0	0	0	98	1587	0	0					
452		Parippu	13	6129	589	0	0	0	0	100	100	0	0					
453		Pudimann	14	7649	3107	34	0	6	0	100	100	0	0					
454		Puzhikkal	13	6453	1814	12	0	8	0	12	0	0	0	2219 KG	2219 KG	1789 KG	0	0
455		Puthankadu	13	7687	750	23	0	17	0	20	0	0	0	100kg/day	0	0	0	0
456		Puthenchikuzha	17	9932	436	0	0	0	0	0	0	0	0	No Estimated	Not	0	0	0
457		Ramanangalayam	20	12715	1200	40	0	7	0	8	46	0	0	JTPD	JTPD	0	3tpd	0
458		Ramanangalam	14	6090	2090	25	20	3	0	14	3	0	0					
459		Sreenook Nigaram	14	5769	250	0	0	0	0	0	0	0	0	0	0	0	0	0
460		Thiruvandi	13	7825	606	45	0	34	0	0	0	0	0	0	0	0	0	0
461		Thiruvannur	14	7572	1654	0	0	0	0	10	10	0	0	1 tpd	0	0	0	0
462		Thuvur	20	15375	365	0	0	0	0	0	0	0	0		173KG	0	0	0
463		Uthupparamoor	20	10022	1588	0	0	0	0	0	0	0	0					
464		Vadakkilakkam	17	9540	1789	0	0	0	0	4	11	0	0					
465		Vadakkilakkam-Puthankadu	14	6174	1628	0	0	0	0	0	0	0	0					
466		Vengal	13	6087	771	0	0	0	0	0	0	0	0	0.07	0.07	0	0	0
467		Vengal	16	9275	1858	0	0	0	0	0	0	0	0	0	0	0	0	0
468		Vengal	20	17202	788	0	0	0	0	0	0	0	0	1	1	0	0	0
469		Vengal	23	17853	850	0	0	0	0	78	71	0	0	3	0	0	0	0
470		Vengal	15	5855	775	0	0	0	0	0	0	0	0	10	10	0	0	0

SL NO.	DISTRICT	LOCAL BODY	NO OF WARDS	No of Household	% Household D2D-Dry	% of Household-D2D-Wet	No of establishments	Establishment -D2D-Dry	% establishment -D2D-Wet	% of houses in which source level treatment	% of establishments in which source level treatment	% disposing to centralised system	% disposing to centralised system	Quantity of Waste generated (TPD)	Quantity of Waste collected (TPD)	Quantity of Waste treated (TPD)	Quantity of Waste processed in Composting Sites (TPD)	Quantity of Waste processed in bioreactors (TPD)
472	T	Adar	18	8480	1154	0	0	17	0	0	0	0	0	2	3	3	0	0
473	H	Alagannagar	17	9749	1917.0	0	0	0	0	13	8	0	0	2	0	0	0	0
474	H	Alor	23	17500	1700	0	0	0	0	0	0	0	0	1 ton	1/2 ton	0	0	0
475	I	Ammanada	18	10499	2666	0	0	0	0	14	0	0	0	0	0	0	0	0
476	S	Arbilad	15	6922	1180	0	0	0	0	7	0	0	0	0	0	0	0	0
477	S	Arisar	17	10495	69	0	0	0	0	19	0	0	0	3 ton	2 ton	nil	0	0
478	U	Athirappilly	13	3004	967	0	0	0	0	0	0	0	0	Not estimated	Not Estimated	0	0	0
479	H	Avanur	15	8062	373	25	0	5	0	2	0	0	0	8	0	0	0	0
480		Avinistery	14	6213	521	0	0	89	0	3	0	0	0	0	0	0	0	0
481		Chanthur	18	7956	7956	100	0	100	0	0	0	0	0	0	0	0	0	0
482		Chelakkara	22	13745	2921	21	0	3	0	0	0	0	0	0	0	0	0	0
483		Cherpu	21	11176	2136	72	0	0	0	1	0	0	0	not estimated	not estimated	not	not estimated	not estimated
484		Chinnel	18	10449	3097	0	0	0	0	0	0	0	0	0	0	0	0	0
485		Chowannur	13	5251	919	0	0	0	0	0	0	0	0	0	0	0	0	0
486		Dammangalam	13	7119	0	0	0	0	0	0	0	0	0	0	0	0	0	0
487		Edathurthy	18	8642	383	0	0	0	0	0	0	0	0	0	0	0	0	0
488		Erodegaru	14	6469	1363	100	0	0	0	0	0	0	0	0	0	0	0	0
489		Ilavally	16	8513	1941	70	0	30	0	0	0	0	0	1 ton	1 ton	0	0	0
490		Ergattinar	16	7781	1515	72	0	30	0	0	1	0	0	not estimated	not estimated	not	not estimated	not estimated
491		Iriyad	23	14585	2704	0	0	0	0	0	0	0	0	0	0	0	0	0
492		Irumappetty	18	7420	3920	0	0	0	0	0	0	0	0	0	0	0	0	0
493		Kadavagode	18	8361	2896	0	0	0	0	0	0	0	0	0	0	0	0	0
494		Kadappuram	18	8830	901	0	0	0	0	0	0	0	0	0	0	0	0	0
495		Kadavur	20	9254	1232	0	0	0	0	0	0	0	0	0	0	0	0	0
496		Kadavutti	16	8276	1173	0	0	0	0	0	0	0	0	0	0	0	0	0
497		Kalpanangalam	20	10800	960	30	0	5	0	0	0	0	0	0	0	0	0	0
498		Kalpanarodu	18	8409	818	36	0	6	0	0	0	0	0	not estimated	0	0	0	0
499		Kandamattary	16	7791	1487	0	0	0	0	0	0	0	0	not estimated	0	0	0	0
500		Kannan	15	6486	839	0	0	21	0	95	23	0	0	0.2	0.2	0.2	0	0
501		Kankarai	16	8700	700	0	0	0	0	0	0	0	0	0	0	0	0	0
502		Kannan	14	5572	699	20	0	4	0	0	0	0	0	0	0	0	0	0
503		Koolkara	19	10871	3016	29	0	0	0	17	0	0	0	9.6 tons	6.7 tons	6.7 tons	0.5 ton	0
504		Kodassery	30	11341	0	0	0	0	0	0	0	0	0	0	0	0	0	0
505		Kolathy	17	11845	1135	0	0	0	0	0	0	0	0	not estimated	not estimated	not estimated	not estimated	not estimated
506		Konduthy	15	6764	972	0	0	0	0	0	0	0	0	0	0	0	0	0
507		Koratty	19	10989	610	0	0	0	0	0	0	0	0	0	0	0	0	0
508		Kuzhur	14	6510	908	0	0	0	0	0	0	0	0	not estimated	0	0	0	0
509		Mablikkara	16	8860	1362	40	0	52	0	10	0	0	0	2.05 TON	2.05 TON	2.05 TON	0.25TON	1 TON
510		Mala	20	11856	4446	0	0	0	0	0	0	0	0	0	0	0	0	0
511		Manar	19	9487	2312	100	0	100	0	100	100	90	0	9.86TON	9.86TON	9.86TON	0.5 TON	0
512		MATHILAKAM	17	7565	588	0	0	0	0	0	0	0	0	0	0	0	0	0
513		Meethur	23	16245	2731	0	0	0	0	0	0	0	0	4.9 ton	4.9 ton	4.9 ton	0	0
514		Meipur	17	6888	0	0	0	0	0	0	0	0	0	300kg	0	300kg	0	0
515		Mulakunathakavu	14	7053	0	0	0	0	0	0	0	0	0	Mulakunathakavu	0	0	0	0
516		Mullasery	15	6753	413	67	0	0	0	0	0	0	0	0.002	0.002	0	0	0
517		Mullarkara	60	3927	1383	36	0	4	0	0	0	0	0	0	0	0	0	0
518		Murayad	17	9633	1180	100	1	0	100	0	0	0	0	0	0	0	0	0

Sl. No.	DISTRICT	LOCAL BODY	NO OF WARDS	No of Household	% Household D2D-Dry	% of Household-D2D-Wet	No of establishment	Establishment -D2D-Dry	% establishment -D2D-Wet	% of houses in which source level treatment	% of establishment in which source level treatment	% disposing to decentralized system	% disposing to centralised system	Quantity of Waste generated (TFD)	Quantity of Waste collected (TFD)	Quantity of Waste treated (TFD)	Quantity of Waste processed in Composting Sites (TFD)	Quantity of Waste processed in biogas plants (TFD)
319		Nadabara	17	10932	100	0				100	50	100	50	2000Kg	2000Kg	2000Kg	1000Kg	500Kg
320		Narika	14	6373	2514	84	0	11	0	60	43	0	0	2 ton	1 ton	0	0	0
321		Narasikara	15	6745	1815	22	0	8	1	0	0	0	0	NA	NA	0	0	NA
322		Orunavayur	13	3035	249	0	0	0	0	0	0	0	0	NA	NA	NA	NA	NA
323		Padiyoor	14	6323	902	0	0	0	0	0	0	0	0	NA	NA	NA	NA	NA
324		Panchery	23	15443	3231	0	0	0	0	0	0	0	0					
325		Parai	16	8250	1175	0	0	0	0	0	0	0	0	0	0	NA	NA	NA
326		Paralam	13	6563	8	0	0	0	0	0	0	0	0					
327		Parappukara	18	8758	1789	90	0	31	0	0	31	0	0	0.5Tan	0.5Tan	0	0	0
328		Pariparam	13	3406	8916	0	0	0	0	0	0	0	0	NA	NA	NA	NA	NA
329		Pavetty	13	6755	1775	0	0	0	0	0	0	0	0	NA	NA	NA	NA	NA
330		Pathanamur	22	17080	516	45	45	90	87	0	0	0	0	Not estimated	Not	Not	NA	NA
331		Perinjara	15	8883	650	100		100		100	100			Not estimated	Not	Not	NA	NA
332		Poomangalam	13	4236		0	0			0		0		Not estimated	Not	Not	Not estimated	NA
333		Porukudi	13	5471		0	0			0		0						
334		Poyya	15	5652		0	0			0		0						
335		Rudhaki	15	2635	565	0	0	0	0	0	0	0	0	Not estimated	Not	Not	Not estimated	Not estimated
336		Ruvampuram	19	9516	2040	0	0	0	0	0	0	0	0	324	324	324	0	0
337		Ruvampur	20	9972	2128	0	0	0	0	0	0	0	0	615	615	615	0	0
338		Ruzhichira	15	16707	1107	0	0	0	0	0	0	0	0	115 ton	115	115	0	0
339		Ruzhikur	23	12268	3186	9	0	2	0	0	0	0	0	35	35	35	0	0
340		Srinivasapuram	21	12471	2857	30	0	50	0	0	0	0	0	0.2	0.15	0	0	0
341		Talikulam	16	8104	450	29	0	100	0	0	0	0	0	50	30	30	0	0
342		Thanniam	18	9782	5000	51	0	100	0	0	0	0	0	20 ton	20	20	0	0
343		Thakkurankara	18											1TON/DAY	0	1/TON	0	0
344		Thiruvizhala	17	NA	NA													
345		Thurai	13	4388	30	0	0	33	0	0	0	0	0				20	na
346		Thykkur	17	8552	1280	30	0	26	0	80	73	0	0	0.2	0.2	0.2	0	0
347		Vadakkad	16	8320	980	0	0	3	0	0	0	0	0	0	0	0	na	na
348		Velupad	20	10127	1787	4	0	0	0	1	1	0	0	not estimated	not estimated	not estimated	na	na
349		Vellathol	14	7120	670	0	0	0	0	0	0	0	0	0.05	0.04	0.04	0	0
350		Vellotholagur	16	6378	1331	60	0	3	0	0	0	0	0	not estimated	not estimated	not estimated	0	0
351		Vandraspally	22	13900	2601	0	0	0	0	5	0	0	0	not estimated	not estimated	not estimated	na	na
352		Vanduroor	14	6451	911	0	0	0	0	0	0	0	0	not estimated	not estimated	not estimated	na	na
353		Vanaspally	18	7625	1236	8	0	2	0	0	0	0	0	not estimated	not estimated	not estimated	0	0
354		Vellangalur	21	12510	710	0	0	0	0	0	0	0	0	not estimated	not estimated	not estimated	0	0
355		Velikkara	18	8960	1766	0	0	0	0	0	1	0	0					
356		Velur	17	8430	1429	0	0	0	0	0	0	0	0	not estimated	not estimated	not estimated	0	0
357		Venkitanga	17															

SL. NO.	DISTRICT	LOCAL BODY	NO OF WARDS	No of Household	% Household D/D-Dry	% of Household-D/D-Wet	No of establishment	Wastelichment -D/D-Dry	% establishment _D/D-Wet	% of houses in which source level treatment	% of establishment in which source level treatment	% disposing to centralised system	% disposing to centralised system	Quantity of Waste generated (TPD)	Quantity of Waste collected (TPD)	Quantity of Waste treated (TPD)	Quantity of Waste processed in Composting Sites (TPD)	Quantity of Waste processed in Biomethanation (TPD)		
558	P A L A K K A D	Agali	21	12739	2615	75	0	96	4	94	2	0	98							
559		Akathelara	17	9590	3892	45	0	2	0	48	2	0	0		3520 kg	500 kg/ month	0	0		
560		Alurathur	23	15185	4290	93	0	0	0	17	6	82	0	2140. kg	1400. kg	1400. kg	0	0		
561		Alurathur	16																	
562		Arshaleppara	20	12928	1432	87	0	0	0	0	29	0	0	6 Tons	6 Tons	Transported	0	0		
563		Anakkara	16	7066	1401	70	0	0	0	0	0	0	0	0	0	0	0	0	0	
564		Ananganadi	15	7526	985	10	0	20	0	15	0	0	0	0	0	0	0	0	0	
565		Ayilur	17	8327	1289	85	2	0	0	0	0	0	0	0	0	0	0	0	0	
566		Chalvava	15	6860	1048	0	0	0	0	0	0	0	0	0	0	0	0	0	0	
567		Chelivary	15	6550	1200	100	0	100	100	15	8	0	0	190	0	0	0	0	0	
568		Elappully	22	11815	2016	70	64	60	47	0	0	0	0	1100 Kg	1000 Kg	850 Kg	0	0		
569		Elavanchery	14	5235	235	0	0	0	0	0	0	0	0	0	0	0	0	0	0	
570		Erinagar	18	9482	889	0	0	0	0	0	0	0	0	0	0	0	0	0	0	
571		Eruthampathy	14	5681	362	22	52	22	43	0	0	0	0	0.05	0.02	0.03	0	0	0	
572		Kadampanthipuram	18	9872	2239	90	0	89	0	0	0	0	0	0	0	0	0	0	0	
573		Kanjirappuzha	19	9944	1959	0	0	0	0	2	0	0	0	0.03	0.03	0	0	0	0	
574		Kannadi	15	8063	1100	50	0	11	0	0	0	0	0	0	0	0	0	0	0	
575		Thari	16	7784	44	0	0	0	0	0	1									
576		Kazhanthra	16	7950	650	45	0	100	0	0	0	0	0	0.10 tonnes	0.02 tone	0.03 tone	0	0	0	
577		Kappur	18	8902	1759	0	0	0	0	0	0	0	0	0.45	0	0	0	0	0	
578		Karakuruzhi	16	7417	1490	0	0	100	0	100	2	0	0	0.02	0.01	0.01	0	0	0	
579		Karintha	17	8870	2049	70	0	97	0	0	0	0	0	0	0	0	0	0	0	
580		Karimpuzha	18	9835	268	64	64	100	4	0	2	0	0	0.5	0.5	0.5	0	0	0	
581		Kavassery	17	8966	218	7	0	12	0	0	0	0	0	0	0	0	0	0	0	
582		Keralassery	13	4861	238	0	0	0	0	0	0	0	0	0.01	0.01	0.03	0	0	0	
583		Kibikkanchery	22	13196	2238	69	0	67	0	0	1	0	0	0.04	0.04	0.04	0	0	0	
584		Kidambur	13	8182	1333	85	84	90	90	28	4	0	0	7 tonnes	8 tonnes	8 tonnes	0.2 tonnes	0	0	
585		Kidangoor	18	10181	465	0	0	0	0	5	75	0	0	1.05 tonnes	1.05 tonnes	1.05 tonnes	200 kg	0	0	
586		Kulleshode	18	7346	1345	0	0	157	240	0	0	0	0	1200	1200	1200	200	0	0	
587		Kongal	18	9300	1684	100	0	48	0	54	62	100	42	500	500	500	0	0	0	
588		Koppur	17	9915	3482	100	0	81	0	0	0	0	0	0.05	0.05	0.05	0	0	0	
589		Kottayam	15	6903	1374	10	0	65	0	1	1	0	0	0.05	0.05	0.05	0	0	0	
590		Kottappaden	23	13171	2843	0	0	30	0	0	0	0	0	0.05	0.05	0.05	0	0	0	
591		Kuthiyanpuzha	18	9119	1755	0	0	0	0	0	0	0	0	0	0	0	0	0	0	
592		Kuthikkal	17	8572	1787	79	0	0	18	0	0	0	0	0	0	0	0	0	0	
593		Kuzhappathur	18	8902	1832	81	0	0	60	0	0	0	0	0.05	0.05	0.05	0	0	0	
594		Kuthanur	16	6896	824	0	0	0	0	0	0	0	0	0	0	0	0	0	0	
595		Kuzhalmanam	17	8923	283	100	0	0	100	0	0	0	0	0	0	0	0	0	0	
596		Lakkil-Pattur																		
597		Madampuzha	13																	
598	Manakara	14	7125	1220	75	0	25	0	0	0	0	0	0	0	0	0	0	0	0	
599	Manjer	14	3925	1300	48	0	19	0	0	0	0	0	0	0	0	0	0	0	0	
600	Maruthanad	19	11026	2101	50	0	0	0	0	0	0	0	0	0	0	0	0	0	0	
601	Mathur	18	7924	676	73	0	100	0	0	0	0	0	0	0	0	0	0	0	0	
602	Mathukode	16	7043	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	
603	Mundar	18	9597	1819	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	
604	Muthalamada	20	9204	2110	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	
605	Muthubada	13	6945	125	100	0	100	0	18	42	0	0	539.25	723.55	723.55	200.15	100.5	0	0	
606	Nagalassery	17	8507	590	100	0	100	0	45	23	0	0	0	0	0	0	0	0	0	
607	Nalappilly	19	8095	448	100	0	100	0	0	0	0	0	0	0	0	0	0	0	0	
608	Nellay	19	10587	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	

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609		Nellaiangaly	13	950	97	100	0	100	0	0	0	0	0	0	0	0	0	0
610		Nemmara	20	11813	2449	97	0	5	0	7	2	0	0	180 KG	172 KG	172	0	0
611		Ongallur	22	12811	3161	99	0	5	0	0	0	0	0	700 kg	0	0	0	0
612		Palassana	26	8433	268	93	0	17	0	5	0	0	0	0	0	0	0	0
613		Parali	20	10733	2069	0	0	0	0	0	0	0	0	0	0	0	0	0
614		Paralur	16	6082	728	0	0	0	0	0	0	0	0	0	0	0	0	0
615		Patteeswary	16	8929	150	0	0	0	0	0	0	0	0	na	na	na	na	na
616		Paruthura	18	9467	1784	0	0	0	0	4	7	0	0	0	0	0	0	0
617		Perumatti	18	9500	380	53	0	67	0	0	0	0	0	0	0	0	0	0
618		Perungattakurissi	16	9539	0	0	0	0	0	0	0	0	0	0	0	0	0	0
619		Peruvendla	14	5757	700	0	0	0	0	0	0	0	0	500 kg	508g	0	0	0
620		Pirair	21	13282	1959	0	0	0	0	0	0	0	0	1400 Kg	0	0	0	0
621		Poovully	13	5389	890	0	0	0	0	0	0	0	0	500 kg	0	0	0	0
622		Ponkirkkavu	13	4561	489	0	0	54	0	0	0	0	0	NA	NA	NA	NA	NA
623		Pudukkode	15	6294	6	0	0	0	0	0	0	0	0	NA	NA	NA	NA	NA
624		Pudussagaram	13	4348	875	12	0	0	0	0	0	0	0	NA	NA	NA	NA	NA
625		Pudupparavaram	21	12062	21	0	0	0	0	0	0	0	2381					
626		Pudur																
627		Puduturi	23	16896	4062	0	0	0	0	0	0	0	0	NA	NA	NA	NA	NA
628		Selolayur	14	6926	275	0	0	0	0	0	0	0	0					
629		Sreekrishnaguram	14	5280	350	100		100		56				328.25	323.55	323.55	300.13	100.3
630		Thachampara	15	5582	868	0	0	0	0	0	0	0	0					
631		Thachanurkara	16	6085	170	100	0	0	0	0	0	0	0	133.6	37.2	NA	NA	NA
632		Tharur	16	7784	181	50	0	0	0	0	0	0	50	3.8384 tone	3.8384 tone	3.8384 tone	0	0
633		Therkara	17	8247	3064	0	0	0	0	6	0	0	0	0	0	0	0	0
634		Therkurusi	17	8248	820	72	0	56	0	0	0	0	0	0	0	0	0	0
635		Thiruvittakkode	18	8300	450	0	0	0	0	0	0	0	0	0	0	0	0	0
636		Thiruvagappore	18	8084	1185	0	0	0	0	0	0	0	0	0	0	0	0	0
637		Thirikkaderi	16	6698	279	0	0	0	0	0	0	0	0	0	0	0	0	0
638		Thirithala	17	8429	424	0	0	0	0	0	0	0	0	8 tone	7 tone	7 tone	0	0
639		Vadakkangal	17	9066	912	20	0	30	0	5	10	0	0	1	0.25	0	0	0
640		Vadakkangal	20	10160	820	7	0	70	16	70	78	0	0	4 tone	3 tone	3 tone	0	0
641		Vadavannur	13	5074	980	0	0	0	0	0	0	0	0	0	0	0	0	0
642		Vallapuzha	16	8828	1547	0	0	0	0	0	0	0	0	0	0	0	0	0
643		Vanduzhi	19	10149	728	90	0	20	0	90	20	0	0	0	0	0	0	0
644		Variyankulam	18	10199	813	0	0	0	0	23	74	0	0	5000kg	3000kg	3000	0	0
645		Velloruzhi	13	5147	281	100	0	100	0	100	100	0	0	840	600	600	600	0
646		Vilayur	13	6953	0	0	0	0	0	92								



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647	M	Ajanthodu	19	11127	200	75	23	0	0	0	0	0	0					NIL
648	A	Ajpanambo	21	11621	1982	0	0	0	0	0	0	0	0	0.05	0.05	0.05	NA	NA
649	L	Amarambalam	19	7841	604	100	0	100	0	0	0	0	0	0.045	0.045	0.045	0.045	NIL
650	A	Anakkayes	23	15424	305	100	0	100	0	0	0	0	0	0.05	0.05	0.05	0.05	NA
651	P	Angalipuram	23	15220	4201	71	25	90	10	50	50	50	50	0.05	0.05	0.05	0.05	nil
652	P	Arenthode	18	8526	4718	0	0	0	0	13	18	0	0					
653	U	Athavanadu	22	12145	3512	0	0	0	0	18	22	0	0	0.04	0.04	0.25	0.15	NIL
654	H	Chaliyar	14	6361	267	100	0	100	0	17	82	0	2	0.02	0.02	0.02	0.02	0.02
655	A	Chekkode	18											0.075	0.01	0.03	0.02	0.01
656	M	Chalanda	18	10601	1888	100	0	0	0	10	5	0	0	0.075	0.035	0.035	0.02	nil
657		Cheriyamundan	18	6540	420	100	0	100	0	0	0	0	0	0.035	0.035	0.035	0.02	0.02
658		Cherukavu	19	11042	426	100	0	100	0	0	0	0	0	0.045	0.045	nil	nil	nil
659		Chokkudu	18	9284	254	0	0	0	0	0	0	0	0	0	0	0	0	0
660		Chukkathara	20											0.09	0.09	0.09	0.09	nil
661		Edakkara	16	8675	486	72	0	52	0	8	45	0	1	0.055	0.055	0.055	0.055	0.055
662		Edappal	19	9428	2427	100	0	18	0	14	1	0	0	0.04	0.04	0.04	0.04	0.04
663		Edappatta	15	4986	110	22	0	18	0	27	1	0	0	0.036	0.036	0	0	0
664		Edarikkode	16	6590	NIL									0	0	0	0	0
665		Edavanna	22	11141	3928	92	0	71	0	19	8	0	0	0.06	0.06	0.06	0.06	0.06
666		Edayar	19	8706	1796	29	0	0	0	7	0			0.2	nil			
667		Elankulam	18	7919	314	65	0	55	0	45	18	0	0	0.05	0.05	0.04	NA	NA
668		Entambiyam	17	8208	1720	0	0	0	0	8	0	0	0					
669		Kaladi	16	7529	1964	24	0	11	0	0	0	2		0.13	0.11	nil	nil	nil
670		Kalkadu	19	10202	470	0	0	0	0	48	10	0	0	0.083	0	0	0	0
671		Kalyankanchery	18	9844	2364	0	0	0	0	0	0	0	0	0.033	0.033	0.033	0	0
672		Kannamangalam	20	10141	2293	30	0	30	0	10	10	0	0	1	1.1	1.2	0	0
673		Karadi	15	5625	220	100	0	100	0	0	0	2		0.05	0.05	0.05	0.05	0.05
674		Karunakkulam	21	9967	265	0	0	0	0					0	0	0	0	0
675		Kavannoor	19	9588	746	0	0	0	0									
676		Kozhathur	19	8287	1546	64	0	33	0	18	2	0	0	0.68	0.5	0.2	0	0
677		Kozhuparamba	14	6058	262	0	0	0	0	0	0	0	0	0	0	0	0	0
678		Kudal	20	10590	229	0	0	0	0	0	0	0	0					
679		Koottilangadi	19	10018	2224	100	0	100	0	0	0	0	0	0.033	0.033	0.033	0.033	NIL
680		Kurava	22	13805	2813	60	0	70	0	10	10	0	0	0.04	0.04	0.04	0.04	0
681		Kuttippuram	23	13613	2568	65	0	75	0	35	70	0	0	0.045	0.045	0.045	0.045	0
682		Kuzhimanne	18	9400	342	60	0	60	0	40	40	0	0	0.025	0.025	0	0	0
683		Makkarganambu	13	5867	394	100	0	100	0	0	0	0	0	0.2	0.2	0.2	0.2	0.013
684		Mandil	19	9850	220	0	0	0	0	8	0	0	0	0.3	0.3	0.3	0	0
685		Mangalam	20	7866	7866	100	224	224	100	63	46	0	0	0.02	0.02	0.02	0	0
686		Marikada	18	9843	200	0	0	100	0	91	100	0	0	0.1	0.1	0.1	0	0
687		Marikkate	20	7715	342					46	158			0.5	0.5	0.5	0.5	0
688		Maranchery	19	10699	2281	100	0	0	100	100	100	0	0	0.1	0.1	0.1	0.1	0
689		Matanur	16	8402	127	60	0	21	0	25	60	0	0	0.02	0.02	0.02	0.02	0
690		Moondiyar	23	14450	686	60	0	40	0	19	5	0	0	0.03	0.03	0.03	0	0
691		Moorkkuzhale	19	8432	385	76	24	70	30	0	0	0	0	0.13	0.15	NIL	0.1	NIL
692		Morayar	18	8745	313	60	0	100	0	1	8	60	100	0.15	0.13		0.12	0
693		Muthodem	13	7145	204	100	24	100	0	24	0	0	0	0.1	0.1	0.1	0.05	0
694		Muthussalur	13	6347	167	71	25	60	40	90	100	0	0	0.5	0.5	0.5	0.5	0
695		Nannambra	21	9100	3000	0	0	0	0	0	0	0	0	0.032	0.032	0	0	0
696		Nannanadu	17	6732	400	48	0	100	0	30	5	0	0	0.02	0.25	0	0	0

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697		Ngameruthur	17	7969	1158	0	0	0	0	0	0	0	0	0.03	0	0	0	0
698		Orkani	17	7995	256	11	0	14	0	0	0	0	0	0.075	0.075	0.075	0	0
699		Orukkulangal	20	19956	2844	58	0	100	0	90	90	90	90	0.055	0.03	0	0	0
700		Othar	18	7996	332	20	0	49	0	29	60	0	0	0.025	0.02	0	0	0
701		Palakkal	22	12642	6297	47	3	32	8	0	0	0	0	0.02	0	0	0	0
702		Pandikudi	23	12510	482	0	0	0	0	0	0	0	0	0.1	0	0	0	0
703		Parappur	19	9374	1919	0	3	0	0	0	0	0	0	0	0	0	0	0
704		Perumana Kari	16	7553	2123	2	0	0	0	1	5	0	0	0	0	0	0	0
705		Perumpadappu	18	8127	1642	4	2	33	8	2	8	0	0	0	0	0	0	0
706		Pezhavallur	19	9134	30	75	30	0	0	0	30	0	0	0.05	0.01	0	0	0
707		Pinnala	18	7237	1302	0	0	0	0	0	0	0	0	0	0	0	0	0
708		Pinnandam	16	6657	329	100	100	49	20	0	2	2	0	0.05	0.05	0.05	0	0
709		Perai	17	9276	1482	0	0	0	0	0	0	0	0	0.1	0.03	0	0	0
710		Pethukal	17	10437	728	0	0	0	0	0	0	0	0	0	0	0	0	0
711		Pulikat	19	8285	689	0	0	0	0	0	0	0	0	0	0	0	0	0
712		Pulamanthol	20	12698	1200	12	10	25	23	3	3	0	0	0.03	0	0	0	0
713		Pullikal	21	10949	3	0	0	0	0	0	0	0	0	0.02	0.02	0.02	0	0
714		Puljatta	21	11886	2287	100	0	100	0	0	0	0	0	0.05	0.05	0.05	0	0
715		Purathur	19	6959	1689	100	100	49	0	23	0	0	0	0.015	0.015	0.015	0	0
716		Puthukkottai	17	9386	340	100	0	100	0	0	29	100	100	4	0	3.5	0	0
717		Thalakkudi	19											0.02	0.015	0	0	0
718		Thanalur	23	12327	1436	100	0	82	0	0	0	0	0	0.05	0.06	0.06	0	0
719		Thavattur	19	10047	800	100	0	100	0	54	40	0	0	0.18	0.13	0.13	0	0
720		Thathakkudi	21	10080	8	100	0	83	0	64	83	0	0	1.3	1.35	0	0	0
721		Thiruppalani	17	9821	0	0	0	0	0	69	0	0	0	0	0	0	0	0
722		Thiruvalla	17	7131	0	0	0	0	0	100	0	0	0	0	0	0	0	0
723		Thiruvayal	23	12552	12123	83	0	0	0	0	0	0	0	0	0	0	0	0
724		Thiruvadi	16	7182	36	100	0	0	0	97	63	0	0	0	0	0	0	0
725		Thiruvallur	23	14993	2436													
726		Thiruvannam	21	8175	1100	100	0	60	0	65	0	0	0	0.75	0.65	0	0	0
727		Tuvur	17	6500	230	100	0	100	0	45	0	0	0	0.25	0	0	0	0
728		Tirumangal	21	11946	2203													
729		Valavanur	19	9139	2182	100	0	30	0	4	0	0	0	0.015	0.03	NA	0.05	NA
730		Valluvar	23	12999	2715	100	0	100	0	35	25	0	0	0.35	0	NA	0.1	NA
731		Vattakkulam	19	11117	4996													
732		Vattakkudi	19	12445	2450													
733		Vattavur	17	9452	2216	100	0	100	0	100	100	0	0	0.18	0.13	0.14	0	0
734		Vattavur	23	14141	2111	0	0	0	0	0	0	0	0	16	11	8	0	0
735		Vellankudi	18	9221	2081													
736		Vengal	23	10852		0	0			0	0	0	0	NA	NA	NA	NA	NA
737		Vettur	16											25	20	14	15	15
738		Vettem	20	8113	1892	100	0	0	0	0	0	0	0					
739		Wandur	23											NA	NA	NA	NA	NA
740		Kalakkudi	20	2335		100	0	100	0	100	100	0	0	0.7	0.5	0.5	0	0

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741	K O Z H I K O D E	Arakkulam	13	4409	1178	91	0	85	0	22	30	91	81	15 kg	178kg	15 kg	0	0	
742		Atholy	17	7193	1966	71	0	81	0	13	16	71	81	20 KG/DAY	20 KG/DAY	20 KG/DAY	0	0	
743		Ayanchel	17	8354	2857	0	0	0	0	30%	5%	100	1	1 TON	1 TON	1 TON	0	0	
744		Azhivar	18	7900	561	63	0	80	0	100	100	0	0	800kg/day	800kg/day	800kg/day	0	0	
745		Belasani	17	8779	1715	67	0	96	10	80	80	0	0	1200 kg/day	1200 kg day	1200 kg /day	0	0	
746		Chakkilappara	15	6916	1811	80	0	79	0	90	90	0	0	20 KG/DAY	20 KG/DAY	20 KG/DAY	0	0	
747		Changanach	19	9963	2737	100	0	92	16	86	92	0	0	25 Kg / day	25 Kg / day	25kg/day	0	0	
748		Cheruvannagalam	22	19668	3746	34	0	12	8	24	82	0	0	20 kg/day	20 kg/day	20 kg/day	0	0	
749		Chelikal	15	6544	1823	4	0	1	0	0	0	0	0	5 ton	5 ton	0	0	0	
750		Chellur	21	12483	2350	8	0	0	0	0	0	0	0	20kg/day	20kg/day	0	0	0	
751		Chennanchery	20	11521	3090	7	0	0	0	0	0	0	0	1589	1389QUINT	1389QUINT	0	0	
752		Chengattukavu	17	6990	350	100	0	310	0	53	80	0	0	5 TPD	5	5	0	0	
753		Cheruvannur	13	6772	1465	30	0	0	19	10	0	0	0	4T	4T	0	0	0	
754		Cherude	21	10118	860	20	0	4	0	11	2	0	0	6	6	0	0	0	
755		Edathery	17	7956	514	100	0	195	0	19	146	0	0	5 ton	5 ton	0	0	0	
756		Eranthi	19	9407	2000	79	0	190	8	84	120	0	0	240 kg	240kg	0	240kg	0	
757		Kadambudi	22	10742	2815	74	0	43	0	67	33	0	0	10 TONS	10 TONS	0	0	0	
758		Kakkodi	21	12913	2472	100	0	42	0	50	8	0	0	0.25 TONS	0.25 TONS	0	0	0	
759		Kakkur	15	5950	1141	76	0	61	7	0	0	0	0	120	120 KG	0	120KG	0	
760		Kannayur	18	9961	3007	69	0	100	7	0	0	0	0	0.1	0.1	0	0	0	
761		Kattigam	15	3668	664	0	0	0	0	0	0	0	0	110kg	145 KG	0	0	0	
762		Kavilampara	16	7471	2028	67	0	38	0	100	48	67	47	0.27 Tons/Day	1.3 TONS	0	0	0	
763		Kayakkodi	16	6143	1355	79	0	47	0	100	100	0	0	350KG/DAY	350KG/DAY	0	0	0	
764		Kayanna	12	4420	624	78	0	100	0	100	100	0	0	85	85	0	0	0	
765		Keezhariyur	12	4639	390	0	0	0	0	0	0	0	0	0.15	0.15	0	0	0	
766		Kilikkoth	18	9183	3773	69	0	67	0	95	86	0	0	105kg	105 kg	0	0	0	
767		Koduvachery	21	10848	885	78	0	0	0	67	87	0	0	20 KG/day	20 KG	0	0	0	
768		Koduvathur	16	8382	4710	100	0	100	0	0	100	0	0	210kg	210kg	0	0	0	
769		Koduvayur	14	6900	518	55	1	52	0	1	0	0	0	0.3 ton/day	ton/day	0	0	20	
770		Koottathand	12	3621	1369	40	0	0	0	70	60	0	0	300	300	0	0	0	
771		Koovhal	12	5737	412	18	0	0	0	0	18	0	0	0	200	150	0	0	0
772		Koovar	19	7820	1050	70	51	48	33	100	100	0	0	130kg/day	100kg/day	0	0	0	
773		Kumaranagalam	22	17474	5899	0	0	11	0	100	100	0	0	450 kg/day	423 kg/day	0	0	0	
774		Kuzhuvil	13	5668	2124	100	0	100	0	100	100	0	0	140 Kg / Day	140 Kg / Day	140 Kg / Day	0	0	
775		Kuzhuvilur	18	11425	3015	0	0	303	48	80	48	0	0	400 Kg/Day	400 Kg/Day	400 Kg/Day	0	0	
776		Kuzhudy	14	6282	4241	69	0	143	0	100	100	0	0	170 kg/Day	155kg/Day	155 Kg/Day	0	0	
777		Malavoor	17	7126	1383	100	0	29	0	15	1	0	0	300	310	310	0	0	
778		Mannur	21	12421	1412	35	0	445	0	5	1	0	0	2.5	1 ton / month	0	0	0	
779		Manthunkara	14	6783	805	100	0	68	0	41	11	68	0	138K G/Day	138K G/Day	135 kg/Day	0	0	
780		Mavoor	18	9027	1190	65	0	60	0	23	12	0	0	129 Kg / Day	100kg/day	100	0	0	
781	Megpayur	17	7308	1840	89	0	100	0	89	100	0	0	0.3	0.18	0.18	0	0		
782	Moodali	18	8594	2284	100	0	100	0	92	100	0	0	128 T	138 T	138 T	5 T	0		
783	Nadapuram	22	11000	1500	87	0	0	0	100	100	0	0	5.5 ton per day	4.6 ton per day	0	0	0		
784	Naduvannur	16	7010	2090	80	0	80	0	72	72	0	0	8.50 ton	2.50 ton	0	0	0		

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SL NO:	DISTRICT	LOCAL BODY	NO OF WARDS	No of Household	% Household D2D-Dry	% of Household-D2D-Wet	No of establishment	% establishment -D2D-Dry	% establishment D2D-Wet	% of houses in which source level treatment	% of establishment in which source level treatment	% disposing to centralised system	% disposing to centralised system	Quantity of Waste generated (TPD)	Quantity of Waste collected (TPD)	Quantity of Waste treated (TPD)	Quantity of Waste processed in Composting Sites (TPD)	Quantity of Waste processed in biogas/landfill (TPD)
785		Narandla	17	8780	1192	100	0	100	0	100	100	0	0	NOT	NOT	0	0	0
786		Narikkuni	18	6302	2809	0	0	217	0	79	63	0	0	112 ton	NOT	NOT	NOT	NOT
787		Narippattu	17	7609	1236	96	0	28	0	90	100	0	0	NOT	NOT	NOT	NOT	NOT
788		Narthal	17	6800	950	49	0	30	0	80	70	0	0	Not measured	3412kg	3412 kg	NA	0
789		Narva	23	18531	6560	0	0	0	0	75	65	0	0	Not measured	Not measured	Not measured	Not measured	Not measured
790		Narva	19	10612	3516	57	0	0	0	85	70	0	0	Not measured	2.5 TON	2.5 TON	0	0
791		Narva	17	7843	2376	100	0	18	0	79	20	0	0	2 T	2 T	0	0	0
792		Narva	20	8916	1059	65	0	75	0	80	70	0	0	Not measured	2.5 ton	2.5 ton	0	0
793		Narva	19	9640	1450	85	0	62	0	85	48	0	0	not measured	4.5	4.5	0	0
794		Narva	18	11633	1012	82	0	18	0	80	0	0	0	0.90 ton	0.90 ton	0.90 ton	0	0
795		Narva	22	15467	1310	100	0	100	0	100	100	0	0	5 ton	5 ton	5 ton	0	0
796		Narva	17	8206	1988	34	0	421	0	100	100	0	0	0.200 16 tpd	0	0	0	0
797		Narva	21	14588	3269	118	0	300	0	130	0	0	0	5 ton	5 ton	0	0	0
798		Narva	17	8928	1320	75	0	0	0	75	2	0	0	4ton	4 ton	0	0	0
799		Narva	19	9730	1433	84	0	84	84	0	0	0	0	0.74	0.74	0.74	0	0
800		Narva	17	8561	1828	2	0	0	0	0	0	0	0	5 ton	5 ton	5 ton	0	0
801		Narva	20	8946	2339	100	0	3	0	0	0	0	0	1.5	1.2	0	0	0
802		Narva	17	9493	2793	28	0	34	0	78	34	0	0	5.5	3.8	3.8	0	0
803		Narva	13	3943	1158	100	0	100	0	0	0	0	0	0.7	0.18	0.18	0	0
804		Narva	13	7067	1377	0	0	0	0	1	0	93	65	747.5161 MJ	747.5161 MJ	747.5161	0	0
805		Narva	19	9958	2262	0	0	286	0	100	44	60	0	9.08	1.8	0	0	0
806		Narva	23	13779	3355	0	0	100	0	100	100	0	0	200 ton	200 ton	0	0	0
807		Narva	14	4485	957	56	0	31	0	100	30	0	0	0.05	0.04	0.05	0	0
808		Narva	16	7340	2033	100	0	31	0	100	100	0	0	15 kg	15kg	15 kg	0	0
809		Narva	17	6754	2936	100	0	100	0	100	100	0	0	150	148	148	0	0
810		Narva	19	9962	3493	60	0	60	0	100	65	0	0	8.2	5	5	0	0
811	W	Narva	20	10291	4379	33	0	7	0	0	0	0	0	4ton	3 ton	3ton	nil	nil
812	A	Narva	19	9519	744	89	0	40	0	0	0	0	0	4 ton	3 ton	3 ton	3 ton	nil
813	Y	Narva	18	11791	2267	24	0	18	0	0	0	0	0	8 ton	6 ton	3 ton	3 ton	nil
814	A	Narva	18	9979	340	69	0	100	0	100	100	0	0	NA	NA	NA	NA	NA
815	N	Narva	13	3293	632	0	0	0	0	100	100	0	0	2	1	1	2	1
816	A	Narva	19	8735	1020	100	0	100	0	100	100	0	0	NA	NA	NA	NA	NA
817	D	Narva	22	10616	813	100	0	100	0	36	70	0	0	1.2 ton	1.2 ton	0	0	0
818		Narva	18	8736	652	0	0	0	0	0	0	0	0	3 ton	0	0	0	0
819		Narva	19	7667	573	100	0	100	0	100	100	0	0	5 tonne	3.5 tonne	3.5 tonne	3 tonne	0
820		Narva	19	10002	692	100	0	100	0	100	100	0	0	10 ton	7 ton	3 tonne	0	0
821		Narva	23	14733	703	61	0	100	100	100	100	0	0	4 Tonn	3 Tonn	3 Tonn	3 Tonn	0
822		Narva	16	6624	472	100	0	100	0	13	38	0	0	1.652 TONN	1.652 TONN	0	0	0
823		Narva	16	7344	347	83	83	69	0	83	0	0	0	0	0	0	0	0
824		Narva	23	12782	400	100	0	46	0	0	0	0	0	0.06	0.05	0.05	0	0
825		Narva	13	3783	2004	38	0	2	0	100	100	0	0	2 ton	1 ton	1	1	0.5 ton
826		Narva	20	10437	3147	30	0	33	0	11	0	0	0	3	2	2	1	0
827		Narva	13	3671	740	100	0	100	0	0	0	0	0	NA	NA	NA	NA	NA
828		Narva	22	10433	700	25	0	0	0	100	100	0	0	4	3	NIL	NIL	NIL
829		Narva	17	8520	1403	25	0	0	0	0	0	0	0	0	0	0	0	0
830		Narva	15	7487	1320	42	0	30	0	0	0	0	0	2Tonn	2Tonn	NE	NE	NE
831		Narva	21	11620	1409	0	0	30	0	0	0	0	0	5.5	0	0	0	0
832		Narva	13	2730	195	69	0	100	0	0	0	0	0	1.5	1.5	0	0	0
833		Narva	14	6986	1582	100	0	100	0	100	100	100	100	50 kg	50 kg	50 kg	35 kg	0
834	N	Narva	21	8960	2188	100	0	100	0	100	100	0	0	2.07	0.8811	2.07	0	0

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Sl. No.	District	Local Body	No of Wards	No of Household	% Household D2D-Dry	% of Household-D2D-Wet	No of establishment	% establishment -D2D-Dry	% establishment -D2D-Wet	% of houses in which source level treatment	% of establishment in which source level treatment	% disposing to centralised system	% disposing to centralised system	Quantity of Waste generated (TPD)	Quantity of Waste collected (TPD)	Quantity of Waste treated (TPD)	Quantity of Waste processed in Composting Sites (TPD)	Quantity of Waste processed in biogas plant (TPD)
825	A	Anjarakhandi	15	8471	799	100	0	100	0	100	100	0	0	1.38	0.94985	1.38	0	0
826	N	Arani	17	8215	289	100	0	100	0	100	100	0	0	1.88	0.92264	1.88	0	0
827	N	Ayyaluzem	16	7348	455	100	0	100	0	100	100	0	0	1.84	0.93437	1.84	0	0
828	U	Athlode	23	13408	362	100	0	100	0	100	100	0	0	2.73	0.94629	2.73	0	0
829	R	Channarayana	18	10235	212	100	0	100	0	100	100	0	0	2.08	0.94284	2.08	0	0
830		Channarayana	18	8705	381	100	0	100	0	100	100	0	0	1.77	0.93228	1.77	0	0
831		Channarayana	18	8070	370	100	0	100	0	100	100	0	0	1.88	0.94021	1.88	0	0
832		Channarayana	13	4628	538	100	0	100	0	100	100	0	0	0.95	0.93216	0.95	0	0
833		Channarayana	18	8028	427	100	0	100	0	100	100	0	0	1.88	0.94071	1.88	0	0
834		Channarayana	17	10898	828	100	0	100	0	100	100	0	0	2.22	0.94263	2.22	0	0
835		Channarayana	23	14173	1327	100	0	100	0	100	100	0	0	2.98	0.93732	2.98	0	0
836		Channarayana	15	7131	370	100	0	100	0	100	100	0	0	1.45	0.9272	1.45	0	0
837		Channarayana	17	8343	820	100	0	100	0	100	100	0	0	1.71	0.94158	1.71	0	0
838		Channarayana	18	8783	888	100	0	100	0	100	100	0	0	2.34	0.94172	2.34	0	0
839		Channarayana	17	7011	874	100	0	100	0	100	100	0	0	1.44	0.9384	1.44	0	0
840		Channarayana	18	8224	482	100	0	100	0	100	100	0	0	1.88	0.93221	1.88	0	0
841		Channarayana	14	8188	195	100	0	100	0	100	100	0	0	1.00	0.93243	1.00	0	0
842		Channarayana	14	4287	472	100	0	100	0	100	100	0	0	0.88	0.92019	0.88	0	0
843		Channarayana	13	2600	700	100	0	100	0	100	100	0	0	0.73	0.92983	0.73	0	0
844		Channarayana	13	4520	490	100	0	100	0	100	100	0	0	0.93	0.93254	0.93	0	0
845		Channarayana	15	8888	542	100	0	100	0	100	100	0	0	1.78	0.94417	1.78	0	0
846		Channarayana	18	7894	494	100	0	100	0	100	100	0	0	1.82	0.93181	1.82	0	0
847		Channarayana	18	8573	850	100	0	100	0	100	100	0	0	3.11	0.93584	3.11	0	0
848		Channarayana	13	8008	278	100	0	100	0	100	100	0	0	1.82	0.91984	1.82	0	0
849		Channarayana	14	3775	306	100	0	100	0	100	100	0	0	2.84	0.94425	2.84	0	0
850		Channarayana	14	8214	385	100	0	100	0	100	100	0	0	2.81	0.92773	2.81	0	0
851		Channarayana	14	8520	850	100	0	100	0	100	100	0	0	6.43	0.94903	6.43	0	0
852		Channarayana	13	9379	354	100	0	100	0	100	100	0	0	1.1	0.92492	1.1	0	0
853		Channarayana	14	8755	836	100	0	100	0	100	100	0	0	208.81	0.95096	5.81	0	0
854		Channarayana	13	2880	284	100	0	100	0	100	100	0	0	1.82	0.93588	1.82	0	0
855		Channarayana	14	8823	483	100	0	100	0	100	100	0	0	3.11	0.92888	3.11	0	0
856		Channarayana	18	8825	512	100	0	100	0	100	100	0	0	1.78	0.93508	1.78	0	0
857		Channarayana	14	4723	1400	100	0	100	0	100	100	0	0	0.88	0.93887	0.88	0	0
858		Channarayana	14	8299	510	100	0	100	0	100	100	0	0	1.08	0.92431	1.08	0	0
859		Channarayana	14	8845	507	100	0	100	0	100	100	0	0	302.83	0.92299	2.83	0	0
860		Channarayana	21	11494	500	100	0	100	0	100	100	0	0	4.51	0.94258	4.51	0	0
861		Channarayana	17	11252	818	100	0	100	0	100	100	0	0	2.3	0.93544	2.3	0	0
862		Channarayana	18	8388	2121	100	0	100	0	100	100	0	0	1.74	0.93853	1.74	0	0
863		Channarayana	20	8574	523	100	0	100	0	100	100	0	0	1.88	0.94378	1.88	0	0
864		Channarayana	13	2897	128	100	0	100	0	100	100	0	0	0.93	0.93987	0.93	0	0
865		Channarayana	15	8214	428	100	0	100	0	100	100	0	0	1.42	0.93255	1.42	0	0
866		Channarayana	18	10834	450	100	0	100	0	100	100	0	0	2.17	0.93824	2.17	0	0
867		Channarayana	17	8089	356	100	0	100	0	100	100	0	0	1.23	0.92817	1.23	0	0
868		Channarayana	18	8643	748	100	0	100	0	100	100	0	0	1.87	0.94029	1.87	0	0
869		Channarayana	14	5791	440	100	0	100	0	100	100	0	0	1.18	0.92882	1.18	0	0
870		Channarayana	20	8879	580	100	0	100	0	100	100	0	0	1.83	0.93579	1.83	0	0
871		Channarayana	15	7412	1284	100	0	100	0	100	100	0	0	1.53	0.94856	1.53	0	0
872		Channarayana	15	8829	230	100	0	100	0	100	100	0	0	1.21	0.92153	1.21	0	0

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883		Naduvil	18	6601	280	100	0	100	0	100	100	0	0	1.8	0.03722	1.8	0	0
884		Narain	17	7621	711	100	0	100	0	100	100	0	0	1.59	0.02619	1.59	0	0
885		New Mahi	13	4417	482	100	0	100	0	100	100	0	0	3.81	0.02258	3.81	0	0
886		Padiyoor	15	6400	180	100	0	100	0	100	100	0	0	1.3	0.02232	1.3	0	0
887		Pamiankur	15	6692	319	100	0	100	0	100	100	0	0	1.37	0.02488	1.37	0	0
888		Pappinasser	20	10540	680	100	0	100	0	100	100	0	0	2.67	0.02347	2.67	0	0
889		Pariyaram	18	11073	720	100	0	100	0	100	100	0	0	2.47	0.02232	2.47	0	0
890		Pattam	18	9152	548	100	0	100	0	100	100	0	0	1.87	0.0281	1.87	0	0
891		Patturam	13	3628	227	100	0	100	0	100	100	0	0	0.81	0.01817	0.81	0	0
892		Payam	18	7462	470	100	0	100	0	100	100	0	0	1.52	0.02981	1.52	0	0
893		Peyyambur	16	3649	486	100	0	100	0	100	100	0	0	1.17	0.02481	1.17	0	0
894		Pezhasseri	14	3823	461	100	0	100	0	100	100	0	0	2.1	0.02362	2.1	0	0
895		Peyyoor	16	4800	100	100	0	100	0	100	100	0	0	1.38	0.027	1.38	0	0
896		Petingona-Vayikkara	16	3873	330	100	0	100	0	100	100	0	0	2.06	0.04737	2.06	0	0
897		Piravay	19	10280	681	100	0	100	0	100	100	0	0	2.1	0.04977	2.1	0	0
898		Ramanhall	15	6520	303	100	0	100	0	100	100	0	0	2.15	0.04538	2.15	0	0
899		Tillankeri	13	4524	401	100	0	100	0	100	100	0	0	1.43	0.02302	1.43	0	0
900		Thiruvattar	18	9070	301	100	0	100	0	100	100	0	0	1.86	0.02216	1.86	0	0
901		Uthiyayyil	15	6231	254	100	0	100	0	100	100	0	0	1.27	0.02718	1.27	0	0
902		Uthikal	20	11858	590	100	0	100	0	100	100	0	0	2.79	0.04472	2.79	0	0
903		Valappattanam	13	1920	1594	100	0	100	0	100	100	0	0	0.38	0.02991	0.38	0	0
904		Vengal	21	12843	820	100	0	100	0	100	100	0	0	2.59	0.02248	2.59	0	0
905	K	Ajanur	23	11373	10573	68	0	700	80	70	60	0	0.04	0.04	0.04	0	0	
906	A	Badikka	19	12667	8654	75	0	620	40	63	45	0	0.04	0.04	0.04	0	0	
907	B	Basil	16	8585	4585	77	0	280	100	0	100	85	0	0.85	nil	nil	0.85	0
908	A	Bedikka	17	8829	6200	70	0	435	100	0	80	86	0	0.2523	0.023	0.023	0.023	0
909	G	Belloor	13	3428	2051	60	0	325	100	0	70	80	0	0.0625	0.0625	0	0	0
910	O	Chemad	23	15169	9169	60	0	436	75	8	68	0	0.02150	0.134	0	0	0	
911	D	Chinnak	23	18255	5388	29	0	1843	20	0	98	85	0	0.450	nil & treated at	0	0	0
912		Chinnak	13	4623	4623	70	0	330	84	0	86	81	0	0.24	0.101	0.101	0	0
913		Delampally	16	5274	5274	100	0	46	60	0	80	70	0	0.006	0.006	0.006	nil	nil
914		East Eliy	16	8295	7295	88	0	432	30	0	90	57	0	nil	nil	nil	nil	nil
915		Eranthatt	17	5525	4535	82	0	140	40	0	56	75	0	0	0	0	0	0
916		Kalor	14	7013	6013	86	0	92	90	0	60	80	0	0.0133	0.0133	0.0133	0	0
917		Kattikka	15	6183	5183	84	0	1374	70	0	60	85	0	0.012	0	0	0	0
918		Kodun Bellur	19	8163	6163	75	0	620	85	0	58	78	0	0	0	0	0	0
919		Kayyur Chemeri	16	9356	8356	89	0	634	85	0	84	90	0	0	0	0	0	0
920		Kinnoor Kanchadan	17	9648	7448	77	0	620	100	0	100	100	0	150	100	100	0	0
921		Kumbhale	13	4605	2005	44	0	110	100	0	89	93	0	0	0	0	0	0
922		Kumbala	23	12335	8590	69	0	340	54	0	54	55	0	0	0	0	0	0
923		Kuttikal	16	7250	5430	75	0	450	70	0	63	66	0	0	0	0	0	0
924		Madhur	20	13293	13293	100	0	418	52	0	56	58	0	1	0.3	0	0	0
925		Madikal	15	6321	6321	100	0	217	100	0	100	100	0	0.7	0.7	0	0	0
926		Mangalady	23	13650	8500	62	0	2300	40	0	32	40	0	0	0	0	0	0
927		Masimbhar	23	11500	6960	60	0	390	45	0	45	43	0	0	0	0	0	0
928		Meeria	15	7111	7111	100	0	166	54	0	68	78	0	0.7	0	0	0.7	0
929		Mingal Pathur	15	7011	6011	86	0	390	89	0	78	88	0	0.2	0	0	0	0

Sl. NO:	DISTRICT	LOCAL BODY	NO OF WARDS	No of Household	% Household DID-Dry	% of Household-R2D-Wet	No of establishment	% establishment -DID-Dry	% establishment _DID-Wet	% of houses in which source level treatment	% of establishment in which source level treatment	% disposing to centralised system	% disposing to centralised system	Quantity of Waste generated (TFD)	Quantity of Waste collected (TFD)	Quantity of Waste treated (TFD)	Quantity of Waste processed in Composting Sites (TFD)	Quantity of Waste processed in Biogas plants (TFD)
930		Maloor	15	7522	6523	87	0	233	70	0	78	84	0	0.2	0	0	0	0
931		Padra	15	6490	4400	69	0	520	65	0	87	87	0	0.2	0	0	0.2	0
932		Paivelike	19	9799	5700	59	0	260	68	0	68	75	0	0.5	0.2	0.3	0.2	0
933		Palakkare	22	12177	12177	89	0	644	90	0	94	96	0	0.15	0.15	0.15	0	0
934		Parachady	15	7426	6426	87	0	357	95	0	83	83	0	0.73	0	0	0	0
935		Nilande	18	6842	5932	87	0	473	84	0	90	84	0	0.62				
936		Pullar Peesa	17	10664	9644	91	0	300	100	0	90	90	0	0.58	0.58	0.52		
937		Puthige	14	7078	5078	72	0	1081	50	0	48	50	0	1.09	1.09	1.09	0	0
938		Trikanthar	21	11733	8700	74	0	946	60	0	62	53	0	0.125	0.125			
939		Ulfess	21	11232	9622	85	0	617	100	0	64	54	0	0.15	0.15	0.15	0	0
940		Valuparamba	13	6861	4800	70	0	100	100	0	84	70	0	0.18	0.18	0.18	0	0
941		Varkady	18	6834	4800	70	0	200	40	0	83	64	0	0.16	0.16	0	0	0
942		West Elayi	18	6974	5474	78	0	220	70	0	60	87	0	0.75	0.75	0.72	0.02	Nil

# ANNEXURE III

Telephone: 0471-2303844  
e.mail: kspcbdotvm@yahoo.com

## KERALA STATE POLLUTION CONTROL BOARD

കേരള സംസ്ഥാന മലിനീകരണ നിയന്ത്രണ ബോർഡ്



DISTRICT OFFICE, THIRUVANANTHAPURAM  
മിജാ-ഓഫീസ്, തിരുവനന്തപുരം

T. C. 12/96 (L.S), PLAMKODI BK., PATTOM P.O., THIRUVANANTHAPURAM - 695 004  
ടി.സി. 12/96 (ക.പ), പ്ലാമ്കോഡി ബ്ക്ക്, പാട്ടം പി.ഒ., തിരുവനന്തപുരം - 695 004

### ANALYSIS REPORT

No: 202176

Date: 03/07/2020

Source	Dumpsite of Attingal Municipality (Leachite Sample)			
Sample received from	TAI	Date of sample collection	24/06/2020	
Date of Receipt	26/04/2020	Ref. No.	R14	
Sl. No.	Parameter	Unit	Value	Permissible Limit
1	pH	-	6.8	6.5-8.5
2	Suspended Solids	mg/L	67.8	100
3	COD	mg/L	40	250
4	BOD	mg/L	27	30
5	Total Dissolved Solids	mg/L	1356.1	---
6	Chloride	mg/L	15	---
Signature:	<p>for As Maheshwari 3/7/2020</p>			
Remarks:				
Scientist-in-Charge of Analysis				



o/c

# ANNEXURE III

Telephone: 0471-2303844  
e.mail: kspcbdotvm@yahoo.com

## KERALA STATE POLLUTION CONTROL BOARD

കേരള സംസ്ഥാന മലിനീകരണ നിയന്ത്രണ ബോർഡ്



DISTRICT OFFICE, THIRUVANANTHAPURAM  
"ജില്ലാ ഓഫീസ്", തിരുവനന്തപുരം

T. C. 1296 (A.5), PLAMOODU IN., PATTOM P.O. THIRUVANANTHAPURAM - 695 004

തിരുവ. 12/96 (A.5), പ്ലാമൂടു ബോർഡ്, പട്ടം ഓഫീസ്, തിരുവനന്തപുരം - 695 004

### ANALYSIS REPORT

No: 202175

Date: 03/07/2020

Source	Dumpsite of Vaalkala Municipality (Bore Well Sample)			
Sample received from	TA1	Date of sample collection	24/06/2020	
Date of Receipt	26/04/2020	Ref. No.	R11	
Sl. No.	Parameter	Unit	Value	Permissible Limit
1	pH	-	5.4	6.5-8.5
2	Suspended Solids	mg/L	52.2	100
3	COD	mg/L	16	250
4	BOD	mg/L	6	30
5	Total Dissolved Solids	mg/L	96.1	---
6	Conductivity	S/m	92	---
Signature:		<p>for AS  <i>Mahesh</i>            3/7/2020</p>		
Remarks:				
Scientist-in-Charge of Analysis				
		ASSISTANT SCIENTIST		

# ANNEXURE III

## KERALA STATE POLLUTION CONTROL BOARD CENTRAL LABORATORY



കേരള സംസ്ഥാന മലിനീകരണ നിയന്ത്രണ ബോർഡ്  
കേന്ദ്ര പരിഷ്കരണശാല



### ANALYSIS REPORT

Analysis Report No.	PCB/CL/1446/20-21	Date	22 Apr 2021	Doc No: PCB/CL/CHF-7
Ref.No.	PCB/RO dated 03.03.2021	Date Of Collection	03 Mar 2021	
Received From	R O ERNAKULAM	Date Of Receipt	03 Mar 2021	
No. Of Sample	1	Period Of Analysis	03 Mar 2021 - 22 Apr 2021	
Source	Brahmapuram solid waste plant leachate	Scientist-in-charge	Rajeena	
Sample Condition	fit for analysis	Sample Type	Waste Water	
Sample collected by	CEE, RO ERNAKULAM	Sample volume & container type	2l. plastic can	
Sample preservation	As per APHA/ IS :3025(Part-1)	Type of test	CHEMICAL	
Sampling Point	Leachate drain			

Sample ID : BLD-GEN

Sl.No	Parameters	Unit	Value	Test Method	Detection Limit
1	pH	-	7.6	APHA, 4500- H+B, 4-95 to 4- 99, 23rd Edition, 2017	1
2	Chloride	mg/L	4573.0	APHA, 4500- Cl /B, 4-75 to 4-76, 23 rd Edition: 2017	1 mg/L
3	Fluoride	mg/L	0.06	APHA, 4500- F. C. 4-89 to 4-90 23rd Edition (Ion Selective Electrode Method) 2017	0.1 mg/L
4	Sulphate	mg/L	1014.0	APHA, 4500-SO42- E, 4-199 to 4-200, 23 rd Edition, 2017	1 mg/L
5	Sulphide	mg/L	59.6	APHA, 4500 S2 F. 4-187 23rd Edition: 2017	1 mg/L
6	Nitrate as Nitrogen	mg/L	61.98	APHA, 4500 NO3 -B,4-127, 23 rd Edition (Ultraviolet Spectrophotometric Method): 2017	0.05 mg/L
7	Phosphate	mg/L	58.9	APHA, 4500- P. E. 4-164 to 4-165, 23rd Edition: 2017	0.1mg/L

GANDHI NAGAR, KOCHI - 682 020 ഗാന്ധിനഗർ, കൊച്ചി - 682020

Telephone Nos. Direct: 0484 - 220 7781, EPABX: 0484 220 7783 - 86, Fax: 0484 - 220 7781

E Mail: [kspcbclcm@gmail.com](mailto:kspcbclcm@gmail.com) Web : [www.keralapcb.nic.in](http://www.keralapcb.nic.in)

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Page 1 of 2



8	Magnesium	mg/L	89.1	APHA, 3500- Mg B, 386, 23rd Edition 2017	0.2 mg/l
9	Biochemical Oxygen Demand (BOD)	mg/L	4269.0	IS 3025 (Part 44) 1993	0.1 mg/l
10	Phenolic compounds	mg/l	1.14	APHA 5530-C, 22nd Edition	0.001mg/l

End of Report -

Checked

*Rajeeva R*  
22/4/14

**RAJEEVA. R**  
Senior Environmental Scientist

Authorised by

*M. H. SHERAFUDEEN*

**M. H. SHERAFUDEEN**  
Senior Environmental Scientist & Govt Analyst

Note: The test results relate only to the sample submitted for analysis and it shouldn't be reproduced except in full written permission of the authorised signatory of the lab.

GANDHI NAGAR, KOCHI - 682 020

ഗാന്ധിനഗരം, കൊച്ചി - 682020

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**KERALA STATE POLLUTION CONTROL BOARD  
CENTRAL LABORATORY**

കേരള സംസ്ഥാന മലിനീകരണ നിയന്ത്രണ ബോർഡ്  
കേന്ദ്ര പരിഷ്കരണശാല



Certificate No.  
TC-8525

**ANALYSIS REPORT**

Analysis Report No.	PCB/CL/1448/20-21	Date	24 Mar 2021	Doc No: PCB/CL/CHIF-7
Ref.No.	PCB/RO dated 03.03.2021	Date Of Collection	03 Mar 2021	
Received From	R O ERNAKULAM	Date Of Receipt	03 Mar 2021	
No. Of Sample	1	Period Of Analysis	03 Mar 2021 - 24 Mar 2021	
Source	Brahmapuram solid waste plant leachate	Scientist-in-charge	Geetha P	
Sample Condition	fit for analysis	Sample Type	Waste Water	
Sample collected by	CEE, RO ERNAKULAM	Sample volume & container type	300 ml sterile BOD bottle	
Sample preservation	As per APHA/ IS :3025(Part-1)	Type of test	MICROBIOLOGY	
Sampling Point	Leachate drain			

Sample ID : 486

Sl.No	Parameters	Unit	Value	Test Method	Detection Limit
1	Total Coliform	cfu/100ml	2400	APHA 9222 B, 23rd Ed.2017	1cfu/100ml

-- End of Report --

Checked by

*Zahida P Z*  
24/3/21

**ZAHIDA P Z**  
Assistant Scientist

Authorised by

*Geetha P*  
24/3/2021

**P. GEETHA**  
Environmental Scientist

Note: The test results relate only to the sample submitted for analysis and it shouldn't be reproduced except in full without the written permission of the authorised signatory of the lab.

GANDHI NAGAR, KOCHI - 682 020

ഗാന്ധിനഗർ, കൊച്ചി - 682020

Telephone Nos. Direct: 0484 - 220 7781, EPABX: 0484 220 7783 - 86, Fax: 0484 - 220 7781

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Page 1 of 1



**KERALA STATE POLLUTION CONTROL BOARD**

**CENTRAL LABORATORY, KOCHI - 682 020**

**FORM-II  
REPORT OF THE BOARD ANALYST  
(See rule 27)**

Report No .PCB/CL/LEGAL/ES11/2019

Dated 19<sup>th</sup> March, 2021

I hereby certify that, P. Geetha, Board analyst, duly appointed under subsection (3) of section 53 of the water (prevention and control of pollution) act 1974 (act 6 of 1974) received at 4:00 pm on 06.03.2021 from the Environmental Engineer, Kerala State Pollution Control Board, District Office-11, Perumbavoor two samples of effluent Bottle No PCB/DO2/LS-1 and PCB/DO2/LS-2 collected by Smt. Rameena.V.V, Assistant Environmental Engineer, Kerala State Pollution Control Board, District Office-2, Perumbavoor,Ernakulam at 12.30 pm on 06.03.2021 from the Septage Treatment Plant of Kochi Corporation at Brahmapuram . The sample was in a condition fit for analysis as reported below.

I further certify that I have analysed the aforementioned samples on 09.03.2021 to 19.03.2021 and declare the result of the analysis to be as follows:

Sl. No.	Parameter	Unit	Values	Method of Analysis
1	p <sup>H</sup>	-	6.8	APHA, 4500-H+B,4-95 to 4-99, 23 <sup>rd</sup> Ed.,2017
2	BOD(3Days at 27 °C)	mg/l	135	IS 3025 part 44 1993
3	Oil and Grease	mg/l	BDL	APHA, 5520-B,5-42 to 5-44, 23 <sup>rd</sup> Ed.,2017
4	COD	mg/l	448	APHA, 5520-B, 23 <sup>rd</sup> Ed
5	Nitrate as Nitrogen	mg/l	7.4	APHA,4500NO3-,B,4-127,23 <sup>rd</sup> Edition (Ultraviolet Spectrophotometric Method) 2017
6	Phosphates	mg/l	36.67	APHA,4500P,E,4-164 to 4-165, 23 <sup>rd</sup> Edition:2017
7	Sulphates	mg/l	63.1	APHA, 4500-SO4 2-E, 23 <sup>rd</sup> Ed., 2017
8	Free Ammonia	mg/l	0.75	GEMS OPERATONAL GUIDE WHO
9	Total Kjeldhal Nitrogen	mg/l	114.2	APHA, 4500-N Org B, 23 <sup>rd</sup> Ed., 2017
10	Total Coliform	CFU/100ml	620000	APHA 9222 B, 23 <sup>rd</sup> Ed.2017

11	Faecal Coliform	CFU/100ml	480000	APHA 9222 D, 23 <sup>rd</sup> Ed.2017
12	Faecal Streptococci	CFU/100ml	1000	APHA 9230 C, 9-119 to 9-122. 23 <sup>rd</sup> Ed.2017
13	Ammoniacal Nitrogen	mg/l	94.0	APHA,4500 NH3 F,4-119 TO 4-120Phenate method, Colourimetric),23 <sup>rd</sup> Edition:2017

The condition of the seals, fastening and containers on receipt was as follows:

The sample was contained in brown coloured 2.5 litre for general parameter and 1L Glass bottles for Oil & Grease, 300ml sterilized BOD bottle for Microbiology analysis securely sealed with sealing wax. There was no leak. The impression both on the seals and on the attached tags were representative of the Kerala State Pollution control Board. The impressions of each party on the seal and the tag were identical. The tag contained the signature of

Sri. Prasannan.C, Health Inspector, Brahmapuram MSW plant, Kochi Corporation.

The seal were opened by me just before analysis.

Signed this 19<sup>th</sup> March, 2021.



*P. Geetha*  
 Board Analyst  
 P. GEETHA  
 Environmental Scientist  
 Central Laboratory  
 Kerala State Pollution Control Board  
 Gandhi Nagar, Kochi-20

Address: P. Geetha,  
 Environmental Scientist (HG)  
 Central Laboratory  
 Kerala State Pollution control Board,  
 Gandhi Nagar, Kochi - 20

To: The Member Secretary,  
 Kerala State Pollution control Board,  
 Pattom Palace P.O.,  
 Thiruvananthapuram - 695 004.

Copy to: The Chief Environmental Engineer,

**WASTE TO ENERGY PLANT**

<b>Sl. No.</b>	<b>Waste to Energy plant</b>	<b>Land Identified</b>	<b>Procured</b>	<b>Status</b>
1	Kozhikode Njaliyanparambu	Kozhikode corporation	(Govt.land)12.67acre at Njaliyanparambu	Work awarded to Zonta Infratech Private Limited forthe construction of Waste to Energy Plant. Consent to establish was issued
2	Kannur Chelora	Kannur Corporation	(Govt.Land) 9.7 acres atChelora	WtE plant is proposed in 9.7 acres of land after clearing the legacy waste. The legacy waste which was ought to have started clearing by m/s Zonta Infratech comp. during last May, they found the quantity is 3 times more than the quantity (40000m3) tendered to them. So they wanted to get the quote revised by 3 times. The govt has now directed the corporation to retender the work. Meanwhile the draft preparation of DPR of WtE plant by /s Blueplanet is over. Again, collection points have to be finalised. Work of WtE plant can be started only after the work of biomining is carried out.
3.	Palakkad Kanjikode	Palakkad Municipality	(Land taken overfrom KeralaState ElectricityBoard Ltd. inadvancepossession)  15 acres atKanjikode	Blue Planet Palakkad Waste Solutions Private Limited was formed to take up the development of the project. Consent to establish was issued to the project.
4	Kollam Kureepuzha	Kollam Corporation	7.05 acres atkureepuzha (Govt.land)	The SPV constituted for setting up of the Waste to Energy Plant of Kollam Corporation, M/s. Venad Waste Management Private Limited had applied for Consent to Establish on 09.09.2021. The proposed waste to energy plant is biomethanation based and is having a capacity of 200 TPD. Consent to establish was issued to project.
5	Ernakulam Brahmapuram	Kochi corporation	20 acres at Brahmapuram (Govt. land)	The technical bids submitted by the Bidders needs to be evaluated by the Bid-Evaluation Committee and the proposal have been submitted to Government to reconstitute the Committee. It was reported by LSGD that

				<p>steps have been taken to re constitute the Bid Evaluation Committee and order in this regard will be issued soon. Also they expressed that a restriction can be brought in to the tender conditions to prevent one particular company being awarded more than 3WtE projects on PP mode in a particular project development time. This is to ensure more competition and also easier financial closure.</p>
6	Idukki Munnar	Idukki Municipality	2 acres of land at Munnar	<p>The committee observed that the Consortium is meeting the technical and financial legibility Criteria. The consortium made a detailed presentation of their technical plan before the Bid evaluation Committee.</p> <p>SLAC after detailed discussion resolved to accord sanction to proceed with the financial evaluation of the Bid</p>
7	Thrissur	Thrissur corporation	Identified land at Ollookkara village	<p>Thrissur Corporation identified land at Ollookkara village in Thrissur district.</p> <p>Vide GO(Rt)No111/2020/LSGD dated 13/01/2020 State Government has accorded sanction to Thrissur Municipal Corporation to purchase the identified land at Ollookkara Village in Thrissur district and to hand over the same on lease basis to KSIDC for the development of the project</p> <p>Secretary, Thrissur Municipal Corporation to report the status of price negotiation done with the owners of the land identified.</p>
8	Malappuram	Malappura mmuniciplarity	8.09 acres of land at Kurumbathoor village in TirurTaluk	<p>8.09 acres of land identified by District Administration at Kurumbathur village. Tirur taluk for setting up of WtE plant. The land is under possession of KSIDC. Details of this are reported to be submitted</p>



				to Government already by LR Deputy Collector. Not submitted any application to the Board.
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**DUMPSITES IN KERALA AS ON APRIL 2022**

Sl No:	Location	District	Present Status as on April 2022
1	Vilappilshala	Thiruvanthapuram	Central facility was closed on 21-12-2011 due to protest. The site is unapproachable due to thick bushes and trees.
2	Kureepuzha	Kollam	Biomining is in progress. 50 % of biomining is completed. Till 24-01-2022, 5045 Metric T of legacy waste has been processed. On 24-01-2022, 85 T of RDF has been send to cement factories. It is expected to complete the bio mining process by July 2022.
3	Kottayam Vadavathoor	Kottayam	DPR prepared for world bank aid. Rs. 23.22 Crore Also submitted proposal to SBM
4	Sarvodayapuram	Alappuzha	Initially volume of waste was quantified as 27000 tonnes, and an amount of Rs. 3.1 crores was the estimated. Later it was re quantified as 30000 m <sup>3</sup> . Due to the increase in volume of waste,an estimate was

			revised to Rs, 3.69 Crores and sent for Technical Sanction from State Mission. The State mission returned the same stating that T.S has to be issued from Municipality itself.
5	Brahmapuram	Ernakulam	Agreement executed with Zonta Zonta Infratech Pvt Ltd. Biomining started. Three sectors out of seven sectors completed. RDF -30 Tones stored in sit has already sent to cement plant by the end of April 2022
6	Laloor	Thrissur	Some area is reclaimed and construction of stadium is progressing and remaining area is taken up for biomining with Clean Kerala mission and KIEL. Proposal under consideration of Suchitwa Mission.
7	BPL Koottupatha, Palakkad	Palakkad	Under Consideration DPR Submitted and Requested for financial Assistance due to lack of Municipal Fund
8	Njeliyamparambu, Calicut	Kozhikode	Biomining progressing In Zone 1, capping of 47000 m3 completed and rest will be commenced in January. Zone 2 and Zone 3 biomining to be done, which has been delayed due to incessant rains as well as to get

			clarification regarding zone change from PCB.
9	Chelora	Kannur	Biomining is proposed for the legacy waste of 1,23,822 m <sup>3</sup> in 9.75 acres of land at Chelora, Kannur. A contractor was identified by KSIDC but the Corporation and the Contractor had disputes on the quantity and terms of engagement. Kannur Corporation has retendered the project and has identified a suitable contractor (m/s Jan-Adhar Sevabhavi sanstha) to remove the legacy waste dumped at the site. Agreement to be executed by, as informed by the Corporation.
10	Thalassery	Kannur	No action reported

Other Dumpsite locations			Present Status as on 18-4-2022
Sl No :	Location	District	
1	Attingal	Thiruvanthapuram	Biomining started
2	Varkala	Thiruvanthapuram	Total legacy waste 437 ton estimated 247 ton legacy waste removed balance 190 ton legacy waste clearance on going.
3	Changanassery, Fathimapuram	Kottayam	Project worth 13.5 Lakh completed. 20 lakh project to be implemented soon. Project for bioremediation and under consideration in Suchitwa Mission.
4	Erattupetta- Thevarrupara	Kottayam	As per the direction of Principal Secretary a meeting was conducted with Suchitwa Mission District C--ordinator in the presence of Honorable MLA Adv. Sebastian Kulathunkal on 07/12/21. In this meeting the Suchitwa Mission . Co-ordinator informed that the tender process will be completed before 14/12/2021. But did n't tender till now.
5	Mundakkayam – Vettukallamkuzhy	Kottayam	Currently, the dumping yard was washed away in the 2021 landslide

6	Thodupuzha	Idukki	Direction issued to the local body for bio mining, but not actions initiated by the local body.
7	Munnar	Idukki	Bio mining is in progress
8	Kattapana- Puliyannamala	Idukki	Direction issued to the local body for bio mining, but not actions initiated by the local body.
9	Kothamangalam	Ernakulam	DPR submitted for council resolution. Council resolution pending due to lack of own fund
10	Muvattupuzha	Ernakulam	Functioning for bio waste dumping and MCF activities
11	North Paravoor	Ernakulam	The estimated quantity of legacy waste is 18867m <sup>3</sup> . Request has been submitted to Kerala Solid waste management for disposal of legacy waste.
12	Chavakkad	Thrissur	Total Quantity of legacy waste is 4200 Cubic Meter as per Total Station report. Dump site has not been working since 2011.

13	Chalakkudy	Thrissur	Appointed IRTC to submit the report on DPR prepared by SEUF.
14	Irijalakuda-Kuthuparamba	Thrissur	Windrow compost Plant (4 ton) and MCF Completed, 5 cents Pachathuruth maintained, 1.5 acre bufferzone teak plantation maintained. 30 cents remains to reclaim. Proposal under consideration of Suchitwa Mission - KSWMP Project
15	kurukkanpara, kunnamkulam	Thrissur	Dumpsite presently not using as dumping waste. biowaste management plant and non-bio-waste management facilities like MCF, MRF, RRF are functioning at the dumpsite area
16	Kumbalangad, Wadakkancherry	Thrissur	Biomining project for this site is undertaken as part of SBM Urban DPR. A DPC project on the same is also approved for 30 lakhs Invited EOI
17	Ottapalam	Palakkad	Tendered and placed before council for approval
18	Karathodu-Puliyettummal	Malappuram	On Process
19	Manjeri	Malappuram	The file put up to council for approval to remove the legacy waste

20	Thirur - Pottilathara Trenching ground	Malappuram	No issues & waste segregated and stored and not polluted the environment
21	Vadakara, Puthiyapp	Kozhikode	Capping done over a part of legacy waste
22	Kalpetta	Wayanad	Agreement has been entered into with Clean Kerala Company for disposal of non-hazardous waste including legacy waste. The waste is segregated and stored in a manner that does not pollute the environment.
23	Koothuparamba	Kannur	Capping done. Quantification work is going on.
24	Kanjanagad, Chemmatamvayal	Kasaragod	The waste is segregated and stored in a manner that does not pollute the environment
25	Vidyanager, Kasaragod	Kasaragod	The waste is segregated and stored in a manner that does not pollute the environment





**COMPARISON OF DOOR TO DOOR COLLECTION OF DRY WASTE (2019-2022)**

Sl No.	District	Name of the city/Town	Percentage of door to door collection (2019-2020)		Percentage of Door to Door Collection(May 2022)			Percentage Increase of Door to Door Collection	
			Household (%)	Non-resident premises (%)	Household (%)	Establishments (%)	Household (%)	Establishments (%)	
1	Thiruvananthapuram	Thiruvananthapuram Corporation	19.4	92	62	58	219.59	-36.96	
2	Kollam	Kollam Corporation	59.9	48.9	83	72	38.56	47.24	
3	Kochi	Kochi Corporation	90	60	90	70	0.00	16.67	
4	Thiruvananthapuram	Thiruvananthapuram Corporation	23.3	23.3	62	90	166.09	286.27	
5	Kozhikode	Kozhikode Corporation	66.4	66.4	60	24	-9.64	-63.86	
6	Kannur	Kannur Corporation	63.5	63.5	75	40	18.11	-37.01	
7		Athilingal	48.5	48.5	85	100	75.26	106.19	
8		Nedumangad	6.2	6.2	40	42	545.16	577.42	
9	Thiruvananthapuram	Neyyattinkara	69	69	64	54	-7.25	-21.74	
10		Varkala	29.4	29.4	59	94	100.68	219.73	

	District	Name of the city/Town	Percentage of door to door collection (2019-2020)		Percentage of Door to Door Collection(May 2022)		Percentage increase of Door to Door Collection	
			Household (%)	Non-residential premises (%)	Household (%)	Establishments (%)	Household (%)	Establishments (%)
11	Kollam	Paravur (South)	66.6	66.6	55	75	-17.42	12.61
12		Karunagapally	100	100	54	40	-46.00	-60.00
13		Punalur	100	100	85	100	-15.00	0.00
14		Kottarakara	0	0	74	82		
15	Pathanamthitta	Adoor	60	60	70	40	16.67	-33.33
16		Pandalam	28	8	70	55	150.00	587.50
17		Pathanamthitta	100	100	55	70	-45.00	-30.00
18		Thiruvalla	94	82	93	90	-1.06	9.76
19	Alappuzha	Alappuzha	13	60	90	30	592.31	-50.00
20		Chengannur	74	98	70	40	-5.41	-59.18
21		Cherthala	93	77	80	90	-13.98	16.88
22		Haripad	31	40	82	42	164.52	5.00
23	Mavelikara	Kayamkulam	69	85	84.2	45	22.03	-47.06
24		Mavelikara	21	0	70	25	233.33	

	District	Name of the city/Town	Percentage of door to door collection (2019-2020)		Percentage of Door to Door collection (May 2022)			Percentage increase of Door to Door Collection	
			Household (%)	Non-residential premises (%)	Household (%)	Establishments (%)	Household (%)	Establishments (%)	
25	Kottayam	Changanassery	78	2	70	55	-10.26	2650.00	
26		Erattupetta	10	57	70	80	600.00	40.35	
27		Erumanoor	35	21	30	25	-14.29	19.05	
28		Kottayam			60	30			
29		Pala	77	98	20	20	-74.03	-79.59	
30		Vaikom	67	1	40	30	-40.30	2900.00	
31		Kuttippara	43	23	85	65	97.67	182.61	
32		Theodupuzha	0	0	100	100			
33		Aluva	36	91	94	88	161.11	-3.30	
34		Angamaly	42	40	90	75	114.29	87.50	
35	Elloor	0		85	100				
36	Kalamassery	62	52	71	80	14.52	53.85		
37	Koottathukulam	12	7	67	85	458.33	1114.29		
38	Koottamangalam	7	3	71	80	914.29	2566.67		
39	Maradu	100	89	55	40	-45.00	-55.06		
40	Muvattupuzha	29	0	40	40	37.93			
41	North Paravur	41	100	80	80	95.12	-20.00		
42	Perambavoor	80	100	60	100	-25.00	0.00		
43	Piravum	87	86	70	55	-19.54	-36.05		
44	Thirikkakara	100	60.5	50	55	-50.00	-9.09		
45	Thiruvithura	42	100	86	93	104.76	-7.00		
46	Chalakkudy	32	96	100	100	212.50	4.17		
47	Chavakkad	47	86	78	96	65.96	11.63		
48	Guruvayur	70	80	100	100	42.86	25.00		
49	Irinjalakuda	100	100	93	96	-7.00	-4.00		
50	Kodungallur	34	100	95	93	179.41	-7.00		
51	Kunnamkulam	58	89	97	73	67.24	-17.98		
52	Vadakkanchery	100	100	100	85	0.00	-15.00		

	District	Name of the city/Town	Percentage of door to door collection (2019-2020)		Percentage of Door to Door collection(May 2022)		Percentage increase of Door to Door Collection	
			Household (%)	Non-residential premises (%)	Household (%)	Establishments (%)	Household (%)	Establishments (%)
53	Palakkad	Cheruplassery		84	86	76		-9.52
54		Chittur-						
55		Thattamangalam	81	89	85	80	4.94	-10.11
56		Mannarkadu	40	11	88	60	120.00	445.45
57		Ottapalam	0	0	76.8	50.35		
58		Palakkad	100	82	70	93	-30.00	13.41
59		Pattambi	80	12	33	36	-58.75	200.00
60		Shornur	13	26	96	100	638.46	284.62
61		Kondotty	80	27	80	50	0.00	85.19
62		Kottakkal	0	44	47	22		-50.00
63	Malappuram	37		60	20	62.16		
64	Manjeri	100	53	30.8	36.8	-69.20	-30.57	
65	Nilambur	38	34	75	60	97.37	76.47	
66	Malappuram	80	70	98	85	22.50	21.43	
67	Perinthalmanna	29	79	64	76	120.69	-3.80	
68	Ponnani	45	25	62	40	37.78	60.00	
69	Thanoor	100	100	85	60	-15.00	-40.00	
70	Thiroorangadi	100	30	42	25	-58.00	-16.67	
71	Tirur	48	5	87	71	81.25	1320.00	
72	Valanchery	100	100	60	50	-40.00	-50.00	
73	Faroke	60	8	90	75	50.00	837.50	
74	Koduvally	90	91	90	65	0.00	-28.57	
75	Koyilandy	100	Not given	90	10	-10.00		
76	Makkam	100	100	85	80	-15.00	-20.00	
77	Payyoli	89	100	90	65	1.12	-35.00	
78	Ramanattukara	60	81	90	80	50.00	-1.23	
	Vadakara	40	47	50	50	25.00	6.38	

Sl. No.	District	Name of the city/Town	Percentage of door to door collection (2019-2020)		Percentage of Door to Door collection(May 2022)			Percentage Increase of Door to Door Collection	
			Household (%)	Non-resides (premises) (%)	Household (%)	Establishments (%)	Household (%)	Establishments (%)	
79	Wayanad	Kalpetta	0	0	98	9	-48.00	-73.47	
80		Mananthavady	100	98	52	26	-96.94	-90.77	
81		Sulthanbathery	98	65	3	6	-2.00	-13.33	
82	Kannur	Anthoor	100	90	98	78	-34.38	-5.80	
83		Iritty	96	69	63	65	48.67	230.77	
84		Koodehuparambu	60	26	89.2	86	-10.00	26.76	
85		Matanur	100	71	90	90	-5.00	-100.00	
86		Pannoor	100	88	95	0	68.63	5100.00	
87		Payyanur	51	1	86	52	9.20	373.68	
88	Kasaragod	Sreekanthapuram	87	19	95	90	-10.00	114.29	
89		Thalassery	100	28	90	60	4.65	56.25	
90		Thaliparambu	86	32	90	50	-15.00	-30.00	
91		Kanhangad	100	100	85	70			
92	Kasaragod	Kasaragod			88	74			
93		Nileshwarim			90	100			
		Average	60.69%	56.90%	74.58%	64.33%			



## Annexure III-C

<i>Status report of Waste to Energy Plant</i>				
<i>Sl. No</i>	<i>Waste to Energyplant</i>	<i>Land Identified</i>	<i>Procured</i>	<i>Status</i>
1	Kozhikode Njaliyanparambu	Kozhikode corporation	(Govt. land)12.67acre at Njaliyanparabu	<ul style="list-style-type: none"> <li>• Work awarded to Zonta Infratech Private Limited for the construction of Waste to Energy Plant.</li> <li>• Consent to establish was issued to Malabar Waste Management Private Limited on 12-8-2020 with a validity upto 30-6-2023 for the generation of 6MW electricity and 20T of compost.</li> <li>• Biomining of legacy waste is 50% complete. The total area for biomining is 1.8 acres.</li> <li>• All licenses from the corresponding departments were obtained for the construction of waste to energy plant. Work will be started only after monsoon.</li> </ul>
2	Kannur Chelora	Kannur Corporation	(Govt. Land) 9.7 acres at Chelora	<ul style="list-style-type: none"> <li>• Work of WtE plant can be started only after the work of biomining is carried out. WtE plant is proposed in 9.7 acres of land after clearing the legacy waste.</li> <li>• Tendering completed and DPR prepared by Blue planet. Consent application is yet to be received.</li> <li>• For biomining, volume of legacy waste – 1,22,844 m3 (NIT). First given to Zonta and they asked to revise the amount of biomining. Again retendered</li> </ul>



				<p>and identified a suitable contractor, Jan-Adhar Sevabhavi Sanstha. Agreement to be executed</p> <ul style="list-style-type: none"> <li>• Waste characterization done on 18-4-2020. Six samples taken-10kg from upper and lower part at three locations- 50-70% inert, 15-25% recoverable-12-18% organic compost. Cu in one sample, chromium in three and lead in four exceeded. Capping can be considered for maximum 10% residual rejects after biomining of stabilized waste.</li> </ul>
3.	Palakkad Kanjikode	Palakkad Municipality	Land taken over from Kerala State Electricity Board Ltd. in advance possession 15 acres at Kanjikode	<ul style="list-style-type: none"> <li>• Blue Planet Palakkad Waste Solutions Private Limited was formed to take up the development of the project.</li> <li>• Consent to establish was issued on 21-12-2021 to the project with a validity upto 30-11-2023.</li> <li>• 200T of municipal solid waste will be processed. The products include 4018kg/day of compressed biogas; 60TPD of RDF; 6 TPD of recyclables; 12 TPD of waste for sanitary landfills; 35.75 TPD of dry organic compost/manure</li> </ul>
4	Kollam Kureepuzha	Kollam Corporation	7.05 acres at Kureepuzha (Govt. land)	<ul style="list-style-type: none"> <li>• The SPV constituted for setting up of the Waste to Energy Plant of Kollam Corporation,</li> <li>• M/s. Venad Waste Management Private Limited had applied for Consent to Establish on 09.09.2021. The proposed waste to energy</li> </ul>

				<p>plant is bio methanation based and is having a capacity of 200 TPD.</p> <ul style="list-style-type: none"> <li>• Consent to establish was issued to project on 10-1-2022 with a validity upto 9-1-2025 for the production of 8.165TPD of compressed biogas from 200TPD of municipal solid wastes</li> <li>• Biomining of legacy waste is 50% complete.</li> </ul>
5	Ernakulam Brahmapuram	Kochi corporation	20 acres at Brahmapuram (Govt. land)	<ul style="list-style-type: none"> <li>• Bio mining of legacy waste started on February first week by M/s Zonta Infra Tech Ltd. They have completed biomining of four sectors out of seven sectors.</li> <li>• For construction of Waste to Energy plant, work order was issued to M/s. Zonta Infra Tech. Based on the technical meeting held on 03.01.2022 by the Principal Secretary LSGD, representatives from M/s. Zonta Infra Tech informed that steps have been taken to transport the machineries from Delhi and Pune.</li> </ul>
6	Idukki Munnar	Idukki Municipality	2 acres of land at Munnar	<ul style="list-style-type: none"> <li>• Bio mining of legacy waste is going on and the authorities informed that it will be expected to complete before monsoon.</li> <li>• The committee observed that the Consortium is meeting the technical and financial eligibility Criteria.</li> <li>• The consortium made a detailed presentation of their technical</li> </ul>

				<p>plan before the Bid evaluation Committee.</p> <ul style="list-style-type: none"> <li>• SLAC after detailed discussion resolved to accord sanction to proceed with the financial evaluation of the Bid</li> </ul>
7	Thrissur	Thrissur corporation	Identified land at Ollookkaravillage	<ul style="list-style-type: none"> <li>• Thrissur Corporation identified land at Ollookkara village in Thrissur district.</li> <li>• Vide GO(Rt)No111/2020/LSGD dated 13/01/2020 State Government has accorded sanction to Thrissur Municipal Corporation to purchase the identified land at Ollookkara Village in Thrissur district and to hand over the same on lease basis to KSIDC for the development of the project</li> <li>• Secretary, Thrissur Municipal Corporation to report the status of price negotiation done with the owners of the land identified.</li> </ul>
8	Malappuram	Malappuram munciplaity	8.09 acres of land at Kurumbathoor village in Tirur Taluk	<ul style="list-style-type: none"> <li>• 8.09 acres of land identified by District Administration at Kurumbathur village. Tirur taluk forsetting up of WtE plant. The land is under possession of KSIDC. Details of this are reported to be submitted to Government already by LR Deputy Collector. Not submitted any application to the Board.</li> </ul>
9.	Thiruvananthapuram	Thiruvananthapuram Corporation		<ul style="list-style-type: none"> <li>• Land identification</li> </ul>

**Form IV A**  
**[See rule 13 (2)]**

Format for submission of the Annual Report Information on Bio- Medical Waste Management (to be submitted by the State Pollution Control Committees and Director General Armed Forces Medical Services to Central Pollution Control Board on or before 31<sup>st</sup> July of every year for the period from January to December of year 2020)

1)	Name of Organization	:	Kerala State Pollution Control Board
2)	Name of Nodal Officer with contact telephone number and e-mail	:	Er. Premaletha S., Environmental Engineer Head Office, TVM <a href="mailto:ms.kspcb@gov.in">ms.kspcb@gov.in</a> <a href="mailto:pcbhoawareness2@gmail.com">pcbhoawareness2@gmail.com</a> 9447975725 0471-2318151
3)	Total no. of Health Care Facilities/ Occupiers	:	17122
i)	Bedded Hospitals and Nursing Homes ( bedded)	:	2027
ii)	Clinics, Dispensaries	:	9255
iii)	Veterinary Institutions	:	585
iv)	Animal houses	:	31
v)	Pathological Laboratories	:	2602
vi)	Blood Banks	:	23
vii)	Clinical establishment	:	1366
viii)	Research Institutions	:	5
ix)	AYUSH	:	1228
4)	Total no. of beds	:	119762
5)	Status of authorization:	:	
	:	:	
i)	Total no. of Occupiers applied for authorization	:	13736
ii)	Total no. of Occupiers granted authorization	:	13348

iii)	Total no. of application under consideration	:	79
iv)	Total no. of application rejected	:	322
v)	Total no. of Occupiers in operation without applying for authorization	:	2471
6)	Quantity of Bio- Medical Waste Generation (in kg/day) (please ensures District wise Bio- Medical Waste Generation as per Part-2)		
i)	Bio medical waste generation by bedded hospitals ( <b>in kg/day</b> )	:	35849kg/D
ii)	Bio- medical waste generation by non-bedded hospitals ( <b>in kg/day</b> )	:	4058 kg/D
iii)	Any other	:	501 kg/D
	<b>Total:40408kg/day ( Non-COVID -27912 kg/D, COVID -12496 kg/D)</b>		
7)	Bio- medical waste treatment and disposal	:	
a)	By Captive bio- medical waste treatment and disposal by Health Care Facilities ( please enclose details as per ( part-3)		
i)	Number of Health Care Facilities having captive treatment and disposal facilities	:	51
ii)	Total bio-medical waste treated and disposed by captive treatment facilities in <b>kg /day</b>	:	3390 kg/D
b)	Bio-medical waste treatment and disposal by common Bio medical Waste Treatment Facilities ( please enclose as per Part4)	:	
i)	Number of common Bio Medical Treatment Facilities in Operation	:	1
ii)	Number of common Bio Medical Treatment Facilities under construction	:	1
iii)	Total Bio- Medical waste treated in <b>kg/day</b>	:	36817 kg/D
iv)	Total treated bio- medical waste disposed through authorised recyclers ( in <b>kg/day</b> )	:	8238187 kg/year(22570 kg/day ave.)
8)	Total no. of violation by		

i)	Health care Facilities ( bedded and non-bedded)	:	132
ii)	Common Bio Medical Waste Treatment Facilities	:	nil
iii)	Other (please specify)	:	1245
9)	Show cause notice/direction issued to defaulter	:	
i)	Common Bio Medical Waste Treatment Facilities	:	Nil
ii)	Others	:	1179
10)	Any other relevant information		
i)	Number of workshops/training conducted during the year	:	20 (Awareness training and seminars through VC) conducted by the Board 8746 by the cbwtf,IMAGE
ii)	Number of Occupiers installed liquid waste treatment facility	:	All health care facilities were provided disinfection system for bio medical liquid waste. STPs provided in 149 bedded hospitals and all other hcfs were provided septic tank-soak pit system
iii)	Number of captive incinerators complying to the norms	:	19 hospitals provided incinerators. Directions were issued to these for upgradation of incinerators to meet CPCB emission standard. These hospitals had not disposed COVID waste through these incinerators
iv)	Number of occupiers organized trainings	:	
v)	Number of occupiers constituted Bio-medical waste management committees	:	Major bedded hospitals were formed management committees. In small hcfs staffs were deputed especially for the management of BMW
vi)	Number of occupiers submitted annual Report for the previous calendar year	:	2487
vii)	Number of occupiers practicing pre-treatment of lab microbiology and biotechnology waste	:	2014
viii)	Number of Common Bio Medical Waste Treatment facilities that have installed continuous Online Emission Monitoring systems	:	1

**Part 2: District-wise Bio- Medical Waste Generation (for the previous calendar year 2020)**

Sl. No	Name of the State/ Union Territory	Name of the State/union Territory	Bio-Medical Waste Generation (in kg/day)	Existing Total Bio- Medical treatment capacity captive and CBMW kg/day	
	Kerala State Pollution Control Board		<b>40408kg/day ( both COVID and non-COVID BMW)</b>	Equipment	
				Incinerator IMAGE - Captive facilities	35 T/D 8.6 T/D
				Autoclave	20T/D
				Shredder	15 T/D
				Deep Burial(in hcfs in idukki)	0.037T/D
				Sharp encapsulation pit at IMAGE	1T/D(20no )

- *Deep burial was practiced in some health care facilities in Idukki district in 2020. But now all these are affiliated with cbwtfs*

**Part 3: Information of Health Care Facilities having captive treatment facilities (for the previous calendar year 2020)(copy attached as Annexure)**

**Part 4 : Information on Common Bio Medical Waste Treatment and Disposal Facilities ( for the previous calendar year 2020)**

Sl. No	Name and Address of the common Bio Medical Waste Treatment Facilities with contact person name and telephone no.	GPS Co-ordinates	Coverage Area in KMS	Name of the cities/areas covered by common Bio-Medical Waste Treatment facilities	Total number of Health Care Facilities being covered	Total number of beds covered	Total Quantity of Bio Medical Waste collected from member Health Care Facilities ( kg/day)	Capacity of Treatment equipment installed by Common Bio Medical Waste Treatment Facilities			Total Bio-Medical Waste treated in Kg/day	Method of Disposal of treated wastes ( incineration Ash/sharps/Plastic
								Equipment	Numbers	Total installed capacity ( kg/day)		
1	<b>IM-AGE,CBWT F, MANTHURUTHI, KAN-JIKODE WEST, PALAKKAD 678623</b>	Latitude- 10* 48' 54" N Longitude- 76* 43' 34" E	400 km from Parasala+38 0km from Manjeswararam	Entire State	16,602	1,63,474	36.8 t/D					
								Incinerator	5	35t/D	4940 t/annum (13.5 T/D)	Incineration Ash: Quantity disposed By
								Plasma paralysis			nil	
								Autoclave	5	20T/D	5912T/annum(16 T/D)	Sharps
								Hydro-clave				Quantity Disposed by
								Shredder	3	15T/D		Plastics Quantity
								Sharp encapsulation or concrete pit	20	1 T/D	259t/annum(0.7 t/D)	
								Deep burial pits		NIL	NIL	NIL
Any other equipment	3	sorting conveyors shredder cum wash-										



										ing ma- chine s		
										Chem ical disin- fec- tion(b ottle wash- ing ma- chine )	8 T/D	
								Effluent Treatment plant	ETP -4.5 lakh L/D ay	ZLD		
								Sub- total	<b>55.8 T/day</b> (incineration + autoclave)			

- a. Total No. of transportation vehicles used for collection of Bio- Medical Waste on daily basis by the common Bio- Medical Waste Treatment facilities:**71 vehicles**
- b. List of Health Care Facilities not have membership with the Common Bio- Medical Waste Treatment facilities and neither having captive treatment facilities: **NIL**
- c. No. of trainings organized by the Common Bio- Medical Waste Treatment facility operators:**8746**
- d. No. of Accidents reported by the Common Bio Medical Waste Treatment Facilities : **Nil**

**Part 2: District wise details of HCFs**

Name of district	Name of State	Total number of HCFs	Bio medical waste generation (captive & CBWTF) in kg/day
Thiruvananthapuram	KERALA	1326	6294
Kollam	KERALA	1725	3003
Alappuzha	KERALA	764	3069
Pathanamthitta	KERALA	905	2331
Kottayam	KERALA	1136	2960
Idukki	KERALA	864	1420
DO1, Ernakulam	KERALA	1267	3783
DO2,Ernakulam	KERALA	660	1104
Thrissur	KERALA	1717	4871
Palakkad	KERALA	1040	1470
Malappuram	KERALA	1986	2732
Kozhikkodu	KERALA	1509	3655
Wayanad	KERALA	337	368
Kannur	KERALA	1245	2536
Kasargodu	KERALA	420	663
ESC,Eloor,EKM	KERALA	221	149
Total		17122	40408

Submission of Annual Inventory on Hazardous and Other Waste Management																			
Name of SPCB		KERALA																	
A1 Details on Hazardous Waste Generation		Year: -2020-2021																	
Sl. No.	Name of the District	Total Number of HW Generating Industry	Number of Units Processing authorisation	Number of Units exempted from obtaining Authorisation	Number of HW Units submitted annual returns	Authorized Quantity of Hazardous Waste (Metric Tonne)				Total Quantity	Quantity of HW Generated during the year (Metric Tonne)				Total Quantity	Details on Import and Export of Hazardous Waste			
						Landfillable	Incinerable	Recyclable	Utilizable		Landfillable	Incinerable	Recyclable	Utilizable		Quantity of HW Imported during the year (Metric Tonne)	Type of HW *	Quantity of HW exported during the	Type of HW*
					1	2	3	4	5		6	7	8	9	10	11	12	13	
1	Trivandrum	135	135	nil	10	2488.29	nil	45.16		2533.45	930.19		45		975.19	nil	nil	nil	
2	Kollam	136	136	Nil	136	20000	Nil	255.15	Nil	20255.15	14173.34	Nil	255.15	Nil	14428.49	Nil	NA	Nil	NA
3	Alappuzha	38	38	Nil	23	4350		64		4414	3823.66		64		3887.66				
4	Pathanamthitta	26	26	Nil	20		4.588	52.386		56.974	4.588		52.386		56.974	Nil			
5	Kottayam	61	61	NIL	6	458.4	NIL	595.36	NIL	1053.76	215.768	NIL	55.08	NIL	270.848	NIL	NIL	NIL	NIL
6	Idukki	58	58	NIL	22	33	NIL	96.06	NIL	129.06	32.1	NIL	21.73	NIL	53.83	NIL	NIL	NIL	NIL
7	Ernakulam DO 1	152	152	NIL	91	6255.18	NIL	1653.26	NIL	7908.44	3396.69	NIL	5846.54	NIL	9243.23	NIL	NIL	nil	Nil
8	Ernakulam DO 2	460	460	NIL	40	8520.03	.	70.54	2750.79	11341.36	6814.658		2711.713	9526.371	NA	NA	NA	NA	
9	ESC Eloor	51	51	NIL	13	1658.87	1132	11589.5	3.21	14383.58	2098.92	6.935	65.047	2.635	2173.54	NIL	NIL	NIL	NIL
10	Thrissur	180	143	Nil	40	700	0	246.125	0	946.125	88.37	0	95.668	0	184.038	Nil	Nil	Nil	NA
11	Palakkad	75	75	0	75	2140.064	0	3164.793	0	5304.857	1425.598	0	146.24	0	1571.838	0	NA	0	NA
12	Malappuram	32	28( 4 KSRTC DEPOT )	nil	32	14487.26	nil	351.197	nil	14838.457	14487.26	nil	351.197	nil	14838.457	0	NIL	nil	nil
13	Kozhikode	103	103	0	103	218.948	NIL	165.019	NIL	383.967	218.948	0	165.019		383.967	0	NA	0	NIL
14	Wayanad	39	39	Nil	38	Nil	Nil	17.55	Nil	17.55	Nil	Nil	17.55	Nil	17.55	Nil	Nil	Nil	Nil
15	Kannur	258	258	nil	61	69.311	nil	128.593	nil	197.904	69.311	nil	128.593	nil	197.904				
16	Kasargod	34	33	NIL	21	0.283		52.898		53.181	0.283		52.898		53.181				
	<b>Total</b>	<b>1838</b>	<b>1796</b>	<b>0</b>	<b>731</b>	<b>61379.636</b>	<b>1136.588</b>	<b>18547.591</b>	<b>2754</b>	<b>83817.815</b>	<b>47779.684</b>	<b>6.935</b>	<b>7362.098</b>	<b>2714.348</b>	<b>57863.065</b>	<b>0</b>		<b>NIL</b>	<b>NIL</b>

Note: \*Please specify category also (i.e. Schedule 111-Part A/B/D OF HOWM Rules with Basel Number)

**A2 Details on Inter-state Movement of Hazardous Waste for Recycling /Utilisation/Disposal**

S. No	Hazardous Waste	Hazardous Waste received from other State/UT		Hazardous Waste sent to other state/UT	
		Name of State/UT from which waste received	Quantity received (MT)	Name of State/UT where waste sent (MT)	Quantity sent (MT)
		14	15	16	17
1	For disposal at common secured landfill				
2	For disposal at common Incinerator				
3	For recycling by Schedule IV recyclers			Karnataka	Authorised quantity used oil: 500KL/year
4	For Utilization in co-processing (cement plants)				
5	For non-captive utilization based on CPCBs SOPs				

**A3 Details on Hazardous Waste Recycled and Utilized**

S.No.	Name of the District	Recycling / Utilization of hazardous waste (generated within the State/ UT)						Recycling/Utilization of hazardous waste ( received from other Stae/UT)			
		Quantity Utilized (MT)						Quantity of waste Recycled (listed under Schedule-IV Hazardous Wastes )(MT)	Quantity Utilized (MT)		
		Quantity of waste recycled (listed under Schedule-IV Hazardous Wastes) (MT)		Co-processing in Cement plant		Non-captive utilization based on CPCBs SOPs			Captive utilization of hazardous waste and other	Co-processi ng in Cement plant	Non-captive utilization based on CPCBs SOPs
		Generated within state	Imported	Generate d within state	Imported	Generate d within state	Imported				
		18	19	20	21	22	23	24	25	26	27
1	Trivandrum	45	NA	NA	NA	NA	NA	NA	NA	NA	NA
2	Kollam	255.15	NIL	NIL	NIL	NIL	NIL	NIL	NIL	NIL	NIL
3	Alappuzha	64		NA		NA			NA		
4	Pathanamthitta	52.386		Nil		Nil		Nil	Nil		
5	Kottayam	55.08	Nil	Nil	Nil	Nil	Nil	Nil	Nil	Nil	Nil
6	Idukki	21.73	NIL	NIL	NIL	NIL	NIL	NIL	NIL	NIL	NIL
7	Ernakulam DO 1	5846.54	NIL	NIL	NIL	NIL	NIL	NIL	NIL	NIL	NIL
8	Ernakulam DO 2		NA	NA	NA	NA	NA	2711.713	NA	NA	NA
9	ESC Eloor	65.047	NIL	NIL	NIL	NIL	NIL	2.635	NIL	NIL	NIL
10	Thrissur	95.668	Nil	Nil	Nil	Nil	Nil	Nil	Nil	Nil	Nil
11	Palakkad	146.24	0	0	0	0	0	0	90.764	0	0
12	Mallapuram	351.197									
13	Kozhikode	165.019	0	0	0	0	0	0	0	0	0
14	Wayanad	17.55	Nil	Nil	Nil	Nil	Nil	Nil	Nil	Nil	Nil
15	Kannur	128.593									
16	Kasargod	52.898									
<b>Total</b>		<b>7362.098</b>	<b>0</b>	<b>0</b>	<b>0</b>	<b>0</b>	<b>0</b>	<b>2714.348</b>	<b>90.764</b>	<b>0</b>	<b>0</b>

**A4 Details on Hazardous Waste Disposed**

S. No.	Name of the District	Disposal of Hazardous waste (generated within the State/UT)				Disposal of Hazardous waste (received from other State/UT)	
		Quantity Disposed in Secured Landfill (MT)		Quantity Disposed through Incinerator (MT)		Quantity Disposed in common(MT)	
		Common	Captive	Common	Captive	SLF	Incinerator
		28	29	30	31	32	33
1	Trivandrum	930.19	Nil	Nil		NIL	
2	Kollam	Nil	14173.34	Nil	Nil	Nil	Nil
3	Alappuzha	3823.66			0		0
4	Pathanamthitta	4.588	NA	NA	NA	NA	NA
5	Kottayam	215.768	Nil	Nil	Nil	Nil	Nil
6	Idukki	32.1	Nil	Nil	Nil	Nil	Nil
7	Ernakulam DO 1	3396.69	NIL	NIL	NIL	NIL	NIL
8	Ernakulam DO 2	6518.818	295.84	NA	NA	NA	NA
9	ESC Eloor	2098.92	NIL	NIL	6.935	NIL	NIL
10	Thrissur	88.37	Nil	Nil	Nil	Nil	Nil
11	Palakkad	1425.598	0	0	0	0	0
12	Mallapuram	14487.26	Nil	Nil	Nil	Nil	Nil
13	Kozhikode	218.948	0	0	0	0	0
14	Wayanad	Nil	Nil	Nil	Nil	Nil	Nil
15	Kannur	69.311					
16	Kasargod	0.283	Nil	Nil	Nil	Nil	Nil
	<b>Total</b>	<b>33310.504</b>	<b>14469.18</b>	<b>0</b>	<b>6.935</b>	<b>0</b>	<b>0</b>

**A5 Details on Hazardous Waste Stored at Occupier Premises**

S.No	Name of the District	Total Quantity of HW stored at Occupier premises at the beginning to the financial year i.e. 1st April (MT)				Total Quantity of HW stored at Occupier premises at the end of financial year i.e. 31st March (MT)			
		Landfillable	Incinerable	Recyclable	Utilizable	Landfillable	Incinerable	Recyclable	Utilizable
		34	35	36	37	38	39	40	41
1	Trivandrum								
2	Kollam	69179.53	Nil	Nil	Nil	83352.87	Nil	Nil	Nil
3	Alappuzha								
4	Pathanamthitta								
5	Kottayam	Nil	Nil	Nil	Nil	Nil	Nil	Nil	Nil
6	Idukki	Nil	Nil	Nil	Nil	Nil	Nil	Nil	Nil
7	Ernakulam DO 1	NIL	NIL	NIL	NIL	NIL	NIL	NIL	NIL
8	Ernakulam DO 2	NIL	NIL	NIL	3.08976	NIL	NIL	NIL	NIL
9	ESC Eloor	104.2	NIL	6.8	NIL	1.60	NIL	1.44	NIL
10	Thrissur	Nil	Nil	Nil	Nil	Nil	Nil	Nil	Nil
11	Palakkad	139.686	0	26	0	124.282	0	8.432	0
12	Mallapuram	Nil	Nil	Nil	Nil	Nil	Nil	Nil	Nil
13	Kozhikode	0	0	0	0	0	0	0	0
14	Wayanad	NIL	NIL	9.06	NIL	NIL	NIL	17.55	NIL
15	Kannur					2.131	.	2.587	.
16	Kasargod	Nil	Nil	Nil	Nil	Nil	Nil	Nil	Nil
	<b>TOTAL</b>	<b>69423.416</b>	<b>0</b>	<b>41.86</b>	<b>3.08976</b>	<b>83480.883</b>	<b>0</b>	<b>30.009</b>	<b>0</b>

A6 Details on management of Other Waste (Domestically generated and imported)																					
S.No.	Name of the District	*Number of units authorized for recycling /utilization of Other Waste (MT)				Quantity of other waste Imported from other country (MT)	Basel Number	Name of country	Quantity of other waste exported to other country (MT)	Type and category	Name of Country	Quantity of other waste domestically generated (MT)	Quantity of other waste received from other state (MT)	Quantity of other waste sent to other state (MT)	Quantity of other waste (Schedule III waste B and D) utilized/recycled during the year April-March (MT)		Other waste sent for disposal to Common TSDf (MT)	Quantity of HW generated during recycling/ utilization of other waste (MT)	Quantity of HW sent for disposal (MT) (as given at 54)	Quantity ofn other waste stored at occupiers premises (MT) (Including imported and domestically generated)	
		Other Waste Schedule III-Part B	Other Waste Schedule III-Part D	Other Waste Schedule III-Part B	Other Waste Schedule III-Part D										Imported	Domestically generated				at the beginning of the financial year	at the end of financial year
		42	43	44	45										46	46(i)				46(ii)	47
1	Trivandrum																				
2	Kollam	Nil	Nil	NA	NA	Nil	Nil	Nil	Nil	Nil	Nil	Nil	Nil	Nil	Nil	Nil	Nil	Nil	Nil	Nil	Nil
3	Alappuzha																				
4	Pathanamthitta	Nil	Nil	Nil	Nil	Nil	Nil	Nil	Nil	Nil	Nil	Nil	Nil	Nil	Nil	Nil	Nil	Nil	Nil	Nil	Nil
5	Kottayam	NIL	NIL	NIL	NIL	NIL	NIL	NIL	NIL	NIL	NIL	NIL	NIL	NIL	NIL	NIL	NIL	NIL	NIL	NIL	NIL
6	Idukki	Nil	Nil	Nil	Nil	Nil	Nil	Nil	Nil	Nil	Nil	Nil	Nil	Nil	Nil	Nil	Nil	Nil	Nil	Nil	Nil
7	Ernakulam DO 1	NIL	NIL	NIL	NIL	158.93	NIL	NIL	NIL	NIL	NIL	NIL	NIL	NIL	NIL	NIL	NIL	NIL	NIL	NIL	NIL
8	Ernakulam DO 2		4			17800	B3020, B1010 as per Schedule 111-Part D OF HWM Rules	CANADA,UAE, SAUDI ARABIA, HONGKONG, SINGAPORE, MALASIA,DUBAI, , AUSTRAILA, NEW ZEALAND ,MAURATIUS, UK	NA	NA	NA	NA	NA	NA	8671.14	NA	NA	NA	NA	NA	NA
9	ESC Eloor	Nil	Nil	Nil	Nil	Nil			Nil						Nil	Nil	Nil	Nil		Nil	Nil
10	Thrissur	Nil	Nil	Nil	Nil	Nil	Nil	Nil	Nil	Nil	Nil	Nil	Nil	Nil	Nil	Nil	Nil	Nil	Nil	Nil	Nil
11	Palakkad	0	19	0	61000	12548	B1010	Multiple	0	NA	NA	112930	0	0	12548	112930	0	0	0	0	0
12	Mallapuram	NIL	NIL	NIL	NIL	165	NIL	NIL	NIL	NIL	NIL	NIL	NIL	NIL	NIL	NIL	NIL	NIL	NIL	NIL	NIL
13	Kozhikode	0	0	0	0	59500	B1010	Multiple	0	NA	NA	0	0	0	59500	0	0	0	0	0	0
14	Wayanad	NIL	NIL	NIL	NIL	NIL	NIL	NIL	NIL	NIL	NIL	NIL	NIL	NIL	NIL	NIL	NIL	NIL	NIL	NIL	NIL
15	Kannur	.	.	.	.	nil			.		.	.	.	.	.	.	.	.	.	.	.
16	Kasargod	Nil	Nil	Nil	Nil	Nil	Nil	Nil	Nil	Nil	Nil	Nil	Nil	Nil	Nil	Nil	Nil	Nil	Nil	Nil	Nil
Total		NIL	23	NIL	61000	90171.93	2	Multiple	NIL	NIL	NIL	112930	NIL	NIL	80719.14	112930	NIL	NIL	NIL	NIL	NIL

Note:In case of traders,please provide name of the traders,quantity and category of other waste imported and name of actual user to whom the same has been sent





**A7-B Details of Fluorescent and Other Mercury containing lamps resulting from Enforcement of Other Regulation**

Sl.No.	Name of the District	Name and Address of collection centres authorized for collection	Authorized capacity (MT)	Quantity of waste received at collection centres (MT)	Quantity of waste sent for recycling /utilization (MT)	Quantity of waste sent to common TSDF (MT)	Quantity of hazardous waste stored at collection centres (MT)	
							at the beginning of the financial year i.e.1st April	at the end of financial year i.e.31st March
							65	66
1	Trivandrum	Nil	Nil	Nil	Nil	Nil	Nil	Nil
2	Kollam	Nil	Nil	Nil	Nil	Nil	Nil	Nil
3	Alappuzha	Nil	Nil	Nil	Nil	Nil	Nil	Nil
4	Pathanamthitta	Nil	Nil	Nil	Nil	Nil	Nil	Nil
5	Kottayam	Nil	Nil	Nil	Nil	Nil	Nil	Nil
6	Idukki	Nil	Nil	Nil	Nil	Nil	Nil	Nil
7	Ernakulam DO 1	NIL	NIL	NIL	NIL	NIL	NIL	NIL
8	Ernakulam DO 2	KEIL	90	Nil	Nil	Nil	35.6	35.05
9	ESC Eloor	Nil	Nil	Nil	Nil	Nil	Nil	Nil
10	Thrissur	Nil	Nil	Nil	Nil	Nil	Nil	Nil
11	Palakkad	Nil	Nil	Nil	Nil	Nil	Nil	Nil
12	Mallapuram	Nil	Nil	Nil	Nil	Nil	Nil	Nil
13	Kozhikode	Nil	Nil	Nil	Nil	Nil	Nil	Nil
14	Wayanad	Nil	Nil	Nil	Nil	Nil	Nil	Nil
15	Kannur	Nil	Nil	Nil	Nil	Nil	Nil	Nil
16	Kasargod	Nil	Nil	Nil	Nil	Nil	Nil	Nil
	<b>TOTAL</b>	KEIL	90	Nil	<b>NIL</b>	<b>0</b>	<b>35.6</b>	<b>35.05</b>

**A8 Details of waste collectors**

S.No.	Name of the District	Name and address of waste collectors	Authoriz ed capacity (MT)	Quantity of waste received at collection centres (MT)		Quantity of waste sent for recycling /utilization (MT)		Quantity of waste sent to common TSDF		Quantity of waste stored at beginning of the year financial year i.e.1st April (MT)		Quantity of waste stored at end of the year financial year i.e.31st March (MT)	
				Hazard ous Waste	Other Waste	Hazardou s Waste	Other Waste	Hazardo us Waste	Other Waste	Hazardous Waste	Other Waste	Hazardou s Waste	Other Waste
		72	73	74	75	76	77	78	79	80	81	82	83
1	Trivandrum	Nil	Nil	Nil	Nil	Nil	Nil	Nil	Nil	Nil	Nil	Nil	Nil
2	Kollam	Nil	Nil	Nil	Nil	Nil	Nil	Nil	Nil	Nil	Nil	Nil	Nil
3	Alappuzha	NIL	NIL	NIL	NIL	NIL	NIL	NIL	NIL	NIL	NIL	NIL	NIL
4	Pathanamthitta	NIL	NIL	NIL	NIL	NIL	NIL	NIL	NIL	Nil	Nil	Nil	Nil
5	Kottayam	Nil	Nil	Nil	Nil	NIL	NIL	Nil	Nil	Nil	Nil	Nil	Nil
6	Idukki	Nil	Nil	Nil	Nil	Nil	Nil	Nil	Nil	Nil	Nil	Nil	Nil
7	Ernakulam DO 1	NIL	NIL	NIL	NIL	NIL	NIL	NIL	NIL	NIL	NIL	NIL	NIL
8	Ernakulam DO 2	NIL	NIL	NIL	NIL	NIL	NIL	NIL	NIL	Nil	Nil	Nil	Nil
9	ESC Eloor	Nil	Nil	Nil	Nil	NIL	NIL	Nil	Nil	Nil	Nil	Nil	Nil
10	Thrissur	Nil	Nil	Nil	Nil	Nil	Nil	Nil	Nil	Nil	Nil	Nil	Nil
11	Palakkad	Nil	Nil	Nil	Nil	NIL	NIL	Nil	Nil	Nil	Nil	Nil	Nil
12	Mallapuram	Nil	Nil	Nil	Nil	Nil	Nil	Nil	Nil	Nil	Nil	Nil	Nil
13	Kozhikode	NIL	NIL	NIL	NIL	NIL	NIL	NIL	NIL	NIL	NIL	NIL	NIL
14	Wayanad	NIL	NIL	NIL	NIL	NIL	NIL	NIL	NIL	Nil	Nil	Nil	Nil
15	Kannur	Nil	Nil	Nil	Nil	NIL	NIL	Nil	Nil	Nil	Nil	Nil	Nil
16	Kasargod	Nil	Nil	Nil	Nil	Nil	Nil	Nil	Nil	Nil	Nil	Nil	Nil
	<b>Total</b>	Nil	Nil	Nil	Nil	Nil	Nil	Nil	Nil	Nil	Nil	Nil	Nil

Recycling units collect the waste from all districts

**B. Annual Inventory on Recycling/ Utilization/ Pre-processing/ Co-Processing of Hazardous and Other Waste**

Name of SPCB				Year:	
S. No.	Type of Recycling Facilities	No of Facilities authorized for recycling /utilization/ Pre-processing/Co-processing /Co-processing of HW (MT)	Total Authorized Capacity (MTA)	Quantity Recycled /Utilized/Pre-processed/Co-processed (MT) during the year	
				Imported Quantity	Other Than Imported Quantity
		84	85	86	87
1	Hazardous Waste				
<b>A</b>	<b>Commonly Recyclable HW</b>				
1	Brass Dross				
2	Zinc Bearing Wastes				
3	Copper Bearing Waste				
4	Spent catalyst containing nickel, cadmium, Zinc, copper, arsenic, vanadium and cobalt	1	72	0	0
5	Lead bearing waste including battery waste				
6	E-Waste				
7	Paint and ink Sludge/residues				
8	Used Oil	6	27891.6	0	3820.695
9	Waste Oil	4	17841	0	1332.091
	Add row for recycling of hazardous waste (listed under schedule IV) apart from above and provide relevant details requirede under the respective columns				
	<b>Total</b>	11	45804.6		5152.786
<b>B</b>	<b>Non-Captive utilization based on CPCBs SOPs</b>				
1	from spent solvents				
2	Residue generated from				

3	Catalyst-to recover-				
4	H2SO4 generated from				
5	containing Molybdenum				
6	contaminated				
	<b>Total</b>				
<b>C Captive utilization of hazardous wastes for which SOP has not been prepared by CPCB</b>					
	Melting in induction	18	200000	12548	112930
2					
	hazardous and other				
	<b>Total</b>	18	200000	12548	112930
<b>D Pre-processing of hazardous waste</b>					
1					
2					
	hazardous and other				
	<b>Total</b>				
<b>E Co-processing in Cement Plants</b>					
1					
2					
	hazardous and other				
	<b>Total</b>				
<b>II Other Waste</b>					
<b>A Other Waste recyclers</b>					
<b>B of other waste</b>					
1	BPCL	1	13500	2702.493	
2	Used Oil-FACT	1	92	9.22	
	<b>TOTAL</b>	2	13592	2711.713	
<b>C utilization) of other</b>					
<b>D waste</b>					
<b>E waste</b>					

C **List of authorized Recyclers/Utilizers/Pre-processors/Co-processors of Hazardous Waste**

Name of SPCB

Year:

S.No	Name & Address of the Facility	Type of Hazardous Waste authorised for recycling/utilization/co-processing	Authorized Recycling/Utilization /Co-Processing Capacity (MTA)	Quantity Recycled/Utilized/Co-	
				Imported	Other than imported
	79	88	89	90	91
<b>I.</b>	<b>Hazardous Wastes</b>				
<b>A</b>	<b>List of Authorized Recyclers of hazardous waste</b>				
	Petrolive Petroleums(Angel group), Neeleswar,Kasaragod	Used Oil	3600KL		
		Waste Oil	3600KL		
	M/s CEE JEE Lubricants, IDA,Edayar	Used oil	7200		86.395
		waste oil	5475		0.35
	M/s Excel petrochemical	Used oil	1200		289.462
		waste oil			
	BPCL KOCHI	Oil Sludge from ETP	13500	2702.493	
	FACT-CD	Used Oil	92	9.22	
	APJ REFINERIES PRIVATE LIMITED NEW INDUSTRIAL DEVELOPMENT AREA, KANJIKODE, PALAKKAD	Used Oil	14600	0	3051.622
		Waste Oil	8760	0	1220.909

	SWARAJ BIO FUEL ENERGY VIII/1256, NIDA, Kanjikode West, Pudussery central Village, Palakkad,	Used Oil Waste Oil	13.6 6	0 0	393.213 110.832
	K.J. Lubes, Mannuthy,Thrissur	Used oil	1278		
	<b>Total</b>		<b>59324.6</b>	<b>2711.713</b>	<b>5152.783</b>
<b>B</b>	<b>List of Authorized Utilizers(under Rule 9) of hazardous waste</b>				
<b>1</b>					
<b>2</b>					
	<b>Total</b>				
<b>C</b>	<b>List of Authorized Utilizers(under captive utilization)of hazardous waste</b>				
<b>1</b>					
<b>2</b>					
	<b>Total</b>				
<b>D</b>	<b>List of Authorized Pre-processors of hazardous waste</b>				
<b>1</b>					
<b>2</b>					
	<b>Total</b>				
<b>E</b>	<b>List of Authorized Co-processors of hazardous waste</b>				

<b>1</b>					
<b>2</b>					
	<b>Total</b>				
<b>II.</b>	<b>Other Waste</b>				
<b>A</b>	<b>List of Authorized recyclers of other other waste</b>				
<b>1</b>					
<b>2</b>					
	<b>Total</b>				
<b>B</b>	<b>List of Authorized Utilizers(under Rule 9) of other waste</b>				
<b>1</b>	CPS Steel India (P) Ltd.,	Iron and steel scrap	100000	0	0
<b>2</b>	Prince Rollings (P) Ltd.,	Iron and steel scrap	100000	0	1841
<b>3</b>	Prince Alloys (P) Ltd.,	Iron and steel scrap	100000	0	15024.016
<b>4</b>	Prince TMT Steels (P)	Iron and steel scrap	100000	0	11679.975
<b>5</b>	Beepath Castings (P) Ltd.	Iron and steel scrap	100000	0	11098.895
<b>6</b>	Kairali Steels & Alloys,	Iron and steel scrap	100000	7989.745	0
<b>7</b>	Minar Castings(P) Ltd.,	Iron and steel scrap	100000	14153.173	0
<b>8</b>	Bhoopathi Steels (P) Ltd.,	Iron and steel scrap	100000	0	4147.521
<b>9</b>	M/s. Krishna Steel	Iron and steel scrap	100000	0	0
<b>10</b>	M/s. Paragon Steels (P)	Iron and steel scrap	100000	0	0
<b>11</b>	M/s. Paragon Steels Unit	Iron and steel scrap	100000	0	11608.997
<b>12</b>	P.P.S Steels (kerala) Pvt.	Iron and steel scrap	100000	0	16538
<b>13</b>	Southern Ispat & Energy	Iron and steel scrap	100000	0	10105.597
<b>14</b>	SMM Steel Re-Rolling	Iron and steel scrap	100000	0	14907.535
<b>15</b>	South Malabar Steels &	Iron and steel scrap	100000	570.72	0



<b>16</b>	Vanchinad Forgings Pvt.	Iron and steel scrap	100000	0	0
<b>17</b>	Kuttippulan Iron & Steel	Iron and steel scrap	100000	0	5810.56
<b>18</b>	Premier Alloys,	Iron and steel scrap	100000	0	0
	<b>Total</b>		1800000	22713.6	102762
<b>C</b>	<b>List of Authorized Utilizers(under captive utilization) of other waste</b>				
<b>1</b>					
<b>2</b>					
	<b>Total</b>				
<b>D</b>	<b>List of Authorized Pre-processors of other waste</b>				
<b>1</b>					
<b>2</b>					
	<b>Total</b>				
<b>E</b>	<b>List of Authorized Co-processors of other waste</b>				
<b>1</b>					
<b>2</b>					
	<b>Total</b>				

**D1 A Details on disposal of Hazardous Waste in Common TSDF(s)**

Name of SPCB

Year:

S.N	Name and Address of the TSDF	Quantity in Stock at the beginning of the year (MT)		*Quantity of Hazardous Waste received(MT)		Quantity of Hazardous Waste Disposed(MT)		Quantity in Stocks at the end of the year(MT)		Cumulative HW disposed by the end of financial year(MT)		Capacity			Design life of SLF(in years)
		Landfillable	Incinerable	For Landfillable	For incineration	For Landfillable	Quantity Incinerated	Landfillable	Incinerable	SLF	Incinerator	Incinerator(T/H)	Incinerator(Kcal)	Landfillable (MT/A)	
	92	93	94	95	96	97	98	99	100	101	102	103	104	105	106
1	KEIL,Common TSDF Project,Ambalamedu,Kochi	10186.108	NIL	39684.039	NIL	47635.529	NIL	2235.63	NIL	518196.129	NIL	NIL	NIL	50000	20

\*Including wastes received from other State/UT

**D1-B Details on disposal of Other Waste in Common TSDF(s)**

Name of SPCB

Year:

S.No	Name and Address of the TSDF	Quantity of Stock at the		*Quantity of Other Waste		Quantity of Other Waste		Quantity in Stock at the end of the		Cumulative other waste disposed by	
		Landfillable	Incinerable	For Landfillable	For incineration	Quantity Landfilled directly	Quantity Incinerated	Landfillable	Incinerable	SLF	Incinerator
	107	108	109	110	111	112	113	114	115	116	117
1	KEIL	0	0	0	0	0	0	0	0	0	0

\*Including wastes received from other State/UT

D2 Details on Captive TSDF (S)

Name of SPCB

Year:

S. No	Name and Address of Captive facility	Type of facility (landfillable/incinerable/both)	Capacity		HW disposed during the year (MT)		Cumulative HW disposed till the end of financial year (MT)	
			Incinerator (MT/H)	Landfill (MT/A)	SLF	Incinerator	SLF	Incinerator
	118	119	120	121	122	123	124	125
	KMML., Chavara, Kollam	SLF	Nil	20000	14173.34	Nil	83352.87	Nil
	IRE,Udhyogamondal	Land fill	0	3000	0	0	0	0
	HIL,Udhyogamondal	Both	1132	480	0	2.89	473.12	not available
	TCC	Land fill	0	3000	0	0	3000	0
	FACT CD	SLF		12500M3	295.84	NA	*Fully Utilized	NA
	Total		1132		14469.18	2.89	86825.99	0





☎ General: 0471- 2312910, 2318153, 2318154, 2318155 Chairman: 2318150 Member Secretary: 2318151  
E-mail: ms.kspcb@gov.in FAX: 0471 - 2318134, 2318152 web: www.keralapcb.nic.in

**KERALA STATE POLLUTION CONTROL BOARD**  
കേരള സംസ്ഥാന മലിനീകരണ നിയന്ത്രണ ബോർഡ്

Pattom P.O., Thiruvananthapuram – 695 004  
പട്ടം പി.ഒ., തിരുവനന്തപുരം - 695 004

PCB/HO/PLA/AR/20/2019-2020

Dated: 08/09/2021

From

The Member Secretary

To

The Member Secretary  
Central Pollution Control Board  
Parivesh Bhavan  
East Arjun Nagar  
New Delhi – 110032.

Sub: Annual report (AR) on Plastic Waste Management Rules, 2016 for the year 2020-21-Reg

Ref: Plastic Waste Management Rules, 2016

Sir,

The Annual Report (AR) on Plastic Waste Management Rules, 2016 for the period of 2020-21 is submitted herewith in prescribed format.

Yours faithfully

  
**MEMBER SECRETARY**

Encl: As above.

Copy to:

1. The Regional Director, CPCB, Bangalore
2. All ROs and Dos
3. IT Cell
4. CA to Chairman
5. CA to Member Secretary

STATE-WISE STATUS OF IMPLEMENTATION OF PLASTIC WASTE MANAGEMENT RULES, 2016, AS AMENDED 2018  
ANNUAL REPORT FORMAT

FORM-VI

Name of the SPCB/ PCC	Estimated of Plastic generated (TnA) per annum	Implementation of thickness of less than 50 micron carry bags (single/ recycled) (TnA)	Status of Frags, Waste Management (Pre/Post Collection, Segregation, Disposal/Co- Processing, Road construction, etc.) Rules 3 & 4(A)(b)(i) Action Plan	Frictions plan has as usage of Plastic carry bags (through Executive Order) Annual copy of notification or Executive Order	No. of registered Manufacturers/Producers		No. of Manufacturer using or carrying (a) Carry bags (b) Carry bags (c) Carry bags (d) Carry bags	No. of Manufacturer carrying or using (a) Carry bags (b) Carry bags (c) Carry bags (d) Carry bags	Status of Marking, Labeling on carry bags (Rule 11) Specify No. of units not complied	No. of violations & action taken as per- sample size of provision as of 31/03/2018, as provided in 2018 (Rule 13)	Expiry of printing of Carry bags from producers, brand owners and inspectors (Rule 13)	Status of submission of Annual Report to CPC/MHA (Rule 17)
					Plastic Carry Bags	Carry Bags						
KERALA (1000) 874 POLLETT CONTR L BOARD	178	178	178	178	178	178	178	178	178	178	178	178

Column 4. Details of Plastic Waste Management Ex. Collection, Segregation & Disposal (Co-Processing, Road construction, etc.) Rules (5&6&9) (Attach Action Plan)

Sl. No.	Items	Current Status	Desirable Levels	Gap between C & D	Timeline
1	What is the quantity of plastic waste generated (Annual Report from VI pt. 2.6)(TPD)	120063.874 TPA	131400	11336.126	6 months (MCF, MRF, Harithakarma sentas are being set up)
2(a)	Number of registered plastic manufacturing units	1348			
2(b)	Capacity of registered plastic manufacturing units (TPD)	210000			
93 (87 Municipality and 6 Corporations)					
3(a)	Total No of ULBs	941			
3(b)	Percentage of ULBs which have set-up of plastic waste management system as per Rule 6(2)f	98.92	100	1.08	6 months
3(c)	Percentage of ULBs having facilities for collection of segregated waste	91.3	100	8.7	6 months
3(d)	Percentage of ULBs Material Recovery Facility	70.96	100	29.04	6 months
4(a)	Total No. of Panchayat	941			
4(b)	Percentage of Grama Panchayat which have setup of plastic waste management system as per Rule7	31.74	100	68.26	6 months
4(c)	Percentage of GPs having facilities for collection of segregated waste	87.25	100	12.75	6 months
4(d)	Percentage of GPs having Material Recovery Facility	66.29	100	33.71	6 months
The proposal for EPR Registration is with the State Government for approval					
5(a)	No. of registered Producers/brandowners/importers as per Rules 9 &13 of PWM Rules?	The proposal for EPR Registration is with the State Government for approval			
5(b)	Percentage of Producers/brandowners/importers which have engaged with ULBs for PWM	The proposal for EPR Registration is with the State Government for approval			
5(c)	Percentage of ULBs which have set-up system for plastic waste management with assistance of producers been set-up/Rule	1.1	100	98.9	6 months
6(a)	Number of registered plastic waste recyclers	187			
6(b)	Capacity of recycler (TPD)	200 TPD			
7	Status-of Utilization of plastic waste (Annual Report from VI pt.4)				
7(a)	Quantity of Plastic waste utilized in recycling (TPD)	200 TPD			
7(b)	Quantity of Plastic waste utilized in recycling Road Construction	915 TPA			



7(c)	Quantity of waste co-processed in plastic waste in cement kilns	1300.5 TPA
7(d)	Quantity of waste utilized in production of RDF	Nil
7(e)	Quantity of plastic waste used in production of waste to oil	Nil
7(f)	Quantity of plastic waste used in other purpose (Please specify)	Nil
8(a)	No. of Units registered manufacturing compostable plastic	5 units
8(b)	Total capacity of units manufacturing compostable plastic	104 TPM
9(a)	No. of unregistered plastic manufacturing or recycling units (Annual Report format pt.7)	Nil
10	Whether local bodies have framed bye-laws [Rule 6(4)]?	Yes
11	Whether plastic carry bags & plastic sheet of thickness <50micron banned or not [Rule 4(c)]?	Banned
12	Has complete ban on plastic carry bags been imposed? (Annual Report format pt.3)	Yes
13	Status of action taken on non-compliance of PWM Rules (Annual Report format pt.9)	The Board officers along with the officials of other departments conducted inspections for the strict implementation of single use plastic ban in the State. Out of the 465 inspections conducted as on October 2020, 133 violations were observed. An amount of Rs. 13,05,000/- was imposed as fine to the violators and collected Rs.3,35,000/- as fine. Confiscation of banned items was also done for the strict implementation of ban in the State. The Board inspected various shops and market places through out Idukki district on 04/03/2021 and 188,704 Kg of banned single use plastic items caught in this inspection another inspection was carried out in Kozhikode city and fine of Rs.10,000/- imposed on each violators.
14	Status of marking & labelling on plastic carry bags & multi layered packaging (Rule 11)	Single use Plastic is banned in Kerala
15	Whether State Level Advisory Committee is constituted or not? [Rule 16] If yes, details of number of meetings conducted in a year	Yes
16	Status of phasing out of manufacture and use multi layered plastic which is non-recyclable or non-energy recoverable or with	PVC flex has been banned in the State.
17	Details of Action taken to ensure that plastic waste is not burnt (Rule-6(g))	Instruction given to local bodies
a	Details of Action taken w.r.t. engagement of civil societies/groups with waste pickers (Rule-6(f))	Local bodies with Haritharman Sernan associated with waste pickers
c	Details of Action taken w.r.t. creating awarness among stakeholders (Rule-6(e))	Awarness Programmes were conducted at State, District and Institutional levels.

Sl. No.	Rule	Provisions	Violator	Nature of Violation	Action taken
		Column 9, No. of violations & action taken on non-compliance of provisions of PWM Rules, 2016, as amended, 2018			
1	4(c)	Carry bag made of virgin or recycled plastic, shall not be less than fifty microns in thickness.		Single use plastic is banned in Kerala	
2	4(d)	Plastic sheet or like, which is not an integral part of multi-layered packaging and cover made of plastic sheet used for packaging, wrapping the commodity shall not be less than fifty microns in thickness except where the thickness of such plastic sheets impair the functionality of the product		Single use plastic is banned in Kerala	
3	4(f)	Sachets using plastic material shall not be used for storing, packing or selling gullha, tobacco and pan masala.		Banned	
4	4(h)	Carry bags made from compostable plastics shall conform to the Indian Standard IS 17088:2008 titled as specifications for Compostable Plastics, as amended from time to time. The manufacturers or seller of compostable plastic carrybags shall obtain a certificate from the Central Pollution Control Board before marketing or selling.		Ban of compostable carry bag is subjected to judgement dated 06/02/2021 in WPR/C4291/2020.	
5	6(1)-(7)	Every local body shall be responsible for development and setting up of infrastructure for segregation, collection, storage, transportation, processing and disposal of the plastic waste either on its own or by engaging agencies or producers		950 Harishankarman sena, 997 MCFs and 178 RRFs	
6	6(2)(g) & 7(c)	Ensuring that open burning of plastic waste does not take place		Instruction given to localbodies	
7	8(1)(a)	The waste generator shall take steps to minimize generation of plastic waste and segregate plastic waste at source		950 Harishankarman sena, 997 MCFs and 178 RRFs	
8	8(1)(b)	The waste generator shall not filter the plastic waste		950 Harishankarman sena, 997 MCFs and 178 RRFs	

9	13(2)	Every producer or brand-owner shall, for the purpose of registration or for renewal of registration, make an application in Form-1 to i. "The concerned State Pollution Control Board or Pollution Control Committee of the Union territory, if operating one or two States or Union Territories", ii. "The Central Pollution Control Board, if	The proposal for EPR under the consideration of Government
10	13(3)	Every person recycling or processing waste or proposing to recycle or process plastic waste shall make an application to the State Pollution Control Board or the Pollution Control Committee for grant of registration or renewal of registration for the recycling unit, in Form II.	Number of registered recyclers in the State- 187
11	13(4)	Every manufacturer engaged in manufacture of plastic to be used as raw material by the producer shall make an application to the State Pollution Control Board or the Pollution committee of the Union territory concerned, for the grant of registration or for the renewal of registration, in Form III.	Number of registered manufacturers/ producers in the State-1348
12	14(1)	Retailers or street vendors shall not sell or provide commodities to consumer in carry bags or plastic sheet or multi-layered packaging, which are not manufactured and labelled or marked, as per prescribed under these rules	Single use plastic is banned in Kerala
13		Any other (Please specify)	NA

Sl. No.	Column 11. Status of submission of Annual Report by ULBs to SPCB/PCC s[Rule 17(2)]	
1	Total No. ULBs	93
a	Total No. ULBs which have provided complete Annual report	66
2	Total No. of GPs	941
a	Total No. of GPs which have provided complete Annual Report	306
3	Any other local bodies (Please specify)	Nil
a	Any other local bodies which have provided complete Annual Report	Nil



**GOVERNMENT OF KERALA**  
**Abstract**

Environment Department – Blanket ban on single use plastic in the state with effect from 01.01.2020- orders issued.

---

**Environment (B) Department**

**G.O.(MS) No.6/2019/Envt. Dated, Thiruvananthapuram: 27/11/2019**

Read: 1. G.O(Rt) No.134/2018/Envt dated 12.12.2018

2. Expert Technical Committee Report.

**ORDER**

The consumption of single use plastic items and its irresponsible usage in the State, especially plastic carry bags, straws, plastic papers, sheets used for food packaging in hotels are mostly ending up in streams, rivers, other water bodies and road sides making even recycling impossible and has reached an alarming state posing environmental as well as health hazards. Identifying the threat, many States in the country have already imposed ban on these items and Government of India is exhorting the State Government to control the usage of single use plastic items. In the above context and to identify the plastic items to be brought into the ambit of ban , an Expert Technical committee was constituted as per the GO read as first paper above and the committee submitted report to Government as per the 2<sup>nd</sup> paper read above. The Expert Technical Committee recommended complete ban on some items and partial ban on certain other items. The Technical Committee report clearly identified the benefits and success rate of plastic ban in the States of Maharashtra and Tamil Nadu where the consumption has been reduced by around 70% showing the positive impact of ban on these items.

2. Government have examined the matter in detail. Being convinced of the need for banning single use plastic in the State, Government hereby issues the following order:

3. Complete ban on single use plastic is imposed in the State with effect from 01.01.2020.

- a) No person or company or entity or industry shall manufacture, transport, store, sale

or use of any plastic products classified as, one-time use or other chlorinated plastic products as mentioned in the table below, from 1<sup>st</sup> January, 2020, within the territory of the State of Kerala.

Sl. No.	Products
1	Plastic carry bags irrespective of thickness
2	Plastic sheets (sheet used as table spread), cling film
3	Plates, cups and decorative materials made of thermocol/Styrofoam
4	Single use plastic utensils like cups, plates, dishes, spoons, forks, straw, stirrer
5	Plastic –coated items like paper cups, plates, bowl, carry bags
6	Non woven bags, plastic flags, plastic bunting
7	Plastic water pouches, plastic juice packets
8	PET/PETE bottles of drinking water of capacities less than 300 ml.
9	Garbage bags (plastic)
10.	PVC flex materials
11	Plastic packets.

4. Plastic carry bags and other single use plastic products used for the following purposes shall be exempted:-

- i) Plastic products manufactured exclusively for the purpose of Export against any export order in a plastic industry.
- ii) Plastic products used for medical purposes and medical equipments.
- iii) Plastic products made from compostable plastic bearing a label 'compostable' and confirming to the Indian Standard IS or ISO 17088: 2008 titled as specification for "Compostable Plastic" as defined in the Plastic Waste (Management and Handling) Rules, 2016

5. All District Collectors, Sub Divisional Magistrates, Officers authorized by the Kerala State Pollution Control Board, Secretaries of all Local bodies and any other authority or officer authorized by the Central Government u/s 19 of the Environment (Protection) Act 1986, shall strictly monitor the implementation of these directions and file complaint before the appropriate judicial forum to take cognizance of the offense as per the provisions of the Environment (Protection) Act, 1986, in case of any contravention of any of these directions.

6. Any contravention of any of the provisions of these directions if found shall be

reported to the Sub Divisional Magistrate or Officer of the Kerala State Pollution Control Board in their respective jurisdictions. Any article manufactured, sold, transported, stored or used by any person, company, entity or industry if found in violation of these directions shall be seized forthwith and will be handed over to the Sub- Divisional Magistrates/Officer of the Kerala State Pollution Control Board, of the respective jurisdiction for taking appropriate action.

7. The Secretaries of all Local Self Government Institutions, Sub Divisional Magistrates and the authorized officers under Kerala State Pollution Control Board shall impose Rs. 10,000/- as fine to any manufacturer, shopkeeper, vendor, wholesaler, retailer, trader or any other persons who violates any of the provision of the above directions. If such person is found in violation of any of the above mentioned directions for the second time, it is a directed to impose a fine of Rs. 25,000. If the violation is found repeated by such person, the Secretaries of all the Local Self Government Institutions and the authorized officers under Kerala State Pollution Control Board are directed to impose a fine of Rs. 50,000/- and to issue closure order to such shop/manufacturer from carrying out any such activity thereafter in such premises.

8. Kerala State Beverages Corporation, KERAFED, MILMA, Kerala Water Authority are bound to comply with the principles of Extended Producers Responsibility with regard to the bottle and pouches sold through them which includes the payment towards taking the bottles and pouches back from the public.

9. MoEF vide notification dtd.08/04/2016 directed under Rule 11(i) of Solid Waste Management Rules 2016, that 5% of the plots in the industrial areas/parks should be set apart for waste recovery/recycling facility. This needs to be enforced in the State as well. For setting up such waste treatment plants, the land shall be provided at nominal cost.

10. Industrial units manufacturing biodegradable plastic bags shall be encouraged by Department of Industries in lieu of ban on the plastic bags.

11. Kerala State Pollution Control should take necessary steps to make the public aware of the Government Order.

(By order of the Governor)  
**Dr. ASHA THOMAS IAS**  
**ADDITIONAL CHIEF SECRETARY**

To

1. The Secretary, Ministry of Environment and Climate Change, Govt of India
2. All the District Collectors
3. All the Department Heads
4. All Heads of Public Sector Units /Autonomous bodies
5. The Secretary to Governor, Raj Bhavan, Thiruvananthapuram
6. The Secretary, Legislative Assembly, Thiruvananthapuram
7. The Secretary, Kerala Public Service Commission
8. The Registrar, Kerala Administrative Tribunal (including covering letter)
9. The Registrar, Kerala High Court, Ernakulam
10. The Registrar, Kerala Lokayuktha, Thiruvananthapuram
11. The Member Secretary, State Planning Board, Pattom, Thiruvananthapuram
12. The Secretary, State Information Commission, Thiruvananthapuram
13. The Registrar, Kerala/Calicut/CUSAT/Kannur/Mahatma Gandhi Universities
14. The Registrar, Kerala Agriculture University, Mannuthy, Thrissur
15. The Registrar, Sree Sankaracharya Sanskrit University, Kalady P.O, Ernakulam
16. The Registrar, Kerala University of Health and Allied Science, Thrissur – 680596
17. The Registrar, Kerala Veterinary & Animal Husbandry Science University, Pookode, Wayanad
18. The Registrar, Kerala University of Fisheries and Ocean Studies, Panangad, Kochi
19. The Member Secretary, Central Pollution Control Board
20. The Member Secretary, State Pollution Control Board
21. The Managing Director, Clean Kerala Company
22. Executive Director, Suchitwa Mission
23. CIPET (Institute of Plastic Technology), Kochi
24. Kerala Plastic Manufacturers Association
25. All Depts in Government Secretariat (to give direction to all institutions under their control)
26. General Administration (SC) Department
27. Stock File/Office Copy (Envvt.B2/198/2018-Envvt)

Copy to:-

1. Private Secretary to Chief Minister
2. Private Secretary to Chief Secretary
3. PA to Principal Secretary

Forwarded/By Order

Section Officer





## GOVERNMENT OF KERALA

Abstract

Environment Department- Ban of the use of Compostable carry bags-Alternative materials that can be used as a substitute for the banned single use plastic items -- Orders issued

ENVIRONMENT(B) DEPARTMENT

G.O.(Ms)No.2/2020/ENVT Dated,Thiruvananthapuram, 27/01/2020

Read 1 Press release dt 6.1.2020 of the Director, Department of Environment & Climate change

2 G.O(MS) No 7/2019/Env dt 17.12.2019

3 G.O (MS) No.6/2019/Env dt 27.11.2019

ORDER

Vide orders read as 2., 3. above, Govt have imposed a ban on the manufacture, storage, transport and sale of single use plastic items in the State of Kerala w.e.f 1.1.2020 and anyone found to be violating the Government Order will be fined up to Rs 50000/- and cancellation of license.

After the issuance of the above Orders, State Government received numerous representations about the use of carry bags and requesting to provide/list out alternative materials that can be used as a substitute for the banned single use plastic items. State Government had in GO cited 3. above, ordered that compostable materials having the specified standard can be used as a substitute for the banned plastic items. However it is noticed that fake compostable products resembling the original in texture and tint, and difficult to distinguish at first look, are flooding the markets negating the impact of the plastic ban and defeating the very intention of Government of ridding the State and water bodies of single use plastic.

State Government have examined the whole matter in detail. Cloth and paper carry bags had been used till recently in the State to buy goods and groceries. These serve as reasonable substitutes for the banned plastic carry bags. A number of micro and small scale units have now started production and supply of such plastic free carry bags. The public response to the ban has been overwhelming and they have started carrying their own bags to the market. Government therefore issued clarification vide reference 1. cited.

Government hereby issue the order further clarifying the banned items. It is recommended to use the following alternative non-plastic /eco-friendly materials as a substitute for the banned single use plastic items.

A	Both Branded and Non-branded compostable alternatives/substitutes are banned for the following items	Recommended non-plastic substitutes
	<ol style="list-style-type: none"> <li>1. Carry bags irrespective of thickness, made of plastic</li> <li>2. Sheets made of plastic, for single-use spread on tables in function venues, spread on plates while serving food.</li> <li>3. Plates, cups and decorative materials made of styrofoam or Thermocol</li> <li>4. Single-use utensils like cups, plates, dishes, spoons, forks, straw, stirrer, made of plastic</li> <li>5. Non-woven bags, plastic flags, plastic bunting</li> <li>6. Plastic packets for packing fruits and vegetables</li> <li>7. Plastic drinking water pouches</li> <li>8. PET/PETE drinking water bottles less than 500 ml</li> </ol>	<p>Cloth, paper bags</p> <p>Paper spread</p> <p>Glass, ceramic, steel, cups, plates, paper and plant-based decorations</p> <p>Glass, ceramic, steel, wooden cups, plates, dishes, spoons, forks, straw, stirrer</p> <p>Cloth and paper bags, flags and bunting</p> <p>Paper and cloth bags</p> <p>Banned, no substitute</p>
B	Banned items for which compostable substitutes can be used	Recommended Compostable substitute

<p>1. Plastic-coated paper cups, plastic-coated paper plates, plastic-coated paper bowls, plastic-coated paper bags</p> <p>2. Garbage Bags, including for hospital use, made of plastic</p>	<p>Paper cups with PLA-coating, certified by CPCB and IS: 17088 compliant.</p> <p>Compostable plastic garbage bags, certified by CPCB and IS: 17088 compliant</p>
---	---

Compostable materials should also adhere to the following guidelines -

1. The compostable plastic products shall have approval from Central Pollution Control Board (CPCB) and the certificate issued by CPCB shall be valid at the time of manufacture/sale/stocking/marketing of the product/s.
2. The compostable plastic materials shall bear details of the company that manufacture, agency that market, the material specification, date of manufacture, batch number, CPCB approval details with license number and validity etc, in the form of QR code.
3. The product shall bear the title 'this is a purely compostable plastic product' written in both English and Malayalam.
4. The product shall dissolve in Dichloromethane (Methylene dichloride) and this shall be indicated in the packaging bag/cover/sheet material, as a preliminary test for identification. This shall be printed on the product as 'This product dissolve in

Dichloromethane (Methylene dichloride).

(By order of the Governor)  
DR. USHA TITUS  
PRINCIPAL SECRETARY

To:

1. The Secretary, Ministry of Environment and Climate Change, Govt of India
2. All the District Collectors
3. All the Department Heads
4. All Heads of Public Sector Units /Autonomous bodies
5. The Secretary to Governor, Raj Bhavan, Thiruvananthapuram
6. The Secretary, Legislative Assembly, Thiruvananthapuram
7. The Secretary, Kerala Public Service Commission
8. The Registrar, Kerala Administrative Tribunal (including covering letter)
9. The Registrar, Kerala High Court, Ernakulam
10. The Registrar, Kerala Lokayuktha, Thiruvananthapuram
11. The Member Secretary, State Planning Board, Pattom, Thiruvananthapuram
12. The Secretary, State Information Commission, Thiruvananthapuram
13. The Registrar, Kerala/Calicut/CUSAT/Kannur/Mahatma Gandhi Universities
14. The Registrar, Kerala Agriculture University, Mannuthy, Thrissur
15. The Registrar, Sree Sankaracharya Sanskrit University, Kalady P.O, Ernakulam
16. The Registrar, Kerala University of Health and Allied Science, Thrissur – 680596
17. The Registrar, Kerala Veterinary & Animal Husbandry Science University.

Pookode, Wayanad

18. The Registrar, Kerala University of Fisheries and Ocean Studies, Panangad, Kochi
19. The Member Secretary, Central Pollution Control Board
20. The Member Secretary, State Pollution Control Board
21. The Managing Director, Clean Kerala Company
22. Executive Director, Suchitwa Mission
23. CIPET (Institute of Plastic Technology), Kochi
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25. All Depts in Government Secretariat (to give direction to all institutions under their control)
26. General Administration (SC) Department
27. Stock File/Office Copy (Envt.B2/198/2018-Envt)

Copy to:-

1. Private Secretary to Chief Minister
2. Private Secretary to Chief Secretary
3. PA to Principal Secretary

Forwarded /By order

Section Officer



File No.ENVT-B2/29/2020-ENVT



## GOVERNMENT OF KERALA

Abstract

Environment Department- Ban on single use plastic items in the State w.e.f 1.1.2020 -further clarifications-Orders issued

ENVIRONMENT(B) DEPARTMENT

G.O.(Ms)No.4/2020/ENVT Dated,Thiruvananthapuram, 16/02/2020

- Read 1. G.O(MS) NO 111/2019/LSGD dt 29.8.2019  
 2. G.O(MS) No 6/2019/Emvt dt 27.11.2019  
 3. G.O(MS) No 7/2019/Emvt dt 17.12.2019  
 4. G.O(RT) 128/2019/Emvt dt 31.12.2019  
 5. G.O(RT) No.6/2020/Emvt dt 17.1.2020  
 6. G.O(RT) 9/2020/Emvt dt 23.1.2020  
 7. G.O(MS) NO. 2/2020/Emvt dt 27.01.2020

ORDER

1. State Government had imposed a blanket ban on sale, manufacture, transport and storage of single use plastic items in the State w.e.f. 1.1.2020 vide G.O read as 2nd paper above. It was also ordered that compostable/bio-degradable materials having specification as stipulated in the Plastic Waste Management Rules 2016 could be used as a replacement/substitute for the banned single use plastic. KSPCB was authorized vide GO read as 4th paper above to do tests and verify the degradability of the compostable product and submit recommendations to Government.

2. It is now noticed that large quantities of fake compostable carry bags are entering the market circumventing the plastic ban. The public and shop owners are generally unable to distinguish them, defeating the very intention of Government to get rid of plastic from the State. In the above context, State Government vide G.O read as 7th paper above have issued further clarification listing out the alternative materials that could be used as substitutes for banned single use plastic items. Accordingly carry bags whether made of compostable materials or other materials were banned and instead only cloth or paper bags are allowed to be used as carry bags.

3. In the case of hoardings, Government have already issued detailed order vide G.O read as 1st paper above banning the use of Flex/PVC materials and replacing them with Cloth or Poly Ethylene materials only. It was clearly mentioned in the order that plastic coated cloth cannot be used. But plastic coated cloth like polyester/nylon/korean cloth continue to be used for hoardings which cannot be allowed.

4. Meanwhile Government have been receiving numerous representations from various quarters seeking clarifications/suggestions/recommendations on the banned items. In

order to consider the various issues raised in these representations and to review the general situation after the plastic ban, a Task Force was constituted vide G.O read as 5th and 6th paper above. The Task force met on 28.1.2020 and 4.2.2020 and considered all the issues that were raised after the plastic ban.

5. Based on the decisions taken by the Task Force, Government hereby reiterate and issue further clarification/order as follows:

i) There is a complete ban on carry bags even those made of compostable materials in the State and only cloth and paper bags free from plastic coating should be used as carry bags.

ii) Plastic/plastic coated leaves used as plates are banned from the date of this order

iii) All product attached straws and other such items that are part of branded product packaging are exempted from the ban and they come under the purview of EPR.

iv) Plastic sapling bags are banned. It should be substituted with non plastic materials. For Grow bags, compostable materials can be used.

v) Garbage bags made of Compostable materials alone should be used for collecting/segregating biomedical waste.

vi) In the wake of fake compostable products entering the market, random checks shall be done on such products (products that are allowed to use compostable materials as per G.O(MS)No.2/2020/Envt dt 27.01.2020) and the authenticity/biodegradability of the products shall be tested in the labs of NIIST, IIST and KSPCB authorized labs.

vii) Compostable products should bear the details of the company that manufacture it the agency that market it, the material specification, date of manufacture, batch no, CPCB approval details with license no. and validity etc in the form of QR code. The product shall bear the title 'this is a purely compostable product' written in English and Malayalam. The product should dissolve in Dichloromethane (Methylene dichloride) and this shall be indicated in the packaging as a preliminary test for identification.

viii) With regard to the hoardings and usage of alternative materials in place of banned Flex/PVC hoardings the following guidelines are issued

1. The use of plastic coated cloth material for hoarding is strictly banned and only cloth (plastic free), paper (plastic free) and Poly Ethylene material should be used for hoardings as a substitute of flex/pvc hoardings. While printing, it should carry the logos 'recyclable, pvc free' expiry date, name of the printing unit and printing no. The details of the consumer must be registered in the shop. For banners carrying programme details, they shall be deemed to expire after the programme date and those banners/hoardings having no expiry date are deemed to expire after 30 days and will have to be removed by the installing agency.

2. All the printing units in the State should publicize that only compostable materials will be used for printing purpose and this must be exhibited.



14. The Registrar, Kerala Agriculture University, Mannuthy, Thrissur
15. The Registrar, Sree Sankaracharya Sanskrit University, Kalady P.O, Ernakulam
16. The Registrar, Kerala University of Health and Allied Science, Thrissur – 680596
17. The Registrar, Kerala Veterinary & Animal Husbandry Science University, Pookode, Wayanad
18. The Registrar, Kerala University of Fisheries and Ocean Studies, Panangad, Kochi
19. The Member Secretary, Central Pollution Control Board
20. The Member Secretary, State Pollution Control Board
21. The Managing Director, Clean Kerala Company
22. Executive Director, Suchitwa Mission
23. CIPET (Institute of Plastic Technology), Kochi
24. Kerala Plastic Manufacturers Association
25. All Depts in Government Secretariat (to give direction to all institutions under their control)
26. General Administration (SC) Department
27. Stock File/Office Copy (Envf.B2/198/2018-Envf)

Copy to:-

1. Private Secretary to Chief Minister
2. Private Secretary to Chief Secretary
3. .PA to Principal Secretary

Forwarded /By order

  
Section Officer

3. Those found to be violating the Government order will be liable to pay fine as specified in the G.O read as 1st and 2nd above, eventually leading to cancellation of license

(By order of the Governor)  
DR. USHA TITUS  
PRINCIPAL SECRETARY

To:

1. The Secretary, Ministry of Environment and Climate Change, Govt of India
2. All the District Collectors
3. All the Department Heads
4. All Heads of Public Sector Units /Autonomous bodies
5. The Secretary to Governor, Raj Bhavan, Thiruvananthapuram
6. The Secretary, Legislative Assembly, Thiruvananthapuram
7. The Secretary, Kerala Public Service Commission
8. The Registrar, Kerala Administrative Tribunal (including covering letter)
9. The Registrar, Kerala High Court, Ernakulam
10. The Registrar, Kerala Lokayuktha, Thiruvananthapuram
11. The Member Secretary, State Planning Board, Pattom, Thiruvananthapuram
12. The Secretary, State Information Commission, Thiruvananthapuram
13. The Registrar, Kerala/Calicut/CUSAT/Kannur/Mahatma Gandhi Universities

1/3 4



**GOVERNMENT OF KERALA**

**Abstract**

Environment Department - Ban on single use plastic(disposable plastics)in the State of Kerala w.e.f 01/01/2020 issued vide G.O.(Ms)7/2019-Envt ,dated 17/12/2019 -Modification -order issued \*

**ENVIRONMENT B DEPARTMENT**

**G.O.(Ms)No.2/2021/ENVT Dated,Thiruvananthapuram, 28/02/2021**

Read 1 G.O.(Ms) 6/2019-Envt dated 27/11/2019

2 G.O.(Ms) 7/2019-Envt dated 17/12/2019

**ORDER**

As per para 11 of the Government Order read as 2nd paper above branded items/products are excluded from the ambit of the blanket ban on single use plastic in the state.This is further clarified that these products will not include those items banned as per para 8 of the Government Order read as 2nd paper above. The Government Order read as 2nd paper above stands modified to the above extend only.

(By order of the Governor)  
**SHEEBA B**  
**JOINT SECRETARY**

To:

1. The Secretary, Ministry of Environment and Climate Change, Govt of India

2. All the District Collectors

3. All the Department Heads

4. All Heads of Public Control Units (Autonomous bodies)

✓ All Heads of Public Sector Units / Autonomous bodies

5. The Secretary to Governor, Raj Bhavan, Thiruvananthapuram
6. The Secretary, Legislative Assembly, Thiruvananthapuram
7. The Secretary, Kerala Public Service Commission
8. The Registrar, Kerala Administrative Tribunal (including covering letter)
9. The Registrar, Kerala High Court, Ernakulam
10. The Registrar, Kerala Lokayuktha, Thiruvananthapuram
11. The Member Secretary, State Planning Board, Pattom, Thiruvananthapuram
12. The Secretary, State Information Commission, Thiruvananthapuram
- ✓ 13. The Registrar, Kerala-Calicut/CUSAT/Kannur/Mahatma Gandhi Universities
14. The Registrar, Kerala Agriculture University, Mannuthy, Thrissur
15. The Registrar, Sree Sankaracharya Sanskrit University, Kalady P.O., Ernakulam
16. The Registrar, Kerala University of Health and Allied Science, Thrissur - 680596
17. The Registrar, Kerala Veterinary & Animal Husbandry Science University, Pookode, Wayanad
18. The Registrar, Kerala University of Fisheries and Ocean Studies, Panangad, Kochi
19. The Member Secretary, Central Pollution Control Board
20. The Member Secretary, State Pollution Control Board
21. The Managing Director, Clean Kerala Company
22. Executive Director, Suchitwa Mission
23. CIPET (Institute of Plastic Technology), Kochi
24. Kerala Plastic Manufacturers Association
25. All Depts in Government Secretariat (to give direction to all institutions under their control)

26. General Administration (SC) Department

27. Stock File/Office Copy (Envt.B2/198/2018-Envt)

Copy to:-

1. Private Secretary to Chief Minister
2. Private Secretary to Chief Secretary
3. PA to Principal Secretary

Forwarded /By order

  
Section Officer





**GOVERNMENT OF KERALA**

**Abstract**

Environment Department –Implementation of provisions in Plastic Waste Management Rules 2016- Task Force Reconstituted- orders issued.

**Environment (B) Department**

**G.O.(Rt)No.37/2021/ENVT Dated,Thiruvananthapuram, 04/05/2021**

Read 1

GO(Rt) No. 6/2020/Envvt dated 17.01.2020.

2

DO letter No. 17/06/2021/HSMD dated 25/03/2021 from the Secretary, Government of

India, MoEF&CC.

**ORDER**

As per Government order read as first paper above a Task Force under the Chairmanship of Principal Secretary, Environment Department was constituted for addressing issues related to the implementation of the blanket ban on single use plastics in the state.

2.As per the D.O letter read above, the State Government has been directed to constitute a special Task Force under the Chairmanship of the Chief Secretary for taking measures to eliminate single use plastic in a mission mode.

3.Government have examined the matter in detail and are pleased to reconstitute the Task Force as detailed below, for the effective

implementation of the provisions in the Plastic Waste Management Rules 2016.

1. Chief Secretary - Chairman
2. Additional Chief Secretary - Member  
(Environment Department)
3. Principal Secretary, (Industries Dept) - Member
4. Director (Urban Affairs Directorate) - Member
5. Director, Directorate of Environment & Climate Change-Member
6. Chairman, Kerala State Pollution Control Board - Member

4.The Task Force shall prepare a Comprehensive Action Plan with focus on implementation of provisions of Plastic Waste Management Rules, 2016, and building strong public movements around this issue with wider public participation with in a period of one month..

(By order of the Governor)  
**SHARMILA C**  
**JOINT SECRETARY**

To:

The Chief Secretary

The Additional Chief Secretary, Environment Department



The Principal Secretary, Industries Department

The Director, Directorate of Urban Affairs

The Chairman, Kerala State Pollution Control Board

The Director, Directorate of Environment & Climate Change

The Principal Accountant General (A&E/Audit), Kerala, Trivandurm.

Web & New Media Department (for uploading in the portal)

Stock file/Office Copy

Forwarded /By order

Section Officer





016

**KERALA STATE POLLUTION CONTROL BOARD**  
**കേരള സംസ്ഥാന മലിനീകരണ നിയന്ത്രണ ബോർഡ്**  
**കോഴിക്കോട് ജില്ലാ ഓഫീസ്**  
**DISTRICT OFFICE, KOZHIKODE**  
**3<sup>rd</sup> FLOOR, ZAMORIN'S SQUARE, LINK ROAD, KOZHIKODE - 673 002**  
**Telefax: 2300745, 46, 47**  
**www.keralapcb.org**

PCB/KKD/DO/TECH-GEN/1039/2019

Date : 07.10.20

From  
 The Environmental Engineer

To  
 The Member Secretary  
 Head Office  
 Thiruvananthapuram

12/10/20  
 RECEIVED

Sub:- Details of unregistered plastic manufacturing units-- reg

Ref:- Email from [rulespcb@gmail.com](mailto:rulespcb@gmail.com) dated 29.09.2020

Madam,

As per the reference cited above, the details of unregistered plastic manufacturing units in Kozhikode district is attached herewith. Direction has been issued on 8/10/2020 to all unregistered plastic units to apply and obtain Boards consent to operate at the earliest. Copy enclosed. This is for favour of your kind information and further necessary action.

Yours faithfully

**SHABNA KUSHE SHEKHAR**  
 Environmental Engineer

Digitally signed by SHABNA KUSHE  
 Date: 2020.10.07 17:53:30  
 +05'30'

Copy to:-  
 The Chief Environmental Engineer  
 Regional office, Kozhikode

## LIST OF UNREGISTERED PLASTIC UNITS IN KOZHIKODE DISTRICT

Sl no	Name of the unit	Address	Activity
1	AATHMA GROUP	KAIRALI ROAD BALUSSERY-673612 15/42, CHENNAMANGALAM, CHORODE, VATAKARA- 673106	Manufacture of metallised yarn or gimped yarn; rubber thread or cord covered with textile material; Textile yarn or strip, impregnated, covered or sheathed with rubber or plastics
2	ARJUN PIPES		Manufacture of other plastic products
3	Aspirnova Techno Plast	KP 10/239A1, Near MIE Kunnamanglam-673571	Manufacture of footwear (excluding repair) except of vulcalized or moulded rubber or plastic. This class includes manufacture of leather shoes, leather sandals and chappals, leather-cum-rubber/plastic cloth sandals and chappals made by and or by any proce
4	C P UPPER STITCHING WORK	KINALUR, BALUSSERY KOZHIKODE-673612	Manufacture of footwear made primarily of vulcalized or moulded rubber and plastic. This class includes manufacture of rubber footwear, plastic & PVC, canvas-cum-rubber/plastic footwear etc. including spurs footwear.
5	CUBIX MOON LIGHT FOOTCARE	IGC, KINALUR, BALUSSERY, KOZHIKODE-673612	Manufacture of footwear (excluding repair) except of vulcalized or moulded rubber or plastic. This class includes manufacture of leather shoes, leather sandals and chappals, leather-cum-rubber/plastic cloth sandals and chappals made by and or by any proce
6	DOHA INTERIORS	PEROD	Manufacture of metallised yarn or gimped yarn; rubber thread or cord covered with textile material; Textile yarn or strip, impregnated, covered or sheathed with rubber or plastics
7	G.M TYRE RETREADINGS MARUTHANKARA ROAD KUTTIADI	Maruthomkara road kuttiadi 673508	Manufacture of machines for extruding, drawing, texturing, manufacturing or cutting man-made textile fibres, materials or yarns and machinery for working rubber or plastics or for the manufacture of products of these materials.

8	GRAMA JYOTHI	POOVAMBAL, KINALUR-673612	Manufacture of footwear made primarily of vulcalized or moulded rubber and plastic. This class includes manufacture of rubber footwear, plastic & PVC, canvas-cum-rubber/plastic footwear etc. including sports footwear.
9	GRAND POLY PET	PULIKKAL THAZHAM, PERUMANNA.P.O. KOZHIIKODE-673019	Manufacture of packing products of plastics (except household)
10	Hywalk Foot Care	Industrial Development Plot Westhill Kozhikode-673005	Manufacture of footwear (excluding repair) except of vulcalized or moulded rubber or plastic. This class includes manufacture of leather shoes, leather sandals and chappals, leather-cum-rubber/plastic cloth sandals and chappals made by and or by any proce
11	JAYAM UPPER STITCHING UNIT	RAROTH MUKKU, KINALUR, BALUSSERY-673612	Manufacture of footwear made primarily of vulcalized or moulded rubber and plastic. This class includes manufacture of rubber footwear, plastic & PVC, canvas-cum-rubber/plastic footwear etc. including sports footwear.
12	K H MOULDS	K H MOULDS, NEAR KARGIL BUS STOP, VAKAYAD ROAD, NADUVANNUR P.O, KOZHIIKODE-673614	Manufacture of moulding boxes for metal foundry mould bases moulding patterns, mould for metals (other than ingot moulds) metal carbides, glass, mineral materials, rubber or plastics other parts special purpose machinery, not elsewhere classified.
13	KK Foot Wear	Kallittanada, Govindapuram, Kozhikode-673016	Manufacture of footwear (excluding repair) except of vulcalized or moulded rubber or plastic. This class includes manufacture of leather shoes, leather sandals and chappals, leather-cum-rubber/plastic cloth sandals and chappals made by and or by any proce
14	LEADER RUBBER PRODUCTS	WEST HILL PO KATCHERY KOZHIIKODE 673005	Manufacture of footwear (excluding repair) except of vulcalized or moulded rubber or plastic. This class includes manufacture of leather shoes, leather sandals and chappals, leather-cum-rubber/plastic cloth sandals and chappals made by and or by any proce
15	Minaco Pipes	Mie, Poovattuparamba, Peruvayal, Kozhikode-673008	Manufacture of other plastics in primary forms (including mixtures of synthetic rubber and natural rubber or rubber like gum e.g. balata, in primary forms)

NAVAJOTHI 2 FOOTWEAR UPPER 16 STITCHING UNIT	KINALUR, BALUSSERY- 673612	Manufacture of footwear made primarily of vulcalized or moulded rubber and plastic. This class includes manufacture of rubber footwear, plastic & PVC, canvas-cum-rubber/plastic footwear etc. including sports footwear.
NAVAJYOTHI 3 UPPER 17 STITCHING UNIT	KINALUR, BALUSSERY- 673612	Manufacture of footwear made primarily of vulcalized or moulded rubber and plastic. This class includes manufacture of rubber footwear, plastic & PVC, canvas-cum-rubber/plastic footwear etc. including sports footwear.
18 NCK FOOTWEAR	PLOT NO.15, IGC KSIDC, KINALUR-673612	Manufacture of footwear made primarily of vulcalized or moulded rubber and plastic. This class includes manufacture of rubber footwear, plastic & PVC, canvas-cum-rubber/plastic footwear etc. including sports footwear.
19 PLEASURE INTERNATIONAL	PLOT NO.41, KSIDC, IGC- 673612	Manufacture of footwear made primarily of vulcalized or moulded rubber and plastic. This class includes manufacture of rubber footwear, plastic & PVC, canvas-cum-rubber/plastic footwear etc. including sports footwear.
20 PRINTO CARDS AND TECHNOLOGIES	5/3421-C19,3RD FLOOR,DARUSSALAM COMPLEX,MAVOOR ROAD,CALICUT,KERALA- 673004	IDENTITY CARD, PLASTIC CARD MANUFACTURING, SOFTWARE DEVELOPMENT
21 PRS Industries	Kaniyamkandi Paramb, Eranihipalam, Kozhikode- 673006	Manufacture of footwear (excluding repair) except of vulcalized or moulded rubber or plastic. This class includes manufacture of leather shoes, leather sandals and chappals, leather-cum-rubber/plastic cloth sandals and chappals made by and or by any proce
22 PUTHALATH TYRES THOTTIL PALAM	Near petrol pump,pookkad road-673513	Manufacture of machines for extruding, drawing, texturing, manufacturing or cutting man-made textile fibres, materials or yarns and machinery for working rubber or plastics or for the manufacture of products of these materials.
23 RAGAM GARMENTS	14/4, NANMINDA P.O, KOZHIIKODE-673613	Manufacture of other plastic products

24	RAPTURE INDIA FOOT CARE COMPANY PVT LTD	MUNDUPALAM PERUMANNA KOZHIIKODE PIN: 673019	Manufacture of footwear (excluding repair) except of vulcalized or moulded rubber or plastic. This class includes manufacture of leather shoes, leather sandals and chappals, leather-cum-rubber/plastic cloth sandals and chappals made by and or by any proce
25	S N Foot wears	Iduvattil thazham, Perumanna-673019	Manufacture of footwear (excluding repair) except of vulcalized or moulded rubber or plastic. This class includes manufacture of leather shoes, leather sandals and chappals, leather-cum-rubber/plastic cloth sandals and chappals made by and or by any proce
26	SANTHOM STITCHING UNIT	KOORACHUNDU, KOZHIIKODE-673527	Manufacture of footwear made primarily of vulcalized or moulded rubber and plastic. This class includes manufacture of rubber footwear, plastic & PVC, canvas-cum-rubber/plastic footwear etc. including sports footwear.
27	SANTHOSH POLY PACKS	Kuttichira, South Beach Road, Koxhikode-673001	PLASTIC GUNNY BAG
28	Smartek footwear Pvt Ltd	Feroke, Chungam-673631	Manufacture of footwear made primarily of vulcalized or moulded rubber and plastic. This class includes manufacture of rubber footwear, plastic & PVC, canvas-cum-rubber/plastic footwear etc. including sports footwear.
29	SREENANDA AUTO BODY WORKS	AYANCHERI	Manufacture of bodies (including cabs) designed to be mounted on motor vehicle chassis, bodies for vehicles without chassis and unit construction bodies; bodies for passenger vehicles, lorries and special purpose vehicles; bodies of metal, wood, plastics or combination of these or other material
30	TK PACKING SOLUTIONS	Engapuzha, Oppo. Village Office-673586	Manufacture of other plastic products
31	TONY BAGS	POONOR UNNIKULAM KOZHIIKODE-673574	Manufacture of travel goods of plastics (suitcase, vanity bags, hoidalls similar articles)
32	TRINITY POLYMERS	Down hill, Road, Chevayur Kozhikode-673017	PLASTIC CARRY BAGS

33	Udayam Plastics	Vayanattu Padam, Kannanchery Kozhikode- 673003	Manufacture of other plastic products
34	VIJAYA BAG WORKS	MANAPPURAM, PO.ORKATTERI, VATAKARA	Manufacture of travel goods of plastics (suitcase, vanity bags, holdalls and similar articles)
35	VINAYAKA POLY PACK	MIE Chathamangalam, NIT, Kozhikode-673601	Manufacture of other plastics in primary forms (including mixtures of synthetic rubber and natural rubber or rubber like gum e.g. balata, in primary forms)
36	VISMAYA	EKAROOOL KOYILAMDY, KOZHICODE-673574	Manufacture of footwear made primarily of vulcalized or moulded rubber and plastic. This class includes manufacture of rubber footwear, plastic & PVC, canvas-cum-rubber/plastic footwear etc. including sports footwear.
37	VKC UPPERSTITCHING UNIT	SDF BUILDING, IGC KINALUR, KOZHICODE- 673612	Manufacture of footwear made primarily of vulcalized or moulded rubber and plastic. This class includes manufacture of rubber footwear, plastic & PVC, canvas-cum-rubber/plastic footwear etc. including sports footwear.
38	Al-Ahamed Waste Plastic Bottle Unit	Nallalam, Kozhikode 6/298D, Jayanthi Road, Nallalam, Kozhikode	Plastic Chips
39	Kariya Plastics	Kunnamangalam, Kozhikode	Grinded Plastics
40	Kerala Plastics	Moolath Paramba, Kalpathi, Mavoor	Plastic grinding scrap
41	Parammel Granules Industries		Plastic granules





☎: General: 0471- 2312910, 2318153, 2318154, 2318155 Chairman: 2318150 Member Secretary: 2318151  
E-mail: ms.kspcb@gov.in FAX: 0471- 2318134, 2318152 web: www.keralapcb.nic.in

**KERALA STATE POLLUTION CONTROL BOARD**  
**കേരള സംസ്ഥാന മലിനീകരണ നിയന്ത്രണ ബോർഡ്**

Pattom P.O., Thiruvananthapuram – 695 004

പട്ടം പി.ഒ., തിരുവനന്തപുരം - 695 004

PCB/HO/SEE2/Annual Report SWM/2020-21

Dated: 06/09/2021

From

The Member Secretary

To

The Member Secretary  
Central Pollution Control Board  
Parivesh Bhavan  
East Arjun Nagar  
New Delhi – 110032.

Sub: Annual report 2020-2021 on implementation of Solid Waste Management Rules, 2016-Reg

Ref: Solid Waste Management Rule 2016

Sir,

Annual Report for the year (2020-2021) as per the provision of 24 (3) of the Solid Waste Management Rules, 2016 is submitted herewith.

Yours faithfully

  
**MEMBER SECRETARY**

Encl: As above.

Copy to:

1. Regional Director, CPCB, Bangalore
2. All ROs and Dos
3. IT Cell
4. CA to Chairman
5. CA to Member Secretary

**Form V**  
**[See rule 24(3)]**

**Format of annual report to be submitted by the State Pollution Control Board or  
Pollution Control Committee to the Central Pollution Control Board**

**PART A**

To,

The Chairman  
Central Pollution Control Board  
Parivesh Bhawan, East Arjun Nagar  
DELHI- 110 0032

**ANNUAL REPORT '2020 – 2021'**

1)	Name of the State/Union territory	<b>Kerala</b>
2)	Name & address of the State Pollution Control	<b>Kerala State Pollution Control Board Plamoodu, Pattom P.O., Thiruvananthapuram, Kerala - 695004</b>
3)	Number of local bodies responsible for management of solid waste in the State/Union territory under these rules	<b>93 (6 corporation; 87 Municipality)</b>
4)	No. of authorization application Received	30
5)	A Summary Statement on progress made by local body in respect of solid waste management	Attached as <b>Annexure I.</b>
6)	A Summary Statement on progress made by local bodies in respect of waste collection, segregation, transportation and disposal	Attached as <b>Annexure II for Urban Local Bodies Annexure II A for Rural Local Bodies</b>
7)	A summary statement on progress made by local bodies in respect of implementation of Schedule II	Attached as <b>Annexure III</b>
8)	Date: 03/09/2021  Place:Thiruvananthapuram	Chairman or Member Secretary State Pollution Control Board/ Pollution Control Committee

**PART B**

**Towns/cities**

Total number of Town's/ Cities: **6 Corporations & 87 Municipalities**

Total number of ULBs: **93**

Number of class I & class II cities/towns: **Class I- 16; Class II- 23**

Authorization status (names/number)

Number of applications received: **30**

Number of authorizations granted: **21**

Authorizations under scrutiny: **9**

**SOLID WASTE Generation status**

Solid waste generation in the state (TPD): **3543 TPD**

Collected: **964.76 TPD**

Treated: **2550 TPD**

Land filled:

**Compliance to Schedule I of SW Rules (Number/names of towns/capacity)**

Good practices in cities/towns: Windrow composting, Vermi composting, aerobin, biogas plants, kitchen bins, bio composter, Biobins, pipe compost, ring compost, compost pits, Material Collection facilities, Resource. Material collection and recovery facilities are provided. (Details attached as **Annexure I for Urban Local Bodies**).

House-to-house collection:

Segregation:

Storage

Covered transportation

**Processing of SW (Number/names of towns/capacity)**

**Solid Waste processing facilities setup:**

Sl.No.	Composting	Vermi-composting	Biogas	RDF/Pelletization
1	Centralised windrow composting plants - 2(Large); 12(Small)	Community level-7	Community level-287, Household level- 21,550	Nil
2	Community level- 869 (aerobin, Biobins)			
3	Household level- 411,009			

**Processing facility operational**

Sl.No.	Composting	Vermi-composting	Biogas	RDF/Pelletization
1	Centralised windrow composting plants - 2(Large); 12(Small)	Community level-7	Community level-287, Household level- 21,550	Nil
2	Community level- 869 (aerobin, Biobins)			
3	Household level- 411,009			

**Processing facility under installation/planned:**

Sl.No.	Composting	Vermi-composting	Biogas	RDF/Pelletisation
1	Being Planned/installation for decentralized units		Being planned/installation for decentralized units	

**Waste-to-Energy Plants: (Number/names of towns/capacity)**

Sl.No.	Plant Location	Status of operation	Power Generation (MW)	Remarks
1	Thiruvananthapuram	Land not Identified		
2	Kollam	Work awarded		
3	Kochi	Retendering completed		
4	Munnar	Tendering		
5	Thrissur	Land identified		
6	Palakkad	Work awarded		DPR stage
7	Malappuram	Land identified		
8	Kozhikode	Work awarded – Construction to be started Clearance obtained. Power Purchase agreement will be executed		Construction to be started by August Biomining is being done
9	Sulthan Bathery	Work dropped		
10	Kannur	Work awarded		DPR stage

**Disposal of solid waste (number/names of towns/capacity):**

Landfill sites identified: **1** (One at the regional level at Ernakulum)

Landfill constructed: Nil

Landfill under construction: 1

Landfill in operation: Nil

Landfill exhausted: Nil

Land filled capped: Nil

**Solid Waste Dumpsites (number/names of towns/capacity): (list enclosed) Annexure: IA**

Total number of existing dumpsites: **41**

Dumpsites reclaimed/capped: Nil

Dumpsites converted to sanitary landfill: Nil

**Monitoring at Waste processing/Landfills sites**

Sl.No.	Name of facilities	Ambient air	Groundwater	Leachate quality	Compost quality	VOCs
1.	Windrow composting plant, Kozhikode		Analysis Report attached as Annexure III	Analysis Report attached as Annexure III		
2.	Windrow Composting Plant, Brahmapuram		Analysis Report attached as Annexure III	Analysis Report attached as Annexure III		

**Status of Action Plan prepared by Municipalities**

Total number of Corporations/municipalities: **97**

Number of Action Plan submitted: Being submitted

## ANNEXURE I

### SUMMARY STATEMENT ON PROGRESS MADE BY LOCALBODY IN RESPECT OF SOLID WASTE MANAGEMENT

The Government of Kerala has taken efforts to implement the Solid Waste Management Rules, 2016 in the State. There are 6 Corporations, 87 Municipalities and 941 GPs in the State. The Kerala State Pollution Control Board (KSPCB) issued repeated directions to all local bodies to ensure compliance of the Solid Waste Management Rules, 2016. 3543 TPD of solid waste is generated from the cities and towns. The status of the present facilities is given below:

FACILITY	TYPE OF PLANT	NUMBER	DETAILS
Centralised plant	Windrow composting plants (large)	2	1. Ernakulam 2. Kozhikode (100TPD)
	Windrow composting plant (Small)	12	1. Attingal (13TPD) 2. North Paravur (3TPD) 3. Chalakkudy (2 TPD) 4. Kodungallur (4 TPD) 5. Kothamangalam 6. Kunnankulam 7. Guruvayoor (2 TPD) 8. Chittur -Thathamangalam (4 TPD) 9. Ottappalam (5 TPD) 10. Palakkad (4 TPD) 11. Thaliparambun 12. Payyannur
Community Level	Vermi composting plants (Small)	7	1. Attingal (0.25TPD) 2. Thodupuzha 3. North Paravur (1 TPD) 4. Chavakkad (1.5 TPD) 5. Manjeri (0.5TPD) 6. Koothuparambu 7. Mattannur (5 TPD)
	Aerobins	406	
	Biogas plants	287	
	Bobbins in flats	500+	1. Thiruvananthapuram, 2. Ernakulam, 3. Trissur
	Material Collection Facility	685	
	Resource recovery facility	77	
House hold Level	Pipe compost	1,31,559	Total- 4,32,559
	Kitchen bin	79,146	
	Biogas plant	21,550	
	Bio composter, Biobins, pot bin	1,09,441	
	Ring compost	40,036	
	Bucket compost	6,903	
	Compost pit	75,454	
Institutional level	Biogas plants, aerobins, biobins		
Rendering plant	Rendering plant	26 units	250 TPD
Steel mills	Scrap recycling	18 units	
Plastic recycling units	Plastic recycling units	187 units	200 TPD
Road tarring	Used for road construction by PWD and LSGD		10 TPD

The Government of Kerala constituted a State Level Advisory Committee on Waste Management chaired by the Chief Secretary; this Committee has conducted 36 meetings, till date, for monitoring solid waste management on monthly basis. The Government has accorded sanction for establishing Waste to Energy plants in 8 cities having 1 Lakh or more population and in two local bodies having population below 1 lakh. The progress is given below:

### STATUS OF SETTING UP OF WASTE to ENERGY PLANT

Sl. No.	Waste to Energy plant	Land Identified	Procured	Status	Work Initiated
1	Kozhikode Njaliyanparambu	Kozhikode corporation	(Govt. land)12.67 acre at Njaliyanparambu	1.1 Waste to Energy Plant  Work awarded to Zonta Infratech Private Limited for the construction of Waste to Energy Plant at Njaliyanparambu. A company namely M/s.Malabar Waste Management Limited was formed.The Concessionaire has informed that the Financial Closure for the project has been achieved – SBI has agreed for a debt funding of Rs 146 crores. Consent to establish was issued to the waste to Energy plant.	M/s Zonta Infratech Pvt Ltd started the work of clearing of legacy waste on 3rd March, 2020.  The clearing work of legacy waste resumed at the dumpsite on 4th May 2020 and 40% of legacy waste in Zone I has been removed.  The work is in progress at the site.

				<p>Clearing of ground for the plant is undergoing. Land development works are undergoing. Alternate road has been constructed on the periphery and vehicles started moving through alternate roads. The main road through the Centre for the site has now been closed. Request submitted to Social Forestry department for cutting trees in the site. Laying of water supply line to the site is nearing completion.</p> <p>M/s. MITCON Consultancy and Engineering Services has been appointed as the project management consultant for the development of the project with WtoE facility at Kozhikode</p>	
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2	Kannur Chelora	Kannur Corporation	(Govt. Land) 9.7 acres at Chelora	<p>Blue Planet Kannur Waste Solutions Private Limited was formed to take up the development of the project. Waste Characterisation study was conducted by SPCB</p> <p>SLAC directed MD, KSIDC &amp; Secretary, Kannur Municipal Corporation to take immediate steps to execute the Lease Agreement and Concession Agreement for the project.</p> <p>KSIDC has completed the tender process and the final offer along with details of the contractor, draft agreement to be executed with the Contractor and the technical proposal submitted by the Contractor has been</p>	<p>Agreement has been executed with M/s Zonta Infratech Pvt Ltd, the selected bidder on 21st October for carrying out the rehabilitation of MSW dumpsite at the site.</p> <p>Asked Secretary Kannur Municipal Corporation to take immediate steps with the Contractor to expedite the works for rehabilitation of MSW dumpsite at Chelora.</p>
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				<p>forwarded to Kannur Corporation on 07th August 2020 for further proceedings.</p> <p>KSIDC modified the Lease Deed addressing the Kannur Corporation's concern on alienation of 9.7 acres of land at Chelora. The modified lease deed was submitted to the Secretary Corporation for execution. Further a stake holder meeting was held to explain the project details to the councilors on 24th August 2020 and all concerns raised were discussed and explained. Despite all these steps, Kannur Corporation has not leased the land at Chelora to KSIDC and a council resolution authorizing the Secretary Kannur Corporation</p>	
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				<p>on to execute the concession agreement has not been passed. Concession agreement can be executed only on receiving land to KSIDC. The concessionaire has reported that the field studies including waste characterization and waste quantification studies, as part of DPR preparation will be commencing next week. Govt vide GO(Rt) No. 714/2020/LS GD dated 27-3-2020 issued direction to Kannur Municipal Corporation to hand over the 9.75 acres of the land identified at Chelora on lease basis to KSIDC for the development of Waste to Energy project and to execute</p>	
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				<p>MoU with KSIDC for clearing the existing legacy waste at dump site in Chelora.</p> <p>Detailed waste characterization of study of dumpsite at Chelora was done by the Pollution Control Board. SLAC directed the Board to submit final study</p>	
3.	Palakkad Kanjikode	Palakkad Municipality	<p>(Land taken over from Kerala State Electricity Board Ltd. in advance possession)</p> <p>15 acres at Kanjikode</p>	Blue Planet Palakkad Waste Solutions Private Limited was formed to take up the development of the project.	The Concession Agreement for the project has been executed and the Concessionaire has taken steps for preparing the DPR for the project. The Concessionaire has engaged M/s Dun & Bradstreet for preparing the DPR and that the study is in the final stages. As instructed by the Committee, modifications are incorporated in the DPR. Final DPR will be submitted by the end of February 2021.
4	Kollam Kureepuzha	Kollam Corporation	(Govt. land) 7.05 acres at kureepuzha	M/s Venad Waste Management Solutions Pvt Ltd has submitted the draft DPR for the Integrated	For biomining the site, the Corporation informed that draft agreement to be executed with M/s. Zonta Infratech Pvt Limited is vetted

				<p>Solid Waste Management project with a Wasteto Biogas facility of 200 TPD processing capacity.</p> <p>DPR was evaluated by the Committee and it has been modified and final DPR submitted to LSGD Concensionaire hastaken steps to submit applications to the concerned departments and agencies for statutory approvals and clearances.</p>	<p>by the Corporation's Standing Counsel and the same will be placed in the next Council meeting for approval.</p> <p>SLAC directed the Secretary Kollam Corporation to take necessary steps to ensure either the Contractor follow the tender conditions or cancel the present tender and go for re-tender immediately.</p> <p>Again the project has been retendered by the Corporation.</p>
5	Thiruvananthapuram Vizhinjam	Thiruvananthapuram Corporation	Land not identified	<p>KSIDC re tendered the project on Swiss Challenge mode on 27th May 2020 and 30th June was the last date for the submission of bids. The pre bid meeting as part of tender procedures was held on 08th June 2020. The last date for the submission of bids was 14th July 2020. KSIDC did not receive</p>	Tendering in advanced stage

				<p>any challenging bids for the project. KSIDC directed M/s Essential Sustainability Services Incorporated to submit details regarding the technical and financial capabilities of the Consortium members and in response received certain details from them which was then evaluated. The Bid Evaluation Committee is satisfied with the technical plan presented by the consortium, and resolved that the consortium led by M/s. Pan American Communication Services S.A. is technically qualified and recommended that the financial bid submitted by the Consortium be evaluated. Bid Evaluation Committee further</p>	
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				<p>resolved that the following details shall be Obtained from Consortium before the opening of the financial bid – Testimonials of technology use, operating videos of the waste plants under this technology, Undertaking from the technology partner, Consortium members consent, analysis reports of the exhaust gas and ash. The above details were sought from the consortium and the consortium in response submitted certain details.</p> <p>Directed State Pollution Control Board to evaluate the Technical proposal submitted by the Consortium for confirming</p>	
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				the uniqueness and authenticity of the proposed technology.	
6	Ernakulam Brahmapuram	Kochi corporation	(Govt. land) 20 acres at Brahmapuram	<p>KSIDC was authorized to take immediate steps to float an RFP for the selection of suitable concessionaire to setup Waste to Energy plant at Brahmapuram. The last date for submission of bids has been extended to 14th September 2020.</p> <p>Technical bids submitted by the Bidders needs to be evaluated by the Bid Evaluation Committee and the proposal has been submitted to Government to re constitute the Bid Evaluation Committee. It was reported by LSGD that steps have been taken to re constitute the Bid Evaluation Committee</p>	<p>KSIDC floated e-tender to identify a suitable agency for the rehabilitation of MSW dump site at Brahmapuram. KSIDC submitted a proposal to constitute a Technical Evaluation Committee for technical evaluation of the bids. Evaluation of technical bid is in process.</p> <p>LSGD issued directions to Kochi Corporation to examine the quantity of legacy waste assessed and rate quoted by the bidder in consultation with PCB within 30 days</p>



				<p>and order in this regard will be issued soon. Also expressed that a restriction can be brought in the tender conditions to prevent one particular company being awarded more than 3 WtE projects on PPP mode at a particular project development time, so as to ensure more competition and also easier financial closure.</p>	
7	Idukki Munnar	Idukki Municipality	2 acres of land at munnar	<p>Evaluated the technical bid submitted by the Consortium of M/s Al Bucheeri General Transport Est, Pathanamthitta, M/s Al Bucheeri Transporting Est UAE and M/s Organic Recycling Systems Pvt Ltd, Mumbai on 19th August 2020.</p> <p>The Committee observed</p>	<p>Biomining started at Munnar Panchyath. Macro particles like plastic, tyres, metal particles etc already finished with the help of JCB. Action for installing machinery for further process is going on for turning it into briquets for construction purpose</p>

				that the Consortium is meeting the technical and financial minimum eligibility criteria. The consortium made a detailed presentation of their technical plan before the Bid Evaluation Committee. SLAC after detailed discussion resolved to accord sanction to proceed with the Financial evaluation of the Bid	
8	Wayanad Sulthan Bathery	Wayanad Municipality	0.5 acres at Sulthan Bathery	Work dropped	
9	Thrissur	Thrissur corporation	Identified land at Ollookkara village	Thrissur Corporation identified land at Ollookkara village in Thrissur district.  Vide GO (Rt) No 111/2020 /LSGD dated 13/01/2020 State Government has accorded sanction to Thrissur Municipal Corporation to purchase the identified land at	Proposal submitted to Suchitwamission for sanction

				<p>Ollookkara Village in Thrissur district and to hand over the same on lease basis to KSIDC for the development of the project</p> <p>Secretary, Thrissur Municipal Corporation to report the status of price negotiation done with the owners of the land identified.</p>	
10	Malappuram	Malappuram municipality	8.09 acres of land at Kurumbathoor village in Tirur Taluk	KSIDC reported that Land Board has issued orders to District Administration Malappuram to handover 8.09 acres of land at Kurumbathoor village in Tirur Taluk to KSIDC .	KSIDC has submitted necessary application in prescribed format to District Administration. SLAC directed to expedite the process.

The progress achieved is as follows:

- Setting of Waste to energy plants at 10 locations is at various stages
- **Single use plastic products were banned** all over the State and action being taken for its strict implementation. Task force for the elimination of SUP Action Plan is being prepared by the Task Force.
- **Implementation of EPR registration under Solid Waste Management Rules, 2016** for the collection of EPR fee for meeting the expenditure of Door-to-door collection by the local bodies is in an advanced stage. Development of online portal is also under progress.

- For **Regional Sanitary Landfill**, land (25 acre) has been identified at site of FACT at Ambalamedu, Ernakulam and action is being taken for take over.
- **Biomining** started at Njalianparmbu dumpsite and work awarded at Kureepuzha Kollam. Tendering stage at Kottayam, Bhramapuum, Chelora. Out of the 41 dumpsites, drone survey to be done in 10 large dumpsite and total station survey in remaining dumpsites.

**Annexure - IA**  
**DUMPSITES IN KERALA AS ON MARCH 2021**

<b>Major Dumpsites locations</b>			
Sl. No:	Location	District	Status
1	Vilappilshala	Thiruvanthapuram	
2	Kureepuzha	Kollam	M/s. Zigma Global Environ Solution Pvt. Ltd. started biomining
3	KottayamVadavathoor	Kottayam	Tendering in progress forthe disposal of non biodegradable waste
4	Sarvodayapuram	Alappuzha	Action being taken.
5	Brahmapuram	Ernakulam	Bidder has been identified and action is being taken to award the work to successful bidder. Drone survey has been done to quantify the dumpsite.
6	Laloor	Thrissur	Some area is reclaimedand construction of stadium is progressing and remaining area is taken up for biominingwith Clean Kerala mission and KIEL. Proposal under consideration of Suchitwa Mission.

<b>Sl. No:</b>	<b>Location</b>	<b>District</b>	<b>Status</b>
7	BPL Koottupatha, Palakkad	Palakkad	Under Consideration
8	Njeliyamparambu, Calicut	Kozhikode	<p>M/s Zonta Infratech Pvt Ltd started the work of clearing of legacy waste on 3<sup>rd</sup> March, 2020.</p> <p>The clearing work of legacy waste resumed at the dumpsite on 4<sup>th</sup> May 2020 and approximately 15000 cum of legacy waste was cleared from the project site as on 12<sup>th</sup> May 2020. Some disruption due to Covid and Monsoon. Machineries have been installed and resumed clearing of dumpsites.</p>
9	Chelora	Kannur	Work awarded to Zonta Infratech Private Limited. Corporation directed contractor to expedite the work.
10	Thalassery	Kannur	-

Other Dumpsite locations			
Sl. No:	Location	District	Status
1	Attingal	Thiruvanthapuram	Tendering process
3	Palayam	Thiruvanthapuram	Clearing is in an advanced stage
4	Varkala	Thiruvanthapuram	Clearing going
5	Changanassery, Fathimapuram	Kottayam	Project worth 13.5 Lakh completed. 20 lakh project to be implemented soon. Project for bioremediation and under consideration in Suchitwa Mission.
6	Erattupetta- Thevarrupara	Kottayam	Planned a proposal with Suchitwa mission, Kerala. Project taken by DPC
7	Mundakkayam - Vettukallamkuzhy	Kottayam	-
9	Kattapana-Vandenmedu	Idukki	-
10	Thodupuzha	Idukki	-
11	Munnar	Idukki	Tendering in Progress
12	Kalamassery	Ernakulam	-
13	Kothamangalam	Ernakulam	-
14	Moovattupuzha	Ernakulam	-

<b>Sl. No:</b>	<b>Location</b>	<b>District</b>	<b>Status</b>
15	North Paravoor	Ernakulam	Central Financial grant 25 Lakhs to disposal of legacy waste.
16	Chavakkad	Thrissur	-
17	Chalakkudy	Thrissur	50 cents reclaimed
18	Irijalakuda-Kuthuparamba	Thrissur	Some area is reclaimed and construction of windrow compost plant is going on.
19	Kunnamkulam		One acre reclaimed
20	Kumblagad, Wadakkancherry	Thrissur	Biomining project for this site is undertaken as part of SBM Urban DPR. A DPC project on the same is also approved for 30 lakhs
21	Ottapalam	Palakkad	-
22	Karathodu-Puliyettummal	Malappuram	-
23	Manjeri	Malappuram	SEUF is entrusted to prepare DPR
24	Thirur – Pottilathara Trenching ground	Malappuram	-
25	Vadakara, Puthiyapp	Kozhikode	Capping done over a part of legacy waste
26	Kalpetta	Wayanad	-



<b>Sl. No:</b>	<b>Location</b>	<b>District</b>	<b>Status</b>
27	Sulthan bathery, Karuvallikunnu	Wayanad	-
28	Koothuparamba	Kannur	-
29	Payyannur	Kannur	-
30	Kanjangad, Chemmatam vayal	Kasargod	-
31	Vidyanager, Kasargod	Kasargod	-

**ANNEXURE II (URBAN LOCAL BODY)**

Sl.No	Corporation /Municipality	District	Name of the City/Town	Population as per 2011 Census	Projected population (2021)	Quantity of Waste generated based on population	Percentage of D2D Collection (Dry waste)		No of collectors	As reported by localbodies		Quantity of waste processed (TPD)	Waste treatment technology used	Institutional level SWM Plants	Community Level SWM Plants	Household Level SWM Plants	Centralised	Non-Bio Degradable Waste Management	Site identified for Sanitary land fill	Dump sites identified	Authorization Applied	Authorization granted
1	Corporation	Thiruvanthapuram	Thiruvanthapuram Corporation	958000	996204	448	19.4	90	25	Not properly documented and submitted	242.23	222	De centralized units	Biobin 109 of 15 TPD	Biogas Plant - 18 Nos of 18.4TPD Aerobin (Thumboormuzhi model ) - 53 Nos having 12 TPD	Pipe compost- 87000 Nos., (50,000 working) of 43.5TPD Kitchen Bin- 19000 Biocom poster-15833 Biogas plant- 3982 Nos of 2.39TPD; other units- 109	Land identified for the solid waste processing plant for setting up the plant at Vizhinjam. The approval of the Board of VISL is to be obtained by the Board for the transfer of 15 acres of land on lease to KSIDC. The Board approval is to be communicated to the Port Department to issue necessary orders. KSIDC awarded the project on Swiss challenge on 27-5-2020 and prebid meeting on 8-6-2020. No challenging bids received on 14-7-2020. KSIDC directed Essential Sustainability Services to submit the technical and financial capabilities of the consortium members. The bid evaluation committee resolved that M/s. Pan American Communication Services is technically qualified and also sought to furnish some more details from the consortium before opening the technical bid and submitted certain details.	Material Collection Facility in 54 locations Resource Recovery Unit - 4 numbers	Regional landfill site identified at Kochi	3 (Of which one dumpsite cleared)	Yes	Under processing
2		Kollam	Kollam Corporation	397000	412832	186	83	70	124 (HKS)	10.5	50.32	50.32	De centralized units	Not reported	13 biogas plants of 5.6TPD; 13 aerobins of 3.9 TPD	Biogas plant- 1273 Nos. (working) of 2.5 TPD; Pipe compost - 462 (working) of 1 TPD; 720 biocomposter, biopot of 1.5 TPD	M/s. Venad Waste Management Solutions Pvt Limited has submitted the draft DPR for the integrated solid waste management with a waste to biogas facility of 200TPD. DPR was evaluated by the Committee and its has been modified and final DPR submitted to LSGD. Concessionaire has taken steps to submit applications to the concerned departments and agencies for statutory approvals and clearances.	MCF-7; RRF-1; Mini MCF-185	Regional landfill site identified at Kochi	Zigma solutions have been selected for carrying out biomining and they have started the work	Yes	Yes
3		Ernakulam	Kochi Corporation	677000	703999	317	89.8	59.8	1200	308	215	304	Centralized treatment - Windrow composting at Brahmapuram	Not reported	Nil	Biogas plant- 60 Compost pits- 1212	Windrow compost plant at Brahmapuram and retendering for the selection of proponent	MCF- 8, RRF-5	Regional landfill site identified at Kochi	1(Retendering of biomining of dumpsite at Brahmapuram)	Yes	Under processing
4		Thrissur	Thrissur Corporation	315957	330189	177	100	70	145		97	97	Decentralised units	Total quantity of biodegradable managed- 6.71TPD Non biodegradable 0.7TPD Non biodegradable 0.7TPD	Organic Waste Converter-2 Nos of 4TPD and 8TPD Biogas plant- 9	Biogas plant- 632; Compost pit- 20118; 50 pit- 20118; 50 biocomposter, biobin and four other units	Thrissur Corporation identified land at Ollokkara village in Thrissur district. Vide GO (Rt) No 111/2020/LSGD dated 13/01/2020 State Government has accorded sanction to Thrissur Municipal Corporation to purchase the identified land at Ollokkara Village in Thrissur district and to hand over the same on lease basis to KSIDC for the development of the project. The matter is being placed before the Council for approval and further proceedings.	Material collection facility-8 Resource recovery facility-3	Regional landfill site identified at Kochi	1 (Laloor)	No	No
5		Kozhikode	Kozhikode Corporation	550000	571934	257	49.72	95	645	98	95	140	Non- biodegradable- 0.75TPD	Biogas plant at public utility place- 4Nos Aerobins-28	Biogas-261 Pipe compost- 10250	Windrow Composting. Work awarded to Zonta Infratech Private Limited for the construction of Waste to Energy Plant at Njaliyan parambu. A company namely M/s.Malabar Waste Management The company obtained NOC from State Environmental Impact Assessment Authority. Suchitwa Mission submitted the proposal to Ministry of Housing and Urban Affairs for approval of their share in the VGF for the project. Limited was formed and they applied for registration in Kerala Single Window Clearance Portal (KSWIFT) and to individual departments for clearance. Clarification on the points was called for by the Ministry and the same is being processed.	MCF-12;RRRF-2	Regional landfill site identified at Kochi	1(Njaliyanparambu) Biomining started	Yes	Yes	

Sl.No	Corporation /Municipality	District	Name of the City/Town	Population as per 2011 Census	Projected population (2021)	Quantity of Waste generated based on population	Percentage of D2D Collection (Dry waste)		No of collectors	As reported by localbodies		Quantity of waste processed (TPD)	Waste treatment technology used	Institutional level SWM Plants	Community Level SWM Plants	Household Level SWM Plants	Centralised	Non-Bio Degradable Waste Management	Site identified for Sanitary land fill	Dump sites identified	Authorization Applied	Authorization granted
6		Kannur	Kannur Corporation	2,32,486	370197	167	63.5	89.3	44	85	75	70	Land Filling	Not reported	Trenching Biomethanation of 0.25 TPD	Kitchen bin- 102 Biogas - 40(working) Pipe Compost 1682(working)	M/s Organic Recycling Systems Private Limited and M/s. Blue Planet Environment Solutions India Limited have completed the incorporation of SPVs in the name of Blue Planet Kannur Waste Consortium has selected agency for the preparation of DPR, waste quantification and characteristic study in Kannur district and the agency could not commence due to lock down announced in connection with Covid 19 pandemic. Govt vide GO(Rt) No.Solutions Private Limited to take up the development of the project.714/2020/LSGD dated 27-3- 2020 issued direction to Kannur Municipal Corporation to hand over the lease basis to KSIDC for the development of Waste to Energy project and to execute MoU with KSIDC for clearing the existing legacy waste at dump site in Chelora.	MCF-2; RRF-1	Regional landfill site identified at Kochi	1(Chelora)MoU with KSIDC for clearing the existing legacy waste at dump site in Chelora	Yes	Under processing
7	MUNICIPALITIES	Thiruvananthapuram	Attingal	37648	39150	16	48.5	100	44	16	16	16	Centralised and decentralised systems	Biogas Plant(Dheebanabandhu) 6 Nos with capacity of 1TPD Biogas plant (Portable) 5 Nos with capacity of 107.5	Windrow composting plant of 13TPD, Biogas Plant 6 Nos - 3.25 TPD Vermi Compost 1 No with capacity of 0.25 TPD	Biogas Plant 407 Nos - 0.85TPD	Windrow composting plant, vermicomposting plant, and biogas plant	MCF-1; RRF-1	Yes	1	Yes	Under processing
8			Nedumangad	60161	62561	25	6.2	62.5	88		2.8	2.8	Decentralised treatment units	Not given	37 biogas plants	2700 pipe compost; 2617 kitchen bin; 163 biogas plant-working; 15 ring composts	Nil	MCF-1; RRF-1	Yes	1	Yes	Under processing
9			Neyyattinkara	70850	73676	29	48	18.3	22	3	3	10	Decentralised treatment	Biogas plant-20	Aerobins 21 Biogas plant - 10	Biogas plant- 104 Compost pit- 14360	Nil	MCF- 1	At regional level	Nil	No	No
10			Varkala	40048	41646	17	51	96	18	4.8	4.8	9	Decentralised treatment	500 ring composts; 180 pipe compost; 82 compost pits	Biogas Plant - 1 No - 100Kg		Nil	MCF-3; RRF-1	At regional level	Yes -one	Yes	Yes
11	MUNICIPALITIES	Kollam	Paravur (South)	37189	43023	17	1	0	35	1.5 tons	1.5 tons	1.5 tons	55 biogas plants; 300 pipe compost	Nil	Aerobic bin compost units	Biocomposter bin (Kitchen bin)		1 MCF, 1 RRF, Plastic shredding unit and bailing unit	No	No	Yes	Yes
12			Karunagapally	47483	51420	21	29	22	32	6.5 tons	6.5 tons	6.5 tons	For Biodegradable waste treated in Household using pot compost and ring compost Non degradable waste treated using 1 MCF 1 RRF and 1 mini MCF	Nil	Nil	pipe compost-600 ring compost-5000 pot compost 70 biogas plant -26	Nil	1 MCF 1RRF 1Mini MCF plastic Shredding unit and bailing unit	No	No		
13			Punalur	46702	46702	19	90	80	127	3.5	3.5	10.5	For biodegradable waste aerobic bin compost units at community level and pipe compost at household level . 200mini MCF , 1RRF plastic shredding for processing non bio degradable waste.Door to door collection through harithakarmasena and given to clean kerala company and a private company(Agri tech Green Technoogies, Pathanapuram)	Nil	Aerobic bin compost units	Pipe compost 5000 units(2 pipes / unit) ; 1250 biogas plants	Nil	200 mini MCF, 1 RRF, Plastic shredding unit	No	No	Yes	NA

Sl.No	Corporation /Municipality	District	Name of the City/Town	Population as per 2011 Census	Projected population (2021)	Quantity of Waste generated based on population	Percentage of D2D Collection (Dry waste)		No of collectors	As reported by localbodies		Quantity of waste processed (TPD)	Waste treatment technology used	Institutional level SWM Plants	Community Level SWM Plants	Household Level SWM Plants	Centralised	Non-Bio Degradable Waste Management	Site identified for Sanitary land fill	Dump sites identified	Authorization Applied	Authorization granted	
14			Kottarakara	30055	42050	17	66	20	58	HKS	1 ton	7.25	7.25	For biodegradable waste aerobic bin compost units at community level and biocomposter bins at household level . 1 MCF , 1RRF plastic shredding and bailing units for processing non bio degradable waste.Door to door collection through harithakarmasena and given to clean kerala company	nil	Aerobic bin compost units	Bucket compost,Biobin,Biogas plant		1 MCF, 1 RRF, Plastic shredding unit and bailing unit	No	No	yes	
15	MUNICIPALITIES	Pathanamthitta	Adoor	29143	30921	12	0	4	4				6.3	Bio composting(community level) ,bio bin,biodigester pot,Biogas plant(Domestic level)	Thumpurmoozhy 10 unit(21 bins)	0	1210 pipe compost,326 Ring compost,105 biobin	0	1 MCF	NA	Nil	NA	NA
16			Pandalam	42793	49099	20	72	28	16+1	(1 agency)	1.5	1.5		Decentralised treatment	0.89TPD of waste is managed	Compost bins - 2650	Nil	Not given	At regional level	Nil	no	NO	No
17			Pathanamthitta	37545	39500	16	41	95			6	6	6	Community level, Household level	0.92TPD of biodegradable waste and 0.35TPD of non biodegradable waste managed	Biogas Plant - 2 Nos Aerobin-5	Biogas plant - 400 Compost pits- 520	Nil	MCF-3; RRF-1	At regional level	Nil	Yes	Under processing
18			Thiruvalla	52883	54992	22	60	0	55			1.4	12	Decentralised treatment	4.79TPD of biodegradable waste and 1.5TPD of non biodegradable waste	Biogas Plant -2 with capacity of 350 kg Biogas Plant - 1 with capacity of 750Kg	Biogas Plant - 170Nos Pipe Compost 2360 Nos	Nil	MCF-1	At regional level	Nil	No	No
19	MUNICIPALITIES	Alappuzha	Alappuzha	174176	241219	96	95	80	76	46	36		Aerobic composting Plastic Shredding	Not given	Aerobic Compost (Thumboormuzhi Model) - 29 units	Biogas Plant - 1964 Nos.Pipe compost- 1263 Nos. Biobin- 6000 Nos	0	MCF 23; RRF-3 ;Plastic Shredding unit 3 units	Yes	Nil	Yes		
20			Chengannur	23456	24393	10	11.12	60	25	0.5	0.85	3	Decentralised treatment	Not given	Aerobic Compost (Thumboormuzhi Model) - 12 bins at 1 location		Nil	MCF-1	At regional level	Nil	Yes	Under processing	
21			Cherthala	45827	47658	19	73.76	80	35	0.6	0.6	6	Decentralised treatment	Not given	Aerobic Compost (Thumboormuzhi Model) - 26 bins at 2 locations	Composting units-90 Biogas plant- 350 Compost pits- 850	Nil	MCF-1 RRF - 1	At regional level	Nil	yes	Under processing	
22			Haripad	15588	16211	6	88	6	30	1	1	5	Decentralised treatment	2.02TPD is managed	Aerobic unit - 5	Composting units-783 Biogas plants- 87 Compost pits- 1579	Nil	Plastic Shredding Machine - 1 Number	At regional level	Nil	Yes	Under processing	
23			Kayamkulam	68634	75861	30	65	45	9	5	3		Aerobic Compost	0.06 TPD is managed	Biogas Plant Aerobic compost (Thumboormuzhi Model 4 bin) Location with capacity of 24 kg/day	Composting unit-1431 Biogas plant- 364 Compost pits- 4450 Pipe Compost 1950	Nil	MCF-1 RRF - 1	At regional level	Nil	Yes	Under processing	
24			Mavelikara	264121	27516	11	80	25	30	3.2	2.5		Composting	Not given	Aerobic Compost (Thumboormuzhi Model) - 12 bins at 1 location with capacity of 10kg/day	Biogas plant- 242 Pipe Compost 165	Nil	MCF-1 RRF - 1	At regional level	Nil	Yes	Under processing	
25	MUNICIPALITIES	Kottayam	Changanassery	127987	133102	53	0	50	Haritha Karma Sena		3	20	Decentralised treatment	Not given	Aerobins -36 treating 2TPD	8800 Ring compost 1800 Biobin unit included in 2019-20 project and is under process	Nil	MCF-1 RRF - 1	At regional level	1	No	No	
26			Erattupetta	34814	40000	16	70	100	56	3	3	3	Aerobic composting	Not given	Aerobic composting (Thumboormuzhi mode) - 24 bins Biogas plant: 28 nos	750 biobin included in 2019-20 project and will supply from march 2020	Nil	MCF-1 RRF - 1	At regional level	1	No	No	

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27			Ettumanoor	26423	27479	11	10	56.9	62			4	Decentralised treatment	Not given	Biogas Plant at location with capacity of 500kg	Ring Compost - 450 Nos Bucket Compost- 150 Nos	Nil	MCF-1 RRF - 1	At regional level	Nil	No	No
28			Kottayam	137812	172365	69	80	15	104	30	4.5	5	Aerobic Compost	Not given	Aerobic Compost (Thumboorm uzhi Model)- 62 Biogas Plant - 52	Biogas plant - 1400 Nos Pipe Compost- 2300 Nos	Nil	MCF-1 RRF - 1	At regional level	1 (Vadavathoor)	No	No
29			Pala	123000	127915	51	34	94	14	2	7	26	Decentralised treatment	Not given	Aerobic Compost (Thumboorm uzhi Model) - 6 bins at 1 location with capacity of 30kg Biogas Plant - 1 location with capacity 100 Kg	Compost - 26 Nos Biodigester Pot - 4 Nos Ring Compost - 59 Nos Bucket Compost - 170 Nos Pipe Compost 5162 Nos	Nil	MCF-1	At regional level	Nil	No	No
30			Vaikom	23234	24162	10	0	0	64			3	Decentralised treatment	Aerobic composting (Thumboormuzhi mode) - 4 bins at 2 locations Biogas Plant - 1 bin at 1 location	Aerobic composting (Thumboorm uzhi mode) - 3 bins at 1 location	Biogas Plant - 135	Nil	MCF-1	At regional level	Nil	No	No
31	MUNICIPALITY	Idukki	Kattapana	42646	44350	18	79.4	100	81	3.24	3.24	11	Decentralised treatment	Not given	Not given	Composting unit-1505 Biogas plants- 345 Compost pit- 450	Nil	MCF- 1 Nos RRF- 1	At regional level	Nil	No	No
32			Thodupuzha	52025	62000	25	80	0	82		N		Not given	Not given	Vermi compost - 7bin at 1 location	Biogas Plant - 928	Nil	MCF- 2 RRF 1	At regional level	Nil	No	No
33	MUNICIPALITY	Ernakulam	Aluva	22428	23312	9	43	24		7.05	6.14	NA	NA	0	Centralised plant at Brahmapuram	Pipe compost - 43 Kitchen bin - 10	Centralised plant at Brahmapuram	RRF - 1	At regional level	Nil	No	No
34			Angamaly	33465	34802	14	0		Nil	0.5	0	4	Decentralised treatment	Aerobins-2	Biogas plant - 1No	Pipe compost - 979 Biogas - 504 Nos		RRF-2Nos; MCF-1:Biodigester bins-300Nos SWAP shop-1 No.	At regional level	Nil	No	No
35			Eloor	31468	32726	13	0		81	0.87	0.87	5	Decentralised treatment	Biogas Plant - Hospitals, Hotels, TCC, Canteen	Aerobic Compost (Thumboorm uzhi Model) 4 bins at 4 locations with capacity 1TPD	Biogas Plant - 310 Nos Biodigester Pot - 350 Nos	Nil	MCF-1	At regional level	Nil	No	No
36			Kalamassery	71038	73877	30	42.3	40	19	Not given	Not given	9	Centralised treatment	Not given	Centralised plant at Brahmapura	Compost pit-800, Biogas plant-9	Centralised plant at Brahmapuram	MCF-1;MRF-1	regional level	1	No	No
37			Koothattukulam	17253	18659	7	0.1	10	19	1	1	1	Decentralised treatment	Not given	Biogas Plant - 1 No with capacity 150kg	Biogas 16	Nil	Nil	At regional level	Nil	No	No
38			Kothamangalam	114574	119153	48	3.8	10	2	6	6	14	Decentralised treatment	Not given	Windrow compost plant	Kitchen bin 10000 Biogas plant- 202 Compost pit- 2303	Nil	MCF-1; MRF-1	At regional level	1	No	No
39			Maradu	44704	46490	19	12.2	6.8		0	0	6	Centralised treatment	Not given	Not given	Bucket Compost - 2330 Nos Pipe Compost 940 Nos	Centralised plant at Brahmapuram	MCF-4; RRF-1	At regional level	Nil	No	No
40			Muvattupuzha	30397	31612	13	68	35	Nil			7	Decentralised treatment	Not given	Composting - 5 bins at 1 location (not working)	Kitchen bin 24	Nil	MCF-1	At regional level	1	No	No
41			North Paravur	31503	32762	13	68	79	Not given	2	2	7	Decentralised treatment	Aerobic composting (Thumboormuzhi model) -1 bin at 1 location with capacity 4 Cubic (Not Operating)	Biogas Plant - 1 bin with capacity 100kg (not working) Vermi Compost - 1 bin with capacity 1 TPD Windrow Compost - bin with 3 TPD Capacity	Pipe compost - 2500 Nos Biogas Plant - 25 Nos	Nil	MCF-1; RRF-1	At regional level	1	No	No
42			Perumbavoor	28110	29233	12	0	0		2.32	1	8	Decentralised treatment	0.75 TPD of non of biodegradable waste is managed	Bio-gas, aerobic compost, MRF	Ring Compost - 1000 Nos Biogas Plant - 161 Nos Biodigester Pot - 1500 Pot compost- 894	Nil	MCF-1; RRF-1	At regional level	Nil	No	No
43			Piravam	29105	32015	13	40.7	47.2	66	2.04	2.04	5	Decentralised treatment	Not given	Not given	Biogas -150 Pipe compost- 874	Nil	MCF-1; RRF-1	At regional level	Nil	No	No
44			Thrikkakkara	77319	80409	32	100	71	12	7	7	10	Centralized treatment	Not given	Not given	Biogas 31	Centralised plant at Brahmapuram	Nil	regional level	Nil	No	No

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45			Thripunithura	92522	96219	38	87.1	85.9	64	Not given	Not given	14	Decentralised treatment	Aerobic composting (Thumboormuzhi model) - 2 bins at 2 locations with capacity 14 units & 18 units. Biogas plant - 1no with 100 kg capacity	1.62TPD of biodegradable waste is managed 0.124 non biodegradable waste is managed. Thumboormuzhi model at Anapparambu -41 ward	Biogas Plant - 300 Nos Biodigester Pot - 125 Nos Bucket Compost - 2400 Nos Pipe Compost 10000 Nos	Centralised plant at Brahmapuram	Material Collection Facility - 1 No (Non Operation)Plastic Shredding Machine - 1 No Baling Machine - 1 No	At regional level	Nil	No	No	
46	MUNICIPALITY	Thrissur	Chalakkudy	49525	51504	21	100	100	54	7.31tpd	7.31tpd	10	Decentralised treatment	Plants(50kg capacity) 5 SWM	Thumboormuzhi model at Anapparambu (41 ward ) Vermicomposting Biogas - 3(33kg/day)	Plants(207.5 kg capacity) 83 SWM	Windrow composting (2tpd)	MRF-1; RRF-1	At regional level		yes	yes	
47			Chavakkad	39098	40660	16	36.2	51	31	4	Not given	14	Decentralised treatment	Not given	Vermi composting 1.5TPD	Pot Compost - 548 Nos Biogas Plant - 614 Nos	Nil	MCF-1; RRF-1	At regional level	1	No	No	
48			Guruvayur	70012	72810	29	24.5	100	58	4	4	15	Decentralised treatment	Biogas Plant(3.5tpd)	Bio organic management	Biogas Plant- 400 Composting units-2545 Compost pits- 1899 Kitchen Gardening	Windrow Compost (2TPD),	MCF-1; RRF-1	At regional level	Nil	No	No	
49			Irinjalakuda	62532	67542	27	48	86	130	4TPD	3TPD		Shredding Unit	17Aerobic Bin in Hill Park,Municipal office,Park	2Biogas Plant-Main Market,Evening Market	3471 Nos(Ring Compost 1865,Kitchen Bin 906,Biogas 700)	1	Segregated Non Bio waste Collected through Harithakarmasena and it transported to MCF and Stored in RRF after Shredding .It hand over to Clean Kerala Company	At regional level	1	no	No	
50			Kodungallur	71440	85150	34	75	48	84	4 TPD	3TPD		Composting Shredding	20 Aerobic bins	20 Aerobic bins	Aerobic Compost (Thumboormuzhi Model )-6 bins at 3 locations with capacity of 10 kg/day	1	Segregated Non biodegradable waste collected through Harithakarmasena and it is forwarded to MCFand RRF.SCrapp hand over to scrap dealers and rejects handover to Clean Kerala LTD	NIL	NIL	Yes	NO	
51			Kunnamkulam	54071	56232	22	100	100	56	3	3	10	Decentralised treatment	Aerobic compost (Thumboormuzhi model)	composting plant 1.889 TPDbiodegradable waste managed, 0.81 TPD Non biodegradable waste managed	Bio bin -1628 Nos Biogas-73, Compost pits- 2906, Compost unit- 508	Windrow Composting Plant- 4.5 TPD; 5 Acres of land is available with the local bodies for waste processing.	MCF-1; RRF-1	At regional level	Nil	No	No	
52			Vadakkanchery	15674	16300	7	34.3	100	40	1.6	Nil	9	Decentralised treatment	1.93TPD waste managed( Bio&Nonbiodegradable)	Not Given	Compost units- 1918, Biogas-100,Compost pits-4471	Nil	MCF-2; RRF-1	At regional level	1	No	No	
53	MUNICIPALITY	Palakkad	Cheruplassery	30730	31958	13	60	77	22	HKS	0.2	1.2	4	Decentralised treatment	0.427 TPD Non biodegradable waste managed.	1.43 TPD Nonbiodegradable waste managed.	Pipe Compost 1000 Nos Biogas Plant - 200 Nos Composting units-1050	Nil	MCF-1; RRF-1	At regional level	Nil	Yes	Under processing
54			Chittur-Thattamangalam	33000	34319	14	51.7	11.6	56	Nos	2		7	Decentralised treatment	bins at 5 locations	Not given	Ring Compost - 239 Nos Composting units-1407	Aerobic Windrow Composting Plant -1 bin with capacity 3 Tons/day	MCF-7; RRF-1	At regional level	Nil	Yes	Under processing
55			Mannarkadu	39463	41040	16		83.7	58			0	6	Decentralised treatment	Not given	Not given	Pipe compost- 40; biogas plant -20; Biocomposter- 315	Nil	MCF-1	At regional level	Nil	No	No
56			Ottapalam	53792	55942	22	57.7	50.3	56	1.4		8	Decentralised treatment	Not given	Not given	Biogas plant- 58 Pipe compost 182	Windrow compost	MCF-1; RRF-1	At regional level	1	No	No	
57			Palakkad	131000	136235	54	40.1	10.6	156	0.2	1	29	Decentralised treatment	Not given	Biogas plant - 1	Pipe compost- 2500; Ring compost-60	Windrow composting is in operation. 15 Acres of land is available at Kanjikode for setting up solid waste processing plant. Tendering process is going on. As per annual report 2.1 Hectre of land is available.	MCF-7; RRF-1	At regional level	1(BPL) Koottupatha)	Yes	Under processing	

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58			Pattambi	28632	29776	12	0	60	20	1		3	Decentralised treatment	Not given	Open composting in trench	Biogas plant- 69	Nil	MCF-1; RRF-1	At regional level	Nil	Yes	Under processing
59			Shornur	43533	45273	18	100	81.8	65	4.5	2.8	6	Decentralised treatment	Not given	Biobin	Biogas 276	Nil	MCF-1; RRF-1	At regional level	Nil	No	No
60	MUNICIPALITY	Malappuram	Kondotty	28794	29945	12	79.7	60	160	0.12	0.12	4	Decentralised treatment	Not given	Not given	Pipe compost- 420; Biogas plant-18(45kg/day); Ring compost- 123	Nil	MCF-1	At regional level	Nil	No	No
61			Kottakkal	48640	57430	23	35	20	15	1.1	1.1	1.1	Segregation	Nil	Nil	Bio Bin and Bio Gas	Nil		Nil	Nil	Nil	Nil
62			Malappuram	68088	79645	32	45	15	24	20	10	10	YES	NIL	NIL	.Biogas plant,Bio bin,Bucket compst	nil	.HKS	Nil	Nil	Nil	nil
63			Manjeri	97102	112000	45	30	43.7	16	30	100		Bio degradable = Bio Bin , Pipe Compost Pig Farms no Bio degradable Segregation and Transfer to Recycling Plants using 4 MCF and 1 RRF	Nil	Nil	Bio bin And Pipe Compost	Nil	4 MCF and 1 RRF	Nil	Nil	Nil	Nil
64			Nilambur	46366	48219	19	0		29	0.3	0.3	8	Decentralised treatment	Not given	Not given	Biogas Plant - 71 Nos. Pipe compost-135; Biocomposter- 75	Nil	Temporay	At regional level	Nil	No	No
65			Parappanangadi	71239	79888	32	98	80	90	0.5	0.5	20	Ring compost,kitchen bin,pipe compost,biogas,bio pot, MCF,MINI MCF, Non bio degradable send for recycling	bio gas plant,ring compost	composting	Ring compost,kitchen bin,pipe compost,biogas,bio pot, MCF,MINI MCF, Non bio degradable send for recycling	nil	collecting through Harithakarma sena,send for recycling to clean kerala co.	na	na	no	na
66			Perinthalmanna	49723	55290	22	35	40	52	10	10	10	MCF,MRF,Vermi composting,Wintro composting,Bio gas plant,Bio bin	nil	MCF,BIO GAS	BIO BIN,BIO GAS	NILL	Collecting through Harithakarma sena	na	na	yes	no
67			Ponnani	90491	93370	37	48	52	49	0.5	0.5	22.5	composting Bio gas plants Aerobic units Bottle booths MCFs, Mini MCFs RRF	28 Aerobic units	MCF and RRF	Composting & Bins Bio gas plants	Nil	1RRF,2MCFs 6Mini MCF Bottle booths Plastic bailing	0	0	No	NA
68			Thanoor	69534	77053	31	52	20		0.5	0.5	21.5	Ring Compost, MCF	Nil	MCF	Ring Compost	Nil	Collecting through Haritha karmasena send for recycling to clean kerala company	0	0	0	NA
69			Thiroorangi	56632	63220	25	30	10	28	0.25	0.25	14	Ring compost,kitchen bin,pipe compost,biogas,, MCF,MINI MCF, Non bio degradable send for recycling	Biogas plant	Composting	Ring compost,kitchen bin,pipe compost,biogas, MCF,MINI MCF, Non bio degradable send for recycling	no	collecting through Harithakarma sena,send for recycling to private agency on agreement basis	0	0	Yes	Pending before KSPCB
70			Tirur	56058	62173	25	80	100	38	4	4	4	Bio degradable waste-bio methenation & composting,Non bio degradable -send for recycling through forward linking agency.	bio gas plant	composting	composting & bio methenation units	1 with 90 ton capacity	send for recycling through for word linking agency	na	na	na	na
71			Valanchery	40318	45306	18	0	0	13	1	1	1	biogas plant ring compost bio bin house hold level	bio gas	nil	biobin, ring compost,biogas plant	nil	HKS	nil	nil	yes	nil
72	MUNICIPALITY	Kozhikode	Faroque	57074	60000	24	63.5	4	18	4tpd	4tpd	4tpd	various Composting methods	Nil	Thumbar Muzhi	Biobin, Ring Compost, Biogas plant, Pipe compost	Thumbar Muzhi	Collection and Segregation and legacy waste hand over to clean kerala	No	No	No	No
73			Koduvally	48678	50623	20	0		72 (Haritha Karma Sena)	0.6	0.6	7	Decentralised treatment	Not given	Not given	Not given	Nil	MCF-1	At regional level	Nil	Yes	Under processing
74			Koyilandy	71873	74745	30	59.7	7.9	100	10	2.5	11	Decentralised treatment	Not given	1. Thumboor muzhi model composting - 11 unit 2. biogas plant - 500 kg per day	1. Portable biogas 250 nos; 2. pipe, ring; and vermicompost -1933 nos	Nil	MCF-2 MRF-1; Plastic shredding machine -2 bailing machine-1	At regional level	Nil	No	No
75			Mukkam	40670	42295	17	62.45	55.41	38	3.5	0		BIOGAS, RING COMPOST, AEROBIC PLANT	AEROBIC	AEROBIC	BIOGAS, RING COMPOST,	NA	NA	NIL	NIL	YES	

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76			Payyoli	23576	24518	10	0	Nil	0.25	0.25	3	Decentralised treatment	Not given	Pipe compost 100;Kitchen bin 300	Nil	Not given	At regional level	Nil	No	No	
77			Ramanattukara	35937	37373	15	0	Nil	0.01	0.2	4	Decentralised treatment	Not given	Ring Compost- 320 Nos	Nil	Not given	At regional level	Nil	No	No	
78			Vadakara	75295	77325	31	72	60	63	7	7	Biogas plant, biobin, pipe compost, ring compost, bucket compost, aerobic compost	Thumburmuzhi	Thumboormuzhi	Biogas plant, biobin, pipe compost, ring compost, bucket compost	NA	YES	NIL	NIL	YES	NIL
79	MUNCIPALITI	Wayanad	Kalpetta	31580	32842	13	26.6	81.5	32	6	6	Decentralised treatment	0.508 TPD Biodegradable waste managed,0.561 TPD Non biodegradable waste managed.	1.3 TPD Biodegradable waste managed, 0.869 TPD Nonbiodegradable waste managed.	0.4 TPD Biodegradable waste managed, 0.11 TPD Nonbiodegradable waste managed	8 Acres of land is available in Vellaram kunnu Kalpetta.	MCF-1; RRF-1	At regional level	1	Yes	Under processing
80			Mananthavady	59497	62450	25	40	47	26		.5TPD	BUCKET COMPOST,BIOGAS,PTT COMPOST.	NIL	NIL	NIL	Not given	NIL	YES	NIL	NIL	
81			Sulthanbathery	23333	24265	10	0	0	23	0.5	9.1	Decentralised treatment		Not given	Biogas plant - 192	0.5 Acres of land is available in Sulthan bathery construction of the plant is going on.	MCF-1	At regional level	1	No	No
82	MUNCIPALITI	Kannur	Anthoor	28212	32693	13	11	0	28	9 TPD	9 TPD	plastic shruing and bailing	collectors school bin	0	ring compost BIOGAS KITCHEN BIN	0	0	nil	nil	NIL	NIL
83			Iritty	40369	48501	19	65	30.71	40	2.5	2.35	windrow compost	collectors school bin	mcf	ring compost		0	nil	nil	yes	not granted
84			Koothuparambu	32404	38000	15	100	90	64	2 TPD	2 TPD	COMPOSTING & BAILING	1	0	0	0	0	NIL	NIL	NIL	NIL
85			Mattannur	47078	60000	24	90	90	39	5	5	windrow compost unit,plastic shruing and bailing	collectors @school bin	Mini M C F in all wards	pipe compost,ring compost,vermi,biogas	windrow compost unit,plastic shruing and bailing	plastic shruing and bailing	NIL	NIL	NO	NOT GRANTED
86			Panoor	58916	68751	28	51.5	25.7	52	0.1	0	NA	NA	NA	950 RING COMPOST, 190 KITCHEN BIN	NIL	NIL	nil	nil	NO	NA
87			Payyanur	72131	90684	36	80	20	44	4.2	4.2	Bailing ,Shredding and Thumboormuzhi composting	NA	NIL	Ring compost, Biogas plant, Kitchen bin	1 MCF, RRF, Thumboormuzhi	Bailing & Shredding	nil	nil	Applied	applied
88			Sreekantapuram	33489	37000	15	95	90	30	2	2	ringing compost,calender waist collection door to door inclooding platic shruing and bailing	nil	2 mcf, 1 rrf	ring compost,compost pit etc	nil	plastic shrudding bailing	nil	nil	applied	applied
89			Thalassery	92864	96257	39	85	90	97	3	2	plastic shruing	NA	NIL	biobin,biopot,pipecompost	NIL	plastic shruing	NIL	NIL	applied	NA
90			Thaliparambu	44827	47965	19	85	39.6	34	3.5TPD	3.5TPD	Windrow compost, plastic shredding unit, thumboormuzhi, 1MCF,1 RRF	NA	Thumboormuzhi		water treatment plant,windrow compost, plastic shredding unit, thumboormuzhi, 1MCF,1 RRF	MRF, RRF	NIL	NIL	NA	NA
91	MUNCIPALITI	Kasaragod	Kanhangad	73536	76475	31	80	65	36	2.5	2	Plastic shredding, bailing, ring compost, kitchen bin, thumboormuzhi, 2 M C F, 1 RRF	No	Thumboormuzhi	ring compost, kitchen bin, bio gas,	Plastic shredding, bailing, ring compost, kitchen bin, thumboormuzhi, 2 M C F, 1 RRF	2 M C F, 1 RRF PLASTIC SHREDDING, BAILING	NIL	NIL	NA	NA
92			Kasaragod	54172	59589	24	86	32	17	7	6		YES	YES	YES	-	MCF, SHREDDING, PETTELIZATION	NIL	na	-	-
93			Nileshwaram	40802	47502	19	90	85	30	10	10	Plastic shredding, bailing, ring compost, 3 M C F, 1 RRF	NIL	YES	YES	Plastic shredding, bailing, ring compost, 3 M C F, 1 RRF	MCF, RRF, PLASTIC SHREDDING, BAILING	NIL	NA	NA	NA
						3571				964.76				1077.19							



**ANNEXURE II A - STATUS OF WASTE MANAGEMENT IN RURAL LOCAL BODIES**

Sl. No.	District	Local Body	No of Wards	No of Household	% Household DDD-Dry	% of Household-DDD-Wet	No of establishment	Household/DDD-Dry	% establishment_DDD-Wet	% of houses in which source level treatment	% of establishments in which source level treatment	% disposing to controlled system	% disposing to uncontrolled system	Quantity of Waste generated (TPD)	Quantity of Waste collected (TPD)	Quantity of Waste treated (TPD)	Quantity of Waste processed in Composting Sheds (TPD)	Quantity of Waste processed in Bioremediation (TPD)
1	T	Adilnagar	13	2914	100	0	818	84	0	90	100	0	0	0.4	0	0	0	0
2	H	Aditya	76	11344	52	47	1813	30	1	100	100	0	0	0.8	0	0	0	0
3	R	Adityanagar	24	4900	41	0	30	80	30	41	80	0	0	0.1	0.1	0	0	0
4	I	Adityanagar	28	8188	83	0	2198	30	0	13	28	0	0	0.11	0.1	0	0	0
5	U	Adityanagar	20	13418	100	0	117	21	100	0	0	0	0	0.26	0	0	0	0
6	V	Adityanagar	18	11321	78	0	1134	73	0	18	1	0	0	0.1	0.005	0.001	0	0
7	A	Adityanagar	16	7820	100	0	214	100	0	1	0	0	0	0.11	0	0	0	0
8	H	Adityanagar	17	3181	100	0	237	0	0	0	0	0	0	0.001	0.1	0.728	0	0
9	A	Adityanagar	18	9478	0	0	178	0	0	0	0	0	0	0.001	0.1	0.728	0	0
10	T	Adityanagar	20	10380	47	0	1343	48	0	0	0	0	0	1.4	0	0	0	4.8
11	H	Adityanagar	19	4218	77	21	428	80	0	13	20	0	0	0.20	0.1	0	0	0
12	T	Adityanagar	21	17301	28	0	2000	148	1	100	100	0	0	0.20	0.1	0	0	0
13	A	Adityanagar	14	4913	100	0	4312	6	0	100	100	0	0	0.43	0	0	0	0
14	P	Adityanagar	19	8688	51	0	734	40	0	0	0	0	0	0.4	0.1	0	0	0
15	U	Adityanagar	17	3271	100	0	420	100	0	0	0	0	0	0.278	0.17	0	0	0
16	R	Adityanagar	16	9884	86	0	112	70	0	80	0	0	0	0.1	0	0	0	0
17	M	Adityanagar	16	10147	0	0	1078	0	0	0	0	0	0	0.1	0.8	0	0	0
18	M	Adityanagar	23	25734	0	0	2126	1	0	93	11	0	0	0.2	0.11	0	0	0
19	M	Adityanagar	17	9421	100	0	926	100	0	100	100	0	0	0.2	0	0	0	0
20	M	Adityanagar	13	4601	68	0	317	67	0	100	100	0	0	0.2	0	0	0	0
21	M	Adityanagar	21	14733	0	0	54	0	0	18	1	0	0	0.2	0	0	0	0
22	M	Adityanagar	14	5511	100	0	821	0	0	10	11	0	0	0.2	0	0	0	0
23	M	Adityanagar	23	18000	78	28	61	100	0	47	100	0	0	0.2	0	0	0	0
24	M	Adityanagar	18	11648	0	0	108	100	0	30	0	0	0	0.1	0.01	0.01	0	0
25	M	Adityanagar	19	11254	100	0	1310	100	0	70	0	0	0	0.3	0.13	0	0	0
26	M	Adityanagar	18	7182	100	0	1310	100	0	100	100	0	0	0.2	0	0	0	0
27	M	Adityanagar	21	14310	0	0	810	31	0	96	67	0	0	0.1	0	0	0	0
28	M	Adityanagar	20	9436	92	0	2197	12	0	100	100	0	0	0.842	0	0	0	0
29	M	Adityanagar	13	6113	100	0	687	84	0	91	28	0	0	0.1	0	0	0	0
30	M	Adityanagar	16	8090	0	0	1084	0	0	0	4	0	0	0.1	0.170	0	0	0
31	M	Adityanagar	19	13312	80	28	1071	1	83	0	0	0	0	0.41	0.27	0	0	0
32	M	Adityanagar	20	10186	100	0	1121	18	82	11	30	0	0	0.4	0.21	0	0	0
33	M	Adityanagar	21	11367	10	0	202	0	0	15	100	0	0	0.10	0	0	0	0
34	M	Adityanagar	14	6663	100	0	1801	0	100	0	0	0	0	0.10	0	0	0	0
35	M	Adityanagar	11	3801	75	0	201	80	0	72	80	0	0	0.12	0.11	0	0	0
36	M	Adityanagar	20	10738	100	0	2017	31	100	44	49	0	0	0.12	0.11	0	0	0
37	M	Adityanagar	16	8401	1	0	1314	1	0	80	0	0	0	0.10	0.01	0	0	0
38	M	Adityanagar	20	14134	83	0	1074	36	0	1	1	0	0	0.10	0	0	0	0
39	M	Adityanagar	21	11600	80	0	800	63	0	0	0	0	0	0.1	0	0	0	0
40	M	Adityanagar	21	14121	0	0	1499	0	0	0	0	0	0	0.81	0	0	0	0
41	M	Adityanagar	30	12811	0	0	1012	100	0	0	0	0	0	0.4	0	0	0	0
42	M	Adityanagar	17	9543	0	0	1142	2	0	100	0	0	0	0.10	0	0	0	0
43	M	Adityanagar	18	10191	100	100	1151	100	100	100	100	0	0	0.63	0.1	0	0	0
44	M	Adityanagar	22	14361	6	0	2912	1	0	0	0	0	0	0.63	0	0	0	0
45	M	Adityanagar	16	9943	90	0	1111	43	0	0	0	0	0	0.11	0	0	0	0
46	M	Adityanagar	17	10112	90	20	111	100	0	100	100	0	0	0.26	0.14	0	0	0
47	M	Adityanagar	14	4718	0	0	1111	4	10	0	0	0	0	0.1	0	0	0	0

SL No	DISTRICT	LOCAL BODY	NO OF WARDS	No of Household	% Household DID-Dry	% of Household DID-Wet	No of establishments	Establishment DID-Dry	% establishment DID-Wet	% of houses in which source level treatment	% of establishments in which source level treatment	% disposing to controlled system	% disposing to controlled system	Quantity of Waste generated (TPD)	Quantity of Waste collected (TPD)	Quantity of Waste treated (TPD)	Quantity of Waste processed in Composting sites (TPD)	Quantity of Waste processed in bio methane (TPD)
48		Polkital	23	16342	30	0	140	100	0	100	100	0	0	0.0	0	0	0	0
49		Pollal	13	2825	5	0	712	3	0	0	0	0	0	0.13	0	0	0	0
50		Potluram	13	7338	86	0	3503	71	0	0	0	0	0	0.05	0	0	0	0
51		Pongala	19	11278	100	0	663	100	0	100	100	0	0	0.08	0.61	0	0	0
52		Potturulu	22	17800	27	0	2478	3	0	74	10	0	0	0.08	0.246	100	0	0
53		Pulavani	17	30772	73	0	4780	72	0	0	0	0	0	0.28	0.246	100	0	0
54		Pulogorla	19	22927	62	0	1310	71	0	0	0	0	0	0.7	0	0	0	0
55		Puruskavita	16	8571	95	0	1131	100	0	80	84	0	0	0.7	0.71	0	0	0
56		Ranchoth	23	13428	100	0	2420	100	0	0	0	0	0	0.16	0.4	0	0	0
57		Ranga	13	4543	24	0	740	10	0	0	0	0	0	0.87	0	0	0	0
58		Rajampet	18	18638	0	0	3048	0	0	0	0	0	0	0.7	0	0	0	0
59		Rajamah	19	11129	69	0	321	61	0	0	44	0	0	0.63	0	0	0	0
60		Rajupet	13	4738	0	0	278	0	0	100	100	100	0	0.1	0.03	0	0	0
61		Rangasani	14	8136	0	0	563	0	0	0	0	0	0	0.19	0	0	0	0
62		Rangula	16	8402	0	0	1124	0	0	100	0	0	0	0.22	0	0	0	0
63		Ranavathkallu	12	7962	0	0	1154	0	0	0	0	0	0	0.34	0	0	0	0
64		Ravuthi	14	3240	96	0	560	0	0	0	74	0	0	0.23	0	0	0	0
65		Ravupatnam	13	7045	67	0	262	37	0	0	0	0	0	0.4	0.31	0	0	0
66		Rayala	18	11826	13	0	680	32	0	0	100	100	0	0.1	0	0	0	0
67		Rayachoti	23	11990	29	0	680	32	0	100	100	0	0	0.1	0	0	0	0
68		Rayachoti	22	13601	89	0	151	64	0	0	0	0	0	0.102	0	0	0	0
69		Rayachoti	22	14780	1	0	736	3	0	0	0	0	0	0.61	0	0	0	0
70		Rayala	14	4724	99	0	201	100	0	100	100	0	0	0.1	0	0	0	0
71		Rayala	20	36420	0	0	1717	0	0	0	0	0	0	0	0	0	0	0
72		Rayachoti	17	12728	100	0	210	20	0	0	0	0	0	0.7	0	0	0	0
73		Rayala	17	48147	100	0	680	100	0	100	100	0	0	1.12	0.1	0.1	0	0

Sl. NO.	DISTRICT	LOCAL BODY	NO OF WARDS	No of Household	% Household D2D-Dry	% of Household D2D-Wet	No of establishment	% establishment -D2D-Dry	% establishment -D2D-Wet	% of houses in which source level treatment	% of establishment in which source level treatment	% disposing to centralised system	% disposing to centralised system	Quantity of Waste generated (TPD)	Quantity of Waste collected (TPD)	Quantity of Waste treated (TPD)	Quantity of Waste processed in Composting Sites (TPD)	Quantity of Waste processed in biogas/landfill (TPD)
74	K O L A M	Adichanallur	20	11069	90	85	596	80	47	90	0	2	1	2	0.4	0	0	0
75		Aland	18	5931	70	0	384	58	0	0	1	0	1	0	0	0	0	0
76		Alayam	14	7350	0	0	1177	0	0	0	0	0	0	0.2	0.1	0	0	0
77		Arctal	19	12968	70	0	1748	85	0	19	19	0	12	4	4	4	0	0
78		Arumave	13	3244	65	0	232	0	0	0	1	0	1	0.1	0.1	0	0	0
79		Chelvanaganallan	15	7661	80	0	1356	80	0	0.6	0.6	0	1	1	1	1	0	0
80		Chettinagar	18	10927	35	0	252	15	0	90	90	8	0	2	2	2	0	0
81		Cheros	23	13568	60	0	1400	60	0	13	2	2	0	2	0.6	0.5	0.5	0.1
82		Chirakkara	10	8029	90	0	1300	40	0	1	0	0	0	0	0	0	0	0
83		Chitara	23	15164	49	0	450	48	0	3	1	0	1	0	0	0	0	0
84		Chigga	15	8532	81	0	1013	8	0	3	1	0	1	0	0	0	0	0
85		East Kallida	15	7234	0	0	8655	0	0	0	0	0	0	0	0	0	0	0
86		Elamankal	22	6300	0	0	1360	0	0	0	0	0	0	0	0	0	0	0
87		Elamadu	17	7728	35	0	83	71	0	1	36	0	36	0	0	0	0	0
88		Elampallur	21	5253	79	0	25	62.4	0	19	44	0	44	0	0	0	0	0
89		Elakode	16	8569	22.94	0	1200	13	0	18	0	0	0	0	0	0	0	0
90		Eluru	21	12278	40	0	1780	20	0	1	3	0	3	3	2.2	2.2	0	0
91		Kadakkal	19	9800	98.00	0	2700	2100	0	237	8	9.8	2.1	2	1	1	0	0
92		Kalivanchikal	23	16005	80	0	2474	74	0	33	4	3	11	3	1.8	1.8	0	0
93		Karavallur	16	8644	71	0	1470	69	0	1	1	0	1	0.27	0.27	0	0	
94	Karappra	18	8000	0	0	0	0	0	1	0	0	0	0	0	0	0	0	
95	Kottankara	21	12978	45	0	552	109	0	1	0	1	0	0.5	0.35	0.35	0	0	
96	Kulakkada	19	11253	0	0	536	126	0	1	0	0	0	0.45	3 ton	3	0	0	
97	Kulasekharapuram	23	15978	78	0	3642	38	0	1	8	0	0	0.25	0.35	0.175	0	0	
98	Kulathompu	20	11210	59	0	1250	8	0	3	7	0	7	0.3	0.3	0.2	0	0	
99	Kumil	14	8210	55	0	211	31	0	1	5	0	5	0.2	0.1	0.1	0	0	
100	Kundara	14	4561	72	0	220	25	0	0	0	0	0	0	0.1	0	0	0	
101	Kunnathoor	17	8843	63	0	0	0	0	19	0	0	0	1	1	0	0	0	
102	Mappan	23	15657	55	0	2890	5	0	39	81	0	0	16	8.5	8.5	4.3	2.5	
103	Malla	15	3888	60	0	157	100	0	60	60	0	0	0.25	0.25	0	0	0	
104	Mannethurutha	13	3238	15	0	113	33	0	75	70	0	0	0.2	0	0	0	0	
105	Mylara	13	3238	0	0	115	23	0	75	70	0	0	0.2	0	0	0	0	
106	Mynagappally	22	150	0	0	0	0	0	0	0	0	0	0	0	0	0	0	
107	Naduvampara	23	17193	80	80	173	68	68	3	68	80	68	16	11	0	1.5	2	
108	Neduvethoor	18	8521	41	0	1130	38	0	52	63	0	0	0	0	0	0	0	
109	Nondakara	13	3083	38	0	713	0.65	0	0.15	0.3	0	0	0.25	0.25	0.25	0	0	
110	Niramal	13	5827	80	0	1564	35	0	60	58	0	0	0.15	0.25	0	0	0	
111	Oachira	17	8422	39	0	1023	36	0	0	8	0	0	0.21	0.21	0.21	0	0	
112	Pattaram	16	8771	0	0	0	0	0	0	0	0	0	0	0	0	0	0	
113	Pattanam	23	16013	90	0	3449	0	21	0	0	0	0	0.15	0.125	0.125	0	0	
114	Pattanamparam	23	11372	790	60	0	34	0	13	83	0	0	6.5	6.5	0	0	0	
115	Pattathi	13	6265	85	0	199	90	0	61	100	0	0	1.5	1.5	1.5	0	0	
116	Pattathi Vazhakkara	13	6251	80	0	192	90	0	80	100	0	0	1.25	0	0	0	0	
117	Pavithranparam	19	12977	51	0	786	81	0	30	35	0	0	8	8	5	4	0	
118	Pattanam	14	6450	0	0	250	0	0	0	0	0	0	0.25	0.25	0.25	0	0	
119	Perinad	20	11380	53	0	2201	28	0	0	0	0	0	3	3	24	4	0	
120	Pinnathoor	21	3609	42	0	1038	12	0	36	32	0	0	3	0.5	0	0	0	
121	Poonthakulam	21	9621	36	0	368	65	10	39	55	0	0	8	3	3	0	0	
122	Poozappally	18	8870	79	0	976	40	0	85	10	0	0	3	1.5	1.5	0	0	

SL. NO:	DISTRICT	LOCAL BODY	NO OF WARDS	No of Household	% Household D2D-Dry	% of Household-D2D-Wet	No of establishment	Establishment -D2D-Dry	% establishment _D2D-Wet	% of houses in which source level treatment	% of establishment in which source level treatment	% disposing to centralized system	% disposing to centralized system	Quantity of Waste generated (TPD)	Quantity of Waste collected (TPD)	Quantity of Waste treated (TPD)	Quantity of Waste processed in Composting Sites (TPD)	Quantity of Waste processed in biogas plants (TPD)
121		Paruvally	16	9581	47	0	1200	42	0	0	0	0	0	4	1	2	0	0
124		Sathamedda	19	13243	0	0				0	0	0	0					
123		Soramed North	18	9971	0	0	1933	0	0	0	0	0	0					
126		Soramed South	16	8228	70	0	1120	67	0	0	0	0	0	4	3	3.5	0	0
127		Thalavoor	20	7200	0	0	0	0	0	0	0	0	0	2	1	1	0	0
128		Thathava	22	11019	70	34	5256	50	30	2	6	0	0	3.8	2.9	2.9	0	0
129		Thikkumbhagam	13	5600	62	0	372	70	0	2	1	0	0	4	2.5	2.5	0	0
130		Thiruvalla	16	8369	70	0	239	65	0	0	0	0	0	4	3.5	3.5	0	0
131		Thiruvallikara	23	8000	0	0	1568	78	0	0	4	0	1	0	0	0	0	0
132		Thodiyoor	23	14237	72	0	2224	82	0	1	2	0	2	5.5	3.5	0	0	0
133		Thirikkavu	16	12238	0	0	2005	86	0	1	1	0	1	4.9	1.8	0	0	0
134		Thirikkovvattom	23	21027	0	0	4460	0	0	0	0	0	0	0	0	0	0	0
135		Ummannoor	20	11584	80	0	2157	80	0	10	10	0	0	0.026	0.026	0	0	0
136		Velinjiloor	17	9010	82	0	2250	4	0	4	1	0	1	0	0	0	0	0
137		Velloor	19	10513	81	0	1983	1	0	1	1	0	1	0	0	0	0	0
138		Vetikkavada	21	1850	0	660	805	0	0	3	0	0	0	0	0	0	0	0
139		Vilakkudy	20	10897	46	0	3256	32	11	16	12	0	0	0	0	0	0	0
140		West Kallada	20	5813	78	0	909	74	0	0	0	0	0	0	0	0	0	0
141		Yener	14	14321	1	0	613	1	1	0	1	0	1	0	0	0	0	0

Sl. NO:	DISTRICT	LOCAL BODY	NO OF WARDS	No of Household	% Household D2D-Dry	% of Household-D2D-Wet	No of establishment	Nonestablishment -D2D-Dry	% establishment -D2D-Wet	% of houses in which source level treatment	% of establishment in which source level treatment	% disposing to centralised system	% disposing to centralised system	Quantity of Waste generated (TPD)	Quantity of Waste collected (TPD)	Quantity of Waste treated (TPD)	Quantity of Waste processed in Composting Sites (TPD)	Quantity of Waste processed in biogasplant on (TPD)
142	P	Arniad	13	5067	0	6	0	0	0	0	0	0	0	20kg	20kg	0	0	0
143	A	Aramala	18	9671	0	100	1697	0	100	0	0	0	0	2	2.5	2	0	0
144	T	Annapoosam	15	6816	0	9	175	0	0	1	2	0	0	20	15	0	0	0
145	H	Ayroor	16	6548	0	33	835	0	77	0	0	0	0	200kg	20	0	0	0
146	A	Chennockara	14	6515	0	0	0	0	0	0	0	0	0	0	0	0	0	0
147	N	Cherukole	13	4398	0	0	321	0	0	0	0	0	0	50kg	50kg	50kg	0	0
148	A	Chizar	13	5715	0	0	42	0	0	0	0	0	0	48 KG	48kg	48kg	0	0
149	M	Elanthar	13	4583	0	0	3990	0	0	0	0	0	0	3105g	3105g	0	0	0
150	T	Endimangalam	15	7261	0	58	380	0	0	0	0	0	0	300 KG	100 KG	0	0	0
151	H	Enthu	17	9011	0	0	510	0	0	0	0	0	0	55 Kg	55kg	0	0	0
152	I	Evaypetoor	17	8920	0	73	490	0	81	1	2	40	0	1300kg	122g	0	0	0
153	T	Ethankulam	20	11552	0	78	2526	0	76	0	0	0	0	1400 kg	1400kg	0	0	0
154	T	Ethamthar	14	4807	0	100	1226	0	100	50	50	0	0	0.034	0.034	0.034	0	0
155	A	Kadavanal	17	9094	0	0	1497	0	0	0	0	0	0	320kg	320kg	0	0	0
156		Kadiga	13	8608	0	74	803	0	70	0	1	0	0	0.8	0.6	0	0.2	0
157		Kanjoor	20	12860	0	51	882	0	44	0	0	0	0	900	900	0	0	0
158		Kalavappan	14	6043	0	1	797	0	0	0	0	0	0	24	30	0	0	0
159		Karivoor	14	6450	0	1	260	0	97	0	0	100	100	16kg	0	0	0	0
160		Kedamon	18	8972	0	0	10495	0	0	0	1	0	0	2000 kg	720 kg	0	0	0
161		Kolapuram	17	10486	0	0	2191	0	0	0	0	0	0	0.5	0.5	0.5	0.5	0.5
162		Kozhi	18	10028	7	59	1000	0	30	95	30	1	10	500	250	250	300	0
163		Kottand	13	4919	0	50	31	0	0	0	0	0	0	55	55	0	0	0
164		Kottasal	13	5699	0	0	760	0	0	0	0	0	0	0	0	0	0	0
165		KOZHANCHERU	13	4133	2	12	2191	0	2	0	0	2	2	900 kg	210kg	210kg	160 kg	0
166		Kulmala	16	8229	0	100	420	0	100	0	100	100	100	0.033	0.033	0.033	10	10
167		Kunnamthalam	15	6454	0	52	401	0	70	0	0	0	0	300kg	150kg	0	0	0
168		Kuttur	14	6958	0	0	3088	0	0	0	0	0	0	0	0	0	0	0
169		Makalappada	14	6324	0	74	930	0	100	98	100	0	0	3.4	2.9	0	0	0
170		Mallapally	14	6091	0	96	1370	0	100	0	0	0	0	250 ton	200 ton	0	0	0
171		Mallurthasery	13	4087	0	70	1054	0	3	2	1	0	0	4	0.01	0.01	0	0
172		Mecheril	13	5145	1	80	871	0	40	3	4	0	0	800kg	290kg	0	0	0
173		Melara	13	3600	0	0	445	0	12	0	12	3	1	540 kg	540 kg	50	50	50
174		Narasimmoor	13	4831	2	91	31	0	102	60	102	2	2	630 kg	630 kg	50	50	50
175		Narasipattinam	14	5276	0	59	126	0	38	100	100	100	100	380 kg	380 kg	380	0	0
176		Nederapuram	13	4595	0	77	230	0	44	98	87	0	0	450kg	450kg	450kg	0	0
177		Niranam	13	4477	2	92	316	0	68	73	82	0	0	412	412	412	0	0
178		Ondur	14	6448	4	0	350	90	229	90	72	0	0	950kg	5 (plastic only)	5	400kg	0
179		Pakkal	23	14820	1	60	79	0	25	0	0	0	0	0.5	0.5	nil	nil	nil
180		Pandalam	14	7003	4	80	371	0	216	80	68	0	0	0	0	0	0	0
181		Peringala	15	6700	0	0	320	0	0	0	0	0	0	65 kg	60 kg	0	0	0
182		Ponnadom	19	11502	0	79	1236	0	205	0	0	0	0	0	0	0	0	0
183		Puzhattem	13	5049	0	52	332	0	78	1	2	0	0	0	0	0	0	0
184		Razhi	13	6358	4	100	325	0	71	100	96	1	2	0.3	0.3	0.3	0.3	0.13
185		Razhi Angali	13	5005	4	100	300	10	32	95	96	5	3	300 kg	300 kg	300	100 kg	0
186		Razhi	13	5005	4	100	300	10	32	95	96	5	3	300 kg	300 kg	300	100 kg	0
187		Razhi Perund	15	7356	0	69	842	0	20	0	0	0	0	20kg	16kg	18kg	0	0

SL NO:	DISTRICT	LOCAL BODY	NO OF WARDS	No of Household	% Household D2D-Dry	% of Household-D2D-Wet	No of establishment	Establishment -D2D-Dry	% establishment _D2D-Wet	% of houses in which source level treatment	% of establishment in which source level treatment	% disposing to centralized system	% disposing to centralized system	Quantity of Waste generated (TPD)	Quantity of Waste collected (TPD)	Quantity of Waste treated (TPD)	Quantity of Waste processed in Composting Sites (TPD)	Quantity of Waste processed in biogas plants (TPD)
188		Seetharhode	13	5841	0	100	723	0	100	0	0	0	0	60kg	38kg	21kg	0	0
189		Tharimbode	13	4390	0	0	195	0	0	0	0	0	0	0	0	0	0	0
190		Thottapuzhassery	13	5450	0	0	636	0	13	2	2	0	0	350kg/month	350kg/month	350kg	0	0
191		Thumpamon	13	2887	0	100	367	0	100	52	0	0	0	168 tpd	168 tpd	168	0	0
192		Vadasserikara	15	6854	0	0	401	0	129	0	2	0	0	450 kg	450 kg	450	0	0
193		Vallicode	15	7724	0	70	498	0	21	0	0	0	0	0	0	0	0	0
194		Verhocchira	15	5600	0	100	250	0	100	0	0	0	0	1870 KG	1870 KG	1870 KG	0	0
195	A	Ala	13	4670	0	0	136	0	0	15	0	0	0	0.04	0.04	0.04	NA	NA
196	L	Amthalapuzha	18	8738	0	0	164	0	0	0	0	0	0	0	0	0	0	0
197	A	Amthalapuzha south	15	7323	0	0				2		0						
198	P	Arattupuzha	18	9077														
199	P	Arattupuzha	13	6245	60	0	324	50	0	2	2	0	0	0.3	0.3	0	0	0
200	U	Arer	22															
201	Z	Arzal	18	9188	100	0	426	100	0	3	2	0	0	0.5	0.1	0.5	0	0
202	H	Bharanikkavu	21	13420	46	0	340	64	0	32.8	69.2	0	0	0.4	0.29	1.1	0	0
203	A	Budhanoor	14	6323	0	0	130	0	0	23	34	0	0	0	0	0	0	0
204		Chumbakulam	13	4900	0	0	122	0	0	15	0	0	0	0	0	0	0	0
205		Chinnampallapuram	17	9441	28	0	348	45	0	74	100	0	0	0	0	0	0	0
206		Chinnihala Thripunithura	18															
207		Chiyad	14	7460	0	0	232	0	0	0	0	0	0	0	0	0	0	0
208		Cheriyani	15	8320	60	0	128	30	0	10	50	0	0	0.5	1	0	0	0
209		Cherthala south	22	11458	80	95	587	85	40	35	28	0	0	1	0	0	0	0
210		Chendhara	13	4347	100	0	90	100	0	0	57	0	0	2.21	1	0	0	0.2
211		Cherthala	21	10832	0	0	1542	0	0	0	0	0	0	1.3	1.3	1.3	0	0
212		Chingali	13	5078	40	0	974	50	0	1	0	0	0	0	0	0	0	0
213		Chunakkara	15	7747	0	0	1340	0	0	0	0	0	0	0.1	0.2	0	0	0
214		Devikulangara	15	6523	100	0	235	100	0	20	100	0	0	0.002	0.002	0.002	0	0
215		Dathas	15	6994	58	0	113	80	0	40	58	0	0	0	0	0	0	0
216		Dharmapuzha	16	9018														
217		Kadakkappally	14	6302	0	0	388	0	0	0	0	0	0	0	0	0	0	0
218		Kadakkappally	14	5335	50	0	13	90	0	37	100	0	0	0.2	0.2	0.2	0	0
219		Kandallur	15	2440	86	14	1304	90	10	91	90	0	0	0.32	0	0	0	0
220		Karikkudy	18	8300	100	0	450	100	0	90	100	0	0	0.5	0.5	0.5	0.5	0
221		Karthikappally	13	4479	95	0	98	100	0	0	0	0	0	0	0	0	0	0
222		Karyatt	15	7216	0	0	1417	0	0	0	0	0	0	0	0	0	0	0
223		Kavalam	13	4136			471							1.1	0.9	0.9	0	0
224		Kodanthuruth	15	6055	80	20	268	75	25	30	100	0	0	0	0	0	0	0
225		Krishnapuram	17	7055	0	0	435	0	0	0	0	0	0	0	0	0	0	0
226		Kumarapuram	15															
227		Kuttikalathode	16	5400	97	0	372	0	0	0	0	0	0	0	0	0	0	0
228		Mannancherry	23															
229		Mannar	18	7566	90	0	592	53	0	23	1	0	0	4 T	3T	3T	0	0
230		Mararikulam North	18	8375	100	0	469	0	100	1	1664	2	0	0	0	0	0	0
231		Mararikulam south	23	15028	95	0	2437	401	0	76	83	0	0	0	0	0	0	0
232		Mavelikara Thumarikulam	17	8953	59	0	2883	0	5	0	0	0	0	0	0	0	0	0
233		Mavelikara Thokkara	19	11661	40		1633		9	0	0	0	0					
234		Muhanna	18	7777	50	0	10	70	0	70	50	5	90	1000kg	782kg	0	7395kg	0

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235		Melkutha	18	8370	100	0	560	0	0	0	0	0	0	1.5	320kg	320kg	0	0
236		Melkulam	15	8403	0	0	30	0	0	0	0	0	0	0	0	0	0	0
237		Mannar	17	2884	100	100	229	0	0	100	100	0	0	0.05T	0	0	0	0
238		Nehansaly	15	3186	0	0	1578	0	0	1	33	0	0	1.2 T	0.8T	0	0	0
239		Nelampetoor	13	2841	100	0	460	0	0	0	0	0	0	0	0	0	0	0
240		Nooranad	17	9328	70	0	469	88	0	0	0	0	0	0	260KG	0	0	0
241		Palani	19	8546	85	0	502	0	0	0	0	0	0	1.5 T	1.4 T	1.4T	0	0
242		Pallipud	13	6029	80	0	573	10	0	95	98	0	0	2T	1.33T	1.33T	0	0
243		Pannvely	18	7283	8	0	632	30	0	55	0	0	0	0	0	0	0	0
244		Pandanal	13	2946	0	0	110	0	0	0	0	0	0	0	0	0	0	0
245		Pattiyer	19	11952	100	0	1249	100	0	1	1	0	0	0.000331	0.0002	0.0002	0	0
246		Pattarakad	19	11005	100	0	2400	100	0	100	100	0	0	1.5	0	0	0	0
247		Peyyandam																
248		Pillayann	19	5389	0	0	185	0	0	0	0	0	0	2.3T	2.3T	2.3T	0	0
249		Puliyer	13	6612	0	0	158	75	0	23	12	0	0	3T	2T	1.5T	0	0
250		Punayya north	17	8669	0	0	321	0	0	100	100	0	0	0	0	0	0	0
251		Punayya south	17	8560	0	0	346	0	0	0	0	0	0	0	0	0	0	0
252		Purakkad	18	9354	30	0	1159	0	0	10	1	0	0	0.01	0.001	0	0	0
253		Ramanary	13	2959	30	0	506	0	0	100	100	0	0	889.73kg	0	0	0	0
254		Thalavay																
255		Thalavay	15	7210	0	0	247	0	0	98	98	0	0	1200kg	1000kg	0	0	0
256		Tharuvakkam	23	10203	40	0	396	30	0	30	100	0	0	0.02	0	0	0	0.003
257		Tharuvakkam	21	12128	30	0	2141	0	0	3	0	0	0	0	0	0	0	0
258		Thiruvannamudi	13	4686	0	0	258	0	0	15	0.32	0	0	0	0	0	0	0
259		Thiruvannamudi	17	7273	62	0	263	43	0	3	2	0	0	300KG/MON	300KG/MON	300KG/MON	0	0
260		Thuravoor	18	8707														
261		Thykatassery	15	2928	30	0	928	40	0	15	15	0	0	1800KG/m	1000kg	0	0	0
262		Valikkulam	18	9679	20	0	1918	20	0	20	20	0	0	3	2	0	0	0
263		Vayalar	16	3817	0	0	218	0	0	15	28	0	0	0	0	0	0	0
264		Veyyaparam	13	3678	0	0	212	0	0	0	0	0	0	0	0	0	0	0
265		Velliyand	13	2680	0	0	248	0	0	0	0	0	0	0	0	0	0	0
266		Vennery	15	7433	0	0	574	6	0	0	0	0	0	1500kg/m	1000kg/m	1000kg/m	0	0
267	K	Akalkulam	15	5580	436	74	0	70	0	67	64	0	0	2160 kg	2160 kg	2160kg	40 kg	130 kg
268	O	Arappolam	16	6214	362	50	0	45	0	52	0	0	0	1400	0	0	1400	0
269	T	Athirampuzha	22	12380	2608	70	0	58	0	8	3	16	3	3 ton	0	0	550kg	0
270	T	Ayakkulam	20	10445	1102	69	49	600	424	3	4	0	0	1579 kg	1579 kg	1579 kg	33 kg	110 kg
271	A	Ayazham	20	10123	1150	100	0	71	0	13	10	0	0	2230 kg	2230 kg	2230 kg	115 kg	0
272	V	Bharanganam	13	2840														
273	A	Chempu	15	6240	1444	73	0	49	0	13	4	0	0	2230Kg	2230Kg	2230 KG	450 Kg	0
274	M	Chirkkadavu	20	10985	3122	100	0	81	0	100	81	0	0	2000	2000	2000	0	0
275		Elukulam	16	7290	370	48	0	72	0	40	72	0	0	248KG	205KG	35KG	0	0
276		Erumely	23	16843	2302	5	0	15	0	26	15	0	0	250	303kg	68	6500kg	2500kg
277		Kadanal	14	5717	1482	0	0	0	0	0	0	0	0	220	0	0	0	0
278		Kadayanattom	13	3317	398	100	0	160	0	100	100	0	0	100kg	75kg	75 kg	0	0
279		Kalathuruthy	19	10136		55	0			23		0		3350	390	3350	0	330
280		Kalra (Valam)	13	3005	234	85	0	100	0	90	90	0	0	0.039	0.039	0.039	0	0
281		Kanakkary	15	7567	284	23	0	33	0	8	10	0	0	103kg	75kg	75kg	0	0
282		Karatha	15	6383	117	45	0	30	0	15	20	0	0	0.5	0.5	0.5	0	0
283		Kayyankulam	23	12478	3000	85	0	75	0	85	75	0	0	0.6	60 kg	0	0	0
284		Kezar	15	7119	35	32	0	14	0	100	100	0	0	0.15	0.15	0.15	0	0

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285		Kandachal	16	8060	1093	0	0	0	0	0	0	0	0	2	1	0.1	0.5	0
286		Kidderpur	13	6036	512	0	0	22	1	13	3	67	30	3	0	0	0	0
287		Koerghata	17	8113	241	0	0	0	0	24	17	0	0	1	0	0	0	0
288		Koerghata	13	3363	339	0	0	0	0	0	0	93	42	3	0	0	2	0
289		Koerghata	13	4800	475	0	0	33	23	14	109	0	0	40	28	0	0	0
290		Koerghata	13	4100	256	0	0	0	0	2	1	0	0	2.8	0	0	1.2	0
291		Koerghata	16	6472	814	0	0	0	0	4	0	0	0	0	0	0	0	0
292		Koerghata	14	5811	1239	0	0	13	0	73	2	0	0	2	2	0	0	0
293		Koerghata	20	10092	148	0	0	29	0	1	3	0	0	3.1	0.2	0	0.1	0
294		Koerghata	20	10718	1100	0	0	70	0	20	10	0	0	1.45	1.01	0	0	0
295		Koerghata	17	9221	824	0	0	100	0	6	100	100	0	110 KGD	60 KG	0	0	0
296		Koerghata	15	5410	50	0	0	60	0	0	30	0	0	0.41	0.21	0	0	0
297		Koerghata	18	8210	1608	0	0	100	0	1	2	0	0	400	220	0	160	25
298		Koerghata	14	5354	1107	0	0	18	0	1	2	0	1	1000 kg	400 kg	400 kg	0	0
299		Koerghata	15	3480	482	0	0	34	0	30	73	0	0	237	219	219	0	0
300		Koerghata	12	4800	482	0	0	100	0	4	14	0	0	0.066	0.066	0	0	0
301		Koerghata	13	4151	524	0	0	33	0	90	5	0	0	110	60	60	0	0
302		Koerghata	13	3200	69	0	0	42	0	0	82	0	0	0	0	0	0	0
303		Koerghata	12	2973	189	0	0	58	0	0	94	0	0	900 kg	900 kg	900 kg	0	0
304		Koerghata	17	7252	322	0	0	50	0	40	19	0	0	590 kg	350 kg	350 kg	0	0
305		Koerghata	21	11801	700	0	0	100	0	89	100	0	0	0.1	0.1	0	0	0
306		Koerghata	13	5348	1118	0	0	37	0	0	0	0	0	0.2	0.1	0	0	0
307		Koerghata	13	6922	1241	0	0	25	0	48	25	0	0	1840 kg	1840 kg	1840 kg	0	0
308		Koerghata	15	6902	702	0	0	100	0	43	90	0	0	0.1	0.1	0.43	0.1	0
309		Koerghata	14	4752	242	0	0	4	0	49	2	2	8	2.2	0.43	0.43	0.43	0
310		Koerghata	16	7766	1245	0	0	71	0	0	0	0	0	0	0	0	0	0
311		Koerghata	13	5647	1472	0	0	24	0	20	0	0	0	1200 KGD	1200 KGD	0	0	0
312		Koerghata	20	10700	2823	0	0	7	0	17	0	0	0	3.66	3.66	0	0	0
313		Koerghata	22	12190	899	0	0	11	0	12	0	0	0	0	0	0	0	0
314		Koerghata	19	11418	271	0	0	27	0	17	0	0	0	0	0	0	0	0
315		Koerghata	13	3966	690	0	0	100	0	48	1	0	0	12.165	12.165	0	0	0
		Koerghata	24	3408	1077	0	0	100	0	28	13	0	0	0	0	0	0	0
317		Koerghata	18	7650	1510	0	0	0	0	40	42	0	0	0.31	0.15	0	0	0
318		Koerghata	18	9183	1132	0	0	18	0	5	13	0	0	3.10	75	0	0	0
319		Koerghata	14	6161	139	0	0	60	0	8	0	90	65	3.224	0	0	1.34	0
320		Koerghata	12	5628	424	0	0	15	0	0	0	0	0	0.645	0	0	0	0
321		Koerghata	12	2180	73	0	0	27	0	0	18	0	0	0	0	0	0	0
322		Koerghata	13	2935	872	0	0	31	0	18	27	0	0	0.394	0	0	0	0
323		Koerghata	15	4093	158	0	0	100	0	2	0	0	0	2.750	1.7	0	0	0
324		Koerghata	15	8377	650	0	0	100	0	0	0	0	0	0.01	0	0	0.01	0
325		Koerghata	14	6311	838	0	0	18	0	20	15	0	0	27 Ton	27 Ton	0	0	0
326		Koerghata	18	8663	121	0	0	67	0	5	21	0	0	5.704	5.704	0	0	0
327		Koerghata	20	11373	1300	0	0	12	0	8	0	0	0	4.704	4.704	0	0	0
328		Koerghata	17	8462	44	0	0	18	0	10	5	0	0	3000 KG	5704	0	0	0
329		Koerghata	13	3210	205	0	0	13	0	4	10	0	0	0.8	0.3	0.3	0	0
330		Koerghata	20	10599	1800	0	0	40	0	45	15	0	0	0.1	2.5	0.3	0.1	0
331		Koerghata	21	11000	1400	0	0	65	0	20	10	0	0	1.64	0.88	0.3	0	0
332		Koerghata	16	8184	517	0	0	100	0	15	14	0	0	0.5	0.3	0	0.25	0
333		Koerghata	17	5461	847	0	0	20	0	35	13	0	0	0.4	0.3	0.3	0.1	0



Sl. No.	District	Local Body	No of Wards	No of Household	% Household-D2D-Dry	% of Household-D2D-Wet	No of establishment	% of establishment-D2D-Dry	% establishment-D2D-Wet	% of houses in which source level treatment	% of establishment in which source level treatment	% disposing to centralized system	% disposing to centralized system	Quantity of Waste generated (TPD)	Quantity of Waste collected (TPD)	Quantity of Waste treated (TPD)	Quantity of Waste processed in Composting Sites (TPD)	Quantity of Waste processed in biogas plants (TPD)
334		Velayanoor	13	3846	436	72	0	5	0	75	80	0	0	0.25	0.05	0.1	0.02	0.075
335		Velayanoor	13	6265	818	20	0	7	0	7	0	0	0	0.01	0.02	0.03	0	0
336		Veloor	16	6184	846	73	0	32	0	0	0	0	0	0.8	0.4	0	0	0
337		Vilavipuram	19	10741	1129	85	0	5	0	4	0	83	0	0.2	0.2	0.2	0	0
338	I	Adimaly	21	10163	1140	92	3	75	20	70	80	25	25	30	3	3	1	0
339	D	Azhodes	13	2662	78	85	0	82	0	25	50	0	0	1	0.1	0.1	1	0.5
340	U	Azhalur	13	6445	182	25	0	32	0	75	68	25	32	1.5	0.5	0.5	0	1
341	K	Ayyappancoil	13	4991	93	10	0	27	0	12	8	25	22	0.5	0.1	0.1	0	0
342	K	Bannavilay	13	2853	168	18	0	31	0	34	20	43	24	1.5	0.5	0.5	0	0
343	I	Chakkupattam	13	7120	407	0	0	80	0	29	0	24	78	2.3	2.1	2	0	0
344		Chinnakural	13	4632	923	72	0	18	0	18	65	62	25	1.5	0.75	0.75	0	0
345		Devikulam	18	7894	105	40	0	70	0	71	75	83	80	0.4	0.2	0.2	0	0
346		Edamalakudy	13	764	19	0	0	0	0	1	16	25	20	0	0	0	0	0
347		Edavetty	13	5316	763	88	0	48	0	23	22	0	0	4.37	4.18	4.18	1.67	0
348		Elaapattam	17	8160	950	90	0	83	23	65	50	30	80	3.5	3.1	3.1	2.5	0.2
349		Erattayar	14	4695	492	80	0	75	0	50	25	100	100	1.3	0.5	0.5	0	0
350		Idukki Karikulurthy	18	10560	320	85	0	0	0	50	75	60	80	3.1	1	1	0	0
351		Kankolay	15	6234	450	80	0	75	0	90	80	0	0	4	4	3.5	0	0
352		Kanjiyil	16	6718	962	83	0	80	0	20	10	65	0	4.7	1.9	1.9	0	0
353		Kanthalloor	13	4580	0	75	0	100	100	75	75	100	25	1.39	0.5	0.5	0.5	0
354		Karimnagar	14	5964	768	70	0	75	0	50	50	0	0	0.8	0.3	0.2	0.2	0
355		Karimkulam	13	4125	301	0	0	67	0	50	50	0	0	0.43	0.43	0.43	0.84	0
356		Kannappattam	17	8107	1024	88	0	65	0	80	75	0	0	6.5	4.5	4.5	2	0
357		Kodikkalam	13	3984	117	92	0	90	0	38	90	0	0	2.89	2.95	2.95	0	0
358		Kokkayar	13	4728	133	95	0	92	0	20	65	0	0	3.65	2.3	0.6	0	0
359		Konathudy	19	8730	650	85	0	80	90	87	72	23	32	1.5	0.5	0.5	0	1
360		Kudayathoor	13	3458	163	30	0	68	0	35	20	0	0	1.9	2	2	0	0
361		Kumaravallam	13	4512	122	30	0	20	0	40	40	0	0	3	1.3	1.5	0.5	0.25
362		Kumily	20	11850	2280	95	13	95	95	87	4	13	95	4	4	3.9	3.5	3.5
363		Madakkal	13	4739	138	94	0	40	0	45	25	0	0	4.53	2.45	2.45	2	2
364		Mankulam	13	4588	632	48	0	74	0	64	48	74	0	2.219	0.012	0.012	0	0
365		Marappan	13	4658	281	75	0	100	100	75	75	100	75	1.38	0.5	0.5	0.5	0
366		Mariyapuram	13	3592	15	0	0	100	0	98	60	0	90	0.9	0.6	0.3	0.15	0
367		Mannar	21	9197	3132	70	0	80	70	100	100	40	0	44485	44485	44485	6	4
368		Muttom	13	2563	2300	75	0	90	0	60	70	30	50	2.1	0.5	0.6	0.2	0
369		Nelunkundan	22	13122	10361	75	0	90	0	25	70	0	90	13.31				
370		Pallassal	14	5800	1200	70	0	45	0	70	50	80	75	1.26	0.5	0.5	2	0.2
371		Pampalumpara	16	6832	150	70	0	70	0	75	75	20	20	0.35				
372		Permeda	17	9099	1423	100	0	85	0	30	15	85	85	1.5	1.5	1.5	0	0
373		Peruvanthanam	14	4242	1630	0	0	72	0	30	35	60	25	2	1.5	0.9	0.5	0
374		Purappada	13	3170	414	100	0	70	0	50	100	70	0	0.33	0.33	0.33	2.4	0
375		Rajshah	13	3819	880	85	85	85	80	75	75	100	80	0.49	0.49	0.49	0.49	0.49
376		Rajukunary	13	6052	350	75	75	90	0	70	75	50	50	0.68	0.68	0.68	0.68	0.68
377		Santhappattam	13	4843	170	95	0	100	90	81	80	91	91	4.69	4.26	4.26	0.6	0
378		Seppathy	13	4300	150	78	0	100	84	80	72	74	74	1.39	2.75	2.75	0.8	0
379		Udumbachola	14	7607	248	0	0	75	0	90	80	50	50	0.4	0.2	0.2	0.2	0
380		Udumbanoor	16	6254	1115	60	60	70	70	40	70	60	60	0.5	0.3	0.15	0.15	0
381		Uppathar	18	8184	1211	0	0	100	0	98	60	60	90	0.9	0.6	0.3	0.15	0
382		Vandazhodu	18	10373	1509	0	11	0	5	85	96	1	1	8.17	0.6	0.6	0.6	0.2
383		Vandopyar	23	13969	1011	0	60	80	60	40	70	70	70	3	3	3	3	3

SL-NO:	DISTRICT	LOCAL BODY	NO OF WARDS	No of Household	% Household-D2D-Dry	% of Household-D2D-Wet	No of establishment	% establishment-D2D-Dry	% establishment-D2D-Wet	% of houses in which source level treatment	% of establishment in which source level treatment	% disposing to centralised system	% disposing to centralised system	Quantity of Waste generated (TPD)	Quantity of Waste collected (TPD)	Quantity of Waste treated (TPD)	Quantity of Waste processed in Composting Sites (TPD)	Quantity of Waste processed in biogas plants (TPD)
384		Vannappuram	17	11001	1122	30	0	50	0	25	20	0	0	3.3	1.1	1.1	0	0
385		Varkkudy	18	10194	1412	30	0	70	0	88	10	0	0	9.79	0.1	1.1	0	0
386		Vattavada	13	2747	198	51	0	60	0	0	20	0	0	0.1	0.1	0.1	0.1	0.1
387		Vechalhope	14	4300	430	55	0	64	0	90	23	75	0	1.1	1.1	1.1	0	0
388		Vellathoyal	17	6448	1072	03	0	62	0	53	85	0	0	7.89	4.1	4.1	0.1	0
389		Velliyannam	15	6970	1003	75	0	83	0	83	79	0	0	0.1	0.1	0.1	0.1	0.1

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390	E	Akkaramadu	14	7889	1549	34	0			0	0	0	0	5.02	0.3	0.3	0	0
391	B	Alingadu	21	16317	920	60	0	89	0	10	10	0	0	4.12	0	0	0	0
392	N	Antalur	16	8454	1690	19	0	12	0	8	1	0	4	0.06	0.0012		0.00036	0.00012
393	A	Apulatha	13	4965	189	0	0	0	0	0	0	0	0	0	0	0	0	0
394	K	Asanapur	14	6329	150	8	0	0	0	8	490	0	0	0	0	0	0	0
395	U	Avul	14	6424	1635	0	0	0	0	1	10	0	0	0	0	0	0	0
396	L	Avyasa	14	6021	268	0	0	0	0	0	0	0	0	0	0	0	0	0
397	A	Avyasa	13	1706	668	0	0	0	0	10	25	0	0	0	0	0	0	0
398	M	Chellan	21	10535	62	0	0	0	0	0	0	0	0	0	0	0	0	0
399		Chendrasagalam	18	9665	1108	36	0	4	0	49	19	0	0	6.3	6.3	6.3	0	0
400		Chengamand	18	10166	468	100	0	64	0	95	75	0	0	6.99	6.99	6.99	0	0
401		Cheranalur	17	10832	368	74	0	67	0	74	67	0	67	3.7	3.7	3.7	0	0
402		Chittanayakan	18	2583	412	16	0	0	0	99	28	0	0	4.3	3	1	0	0
403		Chittoor	18	10805	1996	75	0	0	0	0	0	0	0	9 TDP	9TDP	9TDP	0	0
404		Chittoor	14	9997	480	92	0	88	0	95	88	3	88	4.3 TPD	4.3 TPD	4.3 TPD	0	0
405		Edakkavayal	14	6133	900	49	0	100	0	49	44	0	0	7 TPD	7 TPD	7 TPD	0	0
406		Eduthala	21	17007	4134	59	0	91	0	22	45	0	0	3.5	0	0	0	0
407		Eduvankadu	15	6346	954	70	0	100	0	0	0	0	0	6	3	3	0	0
408		Elankunthapur	23	15479	1562	93	0	100	0	33	42	0	0	7	4	4	0	0
409		Elani	13	5552	127	64	0	100	0	100	100	0	0					
410		Elakkara	14	6162	196	69	0	100	0	100	100	0	0	0	0	0	0	0
411		Kadavallur	13	4021	819	0	0	0	0	0	0	0	0					
412		Kadavallur	21	16221	3595	0	0	0	0	0	0	0	0					
413		Kalady	17	9733	2532	82	0	0	0	12	4	0	0	7.06	1.6	0.9	0.5	0.3
414		Kalooradu	15	7511	320		0			2	6	0	0					
415		Kanjor	13	4192	242	0	0	0	0	9	14	0	0	0	0	0	0	0
416		Kanjaly	17	9699	2686	0	0	0	0	0	0	0	0	0	0	0	0	0
417		Kanamoor	20	11233	1215	0	0	0	0	1	3	0	0	0	0	0	0	0
418		Kavayal	18	9880	1770	0	0	0	0	0	0	0	0	0	0	0	0	0
419		Korambara	13	4106	720	0	0	0	0	0	0	0	0	NOT ASSESSED	0	0	0	0
420		Korambara	19	12788	716		0			7	21	0	0	No data available	0	0	0	0
421		Kothakkulam	19	9253	539	0	0	0	0	0	0	0	0					
422		Kottappalli	13	6172	685	0	0	0	0	100	100	0	0	0	0	0	0	0
423		Kottavelli	22	14873	2103	30	0	0	0	86	1	0	0	0	0	0	0	0
424		Kumbham	18	10129	1725	0	0	0	0	4	3	0	0	7.2	0	0	0	0
425		Kumbham	17	8719	1430	100	0	90	0	100	90	0	0	not estimated	not estimated	0	0	0
426		Kumbham	18	12419	2940	23	0	0	0	4	0	0	0	0.3	0	0	0	0
427		Kumarak	15	6300	250	54		60		46	40							
428		Kuttanadu	17		220			0		0	0			0	0	0	0	0
429		Kuvempudi	20	12123	0	10	0	0	0	3	0	0	0					
430		Kuthupatti	13	3615	185	34	0	51	0	0	0	0	0	0	0	0	0	0
431		Malayanoor - Nellikuzhal	17	8386	971	0	0	0	0	0	0	0	0	0	0	0	0	0
432		Manal	13	3948	219	0	0	0	0	0	0	0	0	0	0	0	0	0
433		Manaloor	13	5253	1585	81	19	0	0	0	0	0	0	0	0	0	0	0
434		Manjara	13	3857	173	0	0	0	0	4	0	0	0	17860	0	0	0	0
435		Manjara	19	10995	72	0	0	0	0	0	0	0	0	0.05	0.001	0.001	NIL	NIL
436		Mathuram	14	6499	353	0	0	0	0	0	0	0	0	nil	nil	nil	0	nil

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437		Mookkannur	14	5394	200	0	0	0	0	0	0	0	0	nil	nil	nil	0	0
438		Mudakkuzha	13	7386	700	0	0	0	0	0	0	0	0	100KG	0	0	0	0
439		Muzhenkurathi	10	7728	11	0	0	0	0	0	0	0	0					
440		Muzhenkudi	16	9479	1105	0	0	0	0	0	0	0	0					
441		Narasambalam	19	12909	3522	27	0	10	0	0	0	0	0					
442		Nedumbazery	21	12271	0	0	0	0	0	0	0	0	0	24	0.5	0.5	0	0
443		Nellikuzhi	16	7801	0	0	0	0	0	0	0	0	0	0	0	0	0	0
444		Nerakkal	16	2957	1974	0	0	0	0	0	0	0	0	0	0	0	0	0
445		Okkal	16	4780	2	0	0	0	0	0	0	0	0	0	0	0	0	0
446		Palingattar	13	4920	133	76	0	100	0	0	0	0	0	0	0	0	0	0
447		Pakkiluzha	13	3030	1317	0	0	0	0	0	0	0	0	0	0	0	0	0
448		Pallarimangalam	23	13549	1141	75	0	70	0	92	90	0	0	0	0	0	0	0
449		Pallippuram	23	13549	1141	75	0	70	0	92	90	0	0	11	0.01	0	0	0
450		Pambakkuda	18	9690	2022	0	0	0	0	71	92	0	0	1	4.9			
451		Parakkadu	22	11745	315	0	0	0	0	98	1587	0	0					
452		Parippu	13	6129	589	0	0	0	0	100	100	0	0					
453		Pudimann	14	7649	3107	34	0	6	0	100	100	0	0					
454		Puzhikkal	13	6453	1814	12	0	8	0	12	0	0	0	2219 KG	2219 KG	1789 KG	0	0
455		Puthankadu	13	7687	750	23	0	17	0	20	0	0	0	100kg/day	0	0	0	0
456		Puthenchikudi	17	9932	436	0	0	0	0	0	0	0	0	No Estimated	Not	0	0	0
457		Ramanangalay	20	12715	1200	40	0	7	0	8	46	0	0	JTPD	JTPD	0	3tpd	0
458		Ramanangalam	14	6090	2090	25	20	3	0	14	3	0	0					
459		Sreenook Nigaram	14	5769	250	0	0	0	0	0	0	0	0	0	0	0	0	0
460		Thiruvandi	13	7825	606	45	0	34	0	0	0	0	0	0	0	0	0	0
461		Thiruvannur	14	7572	1654	0	0	0	0	10	10	0	0	1 tpd	0	0	0	0
462		Thuvur	20	15375	365	0	0	0	0	0	0	0	0		173KG	0	0	0
463		Uthupparamoor	20	10022	1588	0	0	0	0	0	0	0	0					
464		Vakkidikkal	17	9540	1789	0	0	0	0	4	11	0	0					
465		Vadavukodu-Puthankadu	14	6174	1628	0	0	0	0	0	0	0	0					
466		Vakkidikkal	17	9540	1789	0	0	0	0	0	0	0	0					
467		Vengoori	13	6087	771	0	0	0	0	0	0	0	0	0.07	0.07	0	0	0
468		Vengozhi	16	9275	1858	0	0	0	0	0	0	0	0	0	0	0	0	0
469		Vengalukkam	20	17202	788	0	0	0	0	0	0	0	0	1	1	0	0	0
470		Vengal	23	17853	850	0	0	0	0	78	71	0	0	3	0	0	0	0
471		Vengur	15	5955	775	0	0	0	0	0	0	0	0	10	10	0	0	0

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472	T	Adar	18	8480	1154	0	0	17	0	0	0	0	0	2	3	3	0	0
473	H	Aleganagar	17	9749	1917.0	0	0	0	0	13	8	0	0	2	0	0	0	0
474	H	Aloor	23	17500	1700	0	0	0	0	0	0	0	0	1 ton	1/2 ton	0	0	0
475	I	Ammanada	18	10499	2666	0	0	0	0	14	0	0	0	0	0	0	0	0
476	S	Arakkal	15	6922	1180	0	0	0	0	7	0	0	0	0	0	0	0	0
477	S	Arinar	17	10495	69	0	0	0	0	19	0	0	0	3 ton	2 ton	nil	0	0
478	U	Athirappilly	13	3004	967	0	0	0	0	0	0	0	0	Not estimated	Not Estimated	0	0	0
479	H	Avanur	15	8062	373	25	0	5	0	2	0	0	0	8	0	0	0	0
480		Avinattary	14	6213	521	0	0	89	0	3	0	0	0	0	0	0	0	0
481		Chanthar	18	7956	7956	100	0	100	0	0	0	0	0	0	0	0	0	0
482		Chelakkara	22	13745	2921	21	0	3	0	0	0	0	0	0	0	0	0	0
483		Cherpu	21	11176	2136	72	0	0	0	1	0	0	0	not estimated	not estimated	not	not estimated	not estimated
484		Chinnel	18	10449	3097	0	0	0	0	0	0	0	0	0	0	0	0	0
485		Chowannur	13	5251	919	0	0	0	0	0	0	0	0	0	0	0	0	0
486		Damanangalam	13	7119	0	0	0	0	0	0	0	0	0	0	0	0	0	0
487		Edathikulthy	18	8642	383	0	0	0	0	0	0	0	0	0	0	0	0	0
488		Eduffarga	14	6469	1363	100	0	0	0	0	0	0	0	0	0	0	0	0
489		Elavally	16	8513	1941	70	0	30	0	0	0	0	0	1 ton	1 ton	0	0	0
490		Ergattinar	16	7781	1515	72	0	30	0	0	1	0	0	not estimated	not estimated	not	not estimated	not estimated
491		Erivad	23	14585	2704	0	0	0	0	0	0	0	0	0	0	0	0	0
492		Erumanpatty	18	7420	3920	0	0	0	0	0	0	0	0	0	0	0	0	0
493		Kadavugode	18	8361	2896	0	0	0	0	0	0	0	0	0	0	0	0	0
494		Kadappanam	18	8830	901	0	0	0	0	0	0	0	0	0	0	0	0	0
495		Kadavulur	20	9254	1232	0	0	0	0	0	0	0	0	0	0	0	0	0
496		Kadavuttu	16	8276	1173	0	0	0	0	0	0	0	0	0	0	0	0	0
497		Kaipamangalam	20	10800	960	30	0	5	0	0	0	0	0	0	0	0	0	0
498		Kaiparandu	18	8409	818	36	0	6	0	0	0	0	0	not estimated	0	0	0	0
499		Kandamattary	16	7791	1487	0	0	0	0	0	0	0	0	not estimated	0	0	0	0
500		Kannan	15	6486	839	0	0	21	0	95	23	0	0	0.2	0.2	0.2	0	0
501		Kattikulam	16	8700	700	0	0	0	0	0	0	0	0	0	0	0	0	0
502		Kavayal	14	5572	1699	20	0	4	0	0	0	0	0	0	0	0	0	0
503		Kodikkara	19	10871	3016	29	0	0	0	17	0	0	0	9.6 tons	6.7 tons	6.7 tons	0.5 ton	0
504		Kodussery	30	11341	0	0	0	0	0	0	0	0	0	0	0	0	0	0
505		Kolathy	17	11845	1135	0	0	0	0	0	0	0	0	not estimated	not estimated	not estimated	not estimated	not estimated
506		Kondudy	15	6764	972	0	0	0	0	0	0	0	0	0	0	0	0	0
507		Koratty	19	10989	610	0	0	0	0	0	0	0	0	0	0	0	0	0
508		Kozhur	14	6510	908	0	0	0	0	0	0	0	0	not estimated	0	0	0	0
509		Mabulikkara	16	8860	1362	40	0	52	0	10	0	0	0	2.05 TON	2.05 TON	2.05 TON	0.25TON	1 TON
510		Mala	20	11856	4446	0	0	0	0	0	0	0	0	0	0	0	0	0
511		Manar	19	9487	2312	100	0	100	0	100	100	90	0	9.86TON	9.86TON	9.86TON	0.5 TON	0
512		MATHILAKAM	17	7565	588	0	0	0	0	0	0	0	0	0	0	0	0	0
513		Meethar	23	18245	2731	0	0	0	0	0	0	0	0	4.9 ton	4.9 ton	4.9 ton	0	0
514		Meipur	17	6888	0	0	0	0	0	0	0	0	0	200kg	0	200kg	0	0
515		Mulakunathkavu	14	7053	0	0	0	0	0	0	0	0	0	Mulakunath kavu	0	0	0	0
516		Mullasser	15	6753	413	67	0	0	0	0	0	0	0	0.002	0.002	0	0	0
517		Mullarkara	60	5927	1383	36	0	4	0	0	0	0	0	0	0	0	0	0
518		Murivad	17	9633	1180	100	1	100	0	0	0	0	0	0	0	0	0	0

Sl. No.	DISTRICT	LOCAL BODY	NO OF WARDS	No of Household	% Household D2D-Dry	% of Household-D2D-Wet	No of establishment	Establishment -D2D-Dry	% establishment -D2D-Wet	% of houses in which source level treatment	% of establishment in which source level treatment	% disposing to decentralized system	% disposing to centralised system	Quantity of Waste generated (TFD)	Quantity of Waste collected (TFD)	Quantity of Waste treated (TFD)	Quantity of Waste processed in Composting Sites (TFD)	Quantity of Waste processed in biogas plants (TFD)
319		Nadabara	17	10932	100	0				100	50	100	50	2000Kg	2000Kg	2000Kg	1000Kg	500Kg
320		Narika	14	6373	2514	84	0	11	0	60	43	0	0	2 ton	1 ton	0	0	0
321		Narasikara	15	6745	1815	22	0	8	1	0	0	0	0	NA	NA	0	0	NA
322		Orunavayur	13	3035	249	0	0	0	0	0	0	0	0	NA	NA	NA	NA	NA
323		Padiyoor	14	6323	902	0	0	0	0	0	0	0	0	NA	NA	NA	NA	NA
324		Panchery	23	15443	3231	0	0	0	0	0	0	0	0					
325		Parai	16	8250	1175	0	0	0	0	0	0	0	0	0	0	NA	NA	NA
326		Parala	13	6563	8	0	0	0	0	0	0	0	0					
327		Parappukara	18	8758	1789	90	0	31	0	0	31	0	0	0.5Tan	0.5Tan	0	0	0
328		Pariparam	13	3406	8916	0	0	0	0	0	0	0	0	NA	NA	NA	NA	NA
329		Pavetty	13	6755	1775	0	0	0	0	0	0	0	0	NA	NA	NA	NA	NA
330		Pazhannur	22	17080	218	45	45	90	87	0	0	0	0	Not estimated	Not	Not	NA	NA
331		Perinjara	15	8883	650	100		100		100	100							
332		Poomangalam	13	4236		0	0			0		0		Not estimated	Not	Not	Not estimated	NA
333		Porukudi	13	5471		0	0			0		0						
334		Poyya	15	5652		0	0			0		0						
335		Pudukad	15	2635	565	0	0	0	0	0	0	0	0	Not estimated	Not	Not	Not estimated	Not estimated
336		Punayamkulam	19	9516	2040	0	0	0	0	0	0	0	0	324	324	324	0	0
337		Purayur	20	9922	2128	0	0	0	0	0	0	0	0	615	615	615	0	0
338		Puzhickina	15	16707	1107	0	0	0	0	0	0	0	0	115 ton	115	115	0	0
339		Puthur	23	12268	2186	9	0	2	0	0	0	0	0	35	35	35	0	0
340		Srinivasapuram	21	12471	2857	30	0	50	0	0	0	0	0	0.2	0.15	0	0	0
341		Talikulam	16	8104	490	29	0	100	0	0	0	0	0	50	30	30	0	0
342		Thanniam	18	9782	5000	51	0	100	0	0	0	0	0	20 ton	20	20	0	0
343		Thakkurukara	18											1TON/DAY	0	1/TON	0	0
344		Thiruvivezhi	17	NA	NA													
345		Thurur	13	4388	30	0	0	33	0	0	0	0	0			20	na	na
346		Thykkur	17	8552	1280	30	0	26	0	80	73	0	0	0.2	0.2	0.2	0	0
347		Vadakkad	16	8320	980	0	0	3	0	0	0	0	0	0	0	0	na	na
348		Velupad	20	10127	1787	4	0	0	0	1	1	0	0	not estimated	not estimated	not estimated	na	na
349		Vellathol	14	7120	670	0	0	0	0	0	0	0	0	0.03	0.04	0.04	0	0
350		Vellotholagur	16	6378	1331	60	0	3	0	0	0	0	0	not estimated	not estimated	not estimated	0	0
351		Vandraspally	22	13900	2601	0	0	0	0	5	0	0	0	not estimated	not estimated	not estimated	na	na
352		Vannoor	14	6451	911	0	0	0	0	0	0	0	0	not estimated	not estimated	not estimated	na	na
353		Vanaspally	18	7625	1236	8	0	2	0	0	0	0	0	not estimated	not estimated	not estimated	0	0
354		Vellangalur	21	12510	710	0	0	0	0	0	0	0	0	not estimated	not estimated	not estimated	0	0
355		Velikkara	18	8960	1766	0	0	0	0	0	1	0	0					
356		Velur	17	8430	1429	0	0	0	0	0	0	0	0	not estimated	not estimated	not estimated	0	0
357		Venkitanga	17															

SL. NO:	DISTRICT	LOCAL BODY	NO OF WARDS	No of Household	% Household D/D-Dry	% of Household-D/D-Wet	No of establishment	Wastebuildment -D/D-Dry	% establishment _D/D-Wet	% of houses in which source level treatment	% of establishment in which source level treatment	% disposing to centralized system	% disposing to centralized system	Quantity of Waste generated (TPD)	Quantity of Waste collected (TPD)	Quantity of Waste treated (TPD)	Quantity of Waste processed in Composting Sites (TPD)	Quantity of Waste processed in Biomethanation (TPD)	
558	P A L A K K A B	Agali	21	12739	2615	75	0	96	4	94	2	0	98						
559		Akathelara	17	9590	3892	45	0	2	0	48	2	0	0		3500 kg	500 kg/ month	0	0	
560		Alurapur	23	15185	4290	93	0	0	0	0	17	0	82	0	2140. kg	1400. kg	1400. kg	0	0
561		Althar	16																
562		Amshappara	20	12928	1432	87	0	0	0	0	29	0	0	0	6 Tons	6 Tons	Transported	0	0
563		Anakkara	16	7066	1401	70	0	0	0	0	0	0	0	0	0	0	0	0	0
564		Anaganadi	15	7526	985	10	0	20	0	15	0	0	0	0	0	0	0	0	0
565		Aybur	17	8327	1289	85	2	0	0	0	0	0	0	0	0	0	0	0	0
566		Chalvava	15	6860	1048	0	0	0	0	0	0	0	0	0	0	0	0	0	0
567		Chelivary	15	6550	1200	100	0	100	100	15	8	0	0	0	100	0	0	0	0
568		Elappully	22	11815	2016	70	64	60	47	0	0	0	0	0	1100 Kg	1000 Kg	850 Kg	0	0
569		Elavachery	14	5235	235	0	0	0	0	0	0	0	0	0	0.15	0.1	0	0	0
570		Erinagar	18	9482	889	0	0	0	0	0	0	0	0	0	0	0	0	0	0
571		Eruthampathy	14	5681	362	22	52	22	43	0	0	0	0	0	0.05	0.02	0.03	0	0
572		Kadamardipuram	18	9872	2239	90	0	89	0	0	0	0	0	0					
573		Kanjirappada	19	9944	1959	0	0	0	0	0	2	0	0	0	0.03	0.03	0	0	0
574		Kanad	15	8061	1100	50	0	11	0	0	0	0	0	0					
575		Kari	16	7784	44	0	0	0	0	0	1								
576		Kasanzha	16	7950	650	45	0	100	0	0	0	0	0	0	0.10 tonne	0.05 tonne	0.05 tonne	0	0
577		Kappur	18	8902	1759	0	0	0	0	0	0	0	0	0	0.45	0	0	0	0
578		Karakuruzhi	16	7417	1490	0	0	100	0	100	2	0	0	0	0.02	0.01	0.01	0	0
579		Karintha	17	8870	2049	70	0	97	0	0	0	0	0	0					
580		Karimpuza	18	9835	268	64	64	100	4	0	2	0	0	0	0.5	0.5	0.5	0	0
581		Kavassery	17	8966	218	7	0	12	0	0	0	0	0	0					
582		Keralassery	13	4861	238	0	0	0	0	0	0	0	0	0	0.01	0.01	0.03	0	0
583		Kibikkanchery	22	13196	2238	69	0	67	0	0	1	0	0	0	0.04	0.04	0.04	0	0
584		Kidamba	13	8182	1333	85	84	90	90	28	4	0	0	0	7 tonnes	8 tonnes	8 tonnes	0.2 tonnes	0
585		Kidavayur	18	10181	465	0	0	0	0	5	75	0	0	0	1.05 tonne	1.05 tonne	1.05 tonne	200 kg	0
586		Kulshode	18	7346	1345	0	0	153	240	0	0	0	0	0	1200	1200	1200	200	0
587		Kungal	18	9300	1684	100	0	48	0	54	62	100	42	0	500	500	500	0	0
588		Koppur	17	9915	3482	100	0	81	0	0	0	0	0	0	0.05	0.05	0.05	0	0
589		Kottayam	15	6903	1329	10	0	65	0	1	1	0	0	0	0.05	0.05	0.05	0	0
590		Kottappada	23	13171	2843	0	0	30	0	0	0	0	0	0	0.05	0.05	0.05	0	0
591		Kuthiyangara	18	9119	1755	0	0	0	0	0	0	0	0	0					
592		Kuthikkal	17	8572	1787	79	0	0	18	0	0	0	0	0					
593		Kuzhupathur	18	8902	1832	81	0	0	60	0	0	0	0	0	0.05	0.05	0.05	0	0
594		Kuthanur	16	6896	824	0	0	0	0	0	0	0	0	0	0	0	0	0	0
595		Kuzhalmanam	17	8923	283	100	0	0	100	0	0	0	0	0	0	0	0	0	0
596		Lakkil-Pattur																	
597		Madampuza	13																
598		Mankara	14	7125	1220	75	0	25	0	0	0	0	0	0	0	0	0	0	0
599		Mannar	14	3925	1300	48	0	19	0	0	0	0	0	0	0	0	0	0	0
600		Maruthanad	19	11026	2101	50	0	0	0	0	0	0	0	0					
601		Mathur	18	7924	676	73	0	100	0	0	0	0	0	0					
602		Melakkode	16	7043	0	0	0	0	0	0	0	0	0	0					
603		Mundar	18	9597	1819	0	0	0	0	0	0	0	0	0					
604		Muthalamada	20	9204	2110	0	0	0	0	0	0	0	0	0					
605		Muthubada	13	6945	135	100	0	100	0	18	42	0	0	0	539.25	723.55	723.55	200.15	100.5
606	Nagalassery	17	8507	590	100	0	100	0	45	23	0	0	0						
607	Nalappilly	19	8095	448	100	0	100	0	0	0	0	0	0						
608	Nellay	19	10587	0	0	0	0												

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609		Nellaiangaly	13	950	97	100	0	100	0	0	0	0	0	0	0	0	0	0
610		Nemmara	20	11813	2449	97	0	5	0	7	2	0	0	180 KG	172 KG	172	0	0
611		Ongallur	22	12811	3161	99	0	5	0	0	0	0	0	700 kg	0	0	0	0
612		Palassana	26	8433	268	93	0	17	0	5	0	0	0	0	0	0	0	0
613		Parali	20	10733	2069	0	0	0	0	0	0	0	0	0	0	0	0	0
614		Paralur	16	6082	728	0	0	0	0	0	0	0	0	0	0	0	0	0
615		Patteeswary	16	8929	150	0	0	0	0	0	0	0	0	na	na	na	na	na
616		Paruthura	18	9467	1784	0	0	0	0	4	7	0	0	0	0	0	0	0
617		Perumatti	18	9500	380	53	0	67	0	0	0	0	0	0	0	0	0	0
618		Perungattakurissi	16	9539	0	0	0	0	0	0	0	0	0	0	0	0	0	0
619		Peruvenda	14	5757	700	0	0	0	0	0	0	0	0	500 kg	508g	0	0	0
620		Pirairi	21	13282	1959	0	0	0	0	0	0	0	0	1400 Kg	0	0	0	0
621		Poovully	13	5389	890	0	0	0	0	0	0	0	0	500 kg	0	0	0	0
622		Ponkirkkavu	13	4561	489	0	0	54	0	0	0	0	0	NA	NA	NA	NA	NA
623		Pudakkode	15	6294	6	0	0	0	0	0	0	0	0	NA	NA	NA	NA	NA
624		Pudussagaram	13	4348	875	12	0	0	0	0	0	0	0	NA	NA	NA	NA	NA
625		Pudupparavaram	21	12062	21	0	0	0	0	0	0	0	2381					
626		Pudur																
627		Puduturi	23	16896	4062	0	0	0	0	0	0	0	0	NA	NA	NA	NA	NA
628		Sholayar	14	6926	275	0	0	0	0	0	0	0	0					
629		Sreekrishnaguram	14	5280	350	100		100		56				328.25	323.55	323.55	300.13	100.3
630		Thachampara	15	5582	868	0	0	0	0	0	0	0	0					
631		Thachanurkara	16	6085	170	100	0	0	0	0	0	0	0	133.6	37.2	NA	NA	NA
632		Tharur	16	7784	181	50	0	0	0	0	0	0	50	3.8384 tone	3.8384 tone	3.8384 tone	0	0
633		Therkara	17	8247	3064	0	0	0	0	6	0	0	0	0	0	0	0	0
634		Thirukurali	17	8348	820	72	0	56	0	0	0	0	0	0	0	0	0	0
635		Thiruvittakkode	18	8300	450	0	0	0	0	0	0	0	0	0	0	0	0	0
636		Thiruvagappore	18	8084	1185	0	0	0	0	0	0	0	0	0	0	0	0	0
637		Thirikkaderi	16	6698	279	0	0	0	0	0	0	0	0	0	0	0	0	0
638		Thirithala	17	8429	424	0	0	0	0	0	0	0	0	8 tone	7 tone	7 tone	0	0
639		Vadakkangal	17	9066	912	20	0	30	0	5	10	0	0	1	0.25	0	0	0
640		Vadakkangal	20	10160	820	7	0	70	16	70	78	0	0	4 tone	3 tone	3 tone	0	0
641		Vadavannur	13	5074	980	0	0	0	0	0	0	0	0	0	0	0	0	0
642		Vallapuzha	16	8838	1547	0	0	0	0	0	0	0	0	0	0	0	0	0
643		Vanduzhi	19	10149	728	90	0	20	0	90	20	0	0	0	0	0	0	0
644		Variyankulam	18	10199	813	0	0	0	0	23	74	0	0	5000kg	3000kg	3000	0	0
645		Velloruzhi	13	5147	281	100	0	100	0	100	100	0	0	840	600	600	600	0
646		Vilayur	15	6953	0	0	0	0	0	92		0	0					



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647	M	Ajanakodu	19	11127	200	75	23	0	0	0	0	0	0						NIL
648	A	Ajapanambo	21	11621	1982	0	0	0	0	0	0	0	0	0.05	0.05	0.05	NA	NA	
649	L	Amarambalam	19	7841	604	100	0	100	0	0	0	0	0	0.045	0.045	0.045	0.045	0.045	NIL
650	A	Anakkayes	23	15424	305	100	0	100	0	0	0	0	0	0.05	0.05	0.05	0.05	0.05	NIL
651	P	Angalipuram	23	15220	4201	75	25	90	10	50	50	50	50	0.05	0.05	0.05	0.05	0.05	nil
652	P	Areekode	18	8526	4718	0	0	0	0	13	18	0	0						
653	U	Athavanadu	22	12145	3512	0	0	0	0	18	22	0	0	0.04	0.04	0.25	0.15	0.15	NIL
654	H	Chaliyar	14	6361	267	100	0	100	0	17	83	0	2	0.02	0.02	0.02	0.02	0.02	0.02
655	A	Cheekkode	18																
656	M	Chalanda	18	10601	1888	100	0	0	0	10	5	0	0	0.075	0.07	0.03	0.02	0.02	0.01
657		Cheriyamundan	18	6546	420	100	0	100	0	0	0	0	0	0.035	0.035	0.035	0.03	0.03	0.03
658		Cherukavu	19	11042	426	100	0	100	0	0	0	0	0	0.045	0.045	nil	nil	nil	nil
659		Chokkikul	18	9284	254	0	0	0	0	0	0	0	0	0	0	0	0	0	0
660		Chunkathara	20																
661		Edakkara	16	8675	486	72	0	52	0	8	45	0	1	0.053	0.053	0.053	0.055	0.055	0.055
662		Edappal	19	9438	2437	100	0	38	0	14	1	0	0	0.04	0.04	0.04	0.04	0.04	0.04
663		Edappatta	15	4986	110	22	0	18	0	27	1	0	0	0.036	0.036	0	0	0	0
664		Edarikkode	16	6590	NIL									0	0	0	0	0	0
665		Edavanna	22	11141	3928	92	0	71	0	19	6	0	0	0.06	0.06	0.06	0.06	0.06	0.06
666		Edayar	19	8706	1726	29	0	0	0	7	0			0.2	nil				
667		Elankulam	18	7919	314	65	0	55	0	45	18	0	0	0.05	0.05	0.04	NIL	NIL	NIL
668		Entambiyam	17	8208	1720	0	0	0	0	8	0	0	0						
669		Kaladi	16	7529	1064	24	0	11	0	0	0	2		0.13	0.11	nil	nil	nil	nil
670		Kalkavu	19	10202	470	0	0	0	0	48	10	0	0	0.083	0	0	0	0	0
671		Kalyanashery	18	9844	2364	0	0	0	0	0	0	0	0	0.033	0.033	0.033	0	0	0
672		Karunaganjaram	20	10141	2293	30	0	30	0	10	10	0	0	1	1.1	1.2	0	0	0
673		Karveli	15	5625	220	100	0	100	0	0	0	0	2	0.05	0.05	0.05	0.05	0.05	0.05
674		Karunakkulam	21	9967	265	0	0	0	0	0	0			0	0	0	0	0	0
675		Kavarnoor	19	9588	746	0	0	0	0	0	0								
676		Kochothar	19	8387	1546	64	0	33	0	18	2	0	0	0.68	0.3	0.3	0	0	0
677		Kochupuzha	14	6028	262	0	0	0	0	0	0	0	0	0	0	0	0	0	0
678		Koduvu	16	10290	470	0	0	0	0	0	0	0	0						
679		Koottilangadi	19	10018	2274	100	0	100	0	0	0	0	0	0.033	0.033	0.033	0.033	0.033	NIL
680		Kureva	22	13805	2813	60	0	70	0	10	10	0	0	0.04	0.04	0.04	0.04	0.04	0
681		Kuttippuram	23	13613	2568	65	0	75	0	35	70	0	0	0.045	0.045	0.045	0.045	0.045	0
682		Kuzhimanna	18	9400	342	60	0	60	0	40	40	0	0	0.025	0.025	0	0	0	0
683		Makkarakkam	13	5867	394	100	0	100	0	0	0	0	0	0.3	0.2	0.2	0.2	0.2	0.013
684		Mandi	19	9850	220	0	0	0	0	8	0	0	0	0.3	0.3	0.3	0.3	0	0
685		Mangalam	20	7868	7868	100	224	224	100	63	46	0	0	0.02	0.02	0.02	0	0	0
686		Mankada	18	9841	200	0	0	100	0	91	100	0	0	0.1	0.1	0.1	0	0	0
687		Mankkate	20	7715	342					46	158			0.5	0.5	0.5	0.5	0.5	0
688		Maranchery	19	10699	2281	100	0	0	100	100	100	0	0	0.1	0.1	0.1	0.1	0.1	0
689		Matanur	16	8402	127	60	0	21	0	25	60	0	0	0.02	0.02	0.02	0.02	0.02	0
690		Moondiyar	23	14439	686	60	0	40	0	19	5	0	0	0.03	0.03	0.03	0	0	0
691		Moorkkuzha	19	8432	385	76	24	70	20	0	0	0	0	0.13	0.15	NIL	0.1	NIL	NIL
692		Morayar	18	8745	313	60	0	100	0	1	8	60	100	0.15	0.13		0.12	0	0
693		Muthedam	13	7145	204	100	24	100	0	24	0	0	0	0.1	0.1	0.1	0.05	0	0
694		Muthuvellur	13	6347	167	75	25	60	40	90	100	0	0	0.5	0.5	0.5	0.5	0.5	0
695		Nannambra	21	9100	2000	0	0	0	0	0	0	0	0	0.032	0.032	0	0	0	0
696		Nannanadu	17	6732	400	48	0	100	0	30	5	0	0	0.02	0.02	0	0	0	0

SL NO:	DISTRICT	LOCAL BODY	NO OF WARDS	No of Household	% Household DSD-Dry	% of Household-DSD-Wet	No of establishments	Establishment -DSD-Dry	% establishment -DSD-Wet	% of houses in which source level treatment	% of establishment in which source level treatment	% disposing to centralized system	% disposing to centralized system	Quantity of Waste generated (TFD)	Quantity of Waste collected (TFD)	Quantity of Waste treated (TFD)	Quantity of Waste processed in Composting Sites (TFD)	Quantity of Waste processed in biogas plants (TFD)
697		Ngameruthur	17	7969	1158	0	0	0	0	0	0	0	0	0.03	0	0	0	0
698		Orelam	17	7995	256	11	0	14	0	0	0	0	0	0.075	0.075	0.075	0	0
699		Othakkungal	20	19666	2844	58	0	100	0	90	90	90	90	0.055	0.03	0	0	0
700		Othar	18	7996	332	20	0	49	0	29	60	0	0	0.025	0.02	0	0	0
701		Palakkal	22	12642	6297	47	5	32	8	0	0	0	0	0.02	0	0	0	0
702		Pandikkal	23	12510	482	0	0	0	0	0	0	0	0	0.1	0	0	0	0
703		Parappur	19	9374	1919	0	5	0	0	0	0	0	0	0	0	0	0	0
704		Perumanna Kari	16	7553	2123	2	0	0	0	1	5	0	0	0	0	0	0	0
705		Perumpadappu	18	8127	1642	4	2	33	8	2	8	0	0	0	0	0	0	0
706		Peruvallur	19	9134	30	75	30	0	0	0	10	0	0	0.05	0.01	0	0	0
707		Ponmala	18	7237	1302	0	0	0	0	0	0	0	0	0	0	0	0	0
708		Ponnandam	16	6657	329	100	100	49	20	0	2	2	0	0.05	0.05	0.05	0	0
709		Porai	17	9276	1482	0	0	0	0	0	0	0	0	0.1	0.03	0	0	0
710		Pothukallu	17	10427	728	0	0	0	0	0	0	0	0	0	0	0	0	0
711		Pulickattur	19	8285	689	0	0	0	0	0	0	0	0	0	0	0	0	0
712		Pulamanthol	20	12698	1200	12	10	25	23	3	3	0	0	0.02	0	0	0	0
713		Pullikal	21	10949	5	0	0	0	0	0	0	0	0	0.02	0.02	0.02	0	0
714		Puljatta	21	11886	2287	100	0	100	0	0	0	0	0	0.05	0.05	0.05	0	0
715		Puzhur	19	6959	1689	100	100	49	0	23	0	0	0	0.015	0.015	0.015	0	0
716		Puthakkottai	17	9386	340	100	0	100	0	0	29	100	100	4	0	3.5	0	0
717		Thalakkadu	19											0.02	0.015	0	0	0
718		Thanalur	23	12527	1436	100	0	82	0	0	0	0	0	0.05	0.06	0.06	0	0
719		Thavattur	19	10047	800	100	0	100	0	54	40	0	0	0.18	0.15	0.15	0	0
720		Thathakkadu	21	10080	8	100	0	83	0	64	83	0	0	1.3	1.35	0	0	0
721		Thiruppalam	17	9821	0	0	0	0	0	69	0	0	0	0	0	0	0	0
722		Thiruvalla	17	7131	0	0	0	0	0	100	0	0	0	0	0	0	0	0
723		Thiruvayya	23	12552	12123	83	0	0	0	0	0	0	0	0	0	0	0	0
724		Thiruvai	16	7182	36	100	0	0	0	97	63	0	0	0	0	0	0	0
725		Thiruvallur	23	14993	2436													
726		Thiruvannam	21	8375	1100	100	0	60	0	65	0	0	0	0.75	0.65	0	0	0
727		Tuvur	17	6500	230	100	0	100	0	45	0	0	0	0.25	0	0	0	0
728		Tirupattur	21	11946	2203													
729		Vallanur	19	9139	2182	100	0	30	0	4	0	0	0	0.015	0.03	NA	0.05	NA
730		Valluvar	23	12999	2715	100	0	100	0	35	25	0	0	0.35	0	NA	0.1	NA
731		Vattakkulam	19	11117	4996													
732		Vattakkudi	19	12445	2450													
733		Vattavayal	17	9452	2216	100	0	100	0	100	100	0	0	0.18	0.15	0.14	0	0
734		Vattavayal	23	14141	2111	0	0	0	0	0	0	0	0	18	11	8	0	0
735		Vattavayal	18	9221	2081													
736		Vengal	23	10852		0	0			0	0	0	0	NA	NA	NA	NA	NA
737		Vettur	16											25	20	14	15	15
738		Vetthi	20	8313	1892	100	0	0	0	0	0	0	0	0	0	0	0	0
739		Wandur	23											NA	NA	NA	NA	NA
740		Kalakkudi	30	2325		100	0	100	0	100	100	0	0	0.7	0.5	0.5	0	0

Sl. NO.	DISTRICT	LOCAL BODY	NO OF WARDS	No of Household	% Household D2D-Dry	% of Household D2D-Wet	No of establishment	% establishment -D2D-Dry	% establishment -D2D-Wet	% of houses in which source level treatment	% of establishment in which source level treatment	% disposing to centralised system	% disposing to controlled system	Quantity of Waste generated (TPD)	Quantity of Waste collected (TFR)	Quantity of Waste treated (TFD)	Quantity of Waste processed in Composting Sites (TPD)	Quantity of Waste processed in biomethanation (TPD)	
741	KODAKODE	Arrikulam	13	4409	1178	91	0	85	0	22	30	91	81	15 kg	178kg	15 kg	0	0	
742		Atholy	17	7193	1966	71	0	81	0	13	16	71	81	20 KG/DAY	20 KG/DAY	20 KG/DAY	0	0	
743		Ayenchel	17	8354	2857	0	0	0	0	30%	5%	100	1	1 TON	1 TON	1 TON	0	0	
744		Azhivar	18	7900	561	63	0	80	0	100	100	0	0	800kg/day	800kg/day	800kg/day	0	0	
745		Belaveti	17	8779	1715	67	0	96	10	80	80	0	0	1200 kg/day	1200 kg day	1200 kg /day	0	0	
746		Chakkiteppara	15	6916	1811	80	0	79	0	90	90	0	0	20 KG/DAY	20 KG/DAY	20 KG/DAY	0	0	
747		Changanach	19	9963	2737	100	0	92	16	86	92	0	0	25 Kg / day	25 Kg /day	25kg/day	0	0	
748		Cheruvannagalam	22	15668	3746	34	0	12	8	24	82	0	0	20 kg/day	20 kg/day	20 kg/day	0	0	
749		Chelkhal	15	6544	1823	4	0	1	0	0	0	0	0	5 ton	5 ton	0	0	0	
750		Chellur	21	12483	2350	8	0	0	0	0	0	0	0	20kg/day	20kg/day	0	0	0	
751		Chennanchery	20	11521	3090	7	0	0	0	0	0	0	0	1589	1389QUINT	1389QUINT	0	0	
752		Chengattukavu	17	6990	350	100	0	310	0	53	80	0	0	5 TPD	5	5	0	0	
753		Cheruvannur	13	6772	1465	30	0	0	19	10	0	0	0	4T	4T	0	0	0	
754		Cherude	21	10118	860	20	0	4	0	11	2	0	0	6	6	0	0	0	
755		Edathery	17	7956	514	100	0	195	0	19	146	0	0	5 ton	5 ton	0	0	0	
756		Eranthi	19	9407	2000	79	0	100	8	84	120	0	0	240 kg	240kg	0	240kg	0	
757		Kadavundi	22	10742	2815	74	0	43	0	67	33	0	0	10 TONS	10 TONS	0	0	0	
758		Kakkodi	21	12913	2472	100	0	42	0	50	8	0	0	0.25 TONS	0.25 TONS	0	0	0	
759		Kakkur	15	5950	1141	76	0	61	7	0	0	0	0	120	120 KG	0	120KG	0	
760		Kazhary	18	9961	3007	69	0	100	7	0	0	0	0	0.1	0.1	0	0	0	
761		Kattigam	15	3668	664	0	0	0	0	0	0	0	0	110kg	145 KG	0	0	0	
762		Kavilampara	16	7471	2028	67	0	38	0	100	48	67	47	0.27 Tons/Day	1.3 TONS	0	0	0	
763		Kayakkody	16	6143	1355	79	0	47	0	100	100	0	0	350KG/DAY	350KG/DAY	0	0	0	
764		Kazhara	12	4430	624	78	0	100	0	100	100	0	0	85	85	0	0	0	
765		Kazharivar	12	4639	590	0	0	0	0	0	0	0	0	0.15	0.15	0	0	0	
766		Kizhikkoth	18	9183	3773	69	0	67	0	95	86	0	0	105kg	105 kg	0	0	0	
767		Kodachery	21	10848	885	78	0	0	0	67	87	0	0	20 KG/day	20 KG	0	0	0	
768		Koduvallur	16	8382	4710	100	0	100	0	0	100	0	0	210kg	210kg	0	0	0	
769		Koduvallur	14	6900	518	55	1	52	0	1	0	0	0	0.5 ton/day	ton/day	0	0	20	
770		Koottur	13	3621	1309	40	0	0	0	70	60	0	0	300	300	0	0	0	
771		Koovhal	12	5737	412	18	0	0	0	0	18	0	0	0	200	150	0	0	0
772		Koovar	19	7830	1050	70	51	48	33	100	100	0	0	130kg/day	100kg/day	0	0	0	
773		Kusumangalam	22	17474	5899	0	0	11	0	100	100	0	0	450 kg/day	423 kg/day	0	0	0	
774		Kuzhambal	13	5668	2124	100	0	100	0	100	100	0	0	140 Kg / Day	140 Kg / Day	140 Kg / Day	0	0	
775		Kuzhambur	18	11425	3015	0	0	303	48	80	48	0	0	400 Kg/Day	400 Kg/Day	400 Kg/Day	0	0	
776		Kuzhady	14	6282	4241	69	0	143	0	100	100	0	0	170 kg/Day	155kg/Day	155 Kg/Day	0	0	
777		Malavoor	17	7126	1383	100	0	29	0	15	1	0	0	300	310	310	0	0	
778		Mannur	21	12421	1412	35	0	445	0	5	1	0	0	2.5	1 ton / month	0	0	0	
779		Manthunkara	14	6782	805	100	0	68	0	41	11	0	0	138K G/Day	138K G/Day	135 kg/Day	0	0	
780	Mavoor	18	9027	1190	65	0	60	0	23	12	0	0	120 Kg / Day	100kg/day	100	0	0		
781	Megpayur	17	7308	1840	89	0	100	0	89	100	0	0	0.3	0.18	0.18	0	0		
782	Moodall	18	8594	2284	100	0	100	0	92	100	0	0	128 T	138 T	138 T	5 T	0		
783	Nadapuram	22	11000	1500	87	0	0	0	100	100	0	0	5.5 ton per day	4.6 ton per day	0	0	0		
784	Naduvannur	16	7010	2090	80	0	80	0	72	72	0	0	8.50 ton	2.50 ton	0	0	0		

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785		Narandé	17	8780	1192	100	0	100	0	100	100	0	0	NOT	NOT	0	0	0
786		Narikkuni	18	8302	2809	0	0	217	0	79	63	0	0	112 ton	NOT	NOT	NOT	NOT
787		Narippattu	17	7609	1236	96	0	28	0	90	100	0	0	NOT	NOT	NOT	NOT	NOT
788		Narthal	17	8800	950	49	0	39	0	80	70	0	0	Not measured	3412kg	3412 kg	NA	0
789		Narvaara	23	18531	6560	0	0	0	0	75	65	0	0	Not measured	Not measured	Not measured	Not measured	Not measured
790		Narvaary	19	10612	3516	57	0	0	0	85	70	0	0	Not measured	2.5 TON	2.5 TON	0	0
791		Narvaay	17	7843	2376	100	0	18	0	79	20	0	0	2 T	2 T	0	0	0
792		Narvaayal	20	8916	1099	65	0	75	0	80	70	0	0	Not measured	2.5 ton	2.5 ton	0	0
793		Narvaay	19	9640	1450	85	0	62	0	85	48	0	0	not measured	4.5	4.5	0	0
794		Narvaay	18	11633	1012	82	0	18	0	80	0	0	0	0.90 ton	0.90 ton	0.90 ton	0	0
795		Narvaay	22	15467	1310	100	0	100	0	100	100	0	0	5 ton	5 ton	5 ton	0	0
796		Narvaay	17	8206	1988	34	0	421	0	100	100	0	0	0.200 16 tpd	0	0	0	0
797		Narvaay	21	14588	3269	118	0	300	0	130	0	0	0	5 ton	5 ton	0	0	0
798		Narvaay	17	8928	1320	75	0	0	0	75	2	0	0	4ton	4 ton	0	0	0
799		Narvaay	19	9730	1433	84	0	84	84	0	0	0	0	0.74	0.74	0.74	0	0
800		Narvaay	17	8561	1828	2	0	0	0	0	0	0	0	5 ton	5 ton	5 ton	0	0
801		Narvaay	20	8948	2339	100	0	3	0	0	0	0	0	1.5	1.2	0	0	0
802		Narvaay	17	9493	2793	28	0	34	0	78	34	0	0	5.5	3.8	3.8	0	0
803		Narvaay	13	3943	1158	100	0	100	0	0	0	0	0	0.7	0.18	0.18	0	0
804		Narvaay	13	7067	1377	0	0	0	0	1	0	93	65	747.5161 MJ	747.5161 MJ	747.5161	0	0
805		Narvaay	19	9958	2262	0	0	285	0	100	44	60	0	9.08	1.8	0	0	0
806		Narvaay	23	13779	3355	0	0	100	0	100	100	0	0	200 ton	200 ton	0	0	0
807		Narvaay	14	4485	957	56	0	31	0	100	30	0	0	0.05	0.04	0.05	0	0
808		Narvaay	16	7340	2033	100	0	31	0	100	100	0	0	15 kg	15kg	15 kg	0	0
809		Narvaay	17	6754	2936	100	0	100	0	100	100	0	0	150	148	148	0	0
810		Narvaay	19	9962	3493	60	0	65	0	100	65	0	0	8.2	5	5	0	0
811	W	Narvaay	20	10291	4379	33	0	7	0	0	0	0	0	4ton	3 ton	3ton	nil	nil
812	A	Narvaay	19	9519	744	89	0	40	0	0	0	0	0	4 ton	3 ton	3 ton	3 ton	nil
813	Y	Narvaay	18	11791	2207	24	0	18	0	0	0	0	0	8 ton	6 ton	3 ton	3 ton	nil
814	A	Narvaay	18	9979	340	69	0	100	0	100	100	0	0	NA	NA	NA	NA	NA
815	N	Narvaay	13	3293	632	0	0	0	0	100	100	0	0	2	1	1	2	1
816	A	Narvaay	19	8735	1020	100	0	100	0	100	100	0	0	NA	NA	NA	NA	NA
817	D	Narvaay	22	10616	813	100	0	100	0	36	70	0	0	1.2 ton	1.2 ton	0	0	0
818		Narvaay	18	8736	652	0	0	0	0	0	0	0	0	3 ton	0	0	0	0
819		Narvaay	19	7667	573	100	0	100	0	100	100	0	0	5 tonne	3.5 tonne	3.5 tonne	3 tonne	0
820		Narvaay	19	10002	692	100	0	100	0	100	100	0	0	10 ton	7 ton	3 ton	0	0
821		Narvaay	23	14733	703	81	0	100	100	100	100	0	0	4 Tonn	3 Tonn	3 Tonn	3 Tonn	0
822		Narvaay	16	6624	472	100	0	100	0	33	38	0	0	1.652 TONN	1.652 TONN	0	0	0
823		Narvaay	16	7344	347	83	83	69	0	83	0	0	0	0	0	0	0	0
824		Narvaay	23	12782	400	100	0	48	0	0	0	0	0	0.06	0.05	0.05	0	0
825		Narvaay	13	3783	2004	38	0	2	0	100	100	0	0	2 ton	1 ton	1	1	0.5 ton
826		Narvaay	20	10437	3147	30	0	33	0	11	0	0	0	3	2	2	1	0
827		Narvaay	13	3671	740	100	0	100	0	0	0	0	0	NA	NA	NA	NA	NA
828		Narvaay	22	10433	700	25	0	0	0	100	100	0	0	4	3	NIL	NIL	NIL
829		Narvaay	17	8520	1403	42	0	0	0	0	0	0	0	0	0	0	0	0
830		Narvaay	15	7487	1320	42	0	30	0	0	0	0	0	2Tonn	2Tonn	NE	NE	NE
831		Narvaay	21	11620	1409	0	0	30	0	0	0	0	0	5.3	0	0	0	0
832		Narvaay	13	2730	195	69	0	100	0	0	0	0	0	1.5	1.5	0	0	0
833		Narvaay	14	6986	1582	100	0	100	0	100	100	100	100	50 kg	50 kg	50 kg	35 kg	0
834	N	Narvaay	21	8980	2188	100	0	100	0	100	100	0	0	2.07	0.8811	2.07	0	0

21

Sl. No.	District	Local Body	No of Wards	No of Household	% Household D2D-Dry	% of Household-D2D-Wet	No of establishment	% establishment -D2D-Dry	% establishment _D2D-Wet	% of houses in which source level treatment	% of establishment in which source level treatment	% disposing to centralised system	% disposing to centralised system	Quantity of Waste generated (TPD)	Quantity of Waste collected (TPD)	Quantity of Waste treated (TPD)	Quantity of Waste processed in Composting Sites (TPD)	Quantity of Waste processed in biogas plants (TPD)
825	A	Anjankhandi	15	8471	799	100	0	100	0	100	100	0	0	1.39	0.94965	1.39	0	0
826	N	Arelan	17	8215	289	100	0	100	0	100	100	0	0	1.88	0.92264	1.88	0	0
827	N	Ayyankattu	16	7348	455	100	0	100	0	100	100	0	0	1.94	0.93437	1.94	0	0
828	U	Azhikode	29	13408	362	100	0	100	0	100	100	0	0	2.73	0.94629	2.73	0	0
829	R	Channayyankulam	18	10235	212	100	0	100	0	100	100	0	0	2.08	0.94264	2.08	0	0
830		Chembude	19	8705	381	100	0	100	0	100	100	0	0	1.77	0.93226	1.77	0	0
831		Chengala	18	8070	370	100	0	100	0	100	100	0	0	1.88	0.94021	1.88	0	0
832		Cherukozha	13	4628	558	100	0	100	0	100	100	0	0	0.85	0.93245	0.85	0	0
833		Cherupuzha	19	8028	427	100	0	100	0	100	100	0	0	1.88	0.94071	1.88	0	0
834		Chenchambam	17	10898	828	100	0	100	0	100	100	0	0	2.22	0.94263	2.22	0	0
835		Chirakkal	23	14173	1327	100	0	100	0	100	100	0	0	2.99	0.93321	2.99	0	0
836		Chittiperambam	15	7121	370	100	0	100	0	100	100	0	0	1.41	0.92773	1.41	0	0
837		Chokki	17	8343	820	100	0	100	0	100	100	0	0	1.71	0.94158	1.71	0	0
838		Dharmadam	18	8783	888	100	0	100	0	100	100	0	0	2.34	0.94172	2.34	0	0
839		Erissam-Kuttoor	17	7011	874	100	0	100	0	100	100	0	0	1.44	0.93384	1.44	0	0
840		Erachi	18	8224	482	100	0	100	0	100	100	0	0	1.88	0.93221	1.88	0	0
841		Erucali	14	8188	195	100	0	100	0	100	100	0	0	1.00	0.93243	1.00	0	0
842		Estam	14	4287	472	100	0	100	0	100	100	0	0	0.88	0.92019	0.88	0	0
843		Irikkoor	13	3650	705	100	0	100	0	100	100	0	0	0.73	0.92983	0.73	0	0
844		Kadamboor	13	4526	490	100	0	100	0	100	100	0	0	0.93	0.93254	0.93	0	0
845		Kadampally-Panapuzha	15	8888	542	100	0	100	0	100	100	0	0	1.78	0.94417	1.78	0	0
846		Kadur	18	7894	494	100	0	100	0	100	100	0	0	1.82	0.93181	1.82	0	0
847		Kallisseri	18	8573	850	100	0	100	0	100	100	0	0	3.11	0.93594	3.11	0	0
848		Kanjichie	13	3008	278	100	0	100	0	100	100	0	0	1.82	0.91954	1.82	0	0
849		Kankol-Alappadanba	14	3775	306	100	0	100	0	100	100	0	0	2.84	0.94425	2.84	0	0
850		Kannampuran	14	8214	385	100	0	100	0	100	100	0	0	2.81	0.92773	2.81	0	0
851		Karikkoo-Perlan	14	8520	850	100	0	100	0	100	100	0	0	6.43	0.93923	6.43	0	0
852		Kelakan	13	3379	354	100	0	100	0	100	100	0	0	1.1	0.92492	1.1	0	0
853		Kozhathur	14	8755	838	100	0	100	0	100	100	0	0	205.81	0.93986	5.81	0	0
854		Kulathoor	13	2880	294	100	0	100	0	100	100	0	0	1.87	0.93556	1.87	0	0
855		Kulav	14	3823	483	100	0	100	0	100	100	0	0	3.11	0.92888	3.11	0	0
856		Koodal	18	8825	512	100	0	100	0	100	100	0	0	1.78	0.93508	1.78	0	0
857		Kottayam	14	4723	1400	100	0	100	0	100	100	0	0	0.88	0.93587	0.88	0	0
858		Kottoor	14	3299	550	100	0	100	0	100	100	0	0	1.08	0.92431	1.08	0	0
859		Kuzhimagalam	14	8845	507	100	0	100	0	100	100	0	0	302.83	0.92299	2.83	0	0
860		Kuzhitharamba	21	11484	500	100	0	100	0	100	100	0	0	4.51	0.94236	4.51	0	0
861		Kuzhithoor	17	11252	818	100	0	100	0	100	100	0	0	2.3	0.93544	2.3	0	0
862		Kuzhithur	18	8368	2121	100	0	100	0	100	100	0	0	1.74	0.93853	1.74	0	0
863		Madyil	20	8574	523	100	0	100	0	100	100	0	0	1.88	0.94378	1.88	0	0
864		Malappalam	13	2897	128	100	0	100	0	100	100	0	0	0.93	0.93987	0.93	0	0
865		Malur	15	8214	428	100	0	100	0	100	100	0	0	1.42	0.93235	1.42	0	0
866		Manjattalam	19	10834	450	100	0	100	0	100	100	0	0	2.17	0.93824	2.17	0	0
867		Manjol	17	8089	356	100	0	100	0	100	100	0	0	1.23	0.92817	1.23	0	0
868		Mandyil	18	8843	749	100	0	100	0	100	100	0	0	1.87	0.94029	1.87	0	0
869		Manjeri	14	5791	440	100	0	100	0	100	100	0	0	1.18	0.92882	1.18	0	0
870		Manjeri	20	8879	580	100	0	100	0	100	100	0	0	1.83	0.93578	1.83	0	0
871		Muthakkulam	15	7412	1284	100	0	100	0	100	100	0	0	1.53	0.94856	1.53	0	0
872		Muthappilly	15	8629	230	100	0	100	0	100	100	0	0	1.21	0.92153	1.21	0	0

SL NO	DISTRICT	LOCAL BODY	NO OF WARDS	No of Household	% Household D2D-Dry	% of Household D2D-Wet	No of establishment	Establishment -D2D-Dry	% establishment D2D-Wet	% of houses in which source level treatment	% of establishment in which source level treatment	% disposing to centralised system	% disposing to centralised system	Quantity of Waste generated (TPD)	Quantity of Waste collected (TPD)	Quantity of Waste treated (TPD)	Quantity of Waste processed in Composting Sites (TPD)	Quantity of Waste processed in biogas plants (TPD)
883		Naduvil	18	6600	280	100	0	100	0	100	100	0	0	1.8	0.03722	1.8	0	0
884		Naram	17	7621	711	100	0	100	0	100	100	0	0	1.59	0.02619	1.59	0	0
885		New Mahi	13	4417	482	100	0	100	0	100	100	0	0	3.81	0.02258	3.81	0	0
886		Padiyoor	15	6400	180	100	0	100	0	100	100	0	0	1.3	0.02232	1.3	0	0
887		Pampanur	15	6692	319	100	0	100	0	100	100	0	0	1.37	0.02488	1.37	0	0
888		Pappinasser	20	10540	660	100	0	100	0	100	100	0	0	2.67	0.02347	2.67	0	0
889		Pariyaram	18	11073	720	100	0	100	0	100	100	0	0	2.47	0.02332	2.47	0	0
890		Patlam	18	9152	548	100	0	100	0	100	100	0	0	1.87	0.0281	1.87	0	0
891		Patuvam	13	3628	227	100	0	100	0	100	100	0	0	0.91	0.01817	0.91	0	0
892		Payam	18	7462	470	100	0	100	0	100	100	0	0	1.52	0.02981	1.52	0	0
893		Peyyambor	16	3649	486	100	0	100	0	100	100	0	0	1.17	0.02481	1.17	0	0
894		Peralasseri	14	3833	465	100	0	100	0	100	100	0	0	2.1	0.02362	2.1	0	0
895		Peruvor	16	4800	100	100	0	100	0	100	100	0	0	1.39	0.027	1.39	0	0
896		Peringode-Vayakkara	16	3873	330	100	0	100	0	100	100	0	0	2.06	0.04737	2.06	0	0
897		Piravay	19	10280	681	100	0	100	0	100	100	0	0	2.1	0.04977	2.1	0	0
898		Ramanhall	15	8520	303	100	0	100	0	100	100	0	0	2.15	0.04538	2.15	0	0
899		Tilankari	13	4534	401	100	0	100	0	100	100	0	0	1.43	0.02302	1.43	0	0
900		Thiruvattar	18	9070	301	100	0	100	0	100	100	0	0	1.85	0.02216	1.85	0	0
901		Uthiyayir	15	8231	254	100	0	100	0	100	100	0	0	1.27	0.02718	1.27	0	0
902		Uzhal	20	11958	590	100	0	100	0	100	100	0	0	2.79	0.04472	2.79	0	0
903		Valappanam	13	1920	1594	100	0	100	0	100	100	0	0	0.38	0.02991	0.38	0	0
904		Vengal	21	12843	820	100	0	100	0	100	100	0	0	2.59	0.02248	2.59	0	0
905	K	Ajanur	23	11373	10573	68	0	700	80	70	60	0	0.04	0.04	0.04	0	0	
906	A	Bedadka	19	12667	9654	75	0	620	40	63	45	0	0.04	0.04	0.04	0	0	
907	B	Batal	16	8585	6585	77	0	260	100	0	100	85	0	0.85	0	0.85	0	0
908	A	Bedadka	17	8829	6200	70	0	635	100	0	80	86	0	0.2523	0.023	0.023	0.023	0
909	G	Belloor	13	3424	2051	60	0	325	100	0	70	80	0	0.0625	0.0625	0	0	0
910	O	Chemad	23	15169	9169	60	0	436	75	6	68	0	0.02150	0.134	0	0	0	
911	D	Chinnak	23	18255	5388	29	0	3843	20	0	98	85	0	0.450	0	0	0	0
912		Chinnak	13	6721	4613	70	0	330	34	0	86	81	0	0.24	0.101	0.101	0	0
913		Delampally	16	5274	5274	100	0	46	60	0	80	70	0	0.006	0.006	0.006	0	0
914		East Elor	16	8295	7295	88	0	432	30	0	90	57	0	0	0	0	0	0
915		Eranthatt	17	5525	4535	82	0	140	40	0	56	75	0	0	0	0	0	0
916		Kalor	14	7013	6013	86	0	92	90	0	60	80	0	0.0133	0.0133	0.0133	0	0
917		Kattal	15	6183	5183	84	0	1374	70	0	60	85	0	0.012	0	0	0	0
918		Kodun Bellur	19	8163	6163	75	0	630	85	0	58	78	0	0	0	0	0	0
919		Kayyare Chemeri	16	9356	8356	89	0	634	85	0	84	90	0	0	0	0	0	0
920		Kinnoor	17	9648	7448	77	0	630	100	0	100	100	0	150	100	100	0	0
921		Kumbhal	13	4605	2005	44	0	110	100	0	89	93	0	0	0	0	0	0
922		Kumbala	23	12555	8590	69	0	340	54	0	54	55	0	0	0	0	0	0
923		Kuttikal	16	7250	5450	75	0	450	70	0	63	66	0	0	0	0	0	0
924		Madhur	20	13293	13293	100	0	418	52	0	56	58	0	1	0.3	0	0	0
925		Madikal	15	6321	6321	100	0	217	100	0	100	100	0	0.7	0.7	0	0	0
926		Mangalady	23	13650	8500	62	0	2300	40	0	32	40	0	0	0	0	0	0
927		Masimbhar	23	11500	6960	60	0	390	45	0	45	43	0	0	0	0	0	0
928		Meeria	15	7111	7111	100	0	166	54	0	68	78	0	0.7	0	0	0.7	0
929		Mingal Pathur	15	7011	6011	86	0	390	89	0	78	89	0	0.2	0	0	0	0

Sl. NO:	DISTRICT	LOCAL BODY	NO OF WARDS	No of Household	% Household DID-Dry	% of Household-R2D-Wet	No of establishment	% establishment -DID-Dry	% establishment _DID-Wet	% of houses in which source level treatment	% of establishment in which source level treatment	% disposing to centralised system	% disposing to centralised system	Quantity of Waste generated (TPD)	Quantity of Waste collected (TPD)	Quantity of Waste treated (TPD)	Quantity of Waste processed in Composting Sites (TPD)	Quantity of Waste processed in Biomethanation (TPD)
930		Maloor	15	7522	6523	87	0	233	70	0	78	84	0	0.2	0	0	0	0
931		Padra	15	6490	4400	69	0	520	65	0	87	87	0	0.2	0	0	0.2	0
932		Paivelike	19	9799	5700	59	0	260	68	0	68	75	0	0.5	0.2	0.3	0.2	0
933		Palakkare	22	12177	12177	89	0	644	90	0	94	96	0	0.13	0.13	0.13	0	0
934		Parachady	15	7426	6426	87	0	357	95	0	83	83	0	0.73	0	0	0	0
935		Nilande	18	6842	5932	87	0	473	84	0	90	84	0	0.62				
936		Pullar Poisa	17	10664	9644	91	0	300	100	0	90	90	0	0.58	0.58	0.53		
937		Parhige	14	7078	5078	72	0	1081	50	0	48	50	0	1.09	1.09	1.09	0	0
938		Trikanthar	21	11733	8700	74	0	946	60	0	62	53	0	0.125	0.125			
939		Ulfess	21	11332	9622	85	0	617	100	0	64	54	0	0.13	0.13	0.13	0	0
940		Valuparamba	13	6861	4800	70	0	100	100	0	84	70	0	0.18	0.18	0.18	0	0
941		Varkady	18	6834	4800	70	0	200	40	0	83	64	0	0.16	0.16	0	0	0
942		West Elayi	18	6974	5474	79	0	220	70	0	60	87	0	0.75	0.75	0.72	0.02	Nil

# ANNEXURE III

Telephone: 0471-2303844  
e.mail: kspcbdotvm@yahoo.com

## KERALA STATE POLLUTION CONTROL BOARD

കേരള സംസ്ഥാന മലിനീകരണ നിയന്ത്രണ ബോർഡ്



DISTRICT OFFICE, THIRUVANANTHAPURAM  
മിജാട് ഓഫീസ്, തിരുവനന്തപുരം

T. C. 12/96 (L.S), PLAMKODI BK., PATTOM P. O., THIRUVANANTHAPURAM - 695 004  
ടി.സി. 12/96 (ക.പ), പ്ലാമ്കോടി ബ്ക്ക്, പാട്ടം പി.ഒ, തിരുവനന്തപുരം - 695 004

### ANALYSIS REPORT

No: 202176

Date: 03/07/2020

Source	Dumpsite of Attingal Municipality (Leachite Sample)			
Sample received from	TAI	Date of sample collection	24/06/2020	
Date of Receipt	26/04/2020	Ref. No.	R14	
Sl. No.	Parameter	Unit	Value	Permissible Limit
1	pH	-	6.8	6.5-8.5
2	Suspended Solids	mg/L	67.8	100
3	COD	mg/L	40	250
4	BOD	mg/L	27	30
5	Total Dissolved Solids	mg/L	1356.1	---
6	Chloride	mg/L	15	---
Signature:	<p>for As Maheshwari 3/7/2020</p>			
Remarks:				
Scientist-in-Charge of Analysis				



o/c

# ANNEXURE III

Telephone: 0471-2303844  
e.mail: kspcbdotvm@yahoo.com

## KERALA STATE POLLUTION CONTROL BOARD

കേരള സംസ്ഥാന മലിനീകരണ നിയന്ത്രണ ബോർഡ്



DISTRICT OFFICE, THIRUVANANTHAPURAM  
"ജില്ലാ ഓഫീസ്", തിരുവനന്തപുരം

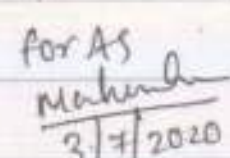
T. C. 1296 (A.5), PLAMOODU IN., PATTOM P.O. THIRUVANANTHAPURAM - 695 004

തിരുവ. 12/96 (A.5), പ്ലാമൂടു ബോർഡ്, പട്ടം ഓഫീസ്, തിരുവനന്തപുരം - 695 004

### ANALYSIS REPORT

No: 202175

Date: 03/07/2020

Source	Dumpsite of Vaalkala Municipality (Bore Well Sample)			
Sample received from	TA1	Date of sample collection	24/06/2020	
Date of Receipt	26/04/2020	Ref. No.	R11	
Sl. No.	Parameter	Unit	Value	Permissible Limit
1	pH	-	5.4	6.5-8.5
2	Suspended Solids	mg/L	52.2	100
3	COD	mg/L	16	250
4	BOD	mg/L	6	30
5	Total Dissolved Solids	mg/L	96.1	---
6	Conductivity	S/m	92	---
Signature:	<p style="text-align: center;">for AS                        3/7/2020</p>			
Remarks:				
Scientist-in-Charge of Analysis				

# ANNEXURE III

## KERALA STATE POLLUTION CONTROL BOARD CENTRAL LABORATORY



കേരള സംസ്ഥാന മലിനീകരണ നിയന്ത്രണ ബോർഡ്  
കേന്ദ്ര പരിഷ്കരണശാല



### ANALYSIS REPORT

Analysis Report No.	PCB/CL/1446/20-21	Date	22 Apr 2021	Doc No: PCB/CL/CHF-7
Ref.No.	PCB/RO dated 03.03.2021	Date Of Collection	03 Mar 2021	
Received From	R O ERNAKULAM	Date Of Receipt	03 Mar 2021	
No. Of Sample	1	Period Of Analysis	03 Mar 2021 - 22 Apr 2021	
Source	Brahmapuram solid waste plant leachate	Scientist-in-charge	Rajeena	
Sample Condition	fit for analysis	Sample Type	Waste Water	
Sample collected by	CEE, RO ERNAKULAM	Sample volume & container type	2l. plastic can	
Sample preservation	As per APHA/ IS :3025(Part-1)	Type of test	CHEMICAL	
Sampling Point	Leachate drain			

Sample ID : BLD-GEN

Sl.No	Parameters	Unit	Value	Test Method	Detection Limit
1	pH	-	7.6	APHA, 4500- H+B, 4-95 to 4- 99, 23rd Edition, 2017	1
2	Chloride	mg/L	4573.0	APHA, 4500- Cl /B, 4-75 to 4-76, 23 rd Edition: 2017	1 mg/L
3	Fluoride	mg/L	0.06	APHA, 4500- F. C. 4-89 to 4-90 23rd Edition (Ion Selective Electrode Method) 2017	0.1 mg/L
4	Sulphate	mg/L	1014.0	APHA, 4500-SO42- E, 4-199 to 4-200, 23 rd Edition, 2017	1 mg/L
5	Sulphide	mg/L	59.6	APHA, 4500 S2 F. 4-187 23rd Edition: 2017	1 mg/L
6	Nitrate as Nitrogen	mg/L	61.98	APHA, 4500 NO3 -B,4-127, 23 rd Edition (Ultraviolet Spectrophotometric Method): 2017	0.05 mg/L
7	Phosphate	mg/L	58.9	APHA, 4500- P. E. 4-164 to 4-165, 23rd Edition: 2017	0.1mg/L

GANDHI NAGAR, KOCHI - 682 020 ഗാന്ധിനഗർ, കൊച്ചി - 682020

Telephone Nos. Direct: 0484 - 220 7781, EPABX: 0484 220 7783 - 86, Fax: 0484 - 220 7781

E Mail: [kspcbclcm@gmail.com](mailto:kspcbclcm@gmail.com) Web : [www.keralapcb.nic.in](http://www.keralapcb.nic.in)

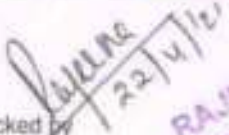
Certified for OHSMS (ISO 45001:2018)

Page 1 of 2



8	Magnesium	mg/L	89.1	APHA, 3500- Mg B, 386, 23rd Edition 2017	0.2 mg/l
9	Biochemical Oxygen Demand (BOD)	mg/L	4269.0	IS 3025 (Part 44) 1993	0.1 mg/l
10	Phenolic compounds	mg/l	1.14	APHA 5530-C, 22nd Edition	0.001mg/l

End of Report -

Checked by  22/4/21  
**RAJEENA. R**  
 Senior Environmental Scientist

Authorised by   
**M. H. SHERAFUDEEN**  
 Senior Environmental Scientist & Govt Analyst

Note: The test results relate only to the sample submitted for analysis and it shouldn't be reproduced except in full written permission of the authorised signatory of the lab.





**KERALA STATE POLLUTION CONTROL BOARD  
CENTRAL LABORATORY**

കേരള സംസ്ഥാന മലിനീകരണ നിയന്ത്രണ ബോർഡ്  
കേന്ദ്ര പരിഷ്കരണശാല



**ANALYSIS REPORT**

Analysis Report No.	PCB/CL/1448/20-21	Date	24 Mar 2021	Doc No:	PCB/CL/CHIF-7
Ref.No.	PCB/RO dated 03.03.2021	Date Of Collection	03 Mar 2021		
Received From	R O ERNAKULAM	Date Of Receipt	03 Mar 2021		
No. Of Sample	1	Period Of Analysis	03 Mar 2021 - 24 Mar 2021		
Source	Brahmapuram solid waste plant leachate	Scientist-in-charge	Geetha P		
Sample Condition	fit for analysis	Sample Type	Waste Water		
Sample collected by	CEE, RO ERNAKULAM	Sample volume & container type	300 ml sterile BOD bottle		
Sample preservation	As per APHA/ IS :3025(Part-1)	Type of test	MICROBIOLOGY		
Sampling Point	Leachate drain				

Sample ID : 486

Sl.No	Parameters	Unit	Value	Test Method	Detection Limit
1	Total Coliform	cfu/100ml	2400	APHA 9222 B, 23rd Ed.2017	1cfu/100ml

-- End of Report --

Checked by

*Zahida P Z*  
24/3/21

**ZAHIDA P Z**  
Assistant Scientist

Authorised by

*Geetha P*  
24/3/2021

**P. GEETHA**  
Environmental Scientist

Note: The test results relate only to the sample submitted for analysis and it shouldn't be reproduced except in full without the written permission of the authorised signatory of the lab.

GANDHI NAGAR, KOCHI - 682 020

ഗാന്ധിനഗർ, കൊച്ചി - 682020

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E Mail: [kspcbclcm@gmail.com](mailto:kspcbclcm@gmail.com) Web : [www.keralapcb.nic.in](http://www.keralapcb.nic.in)

Certified for OHSMS (ISO 45001:2018)

Page 1 of 1



**KERALA STATE POLLUTION CONTROL BOARD**

**CENTRAL LABORATORY, KOCHI - 682 020**

**FORM-II  
REPORT OF THE BOARD ANALYST  
(See rule 27)**

Report No .PCB/CL/LEGAL/ES11/2019

Dated 19<sup>th</sup> March, 2021

I hereby certify that, P. Geetha, Board analyst, duly appointed under subsection (3) of section 53 of the water (prevention and control of pollution) act 1974 (act 6 of 1974) received at 4:00 pm on 06.03.2021 from the Environmental Engineer, Kerala State Pollution Control Board, District Office-11, Perumbavoor two samples of effluent Bottle No PCB/DO2/LS-1 and PCB/DO2/LS-2 collected by Smt. Rameena.V.V, Assistant Environmental Engineer, Kerala State Pollution Control Board, District Office-2, Perumbavoor,Ernakulam at 12.30 pm on 06.03.2021 from the Septage Treatment Plant of Kochi Corporation at Brahmapuram . The sample was in a condition fit for analysis as reported below.

I further certify that I have analysed the aforementioned samples on 09.03.2021 to 19.03.2021 and declare the result of the analysis to be as follows:

Sl. No.	Parameter	Unit	Values	Method of Analysis
1	p <sup>H</sup>	-	6.8	APHA, 4500-H+B,4-95 to 4-99, 23 <sup>rd</sup> Ed.,2017
2	BOD(3Days at 27 °C)	mg/l	135	IS 3025 part 44 1993
3	Oil and Grease	mg/l	BDL	APHA, 5520-B,5-42 to 5-44, 23 <sup>rd</sup> Ed.,2017
4	COD	mg/l	448	APHA, 5520-B, 23 <sup>rd</sup> Ed
5	Nitrate as Nitrogen	mg/l	7.4	APHA,4500NO <sub>3</sub> -,B,4-127,23 <sup>rd</sup> Edition (Ultraviolet Spectrophotometric Method) 2017
6	Phosphates	mg/l	36.67	APHA,4500P,E,4-164 to 4-165, 23 <sup>rd</sup> Edition:2017
7	Sulphates	mg/l	63.1	APHA, 4500-SO <sub>4</sub> 2-E, 23 <sup>rd</sup> Ed., 2017
8	Free Ammonia	mg/l	0.75	GEMS OPERATONAL GUIDE WHO
9	Total Kjeldhal Nitrogen	mg/l	114.2	APHA, 4500-N Org B, 23 <sup>rd</sup> Ed., 2017
10	Total Coliform	CFU/100ml	620000	APHA 9222 B, 23 <sup>rd</sup> Ed.2017

11	Faecal Coliform	CFU/100ml	480000	APHA 9222 D, 23 <sup>rd</sup> Ed.2017
12	Faecal Streptococci	CFU/100ml	1000	APHA 9230 C, 9-119 to 9-122. 23 <sup>rd</sup> Ed.2017
13	Ammoniacal Nitrogen	mg/l	94.0	APHA,4500 NH3 F,4-119 TO 4-120Phenate method, Colourimetric),23 <sup>rd</sup> Edition:2017

The condition of the seals, fastening and containers on receipt was as follows:

The sample was contained in brown coloured 2.5 litre for general parameter and 1L Glass bottles for Oil & Grease, 300ml sterilized BOD bottle for Microbiology analysis securely sealed with sealing wax. There was no leak. The impression both on the seals and on the attached tags were representative of the Kerala State Pollution control Board. The impressions of each party on the seal and the tag were identical. The tag contained the signature of

Sri. Prasannan.C, Health Inspector, Brahmapuram MSW plant, Kochi Corporation.

The seal were opened by me just before analysis.

Signed this 19<sup>th</sup> March, 2021.



*P. Geetha*  
 Board Analyst  
 P. GEETHA  
 Environmental Scientist  
 Central Laboratory  
 Kerala State Pollution Control Board  
 Gandhi Nagar, Kochi-20

Address: P. Geetha,  
 Environmental Scientist (HG)  
 Central Laboratory  
 Kerala State Pollution control Board,  
 Gandhi Nagar, Kochi - 20

To: The Member Secretary,  
 Kerala State Pollution control Board,  
 Pattom Palace P.O.,  
 Thiruvananthapuram - 695 004.

Copy to: The Chief Environmental Engineer,

**Biomining of Legacy Waste at Kureepuzha-Progress of the Project with photographs**



**Before** Drone image of Kureepuzha dumpsite before removing vegetative cover



**After** Drone image of Kureepuzha dumpsite after removing vegetative cover

**Instrument for baseline environmental study at the site.**



**Pre-Stabilisation**

**Inoculum Spraying**





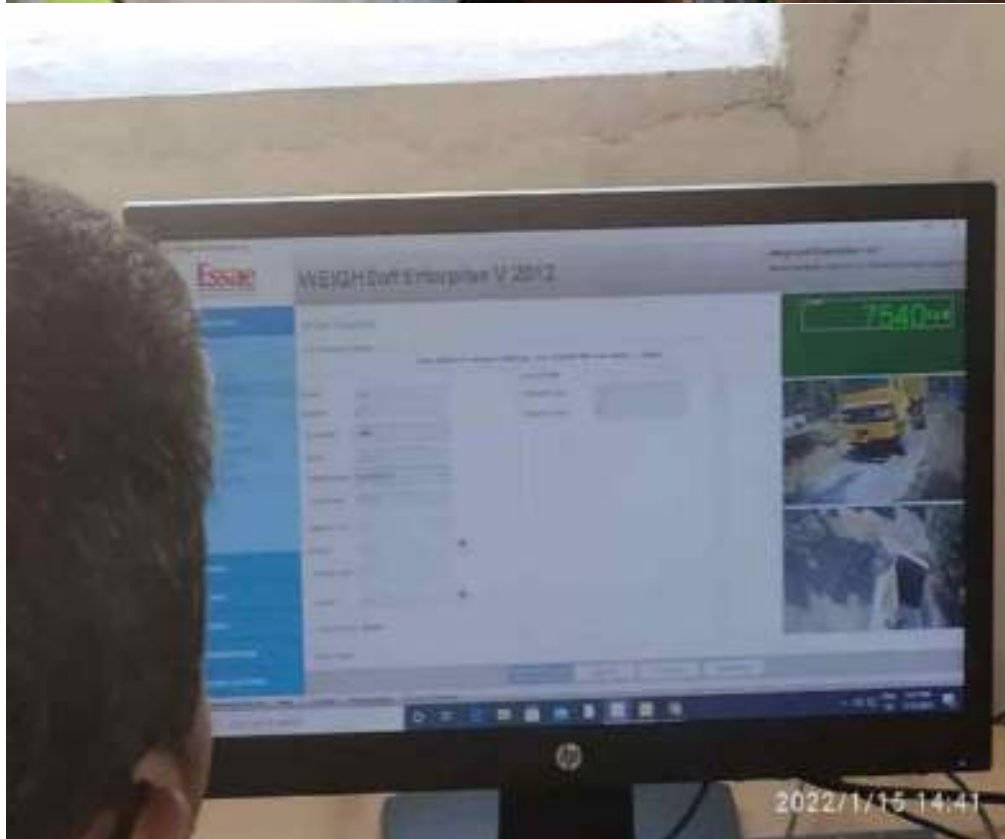
## Windrowing



## Loading for Processing



Weighing process



## Various Stages of Segregation



Conveyor



Trommel with 32 mm



Combustible separator



Cyclone separator (removal of fine plastic from soil)



Air separator



Fine soil and coarse soil outward



Refuse Derived Fuel material outward

**Outputs after Segregation**



**Wood**



**Iron**



**HD Plastic**



**Coconut waste**



Tyre



Glass Waste



Chappals



Fine and coarse soil

**Minutes of the RRC meeting held by ACS(Environment), on 23.02.2022 in NGT Order O.A. 673/2018 and connected cases**

The meeting via VC commenced at 11.30 am with ACS, Environment Department presiding. Joint Director, Urban Department, Deputy Mission Director, AMRUT, CEE, Irrigation Department, Deputy Director, Directorate of Industries & Commerce, Chief Engineer( Irrigation & Administration) ,Chief Engineer, Kerala State Pollution Control board were present.

The following matters were discussed.

**(1)Decentralized Sewerage Scheme for Thrissur Municipal Corporation.**

The proposed land is falling under the paddy land category and hence category has to be converted through the SLMC. The Chief Secretary in the last review meeting directed the Corporation to submit a detailed letter to SLMC and Govt. stating all the reasons. Deputy Mission Director, AMRUT informed that the ULB submitted the details to the Agriculture Production Commissioner (SLMC) & the Government( vide Letter No. PH3- 27162/ 16 dated 08/02/2022).

**(2)Guruvayur Municipality- 100 KLD Septage Treatment plant at Chakkamkandam .**

The ULB requested the RDO vide letter dated 15/01/22 for issuing permission for filling the land but vide letter dated 05/02/22 (Letter No. B2/ 8545/ 2020). RDO rejected the same. It is informed that the ULB is going to submit a request to the Government for according special permission to construct the septage plant at the proposed location (wet land). Directed to update the status.

**(Action: Director Urban Affairs, Revenue Department, Land Revenue Commissioner)**

**(3)Kozhikode Corporation- Sewerage system in Zone A- Package A & Zone A-Package B :**

Deputy Mission Director, AMRUT informed that Site clearance was done on 31/01/22 with Police protection amidst huge public protest but soil testing works could not be done. Way forward to be decided by the ULB.

**(Action:Director Urban Affairs , Secretary, Kozhikodu Corporation)**

**(4) DPR preparation for Karamana sewer network:**  
 In the last meeting MD requested 10 more days time to finalize the DPR.  
 Directed to update the present status.  
**(Action: Kerala water Authority)**

**(5) Edayar & Aroor CETP:**

**(a)Aroor CETP:-**

Deputy Director, Directorate of Industries & Commerce informed regarding ETP at Aroor that a complainant obtained a stay order from the Hon'ble High Court of Kerala, and the same has been extended further.

**(b)Edayar CETP:-**

KWA submitted the DPR for CETP preparation on 6/09/2021 with a total Project Cost of Rs.37.5Cr for CETP Construction. The annual operations and maintenance cost is Rs.10.76Cr as per the DPR. As per the direction from Principal Secretary, Industries to find a funding proposal with contribution from industrialists at Edayar , Ernakulam GM, DIC conducted a meeting with the concerned industrialists and inquired willingness from them to share the cost of construction of CETP at Edayar. The proposal for getting Administrative Sanction is currently with CTE for examination.

**(Action: Director, Industries & Commerce & Industries Department)**

**(6)STP at Yakara, Palakkad:**

The Cabinet met on 02/02/22 decided to allow 70 Cents of land inside Palakkad Medical College Campus for the construction of the Septage Plant.

**( Action: Revenue Department Land Revenue Commissioner)**

**(7)STP, KUREEPPUZHA :**

Deputy Mission Director, AMRUT informed that Work is in progress. In connection with land issue, the Mission Director, AMRUT requested the District Collector, Kollam to expedite the issuance of valuation certificate of the land to be acquired. Land value certificate is awaited from Thahsildar's office. ACS directed to speeded up the matter.

**(Action: District Collector, Kollam)**



**(8) E-flow of rivers:**

E-flow calculation of Kadalundy, Anjarakkandy, Manimala & Meenachil has been completed. E-flow calculation of the rivers without dam (30 nos), including Bharathapuzha will be completed by 31.03.2022 and that of rivers with dam will be completed by 30.04.2022

**(Action: Irrigation Department)**

**(9) Eviction of encroachments in water bodies:**

Action to be initiated by the Executive Engineers of Irrigation Department (entrusted with ownership and responsibility of 44 rivers).

**(Action: Irrigation Department)**

(10) The Chief Environmental Engineer, KSPCB informed that Department wise proposal for Karamana River Rejuvenation has been submitted to the Ministry of Jal Sakthi, Government of India for financial assistance under NRCP. MoJS accepted the proposal of KWA and asked to submit a detailed project report (DPR). It was also asked to instruct Departments concerned to prepare proposals for pollution abatement of rivers in the State and submit to NRCP for financial assistance. CE, Irrigation replied that DPR for the Rejuvenation of Periyar was prepared by following the NRCP Guidelines.

**(Action: Irrigation Dept, KSPCB, Water Resources Department)**

The meeting ended at 11.45 A.M

Sd/-

**ADDITIONAL CHIEF SECRETARY**



















OA 673 ൽ 19.04.2022 തീയതിയിൽ സുപ്രഭാഷിംഗ് എഞ്ചിനീയർ, ഇറിഗേഷൻ വകുപ്പ്-  
 നോർത്ത് സർക്കിളിന്റെ അധ്യക്ഷതയിൽ വീവിയോ കോൺഫറൻസ് വഴി നടത്തിയ DLTC  
 മീറ്റിങ്ങിന്റെ മിനുട്ട്സ്.

ഹാജരായവർ

1. ശ്രീമതി.അഞ്ജന, (പേഴ്സണൽ അസിസ്റ്റന്റ് ഓഫ് സുപ്രഭാഷിംഗ് എഞ്ചിനീയർ, ഇറിഗേഷൻ വകുപ്പ്).
2. ശ്രീമതി.പഞ്ചല (അസിസ്റ്റന്റ് എഞ്ചിനീയർ, മേജർ ഇറിഗേഷൻ ഡിവിഷൻ, തിരുർ).
3. ശ്രീ.ജീവരാജ് (ഹെൽത്ത് സൂപ്പർവൈസർ, തിരുർ മുനിസിപ്പാലിറ്റി).
4. ശ്രീ.ഹരിദ്രനാഥ്.വി.ടി (അസിസ്റ്റന്റ് എക്സിക്യൂട്ടീവ് എഞ്ചിനീയർ (ഇറിഗേഷൻ സബ്ഡിവിഷൻ, തിരുർ).
5. ശ്രീ.ജോഷിലാൽ, അസിസ്റ്റന്റ് എഞ്ചിനീയർ (ഗ്രൗണ്ട് വാട്ടർ വകുപ്പ്, മലപ്പുറം).
6. ശ്രീ.ഷംസുദ്ദീൻ, അസിസ്റ്റന്റ് എഞ്ചിനീയർ (മലപ്പുറം മുനിസിപ്പാലിറ്റി).
7. ശ്രീ.സുലൈമാൻ, അസിസ്റ്റന്റ് സെക്രട്ടറി (മംഗലം ഗ്രാമപഞ്ചായത്ത്)
8. ശ്രീ. വിനോദ്, അസിസ്റ്റന്റ് സെക്രട്ടറി (ചെറിയമുണ്ടം ഗ്രാമപഞ്ചായത്ത്)
9. ശ്രീമതി സൗമ ഹീദ് (എൻവയോൺമെന്റൽ എഞ്ചിനീയർ, കേരള സംസ്ഥാന മലിനീകരണ നിയന്ത്രണ ബോർഡ്, ജില്ലാ ഓഫീസ്, മലപ്പുറം).
10. ശ്രീമതി സൗമ ബീവി.വി.സി. അസിസ്റ്റന്റ് സയന്റിസ്റ്റ്, (കേരള സംസ്ഥാന മലിനീകരണ നിയന്ത്രണ ബോർഡ്, ജില്ലാ ഓഫീസ്, മലപ്പുറം.)

DLTC ചെയർമാൻ (എസ്ഇഇ ഇറിഗേഷൻ)-ന്റെ അഭാവത്തിൽ അദ്ദേഹത്തിന്റെ പേഴ്സണൽ അസിസ്റ്റന്റ് ശ്രീമതി.അഞ്ജനയുടെ അധ്യക്ഷതയിൽ 3.00 മണിക്ക് വീവിയോ കോൺഫറൻസ് ആരംഭിച്ചു. ആക്ഷൻ പ്ലാനിലെ ഇറിഗേഷൻ വകുപ്പിന്റെ പ്രവർത്തന പുരോഗതി വിലയിരുത്താൻ എൻവയോൺമെന്റൽ എഞ്ചിനീയർ ശ്രീമതി.അഞ്ജനയോട് ആവശ്യപ്പെട്ടു. കൂട്ടായി റെഗുലേറ്ററിന്റെ വർക്കിൽ പിന്നീട് പുരോഗതി ഉണ്ടായിട്ടില്ലെന്നും ടെർമിനേറ്റ് ചെയ്യാനുള്ള നടപടിയിലേക്ക് പോകേണ്ടിവരുമെന്നും ശ്രീമതി. അഞ്ജന അറിയിച്ചു. NGT അംഗീകരിച്ചിട്ടുള്ള ആക്ഷൻ പ്ലാൻ നിർവ്വഹണവും സമയബന്ധിതമായി ചെയ്തു തീർക്കേണ്ടതാണെന്നും പകുതി വഴിക്ക് വെച്ച് ടെർമിനേറ്റ് ചെയ്യാൻ സാധിക്കുകയില്ല. അതുകൊണ്ട് റീ കോൺട്രാക്ടിന് പോകുന്നതല്ലെ നല്ലതെന്നും, വീഴ്ച വരുത്തിയാൽ NGTയുടെ വിമർശനം നേരിടേണ്ടി വരുമെന്നും തുടർ നടപടികളിലേക്ക് നീങ്ങുകെന്നും എൻവയോൺമെന്റൽ എഞ്ചിനീയർ ഓർമ്മപ്പെടുത്തുകയുണ്ടായി. തിരുർ പൊന്നാനി പുഴയുടെ വലതുഭാഗത്തുള്ള ബണ്ട് ശക്തിപ്പെടുത്തുന്നതിന് ഡി.പി.ആർ തയ്യാറാക്കി സമർപ്പിച്ചിട്ടുണ്ടെന്നും, എന്നാൽ നാളിതുവരെ ഫണ്ട് ലഭ്യമാകാത്തതിനാൽ പുരോഗതിയൊന്നും ഉണ്ടായിട്ടില്ലെന്ന് ശ്രീ.ഹരിദ്രനാഥ് അറിയിച്ചു.

തൃശ്ശൂർ മുനിസിപ്പാലിറ്റിയുടെ പ്രവർത്തനങ്ങളാണ് വിലയിരുത്തിയത്. തിരുർ മുനിസിപ്പൽ ബസ് സ്റ്റാന്റ് STP-യുടെ Truss വർക്ക് കഴിഞ്ഞ ദിവസം പൂർത്തീകരിച്ചതായും വൈദ്യുതീകരണത്തിന്റെ പണി ഇനി ചെയ്യാനുണ്ടെന്നും ഹെൽത്ത് സൂപ്പർവൈസർ ശ്രീ.ജീവരാജ് അറിയിച്ചു. ഒരു മാസംകൂടി സമയം തരണമെന്ന് ശ്രീ.ജീവരാജ് ഓർമ്മപ്പെടുത്തുകയുണ്ടായി തിരുർ മത്സ്യമാർക്കറ്റിലെ ETP-യുടെ blower മാറ്റാനുണ്ടെന്നും, ഇലക്ട്രിക്കൽ അസിസ്റ്റന്റ് എഞ്ചിനീയറാണ് എസ്റ്റിമേറ്റ് എടുത്തിരുന്നതെന്നും ഇനി അത് മെക്കാനിക്കൽ അസിസ്റ്റന്റ് എഞ്ചിനീയറെ ഏൽപ്പിക്കണമെന്നും ശ്രീ.ജീവരാജ് അറിയിച്ചു. കഴിഞ്ഞ തവണ ETP-യുടെ renovation work പൂർത്തീകരിച്ചതായി അറിയിച്ചിരുന്നു. അനുപ്രകാരം 30.03.2022-ന് മലിനീകരണ നിയന്ത്രണ ബോർഡ് ഓഫീസിൽ നിന്നും ഒരു ഇൻസ്പെക്ഷൻ നടത്തിയിരുന്നു. മഴവെള്ളം നിറഞ്ഞു കിടക്കുന്ന ടാങ്കിൽ കറുപ്പൻ പത്തു കിടക്കുന്നതായാണ് അപ്പോൾ അവിടെ കാണാൻ കഴിഞ്ഞത്. ETP നിലവിൽ പ്രവർത്തന രഹിതമാണ്. ആയതിനാൽ അവിടുന്ന് സാമ്പിൾ എടുക്കാൻ സാധിച്ചിട്ടില്ലെന്നും ഇപ്പോഴും untreated water drain വഴി പുഴയിലേക്ക് എത്തിച്ചേരുന്നു എന്നത് നിർഭയകരമാണെന്നും എൻവയോൺമെന്റൽ എഞ്ചിനീയർ അറിയിച്ചു. ഒരു പ്രയോജനവുമില്ലാതെ എല്ലാ മാസവും DLTC മീറ്റിംഗ് കൂടിയിട്ട് ഒരു കാര്യവുമില്ലെന്ന് നിലവിലെ പുരോഗതി എഴുതി റിപ്പോർട്ട് NGT-യ്ക്ക് സമർപ്പിക്കുമെന്നും Environmental Clearance അടക്കമുള്ള നടപടികളിലേക്ക് ശക്തമായി നീങ്ങുമെന്നും എൻവയോൺമെന്റൽ എഞ്ചിനീയർ ഓർമ്മപ്പെടുത്തുകയുണ്ടായി. ഈ അവലോകനത്തിന്റെ അടിസ്ഥാനത്തിൽ തിരുർ മുനിസിപ്പാലിറ്റിയ്ക്ക് ഒരു നിർദ്ദേശ കത്ത് നൽകണമെന്ന് എൻവയോൺമെന്റൽ എഞ്ചിനീയർ DLTC ചെയർ പേഴ്സണോട് അഭ്യർത്ഥിച്ചു.

തിരുർ മുനിസിപ്പാലിറ്റി ബസ് സ്റ്റാന്റ് STP, മത്സ്യമാർക്കറ്റിലെ ETP ഇവയുടെ നിലവിലുള്ള പുരോഗതി ഒരു റിപ്പോർട്ടായി മലിനീകരണ നിയന്ത്രണ ബോർഡ് ഓഫീസിൽ സമർപ്പിക്കണമെന്ന് തിരുർ മുനിസിപ്പാലിറ്റിക്കു വേണ്ടി ഹാജരായവരോട് എൻവയോൺമെന്റൽ എഞ്ചിനീയർ ആവശ്യപ്പെട്ടു.

തൃശ്ശൂർ മംഗലം ഗ്രാമപഞ്ചായത്തിന്റെ പ്രവർത്തനങ്ങളാണ് വിലയിരുത്തിയത്. തിരുർ പൊന്നാനി പുഴയുടെ സംരക്ഷണം സംബന്ധിച്ചുള്ള വർക്ക് 70 ശതമാനം പൂർത്തീകരിച്ചതായി മംഗലം ഗ്രാമപഞ്ചായത്ത് അസിസ്റ്റന്റ് സെക്രട്ടറി ശ്രീ. സുലൈമാൻ അറിയിച്ചു. നിർമ്മിതി കേന്ദ്രവുമായുള്ള ഒരു ഇടവഴിയുടെ പ്രശ്നമാണ് വർക്ക് പൂർത്തീകരിക്കുവാനുള്ള തടസ്സമെന്ന് അദ്ദേഹം അറിയിക്കുകയുണ്ടായി. രണ്ട് മാസത്തിനകം വർക്ക് പൂർത്തീകരിക്കാമെന്നും അറിയിച്ചു. നിർമ്മിതി കേന്ദ്രവുമായി ഒരു ധാരണയിലെത്തി എത്രയും പെട്ടെന്ന് വർക്ക് പൂർത്തീകരിക്കണമെന്ന് എൻവയോൺമെന്റൽ എഞ്ചിനീയർ ആവശ്യപ്പെട്ടു.

അവസാനമായി മലപ്പുറം മുനിസിപ്പാലിറ്റി STP യുടെ പ്രവർത്തന പുരോഗതിയാണ് വിലയിരുത്തിയത്. STP യുടെ പ്രവർത്തനത്തിൽ യാതൊരു പുരോഗതിയും ഉണ്ടായിട്ടില്ലെന്ന് മലപ്പുറം മുനിസിപ്പാലിറ്റി അസിസ്റ്റന്റ് എഞ്ചിനീയർ ശ്രീ.ഷംസുദ്ദീൻ അറിയിച്ചു. Slaughter

House-ന്റെ DPR തയ്യാറാക്കിയിട്ടുണ്ടെന്നും ഫണ്ട് ലഭ്യമാകാത്തതിനാൽ യാതൊരു പുരോഗതിയും ഉണ്ടായിട്ടില്ലെന്നും അറിയിച്ചു. Revamp ചെയ്യുന്നതിനുള്ള project proposal ബോർഡിന് സമർപ്പിക്കണമെന്നും, ബാക്കിയുള്ള പണി പൂർത്തീകരിച്ചാൽ മാത്രമേ മോണിറ്ററിങ്ങ് ചെയ്യാൻ പറ്റൂ എന്നും എൻവയോൺമെന്റൽ എഞ്ചിനീയർ ഓർമ്മപ്പെടുത്തി.

റവന്യൂ ഡിവിഷണൽ ഓഫീസിൽ നിന്നും ആരും മീറ്റിങ്ങിൽ പങ്കെടുത്തില്ല. മീറ്റിങ്ങിൽ പങ്കെടുക്കാത്തവർക്ക് പ്രോഗ്രസ്സ് കൃത്യമായി അറിയിക്കുന്നതിനും കൃത്യമായി മീറ്റിങ്ങിൽ പങ്കെടുക്കുന്നതിനായും ചെയർ പേഴ്സൺ നിർദ്ദേശ കത്ത് നൽകണമെന്ന് എൻവയോൺമെന്റൽ എഞ്ചിനീയർ ഇറിഗേഷൻ വകുപ്പിലെ പേഴ്സണൽ അസിസ്റ്റന്റ് ഓഫ് സൂപ്രണ്ടിംഗ് എഞ്ചിനീയർ, ശ്രീമതി.അഞ്ജനയോട് നിർദ്ദേശിച്ചു.

നമ്മുടെ ആക്ഷൻ പ്ലാനിൽ മലിനീകരണ നിയന്ത്രണ ബോർഡ് തുടർച്ചയായ മൂന്ന് വർഷമായി 21 സംവിധർ സ്റ്റേഷനുകളിൽ നിന്നും സാമ്പിൾ എടുത്ത് ടെസ്റ്റ് ചെയ്ത് വരുന്നുണ്ട്. അതിന്റെ റിസൾട്ടിൽ BOD മൂല്യം വളരെ കുറവാണ്. അതിൻ പ്രകാരം polluted stretches ആക്ഷൻ പ്ലാനിൽ നിന്ന് delisting ചെയ്യുന്നതിനായി എഴുതി ചോദിച്ചിരുന്നു. 6 മാസം heavy metals sampling കൂടി ചെയ്തതിനു ശേഷം തീരുമാനിച്ചാൽ മതിയെന്നാണ് അറിയിച്ചത്. കഴിഞ്ഞ നവംബറിൽ heavy metals അനാലിസിസ് ചെയ്തത് 11 എണ്ണത്തിന്റെ റിസൾട്ടാണ് കിട്ടിയിട്ടുള്ളത്. അതിൽ heavy metals content ഇല്ലെന്നും നല്ല റിസൾട്ടാണ് കിട്ടിയതെന്നും എൻവയോൺമെന്റൽ എഞ്ചിനീയർ അറിയിച്ചു. അതുകൊണ്ട് തന്നെ ആക്ഷൻ പ്ലാനിലെ ബാക്കിയുള്ള കാര്യങ്ങൾ കൂടി പൂർത്തീകരിക്കുകയാണെങ്കിൽ ആക്ഷൻ പ്ലാൻ ഏറ്റവും വേഗം അവസാനിപ്പിക്കാൻ കഴിയുമെന്നും ഓരോരുത്തരുടെയും ഭാഗത്തു നിന്ന് ചെയ്യേണ്ടുന്ന നടപടികൾ പൂർത്തീകരിക്കുന്നതിനനുസരിച്ച് നമുക്ക് action plan പൂർത്തീകരിച്ചുകൊണ്ട് അറിയിക്കാം എന്നും, അതിനായി എല്ലാവരും ഉത്സാഹിക്കണമെന്നും എൻവയോൺമെന്റൽ എഞ്ചിനീയർ ഓർമ്മപ്പെടുത്തുകയുണ്ടായി.

3.45 pm-ന് വീഡിയോ കോൺഫറൻസ് അവസാനിച്ചു.

എൻവയോൺമെന്റൽ എഞ്ചിനീയർ

മലപ്പുറം  
13.04.2022













DA 673 ൽ 17.05.2022 തീയതിയിൽ സുപ്രണ്ടിംഗ് എഞ്ചിനീയർ, ഇറിഗേഷൻ വകുപ്പ്-നോർത്ത് സർക്കിളിന്റെ അധ്യക്ഷതയിൽ വീഡിയോ കോൺഫറൻസ് വഴി നടത്തിയ DLTC മീറ്റിങ്ങിന്റെ മിനുട്ട്സ്.

**ഹാജരായവർ**

1. ശ്രീമതി.അഞ്ജന, (പേഴ്സണൽ അസിസ്റ്റന്റ് ഓഫ് സുപ്രണ്ടിംഗ് എഞ്ചിനീയർ, ഇറിഗേഷൻ വകുപ്പ്).
2. ശ്രീമതി.ചഞ്ചൽ (അസിസ്റ്റന്റ് എഞ്ചിനീയർ, മേജർ ഇറിഗേഷൻ ഡിവിഷൻ, തിരുർ).
3. ശ്രീജീവരാജ് (ഹെൽത്ത് സൂപ്പർവൈസർ, തിരുർ മുനിസിപ്പാലിറ്റി).
4. ശ്രീ.ഹരിദ്രനാഥ്.വി.ടി (അസിസ്റ്റന്റ് എക്സിക്യൂട്ടീവ് എഞ്ചിനീയർ (ഇറിഗേഷൻ സബ്ഡിവിഷൻ, തിരുർ).
5. ശ്രീ.ജോഷിലാൽ, അസിസ്റ്റന്റ് എഞ്ചിനീയർ (ഗ്രൗണ്ട് വാട്ടർ വകുപ്പ്, മലപ്പുറം).
6. ശ്രീ.ഹമീദ്, ഹെൽത്ത് ഇൻസ്പെക്ടർ (മലപ്പുറം മുനിസിപ്പാലിറ്റി).
7. ശ്രീ.സുലൈമാൻ, അസിസ്റ്റന്റ് സെക്രട്ടറി (മംഗലം ഗ്രാമപഞ്ചായത്ത്)
8. ശ്രീ. വിനോദ്, അസിസ്റ്റന്റ് സെക്രട്ടറി (ചെറിയമുണ്ടം ഗ്രാമപഞ്ചായത്ത്)
9. ശ്രീ.അജയ്കുമാർ, ഹെഡ് ക്ലർക്ക് (റവന്യൂ ഡിവിഷണൽ ഓഫീസ്, തിരുർ)
10. ശ്രീമതി സൗമ ഹമീദ് (എൻവയറൺമെന്റൽ എഞ്ചിനീയർ, കേരള സംസ്ഥാന മലിനീകരണ നിയന്ത്രണ ബോർഡ്, ജില്ലാ ഓഫീസ്, മലപ്പുറം).
11. ശ്രീമതി സൗദ ബിവി.വി.സി. അസിസ്റ്റന്റ് സയന്റിസ്റ്റ്, (കേരള സംസ്ഥാന മലിനീകരണ നിയന്ത്രണ ബോർഡ്, ജില്ലാ ഓഫീസ്, മലപ്പുറം.)

DLTC ചെയർമാൻ (എസ്ഇഇ ഇറിഗേഷൻ)-ന്റെ അഭാവത്തിൽ അദ്ദേഹത്തിന്റെ പേഴ്സണൽ അസിസ്റ്റന്റ് ശ്രീമതി.അഞ്ജനയുടെ അധ്യക്ഷതയിൽ 3.00 മണിക്ക് വീഡിയോ കോൺഫറൻസ് ആരംഭിച്ചു. ആക്ഷൻ പ്ലാനിലെ ഇറിഗേഷൻ വകുപ്പിന്റെ പ്രവർത്തന പുരോഗതിയാണ് ആദ്യമായി വിലയിരുത്തിയത്. കൂട്ടായി റെഗുലേറ്ററിന്റെ വർക്കിൽ ഡ്യൂരാഗതി ഒന്നും ഉണ്ടായിട്ടില്ലെന്നും, ടെർമിനറ്റ് ചെയ്യാനുള്ള നടപടിയിലേക്ക് പോയിരുന്നെങ്കിലും ഈ വർഷം ഫണ്ട് കിട്ടാനുള്ള ബുദ്ധിമുട്ടുള്ളതുകൊണ്ട് അടുത്ത വർഷം ചെയ്യാനുള്ള റിവൈസ്ഡ് ഷെഡ്യൂൾ എറണാകുളം മെക്കാനിക്കൽ സുപ്രണ്ടിങ്ങ് എഞ്ചിനീയർ അയച്ചു തന്നിട്ടുണ്ടെന്നും ശ്രീ.ഹരിദ്രനാഥ് അറിയിച്ചു. തിരുർ പൊന്നാനി പുഴയുടെ വലതുകരത്തുള്ള ബണ്ട് ശക്തിപ്പെടുത്തുന്നതിന് ഡി.പി.ആർ തയ്യാറാക്കി സമർപ്പിച്ചിട്ടുണ്ടെന്നും, എന്നാൽ ഫണ്ട് ലഭ്യമാകാത്തതിനാൽ പുരോഗതിയൊന്നും ഉണ്ടായിട്ടില്ലെന്നും ശ്രീ.ഹരിദ്രനാഥ് അറിയിച്ചു.

തിരുർ മുനിസിപ്പൽ ബസ് സ്റ്റാന്റ് STP-യുടെ truss വർക്ക് പൂർത്തീകരിച്ചിട്ടുണ്ടെന്നും റെവന്യൂതീകരണം നടന്നുകൊണ്ടിരിക്കുകയാണെന്നും തിരുർ മുനിസിപ്പാലിറ്റി ഹെൽത്ത് റെവന്യൂതീകരണം നടന്നുകൊണ്ടിരിക്കുകയാണെന്നും തിരുർ മുനിസിപ്പാലിറ്റി ഹെൽത്ത്

എത്തിച്ചിട്ടുണ്ടെന്നും. ആയത് സ്ഥാപിക്കുന്നതിനുള്ള നടപടികൾ നടന്നു കൊണ്ടിരിക്കുകയാണെന്നും ശ്രീ.ജീവരാജ് അറിയിച്ചു.

തിരുവല്ല മുൻസിപ്പാലിറ്റിയിലെ ETP-യുടെ renovation work, blower മാറ്റുന്നതിനുമായി പദ്ധതിപരിഷ്കരണ രൂപ വരുമെന്നും അതിനായുള്ള പ്രോജക്ട് തയ്യാറാക്കിയിട്ടുണ്ട്. അടുത്ത മാസമാണ് അപ്രൂവൽ ആവുകയുള്ളൂ. അതിനു ശേഷം മാത്രമേ വീടുകൾ വിളിക്കുകയുള്ളൂ എന്നും ശ്രീ.ജീവരാജ് അറിയിച്ചു.

അടുത്തതായി Encroachment സർവ്വേയുടെ പുരോഗതിയാണ് വിലയിരുത്തിയത്. സർവ്വേ പുരോഗമിക്കുന്നുണ്ടെന്നും 6 സർവ്വേയർമാരാണ് ഇപ്പോൾ സർവ്വേ നടത്തിക്കൊണ്ടിരിക്കുന്നതെന്നും വെറുപ്ലാൻഡിംഗിൽ ഓഫീസിലെ ഹെഡ് ക്ലാർക്ക് ശ്രീ.അജയ്കുമാർ അറിയിച്ചു. പുറത്തുപോകാൻ മാത്രമേ ഇനി സർവ്വേ പൂർത്തീകരിക്കാനുള്ളൂ. 8.95 ശതമാനം കൂടി സർവ്വേ പൂർത്തീകരിക്കാനുണ്ടെന്നും ശ്രീ.അജയ് കുമാർ അറിയിച്ചു.

അവസാനമായി മലപ്പുറം മുൻസിപ്പാലിറ്റിയുടെ പ്രവർത്തന പുരോഗതിയാണ് വിലയിരുത്തിയത്. STP വിഷയത്തിൽ യാതൊരു പുരോഗതിയും ഉണ്ടായിട്ടില്ലെന്നും മലപ്പുറം ഹെൽത്ത് ഇൻസ്പെക്ടർ ശ്രീ.ഹമീദ് അറിയിച്ചു. Slaughter House സ്ഥാപിക്കുന്നതിനായുള്ള ഫണ്ട് ഇതുവരെ ലഭ്യമാകാത്തതിനാൽ പുരോഗതിയും ഉണ്ടായിട്ടില്ലെന്നും അറിയിക്കുകയുണ്ടായി. തെളിനിർദ്ദേശം നവകേരളം എന്ന പദ്ധതിയുടെ ഭാഗമായി ഇപ്പോൾ തോട്ടുകളും ഡ്രൈനേജുകളുടെയും ക്ലീനിങ്ങ് ആണ് നടന്നു കൊണ്ടിരിക്കുന്നതെന്നും ശ്രീ.ഹമീദ് അറിയിച്ചു.

3.30 pm-ന് വിവരങ്ങൾ കോൺഫറൻസ് അവസാനിച്ചു.

  
എൻവയോൺമെന്റ് എഞ്ചിനീയർ

മലപ്പുറം  
17.05.2022

## **Minutes of District Level Technical Committee Meeting on 26-04-2022** **Through Video Conferencing**

District Level Technical Committee (DLTC) Meeting on Polluted River Stretch ( As per order of Hon'ble NGT in OA673 of 2018) was held on 26th April 2022 through video conferencing at 11:00 am. Representatives from the Pollution Control board, Irrigation Department, Pattambi Municipality, and Pudur Panchayath have participated in the meeting.

Members Participated:

1. Mr Baji Chandran, Superintending Engineer, Minor Irrigation Central Circle, Irrigation Department, Ernakulam (Chairman of DLTC)
2. Mr Suresh Babu, Executive Engineer, Minor Irrigation, Palakkad
3. Ms Anees, Secretary, Pudur Gramapanchayath, Pudur
4. Mr Nasir, Secretary, Pattambi Municipality, Palakkad
5. Mr Muhammad Iqbal, Health Inspector, Pattambi Municipality, Palakkad
6. Mr. Krishnan M N, Environmental Engineer, Kerala State Pollution Control Board (Convener of DLTC)

Mr. Krishnan M N, Environmental Engineer, Kerala State Pollution Control Board welcomed the DLTC members and shared the information regarding the OA 673 and the reason for constituting the District Level Technical Committee as introduction. Then he discussed the progress of the polluted river stretches action plans of Bharathapuzha at Pattambi and Bhavani at Elachivazhi.

### **Bharathapuzha at Pattambi**

Environmental Engineer discussed the action points of Bharathapuzha at Pattambi one by one and the concerned implementing agency reported progress.

- Establishment, and modernization of the MSW treatment Plant ( Solid Waste Management), Material collection Facility, and Resource recovery facility fully implemented in the Pattambi Municipality.
- Pattambi Municipality informed that the implementation of household and community-level solid waste management unit are in progress. A total of 1600 household units were sanctioned and it is being distributed based on applications.

- The action point on door-to-door collection and transportation of municipal solid waste was implemented in the Municipality. Environmental Engineer asked Secretary, Pattambi Municipality to ensure that the project was going well.
- Superintending Engineer, Irrigation Department informed that the DPR for regulating flood plain zone protection and management, and E-flow maintainance in the Bharathapuzha at pattambi were prepared and submitted to the government several months ago. But funding did not get sanctioned. He also mentioned that this matter should be brought to the attention of the Chief Secretary and Hon'ble National Green Tribunal. He commented that the State Government should taken necessary action for the approval of DPR and fund before asking for progress from the DLTC.
- The action points on management of plastics, hazardous, biomedical, and electrical and electronic wastes were achieved in Pattambi Municipality by the implementation of MCF and RRF facilities.
- The action points on creating awareness among the public, water quality monitoring, and the Green Protocol implementation were implemented by KSPCB. Environmental Engineer informed that the water quality of the Bharathapuzha at Pattambi is consistently achieving bathing standards, still the action plan was to be completely implemented.
- In the case of the implementation of the Primary Sewage Treatment Plant and Septage Treatment plant, Pattambi Municipal Secretary informed that Kerala Water Authority prepared a DPR for STP and submitted it to the Government. The STP is proposed to be installed at Nambram in Pattambi municipality in about 50 cent of land. The survey for the sewerage pipeline was also completed and it is also included in the DPR.
- The Pattambi Municipal Secretary informed that the funds have been allocated for the installation of a modern slaughterhouse and assorted rendering plant but land could not be identified for the same.
- DPR for the renovation of two sanitary complexes (located in the bus stand and near Nila Hospital) and one new at Pattambi market was prepared and its tendering were also completed. Pattambi Municipal Secretary said that its implementation will be started soon.
- Environmental Engineer, KSPCB suggested to Pattambi Municipality to prepare an explanatory note on the progress of the action plan in detail and send it at the earliest.

### **Bhavani at Elachivazhi.**

- In Pudur Panchayath, building construction for the MSW treatment plant(MCF and RRF) was completed, machineries for RRF were purchased and waiting for KSEB connection for its installation. Wet waste processing was not started, Pudur Panchayath Secretary informed.
- Harithakarmmasena collected plastic wastes from Pudur Panchayath including tribal colonies and sent them to the MSW treatment plant for proper processing.
- Pudur Panchayath Secretary said that she was joined only recently so the progress of the other actions points, where Pudur Panchayath is acting as an implementing agency ,will be sent in a written format after enquiries with the concerned personell.
- Superintending Engineer irrigation department informed that the E-flow of the Bhavani Riverhad been earlier studied by IDRB and the report will be made available for the action plan implementation.
- Water quality monitoring of Bhavani at Elachivazhi and its upstream and downstream were monitored by KSPCB and it will be continuing for the complete achievement of the action plan.
- The action points on construction of protection wall and seasonal clearance of jungle and muddies of river courses are progressing and its current status will be submitted in written format Executive Engineer Minor Irrigation informed.

The meeting concluded at 12.00 pm

### Bhavani at Elachivazhi.

- In Pudur Panchayat, building construction for the MSW treatment plant (MCP and RRF) was completed. machineries for RRF were purchased and waiting for KSEB connection for its installation. Wet waste processing was not started. Pudur Panchayat's Secretary informed.
- Harithakemnasena collected plastic wastes from Pudur Panchayat including tribal colonies and sent them to the MSW treatment plant for proper processing.
- Pudur Panchayat Secretary said that she was joined only recently so the progress of the other action points, where Pudur Panchayat is acting as an implementing agency, will be sent in a written format after enquiries with the concerned personnel.
- Superintending Engineer, Irrigation department informed that the E-Flow of the Bhavani River had been earlier started by HERRI and the report will be made available for the action plan implementation.
- Water quality monitoring of Bhavani at Elachivazhi across upstream and downstream were monitored by KSPCB and it will be continuing for the complete achievement of the action plan.
- The action points on construction of protection wall and seasonal clearance of banks and sandbars of river courses are progressing and its current status will be submitted in written format Executive Engineer, Minor Irrigation informed.

The meeting concluded at 12.00 pm.

  
Convener

  
Chairman





**06.05.2022 ൽ Polluted River Stretches മായി ബന്ധപ്പെട്ട് പത്തനംതിട്ട അഡീഷണൽ ജില്ലാ മജിസ്ട്രേറ്റിന്റെ ചേമ്പറിൽ വെച്ച് നടത്തിയ DLTC മീറ്റിംഗിന്റെ മിനിട്ട്സ്.**

അഡീഷണൽ ജില്ലാ മജിസ്ട്രേറ്റ്, ശ്രീ. അലക്സ് പി. തോമസ് അവർകളുടെ അധ്യക്ഷതയിൽ മെയ് മാസത്തെ അവലോകനയോഗം 11.00 am ന് ആരംഭിച്ചു. യോഗത്തിൽ താഴെപ്പറയുന്നവർ പങ്കെടുത്തു.

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|--------------------------------|---|
| 1) ശ്രീ. അലക്സ് പി. തോമസ്      | - അഡീഷണൽ ജില്ലാ മജിസ്ട്രേറ്റ്                                     |
| 2) ശ്രീമതി. സുമ എസ്.           | - അസി.എക്സിക്യൂട്ടീവ് എഞ്ചിനീയർ, മൈൻ ഇറിഗേഷൻ, പത്തനംതിട്ട         |
| 3) ശ്രീമതി. സുചിത്ര വി         | - പരിസ്ഥിതി എഞ്ചിനീയർ, മലിനീകരണ നിയന്ത്രണ ബോർഡ്, പത്തനംതിട്ട      |
| 4) ശ്രീമതി. പ്രവിതാമോൾ റ്റി.എൻ | - അസി. പരിസ്ഥിതി എഞ്ചിനീയർ, മലിനീകരണ നിയന്ത്രണ ബോർഡ്, പത്തനംതിട്ട |
| 5) ശ്രീ. സുരേഷ് കുമാർ എസ്.കെ.  | - ഡെപ്യൂട്ടി രജിസ്ട്രാർ, ജില്ലാ വ്യാവസായിക കേന്ദ്രം               |
| 6) ശ്രീ. എസ്. വിജയ്            | - സെക്രട്ടറി, നിരണം ഗ്രാമപഞ്ചായത്ത്                               |
| 7) ശ്രീ.ഹരികുമാർ എൻ.           | - അസി.സെക്രട്ടറി, മന്നാർ ഗ്രാമപഞ്ചായത്ത്                          |
| 8) ശ്രീ. മുജീബ് റഹ്മാൻ         | - സെക്രട്ടറി, കടപ്ര ഗ്രാമപഞ്ചായത്ത്                               |
| 9) ശ്രീ. ജെനിൻ ജയിംസ്          | - ടെക്നിക്കൽ കൺസൾട്ടന്റ്, ശുചിത്വമിഷൻ                             |
| 10) ശ്രീ. ജിനു ഏബ്രഹാം         | - ജൂനിയർ സൂപ്രണ്ട്, ഡി.ഡി.പി                                      |
| 11) ശ്രീ. അജയ് കെ. ആർ          | - പ്രോഗ്രാം ഓഫീസർ, ശുചിത്വ മിഷൻ                                   |
| 12) ശ്രീ. അരുൺദാസ് ബി          | - ഹൈഡ്രോ ജിയോളജിസ്റ്റ്, ഭൂജലവകുപ്പ്                               |

അഡീഷണൽ ജില്ലാ മജിസ്ട്രേറ്റ്, പത്തനംതിട്ട, എല്ലാവരെയും യോഗത്തിലേക്ക് സ്വാഗതം ചെയ്തു. തുടർന്ന് കർമ്മ പദ്ധതികളുടെ പുരോഗതി വിലയിരുത്തി.

പരിസ്ഥിതി എഞ്ചിനീയർ, മലിനീകരണ നിയന്ത്രണ ബോർഡ് കർമ്മ പദ്ധതി പ്രകാരം ബോർഡ് സ്വീകരിച്ചുവരുന്ന നടപടികളെപ്പറ്റി വിശദീകരിച്ചു. മലിനീകരിക്കപ്പെട്ട നദീഭാഗങ്ങളുടെ കർമ്മപദ്ധതിൽ ഉൾപ്പെടുന്ന സ്റ്റേഷനുകളിൽ നിന്നും എല്ലാ മാസവും സാമ്പിളുകൾ ശേഖരിച്ച് പരിശോധന നടത്തി വരുന്നു. ഈ സാമ്പിളുകളിൽ BOD 3 mg/l ൽ താഴെയാണെന്നും ഫീക്കൽ കോളിഫോം ബാക്ടീരിയുടെ സാന്നിധ്യം 500 ൽ താഴെയാണെന്നും അറിയിച്ചു.

നിരണം ഗ്രാമപഞ്ചായത്തിൽ MCF നു ചുറ്റുമതിൽ കെട്ടാൻ ടെണ്ടർ നടപടി സ്വീകരിച്ചെങ്കിലും ആരും എടുത്തുത്തിട്ടില്ലെന്നും, വെള്ളപ്പൊക്ക ബാധിത പഞ്ചായത്ത് ആകയാൽ തരം തിരിച്ച് വച്ചിരുന്ന പ്ലാസ്റ്റിക് മാലിന്യങ്ങൾ ഒഴുക്കി നടക്കുന്ന സ്ഥിതി ഉണ്ടായെന്നും പഞ്ചായത്ത് സെക്രട്ടറി അറിയിച്ചു. പഞ്ചായത്ത് പദ്ധതിയാണിതെന്നും പദ്ധതിയിൽ മാറ്റം വരുത്തിയിട്ടും, ടെണ്ടർ ആരും എടുത്തുത്തിട്ടില്ലെന്നും പഞ്ചായത്തിൽ ഓരോ വാർഡിലും മിനി MCF ഏർപ്പെടുത്തിയിട്ടുണ്ടെന്നും, സെക്രട്ടറി അറിയിച്ചു. പ്ലാസ്റ്റിക്കിന്റെ ഉപയോഗം തടയുന്നതിനായി പരിശോധന നടത്താൻ VEO യെ ചുമതലപ്പെടുത്തിയിട്ടുണ്ടെന്നും, ലോഗസി വേസ്റ്റ് ക്ലീൻ കേരള കമ്പനിക്ക് കൈമാറുന്നതായും സെക്രട്ടറി അറിയിച്ചു.

മാന്നാർ പഞ്ചായത്തിൽ MCF താൽക്കാലികമായി ഓഡിറ്റോറിയത്തിൽ നടത്തുന്നുണ്ടെന്നും, MCF നു വേണ്ടി സ്ഥലം വാങ്ങിയിട്ടുണ്ടെന്നും, മിനി MCF എല്ലാ വാർഡിലും പ്രവർത്തിക്കുന്നുണ്ടെന്നും അസിസ്റ്റന്റ് സെക്രട്ടറി അറിയിച്ചു. 15 ടൺ പ്ലാസ്റ്റിക് വേസ്റ്റ് ക്ലീൻ കേരള കമ്പനിക്ക് നൽകിയിട്ടുണ്ടെന്നും, ലോഗസി വേസ്റ്റ് എടുക്കാൻ മടിച്ചാണെന്നും നിരോധിച്ച പ്ലാസ്റ്റിക്കുകൾ പിടിച്ചെടുത്ത് പരിശോധനയ്ക്കായി അയച്ചിട്ടുണ്ടെന്നും അറിയിച്ചു. 'തെളിനീരൊഴുക്കും നവകേരളം' പദ്ധതി പ്രകാരം ഓരോ വാർഡിലേയും തോടുകളിൽ നിന്നും 4 സാമ്പിളുകൾ വീതം ശേഖരിച്ച് പരിശോധന നടത്തി വരുന്നതായും അസിസ്റ്റന്റ് സെക്രട്ടറി അറിയിച്ചു.

കടപ്ര ഗ്രാമ പഞ്ചായത്തിൽ door to door collection നന്നായി നടക്കുന്നുണ്ടെന്നും, വേസ്റ്റുകൾ ക്ലീൻ കേരള കമ്പനിക്ക് കൈമാറുന്നുണ്ടെന്നും, Mini MCF എല്ലാ വാർഡുകളിലുമുണ്ടെന്നും, നദികളിലേക്ക് മാലിന്യം ഒഴുക്കി വിടാതിരിക്കാൻ തീരത്തിലുള്ള വീടുകളിലും കടകളിലും നോട്ടീസ് നൽകി നിയന്ത്രിച്ചതായും സെക്രട്ടറി അറിയിച്ചു. ഇതിന്റെ റിപ്പോർട്ട് വാർഡ് ക്ലർക്കുമാർ മുഖേന പരിശോധിക്കുന്നതായും അറിയിച്ചു.

മൈനർ ഇറിഗേഷനിൽ പുനരുദ്ധാരണത്തിന്റെ വിശദമായ എസ്റ്റിമേറ്റ് റിപ്പോർട്ട് സമർപ്പിച്ചെങ്കിലും അനുമതി ലഭിച്ചില്ലെന്നും ഓരോ നദിക്കും ഓരോ അസി.എക്സിക്യൂട്ടീവ് എഞ്ചിനീയർമാരെ ചുമതലപ്പെടുത്തിയിട്ടുണ്ടെന്നും, നദീ പുനരുജ്ജീവനം പദ്ധതി പ്രകാരം പമ്പ, അച്ചൻകോവിൽ, മണിമല എന്നീ നദികളിൽ നിക്ഷേപിക്കപ്പെട്ട പാറയും, ചെളിയും, മണ്ണും തൊഴിലുറപ്പ് മുഖേനയും, യന്ത്ര സഹായത്തോടുകൂടിയും നീക്കം ചെയ്ത് പഞ്ചായത്ത് ഗ്രൗണ്ടിൽ നിക്ഷേപിക്കുന്നതായും, ഓരോ നദിയുടെയും ചുമതല അതാത് ജില്ലയിലെ എക്സിക്യൂട്ടീവ് എഞ്ചിനീയർമാർക്കാണ്, പമ്പാ നദിയുടെത് കൊല്ലം എക്സിക്യൂട്ടീവ് എഞ്ചിനീയറുടെ മേൽനോട്ടത്തിലാണെന്നും അസി. എക്സിക്യൂട്ടീവ് എഞ്ചിനീയർ അറിയിച്ചു.

ശുചിത്വ മിഷനിൽ 70:30 അനുപാതത്തിൽ കേന്ദ്ര ഗവൺമെന്റിന്റെയും പഞ്ചായത്തിന്റെയും ഫണ്ട് ഉപയോഗിച്ച് ഖര ദ്രവ മാലിന്യങ്ങളുടെ നിർമ്മാർജ്ജനം ചെയ്യുന്നുണ്ട്. ദ്രവ മാലിന്യ സംസ്കരണവുമായി ബന്ധപ്പെട്ട് 'തെളിനീരൊഴുക്കും നവകേരളം' പദ്ധതിയുടെ ഭാഗമായി ഓരോ വാർഡിലെയും, തോടുകളിലെയും, കൈത്തോടുകളിലെയും, കോളിഫോം ബാക്ടീരിയായുടെ സാന്നിധ്യം അറിയാൻ 4 സാമ്പിളുകൾ വീതം ശേഖരിച്ച് കിറ്റുപയോഗിച്ച് പരിശോധന നടത്തി

വരുന്നതായും ഇതിന്റെ ഭാഗമായി പരിശോധനാഫലം അറിയാൻ മൊബൈൽ ആപ്പ് (തെളിനീർ) വികസിപ്പിച്ചെടുത്തതായും ടെക്നിക്കൽ കൺസൾട്ടന്റ്, ശുചിത്വ മിഷൻ അറിയിച്ചു.

ഭൂഗർഭ ജലവിഭവ വകുപ്പിൽ കഴിഞ്ഞ സാമ്പത്തിക വർഷം 13 റീച്ചാർജ്ജ് പൂർത്തിയാക്കാനും 5 എണ്ണം പുതുതായി എസ്റ്റിമേറ്റ് എടുത്തിട്ടുണ്ടെന്നും ഹൈഡ്രോ ജിയോളജിസ്റ്റ് അറിയിച്ചു.

എല്ലാ പഞ്ചായത്തുകളിലും മിനി MCF നിറഞ്ഞു കവിയുന്നതായും അതിന്റെ വശങ്ങളിൽ മാലിന്യങ്ങൾ കൊണ്ടിടുന്നതായും പരാതി കിട്ടിയിട്ടുണ്ടെന്നും പഞ്ചായത്ത് അത് മാറ്റാനുള്ള നടപടി എത്രയും പെട്ടെന്ന് കൈക്കൊള്ളണമെന്നും, കൂടാതെ നിരോധിത പ്ലാസ്റ്റിക്കുകൾ പിടിച്ചെടുത്ത് പിഴ ഈടാക്കാനുള്ള നടപടി സ്വീകരിക്കണമെന്നും അഡീഷണൽ ജില്ലാ മജിസ്ട്രേറ്റ് ആവശ്യപ്പെട്ടു.

യോഗത്തിൽ പങ്കെടുത്ത എല്ലാവർക്കും എ.ഡി.എം നന്ദി അറിയിച്ചു.

യോഗം 11.20 ന് അവസാനിച്ചു.

അഡീഷണൽ ജില്ലാ മജിസ്ട്രേറ്റ്  
വെ.പുട്ടി കളക്ടർ (അന്വേഷണ)  
അഡീഷണൽ ഡിസ്ട്രിക്റ്റ് മജിസ്ട്രേറ്റ്  
പത്തനംതിട്ട

*Handwritten signature*  
12/5



# KERALA STATE POLLUTION CONTROL BOARD

DISTRICT OFFICE, 19/269A, PERINTHALMANNA ROAD, UP HILL .P.O, MALAPPURAM - 676 506

കേരള സംസ്ഥാന മലിനീകരണ നിയന്ത്രണ ബോർഡ്

ജില്ലാ ഓഫീസ്, 19/269A, പെരിന്തൽമണ്ണ റോഡ്, കുന്നൂർക്കൽ, പി.ഒ, മലപ്പുറം - 676 506

ഫോൺ (Phone): 0483-2733211, ഫാക്സ് (Fax): 0483-2733211

PCB//MLPM/RIVER STRETCH/2019

Date: 18.06.2022

**NGT MATTER VERY URGENT**

From

Environmental Engineer

To

The Member Secretary,  
Kerala State Pollution Control Board,  
Head Office, Thiruvananthapuram,

Sub: - Submission of monthly progress report for the month of May 2022 as per  
OA 873/2018- updated, after the DLTC meeting on 17.06.2022.

Ref: - DLTC meeting video conference conducted on 17.06.2022 regarding rejuvenation  
of Tirur, Ponnani river as per OA 873/2018.

Respected Madam,

The updated monthly progress report for the month of May 2022, Minutes of DLTC meeting (video conference) conducted on 17.06.2022 vide reference and Analysis Report of the polluted stretch river samples during the month of May 2022 are enclosed herewith. This is for information and further necessary action.

Yours faithfully,

ENVIRONMENTAL ENGINEER

Enclosure: Minutes.

Copy to:

The Chief Environmental Engineer,  
Kerala State Pollution Control Board  
Regional Office, Kozhikode.

DA 673 ൽ 17.06.2022 തീയതിയിൽ സുപ്രണ്ടിംഗ് എഞ്ചിനീയർ, ഇറിഗേഷൻ വകുപ്പ്-നോർത്ത് സർക്കിളിന്റെ അധ്യക്ഷതയിൽ വീഡിയോ കോൺഫറൻസ് വഴി നടത്തിയ 250മത് DLTC മീറ്റിങ്ങിന്റെ മിനുട്ട്സ്.

ഹാജരായവർ

1. ശ്രീമതി.അഞ്ജന, (പേഴ്സണൽ അസിസ്റ്റന്റ് ഓഫ് സുപ്രണ്ടിംഗ് എഞ്ചിനീയർ, ഇറിഗേഷൻ വകുപ്പ്).
2. ശ്രീമതി.ചഞ്ചൽ (അസിസ്റ്റന്റ് എഞ്ചിനീയർ, മേജർ ഇറിഗേഷൻ ഡിവിഷൻ, തിരുർ).
3. ശ്രീ.ജീവരാജ് (ഹെൽത്ത് സൂപ്പർവൈസർ, തിരുർ മുനിസിപ്പാലിറ്റി).
4. ശ്രീ.ഹരിദ്രനാഥ്.വി.ടി (അസിസ്റ്റന്റ് എക്സിക്യൂട്ടീവ് എഞ്ചിനീയർ (ഇറിഗേഷൻ സബ്ഡിവിഷൻ, തിരുർ).
5. ശ്രീ.ജോഷിലാൽ, അസിസ്റ്റന്റ് എഞ്ചിനീയർ (ഗ്രൗണ്ട് വാട്ടർ വകുപ്പ്, മലപ്പുറം).
6. ശ്രീ.ഹമീദ്, ഹെൽത്ത് ഇൻസ്പെക്ടർ (മലപ്പുറം മുനിസിപ്പാലിറ്റി).
7. ശ്രീ.സുലൈമാൻ, അസിസ്റ്റന്റ് സെക്രട്ടറി (മംഗലം ഗ്രാമപഞ്ചായത്ത്)
8. ശ്രീ. വിനോദ്, അസിസ്റ്റന്റ് സെക്രട്ടറി (ചെറിയമുണ്ടം ഗ്രാമപഞ്ചായത്ത്)
9. ശ്രീ.അജയ്കുമാർ, ഹെഡ് ക്ലർക്ക് (റവന്യൂ ഡിവിഷണൽ ഓഫീസ്, തിരുർ)
10. ശ്രീമതി സൗമ ഹമീദ് (എൻവയോൺമെന്റൽ എഞ്ചിനീയർ, കേരള സംസ്ഥാന മലിനീകരണ നിയന്ത്രണ ബോർഡ്, ജില്ലാ ഓഫീസ്, മലപ്പുറം).
11. ശ്രീമതി. സൗമ ബീവി.വി.സി. അസിസ്റ്റന്റ് സയന്റിസ്റ്റ്, (കേരള സംസ്ഥാന മലിനീകരണ നിയന്ത്രണ ബോർഡ്, ജില്ലാ ഓഫീസ്, മലപ്പുറം.)

DLTC ചെയർമാൻ (എസ്ഇഇ ഇറിഗേഷൻ)-ന്റെ അഭാവത്തിൽ അദ്ദേഹത്തിന്റെ പേഴ്സണൽ അസിസ്റ്റന്റ് ശ്രീമതി.അഞ്ജനയുടെ അധ്യക്ഷതയിൽ 3.00 മണിക്ക് വീഡിയോ കോൺഫറൻസ് ആരംഭിച്ചു. ആക്ഷൻ പ്ലാനിലെ ഇറിഗേഷൻ വകുപ്പിന്റെ പ്രവർത്തന പുരോഗതിയാണ് ആദ്യമായി വിലയിരുത്തിയത്. കൂട്ടായി റെഗുലേറ്ററിന്റെയും വർക്കിംഗ് പുരോഗതി ഒന്നും ഉണ്ടായിട്ടില്ല. തിരുർ പൊന്നാനി പുഴയുടെ വലതുഭാഗത്തുള്ള ബണ്ട് ശക്തിപ്പെടുത്തുന്നതിന് 28.6 ലക്ഷം രൂപയുടെ എസ്റ്റിമേറ്റ് തയ്യാറാക്കി സമർപ്പിച്ചിട്ടുണ്ടെന്നും എന്നാൽ നാളിതുവരെ അനുമതി കിട്ടിയിട്ടില്ലെന്ന് അസിസ്റ്റന്റ് എക്സിക്യൂട്ടീവ് എഞ്ചിനീയർ, ശ്രീ.ഹരിദ്രനാഥ്.വി.ടി അറിയിച്ചു.

തിരുർ മുനിസിപ്പൽ ബസ് സ്റ്റാന്റ് STP-യുടെ വൈദ്യുതീകരണം നടന്നു കൊണ്ടിരിക്കുകയാണെന്നും, തിരുർ മുനിസിപ്പാലിറ്റി ഹെൽത്ത് സൂപ്പർവൈസർ ശ്രീ.ജീവരാജ് അറിയിച്ചു. കൂടാതെ Slaughter House-ന്റെ ഉപകരണങ്ങൾ എത്തിയിട്ടുണ്ടെന്നും, ആയത് സ്ഥാപിച്ച് കൊണ്ടിരിക്കുകയാണെന്നും ശ്രീ.ജീവരാജ് അറിയിച്ചു.

തിരുർ മത്സ്യമാർക്കറ്റിലെ ETP-യുടെ പ്രവർത്തനത്തിൽ പുരോഗതിയൊന്നും തന്നെ ഉണ്ടായിട്ടില്ല എന്ന് ശ്രീ.ജീവരാജ് അറിയിച്ചു. 28.04.2022 തീയതിയിലെ സ.ഉ(സാധാ)നം.1058/2022/LSGD നമ്പർ സർക്കാർ ഉത്തരവ് പ്രകാരം DBOT (Design Build Operate and Transfer) മാതൃകയിൽ Fish market STP renovation-ന് ടെൻഡർ വിളിച്ച് ഒറ്റ കരാറുകാരനെ മുഴുവൻ പണിയും ഏൽപ്പിക്കുകയും (5 വർഷത്തെ operation and maintannce ഉൾപ്പെടെ) ചെയ്ത് ഏറ്റവും വേഗം ഫിഷ് മാർക്കറ്റ് STP പ്രവർത്തന സജ്ജമാക്കണമെന്ന് മേൽകാമ്പം 15.08.2022-ലെ ജില്ലാതല DLMC യോഗത്തിൽ ചർച്ച ചെയ്ത് തീരുമാനമായതാണെന്നും എൻവയോൺമെന്റൽ എഞ്ചിനീയർ ഓർമ്മപ്പെടുത്തുകയുണ്ടായി.

അടുത്തതായി Encroachment സർവ്വേയുടെ പുരോഗതിയാണ് വിലയിരുത്തിയത്. തിരുർ പുഴയുമായി ബന്ധപ്പെട്ട Encroachment സർവ്വേ പൂർത്തീകരിച്ചിട്ടുണ്ടെന്നും സർവ്വേകളെ സ്ഥാപിച്ചുകൊണ്ടിരിക്കുകയാണെന്നും റവന്യൂ ഡിവിഷണൽ ഓഫീസിലെ ഹെഡ് ക്ലർക്ക് ശ്രീ.അജയ്കുമാർ അറിയിച്ചു. അവസാനമായി വിലയിരുത്തിയത് മലപ്പുറം മുനിസിപ്പാലിറ്റിയുടെ പ്രവർത്തന പുരോഗതിയാണ്. പ്ലാൻ ഫണ്ടിൽ നിന്ന് 5 ലക്ഷം രൂപയും കൂടാതെ Hotel and Restaurant സംഘടനയിൽ നിന്നും ഫണ്ട് ശേഖരിച്ച് STP പ്രവർത്തനയോഗ്യമാക്കാൻ ചെയർമാന്റെ അധ്യക്ഷതയിൽ ചേർന്ന യോഗത്തിൽ തീരുമാനിച്ചിട്ടുണ്ടെന്ന് മലപ്പുറം ഹെൽത്ത് ഇൻസ്പെക്ടർ ശ്രീ.ഹമീദ് അറിയിച്ചു. STP പ്രവർത്തിക്കുന്നില്ലെങ്കിലും വേസ്റ്റുകൾക്കൊന്നും തന്നെ പൊതുസ്ഥലങ്ങളിലേക്ക് ഒഴുക്കുന്നില്ലെന്നും, കൂടാതെ ലിക്വിഡ് വേസ്റ്റുകൾ അതാത് സ്ഥാപനങ്ങളുടെ സോക് പിറ്റുകളിലേക്കും സെപ്റ്റിക് ടാങ്കുകളിലേക്കും ഒഴുക്കുകയാണെന്നും ബയോ വേസ്റ്റുകൾ പന്നി ഫാമിലേക്ക് കൊടുക്കുകയാണെന്നും ശ്രീ.ഹമീദ് അറിയിച്ചു. ഹോട്ടൽ ഡെലീഷ്യയ്ക്കു മാത്രമാണ് സ്വന്തമായി STP ഉള്ളതെന്നും അറിയിക്കുകയുണ്ടായി.

3.30 pm-ന് വീഡിയോ കോൺഫറൻസ് അവസാനിച്ചു.

മലപ്പുറം  
17.06.2022

  
എൻവയോൺമെന്റൽ എഞ്ചിനീയർ

**KERALA STATE POLLUTION CONTROL BOARD**  
കേരള സംസ്ഥാന മലിനീകരണ നിയന്ത്രണ ബോർഡ്



DISTRICT OFFICE, THIRUVANANTHAPURAM  
ജില്ലാ ഓഫീസ്, തിരുവനന്തപുരം

T. C. 12/96 (4,5), PLAMOODU JN., PATTOM P.O, THIRUVANANTHAPURAM - 695 004  
ടിസി 12/96 (4,5), പ്ലാമൂട് ജംഷൻ, പട്ടം പി.ഒ, തിരുവനന്തപുരം - 695 004

No: 202302

16/06/2022

**ANALYSIS REPORT OF THE SAMPLE COLLECTED FROM THE OUTLET OF  
STP MUTTATHARA FOR THE PERIOD FROM APRIL TO JUNE 2022**

MONTH/ YEAR	Date of sample collection	pH mg/l	BOD mg/l	COD mg/l	Total Suspended Solids mg/l	Oil & Grease mg/l	TC cfu/100 ml	FC cfu/100 ml
April 2022	06/04/2022	7.5	10.2	32	7.2	BDL	-	-
May 2022	10/05/2022	7.5	7.2	32	20.3	BDL	-	-
June 2022	10/06/2022	7.0	12.6	40	22	BDL	100	0
Permissible Limit		6.5-9.0	20	-	<50	BDL	-	-

Remarks: BDL- Below Detection Level

Verified by: Mulamma (AS)

Scientist-in-Charge of Analysis

[Signature]  
16/06/22  
ASSISTANT ENVIRONMENTAL SCIENTIST

0471-2305844

e-mail: kspcbdotvsn@gmail.com

kspcbdotvsn@yahoo.com

# KERALA STATE POLLUTION CONTROL BOARD

കേരള സംസ്ഥാന മലിനീകരണ നിയന്ത്രണ ബോർഡ്

DISTRICT OFFICE, THIRUVANANTHAPURAM

മിഥ്യം റോഡ്, തിരുവനന്തപുരം

T. C. 12/96 (4.5), PLAMOODU IN., PATTOM P.O. THIRUVANANTHAPURAM - 685 004

മി.സി. 12/96 (4.5) പ്ലാമൂടു ഇൻ, പട്ടം പി.ഒ. തിരുവനന്തപുരം - 685 004



## ANALYSIS REPORT

No: 202295

Date: 30/05/2022

Source	Govt. Medical College Hospital, Trivandrum.			
Sample received from	AEE	Date of sample collection	24/05/2022	
Date of Receipt	24/05/2022	Ref. No.	PCB V12	
Sl. No.	Parameter	Unit	Value	Permissible Limit
1	pH	-	7.1	6.5-9
3	BOD	mg/L	33	30
4	FC	cfu/100ml	2000	-

Verified by Muleman (AS)

Scientist-in-Charge of Analysis

Almeida  
30/05/2022  
ASSISTANT ENVIRONMENTAL SCIENTIST





KERALA STATE POLLUTION CONTROL BOARD  
DISTRICT OFFICE (ERNAKULAM -II), PERUMBAYVOOR

PMO 20/733, Govt. Hospital - KSRTC Road, Near Kallunkal Auditorium, Perumbayoor-683 542

Telephone 0484-2593747

E-mail pebdo2ekm@gmail.com

Website: www.keralapcb.nic.in

PCB/PBR/LAB/1/2013

Date: 31.03.2022

## ANALYSIS REPORT

Source : CETP RUBBER PARK IRAPURAM

Sample Point : FILTER OUTLET

D.O.S : 11.03.2022

D.O. Rd : 16.03.2022

Collected by : NAMP-I

Sample ID : PCB-176

Sl.No	Parameters	Unit	Value	Test Method	KSPCB Limit
1	pH		7.91	APHA, 4500-H <sup>+</sup> -B 22 <sup>nd</sup> Edition 2012	6.0-8.0
2	BOD	mg/l	40	APHA, 5210 B, 22 <sup>nd</sup> Edition 2012	30
3	COD	mg/l	112	APHA, 5220 B, 22 <sup>nd</sup> Edition 2012	200
4	OIL & GREASE	mg/l	BDL	APHA, 5520 B, 22 <sup>nd</sup> Edition 2012	8
5	SS	mg/l	146	APHA, 2540-D, 22 <sup>nd</sup> Edition 2012	80
6	TDS	mg/l	2038.4	APHA 2540-C, 22 <sup>nd</sup> Edition 2012	1600
7	Ammoniacal Nitrogen	mg/l	0.012	APHA 4500-NH <sub>3</sub> -F, 22 <sup>nd</sup> Edition 2012	50
8	Sulphides	mg/l	BDL	APHA 4500-S <sup>2-</sup> -F, 22 <sup>nd</sup> Edition 2012	1

SARANYA DASK

ASSISTANT SCIENTIST



As/NAMP-I  
Dul  
01/04/22

1249  
01/04/22



KERALA STATE POLLUTION CONTROL BOARD  
DISTRICT OFFICE (ERNAKULAM -II), PERUMBAVOOR

PMC 20/733, Govt. Hospital- KSRTC Road, Near Kallunkal Auditorium, Perumbavoor-683 542

Telephone : 0484-2593747

E-mail: pcbdo2ekm@gmail.com

Website: www.keralapcb.nic.in

PCB/PBR/LAB/1/2013

Date: 05.05.2022

**ANALYSIS REPORT**

Source : SEPTAGE TREATMENT PLANT, BRAHMAPURAM

Sample Point: TREATED FINAL EFFLUENT TANK

D.O.S : 26.04.2022

D.O. Rd : 26.04.2022

Collected by : NAMP-II

Sample ID : PCB-3481

Sl.No.	Parameters	Unit	Value	Test Method	KSPCB Limit
1	pH		7.29	APHA, 4500 H <sup>+</sup> B 22 <sup>nd</sup> Edition 2012.	6-9
2	BOD	mg/l	40	APHA, 5210 B, 22 <sup>nd</sup> Edition 2012.	30
3	COD	mg/l	120	APHA, 5220 B, 22 <sup>nd</sup> Edition 2012	250
4	OIL & GREASE	mg/l	BDL	APHA, 5520 B, 22 <sup>nd</sup> Edition 2012	10
5	SS	mg/l	BDL	APHA, 2540-D, 22 <sup>nd</sup> Edition 2012	100
6	PHOSPHATES	mg/l	0.18	APHA-4500 P-E 22 <sup>nd</sup> Edition 2012	5
7	NITRATES	mg/l	3.18	APHA 4500-NO <sub>3</sub> -E, 22 <sup>nd</sup> Edition 2012	10
8	SULPHATES	mg/l	58.0	APHA, 4500-SO <sub>4</sub> , 22 <sup>nd</sup> Edition 2012	1000
9	SULPHIDES	mg/l	BDL	APHA-4500-S <sup>2-</sup> D 22 <sup>nd</sup> Edition 2012	2
10	AMMONIACAL NITROGEN	mg/l	0.37	APHA, 4500-NH <sub>3</sub> -F, 22 <sup>nd</sup> Edition 2012	50
11	PHENOLIC COMPOUNDS	mg/l	BDL	APHA, 5530 C, 22 <sup>nd</sup> Edition 2012	1
12	TOTAL COLIFORM	cfu/100ml	24000	APHA 9222B, 22 <sup>nd</sup> Edition 2012	-
13	FAECAL STREPTOCOCCI	cfu/100ml	28	APHA 9230 A, 22 <sup>nd</sup> Edition 2012	-

1703  
6/5/22  
AE3/As  
D  
6/05/22



SARANYA D.A.S.K  
ASSISTANT SCIENTIST



**KERALA STATE POLLUTION CONTROL BOARD  
CENTRAL LABORATORY**

കേരള സംസ്ഥാന മലിനീകരണ നിയന്ത്രണ ബോർഡ്  
കേന്ദ്ര പരീക്ഷണശാല



Certificate No.  
TC 8525

**ANALYSIS REPORT**

Analysis Report No.		Date	05.05.2022	Format No.PCB/CL/CH/F-7
Ref. No.	PCB/EKM/DO-1/ dated 11.04.2022	Date of Collection	08.04.2022	
Received From	D O Ernakulam	Date of Receipt	11.04.2022	
No. of Sample	1	Period of Analysis	06.04.2022 – 05.05.2022	
Source	CSEZ (Common ETP), Kakkanad	Scientist-in-charge	Dr. Josemin	
Sample Condition	Fit for analysis	Sample Type	Waste Water samples	
Sample collected by	EE DO Ernakulam	Sample volume & container type	2 L Plastic Can	
Sample preservation	As per APHA/IS:3025 (Part-1)	Type of Test	Chemical	

**SAMPLE ID: TS**

Sl. No	Parameters	Unit	Value	Test Method	Detection Limit
1	pH	---	7.9	APHA, 4500-H+B, 23 <sup>rd</sup> Ed., 2017	3 to 12
2	Total Suspended Solids	mg/L	16.0	APHA, 2540-D, 23 <sup>rd</sup> Ed., 2017	10 mg/L
3	Ammoniacal Nitrogen	mg/L	0.56	APHA-4500 NH3-C, 23 <sup>rd</sup> Ed., 2017	0.02 mg/L
4	BOD	mg/L	4.3	IS 3025 Part( 44): 1993	2 to 500 mg/L
5	COD	mg/L	72.0	APHA, 5220-B, 23 <sup>rd</sup> Ed., 2017	4 to 1000 mg/L
6	Oil & Grease	mg/L	BDL	APHA, 5520-B, 23 <sup>rd</sup> Ed., 2017	5 mg/l.
7	Total Nitrogen	mg/L	37.80	APHA, 4500-N-Org B, 22 <sup>ND</sup> Ed., 2012	0.2 mg/L

The analysis report relates only to the sample received in the Laboratory  
--End of Report--

Checked By **ANJU LAL**  
ASSISTANT SCIENTIST

Authorised By  
**Dr. JOSEMIN**  
Environmental Scientist



**KERALA STATE POLLUTION CONTROL BOARD  
CENTRAL LABORATORY**

കേരള സംസ്ഥാന മലിനീകരണ നിയന്ത്രണ ബോർഡ്  
കേന്ദ്ര പരീക്ഷണശാല



Certificate No.  
TC 8525

**ANALYSIS REPORT**

Analysis Report No.		Date	26.03.2022	Format No.PCB/CL/CH/F-7
Ref. No.	PCB/EKM/DO-1/ dated 03.03.2022	Date of Collection	03.03.2022	
Received From	D O Ernakulam	Date of Receipt	03.03.2022	
No. of Sample	1	Period of Analysis	03.03.2022 – 19.03.2022	
Source	Elamkulam Common Treatment Plant	Scientist-in-charge	Dr. Josemin	
Sample Condition	Fit for analysis	Sample Type	Waste Water samples	
Sample collected by	EE DO Ernakulam	Sample volume & container type	2 L Plastic Can	
Sample preservation	As per APHA/IS:3025 (Part-1)	Type of Test	Chemical	

SAMPLE ID: ELM

Sl. No	Parameters	Unit	Value	Test Method	Detection Limit
1	pH	---	7.24	APHA, 4500-H+B, 23 <sup>rd</sup> Ed., 2017	3 to 12
2	Total Suspended Solids	mg/L	BDL	APHA, 2540-D, 23 <sup>rd</sup> Ed., 2017	10 mg/L
3	Ammoniacal Nitrogen	mg/L	10.8	APHA-4500 NH3-C, 23 <sup>rd</sup> Ed., 2017	0.02 mg/L
4	BOD	mg/L	10.2	IS 3025 Part( 44): 1993	2 to 500 mg/L
5	COD	mg/L	64	APHA, 5220-B, 23 <sup>rd</sup> Ed., 2017	4 to 1000 mg/L
6	Oil & Grease	mg/L	BDL	APHA, 5520-B, 23 <sup>rd</sup> Ed., 2017	5 mg/L
7	Total Nitrogen	mg/L	0.55	APHA, 4500-N-Org B, 22 <sup>ND</sup> Ed., 2012	0.2 mg/L

--End of Report--

Checked By **ANJU LAL**  
ASSISTANT SCIENTIST

Authorised By  
**Dr. JOSEMIN**  
Environmental Scientist





# KERALA STATE POLLUTION CONTROL BOARD

DISTRICT OFFICE (ERNAKULAM -II), PERUMBAVOOR

PMC 20/733, Govt. Hospital- KSRTC Road, Near Kallunkal Auditorium, Perumbavoor-683 542

Telephone: 0484-2593747

E-mail: pcbdo2ekm@gmail.com

Website: www.keralapcb.nic.in

PCB/PBR/LAB/1/2013

Date: 30.06.2022

## ANALYSIS REPORT

Source : CETP KINFRA SMALL INDUSTRIES NELLAD

Sample Point : ACF OUTLET

D.O.S : 16.06.2022

D.O. Rd : 18.06.2022

Collected by : NAMP-II

Sample ID : PCB-94

Sl.No.	Parameters	Unit	Value	Test Method	KSPCB Limit
1	pH		7.56	APHA, 4500 H <sup>+</sup> B 22 <sup>nd</sup> Edition 2012.	6.0-9.0
2	BOD	mg/l	240	APHA, 5210 B, 22 <sup>nd</sup> Edition 2012.	30
3	COD	mg/l	720	APHA 5220 B, 22 <sup>nd</sup> Edition 2012	250
4	SS	mg/l	122	APHA 2540 D, 22 <sup>nd</sup> Edition 2012	100
5	OIL & GREASE	mg/l	BDL	APHA, 5520 B, 22 <sup>nd</sup> Edition 2012	10
6	FLUORIDES	mg/l	1	APHA, 4500-F <sup>-</sup> C, 22 <sup>nd</sup> Edition 2012	2
7	CHLORIDES	mg/l	114	APHA, 4500-Cl <sup>-</sup> B, 22 <sup>nd</sup> Edition 2012	1000
8	SULPHATES	mg/l	372.9	APHA, 4500-SO <sub>4</sub> , 22 <sup>nd</sup> Edition 2012	1000
9	SULPHIDES	mg/l	39.6	APHA-4500-S <sup>2-</sup> D 22 <sup>nd</sup> Edition 2012	2
10	AMMONIACAL NITROGEN	mg/l	0.56	APHA, 4500-NH <sub>3</sub> -F, 22 <sup>nd</sup> Edition 2012	50
11	PHENOLIC COMPOUNDS	mg/l	BDL	APHA, 5530 C, 22 <sup>nd</sup> Edition 2012	1.0

Kerala State Pollution Control Board  
Dist. Office (Ernakulam-II)

07 JUL 2022

SARANYA DASK

ASSISTANT SCIENTIST

ASHNAMP 2  
Dul  
08/07/22  
2180  
07/22



# KERALA STATE POLLUTION CONTROL BOARD

DISTRICT OFFICE (ERNAKULAM -II), PERUMBAVOOR

PMC 20/733, Govt. Hospital- KSRTC Road, Near Kallunkal Auditorium, Perumbavoor-683 542

Telephone: 0484-2593747

E-mail: pcbdo2ekm@gmail.com

Website: www.keralapcb.nic.in

PCB/PBR/LAB/1/2013

Date: 30.06.2022

## ANALYSIS REPORT

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D.O.S : 16.06.2022

D.O. Rd : 18.06.2022

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1	pH		7.56	APHA, 4500 H <sup>+</sup> B 22 <sup>nd</sup> Edition 2012.	6.0-9.0
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7	CHLORIDES	mg/l	114	APHA, 4500-Cl <sup>-</sup> B, 22 <sup>nd</sup> Edition 2012	1000
8	SULPHATES	mg/l	372.9	APHA, 4500-SO <sub>4</sub> , 22 <sup>nd</sup> Edition 2012	1000
9	SULPHIDES	mg/l	39.6	APHA-4500-S <sup>2-</sup> D 22 <sup>nd</sup> Edition 2012	2
10	AMMONIACAL NITROGEN	mg/l	0.56	APHA, 4500-NH <sub>3</sub> -F, 22 <sup>nd</sup> Edition 2012	50
11	PHENOLIC COMPOUNDS	mg/l	BDL	APHA, 5530 C, 22 <sup>nd</sup> Edition 2012	1.0

Kerala State Pollution Control Board  
Dist. Office (Ernakulam-II)

07 JUL 2022

SARANYA DASK

ASSISTANT SCIENTIST

Ashwamp 2  
Dul  
0867122  
2180  
07/22

**Status of CSTPs/CETPs which are operational**

<b>Sl. No.</b>	<b>City/Town</b>	<b>STP / ETP Location</b>	<b>Status</b>	<b>Installed capacity</b>	<b>Utilization</b>	<b>Process</b>
1	Pathanamthitta	Sewage Treatment Plant at Sannidhanam (5MLD) Maintained by Travancore Devaswom Board	Seasonally Operated during festival season (Parameters complied with standards)	5MLD	3.5MLD	UASM and SBR
2		Sewage Treatment Plant at Pamba (3.5 MLD) maintained by Travancore Devaswom Board	Seasonally Operated during festival season (parameters complied with standards stipulated)	3.5MLD	3.5MLD	Coagulation & Settling
3		Common Effluent Treatment Plant at Kinfra Food Processing Park, Elamannoor, Adoor	Operating (parameters not complied with standards)	225 m <sup>3</sup> /day	220 m <sup>3</sup> /day	Coagulation & Settling



email: kspcbpta@gmail.com

Phone/fax: 0468-2223983

കേരള സംസ്ഥാന മലിനീകരണ നിയന്ത്രണ ബോർഡ്  
**KERALA STATE POLLUTION CONTROL BOARD**

ജില്ലാ ഓഫീസ് , OPP ജനറൽ ആശുപത്രി, KK Nair Road, കുന്തിരപ്പള്ളി, പത്തനംതിട്ട-689 645

web site: [www.keralapcb.nic](http://www.keralapcb.nic) - for Online registration, visit-[krocmmms.nic.in/KSPCB](http://krocmmms.nic.in/KSPCB)

ഭരണഭാഷ - മാതൃഭാഷ

**ANALYSIS REPORT**

Date: 13.05.2022

Source: Kinfra food processing Industrial park, Common ETP

Date of sampling: 04.05.2022

Date of sample Received: 05.05.2022

NATURE OF SAMPLE: Effluent

SL NO	Parameter	Unit	PCB 389	COM-145	COM-940	Limit
			Equilization tank	Aeration tank	Treated water	
1	pH		5.9	6.2	6.8	5.5 - 9.0
2	BOD	mg/L	110	80	50	30
3	COD	mg/L	288	176	96	250
4	SS	mg/L	135	98	63	100
5	O & G	mg/L	18	14	11	10
6	TC	mg/L	NIL	NIL	NIL	-

Remarks: BOD,O&G,exceeded the limit.

  
ASSISTANT SCIENTIST



# ANALYSIS REPORT OF STP SANNIDHANAM

Date of Sampling 20.01.2022

SL.NO.	STATIONS	PARAMETER					
		pH	TSS (mg/L)	BOD (mg/L)	OIL & GREASE	TC CFU/100ml	FC CFU/100ml
1.	STP (BEFORE DISINFECTION)	6.5	33.6	34.4	14.26	-	-
2.	STP (AFTER DISINFECTION)	7.6	-	-	3.68	NIL	NIL

*Beenu V.R*

ASSISTANT SCIENTIST

**NATIONAL RIVER CONSERVATION PROGRAMME**  
**APRIL-2022**

**NRCP**

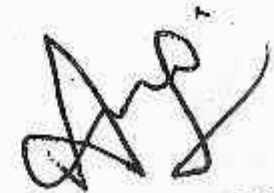
**DATASHEET**

Station : STP @ PAMBA

Completed by: KSPCB, DISTRICT OFFICE, PATHANAMTHITTA

1	Station code	2	0	0	1	7					
2	Date and time of sample taken (DD/MM/YY, HH/MM)	1	6	0	4	2	2	1	0	2	0
3	Volume of Inflow ( in MLD)	3.5									

Sl.NO.	Parameter	Unit	I/L	O/L
1	pH		8.6	7.7
2	BOD	mg/L	200	50
3	COD	mg/L	432	112
4	SUSPENDED SOLIDS	mg/L	312	94

  
**ASSISTANT SCIENTIST**



**ജില്ലാ ഓഫീസ്, ആലപ്പുഴ**  
**കേരള സംസ്ഥാന ജലീനീകരണ നിയന്ത്രണ ബോർഡ്**  
**KERALA STATE POLLUTION CONTROL BOARD**  
**DISTRICT OFFICE, ALAPPUZHA**

എസ്.എൻ.വി.സദനം, ന്യൂ ചാത്തനാട്, ഹെഡ് പോസ്റ്റ് ഓഫീസ്, ആലപ്പുഴ - 688001  
 SNV Sadhanam, New Chathanad, Head Post Office, Alappuzha - 688001

E-mail: [alpy.pcb@gmail.com](mailto:alpy.pcb@gmail.com) Telephone : 0477 - 2235384 web: [www.keralapcb.nic.in](http://www.keralapcb.nic.in)

ഓൺലൈനിൽ അപേക്ഷകൾ സമർപ്പിക്കുന്നതിന് [www.krcpnms.nic.in](http://www.krcpnms.nic.in) എന്ന വെബ്സൈറ്റ് ഉപയോഗിക്കുക.

PCB/ALP/UCO-539/08

22.08.2022

From  
 Environmental Engineer

To  
 The Member Secretary,  
 Kerala State Pollution Control Board,  
 Head Office, Pattom, Thiruvananthapuram.

Sub:- Details of CETPs- Reg.

Ref:- That office e-mail dated 19.07.2022

Sir,

In reply to the reference cited above. The details of the following CETPs along with installed capacity, utilisation capacity, and operational status are furnished below.

SL NO	CETPs	INSTALLED CAPACITY, UTILISATION CAPACITY	OPERATIONAL STATUS	REMARKS
1	CETP, Mega food park, Cherthala	2MLD	Started operation by March, 2022	Performance quite good as per analysis report. But not started discharging to lake (currently during inspection it was found discharge to nearby plot for irrigation near CETP after treatment).

2	Aroor Seafood park, Eramalloor	5 Lakhs L/Day	Operational	Discharge from 10 seafood units is treated in this CETP which is in operation. Connected to OCEMS with 4 parameters is in operation.
3	CETP Chandiroor (ACCEPT)	1 <sup>st</sup> phase 1.5 MLD. 2 <sup>nd</sup> phase 1.5 MLD.	Not started any construction activities.	Only land provided by society. Rs, 300 Lakhs was issued by the Board for the implementation. But the project not get started and the amount was also not get refunded to the Board.
4	Aroor Industrial Dept	More than 100 KLD	Proposed CETP land not get acquired by DIC from JIS International Exports Pvt Ltd (cold store).	Capacity not get finalised by Industrial department. Work allotted to KITCO. There is case in High Court regarding land acquisition. It is highly essential to establish CETP in this locality as 75 numbers of industries located in this industrial estate having 16 seafood processing units (as reported by DIC) which is one of the most polluted hot spot in Alappuzha.

Your's faithfully,



**ENVIRONMENTAL ENGINEER**



**SMITHA C V**  
ENVIRONMENTAL ENGINEER  
KERALA STATE POLLUTION CONTROL BOARD  
DISTRICT OFFICE, ALAPPUZHA-1

# STATE WATER MONITORING PROGRAMME (SWMP) 2022

Analysis report for the month of June 2022

RIVER 1-KARUVANNUR & RIVER 2-CHALAKUDY

14.06.2022 & 13.06.2022

Name of River

Time & Time of sample collection  
Method of analysis

Sl. No	PARAMETER	SAMPLE ID											
		K1	K2	K3	K4	K5	K6	C1	C2	C3	C4	C5	C6
1	Temperature, °C	33	32	31	28	29	26	28	30	30	30	29	34
2	pH	7.02	7.09	7.16	7.16	7.07	7.15	7.17	7.11	7.08	7.21	7.02	6.95
3	Turbidity, NTU	8.1	7.2	7	8	11	12	6.4	6.3	4.7	7.1	8.4	6.6
4	Electrical Conductivity, µ/cm	200.4	127.4	162.6	131.7	194	189.2	125	109.8	119.5	116.3	169.4	176.1
5	DO, mg/l	6.57	7.02	7.28	5.2	5.98	6	8.45	7.8	7.28	7.35	7.67	7.28
6	BOD, mg/l	1.36	1.3	1.23	0.65	1.43	1.3	1.82	1.3	1.78	1.36	2.5	1.43
7	NH <sub>3</sub> N, mg/l	BDL	BDL	BDL	BDL	BDL	BDL	BDL	BDL	BDL	BDL	BDL	BDL
8	Nitrate, mg/l	0.54	0.62	0.56	0.48	0.71	0.65	0.35	0.58	0.64	0.58	0.74	0.45
9	Chloride, mg/l	16	10	15	14	22	19	9	10	11	10	15	18
10	Phosphate, mg/l	BDL	BDL	BDL	BDL	BDL	BDL	BDL	BDL	BDL	BDL	BDL	BDL
11	Total Alkalinity, mg/l	34	15	30	25	40	30	15	14	15	17	18	16
12	Total Hardness, mg/l	35	11	29	25	35	30	12	11	14	16	22	29
13	Calcium, mg/l	11.6	3.6	9.6	8.4	12.8	10.8	4	3.6	4.8	5.6	8	8.8
14	Magnesium, mg/l	1.46	0.49	1.22	0.97	0.73	0.73	0.49	0.49	0.49	0.49	0.49	1.7
15	Sodium, mg/l	4.49	1.54	3.03	3.42	6.05	5.02	1.64	1.38	1.53	1.84	2.39	2.46
16	Potassium, mg/l	0.91	0.35	0.72	0.64	1.55	0.88	0.36	0.31	0.34	0.35	0.37	0.57
17	Boron, mg/l	BDL	BDL	BDL	BDL	BDL	BDL	BDL	BDL	BDL	BDL	BDL	BDL
18	Sulphate	3.15	5.69	1.94	2.3	9.45	4.24	BDL	BDL	BDL	BDL	BDL	BDL
19	SAR	0.33	0.2	0.24	0.3	0.44	0.4	0.21	0.18	0.18	0.2	0.22	0.2
20	TC, cfu/100 ml	1000	1200	1500	800	600	1000	700	600	300	700	400	800
1	FC, cfu/100 ml	400	500	700	300	200	400	300	300	100	400	200	300
2	FS, cfu/100 ml	20	20	20	10	20	20	60	50	60	80	40	30

Sample Details

K1	Kainoor	C1	Peringal
K2	Mupliyam	C2	Vettilapara
K3	Palakkadavu	C3	Kanjirappilly
K4	Karivannur	C4	Chalakudy
K5	Kottenkodu	C5	Pulikkakadavu
K6	Karanchira	C6	Palpuzhakadavu



Due date of receipt of this report in the BHO  
HO in the 15th of every calendar monthly.

Form for Record Keeping

For the month of June 2022

KERALA STATE POLLUTION CONTROL BOARD  
PROGRESS REPORT - WATER QUALITY MONITORING

Regional/District Office: Thrissur

Details of Samples

River	Station	Programme	Sample No.	Date of sampling	Date sent to Laboratory	Date of receipt of analysis report	Date of dispatch of analysis report to Head Office	Remarks
(1) KARUVANNOOR	(2) Kainoorchira Bridge	(3)	(4) K1	(5) 14.06.2022	(6) 14.06.2022	(7) 14.06.2022	(8)	(9)
	Muliyam Bridge		K2	"	"	"		
	Palakadavu		K3	"	"	"		
	Karuvannur Bridge		K4	"	"	"		
	Kottenkodu		K5	"	"	"		
	Karanchira		K6	"	"	"		

Details of all samples, the analysis results of which have not yet been sent to HO be included in this report

Date of this report: 02.07.2022

Signature of Officer



Designation

ENVIRONMENTAL ENGINEER  
Kerala State Pollution Control Board  
District Office, Thrissur

Due date of receipt of this report in the BHO  
HO in the 15th of every calendar monthly.

Form for Record Keeping

KERALA STATE POLLUTION CONTROL BOARD  
PROGRESS REPORT - WATER QUALITY MONITORING

For the month of June 2022

Regional/District Office: Thrissur

Details of Samples

River	Station	Programme	Sample No.	Date of sampling	Date sent to Laboratory	Date of receipt of analysis report	Date of dispatch of analysis report to Head Office	Remarks
(1) CHALAKUDY	(2) Peringal	(3)	(4) C1	(5) 13.06.2022	(6) 13.06.2022	(7) 13.06.2022	(8)	(9)
	Kanjirappilly		C2	"	"	"		
	Vettilapara		C3	"	"	"		
	Chalakudy Bridge		C4	"	"	"		
	Pulikkakadavu		C5	"	"	"		
	Palpuzhakadavu		C6	"	"	"		

Details of all samples, the analysis results of which have not yet been sent to HO be included in this report  
Date of this report: 02.07.2022

Signature of Officer

Designation



*[Handwritten Signature]*

**ENVIRONMENTAL ENGINEER**  
Kerala State Pollution Control Board  
District Office, Thrissur



**KERALA STATE POLLUTION CONTROL BOARD**  
**DISTRICT OFFICE**  
**RUBCO HOUSE, 6TH FLOOR, SOUTH BAZAR,**  
**KANNUR-670002.**

Telephone: 0497-2711621

**ANALYSIS REPORT**

Report No:	KNR-995	Date:	21/07/2022		
Date of sample	11/7/2022	Date of receipt:	11/7/2022		
Sample received	The Environmental Engineer	Sample ID:	EFF 407		
Source:	Effluent	Ref. Letter.No.	PCB/KNR/ICQ/1504/2009		
Sample container:	PC 2.5L	Sampled by:	AE 1, AE-3		
Sample type:	Effluent	Period of Analysis:	11/07/2022 to 19/07/2022		
Specific sampling location:	STP Outlet of Common Effluent Treatment Plant, Kinfra, Nadukani Kannur	Analysed by:	JSA 2		
Sample Preservation:	As per APHA/IS:3025 (Part 1)	No. of Samples:	1		
Scientist -in-Charge of Analysis :	Asst. Scientist	Method: Standard methods for the examination of Water and Waste Water, APHA AWWA WEF (22nd Ed.)			
SLNo.	Parameters	Unit	Sample ID		
			EFF:407		
1	pH	--	9.8		
2	COI	mg/L	40		
3	BOD(3 days at 27°C)	mg/L	8		
4	Total Dissolved Solids	mg/L	619.2		
5	Total Suspended Solids	mg/L	15		
6	Oil and grease	mg/L	0.96		
7	Phenolic Compound	mg/L	0.657		

BDL- Below Detection Limit

ND- Not Detectable

**Sample Details:**

EFF.407 Common Effluent Treatment Plant, Kinfra, Nadukani, Kannur.

This test results is restricted for the water sample collected by Assistant Engineer on Dt:11/07/2022 only.

*Anishah*  
*Anishah K K*  
Scientist in charge  
**Assistant Scientist**  
Kerala State Pollution Control Board  
District Office, Kannur-670002

22/07/22



email: [kspcbpta@gmail.com](mailto:kspcbpta@gmail.com)

Phone/ fax: 0468-2223983

കേരള സംസ്ഥാന മലിനീകരണ നിയന്ത്രണ ബോർഡ്  
KERALA STATE POLLUTION CONTROL BOARD

ജില്ലാ ഓഫീസ്, OPP ജനറൽ ആശുപത്രി, KK Nair Road, കുന്നിക്കോട്ടത്തിൽബീഡിയിൽ, പത്തനംതിട്ട-689 645  
DISTRICT OFFICE, OPP.GENERAL HOSPITAL, KK NAIR ROAD, BEHIND AVG MOTORS, PATHANAMTHITTA689645

web site: [www.keralapcb.nic.in](http://www.keralapcb.nic.in) – for Online registration, visit-[krocmms.nic.in/KSPCB](http://krocmms.nic.in/KSPCB)

PCB/PTA/TG/261/2017

03.08.2022

From

Environmental Engineer

To

The Member Secretary  
Kerala State Pollution Control Board

Sub:- Submission of report on operational CSTP/CETPs – reg:-

Ref:- That office Letter No. PCB/HO/EE3/NGT/673/2018/VOL VII/11/2020

Madam,

I am forwarding herewith report of operational CSTPs/CETPs including analysis report under our jurisdiction for the month of July 2022 for your kind information and necessary action.

Yours faithfully,

  
ENVIRONMENTAL ENGINEER

**Status of CSTPs/CETPs which are operational**

<b>Sl. No.</b>	<b>City/Town</b>	<b>STP / ETP Location</b>	<b>Status</b>	<b>Installed capacity</b>	<b>Utilization</b>	<b>Process</b>
1	Pathanamthitta	Sewage Treatment Plant at Sannidhanam (5MLD) Maintained by Travancore Devaswom Board	Seasonally Operated during festival season (Parameters complied with standards)	5MLD	3.5MLD	UASM and SBR
2		Sewage Treatment Plant at Pamba (3.5 MLD) maintained by Travancore Devaswom Board	Seasonally Operated during festival season (parameters complied with standards stipulated)	3.5MLD	3.5MLD	Coagulation & Settling
3		Common Effluent Treatment Plant at Kinfra Food Processing Park, Elamannoor, Adoor	Operating (parameters not complied with standards)	225 m <sup>3</sup> /day	220 m <sup>3</sup> /day	Coagulation & Settling

കേരള സംസ്ഥാന മലിനീകരണ നിയന്ത്രണ ബോർഡ്

KERALA STATE POLLUTION CONTROL BOARD

ജില്ലാ ഓഫീസ്, OPP ജനറൽ ആശുപത്രി, KK Nair Road, കുന്തിരപ്പള്ളിയിൽ, പത്തനംതിട്ട-689 645  
DISTRICT OFFICE, OPP.GENERAL HOSPITAL, KK NAIR ROAD, BEHIND AVG MOTORS, PATHANAMTHITTA689645

web site: www.keralapcb.nic.in - for Online registration, visit-krocmmms.nic.in or keralapcbonline.com

ഭരണഭാഷ - മാതൃഭാഷ

PCB/PTA/ICO/40/2007

21.06.2022

പ്രേഷിത

പരിസ്ഥിതി എഞ്ചിനീയർ



സ്വീകർത്താവ്

സെക്രട്ടറി  
ട്രാവൻകൂർ ദേവസ്വം ബോർഡ്  
നന്തൻകോട്, തിരുവനന്തപുരം

വിഷയം : 'Waste Disposal Facility at Pamba, Triveni P.O, Pamba, Pathanamthitta' യുടെ പ്രവർത്തനാനുമതി പുതുക്കുന്നത് - സംബന്ധിച്ച്.

- സൂചന :
- 1) ICO/PTA/3170/R1/2017 നമ്പരായ 16.03.2021 തീയതിയിലെ 16.03.2022 വരെ കാലാവധിയോടുകൂടിയ അനുമതി.
  - 2) 16.06.2022 തീയതിയിൽ നടത്തിയ പരിശോധനയും സാമ്പിൾ ശേഖരണവും.
  - 3) 21.06.2022 തീയതിയിലെ പരിശോധന റിപ്പോർട്ട്.

സർ,

സൂചനകളിലേക്ക് ശ്രദ്ധ ക്ഷണിക്കുന്നു. സൂചന പ്രകാരമുള്ള 'Waste Disposal Facility at Pamba, Triveni P.O, Pamba, Pathanamthitta' യുടെ പ്രവർത്തനാനുമതിയുടെ കാലാവധി 16.03.2022 ൽ അവസാനിച്ചിട്ടുള്ളതാണ്. സൂചന(1) പ്രവർത്തനാനുമതിയിൽ ഖരമാലിന്യ സംസ്കരണ സംവിധാനങ്ങളും, ഇൻസിനറേറ്ററുകൾക്ക് Online Monitoring System/Temporary Recording എന്നിവ ഏർപ്പെടുത്തണമെന്ന് വ്യവസ്ഥ ചെയ്തിരുന്നു. മുൻ അനുമതിയിലെ വ്യവസ്ഥകൾ പാലിച്ച് അനുമതി പുതുക്കുന്നതിനായുള്ള ഓൺലൈൻ അപേക്ഷ സമർപ്പിക്കേണ്ടതാണെന്നുള്ള വിവരം അറിയിച്ചുകൊള്ളുന്നു. കൂടാതെ 16.06.2022 തീയതിയിൽ ശേഖരിച്ച സാമ്പിളിന്റെ സൂചന(3) പരിശോധന റിപ്പോർട്ട് പ്രകാരം BOD പ്രവർത്തനാനുമതി പ്രകാരമുള്ള അനുവദനീയ പരിധിക്ക് പുറത്താണ്. ഇത് സംബന്ധിച്ച വിശദീകരണവും, അനുവദനീയ പരിധി പാലിക്കുന്നതിനുള്ള വേണ്ട നടപടികളും സ്വീകരിച്ച് ആയത് രേഖാമൂലം ഈ ഓഫീസിൽ സമർപ്പിക്കേണ്ടതാണ്.

വിശ്വസ്തതയോടെ,

പരിസ്ഥിതി എഞ്ചിനീയർ

**STP AT PAMBA**

**ANALYSIS REPORT**

Date:26.07.2022

Date of sampling: 19.07.2022

Date of sample Received: 19.07.2022

Sl.NO.	Parameter	Unit	I/L	O/L
1	pH		8.1	7.7
2	BOD	mg/l	190	30
3	COD	mg/l	384	112
4	SUSPENDED SOLIDS	mg/l	282	74



ASSISTANT SCIENTIST

# കേരള സംസ്ഥാന മലിനീകരണ നിയന്ത്രണ ബോർഡ് KERALA STATE POLLUTION CONTROL BOARD

എസ്.ആം.എസ്. ഓപ്പറേഷൻ ഓഫീസ്, കെ.എൻ.റോഡ്, കുന്നിത്തോട്ടത്തിൽബിത്തിരി, പത്തനംതിട്ട-689 645

OFFICE, OPP.GENERAL HOSPITAL, KK NAIR ROAD, BEHIND AVG MOTORS, PATHANAMTHITTA689645

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ഭരണഭാഷ - മാതൃഭാഷ

DESPATCHED

14.07.2022

15/07/2022

ICO/PTA/4337/2022

പ്രാർത്ഥന

പരിസ്ഥിതി എഞ്ചിനീയർ

സ്വീകർത്താവ്

The Managing Director

KINFRA House

TC, 3/2321

Sasthamangalam, Thiruvananthapuram

വിഷയം : CETP, KINFRA, Adoor പ്രവർത്തനാനുമതിയിലെ നിബന്ധനകൾ സംബന്ധിച്ച്.

സൂചന :


- 1) ICO/PTA/4294/2022 നമ്പർ 25.02.2022 തീയതിയിലെ 31.01.2026 തീയതിവരെ കാലാവധിയുള്ള പ്രവർത്തനാനുമതി.
- 2) 04.05.2022 തീയതിയിൽ ബോർഡ് ഉദ്യോഗസ്ഥർ CETP യിൽ നടത്തിയ പരിശോധനയും, ശുദ്ധീകരിച്ച മലിനജലത്തിന്റെ ശേഖരണവും, പരിശോധനാ ഫലവും.
- 3) ഈ ഓഫീസിലെ ഇതേ നമ്പർ 03.06.2022 തീയതിയിലെ OCEMS മായി ബന്ധപ്പെട്ട് നൽകിയ നിർദ്ദേശങ്ങൾ
- 4) ഈ ഓഫീസിലെ PCB/PTA/TG/59/2007/VOL-XII നമ്പർ 16.05.2022 തീയതിയിലെ നിർദ്ദേശം.
- 5) 20.06.2022 തീയതിയിൽ ബോർഡ് ഉദ്യോഗസ്ഥർ CETP യിൽ നടത്തിയ പരിശോധനയും ശുദ്ധീകരിച്ച മലിനജലത്തിന്റെ ശേഖരണവും, പരിശോധനാഫലവും.
- 6) 28.06.2022 തീയതിയിൽ ആ ഓഫീസിൽ നിന്നും സമർപ്പിച്ച മറുപടി.
- 7) ഈ ഓഫീസിലെ പിസിബി/പിറ്റിഎ/റ്റിജി/59/2007/Vol-XII നമ്പർ 29.06.2022 തീയതിയിലെ നിർദ്ദേശം.

സർ,

മേൽ സൂചനകളിലേക്ക് ശ്രദ്ധ ക്ഷണിക്കുന്നു. സൂചന (1) പ്രകാരം അങ്ങയുടെ ഉടമസ്ഥതയിലുള്ള അടൂർ Kinfra Park ൽ സ്ഥാപിച്ചിട്ടുള്ള CETP ക്ക് (പൊതു മലിനജല സംസ്കരണ പ്ലാന്റിന്) 31.01.2026 തീയതിവരെ കാലാവധിയുള്ള പ്രവർത്തനാനുമതി

ലഭ്യമാക്കിയിട്ടുള്ളതാണ്. ആയതിന് പ്രകാരം ശുദ്ധീകരിച്ച മലിനജലത്തിന് ഭേദം നിഷ്കർഷിക്കുന്ന ഗുണനിലവാരം (നിബന്ധന 2.4) കൈവരിക്കേണ്ടതാണെന്നും നിബന്ധന 5.7 (water meter സ്ഥാപിക്കുക), നിബന്ധന 5.8 (TOD meter സ്ഥാപിക്കുക), നിബന്ധന 5.10 (online monitoring system സ്ഥാപിക്കുക), നിബന്ധന 5.11 (CCTV സ്ഥാപിക്കുക) തുടങ്ങിയ വ്യവസ്ഥകൾ പാലിക്കേണ്ടതുമാണ്. നിബന്ധന 5.10 പാലിക്കുന്നതിന് സംബന്ധിച്ച് വ്യക്തമായ അറിയിപ്പ് സൂചന(3) പ്രകാരം നൽകിയിട്ടുള്ളതാണ്. സൂചന(2) പ്രകാരം നടത്തിയ പരിശോധനയിൽ, clarifier ലെ motor work ചെയ്യാത്തതും, പൈപ്പ് ലൈനുകൾക്ക് ലീക്ക് ഉള്ളതും, Chlorine dosing പ്രവർത്തനരഹിതമാണെന്നുള്ളതും ശ്രദ്ധയിൽപ്പെട്ടിട്ടുള്ളതും, ആയത് പരിഹരിക്കുന്നതിനുള്ള നിർദ്ദേശം പരിശോധനാ സമയത്ത് തന്നെ നൽകിയിരുന്നതുമാണ്. പരിശോധനാഫലം അനുസരിച്ച്, ശുദ്ധീകരിച്ച മലിനജലം ഗുണനിലവാരം കൈവരിക്കുന്നില്ല എന്ന് കണ്ടെത്തിയതിനാൽ സൂചന(4) പ്രകാരം മതിയായ നിർദ്ദേശം നൽകിയിരുന്നതാണ്. എന്നാൽ സൂചന(5) പ്രകാരം നടത്തിയ പരിശോധനയിൽ, Aerator പ്രവർത്തനരഹിതമാണെന്നും, ശേഖരിച്ച സാമ്പിളുകൾ ഗുണനിലവാരം കൈവരിക്കുന്നില്ല എന്നും കണ്ടു. തുടർന്ന് സൂചന(4) പ്രകാരം വീണ്ടും നിർദ്ദേശം നൽകിയിട്ടുള്ളതുമാണ്. എന്നാൽ സൂചന(6) പ്രകാരം സമർപ്പിച്ച മറുപടിയിൽ ന്യൂനതകൾ പരിഹരിച്ചതായി രേഖപ്പെടുത്തിയിട്ടില്ല എന്ന വിവരം അറിയിച്ചുകൊള്ളുന്നു.

ഓരോ മലിനജല സംസ്കരണ സംവിധാനങ്ങൾ (CETP), റെഡ് കാറ്റഗറിയിൽ ഉൾപ്പെടുന്നതും, മലിനജല സംസ്കരണ സംവിധാനങ്ങളുടെ പര്യാപ്തത എല്ലാ മാസവും, CPCB server ലേക്ക് upload ചെയ്യേണ്ടതുമാണ്. ആയതിനാൽ ടി സംവിധാനത്തിന്റെ പോരായ്മകൾ ഉടൻ പരിഹരിച്ച് (ആവശ്യമെങ്കിൽ stand by motor കൾ സ്ഥാപിച്ച്), പരാമീറ്ററുകൾ ബോർഡ് നിഷ്കർഷിക്കുന്ന നിലവാരം കൈവരിക്കണമെന്നും, അനുമതിയിലെ മറ്റ് നിബന്ധനകൾ ഉടൻ നടപ്പിലാക്കണമെന്നും അറിയിച്ചുകൊള്ളുന്നു. സ്വീകരിച്ച നടപടികൾ രേഖാമൂലം അറിയിക്കേണ്ടതാണ്.

വിശ്വസ്തതയോടെ,  
  
 പരിസ്ഥിതി എഞ്ചിനീയർ

- പകർപ്പ് :
- 1) ചീഫ് എൻവയോൺമെന്റൽ എഞ്ചിനീയർ, റീജിയണൽ ഓഫീസ്, തിരുവനന്തപുരം.
  - 2) മാനേജർ, KINFRA, അടൂർ

o/c

മലിനജല സംസ്കരണ സംവിധാനങ്ങൾ (CETP) പരിസ്ഥിതി എഞ്ചിനീയർമാർക്ക് വിവരങ്ങൾ നൽകുന്നതിനായി കിന്ഫ്ര ക്ലിനിക്കൽ ഓഫീസ്, അടൂർ, തിരുവനന്തപുരം ജില്ലയിൽ സ്ഥാപിക്കുന്നതിനുള്ള നടപടികൾ എടുക്കണമെന്നും അറിയിച്ചുകൊള്ളുന്നു.



email: [kspcbpta@gmail.com](mailto:kspcbpta@gmail.com)

Phone/ fax: 0468-2223983

**കേരള സംസ്ഥാന മലിനീകരണ നിയന്ത്രണ ബോർഡ്**  
**KERALA STATE POLLUTION CONTROL BOARD**

ജില്ലാ ഓഫീസ് , OPP ജനറൽ ആശുപത്രി, KK Nair Road, കുന്തിമോട്ടത്തിൽബിൽഡിങ്, പത്തനംതിട്ട-689 645

web site: [www.keralapcb.nic](http://www.keralapcb.nic)- for Online registration, visit-[krocmmms.nic.in/KSPCB](http://krocmmms.nic.in/KSPCB)

രേണഭാഷ - മാതൃഭാഷ

**ANALYSIS REPORT**

Date: 02.08.2022

Source: Kinfra food processing Industrial Park, Elamannoor (Common ETP)

Date of sampling: 23.07.2022

Date of sample Received: 25.07.2022

NATURE OF SAMPLE: Effluent

SL NO	Parameter	Unit	PCB 695	PCB 192	PCB 198	PCB 62	Limit
			Equilization tank	Aeration tank	Secondary Clarifier	Final Outlet	
1	pH		4	5.5	5.9	6.5	5.5-9.0
2	BOD	mg/l	100	70	50	32	30
3	COD	mg/l	288	208	160	112	250
4	SS	mg/l	164	114	96	90	100
5	O & G	mg/l	15.6	14.4	11.2	10.4	10

0006  
21/08/2022

AE<sub>3</sub>  
2/8

Remarks: BOD,O&G Slightly exceeded the limit

**ASSISTANT SCIENTIST**



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Phone/ fax: 0468-2223983

# കേരള സംസ്ഥാന മലിനീകരണ നിയന്ത്രണ ബോർഡ് KERALA STATE POLLUTION CONTROL BOARD

ജില്ലാ ഓഫീസ്, OPP ജനറൽ ആശുപത്രി, KK Nair Road, കുന്തികോട്ടത്തിൽ ബിൽഡിംഗ്, പത്തനംതിട്ട-689 045  
DISTRICT OFFICE, OPP.GENERAL HOSPITAL, KK NAIR ROAD, BEHIND AVG MOTORS, PATHANAMTHITTA689545

web site: www.keralapcb.nic.in - for Online registration, visit-krocmms.nic.in or keralapcbonline.com

ഭരണഭാഷ - മാതൃഭാഷ

PCB/PTA/ICO/2781/2017

28.06.2022  
**DESPATCHED**  
ON 29/06/2022

പ്രേഷിത  
പരിസ്ഥിതി എഞ്ചിനീയർ

സ്വീകർത്താവ്  
എക്സിക്യൂട്ടീവ് എഞ്ചിനീയർ  
ട്രാവൻകൂർ ദേവസ്വം ബോർഡ്  
സന്നിധാനം, ശബരിമല

വിഷയം : 'STP 5 MLD ശബരിമല സന്നിധാനം' ന്റെ പ്രവർത്തനാനുമതി പുതുക്കുന്നത് - സംബന്ധിച്ച്.

- സൂചന :
- 1) 31.03.2019 തീയതിവരെയുണ്ടായിരുന്ന PCB/RO/PTA/ICO/07/2017 നമ്പർ അനുമതി.
  - 2) ഓൺലൈൻ അപേക്ഷാ നമ്പർ 14075014 തീയതി 06.10.2020, അനുമതി പുതുക്കുന്നതിനായി സമർപ്പിച്ച അപേക്ഷ.
  - 3) 16.06.2022 ൽ ബോർഡുദ്യോഗസ്ഥർ നടത്തിയ സ്ഥല പരിശോധനയും സാമ്പിൾ ശേഖരണവും.
  - 4) 21.06.2022 തീയതിയിലെ പരിശോധനാ റിപ്പോർട്ട്.

സർ,

മേൽ സൂചനകളിലേക്ക് ശ്രദ്ധ ക്ഷണിക്കുന്നു. 'STP 5 MLD ശബരിമല സന്നിധാനം' ന്റെ സൂചന(1) പ്രകാരമുള്ള അനുമതി 31.03.2019 തീയതി അവസാനിച്ചിട്ടുള്ളതാണ്. അനുമതി പുതുക്കുന്നതിനായി സൂചന(2) പ്രകാരമുള്ള അപേക്ഷ താങ്കൾ ഈ ഓഫീസിൽ സമർപ്പിച്ചിട്ടുള്ളതാണ്. എന്നാൽ സൂചന(3) പ്രകാരം നടത്തിയ പരിശോധനയിൽ STP യിൽ നിന്നുള്ള സാമ്പിൾ ശേഖരിക്കുകയുണ്ടായി. ആയതിന്റെ സൂചന(4) പ്രകാരമുള്ള പരിശോധനാഫലം പ്രകാരം BOD, Oil and Grease എന്നീ പരാമീറ്ററുകൾ നിശ്ചിത പരിധിക്ക് പുറത്താണ് എന്ന് കണ്ടെത്തിയിരിക്കുന്നു. ഇത് സംബന്ധിച്ച വിശദീകരണവും, പരിഹരിക്കാൻ സ്വീകരിച്ച നടപടികളും കത്ത് കിട്ടി 15 ദിവസത്തിനുള്ളിൽ ഈ ഓഫീസിൽ അറിയിക്കേണ്ടതാണ്. താങ്കളുടെ സൂചന(2) പ്രകാരമുള്ള അപേക്ഷ അതിനു ശേഷം മാത്രമേ പരിഗണിക്കുകയുള്ളൂ എന്ന് അറിയിച്ചുകൊള്ളുന്നു.

വിശ്വസ്തതയോടെ,

പരിസ്ഥിതി എഞ്ചിനീയർ

ഉള്ളടക്കം : പരിശോധനാഫലം



# STP AT SANNIDHANAM

## ANALYSIS REPORT

Date:26.07.2022

Date of sampling: 19.07.2022

Date of sample Received: 19.07.2022

Station	Parameters					
	pH	TSS (mg/l)	BOD (mg/l)	OIL&GREASE (mg/l)	TDS (mg/l)	TC CFU/100ml
OUT LET	5.9	86	46	9	288	480



ASSISTANT SCIENTIST



# KERALA STATE POLLUTION CONTROL BOARD

DISTRICT OFFICE (ERNAKULAM -II), PERUMBAVOOR

PMC 20/733, Govt. Hospital- KSRTC Road, Near Kallunkal Auditorium, Perumbavoor-683 542

Telephone : 0484-2593747

E-mail: pcbdo2ekm@gmail.com

Website: www.keralapcb.nic.in

PCB/PBR/LAB/1/2013

Date: 20.07.2022

## ANALYSIS REPORT

Source : SEPTAGE TREATMENT PLANT, BRAHMAPURAM

Sample Point : FILTERED EFFLUENT TANK

D.O.S : 14.07.2022

D.O. Rd : 15.07.2022

Collected by : NAMP-I

Sample ID : PCB-261

Sl.No.	Parameters	Unit	Value	Test Method	KSPCB Limit
1	pH		7.44	APHA, 4500 H <sup>+</sup> B 22 <sup>nd</sup> Edition 2012.	6-9
2	BOD	mg/l	12	APHA, 5210 B, 22 <sup>nd</sup> Edition 2012.	30
3	COD	mg/l	32	APHA, 5220 B, 22 <sup>nd</sup> Edition 2012	250
4	OIL & GREASE	mg/l	BDL	APHA, 5520 B, 22 <sup>nd</sup> Edition 2012	10
5	SS	mg/l	BDL	APHA, 2540-D, 22 <sup>nd</sup> Edition 2012	100
6	PHOSPHATES	mg/l	0.18	APHA-4500 P-E 22 <sup>nd</sup> Edition 2012	5
7	NITRATES	mg/l	12.76	APHA 4500-NO <sub>3</sub> -E, 22 <sup>nd</sup> Edition 2012	10
8	SULPHATES	mg/l	26.59	APHA, 4500-SO <sub>4</sub> , 22 <sup>nd</sup> Edition 2012	1000
9	SULPHIDES	mg/l	39.2	APHA-4500-S <sup>2-</sup> D 22 <sup>nd</sup> Edition 2012	2
10	AMMONIACAL NITROGEN	mg/l	0.02	APHA, 4500-NH <sub>3</sub> -F, 22 <sup>nd</sup> Edition 2012	50
11	PHENOLIC COMPOUNDS	mg/l	BDL	APHA, 5530 C, 22 <sup>nd</sup> Edition 2012	1
12	TOTAL COLIFORM	cfu/100ml	30	APHA 9222B, 22 <sup>nd</sup> Edition 2012	-
13	FAECAL STREPTOCOCCI	cfu/100ml	50	APHA 9230 A, 22 <sup>nd</sup> Edition 2012	-

AS/ NAMP-I  
20/07/22

2042  
20/07/22

SARANYA DAS.K

ASSISTANT SCIENTIST



## KERALA STATE POLLUTION CONTROL BOARD

FILE NO. :PCB/EKM/DO II/ICO-R/O14ERNA318229/2022

Date of issue :23/07/2022

### INTEGRATED CONSENT TO OPERATE - RENEWAL

Consent No : O14ERNA-CTO-R-318229

Ref : Consent No. O14ERNA-CTO-318229 dated 02/09/2019 valid upto 30/04/2022

The ' Integrated Consent to Operate' issued as per reference above to M/s SEPTAGE TREATMENT PLANT 100M3/DAY, Brahmapuram, Eranakulam, 682308 is hereby renewed up to 30/04/2027 and issued to M/s SEPTAGE TREATMENT PLANT 100M3/DAY, Brahmapuram, Eranakulam, 682308 The consent(s)/ variation order(s) cited under reference are integral part of this renewal order and this order is subject to the conditions stipulated therein and the following modifications/ additions.

#### I. GENERAL

S.No.	Items	Description
1	CAPITAL INVESTMENT	Rs. 331.00 Lakh
2	CATEGORY	RED
3	VALIDITY	30/04/2027
4	ANNUAL FEE	Rs. 35,000/-
5	REMITTED FEE	Rs 1,82,750.00/-

#### II. Stack Details

Stack No.	Source of Emission	Emission Rate(Nm3/Hr)	Stack Height above		Control Equipment
			Ground Level(In Meters)	Roof Level(In Meters)	
1	D. G. SET OF 40			1.5	ACOUSTIC ENCLOSURE

#### III. CONDITIONS

3.1 For renewal of the consent in case of continuance of operation of the Common Septage treatment Plant, application in the prescribed form shall be submitted through the web portal of the Board

for Online Consent Management & Monitoring System 2 months prior to the date of expiry. Late application will be accepted only with fine.

3.2 This consent is granted subject to the power of the Board to review and make variation in or revoke any of the conditions as the Board deems fit as per the relevant Acts/Rules.

3.3 The applicant shall comply with the instructions that the Board may issue from time to time regarding prevention and control of air, water, land and sound pollution

3.4 No change or alteration of the facility is to be made without the prior written permission of the Board. Any change in the particulars furnished and/or in the identity of the occupier/authorized agent is to be intimated to the Board forthwith.

3.5 Proper Solid waste management system shall be provided in the unit, arrangements for collection, segregation, storage, handling and disposal of solid Waste including garbage shall be provided as per SWM Rules 2016 and the facility shall be maintained properly.

3.6 Water meter and energy meter shall be provided in the STP shall be maintained properly and damaged water meters shall be replaced with new one.

3.7 Log books shall be provided to register the daily energy consumption in STP and quantity of waste water treated and treated water recycled and monthly details shall be sent to District Office through e-mail,pcbdo2ekm@gmail.com

3.8 Prepare and maintain an operating log book for all activities in the STP

3.8 Prepare and maintain a chemicals/consumables stock register.

3.9 The STP and premises shall be kept clean and tidy.

3.10 Ensure that during unloading of the septage and leachate into the collection tank no leakage occurs.

3.11 THE INSTALLATION OF ADDITIONAL AERATION TANK , ADDITIONAL DISINFECTION AND SOAK PITS SHOULD BE COMPLETED WITHIN 6 MONTHS AS MENTIONED IN THE AFFIDAVIT AND THE COMPLIANCE SHALL BE REPORTED.

3.12 THE TREATED WATER STANDARDS ARE GIVEN BELOW

Sl.NO. Characteristics Unit Tolerance Limit

Sewage

1 PH - 6.5-8.5

2 BOD mg/l 30

3 COD mg/l 250

4 SUSPENDED SOLIDS mg/l 100  
5 NH<sub>3</sub>-N mg/l 50  
6 TOTAL KJELDAHL NITROGEN(As N) mg/l 100  
7 SULPHATE (As SO<sub>4</sub>) mg/l 1000  
8 SULPHIDE(as S) mg/l 2.8  
9 DISSOLVED PHOSPHORUS mg/l 5  
10 FAECAL COLIFORM MPN/100 ml <1000 (MoEFCC Notification October 2017)

All other conditions of the Integrated Consent to Operate issued as per reference above remain unchanged.

**Dinesh K S** Digitally signed by Dinesh K S  
Date: 2022.07.24 10:50:47  
+05'30'

DATE :24/07/2022

SIGNATURE & SEAL OF ISSUING AUTHORITY  
ENVIRONMENTAL ENGINEER DO-II, EKM



**To**  
The Secretary,  
Cochin Municipal Corporation,  
Ernakulam,  
Cochin.

- 1. This digitally signed document is legally valid as per the Information Technology Act 2000**
2. For verifying this document please go to [krocmmms.nic.in](http://krocmmms.nic.in) and search using date of issue/name of the unit/Application Number in "Consent Granted Applications" link in the home page of the Board's Online Consent Management and Monitoring System.