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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	Kerala
2)	Name & address of the State Pollution Control	Kerala State Pollution Control Board Plamoodu, Pattom P.O., Thiruvananthapuram, Kerala - 695004
3)	Number of local bodies responsible for management of solid waste in the State/Union territory under these rules	93 (6 corporation; 87 Municipality)
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 Annexure I.
6)	A Summary Statement on progress made by local bodies in respect of waste collection, segregation, transportation and disposal	Attached as Annexure II for Urban Local Bodies Annexure II A for Rural Local Bodies
7)	A summary statement on progress made by local bodies in respect of implementation of Schedule II	Attached as Annexure III
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 & 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 meetings 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

Major Dumpsites locations			
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.

Sl. No:	Location	District	Status
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 3rd March, 2020.</p> <p>The clearing work of legacy waste resumed at the dumpsite on 4th May 2020 and approximately 15000 cum of legacy waste was cleared from the project site as on 12th 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	-

Sl. No:	Location	District	Status
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	-

Sl. No:	Location	District	Status
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

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14			Kottarakara	30055	42050	17	66	20	58	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 with100 kg capacity	1.62TPD of biodegradable waste is managed 0.124 non biodegradable waste is managed. Thumbur muzhi 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	Thumbur muzhi 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 (Thumbur muzhi Model)-6 bins at 3 locations with capacity of 10 kg/day	1	Segregated Non biodegradable waste collected through Haritha karmasena 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 (Thumbur Mozhi 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 Trasfer 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	Thumbur Muzhi	Biobin, Ring Compost, Biogas plant, Pipe compost	Thumbur 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. Thumbur 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			Mattannur	47078	60000	24	90	90	39	5	5	windrow compost unit,plastic shruing and bailing	collectors @school bin	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 Households	% Households HD-Dry	% of Streetlights HD-Dry	No of streetlights	Household waste HD-Dry	% of household waste HD-Dry	% of houses in which animal fecal treatment	% of establishments in which organic fecal treatment	% of houses in which animal fecal treatment	% of establishments in which organic fecal treatment	Quantity of Waste generated (TPD)	Quantity of Waste collected (TPD)	Quantity of Waste treated (TPD)	Quantity of Waste increased in Composting Sheds (TPD)	Quantity of Waste generated in Household bins (TPD)
1	T	Gulistan	11	2315	100	0	0	0	0	0	0	0	0	0	0	0	0	0
2	W	Asht	14	1154	52	47	1013	30	26	100	100	0	0	0	0	0	0	0
3	A	Arundhara	14	4550	15	0	30	80	41	0	0	0	0	0	0	0	0	0
4	U	Udayanagar	28	8159	83	0	1199	30	0	0	0	0	0	0	0	0	0	0
5	U	Udayanagar	28	13418	100	0	171	13	0	0	0	0	0	0	0	0	0	0
6	W	Udayan	18	1151	18	0	1151	18	0	0	0	0	0	0	0	0	0	0
7	A	Udayan	16	7020	100	0	110	100	0	0	0	0	0	0	0	0	0	0
8	M	Udayan	17	5381	100	0	111	0	0	0	0	0	0	0	0	0	0	0
9	A	Udayan	16	4478	0	0	119	0	0	0	0	0	0	0	0	0	0	0
10	M	Udayan	16	4478	0	0	119	0	0	0	0	0	0	0	0	0	0	0
11	M	Udayan	16	4478	0	0	119	0	0	0	0	0	0	0	0	0	0	0
12	M	Udayan	16	4478	0	0	119	0	0	0	0	0	0	0	0	0	0	0
13	M	Udayan	16	4478	0	0	119	0	0	0	0	0	0	0	0	0	0	0
14	M	Udayan	16	4478	0	0	119	0	0	0	0	0	0	0	0	0	0	0
15	M	Udayan	16	4478	0	0	119	0	0	0	0	0	0	0	0	0	0	0
16	M	Udayan	16	4478	0	0	119	0	0	0	0	0	0	0	0	0	0	0
17	M	Udayan	16	4478	0	0	119	0	0	0	0	0	0	0	0	0	0	0
18	M	Udayan	16	4478	0	0	119	0	0	0	0	0	0	0	0	0	0	0
19	M	Udayan	16	4478	0	0	119	0	0	0	0	0	0	0	0	0	0	0
20	M	Udayan	16	4478	0	0	119	0	0	0	0	0	0	0	0	0	0	0
21	M	Udayan	16	4478	0	0	119	0	0	0	0	0	0	0	0	0	0	0
22	M	Udayan	16	4478	0	0	119	0	0	0	0	0	0	0	0	0	0	0
23	M	Udayan	16	4478	0	0	119	0	0	0	0	0	0	0	0	0	0	0
24	M	Udayan	16	4478	0	0	119	0	0	0	0	0	0	0	0	0	0	0
25	M	Udayan	16	4478	0	0	119	0	0	0	0	0	0	0	0	0	0	0
26	M	Udayan	16	4478	0	0	119	0	0	0	0	0	0	0	0	0	0	0
27	M	Udayan	16	4478	0	0	119	0	0	0	0	0	0	0	0	0	0	0
28	M	Udayan	16	4478	0	0	119	0	0	0	0	0	0	0	0	0	0	0
29	M	Udayan	16	4478	0	0	119	0	0	0	0	0	0	0	0	0	0	0
30	M	Udayan	16	4478	0	0	119	0	0	0	0	0	0	0	0	0	0	0
31	M	Udayan	16	4478	0	0	119	0	0	0	0	0	0	0	0	0	0	0
32	M	Udayan	16	4478	0	0	119	0	0	0	0	0	0	0	0	0	0	0
33	M	Udayan	16	4478	0	0	119	0	0	0	0	0	0	0	0	0	0	0
34	M	Udayan	16	4478	0	0	119	0	0	0	0	0	0	0	0	0	0	0
35	M	Udayan	16	4478	0	0	119	0	0	0	0	0	0	0	0	0	0	0
36	M	Udayan	16	4478	0	0	119	0	0	0	0	0	0	0	0	0	0	0
37	M	Udayan	16	4478	0	0	119	0	0	0	0	0	0	0	0	0	0	0
38	M	Udayan	16	4478	0	0	119	0	0	0	0	0	0	0	0	0	0	0
39	M	Udayan	16	4478	0	0	119	0	0	0	0	0	0	0	0	0	0	0
40	M	Udayan	16	4478	0	0	119	0	0	0	0	0	0	0	0	0	0	0
41	M	Udayan	16	4478	0	0	119	0	0	0	0	0	0	0	0	0	0	0
42	M	Udayan	16	4478	0	0	119	0	0	0	0	0	0	0	0	0	0	0
43	M	Udayan	16	4478	0	0	119	0	0	0	0	0	0	0	0	0	0	0
44	M	Udayan	16	4478	0	0	119	0	0	0	0	0	0	0	0	0	0	0
45	M	Udayan	16	4478	0	0	119	0	0	0	0	0	0	0	0	0	0	0
46	M	Udayan	16	4478	0	0	119	0	0	0	0	0	0	0	0	0	0	0
47	M	Udayan	16	4478	0	0	119	0	0	0	0	0	0	0	0	0	0	0

Sl. No.	DISTRICT	LOCAL BODY	NO OF WARD	No of Household	% Household SID-Dry	% of Household SID-Wet	No of establishments	Number of establishments SID-Dry	% establishments SID-Wet	% of houses & establishments that treated	% of establishments to which sewage first treated	% of sewage to controlled system	% of sewage to controlled system	Quantity of Waste generated (TPD)	Quantity of Waste collected (TPD)	Quantity of Waste treated (TPD)	Quantity of Waste processed in Composting like (TPD)	Quantity of Waste processed in Bio methane (TPD)
48		Belur	21	16347	35%	0	140	100	0	100	0	0	0	50	0	0	0	0
49		Bellur	11	3875	0	0	712	0	0	0	0	0	0	0.11	0	0	0	0
50		Bellur	11	7104	0	0	350	0	0	0	0	0	0	0.05	0	0	0	0
51		Bellur	18	11379	0	0	680	100	0	100	0	0	0	0.28	0.40	0	0	0
52		Bellur	12	12800	0	0	2478	0	0	0	0	0	0	0.28	0	0	0	0
53		Bellur	17	20775	0	0	4188	0	0	0	0	0	0	0.29	0.28	0	0	0
54		Bellur	19	22907	0	0	1310	0	0	0	0	0	0	0.17	0	0	0	0
55		Bellur	16	8711	0	0	1150	100	0	100	0	0	0	0.17	0.21	0	0	0
56		Bellur	12	12428	0	0	2250	100	0	100	0	0	0	0.18	0.1	0	0	0
57		Bellur	15	4540	0	0	740	0	0	0	0	0	0	0.07	0	0	0	0
58		Bellur	10	10628	0	0	3000	0	0	0	0	0	0	0.1	0	0	0	0
59		Bellur	12	11159	0	0	100	0	0	0	0	0	0	0.03	0	0	0	0
60		Bellur	12	4788	0	0	178	0	0	100	100	0	0	0.1	0.03	0	0	0
61		Bellur	14	1216	0	0	20	0	0	0	0	0	0	0.02	0	0	0	0
62		Bellur	18	8400	0	0	260	0	0	100	0	0	0	0.02	0	0	0	0
63		Bellur	18	7982	0	0	1184	0	0	0	0	0	0	0.14	0	0	0	0
64		Bellur	14	1240	0	0	100	0	0	0	0	0	0	0.02	0	0	0	0
65		Bellur	12	1245	0	0	260	0	0	0	0	0	0	0.03	0.01	0	0	0
66		Bellur	18	7045	0	0	210	0	0	0	100	100	0	0.1	0	0	0	0
67		Bellur	18	11818	0	0	660	0	0	100	0	0	0	0.23	0	0	0	0
68		Bellur	19	11700	0	0	1717	100	100	100	0	0	0	0.02	0	0	0	0
69		Bellur	11	11401	0	0	151	44	34	0	0	0	0	0.01	0	0	0	0
70		Bellur	20	14700	0	0	730	0	0	100	0	0	0	0.1	0	0	0	0
71		Bellur	19	9174	0	0	260	100	100	0	0	0	0	0.03	0	0	0	0
72		Bellur	20	16420	0	0	1717	0	0	0	0	0	0	0	0	0	0	0
73		Bellur	17	11799	0	0	100	0	0	0	0	0	0	0.02	0	0	0	0
74		Bellur	11	10147	0	0	0	0	0	0	0	0	0	0.12	0.1	0.11	0	0.1

Sl. NO.	DISTRICT	LOCAL BODY	NO OF WARDS	No of Household	% Household O2D-Dry	% of Household O2D-Wet	No of establishments	Establishment -O2D-Dry	% establishments -O2D-Wet	% of houses in which source level treatment	% of establishments in which source level treatment	% disposing to centralised 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 Biogas/landfill (TPD)
74	K	Adichanallur	20	11069	30	83	556	83	47	86	0	2	1	2	0.4	0	0	0
75	O	Ajappal	18	5931	10	0	384	18	0	0	1	0	1	0	0	0	0	0
76	L	Ajappan	14	7550	0	0	1177	0	0	0	0	0	0	0.2	0.1	0	0	0
77	L	Ajithal	19	12968	30	0	1748	83	0	10	15	0	12	4	4	4	0	0
78	A	Ajmanur	12	3244	65	0	232	0	0	0	1	0	1	0.1	0.1	0	0	0
79	M	Ajmanur	15	1861	80	0	1358	80	0	0.5	0.5	0	1	1	1	1	0	0
80		Ajmanur	14	10821	35	0	232	15	0	90	90	0	0	2	2	2	0	0
81		Ajmanur	23	13568	60	0	1400	80	0	13	2	2	0	2	0.8	0.3	0.3	0.1
82		Ajmanur	16	8029	80	0	1305	61	0	0	1	0	0	0	0	0	0	0
83		Ajmanur	25	15164	40	0	450	48	0	2	1	0	1	0	0	0	0	0
84		Ajmanur	13	8330	81	0	1013	0	0	2	1	0	1	0	0	0	0	0
85		Ajmanur	15	7314	0	0	8551	0	0	0	0	0	0	0	0	0	0	0
86		Ajmanur	22	6200	0	0	1560	0	0	0	0	0	0	0	0	0	0	0
87		Ajmanur	17	7728	33	0	83	71	0	1	26	0	26	0	0	0	0	0
88		Ajmanur	21	3253	70	0	25	62.4	0	10	44	0	44	0	0	0	0	0
89		Ajmanur	16	4569	22.9	0	1206	13	0	14	0	0	0	0	0	0	0	0
90		Ajmanur	21	12128	40	0	1780	20	0	3	0	3	2	2.1	2.2	0	0	0
91		Ajmanur	19	8800	28.00	0	2700	2100	0	23.7	0	9.8	2.1	2	1	1	0	0
92		Ajmanur	23	16005	80	0	2024	74	0	25	4	0	11	2	1.8	1.8	0	0
93		Ajmanur	16	8694	71	0	1470	66	0	1	1	0	1	0.27	0.37	0	0	0
94		Ajmanur	18	8000	0	0	0	0	0	1	0	0	0	0	0	0	0	0
95		Ajmanur	21	12978	60	0	552	109	0	1	0	1	0	0.3	0.35	0.35	0	0
96		Ajmanur	19	11253	0	0	536	126	0	1	0	0	0	0.45	2.100	1	0	0
97		Ajmanur	25	13978	78	0	2642	38	0	1	0	0	0	0.25	0.33	0.33	0	0
98		Ajmanur	20	11210	50	0	1350	8	0	2	2	7	0.3	0.3	0.2	0	0	
99		Ajmanur	14	6210	36	0	271	31	0	1	0	1	0.3	0.1	0.1	0	0	
100		Ajmanur	14	4961	72	0	220	20	0	0	0	0	0	0	0.1	0	0	0
101		Ajmanur	17	8843	63	0	0	0	0	10	0	0	0	1	0	0	0	0
102		Ajmanur	21	15657	55	0	2890	1	0	20	81	0	0	10	8.1	8.5	4.3	2.3
103		Ajmanur	15	3888	60	0	157	100	0	60	60	0	0	0.25	0.25	0	0	0
104		Ajmanur	13	7238	15	0	113	22	0	25	20	0	0	0.2	0	0	0	0
105		Ajmanur	13	7228	0	0	115	12	0	75	70	0	0	0.2	0	0	0	0
106		Ajmanur	22	150	0	0	0	0	0	0	0	0	0	0	0	0	0	0
107		Ajmanur	21	17190	80	80	177	14	55	2	88	80	68	16	11	0	1.3	2
108		Ajmanur	18	8121	41	0	1130	38	0	52	0	0	0	0	0	0	0	0
109		Ajmanur	13	1085	58	0	717	0.65	0	0.12	0.2	0	0	0.25	0.25	0.25	0	0
110		Ajmanur	13	5827	30	0	1564	10	0	60	58	0	0	0.55	0.25	0	0	0
111		Ajmanur	17	8422	20	0	1025	38	0	0	0	0	0	0.21	0.21	0.23	0	0
112		Ajmanur	18	8771	0	0	0	0	0	0	0	0	0	0	0	0	0	0
113		Ajmanur	23	16073	90	0	3640	0	21	0	0	0	0	0.15	0.125	0.125	0	0
114		Ajmanur	21	11372	50	60	0	34	0	13	81	0	0	0.3	0.3	0	0	0
115		Ajmanur	13	6265	81	0	109	86	0	61	100	0	0	1.5	1.3	1.3	0	0
116		Ajmanur	13	6031	80	0	592	80	0	80	100	0	0	1.25	0	0	0	0
117		Ajmanur	18	12977	51	0	188	81	0	20	52	0	0	0	0	0	4	0
118		Ajmanur	14	6410	0	0	250	0	0	0	0	0	0	0.25	0.25	0	0	0
119		Ajmanur	20	11380	33	0	2201	28	0	0	0	0	0	2	2	24	4	0
120		Ajmanur	21	3600	42	0	1038	12	0	24	33	0	0	2	0.3	0	0	0
121		Ajmanur	21	9621	35	0	368	63	10	20	53	0	0	0	2	2	0	0
122		Ajmanur	16	8870	70	0	976	40	0	82	10	0	0	3	1.1	1.5	0	0

SL. NO.	WARD	LOCAL BODY	NO OF WARDS	No of Household	% Household DSD-Dry	% of Household-DSD-Wet	No of establishments	% establishments DSD-Dry	% establishments DSD-Wet	% of houses in which source level treatment	% of establishments 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 generated in Composting Sites (TFD)	Quantity of Waste processed in plants/facilities (TFD)
121		Paravally	16	9581	47	0	1200	47	0	0	0	0	0	4	1	4	0	0
124		Seethanpeta	19	13243	0	0		0	0	0	0	0	0	0	0	0	0	0
127		Saravali North	18	9971	0	0	1933	0	0	0	0	0	0	0	0	0	0	0
128		Saravali South	16	8228	70	0	1120	87	0	0	0	0	0	4	3	3.5	0	0
127		Thalavoor	35	9200	0	0	0	0	0	0	0	0	0	2	1	1	0	0
128		Thuduvai	22	11019	70	34	3250	55	30	2	6	0	0	3.8	2.9	2.9	0	0
129		Thuduvai	13	5600	82	0	271	70	0	2	1	0	0	4	2.5	2.5	0	0
130		Thuvayal	16	8368	70	0	239	61	0	0	0	0	0	4	3.5	3.5	0	0
131		Thuvayal	23	8900	0	0	1368	78	0	0	4	0	1	0	0	0	0	0
132		Thuduvai	23	14231	72	0	2524	82	0	1	2	0	2	5.5	3.5	0	0	0
133		Thuduvai	16	15238	0	0	2005	86	0	1	1	0	1	4.9	1.8	0	0	0
134		Thuduvai	23	21027	0	0	4460	0	0	0	0	0	0	0	0	0	0	0
135		Thuduvai	20	11584	80	0	2153	80	0	10	10	0	0	8.036	0.0216	0	0	0
136		Thuduvai	17	9010	82	0	2250	4	0	4	1	0	1	0	0	0	0	0
137		Thuduvai	10	6512	81	0	1983	1	0	1	1	0	1	0	0	0	0	0
138		Thuduvai	21	1850	0	60	805	0	0	0	0	0	0	0	0	0	0	0
139		Thuduvai	20	10897	48	0	2356	32	11	16	12	0	0	0	0	0	0	0
140		Thuduvai	20	5813	78	0	705	74	0	0	0	0	0	0	0	0	0	0
141		Thuduvai	14	14321	1	0	615	1	1	0	1	0	1	0	0	0	0	0

Sl. No.	DISTRICT	LOCAL BODY	NO OF WARDS	No of Household	% Household DDD-Dry	% of Household DDD-Wet	No of establishments	Non-establishment DDD-Dry	% establishment DDD-Wet	% of houses in which source level treatment	% of establishment in which source level treatment	% disposing to centralized system	% disposing to decentralized 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)	
142	P	Arned	13	5067	0	0	0	0	0	0	0	0	0	20kg	20kg	0	0	0	
143	A	Aransala	18	9671	0	100	1897	0	100	0	0	0	0	2	2.5	2	0	0	
144	T	Aravappalam	13	6818	0	0	171	0	0	1	2	0	0	20	13	0	0	0	
145	H	Aymer	16	6548	0	15	835	0	77	0	0	0	0	20kg	20	0	0	0	
146	A	Cheluvakkam	14	6515	0	0	0	0	0	0	0	0	0	0	0	0	0	0	
147	N	Cherthala	13	4398	0	0	121	0	0	0	0	0	0	20kg	20kg	20kg	0	0	
148	A	Chirar	13	5215	0	0	42	0	0	0	0	0	0	48 KG	48KG	48KG	0	0	
149	M	Chithar	13	4583	0	0	690	0	0	0	0	0	0	115kg	115kg	0	0	0	
150	T	Chudamattam	19	7261	0	38	380	0	0	0	0	0	0	100 KG	100 KG	0	0	0	
151	H	Chuthi	17	9011	0	0	110	0	0	0	0	0	0	55 Kg	55kg	0	0	0	
152	T	Chuvappuzha	17	8920	0	73	490	0	81	1	2	40	0	1200kg	122kg	0	0	0	
153	T	Chuvappuzha	20	11533	0	78	2339	0	76	0	0	0	0	1400 kg	1400kg	0	0	0	
154	T	Chuvappuzha	14	5807	0	100	1206	0	100	50	50	0	0	0.034	0.034	0.034	0	0	
155	A	Chuvappuzha	17	9029	0	0	1497	0	0	0	0	0	0	120kg	120kg	0	0	0	
156	A	Chuvappuzha	13	8608	0	74	852	0	70	0	1	0	0	0.8	0.8	0	0.2	0	
157	A	Chuvappuzha	20	12980	0	51	882	0	48	0	0	0	0	300	300	0	0	0	
158	A	Chuvappuzha	14	5041	0	1	797	0	0	0	0	0	0	54	30	0	0	0	
159	A	Chuvappuzha	14	6420	0	1	260	0	87	0	0	100	100	16kg	0	0	0	0	
160	A	Chuvappuzha	18	8975	0	0	10425	0	0	0	1	0	0	0	2000 kg	220 kg	0	0	0
161	A	Chuvappuzha	17	10486	0	0	2191	0	0	0	0	0	0	0.5	0.5	0.5	0.5	0.5	
162	A	Chuvappuzha	18	10028	0	39	1050	0	10	95	10	1	10	100	250	250	100	0	
163	A	Chuvappuzha	13	4915	0	99	11	0	0	0	0	0	0	0.5	0.5	0	0	0	
164	A	Chuvappuzha	13	5699	0	0	780	0	0	0	0	0	0	0	0	0	0	0	
165	A	KOZHIKODI	13	4133	0	12	2191	0	2	0	0	0	0	900 kg	210kg	210kg	160 kg	0	
166	A	Chuvappuzha	16	8220	0	100	420	0	100	0	100	100	100	0.031	0.031	0.031	10	10	
167	A	Chuvappuzha	12	6454	0	52	401	0	70	0	0	0	0	200kg	150kg	0	0	0	
168	A	Chuvappuzha	14	6928	0	0	1988	0	0	0	0	0	0	0	0	0	0	0	
169	A	Chuvappuzha	14	6328	0	74	930	0	100	98	100	0	0	3.4	2.9	0	0	0	
170	A	Chuvappuzha	14	6591	0	96	1170	0	100	0	0	0	0	280 mm	280 mm	0	0	0	
171	A	Chuvappuzha	13	4587	0	70	1054	0	3	2	1	0	0	4	0.01	0.01	0	0	
172	A	Chuvappuzha	13	5145	0	80	871	0	80	0	0	0	0	400kg	290kg	0	290kg	0	
173	A	Chuvappuzha	13	3600	0	0	446	0	12	0	12	0	1	140 kg	140 kg	140	140	140	
174	A	Chuvappuzha	12	4851	0	81	75	0	102	0	102	0	2	410 kg	410 kg	410	410	410	
175	A	Chuvappuzha	14	5276	0	39	126	0	38	100	100	100	100	180 kg	180 kg	180	0	0	
176	A	Chuvappuzha	12	4595	0	77	210	0	44	98	97	0	0	450kg	450kg	450kg	0	0	
177	A	Chuvappuzha	13	4477	0	82	218	0	88	73	80	0	0	412	412	412	0	0	
178	A	Chuvappuzha	14	6188	0	0	350	90	100	90	73	0	0	0	5 (plastic only)	5	400kg	0	0
179	A	Chuvappuzha	23	14820	0	80	79	0	35	0	0	0	0	0.5	0.5	nil	nil	nil	
180	A	Chuvappuzha	14	7001	0	80	211	0	218	80	88	0	0	0	0	0	0	0	
181	A	Chuvappuzha	15	6700	0	0	310	0	0	0	0	0	0	80 kg	80 kg	0	0	0	
182	A	Chuvappuzha	19	11402	0	79	1236	0	202	0	0	0	0	0	0	0	0	0	
183	A	Chuvappuzha	13	5048	0	52	232	0	78	1	2	0	0	0	0	0	0	0	
184	A	Chuvappuzha	13	6358	0	100	725	0	71	100	96	1	2	0.1	0.1	0.1	0.1	0.13	
185	A	Chuvappuzha	13	5921	0	100	300	10	12	25	0	0	0	300 kg	300 kg	300	100 kg	0	
186	A	Chuvappuzha	17	8229	0	100	420	0	100	0	100	100	100	600 kg/month	600	600	0	0	
187	A	Chuvappuzha	15	7356	0	89	842	0	20	0	0	0	0	20kg	16kg	16kg	0	0	

Sl. No.	District	Local Body	No of Wards	No of Household	% Household B2D-Dry	% of Household B2D-Wet	No of establishments	Establishment -D2D-Dry	% establishment -D2D-Wet	% of houses in which source level treatment	% of establishment in which source level treatment	% disposing in centralized system	% disposing in 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 or (TPD)
188		Seethahalli	13	2881	0	100	72	0	100	0	0	0	0	60kg	24kg	20kg	0	0
189		Theruvohli	13	4090	0	0	193	0	0	0	0	0	0	0	0	0	0	0
190		Thottapurathary	13	5450	0	0	616	0	13	2	2	0	0	350kg/month	350kg/month	350kg	0	0
191		Thiruvananthapuram	17	2887	0	100	367	0	100	0	0	0	0	104 tpd	104 tpd	104	0	0
192		Veravanchery	13	6834	0	0	401	0	128	0	2	0	0	450 kg	450 kg	450	0	0
193		Valluvala	13	7724	0	70	498	0	21	0	0	0	0	0	0	0	0	0
194		Verapuzha	13	5000	0	100	250	0	100	0	0	0	0	1870 KG	1870 KG	1870 KG	0	0
195	A	Ah	13	4670	0	0	135	0	0	13	0	0	0	0.04	0.04	0.04	NA	NA
196	L	Amalapuram	18	8738	0	0	164	0	0	0	0	0	0	0	0	0	0	0
197	A	Amalapuram north	15	7323	0	0	0	0	0	2	0	0	0	0	0	0	0	0
198	P	Arattupuzha	18	8977	0	0	0	0	0	0	0	0	0	0	0	0	0	0
199	P	Arattupuzha	13	6245	60	0	304	30	0	2	2	0	0	0.2	0.2	0	0	0
200	U	Aravali	22	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
201	X	Aravali	18	9388	100	0	426	100	0	1	2	0	0	0.1	0.1	0.1	0	0
202	R	Arattupuzha	21	13420	46	0	140	0	0	32.0	0.2	0	0	0.4	0.28	1.1	0	0
203	A	Budhanoor	14	6322	0	0	100	0	0	22	34	0	0	0	0	0	0	0
204		Chambalath	12	4900	0	0	122	0	0	11	0	0	0	0	0	0	0	0
205		Chennampalayam	17	6441	28	0	348	45	0	74	100	0	0	0	0	0	0	0
206		Chinnath	18	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
207		Chinnath	18	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
208		Chinnath	14	7480	0	0	212	0	0	0	0	0	0	0	0	0	0	0
209		Chinnath	15	8320	60	0	118	10	0	10	50	0	0	0.1	1	0	0	0
210		Chinnath	22	11458	80	95	247	83	40	35	28	0	0	1	0	0	0	0
211		Chinnath	13	4247	100	0	0	100	0	0	57	0	0	2.21	1	0	0	0.2
212		Chinnath	21	10832	0	0	1542	0	0	0	0	0	0	1.3	1.3	1.3	0	0
213		Chinnath	13	3078	40	0	974	30	0	1	0	0	0	0	0	0	0	0
214		Chinnath	13	7747	0	0	1340	0	0	0	0	0	0	0.2	0.2	0	0	0
215		Chinnath	15	6525	100	0	216	100	0	20	100	0	0	0.003	0.003	0.003	0	0
216		Chinnath	13	4984	58	0	113	80	0	40	58	0	0	0	0	0	0	0
217		Chinnath	16	5618	0	0	0	0	0	0	0	0	0	0	0	0	0	0
218		Chinnath	14	6300	0	0	288	0	0	0	0	0	0	0	0	0	0	0
219		Chinnath	14	5333	30	0	11	30	0	37	100	0	0	0.2	0.2	0.2	0	0
220		Chinnath	15	7480	86	14	1074	90	10	91	90	0	0	0.12	0	0	0	0
221		Chinnath	18	8300	100	0	450	100	0	90	100	0	0	0.3	0.3	0.3	0.3	0
222		Chinnath	13	4479	93	0	98	100	0	0	0	0	0	0	0	0	0	0
223		Chinnath	15	7216	0	0	1437	0	0	0	0	0	0	0	0	0	0	0
224		Chinnath	13	4126	0	0	471	0	0	0	0	0	0	1.1	0.9	0.9	0	0
225		Chinnath	15	6035	80	20	269	75	20	20	100	0	0	0	0	0	0	0
226		Chinnath	17	7035	0	0	403	0	0	0	0	0	0	0	0	0	0	0
227		Chinnath	12	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
228		Chinnath	16	3400	90	0	373	0	0	0	0	0	0	0	0	0	0	0
229		Chinnath	23	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
230		Chinnath	18	7988	80	0	392	33	0	23	1	0	0	4.7	3.7	3.7	0	0
231		Chinnath	18	8175	100	0	409	0	100	1	100	2	0	0	0	0	0	0
232		Chinnath	23	25028	93	0	2437	403	0	76	83	0	0	0	0	0	0	0
233		Chinnath	17	8913	59	0	3883	0	3	0	0	0	0	0	0	0	0	0
234		Chinnath	18	11661	40	0	1433	0	0	0	0	0	0	0	0	0	0	0
235		Chinnath	18	7777	50	0	38	70	0	70	30	1	90	1000kg	762kg	0	7390kg	0

Sl. No.	DISTRICT	LOCAL BODY	NO OF WARDS	No of Household	% of Household BDD-Dry	% of Household BDD-Weir	No of establishments	Establishment -BDD-Dry	% of establishments -BDD-Weir	% of houses in which more than one establishment is present	% of establishments in which more than one establishment is present	% disposing to sewerage system	% disposing to individual septic system	Quantity of Waste generated (TPD)	Quantity of Waste collected (TPD)	Quantity of Waste treated (TPD)	Quantity of Waste presented in Composting Sheds (TPD)	Quantity of Waste presented in (landfill) or (TPD)	
285		Kandukur	16	8046	100	0	0	0	0	0	0	0	0	0	0	0	0	0	
286		Kallemuri	13	6688	112	81	0	28	0	13	0	0	0	2	1	0.1	0.5	0	
287		Kempanch	11	8013	241	0	0	0	0	24	17	0	0	1	0	0	0	0	
288		Kempanch	13	5363	139	0	0	0	0	0	0	0	0	3	0	0	0	0	
289		Kempanch	13	4800	475	0	0	35	0	14	109	0	0	40	39	0	0	0	
290		Kempanch	13	4100	250	0	0	0	0	0	1	0	0	1.8	0	0	0	0	
291		Kempanch	18	6472	814	0	0	0	0	4	1	0	0	0	0	0	0	0	
292		Kempanch	14	10972	1229	0	0	15	0	23	0	0	0	3.1	3	0	0	0	
293		Kempanch	20	10972	148	0	0	22	0	1	0	0	0	1.1	0.3	0	0	0	
294		Kempanch	20	10972	1100	0	0	70	0	10	0	0	0	5.45	1.03	0	0	0	
295		Kempanch	17	9221	824	0	0	60	0	0	109	0	0	110.56	69.85	49.85	0	0	
296		Kempanch	15	3430	91	0	0	60	0	0	30	0	0	0.41	0.23	0	0	0	
297		Kempanch	18	4218	1809	0	0	100	0	1	0	0	0	400	228	272	0	25	
298		Kempanch	14	5384	1197	0	0	18	0	1	0	0	0	109.61	49.86	40.86	0	0	
299		Kempanch	16	5488	243	0	0	25	0	0	14	0	0	217	228	229	0	0	
300		Kempanch	13	4900	482	0	0	109	0	4	0	0	0	109.61	49.86	40.86	0	0	
301		Kempanch	13	4151	524	0	0	31	0	0	1	0	0	217	228	229	0	0	
302		Kempanch	13	4292	69	0	0	42	0	0	0	0	0	110	60	60	0	0	
303		Kempanch	10	2973	180	0	0	34	0	0	0	0	0	90.8	40	40	0	0	
304		Kempanch	11	2292	212	0	0	19	0	0	0	0	0	90.8	40	40	0	0	
305		Kempanch	21	11801	286	0	0	100	0	0	180	0	0	59.8	35.4	35.4	0	0	
306		Kempanch	13	5345	1118	0	0	21	0	0	0	0	0	0.2	0.1	0	0	0	
307		Kempanch	15	4922	1341	0	0	25	0	0	0	0	0	184.5	184.5	184.5	0	0	
308		Kempanch	15	4922	702	0	0	100	0	0	0	0	0	0.1	0.1	0.1	0	0	
309		Kempanch	16	4732	242	0	0	4	0	0	0	0	0	2.7	0.44	0.44	0	0	
310		Kempanch	16	7198	1295	0	0	31	0	0	0	0	0	129.5	129.5	129.5	0	0	
311		Kempanch	13	7679	1475	0	0	34	0	0	0	0	0	129.5	129.5	129.5	0	0	
312		Kempanch	20	10295	2482	0	0	7	0	0	0	0	0	3.44	1.49	1.49	0	0	
313		Kempanch	29	12190	198	0	0	11	0	12	0	0	0	0	0	0	0	0	
314		Kempanch	19	11418	271	0	0	27	0	17	0	0	0	0	0	0	0	0	
315		Kempanch	13	1866	490	0	0	100	0	0	1	0	0	13.14	12.16	0	0	0	
316		Kempanch	14	5478	2877	0	0	100	0	0	18	0	0	109.61	49.86	40.86	0	0	
317		Kempanch	18	7810	1510	0	0	0	0	48	42	0	0	0.31	0.15	0	0	0	
318		Kempanch	18	9181	1152	0	0	18	0	5	13	0	0	240	72	0	0	0	
319		Kempanch	14	6161	129	0	0	60	0	0	0	0	0	3.294	0	0	0	0	
320		Kempanch	11	5028	484	0	0	13	0	0	0	0	0	0.603	0	0	0	1.34	
321		Kempanch	11	3218	73	0	0	43	0	0	18	0	0	0	0	0	0	0	0
322		Kempanch	13	1933	823	0	0	11	0	18	72	0	0	0.138	0	0	0	0	0
323		Kempanch	15	4095	199	0	0	109	0	2	0	0	0	2.7	1.7	0	0	0	
324		Kempanch	14	4577	489	0	0	100	0	0	0	0	0	0.91	0	0	0	0	
325		Kempanch	14	4511	428	0	0	18	0	30	15	0	0	77.78	0	0	0	0	
326		Kempanch	14	4661	121	0	0	17	0	0	0	0	0	17.78	0	0	0	0	
327		Kempanch	28	11373	330	0	0	12	0	0	0	0	0	3.708	3.708	3.708	0	0	
328		Kempanch	17	4462	64	0	0	18	0	0	0	0	0	4.708	4.708	4.708	0	0	
329		Kempanch	13	3218	209	0	0	11	0	4	0	0	0	0.9	0.2	0.2	0	0	
330		Kempanch	20	10580	1400	0	0	48	0	0	15	0	0	3000.00	1700	0	0	0	
331		Kempanch	25	11800	1490	0	0	41	0	0	15	0	0	0.1	2.3	0.2	0	0	
332		Kempanch	16	4184	517	0	0	109	0	13	14	0	0	0.4	0.8	0.2	0	0	
333		Kempanch	17	5481	487	0	0	28	0	13	13	0	0	0.4	0.3	0.2	0	0	

SL NO.	DISTRICT	LOCAL BODY	NO OF WARDS	No of Household	% Household DDD-Dry	% of Household- DDD-Wet	No of establishment	Establishment DDD-Dry	% establishments DDD-Wet	% of houses in which source level treatment	% of establishment in which source level treatment	% disposing to centralized system	% disposing to decentralized 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 to household as (TPD)
334		Vellayamoor	13	3646	416	72	0	5	0	73	80	0	0	0.23	0.05	0.1	0.02	0.021
335		Vellayam	13	6268	918	30	0	7	0	3	0	0	0	0.01	0.02	0.03	0	0
336		Yellai	16	6784	846	73	0	32	0	0	0	0	0	0.8	0.4	0	0	0
337		Vilavayam	19	10741	1125	85	0	5	0	4	0	83	0	6.3	0.2	0.2	0	0
338	I	Adampy	21	10760	1140	92	3	71	20	70	80	25	25	30	0	3	1	0
339	II	Alakode	13	2660	76	65	0	82	0	25	50	0	0	1	0.1	0.1	1	0.3
340	III	Ankulam	12	6443	182	23	0	32	0	75	68	25	32	1.3	0.3	0.3	0	1
341	IV	Arayampalayam	17	4969	91	10	0	17	0	12	8	35	22	0.5	0.1	0.1	0	0
342	V	Binnampalayam	12	2653	169	18	0	31	0	34	20	43	24	1.5	0.5	0.5	0	0
343	VI	Chakkupalam	13	7126	407	0	0	80	0	20	0	24	78	2.3	2.3	2	0	0
344	VII	Chinnampalayam	13	4613	823	73	0	0	0	18	65	62	25	1.5	0.75	0.75	0	0
345	VIII	Dindukudi	18	2894	108	40	0	70	0	25	75	85	80	0.4	0.2	0.2	0	0
346	IX	Edamankudi	13	764	19	0	0	9	0	1	16	25	20	0	0	0	0	0
347	X	Edavetty	13	5216	763	88	0	48	0	23	22	0	0	4.37	4.18	4.18	1.67	0
348	XI	Elampy	17	8160	730	90	0	83	28	65	50	30	80	3.2	3.1	3.1	3.5	0.2
349	XII	Erattayar	14	4698	492	80	0	73	0	30	25	100	100	1.7	0.3	0.3	0	0
350		Irakki Karthikeyan	18	10580	320	83	0	0	0	50	75	60	80	3.1	1	1	0	0
351		Kambayy	15	6234	450	80	0	75	0	90	60	0	0	4	4	3.5	0	0
352		Kambayy	16	4718	862	83	0	80	0	20	10	65	0	4.7	1.9	1.9	0	0
353		Kankulam	13	4580	0	73	0	100	100	75	75	100	25	1.38	0.5	0.5	0.3	0
354		Karimnagar	14	5564	705	70	0	75	0	50	30	0	0	0.8	0.2	0.2	0.2	0
355		Karimnagar	17	4133	301	0	0	67	0	50	50	0	0	0.43	0.43	0.43	0.84	0
356		Karimnagar	17	8707	1054	83	0	65	0	80	75	0	0	6.5	4.5	4.5	2	0
357		Koduvayil	13	3984	113	92	0	90	0	38	80	0	0	2.80	2.08	2.05	0	0
358		Kokkayar	13	4728	133	93	0	92	0	30	65	0	0	3.65	0.3	0.8	0	0
359		Kuravillogai	18	8730	456	85	0	80	90	87	25	25	32	1.3	0.3	0.3	0	1
360		Kuravillogai	13	1458	140	30	0	68	0	33	20	0	0	1.8	2	2	0	0
361		Kumaravillogai	13	4512	122	30	0	20	0	40	40	0	0	3	1.3	1.3	0.3	0.23
362		Kumbakonam	20	11850	2280	85	13	95	85	87	4	13	95	4	4	3.8	3.5	3.5
363		Kumbakonam	13	4738	138	84	0	40	0	45	25	0	0	4.53	2.45	2.45	2	2
364		Kumbakonam	13	4588	832	48	0	74	0	64	48	74	0	2.250	0.012	0.012	0	0
365		Kumbakonam	13	2650	281	73	0	100	100	75	75	100	75	1.38	0.5	0.5	0.3	0
366		Mariyankulam	13	3592	15	0	0	100	0	98	80	0	90	0.9	0.6	0.3	0.13	0
367		Mannar	21	9107	3132	70	0	90	70	100	100	40	0	44485	44485	44485	6	4
368		Mannar	13	2563	2000	73	0	90	0	60	70	0	50	3.1	0.5	0.5	0.2	0
369		Nedumkandam	22	13113	1016	73	0	90	0	33	30	0	80	13.21	0	0	0	0
370		Pallapalayam	14	4808	1200	70	0	65	0	70	30	60	75	3.26	0.5	0.5	2	0.2
371		Pampal	16	6832	150	70	0	30	0	75	75	20	20	0.35	0	0	0	0
372		Pampal	17	9690	1423	100	0	83	0	70	15	85	85	1.1	1.1	1.1	0	0
373		Pannampalayam	14	4242	1630	0	0	72	0	30	33	60	23	2	1.3	0.9	0.3	0
374		Pargal	13	3170	414	100	0	70	0	50	30	100	70	0.33	0.33	0.33	3.4	0
375		Pattinam	13	3419	880	85	82	83	80	75	75	100	80	0.40	0.40	0.40	0.40	0.40
376		Pattinam	13	6052	350	75	73	80	0	70	75	50	50	0.68	0.68	0.68	0.68	0.68
377		Pattinam	13	4842	170	83	0	100	90	80	91	91	91	4.69	4.26	4.26	0.6	0
378		Pattinam	13	4300	130	78	0	100	84	80	72	74	74	1.70	2.75	2.75	2.8	0
379		Pattinam	14	3607	348	0	0	73	0	90	80	50	50	0.4	0.2	0.2	0.2	0
380		Pattinam	16	6234	1115	80	60	70	70	40	70	60	60	0.3	0.3	0.15	0.13	0
381		Pattinam	18	8184	1211	0	0	100	0	98	80	60	90	0.9	0.6	0.3	0.13	0
382		Pattinam	18	10373	1509	0	11	0	3	85	96	3	3	9.17	0.6	0.6	0.6	0.2
383		Pattinam	23	13959	1011	0	60	80	60	40	30	70	70	3	3	3	3	2

Sl. No.	DISTRICT	LOCAL BODY	NO OF WARDS	No of Household	% Household DDD-Dry	% of Household DDD-Wet	No of establishments	% establishments DDD-Dry	% establishments DDD-Wet	% of houses in which source level treatment	% of establishments 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 Biowaste/anaerobic (TFD)
384		Vannappuram	17	1009	1123	80	0	50	0	23	20	0	0	3.7	1.1	1.1	0	0
385		Vethiandy	18	10788	1812	50	0	20	0	88	10	0	0	9.19	0.1	1.1	0	0
386		Vallavada	13	2747	138	51	0	60	0	0	20	0	0	0.1	0.1	0.1	0.1	0.1
387		Vakkalhoor	14	4300	430	53	0	84	0	40	23	25	0	1.1	1.1	1.1	0	0
388		Vedathurayal	17	6448	1022	93	0	62	0	33	85	0	0	7.89	4.1	4.1	0.1	0
389		Vediyerattom	13	4870	1000	75	0	83	0	83	75	0	0	0.1	0.1	0.1	0.1	0.1

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 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 Biomethanation (TPD)
380	E	Akkaramala	14	7689	1640	21	0			0	0	0	0	5.02	0.3	0.3	0	0
391	B	Alegada	23	16117	920	60	0	85	0	10	10	0	0	4.12	0	0	0	0
392	N	Andalur	16	8454	1690	19	0	12	0	8	1	0	4	0.06	0.0012		0.00036	0.00012
393	A	Arulviche	13	4945	180	0	0	0	0	0	0	0	0	0	0	0	0	0
394	N	Asansole	14	6329	150	4	0	0	0	8	490	0	0	0	0	0	0	0
395	U	Auril	14	6424	1628	0	0	0	0	1	10	0	0	0	0	0	0	0
396	L	Asotan	14	6021	388	0	0	0	0	0	0	0	0	0	0	0	0	0
397	A	Asansopala	13	5708	548	5	0	0	0	10	25	0	0	0	0	0	0	0
398	M	Chellam	21	10335	82	0	0	0	0	0	0	0	0	0	0	0	0	0
399		Chudamangalam	18	9565	1103	16	0	4	0	69	19	0	0	6.3	6.3	6.3	0	0
400		Chengamand	18	10366	468	100	0	64	0	95	75	0	0	6.99	6.99	6.99	0	0
401		Cheranfar	17	10832	368	74	0	67	0	24	67	0	67	3.7	3.7	3.7	0	0
402		Chitambam	18	9583	412	16	0	0	0	99	18	0	0	4.2	3	1	0	0
403		Chinnakkata	18	10605	1895	73	0	0	0	0	0	0	0	9.109	9.109	9.109	0	0
404		Chinnakkata	14	9697	480	92	0	88	0	85	88	0	88	4.2 TPD	4.2 TPD	4.2 TPD	0	0
405		Chinnakkavayal	14	6133	860	69	0	100	0	49	44	0	0	7.100	7.100	7.100	0	0
406		Edilhal	21	17907	4124	10	0	61	0	22	63	0	0	3.1	0	0	0	0
407		Edumakkulam	12	6246	854	73	0	100	0	0	0	0	0	6	3	3	0	0
408		Elankunnapuram	23	15479	1982	93	0	100	0	23	42	0	0	7	4	4	0	0
409		Elanj	13	5552	127	84	0	100	0	100	100	0	0	0	0	0	0	0
410		Elakkam	14	6162	185	68	0	100	0	100	100	0	0	0	0	0	0	0
411		Kadambakkal	13	4921	819	0	0	0	0	0	0	0	0	0	0	0	0	0
412		Kadambalur	21	16231	5555	0	0	0	0	0	0	0	0	0	0	0	0	0
413		Kalsh	17	9733	2512	82	0	0	0	12	4	0	0	7.26	1.6	0.9	0.3	0.3
414		Kalshakkudi	15	7511	320		0			2	1	0	0					
415		Karoor	12	4792	342	0	0	0	0	0	14	0	0	0	0	0	0	0
416		Karshaly	17	9659	2866	0	0	0	0	0	0	0	0	0	0	0	0	0
417		Karandoor	20	11233	1211	0	0	0	0	1	2	0	0	0	0	0	0	0
418		Kavafangal	18	9480	1770	0	0	0	0	0	0	0	0	0	0	0	0	0
419		Kemantare	13	4106	730	0	0	0	0	0	0	0	0	NOT ASSESSED	0	0	0	0
420		Koovattur	19	12768	716		0			7	21	0	0	Not data available	0	0	0	0
421		Kurthakurthalam	19	9253	528	0	0	0	0	0	0	0	0	0	0	0	0	0
422		Kurupali	13	4172	483	0	0	0	0	100	100	0	0	0	0	0	0	0
423		Kurupoli	23	14673	2360	70	0	0	0	86	1	0	0	0	0	0	0	0
424		Kurumbam	18	10125	1725	0	0	0	0	4	2	0	0	1.2	0	0	0	0
425		Kurumbangi	17	8719	1400	100	0	90	0	100	90	0	0	not estimated	not estimated	0	0	0
426		Kurumbasala	19	12418	3640	23	0	0	0	4	0	0	0	6.3	0	0	0	0
427		Kurumbiya	15	4300	320	34		60		46	40							
428		Kurumbur	17		220			0		0	0		0	0	0	0	0	0
429		Kurumbur	20	12123	0	0	0	0	0	1	0	0	0	0	0	0	0	0
430		Kurupatti	13	3013	185	34		31		6	0		0	0	0	0	0	0
431		Madhavoor - Dediyarwan	17	8366	971	0	0	0	0	0	0	0	0	0	0	0	0	0
432		Manal	12	3248	219	0	0	0	0	0	0	0	0	0	0	0	0	0
433		Manaloor	12	5253	1383	81	19	0	0	0	0	0	0	0	0	0	0	0
434		Manjara	12	3857	173	0	0	0	0	4	0	0	0	17900	0	0	0	0
435		Manjara	19	10993	71	0	0	0	0	0	0	0	0	0.03	0.001	0.001	NIL	NIL
436		Madhavoor	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 establishments	Establishment D2D-Dry	% establishments D2D-Wet	% of houses in which source level treatment	% of establishments in which source level treatment	% disposing to decentralized 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)
407		Mookkannur	14	1334	200	0	0	0	0	0	0	0	0	0	0	0	0	0
408		Mulakudath	03	1346	300	0	0	0	0	0	0	0	0	10000	0	0	0	0
409		Muduvath	16	7728	11	0	0	0	0	0	0	0	0					
410		Muzhikkadu	16	1479	1105	0	0	0	0	0	0	0	0					
411		Narayanapuram	19	12509	2321	17	0	10	0	0	0	0	0					
412		Nellikunnam	21	12171	0	0	0			0		0		24	0.1	0.1	0	0
413		Nellikunnam	16	7851	0	0	0			0		0		0	0	0	0	0
414		Nellikunnam	16	7937	1874	0	0	0	0	0	0	0	0	0	0	0	0	0
415		Okkal	16	4780	2	0	0	0	0	0	0	0	0	0	0	0	0	0
416		Palappara	13	4520	133	36	0	100	0	0	0	0	0	0	0	0	0	0
417		Pakkilath	22	3050	1117	0	0	0	0	0	0	0	0	0	0	0	0	0
418		Pallanamangalam	22	13549	1141	79	0	79	0	92	90	0	0	0	0	0	0	0
419		Pallanamangalam	22	13549	1141	79	0	79	0	92	90	0	0	11	0.01	0	0	0
420		Pambalath	18	9660	3022					71	82	0	0	1	4.9			
421		Pambalath	22	11243	213	0	0	0	0	98	100	0	0					
422		Pattinam	13	1129	588	0	0	0	0	100	100	0	0					
423		Pudupattinam	14	7649	3107	34	0	0	0	100	100	0	0					
424		Puzhakkal	03	6453	1814	13	0	0	0	12	0	0	0	2219 KG	2219 KG	1781 KG	0	0
425		Puzhakkal	03	6587	750	23	0	17	0	20	0	0	0	100 kg/day	0	0	0	0
426		Puthanakkal	13	7932	436	0	0	0	0	0	0	0	0	No Estimation	No	0	0	0
427		Ramanangalam	20	12713	1000	49	0	7	0	8	48	0	0	1 TPD	1 TPD	0	0	0
428		Ramanangalam	14	6000	2000	25	100	3		14	1	0	0					
429		Sreedhar Nagar	14	3789	250	0	0	0	0	0	0	0	0	0	0	0	0	0
430		Theeravadi	13	7825	608	41	0	34	0	0	0	0	0	0	0	0	0	0
431		Theeravadi	14	7572	554					10	10	0	0	1 ton	0	0	0	0
432		Theeravadi	20	13375	363					0	0	0	0		173KG	0	0	0
433		Uthiyappattinam	20	10022	1588					0	0	0	0					
434		Vakkolath	17	9540	1788					4	11	0	0					
435		Vakkolath	14	6174	1428	0	0	0	0	0	0	0	0					
436		Vakkolath	14	6361	440	0	0	0	0	0	0	0	0					
437		Vengal	13	6047	771	0	0			0	0	0	0	0.07	0.07	0	0	0
438		Vengal	16	9275	1859	0	0	0	0	0	0	0	0	0	0	0	0	0
439		Vengal	20	17202	788	0	0	0	0	0	0	0	0	1	1	0	0	0
440		Vengal	22	17853	830	0	0	0	0	78	71	0	0	3	0	0	0	0
441		Vengal	15	3855	770	0	0			0	0	0	0	10	10	0	0	0

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472	T	Adi	18	800	1154	0	0	17	0	0	0	0	0	2	2	2	0	0
472	H	Alagannur	17	0749	1917.0	0	0	0	0	13	8	0	0	2	0	0	0	0
474	H	Alor	22	17550	1700	0	0	0	0	0	0	0	0	1 ton	1/2 ton	0	0	0
475	I	Aranganakal	18	10499	2666	0	0	0	0	14	0	0	0	0	0	0	0	0
476	H	Arakkal	15	6922	1180	0	0	0	0	7	0	0	0	0	0	0	0	0
477	S	Armar	17	10885	60	0	0	0	0	19	0	0	0	2 ton	2 ton	nil	0	0
478	H	Arniappilly	13	3004	967	0	0	0	0	0	0	0	0	Not estimated	Not Estimated	0	0	0
479		Arur	15	8002	273	25	0	1	0	2	0	0	0	8	0	0	0	0
480		Arumangalam	14	6213	521	0	0	89	0	2	0	0	0	0	0	0	0	0
481		Chadur	18	7956	7956	100	0	100	0	0	0	0	0	0	0	0	0	0
482		Chelakkara	22	13745	2921	0	0	2	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	nil	not estimated	not estimated
484		Chinnai	18	10440	2027	0	0	0	0	0	0	0	0	0	0	0	0	0
485		Chinnai	13	3251	928	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		Echolur	18	8642	783	0	0	0	0	0	0	0	0	0	0	0	0	0
488		Erode	18	6650	1561	100	0	0	0	0	0	0	0	0	0	0	0	0
488		Erudiy	16	8113	1041	76	0	30	0	0	0	0	0	1 ton	1 ton	0	0	0
490		Erudiy	16	7781	1513	72	0	30	0	1	0	0	0	not estimated	not estimated	not	not estimated	not estimated
491		Erudiy	21	14185	2704	0	0	0	0	0	0	0	0	0	0	0	0	0
492		Erudiy	18	7420	2920	0	0	0	0	0	0	0	0	0	0	0	0	0
492		Kadavur	18	8761	2598	0	0	0	0	0	0	0	0	0	0	0	0	0
494		Kadavur	16	6820	901	0	0	0	0	0	0	0	0	0	0	0	0	0
492		Kadavur	20	9274	1222	0	0	0	0	0	0	0	0	0	0	0	0	0
496		Kadavur	16	8276	1172	0	0	0	0	0	0	0	0	0	0	0	0	0
497		Kannanur	20	10800	960	30	0	1	0	0	0	0	0	0	0	0	0	0
498		Kannanur	18	8409	818	26	0	4	0	0	0	0	0	not estimated	0	0	0	0
499		Kannanur	16	7791	1487	0	0	0	0	0	0	0	0	not estimated	0	0	0	0
500		Kannanur	12	8486	829	0	0	21	0	80	23	0	0	0.2	0.2	0.2	0	0
501		Kannanur	16	8700	700	0	0	0	0	0	0	0	0	0	0	0	0	0
502		Kannanur	14	8572	677	20	0	0	0	0	0	0	0	0	0	0	0	0
503		Kannanur	18	10871	3218	20	0	0	0	17	0	0	0	5.6 tons	6.7 tons	6.7 tons	0.2 tons	0
504		Kannanur	20	11741	0	0	0	0	0	0	0	0	0	0	0	0	0	0
505		Kannanur	17	10845	1128	0	0	0	0	0	0	0	0	not estimated	not estimated	not estimated	not estimated	not estimated
506		Kannanur	13	6764	972	0	0	0	0	0	0	0	0	0	0	0	0	0
507		Kannanur	19	10989	670	0	0	0	0	0	0	0	0	0	0	0	0	0
508		Kannanur	14	6510	908	0	0	0	0	0	0	0	0	not estimated	0	0	0	0
509		Kannanur	16	8800	1502	40	0	52	0	18	0	0	0	2.05 TON	2.05 TON	2.05 TON	0.25TON	1 TON
510		Kannanur	20	11816	4446	0	0	0	0	0	0	0	0	0	0	0	0	0
511		Kannanur	18	9467	2412	100	0	100	0	100	100	30	0	0.86TON	0.86TON	0.86TON	0.2 TON	0
512		MATHILAKAM	17	7565	388	0	0	0	0	0	0	0	0	0	0	0	0	0
513		Mattur	23	18245	2751	0	0	0	0	0	0	0	0	4.2 ton	4.2 ton	4.2 ton	0	0
514		Mattur	17	6888	0	0	0	0	0	0	0	0	0	200kg	0	100kg	0	0
515		Mattur	14	7083	0	0	0	0	0	0	0	0	0	Mulankumal hukku	0	0	0	0
516		Mattur	12	6703	412	67	0	0	0	0	0	0	0	0.002	0.000	0	0	0
517		Mattur	20	8927	1302	26	0	4	0	0	0	0	0	0	0	0	0	0
518		Mattur	17	9633	1180	100	0	1	100	0	0	0	0	0	0	0	0	0

SL NO.	DISTRICT	LOCAL BODY	NO OF WARDS	No of Household	% Household DDD-Dry	% of Household DDD-Wet	No of establishments	Establishments DDD-Dry	% establishments DDD-Wet	% of houses in which source level treatment	% of establishments in which source level treatment	% disposing to decentralized 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 Site (TPD)	Quantity of Waste processed in Slam/basins (TPD)
310		Nalchikera	17	10022	100	0				100	0	0	0	2000Kg	2000Kg	2000Kg	0	0
320		Nerthi	14	6373	2514	84	0	11	0	80	43	0	0	2 ton	1 ton	0	0	0
321		Nomenkova	12	6742	1815	27	0	8	1	0	0	0	0	NA	NA	0	0	NA
322		Omuneswar	12	3022	248	0	0	0	0	0	0	0	0	NA	NA	NA	NA	NA
323		Pallipur	14	6222	802	0	0	0	0	0	0	0	0	NA	NA	NA	NA	NA
324		Pattinabery	23	15443	2231	0	0	0	0	0	0	0	0	NA	NA	NA	NA	NA
327		Perai	18	8250	1175	0	0	0	0	0	0	0	0	0	0	NA	NA	NA
328		Peraden	18	8261	0	0	0	0	0	0	0	0	0	0	0	0	0	0
327		Perappokkara	18	8758	1789	90	0	21	0	0	21	0	0	0.57ton	0.57ton	0	0	0
328		Periyaram	15	2406	888	0	0	0	0	0	0	0	0	NA	NA	NA	NA	NA
329		Peyyette	18	6725	1775	0	0	0	0	0	0	0	0	NA	NA	NA	NA	NA
329		Pillayannur	22	12683	228	45	45	90	87	0	0	0	0	Not estimated	Not	Not	NA	NA
331		Perinjara	15	8882	830	100		100		100	100							
332		Poomappalam	12	4226	0	0	0	0	0	0	0	0	0	Not estimated	Not	Not	Not estimated	NA
333		Puradai	12	5471	0	0	0	0	0	0	0	0	0	0	0	0	0	0
534		Poyy	15	2602	0	0	0	0	0	0	0	0	0	0	0	0	0	0
335		Pudukot	15	2615	263	0	0	0	0	0	0	0	0	Not estimated	Not	Not	Not estimated	Not estimated
336		Punayankulam	19	9506	2040	0	0	0	0	0	0	0	0	324	324	324	0	0
337		Punnam	20	9922	2128	0	0	0	0	0	0	0	0	615	615	615	0	0
338		Puthukkula	15	16701	1107	0	0	0	0	0	0	0	0	115 ton	115	115	0	0
339		Puthu	22	12268	2186	0	0	2	0	0	0	0	0	35	35	0.1	0	0
340		Puzhappampalam	21	12471	2827	20	0	20	0	0	0	0	0	0.2	0.25	0	0	0
341		Talloor	18	8104	620	29	0	20	0	0	0	0	0	30	30	30	0	0
342		Tharuvam	18	8782	3900	11	0	100	0	0	0	0	0	22 ton	20	20	0	0
343		Thiruvannamalai	18															
344		Thiruvannamalai	17	NA	NA									TONDAY	0	TONON	0	0
345		Thiru	13	4388	38	0	0	31	0	0	0	0	0				20	na
346		Thykkur	17	8722	1280	10	0	20	0	10	23	0	0	0.2	0.2	0.2	0	0
347		Vedakkal	18	8320	980	0	0	3	0	0	0	0	0	0	0	0	na	na
348		Velup	20	10137	1382	8	0	0	0	1	1	0	0	not estimated	not estimated	not estimated	na	na
349		Vellathala	18	7170	670	0	0	0	0	0	0	0	0	0.05	0.04	0.04	0	0
350		Vellothangal	18	8378	1221	80	0	2	0	0	0	0	0	not estimated	not estimated	not estimated	0	0
351		Vandrapathy	22	10920	2601	0	0	0	0	3	0	0	0	not estimated	not estimated	not estimated	na	na
352		Vanduvu	14	8411	811	0	0	0	0	0	0	0	0	not estimated	not estimated	not estimated	na	na
353		Vandrapathy	18	7625	1228	8	0	2	0	0	0	0	0	not estimated	not estimated	not estimated	0	0
354		Vedagalur	21	12318	710	0	0	0	0	0	0	0	0	not estimated	not estimated	not estimated	0	0
355		Vetukkam	18	8560	1266	0	0	0	0	0	0	0	0	not estimated	not estimated	not estimated	0	0
356		Velur	17	8438	1828	0	0	0	0	0	0	0	0	not estimated	not estimated	not estimated	0	0
357		Vandiyappu	17															

SL. NO.	DISTRICT	LOCAL BODY	NO OF WARDS	No of Household	% Household DDD-Dry	% of Household- DDD-Wet	No of establishments	Non-establishment -DDD-Dry	% establishments -DDD-Wet	% of houses in which source level treatment	% of establishments in which source level treatment	% disposing in centralized system	% disposing in 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)	
358	P A L A K A N D A	Agali	21	12739	2615	72	0	96	4	94	2	0	98						
359		Akathetara	17	9588	3892	45	0	2	8	48	2	0	0		3500 kg	550 kg/ month	0	0	
360		Alurathur	23	15185	4599	93	0	0	8	17	8	82	0	2140 kg	1490 kg	1490 kg	0	0	
361		Aluthur	06																
362		Amalappara	20	12028	1432	83	0	0	8	0	29	0	0	8 Tons	6 Tons	Transported	0	0	
363		Anakkara	16	7046	1401	70	0	0	0	0	0	0	0	0	0	0	0	0	0
364		Ananganadi	15	7526	885	10	0	23	0	13	0	0	0	0	0	0	0	0	0
365		Ayala	07	8327	1289	83	2	0	0	0	0	0	0	0	0	0	0	0	0
366		Chalassery	15	6950	1048	0	0	0	0	0	0	0	0	0	0	0	0	0	0
367		Cheruvu	11	6550	1299	100	0	100	100	15	8	0	0	0	100	0	0	0	0
368		Chingilly	22	11815	2016	70	64	60	47	0	0	0	0	0	100 Kg	1000 Kg	850 Kg	0	0
369		Chinnichery	14	5225	225	0	0	0	0	0	0	0	0	0	0.15	0.1	0	0	0
370		Erinazer	18	9492	889	0	0	0	0	0	0	0	0	0	0	0	0	0	0
371		Erudampally	24	5681	362	32	52	32	43	0	0	0	0	0	0.85	0.03	0.03	0	0
372		Kadampathuram	18	9872	2239	90	0	89	0	0	0	0	0	0	0	0	0	0	0
373		Kandiyazhath	16	9944	1959	0	0	0	0	2	0	0	0	0	0.03	0.03	0	0	0
374		Kannad	19	8667	1199	50	0	11	0	0	0	0	0	0					
375		Kari	18	7784	44	0	0	0	0	0	1								
376		Karumbala	16	7930	650	45	0	100	0	0	0	0	0	0	0.20 tonnes	0.02 tonnes	0.02 tonnes	0	0
377		Kappur	18	8902	1259	0	0	0	0	0	0	0	0	0	0.45	0	0	0	0
378		Karakulam	16	7417	1499	0	0	100	0	100	2	0	0	0	0.01	0.01	0.01	0	0
379		Karimulla	17	8870	2049	70	0	87	0	0	0	0	0	0					
380		Karimuzha	18	9833	268	64	64	100	4	0	2	0	0	0	0.5	0.5	0.5	0	0
381		Kavayatu	17	8966	218	7	0	12	0	0	0	0	0	0					
382		Kavayatu	13	4861	218	0	0	0	0	0	0	0	0	0	0.01	0.01	0.01	0	0
383		Kochikasshery	22	13196	2238	69	0	67	0	0	1	0	0	0	0.04	0.04	0.04	0	0
384		Koduvila	13	8182	1323	80	84	90	90	28	4	0	0	0	7 tonnes	8 tonnes	5 tonnes	0.2 tonnes	0
385		Koduvuzha	18	10183	665	0	0	0	0	5	75	0	0	0	1.05 tonnes	1.05 tonnes	1.05 tonnes	205 kg	0
386		Koduvuzha	18	7346	1245	0	0	100	0	0	0	0	0	0	1200	1200	1200	200	0
387		Kongal	18	9300	1664	100	0	88	0	14	62	100	42	0	500	500	500	0	0
388		Kongara	17	8915	2482	100	0	81	0	0	0	0	0	0	0.01	0.01	0.01	0	0
389		Kottayam	15	8923	1229	10	0	85	0	1	1	0	0	0	0.05	0.05	0.05	0	0
390		Kottayam	23	13771	3843	0	0	30	0	0	0	0	0	0	0.01	0.01	0.01	0	0
391		Kuchinguzha	18	9110	1251	0	0	0	0	0	0	0	0	0	0	0	0	0	0
392		Kuchinguzha	17	5572	1787	79	0	0	28	0	0	0	0	0	0	0	0	0	0
393		Kumarakudi	18	8932	1852	81	0	0	60	0	0	0	0	0	0.03	0.03	0.03	0	0
394		Kuthuvu	16	6896	824	0	0	0	0	0	0	0	0	0	0	0	0	0	0
395		Kuzhimenam	17	8923	283	100	0	0	100	0	0	0	0	0	0	0	0	0	0
396		Lakkil-Puzha																	
397		Madampuzha	13																
398		Madampuzha	16	7125	1320	73	0	25	0	0	0	0	0	0	0	0	0	0	0
399		Madampuzha	18	8925	1300	48	0	19	0	0	0	0	0	0	0	0	0	0	0
400		Madampuzha	18	11926	2301	50	0	0	0	0	0	0	0	0	0	0	0	0	0
401		Madampuzha	18	7824	876	73	0	100	0	0	0	0	0	0	0	0	0	0	0
402		Madampuzha	18	7043	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
403		Madampuzha	18	9397	1819	0	0	0	0	0	0	0	0	0	0	0	0	0	0
404		Madampuzha	20	9204	2110	0	0	0	0	0	0	0	0	0	0	0	0	0	0
405		Madampuzha	13	8948	131	100	0	100	0	18	42	0	0	0	139.25	223.55	223.55	200.15	100.5
406	Madampuzha	17	8307	590	100	0	100	0	42	23	0	0	0	0	0	0	0	0	
407	Madampuzha	18	8091	448	100	0	100	0	0	0	0	0	0	0	0	0	0	0	
408	Madampuzha	18	10587	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	

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609		Nellampatti	13	956	87	100	0	100	0	0	0	0	0	0	0	0	0	0
610		Nemmara	20	11812	2449	81	0	2	0	7	2	0	0	160 KG	172 KG	172	0	0
611		Ongeer	23	12811	2161	99	0	1	0	0	0	0	0	700 kg	0	0	0	0
612		Pallanam	16	8433	268	93	0	17	0	0	0	0	0	0	0	0	0	0
613		Paal	20	10792	2069	0	0	0	0	0	0	0	0	0	0	0	0	0
614		Pandur	16	6762	728	0	0	0	0	0	0	0	0	0	0	0	0	0
615		Panachery	16	8920	150	0	0	0	0	0	0	0	0	0	0	0	0	0
616		Parthasar	18	8467	1784	0	0	0	0	4	7	0	0	0	0	0	0	0
617		Parvathi	18	8000	380	13	0	67	0	0	0	0	0	0	0	0	0	0
618		Panagandurthi	16	9536	0	0	0	0	0	0	0	0	0	0	0	0	0	0
619		Paruvada	14	1757	700	0	0	0	0	0	0	0	0	500 kg	500kg	0	0	0
620		Pozhin	21	15283	1959	0	0	0	0	0	0	0	0	1400 Kg	0	0	0	0
621		Pozhin	12	3189	890	0	0	0	0	0	0	0	0	300 kg	0	0	0	0
622		Pozhikottai	13	4561	489	0	0	54	0	0	0	0	0	NA	NA	NA	NA	NA
623		Pudukottai	15	6294	6	0	0	0	0	0	0	0	0	NA	NA	NA	NA	NA
624		Pudupattanam	12	4248	873	12	0	0	0	0	0	0	0	NA	NA	NA	NA	NA
625		Pudupattanam	21	17062	21	0	0	0	0	0	0	0	2381					
626		Pudur																
627		Puduvai	23	16896	4002	0	0	0	0	0	0	0	0	NA	NA	NA	NA	NA
628		Shelvar	14	6926	270	0	0	0	0	0	0	0	0					
629		Sonambalur	14	3280	190	100		100		36				338.25	323.25	323.25	200.13	100.1
630		Thekkamp	13	5502	868	0	0	0	0	0	0	0	0	0	0	0	0	0
631		Thekkamp	16	6083	170	100	0	0	0	0	0	0	0	133.6	77.2	NA	NA	NA
632		Theer	16	7784	181	90	0	0	0	0	0	0	20	3.8384 tone	3.8384 tone	3.8384 tone	0	0
633		Theer	17	8247	3084	0	0	0	0	0	0	0	0	0	0	0	0	0
634		Theerkur	17	8248	820	72	0	50	0	0	0	0	0	0	0	0	0	0
635		Thiruvithal	18	5300	450	0	0	0	0	0	0	0	0	0	0	0	0	0
636		Thiruvithal	18	8084	1582	0	0	0	0	0	0	0	0	0	0	0	0	0
637		Thikkadi	18	6698	279	0	0	0	0	0	0	0	0	0	0	0	0	0
638		Thiruv	17	8420	424	0	0	0	0	0	0	0	0	8 tone	7 tone	7 tone	0	0
639		Thiruv	17	9068	812	20	0	30	0	3	10	0	0	1	0.25	0	0	0
640		Thiruv	20	10160	828	7	0	70	16	70	10	0	0	8 tone	7 tone	7 tone	0	0
641		Vaduv	12	5074	880	0	0	0	0	0	0	0	0	0	0	0	0	0
642		Vallur	16	8826	1547	0	0	0	0	0	0	0	0	0	0	0	0	0
643		Vandri	19	10548	728	90	0	20	0	90	20	0	0	0	0	0	0	0
644		Vandri	18	10189	813	0	0	0	0	13	14	0	0	3000kg	3000kg	3000	0	0
645		Vandri	12	5147	281	100	0	100	0	100	100	0	0	882	800	600	800	0
646		Vilav	13	6957		0	0	0		82		0						

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647	M	Ayathole	19	11127	200	75	23	0	0	0	0	0	0					NIL
648	A	Ajmanur	21	11621	1982	0	0	0	0	0	0	0	0	0.05	0.01	0.05	NA	NA
649	L	Amambalam	19	7841	604	100	0	100	0	0	0	0	0	0.045	0.041	0.045	0.045	0
650	A	Anakkayes	23	15424	205	100	0	100	0	0	0	0	0	0.05	0.05	0.05	0.05	0
651	F	Angalpuram	23	15220	4251	75	23	80	10	50	30	50	50	0.05	0.01	0.05	0.05	0
652	F	Ancikkode	19	8526	4728	0	0	0	0	33	38	0	0					
653	U	Athavandi	22	12143	3512	0	0	0	0	18	22	0	0	0.04	0.04	0.25	0.13	NIL
654	H	Chelvar	24	9261	267	100	0	100	0	12	82	0	0	0.02	0.02	0.02	0.02	0.02
655	A	Chelkote	18															
656	M	Chelamda	18	10801	1888	100	0	0	0	10	2	0	0	0.025	0.01	0.03	0.03	0.01
657		Cherayamudan	18	6546	420	100	0	100	0	0	0	0	0	0.025	0.018	0.018	0.02	0.02
658		Chirukuru	19	11042	426	100	0	100	0	0	0	0	0	0.045	0.041	0	0	0
659		Chirukuru	18	9284	254	0	0	0	0	0	0	0	0	0	0	0	0	0
660		Churukuru	20															
661		Edakuru	18	8171	485	72	0	51	0	0	43	0	1	0.025	0.023	0.025	0.011	0.025
662		Edappal	19	9428	2427	100	0	100	0	14	7	0	0	0.04	0.04	0.04	0.04	0.04
663		Edappatti	13	4986	110	22	0	18	0	27	7	0	0	0.020	0.026	0	0	0
664		Edappatti	18	6528	NIL									0	0	0	0	0
665		Edappatti	22	11141	2928	92	0	71	0	18	0	0	0	0.05	0.04	0.05	0.04	0.04
666		Edappatti	19	8206	1729	29	0	0	0	7	0	0	0	0.2	0	0	0	0
667		Edappatti	18	7919	214	65	0	63	0	45	18	0	0	0.05	0.01	0.04	0	0
668		Edappatti	17	8228	1720	0	0	0	0	0	0	0	0					
669		Edappatti	16	7528	1864	24	0	11	0	0	0	0	0	0.13	0.11	0	0	0
670		Edappatti	18	10200	470	0	0	0	0	48	0	0	0	0.081	0	0	0	0
671		Edappatti	18	9841	1364	0	0	0	0	0	0	0	0	0.035	0.038	0.035	0	0
672		Edappatti	20	10141	2293	10	0	20	0	10	10	0	0	1	1.1	1.2	0	0
673		Edappatti	13	623	320	100	0	100	0	0	0	0	0	0.05	0.05	0.05	0.05	0.05
674		Edappatti	23	9947	260	0	0	0	0	0	0	0	0	0	0	0	0	0
675		Edappatti	19	9588	346	0	0	0	0	0	0	0	0	0	0	0	0	0
676		Edappatti	19	8287	1546	64	0	33	0	18	7	0	0	0.08	0.5	0.7	0	0
677		Edappatti	14	6028	262	0	0	0	0	0	0	0	0	0	0	0	0	0
678		Edappatti	20	10200	820	0	0	0	0	0	0	0	0	0	0	0	0	0
679		Edappatti	19	10018	2224	100	0	100	0	0	0	0	0	0.025	0.025	0.025	0.021	0.025
680		Edappatti	22	11895	2813	60	0	70	0	10	10	0	0	0.04	0.04	0.04	0.04	0
681		Edappatti	22	12613	2568	65	0	71	0	25	70	0	0	0.045	0.045	0.045	0.045	0
682		Edappatti	18	9400	342	60	0	80	0	40	40	0	0	0.025	0.023	0	0	0
683		Edappatti	13	5861	194	100	0	100	0	0	0	0	0	0.2	0.2	0.2	0.2	0.023
684		Edappatti	19	9820	220	0	0	0	0	0	0	0	0	0.1	0.1	0.1	0	0
685		Edappatti	20	7864	7864	100	224	224	100	65	40	0	0	0.02	0.02	0.02	0	0
686		Edappatti	18	9845	200	0	0	100	0	0	100	0	0	0.1	0.1	0.1	0	0
687		Edappatti	20	7713	342									0.1	0.1	0.1	0.1	0
688		Edappatti	19	10609	2291	100	0	0	100	100	100	0	0	0.1	0.1	0.1	0.1	0
689		Edappatti	16	9400	127	60	0	21	0	22	60	0	0	0.02	0.02	0.02	0.02	0
690		Edappatti	22	14420	886	60	0	40	0	10	0	0	0	0.03	0.03	0.03	0	0
691		Edappatti	18	9473	385	78	24	70	20	0	0	0	0	0.13	0.13	0.13	0.1	NIL
692		Edappatti	18	8745	317	60	0	100	0	1	0	60	100	0.15	0.13	0.12	0	0
693		Edappatti	13	7140	204	100	24	100	0	24	0	0	0	0.1	0.1	0.1	0.01	0
694		Edappatti	13	4347	107	73	23	60	40	96	100	0	0	0.3	0.3	0.3	0.3	0
695		Edappatti	21	9305	2006	0	0	0	0	0	0	0	0	0.032	0.032	0	0	0
696		Edappatti	17	6732	490	48	0	100	0	10	0	0	0	0.02	0.5	0	0	0

SL NO.	DISTRICT	LOCAL BODY	NO OF WARDS	No of Household	% Household ODD-Dry	% of Household ODD-Wet	No of establishment	Wet establishment -ODD-Dry	% establishment ODD-Wet	% of houses in which source level treatment	% of establishment in which source level treatment	% disposing to aerated 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		Gomerathur	17	7669	1156	0	0	0	0	0	0	0	0	0.03	0	0	0	0
698		Oriyam	17	7055	256	11	0	14	0	0	0	0	0	0.025	0.021	0.025	0	0
699		Chakkal	20	10556	2844	35	0	100	0	90	90	90	90	0.033	0.03	0	0	0
700		Chaur	18	7095	332	36	0	89	0	38	60	0	0	0.035	0.02	0	0	0
701		Pakkil	23	12642	6207	47	1	32	0	0	0	0	0	0.02	0	0	0	0
702		Pakkil	23	12510	482	0	0	0	0	0	0	0	0	0.1	0	0	0	0
703		Perapatt	18	8274	1919	0	1	0	0	0	0	0	0	0	0	0	0	0
704		Perumthi Kari	16	7353	2123	1	0	0	0	1	1	0	0	0	0	0	0	0
705		Perumpadappu	18	8123	1682	4	2	33	0	2	0	0	0	0	0	0	0	0
706		Pozhivil	10	9134	30	75	30	0	0	0	30	0	0	0.05	0.01	0	0	0
707		Pozhivil	18	3327	1302	0	0	0	0	0	0	0	0	0	0	0	0	0
708		Pozhivil	10	8452	329	100	100	40	20	0	2	2	0	0.05	0.05	0.05	0	0
709		Puzh	17	8076	1482	0	0	0	0	0	0	0	0	0.1	0.05	0	0	0
710		Puzh	17	10427	729	0	0	0	0	0	0	0	0	0	0	0	0	0
711		Puzh	19	8281	689	0	0	0	0	0	0	0	0	0	0	0	0	0
712		Puzh	20	13659	1300	12	10	25	21	7	3	0	0	0.03	0	0	0	0
713		Puzh	21	10940	1	0	0	0	0	0	0	0	0	0.01	0.01	0.01	0	0
714		Puzh	21	11866	2181	100	0	100	0	0	0	0	0	0.02	0.02	0.02	0	0
715		Puzh	19	6959	1689	100	100	49	0	21	0	0	0	0.015	0.015	0.015	0	0
716		Puzh	17	9186	340	100	0	100	0	0	29	100	100	4	0	3.5	0	0
717		Thakkadu	19											0.02	0.015	0	0	0
718		Thiruv	21	12327	1438	100	0	82	0	5	0	0	0	0.025	0.02	0.02	0	0
719		Thiruv	18	10047	800	100	0	100	0	34	40	0	0	0.018	0.01	0.01	0	0
720		Thiruv	21	10060	8	100	0	83	0	64	83	0	0	1.1	1.31	0	0	0
721		Thiruv	17	9831	0	0	0	0	0	0	0	0	0	0	0	0	0	0
722		Thiruv	17	713	0	0	0	0	0	100	0	0	0	0	0	0	0	0
723		Thiruv	21	12052	12121	83	0	0	0	0	0	0	0	0	0	0	0	0
724		Thiruv	18	7182	38	100	0	0	0	97	63	0	0	0	0	0	0	0
725		Thiruv	21	14953	2436													
726		Thiruv	21	8175	1100	100	0	80	0	65	0	0	0	0.23	0.43	0	0	0
727		Thiruv	17	6500	230	100	0	100	0	45	0	0	0	0.21	0	0	0	0
728		Thiruv	21	11966	2282													
729		Vallu	18	8139	2182	100	0	50	0	4	0	0	0	0.025	0.03	NA	0.05	NA
730		Vallu	23	12099	2715	100	0	100	0	35	25	0	0	0.25	0	NA	0.1	NA
731		Vallu	18	11117	6956													
732		Vallu	19	13645	3430													
733		Vallu	17	2452	2216	100	0	100	0	100	100	0	0	0.18	0.25	0.14	0	0
734		Vallu	23	14141	2111	0	0	0	0	0	0	0	0	16	13	8	0	0
735		Vallu	18	8231	2081													
736		Vallu	22	10852		0	0			0		0		NA	NA	NA	NA	NA
737		Vallu	16											25	20	14	15	15
738		Vallu	20	8513	1892	100	0	0	0	0	0	0	0					
739		Vallu	22											NA	NA	NA	NA	NA
740		Vallu	20	2211		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 B2D-Dry	% of Household B2D-Wet	No of establishment	Microestablishment -B2D-Dry	% establishment -B2D-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 generated in Composting Sites (TPD)	Quantity of Waste generated in bio/anaerobic (TPD)
741	K O Z I K O D E	Arakkulam	13	4009	117%	91	0	81	0	22	70	81	81	15 kg	17%	15 kg	0	0
742		Athaly	17	7103	196%	71	0	81	0	13	16	71	81	30 KG/DAY	20 KG/DAY	20 KG/DAY	0	0
743		Ayathali	17	8554	2437	8	0	0	0	20%	2%	100	1	1 TON	1 TON	1 TON	0	0
744		Ayilay	18	7900	561	43	0	80	0	100	100	0	0	800kg/day	800kg/day	800kg/day	0	0
745		Belavatt	17	8779	171%	87	0	34	10	80	80	0	0	1200 kg/day	1200 kg/day	1200 kg/day	0	0
746		Chakkilappan	15	6818	1811	30	0	79	0	90	90	0	0	20 KG/DAY	20 KG/DAY	20 KG/DAY	0	0
747		Changanth	18	9953	2737	100	0	81	16	80	80	0	0	25 Kg / day	25 Kg / day	25Kg/day	0	0
748		Changanthalam	22	10668	2796	24	0	12	8	24	82	0	0	20 kg/day	20 kg/day	20 kg/day	0	0
749		Chakkil	17	6544	1822	4	0	1	0	0	0	0	0	5 ton	5 ton	0	0	0
750		Chellam	21	13483	2250	8	0	0	0	0	0	0	0	20kg/day	20kg/day	0	0	0
751		Chennamangal	20	11131	3090	7	0	0	0	0	0	0	0	158	189QUINY	189QUIN	0	0
752		Chengalakkam	17	6920	300	100	0	210	0	53	80	0	0	3 TPD	3	3	0	0
753		Cheruvannur	11	6772	1461	20	0	0	19	10	0	0	0	47	47	0	0	0
754		Chinnadi	21	10118	580	20	0	4	0	11	2	0	0	6	6	0	0	0
755		Edathary	17	7936	514	100	0	195	0	19	140	0	0	3 ton	3 ton	0	0	0
756		Erandi	19	9407	2001	79	0	100	0	84	120	0	0	240 kg	240kg	0	240kg	0
757		Kadambadi	22	10743	2813	74	0	43	0	82	82	0	0	10 TONS	10 TONS	0	0	0
758		Kakkil	21	12513	2470	100	0	43	0	58	0	0	0	0.25 TONS	0.25 TONS	0	0	0
759		Kakkil	17	7950	1141	76	0	61	7	0	0	0	0	120	120KG	0	120KG	0
760		Kakkil	18	9961	2007	60	0	100	7	0	0	0	0	0.1	0.1	0	0	0
761		Kakkil	17	3668	684	0	0	0	0	0	0	0	0	110kg	145 KG	0	0	0
762		Kakkil	16	7471	2028	67	0	58	3	100	48	67	47	0.21 Ton/Day	1.2 TONS	0	0	0
763		Kakkil	16	6143	1350	79	0	47	0	100	100	0	0	200KG/DAY	200KG/DAY	0	0	0
764		Kakkil	17	4430	624	78	0	100	0	100	100	0	0	85	85	0	0	0
765		Kakkil	17	4575	390	0	0	0	0	0	0	0	0	0.15	0.15	0	0	0
766		Kakkil	18	6183	2723	69	0	67	0	95	88	0	0	105kg	105 kg	0	0	0
767		Kakkil	21	10548	885	78	0	0	0	67	67	0	0	20 KG/day	20 KG	0	0	0
768		Kakkil	16	8382	4710	100	0	100	0	0	100	0	0	210kg	210kg	0	0	0
769		Kakkil	14	6500	118	55	0	0	0	0	0	0	0	0.3 ton/day	ton/day	0	0	0
770		Kakkil	13	3621	120	40	0	0	0	70	60	0	0	300	300	0	0	0
771		Kakkil	13	3727	412	18	0	0	0	0	0	0	0	300	150	0	0	0
772		Kakkil	18	7830	1650	70	0	48	33	100	100	0	0	100kg/day	100kg/day	0	0	0
773		Kakkil	22	17474	5889	0	0	11	0	100	100	0	0	450 kg/day	423 kg/day	0	0	0
774		Kakkil	13	5448	2124	100	0	100	0	100	100	0	0	140 Kg / Day	140 Kg / Day	140 Kg / Day	0	0
775	Kakkil	18	11420	3015	0	0	303	48	80	48	0	0	400 Kg/Day	400 Kg/Day	400 Kg/Day	0	0	
776	Kakkil	16	6282	4241	69	0	143	0	100	100	0	0	170 kg/Day	155kg/Day	155 kg/Day	0	0	
777	Kakkil	17	7126	1383	100	0	20	0	13	1	0	0	300	330	330	0	0	
778	Kakkil	21	12421	1412	25	0	445	0	2	1	0	0	2.5	1 ton / month	0	0	0	
779	Kakkil	14	8762	801	100	0	48	0	41	11	0	0	133K O/Day	133K O/Day	133 kg/Day	0	0	
780	Kakkil	18	9027	1190	65	0	60	0	22	12	0	0	120 Kg / Day	100kg/day	100	0	0	
781	Kakkil	17	7308	1840	89	0	100	0	80	100	0	0	0.3	0.18	0.18	0	0	
782	Kakkil	18	8354	2284	100	0	100	0	82	100	0	0	128 T	128 T	128 T	0	0	
783	Kakkil	22	11000	1300	87	0	0	0	100	100	0	0	1.3 ton per day	4.8 ton per day	0	0	0	
784	Kakkil	16	7930	2090	80	0	80	0	12	12	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 DDD-Dry	% of Household DDD-Wet	No of establishment	Establishment DDD-Dry	% establishment DDD-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 plant or (TPD)
785		Narandol	17	8780	1192	100	0	100	0	100	100	0	0	NOT	NOT	0	0	0
786		Narandol	18	8302	2009	0	0	217	0	70	65	0	0	112 ton	NOT	NOT	NOT	NOT
787		Nadipatti	17	7029	1236	96	0	28	0	80	100	0	0	NOT	NOT	NOT	NOT	NOT
788		Nadhal	17	6800	930	40	0	28	0	82	70	0	0	Not measured	3412kg	3412 kg	NA	0
789		Nalwara	23	18551	6560	0	0	0	0	77	65	0	0	Not measured	Not measured	Not measured	Not measured	Not measured
790		Narasimhan	19	16612	3518	37	0	0	0	83	70	0	0	Not measured	2.3 TON	2.3 TON	0	0
791		Narayan	17	7843	2076	100	0	18	0	70	20	0	0	2 T	2 T	0	0	0
792		Narasimhan	20	8718	1988	63	0	75	0	85	70	0	0	Not measured	2.3 ton	2.3 ton	0	0
793		Narasimhan	19	8048	1430	85	0	62	0	85	48	0	0	Not measured	4.1	4.3	0	0
794		Narasimhan	18	11633	1012	82	0	18	0	80	0	0	0	0.90 ton	0.90 ton	0.90 ton	0	0
795		Narasimhan	22	15467	1318	100	0	100	0	100	100	0	0	3 ton	3 ton	3 ton	0	0
796		Narasimhan	17	8206	1788	34	0	421	0	100	100	0	0	0.200 16 ton	0	0	0	0
797		Narasimhan	21	14588	3269	118	0	100	0	130	0	0	0	5 ton	5 ton	0	0	0
798		Narasimhan	17	8728	1320	73	0	0	0	71	2	0	0	4ton	4 ton	0	0	0
799		Narasimhan	19	8730	1432	84	0	84	84	0	0	0	0	0.74	0.74	0.74	0	0
800		Narasimhan	17	8551	1828	2	0	0	0	0	0	0	0	5 ton	5 ton	5 ton	0	0
801		Narasimhan	20	8948	2339	150	0	1	0	0	0	0	0	1.5	1.2	0	0	0
802		Narasimhan	17	9493	2293	28	0	34	0	38	34	0	0	5.3	3.8	3.8	0	0
803		Narasimhan	13	7943	1158	100	0	100	0	0	0	0	0	0.7	0.18	0.18	0	0
804		Narasimhan	15	7067	1377	0	0	0	0	1	0	89	65	747.5101 ME	747.5101 ME	747.5101	0	0
805		Narasimhan	18	8958	2262	0	0	288	0	100	44	40	0	9 ton	1.8	0	0	0
806		Narasimhan	23	15779	3355	0	0	100	0	100	100	0	0	200 ton	200 ton	0	0	0
807		Narasimhan	14	4485	937	56	0	31	0	100	32	0	0	0.01	0.04	0.05	0	0
808		Narasimhan	16	7340	2025	100	0	31	0	100	100	0	0	15 kg	15kg	15 kg	0	0
809		Narasimhan	17	8754	2826	100	0	100	0	100	100	0	0	170	148	148	0	0
810		Narasimhan	19	8962	3481	60	0	80	0	106	65	0	0	8.3	5	5	0	0
811	W	Narasimhan	20	10291	4279	33	0	7	0	0	0	0	0	4ton	3 ton	3ton	Nil	Nil
812	A	Narasimhan	19	8519	744	89	0	40	0	0	0	0	0	4 ton	3 ton	3 ton	3 ton	Nil
813	Y	Narasimhan	18	11791	2287	24	0	18	0	0	0	0	0	8 ton	6 ton	2 ton	3 ton	Nil
814	A	Narasimhan	18	8779	340	69	0	100	0	100	100	0	0	NA	NA	NA	NA	NA
815	N	Narasimhan	13	3293	632	0	0	0	0	100	100	0	0	2	1	1	2	1
816	A	Narasimhan	19	8735	1020	100	0	100	0	100	100	0	0	NA	NA	NA	NA	NA
817	D	Narasimhan	22	10518	813	100	0	100	0	16	70	0	0	1.2 ton	1.2 ton	0	0	0
818		Narasimhan	18	8736	852	0	0	0	0	0	0	0	0	3 ton	0	0	0	0
819		Narasimhan	19	7667	375	100	0	100	0	100	100	0	0	2 ton	2.5 ton	2.5 ton	3 ton	0
820		Narasimhan	19	10002	680	190	0	100	0	100	100	0	0	10 ton	7 ton	3 ton	0	0
821		Narasimhan	23	14733	703	85	0	100	100	100	100	0	0	4 Tons	3 Tons	3 Tons	3 Tons	0
822		Narasimhan	16	6624	472	100	0	100	0	13	38	0	0	1.63 TONS	1.63 TONS	0	0	0
823		Narasimhan	16	7244	347	83	83	69	0	83	0	0	0	0	0	0	0	0
824		Narasimhan	23	11742	408	100	0	46	0	0	0	0	0	0.06	0.01	0.05	0	0
825		Narasimhan	12	3783	2004	38	0	3	0	100	100	0	0	2 ton	1 ton	1	1	0.5 ton
826		Narasimhan	20	10437	3147	30	0	33	0	11	0	0	0	2	2	2	1	0
827		Narasimhan	13	3671	748	100	0	100	0	0	0	0	0	NA	NA	NA	NA	NA
828		Narasimhan	22	10433	700	25	0	0	0	100	100	0	0	4	3	Nil	Nil	Nil
829		Narasimhan	17	8520	1403	25	0	0	0	0	0	0	0	0	0	0	0	0
830		Narasimhan	15	7947	1329	42	0	38	0	0	0	0	0	2Tons	2Tons	Nil	Nil	Nil
831		Narasimhan	21	11620	1409	0	0	78	0	0	0	0	0	3.3	0	0	Nil	Nil
832		Narasimhan	13	7730	393	89	0	100	0	0	0	0	0	1.5	1.5	0	0	0
833		Narasimhan	14	4096	1582	100	0	100	0	100	100	100	100	50 kg	50 kg	50 kg	50 kg	0
834	N	Narasimhan	21	8880	2180	100	0	100	0	100	100	0	0	2.01	0.8811	2.01	0	0

Sl. No.	District	Local Body	No of Wards	No of Household	% Household D2D-Dry	% of Household D2D-Wet	No of establishments	% establishments D2D-Dry	% establishments D2D-Wet	% of houses in which source level treatment	% of establishments in which source level treatment	% disposing to centralized system	% disposing to decentralized 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)
822	A	Ajappandi	18	8471	799	100	0	100	0	100	100	0	0	1.26	0.94981	1.26	0	0
826	N	Arilan	17	8215	289	100	0	100	0	100	100	0	0	1.88	0.43244	1.88	0	0
827	N	Ayyalams	16	7348	455	100	0	100	0	100	100	0	0	1.94	0.03437	1.94	0	0
828	U	Azhikode	20	13428	360	100	0	100	0	100	100	0	0	2.73	0.94826	2.73	0	0
829	R	Cheruvayal	19	10281	213	100	0	100	0	100	100	0	0	2.08	0.94264	2.08	0	0
840		Cherubode	18	8706	381	100	0	100	0	100	100	0	0	1.77	0.03208	1.77	0	0
841		Chirappal	18	8076	378	100	0	100	0	100	100	0	0	1.86	0.04031	1.86	0	0
842		Chirappal	12	4626	588	100	0	100	0	100	100	0	0	2.45	0.03316	2.45	0	0
843		Chirappal	18	8028	427	100	0	100	0	100	100	0	0	1.88	0.04571	1.88	0	0
844		Chirappal	17	10898	828	100	0	100	0	100	100	0	0	2.22	0.04781	2.22	0	0
845		Chirappal	23	14173	1337	100	0	100	0	100	100	0	0	2.98	2.1522	2.98	0	0
846		Chittarapatti	18	7131	379	100	0	100	0	100	100	0	0	1.48	0.0378	1.48	0	0
847		Chokki	17	8343	820	100	0	100	0	100	100	0	0	1.71	0.04168	1.71	0	0
848		Chirappal	18	8788	888	100	0	100	0	100	100	0	0	2.24	0.04173	2.24	0	0
849		Chirappal	17	7011	874	100	0	100	0	100	100	0	0	1.44	0.0384	1.44	0	0
850		Chirappal	18	8324	482	100	0	100	0	100	100	0	0	1.88	0.03321	1.88	0	0
851		Chirappal	14	5188	198	100	0	100	0	100	100	0	0	1.98	0.03383	1.98	0	0
852		Chirappal	14	4287	472	100	0	100	0	100	100	0	0	1.88	0.02018	1.88	0	0
853		Chirappal	13	2500	700	100	0	100	0	100	100	0	0	0.71	0.02363	0.71	0	0
854		Chirappal	18	4526	490	100	0	100	0	100	100	0	0	0.93	0.02354	0.93	0	0
855		Chirappal	18	8288	512	100	0	100	0	100	100	0	0	1.78	0.04417	1.78	0	0
856		Chirappal	18	7894	404	100	0	100	0	100	100	0	0	1.82	0.03181	1.82	0	0
857		Chirappal	18	8572	890	100	0	100	0	100	100	0	0	3.11	0.19504	3.11	0	0
858		Chirappal	13	3068	278	100	0	100	0	100	100	0	0	1.82	0.01954	1.82	0	0
859		Chirappal	14	3775	306	100	0	100	0	100	100	0	0	2.84	0.04425	2.84	0	0
860		Chirappal	14	8214	385	100	0	100	0	100	100	0	0	2.81	0.20773	2.81	0	0
861		Chirappal	14	8520	810	100	0	100	0	100	100	0	0	6.43	1.8903	4.53	0	0
862		Chirappal	13	3375	314	100	0	100	0	100	100	0	0	1.1	0.02482	1.1	0	0
863		Chirappal	14	8755	818	100	0	100	0	100	100	0	0	203.81	6.3696	2.81	0	0
864		Chirappal	13	3888	388	100	0	100	0	100	100	0	0	1.82	0.02188	1.82	0	0
865		Chirappal	14	3873	485	100	0	100	0	100	100	0	0	3.11	0.20888	3.11	0	0
866		Chirappal	18	8625	512	100	0	100	0	100	100	0	0	1.78	0.23108	1.78	0	0
867		Chirappal	14	4723	1400	100	0	100	0	100	100	0	0	0.88	0.23981	0.88	0	0
868		Chirappal	14	3298	310	100	0	100	0	100	100	0	0	1.59	0.22431	1.59	0	0
869		Chirappal	14	8545	387	100	0	100	0	100	100	0	0	302.83	0.2298	2.81	0	0
870		Chirappal	21	11484	300	100	0	100	0	100	100	0	0	4.51	0.84258	4.51	0	0
871		Chirappal	17	11252	818	100	0	100	0	100	100	0	0	2.1	0.25744	2.1	0	0
872		Chirappal	18	8588	2121	100	0	100	0	100	100	0	0	1.74	0.25853	1.74	0	0
873		Chirappal	20	8574	325	100	0	100	0	100	100	0	0	1.88	0.04378	1.88	0	0
874		Chirappal	13	2607	126	100	0	100	0	100	100	0	0	0.23	0.23887	0.23	0	0
875		Chirappal	18	8214	428	100	0	100	0	100	100	0	0	1.42	0.23205	1.42	0	0
876		Chirappal	18	10884	612	100	0	100	0	100	100	0	0	2.17	0.23824	2.17	0	0
877		Chirappal	17	8088	336	100	0	100	0	100	100	0	0	1.23	0.22817	1.23	0	0
878		Chirappal	18	8943	748	100	0	100	0	100	100	0	0	1.87	0.24204	1.87	0	0
879		Chirappal	14	3791	440	100	0	100	0	100	100	0	0	1.18	0.2282	1.18	0	0
880		Chirappal	20	8979	380	100	0	100	0	100	100	0	0	1.85	0.23078	1.85	0	0
881		Chirappal	15	7412	1284	100	0	100	0	100	100	0	0	1.52	0.2488	1.52	0	0
882		Chirappal	18	8628	220	100	0	100	0	100	100	0	0	1.21	0.02153	1.21	0	0

SL. NO.	DISTRICT	LOCAL BODY	NO OF WARDS	No of Household	% Household DSD-Dry	% of Household DSD-Wet	No of establishments	% establishments DSD-Dry	% establishments DSD-Wet	% of houses in which source level treatment	% of establishments in which source level treatment	% disposing in 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 Biomedical ms (TPD)
883		Nedavil	18	6600	280	100	0	100	0	100	100	0	0	1.8	0.01722	1.8	0	0
884		Nelath	17	7021	711	100	0	100	0	100	100	0	0	1.89	0.02619	1.89	0	0
885		New Malai	13	4417	480	100	0	100	0	100	100	0	0	3.81	0.02259	3.81	0	0
886		Padiyoor	25	6400	180	100	0	100	0	100	100	0	0	1.3	0.0222	1.3	0	0
887		Pakkamoor	25	5692	719	100	0	100	0	100	100	0	0	1.37	0.02488	1.37	0	0
888		Pappiniam	20	10560	680	100	0	100	0	100	100	0	0	2.07	0.02247	2.07	0	0
889		Pattanam	28	11073	720	100	0	100	0	100	100	0	0	2.47	0.02332	2.47	0	0
890		Pattom	28	9152	568	100	0	100	0	100	100	0	0	1.87	0.02041	1.87	0	0
891		Pattanam	23	3039	227	100	0	100	0	100	100	0	0	0.81	0.01817	0.81	0	0
892		Payal	28	1462	470	100	0	100	0	100	100	0	0	1.32	0.02891	1.32	0	0
893		Payyambur	16	3049	490	100	0	100	0	100	100	0	0	1.17	0.02581	1.17	0	0
894		Peralam	28	3920	481	100	0	100	0	100	100	0	0	2.1	0.02562	2.1	0	0
895		Pitavoor	26	4600	100	100	0	100	0	100	100	0	0	1.28	0.027	1.28	0	0
896		Puduppara-Vayalkara	26	3873	230	100	0	100	0	100	100	0	0	2.06	0.02737	2.06	0	0
897		Puzhath	29	10240	681	100	0	100	0	100	100	0	0	2.1	0.04977	2.1	0	0
898		Ramanthol	13	6300	801	100	0	100	0	100	100	0	0	2.15	0.04338	2.15	0	0
899		Talavankal	18	4934	401	100	0	100	0	100	100	0	0	1.43	0.02302	1.43	0	0
900		Thiruvananthapuram	18	6073	301	100	0	100	0	100	100	0	0	1.85	0.02218	1.85	0	0
901		Uthiyannil	15	6221	234	100	0	100	0	100	100	0	0	1.27	0.02718	1.27	0	0
902		Vakkal	20	17828	230	100	0	100	0	100	100	0	0	2.79	0.02472	2.79	0	0
903		Vakkattanam	13	1820	1594	100	0	100	0	100	100	0	0	2.38	0.02991	2.38	0	0
904		Vengal	21	12843	820	100	0	100	0	100	100	0	0	2.50	0.02248	2.50	0	0
905	N	Ajanur	23	11373	10273	88	0	700	80	70	60	0	0.04	0.04	0.04	0	0	
906	A	Beddika	19	12807	8654	73	0	920	80	65	45	0	0.04	0.04	0.04	0	0	
907	B	Badi	16	8585	4585	77	0	260	100	0	100	87	0	0.81	0	0	0.81	0
908	A	Beddika	17	8829	6300	70	0	435	100	0	80	96	0	0.2523	0.023	0.023	0.023	0
909	C	Belloor	13	3424	2051	60	0	325	100	0	70	80	0	0.0025	0.0025	0	0	0
910	O	Chennai	23	15169	9169	60	0	435	75	0	45	45	0	0.02150	0.024	0	0	0
911	D	Cyrenai	23	18215	5368	29	0	1841	20	0	98	85	0	0.490	0.490	0	0	0
912		Chennai	13	4623	4613	70	0	330	34	0	86	81	0	0.26	0.101	0.101	0	0
913		Chinnappilly	16	2274	5274	100	0	46	80	0	80	70	0	0.008	0.008	0.008	0	0
914		East Bini	16	8205	7280	88	0	452	30	0	90	67	0	0	0	0	0	0
915		Erumbil	17	5525	4525	82	0	140	40	0	70	75	0	0	0	0	0	0
916		Kattu	14	7012	6012	86	0	92	80	0	60	80	0	0.0133	0.0133	0.0133	0	0
917		Kattika	13	6182	5182	84	0	1258	70	0	60	85	0	0.012	0	0	0	0
918		Kottam, Belur	19	8103	8103	75	0	630	65	0	25	78	0	0	0	0	0	0
919		Kayyil Chennai	16	9334	8334	89	0	678	85	0	84	90	0	0	0	0	0	0
920		Kannur	17	9648	7448	77	0	430	100	0	100	100	0	1.80	1.80	1.80	0	0
921		Kannur	13	4605	2005	44	0	110	100	0	89	93	0	0	0	0	0	0
922		Kannur	23	12552	8500	68	0	240	24	0	54	25	0	0	0	0	0	0
923		Kattikol	18	7210	3430	71	0	450	70	0	60	68	0	0	0	0	0	0
924		Madhur	20	13203	13203	100	0	418	52	0	56	38	0	1	0.3	0	0	0
925		Madurai	13	6121	6331	100	0	217	100	0	100	100	0	0.7	0.7	0	0	0
926		Madurai	23	12030	8500	62	0	2300	40	0	32	40	0	0	0	0	0	0
927		Madurai	23	11503	6000	53	0	390	45	0	45	43	0	0	0	0	0	0
928		Madurai	13	7111	7111	100	0	166	34	0	68	78	0	0.7	0	0	0.7	0
929		Madurai Pathur	13	7011	6011	86	0	390	68	0	78	87	0	0.2	0	0	0	0

Sl. NO.	DISTRICT	LOCAL BODY	NO OF WARDS	No of Household	% Household DD-Dry	% of Household DD-Wet	No of establishments	Establishment -DD-Dry	% establishments DD-Wet	% of houses in which source level treatment	% of establishments 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)
910		Madani	10	7532	6531	87	0	233	30	0	13	84	0	0.2	0	0	0	0
911		Padra	13	6400	4600	69	0	120	45	0	87	87	0	0.2	0	0	0.2	0
912		Phulvadi	19	8726	5700	59	0	260	68	0	68	71	0	0.2	0.2	0.2	0.2	0
913		Patilkhary	23	13177	12177	89	0	644	90	0	94	94	0	0.11	0.11	0.11	0	0
914		Parshadi	15	7426	6426	87	0	317	93	0	81	81	0	0.72	0	0	0	0
915		Misodi	18	6842	5932	87	0	473	84	0	90	84	0	0.62				
916		Datta Parwa	17	10644	5644	91	0	205	100	0	90	90	0	0.58	0.58	0.58		
917		Dudhga	14	1073	1073	72	0	1081	50	0	48	50	0	1.09	1.09	1.09	0	0
918		Trasawar	21	11733	8700	74	0	946	60	0	82	82	0	0.125	0.125			
919		Udasa	21	13332	9622	89	0	617	566	0	64	64	0	0.13	0.13	0.13	0	0
920		Valvatamba	12	6861	4800	70	0	100	100	0	84	70	0	0.18	0.18	0.18	0	0
921		Varkady	18	6834	4800	70	0	200	40	0	81	84	0	0.16	0.16	0	0	0
922		Wani Dadi	18	6074	5474	78	0	220	70	0	80	87	0	0.75	0.75	0.75	0.02	0

ANNEXURE III

Telephone: 0471-2303644
e.mail: kspcbdtvm@yahoo.com

KERALA STATE POLLUTION CONTROL BOARD

കേരള സംസ്ഥാന മലിനീകരണ നിയന്ത്രണ ബോർഡ്



DISTRICT OFFICE, THIRUVANANTHAPURAM
തിരുവനന്തപുരം, തിരുവനന്തപുരം

P. O. 1296 (C.S. PLAMCHERU) IM, TALLOM P. O. THIRUVANANTHAPURAM - 695 044
പി.ഒ. 1296 (ക. പ്ലംചേരൂർ), താലൂക്ക്, തിരുവനന്തപുരം - 695 044

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:		<i>for As</i> <i>Maheshwar</i> <i>3/7/2020</i>		
Remarks:				
Scientist-in-Charge of Analysis					ASSISTANT SCIENTIST

o/c

ANNEXURE III

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

KERALA STATE POLLUTION CONTROL BOARD

കേരള സംസ്ഥാന മലിനീകരണ നിയന്ത്രണ ബോർഡ്



DISTRICT OFFICE, THIRUVANANTHAPURAM
"ജി.എസ്. മെമ്മോരിൽ", തിരുവനന്തപുരം

P. O. 1296 (A.S. PLAMBOUDI IS. - PAITHOM) THIRUVANANTHAPURAM - 695 004
ഫോൺ: 0471 (A.S.) 2303844, 2303845, 2303846 - ഫാക്സ്: 004

ANALYSIS REPORT

No: 202175

Date: 03/07/2020

Source		Dumpsite of Vaikala Municipality (Bore Well Sample)		
Sample received from		TAI	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	70	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>Mohamed</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 പരീക്ഷണശാല



Certificate No:
TC-8525

ANALYSIS REPORT

Analysis Report No.	PCB/CL/1446/20-21	Date	22 Apr 2021	Doc No.	PCB/CL/CHL-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 - 23 Apr 2021		
Source	Brahmapuram solid waste plant leachate	Scientist-in-charge	Rajeeva		
Sample Condition	fit for analysis	Sample Type	Waste Water		
Sample collected by	CEE, RO ERNAKULAM	Sample volume & container type	3L 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, 4-85 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	99.6	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 Web : www.keralapcb.nic.in


Certified for QMS (ISO 45001:2018)

Page 1 of 2



8	Magnesium	mg/L	89.1	APHA, 3500-Mg B-386, 20rd 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  22/4/21
RAJEEVA R
 Senior Environmental Scientist


 Authorized Signatory
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 പരിരക്ഷണശാല



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	Brahmaporam 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
27/3/21

ZAHIDA P Z
Assistant Scientist

Authorised by

Geetha P
24/3/2021

P GEETHA
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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Certified for OHSMS (ISO 45001:2018)

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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 19th 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 ^H	-	6.8	APHA, 4500-H+B,4-95 to 4-99, 23 rd 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 rd Ed.,2017
4	COD	mg/l	448	APHA, 5520-B, 23 rd Ed
5	Nitrate as Nitrogen	mg/l	7.4	APHA,4500NO ₃ -,B,4-127,23 rd Edition (Ultraviolet Spectrophotometric Method) 2017
6	Phosphates	mg/l	36.67	APHA,4500P,E,4-164 to 4-165, 23 rd Edition:2017
7	Sulphates	mg/l	63.1	APHA, 4500-SO ₄ 2-E, 23 rd 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 rd Ed., 2017
10	Total Coliform	CFU/100ml	620000	APHA 9222 B, 23 rd Ed.2017

11	Faecal Coliform	CFU/100ml	480000	APHA 9222 D, 23 rd Ed.2017
12	Faecal Streptococci	CFU/100ml	1000	APHA 9230 C, 9-119 to 9-122. 23 rd Ed.2017
13	Ammoniacal Nitrogen	mg/l	94.0	APHA,4500 NH3 F,4-119 TO 4-120Phenate method, Colourimetric),23 rd 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 19th 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

Sl. No.	Waste to Energy plant	Land Identified	Procured	Status
1	Kozhikode Njaliyanparambu	Kozhikode corporation	(Govt.land)12.67acre at Njaliyanparambu	Work awarded to Zonta Infratech Private Limited for the construction of Waste to Energy Plant. Consent to establish was issued
2	Kannur Chelora	Kannur Corporation	(Govt.Land) 9.7 acres at Chelora	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 (40000m ³) 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 over from Kerala State Electricity Board Ltd. in advance possession) 15 acres at Kanjikode	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 at kureepuzha (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 ³ . 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 ³ 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 re-tendered the project and has identified a suitable contractor (m/s Jan-Adhar Sevabhavi sansha) 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	Theodupuzha	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	Karapana- Puliyannala	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 ³ . 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, kunnammkulam	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 - Pottlathara 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	Kalpetha	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	Kanjanangad, 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-residential 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	Thiruvur	Thiruvur 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		Athlagaal	48.5	48.5	85	100	75.26	106.19	
8		Nedumangal	6.2	6.2	40	42	545.16	577.42	
9	Thiruvananthapuram	Noyyambhara	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-resident flat premises (%)	Household (%)	Establishments (%)	Household (%)	Establishments (%)
11	Kollam	Paravur (South)	56.6	56.6	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	Pudhucherry	Adoor	60	60	70	40	16.67	-33.33
16		Pandalam	28	8	70	55	150.00	587.50
17		Pudhucherry	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		Coorgapur	74	98	70	40	-5.41	-59.18
21		Cherthala	93	77	80	90	-13.98	16.88
22		Haripur	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-resident flat 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		Ernakulam	35	21	30	25	-14.29	19.05
28		Kottayam			60	30		
29		Pala	77	98	20	20	-74.03	-79.59
30		Vadasseri	67	1	40	30	-40.30	2900.00
31		Kattappana	43	23	85	65	97.67	182.61
32		Theppuzha	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	0	85	100			
36	Kalamassery	62	52	71	80	14.52	53.85	
37	Koottattichalath	12	7	67	85	458.33	1114.29	
38	Kochimangalam	7	3	71	80	914.29	2566.67	
39	Mavelikundu	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	Peravur	87	86	70	55	-19.54	-36.05	
44	Thrikkakara	100	60.5	50	55	-50.00	-9.09	
45	Theppanthur	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	Oruvayur	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	Kuvempukulam	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	
			House hold (%)	Non-resident premises (%)	Household (%)	Establishments (%)	Household (%)	Establishments (%)
53	Palakkad	Cheruplassery		84	86	76	-9.52	
54		Chittur	81	89	85	80	4.94	-10.11
55		Thattamangalam	40	11	88	60	120.00	445.45
56		Mannarkadu	0	0	76.8	50.35		
57		Ottapalam	100	82	70	93	-30.00	13.41
58		Palakkad	80	12	33	36	-58.75	200.00
59		Pattambi	13	26	96	100	638.46	284.62
60		Shornur	80	27	80	50	0.00	85.19
61		Kandotty	0	44	47	22		-50.00
62		Kottakkal	37		60	20	62.16	
63	Malappuram	Melappuram	100	53	30.8	36.8	-69.20	-30.57
64		Manjeri	38	34	75	60	97.37	76.47
65		Nilambur	80	70	98	85	22.50	21.43
66		Porappuzha	29	79	64	76	120.69	-3.80
67		Perinthalmanna	45	25	62	40	37.78	60.00
68		Ponnani	100	100	85	60	-15.00	-40.00
69		Thatticoor	100	90	42	25	-58.00	-16.67
70		Thiroorangadi	48	5	87	71	81.25	1320.00
71		Tirur	100	100	60	50	-40.00	-50.00
72		Valanchery	60	8	90	75	50.00	837.50
73	Kozhikode	Famke	90	91	90	65	0.00	-28.57
74		Koduvally	100	Not given	90	10	-10.00	
75		Koyilandy	100	100	85	80	-15.00	-20.00
76		Makkam	89	100	90	65	1.12	-35.00
77		Payyoli	60	81	90	80	50.00	-1.23
78		Ramanattukkam	40	47	50	50	25.00	6.38
		Vadakara						

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 that permits (%)	Household (%)	Establishments (%)	Household (%)	Establishments (%)	
79	Wayanad	Nalpeeta	0	0	98	9			
80		Manurtharudy	100	98	52	26	-48.00	-73.47	
81		Sulthanbathery	98	65	3	6	-96.94	-90.77	
82	Kannur	Anthoor	100	90	98	78	-2.00	-13.33	
83		Ieriy	96	69	63	65	-34.38	-5.80	
84		Koodepurambu	60	26	89.2	86	48.67	230.77	
85		Mattanur	100	71	90	90	-10.00	26.76	
86		Pannur	100	88	95	0	-5.00	-100.00	
87		Poyyanoor	51	1	86	52	68.63	5100.00	
88		Sreedhanapuram	87	19	95	90	9.20	373.68	
89		Thalassery	100	28	90	60	-10.00	114.29	
90		Thaliparambu	86	32	90	50	4.65	56.25	
91		Kasaragod	Kanhangad	100	100	85	70	-15.00	-30.00
92	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"> • Work awarded to Zonta Infratech Private Limited for the construction of Waste to Energy Plant. • 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. • Biomining of legacy waste is 50% complete. The total area for biomining is 1.8 acres. • All licenses from the corresponding departments were obtained for the construction of waste to energy plant. Work will be started only after monsoon.
2	Kannur Chelora	Kannur Corporation	(Govt. Land) 9.7 acres at Chelora	<ul style="list-style-type: none"> • 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. • Tendering completed and DPR prepared by Blue planet. Consent application is yet to be received. • 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

				<p>and identified a suitable contractor, Jan-Adhar Sevabhavi Sanstha. Agreement to be executed</p> <ul style="list-style-type: none"> • 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.
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"> • Blue Planet Palakkad Waste Solutions Private Limited was formed to take up the development of the project. • Consent to establish was issued on 21-12-2021 to the project with a validity upto 30-11-2023. • 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
4	Kollam Kureepuzha	Kollam Corporation	7.05 acres at Kureepuzha (Govt. land)	<ul style="list-style-type: none"> • 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

				<p>plant is bio methanation based and is having a capacity of 200 TPD.</p> <ul style="list-style-type: none"> • 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 • Biomining of legacy waste is 50% complete.
5	Ernakulam Brahmapuram	Kochi corporation	20 acres at Brahmapuram (Govt. land)	<ul style="list-style-type: none"> • 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. • 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.
6	Idukki Munnar	Idukki Municipality	2 acres of land at Munnar	<ul style="list-style-type: none"> • Bio mining of legacy waste is going on and the authorities informed that it will be expected to complete before monsoon. • The committee observed that the Consortium is meeting the technical and financial eligibility Criteria. • The consortium made a detailed presentation of their technical

				<p>plan before the Bid evaluation Committee.</p> <ul style="list-style-type: none"> • SLAC after detailed discussion resolved to accord sanction to proceed with the financial evaluation of the Bid
7	Thrissur	Thrissur corporation	Identified land at Ollookkaravillage	<ul style="list-style-type: none"> • Thrissur Corporation identified land at Ollookkara village in Thrissur district. • 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 • Secretary, Thrissur Municipal Corporation to report the status of price negotiation done with the owners of the land identified.
8	Malappuram	Malappuram munciplaity	8.09 acres of land at Kurumbathoor village in Tirur Taluk	<ul style="list-style-type: none"> • 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.
9.	Thiruvananthapuram	Thiruvananthapuram Corporation		<ul style="list-style-type: none"> • Land identification

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 31st 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 ms.kspcb@gov.in pcbhoawareness2@gmail.com 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 (in kg/day)	:	35849kg/D
ii)	Bio- medical waste generation by non-bedded hospitals (in kg/day)	:	4058 kg/D
iii)	Any other	:	501 kg/D
	Total:40408kg/day (Non-COVID -27912 kg/D, COVID -12496 kg/D)		
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 kg /day	:	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 kg/day	:	36817 kg/D
iv)	Total treated bio- medical waste disposed through authorised recyclers (in kg/day)	:	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 up-gradation 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		40408kg/day (both COVID and non-COVID BMW)	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	IM-AGE,CBWT F, MANTHURUTHI, KAN-JIKODE WEST, PALAKKAD 678623	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	55.8 T/day (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				
	Total	1838	1796	0	731	61379.636	1136.588	18547.591	2754	83817.815	47779.684	6.935	7362.098	2714.348	57863.065	0		NIL	NIL

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									
Total		7362.098	0	0	0	0	0	2714.348	90.764	0	0

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
	Total	33310.504	14469.18	0	6.935	0	0

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
	TOTAL	69423.416	0	41.86	3.08976	83480.883	0	30.009	0

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
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	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	67	68	69	70	71
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
	TOTAL	KEIL	90	Nil	NIL	0	35.6	35.05

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)	
				Hazardous Waste	Other Waste	Hazardous Waste	Other Waste	Hazardous Waste	Other Waste	Hazardous Waste	Other Waste	Hazardous 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
	Total	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				
A	Commonly Recyclable HW				
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				
	Total	11	45804.6		5152.786
B	Non-Captive utilization based on CPCBs SOPs				
1	from spent solvents				
2	Residue generated from				

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

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
I.	Hazardous Wastes				
A	List of Authorized Recyclers of hazardous waste				
	Petrolive Petroleum (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		
	Total		59324.6	2711.713	5152.783
B	List of Authorized Utilizers(under Rule 9) of hazardous waste				
1					
2					
	Total				
C	List of Authorized Utilizers(under captive utilization)of hazardous waste				
1					
2					
	Total				
D	List of Authorized Pre-processors of hazardous waste				
1					
2					
	Total				
E	List of Authorized Co-processors of hazardous waste				

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

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

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

Column 4. Details of Plastic Waste Management Ex. Collection, Segregation & Disposal (Co-Processing, Road construction, etc.) Rules (56/2019) (Attach Auction 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	11376.126	6 months (MCT, MRF, Harithaharna centers 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				
3(b)	Percentage of ULBs which have set-up of plastic waste management system as per Rule 6(2)?	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 Rule?	31.74	100	68.26	6 months
4(c)	Percentage of CPs having facilities for collection of segregated waste	87.23	100	12.73	6 months
4(d)	Percentage of CPs having Material Recovery Facility	66.29	100	33.71	6 months
5(a)	No. of registered Producers/transformers/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/transformers/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/boon 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)			300 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 fill	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 TPA
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 PWTM 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 manufacturers and use multi layered plastic which is non-recyclable or non-energy recoverable or with	PVC film 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 Harithal arms Seema associated with waste pickers
c.	Details of Action taken w.r.t. creating awareness among stakeholders (Rule-6(e))	Awareness 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 PWW 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 liner, 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 impact the functionality of the product.		Single use plastic is banned in Kerala	
3	4(f)	Sachets using plastic material shall not be used for sorting, packing or selling gubba, tobacco and gun 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 WPC/4291/2020.	
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 Harthakurma street, 997 MCTs and 78 RBFs	
6	6(2)(g) & 7(c)	Ensuring that open burning of plastic waste does not take place		Intervention 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 Harthakurma street, 997 MCTs and 78 RBFs	
8	8(1)(b)	The waste generator shall not reuse the plastic waste		910 Harthakurma street, 997 MCTs and 178 RBFs	

9	13(2)	Every producer or trader-owner shall, for the purpose of registration or for renewal of registration, make an application in Form-I for i. "The concerned State Pollution Control Board or Pollution Control Committee of the Union territory, if operating one or two States or Union Territories", or "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 2nd 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 1st 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 (Envl.B2/198/2018-Envl)

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"> 1. Carry bags irrespective of thickness, made of plastic 2. Sheets made of plastic, for single-use spread on tables in function venues, spread on plates while serving food. 3. Plates, cups and decorative materials made of styrofoam or Thermocol 4. Single-use utensils like cups, plates, dishes, spoons, forks, straw, stirrer, made of plastic 5. Non-woven bags, plastic flags, plastic bunting 6. Plastic packets for packing fruits and vegetables 7. Plastic drinking water pouches 8. PET/PETE drinking water bottles less than 500 ml 	<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>
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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
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

8-11
E

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/Ewt dt 27.11.2019
 3. G.O(MS) No 7/2019/Ewt dt 17.12.2019
 4. G.O(RT) 128/2019/Ewt dt 31.12.2019
 5. G.O(RT) No.6/2020/Ewt dt 17.1.2020
 6. G.O(RT) 9/2020/Ewt dt 23.1.2020
 7. G.O(MS) NO. 2/2020/Ewt 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, Mammuthy, 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

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



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 Units of District Control Units (Autonomous bodies)

✓ All Heads of Public Sector Units / Autonomous bodies

5. The Secretary to Government, 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, Sriee 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, Waynad
18. The Registrar, Kerala University of Fisheries and Ocean Studies, Panangid, Kutchi
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 (Env.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)

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Section Officer



016

KERALA STATE POLLUTION CONTROL BOARD
 കേരള സംസ്ഥാന മലിനീകരണ നിയന്ത്രണ ബോർഡ്
 കോഴിക്കോട് ജില്ലാ ഏരിയ
DISTRICT OFFICE, KOZHIKODE
 3rd FLOOR, ZAMORIN'S SQUARE, LINK ROAD, KOZHIKODE - 673 002
 Telefax: 2309745, 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
 RECORDED

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

Ref:- Email from 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 11:45:30 +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	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	15/42, CHENNAMANGALAM, CHORODE, VATAKARA- 673106	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, rearing, 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. KOZHIOKODE-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, KOZHIOKODE-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 KOZHIOKODE 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 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)

16	NAVAJOTHI 2 FOOTWEAR UPPER 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.
17	NAVAJYOTHI 3 UPPER 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, Eranielipalam, 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 KOZHICODE 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	KORACHUNDU, KOZHICODE-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 KOZHICODE-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	Karipa Plastics	Kunnamangalam, Kozhikode	Grinded Plastics
40	Kerala Plastics	Moolath Paramba, Kalpathi, Mavoor	Plastic grinding scrap
41	Parammel Granules Industries		Plastic granules



☎: General: 0471- 2312610, 2318155, 2318154, 2318155 Chairman: 2318150 Member Secretary: 2318151
E-mail: ms.kspcb@gov.in FAX: 0471- 2318124, 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	Kerala
2)	Name & address of the State Pollution Control	Kerala State Pollution Control Board Plamoodu, Pattom P.O., Thiruvananthapuram, Kerala - 695004
3)	Number of local bodies responsible for management of solid waste in the State/Union territory under these rules	93 (6 corporation; 87 Municipality)
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 Annexure I.
6)	A Summary Statement on progress made by local bodies in respect of waste collection, segregation, transportation and disposal	Attached as Annexure II for Urban Local Bodies Annexure II A for Rural Local Bodies
7)	A summary statement on progress made by local bodies in respect of implementation of Schedule II	Attached as Annexure III
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 & 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 meetings 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	<p>Thrissur Corporation identified land at Ollookkara village in Thrissur district.</p> <p>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</p>	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

Major Dumpsites locations			
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.

Sl. No:	Location	District	Status
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 3rd March, 2020.</p> <p>The clearing work of legacy waste resumed at the dumpsite on 4th May 2020 and approximately 15000 cum of legacy waste was cleared from the project site as on 12th 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	-

Sl. No:	Location	District	Status
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	-

Sl. No:	Location	District	Status
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	

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
							63.5	89.3		44	85												75
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				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. Thumbur muzhi 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	Thumbur muzhi 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 (Thumbur muzhi Model)-6 bins at 3 locations with capacity of 10 kg/day	1	Segregated Non biodegradable waste collected through Haritha karmasena 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 (Thumbur Mozhi 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 Trasfer 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	Thumbur Muzhi	Biobin, Ring Compost, Biogas plant, Pipe compost	Thumbur 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. Thumbur 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	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	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	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	4	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	NIL	Not given	NIL	YES	NIL	NIL	
81			Sulthanbathery	23333	24265	10	0	0	23	0.5	9.1	14	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 sharding and bailing 1MCF,1 RRF thumboormuzhi	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	0	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	2 TPD	COMPOSTING & BAILING	1		0	0	0	0	NIL	NIL	NIL	NIL
85			Mattannur	47078	60000	24	90	90	39	5	5	5	windrow compost unit,plastic sharding and bailing	collectors @school bin	Mini M C F in all wards	pipe compost,ring compost,vermi,biogas	windrow compost unit,plastic sharding and bailing	plastic sharding and bailing	NIL	NIL	NO	NOT GRANTED	
86			Panoor	58916	68751	28	51.5	25.7	52	0.1	0	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	2	ringing compost,calender waist collection door to door including plastic sharding and bailing	nil	2 mcf, 1 rrf	ring compost,compost pit etc	nil	plastic sharding bailing	nil	nil	applied	applied	
89			Thalassery	92864	96257	39	85	90	97	3	2		plastic sharding	NA	NIL	biobin,biopot,pipecompost	NIL	plastic sharding	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	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	6		YES	YES	YES	-	MCF, SHREDDING, PETTELIZATION	NIL	na	-	-	
93			Nileshwaram	40802	47502	19	90	85	30	10	10	8	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 Households	% Households HD-Dry	% of Streetlights HD-Dry	No of streetlights	Household waste HD-Dry	% of household waste HD-Dry	% of waste to which source level treatment	% of waste to which source level treatment	% of waste to which source level treatment	% of waste to which source level treatment	Quantity of Waste generated (TPD)	Quantity of Waste collected (TPD)	Quantity of Waste treated (TPD)	Quantity of Waste increased in Composting Sheds (TPD)	Quantity of Waste generated in Household bins (TPD)
1	E	Adilnagar	11	2315	100	0	0	0	0	0	0	0	0	0	0	0	0	0
2	W	Adilnagar	14	1154	52	47	103	0	0	100	100	0	0	0	0	0	0	0
3	A	Adilnagar	14	455	15	0	0	0	0	41	0	0	0	0	0	0	0	0
4	I	Adilnagar	14	1154	52	47	103	0	0	100	100	0	0	0	0	0	0	0
5	U	Adilnagar	14	1154	52	47	103	0	0	100	100	0	0	0	0	0	0	0
6	V	Adilnagar	14	1154	52	47	103	0	0	100	100	0	0	0	0	0	0	0
7	A	Adilnagar	14	1154	52	47	103	0	0	100	100	0	0	0	0	0	0	0
8	M	Adilnagar	14	1154	52	47	103	0	0	100	100	0	0	0	0	0	0	0
9	A	Adilnagar	14	1154	52	47	103	0	0	100	100	0	0	0	0	0	0	0
10	M	Adilnagar	14	1154	52	47	103	0	0	100	100	0	0	0	0	0	0	0
11	V	Adilnagar	14	1154	52	47	103	0	0	100	100	0	0	0	0	0	0	0
12	A	Adilnagar	14	1154	52	47	103	0	0	100	100	0	0	0	0	0	0	0
13	M	Adilnagar	14	1154	52	47	103	0	0	100	100	0	0	0	0	0	0	0
14	V	Adilnagar	14	1154	52	47	103	0	0	100	100	0	0	0	0	0	0	0
15	A	Adilnagar	14	1154	52	47	103	0	0	100	100	0	0	0	0	0	0	0
16	M	Adilnagar	14	1154	52	47	103	0	0	100	100	0	0	0	0	0	0	0
17	V	Adilnagar	14	1154	52	47	103	0	0	100	100	0	0	0	0	0	0	0
18	A	Adilnagar	14	1154	52	47	103	0	0	100	100	0	0	0	0	0	0	0
19	M	Adilnagar	14	1154	52	47	103	0	0	100	100	0	0	0	0	0	0	0
20	V	Adilnagar	14	1154	52	47	103	0	0	100	100	0	0	0	0	0	0	0
21	A	Adilnagar	14	1154	52	47	103	0	0	100	100	0	0	0	0	0	0	0
22	M	Adilnagar	14	1154	52	47	103	0	0	100	100	0	0	0	0	0	0	0
23	V	Adilnagar	14	1154	52	47	103	0	0	100	100	0	0	0	0	0	0	0
24	A	Adilnagar	14	1154	52	47	103	0	0	100	100	0	0	0	0	0	0	0
25	M	Adilnagar	14	1154	52	47	103	0	0	100	100	0	0	0	0	0	0	0
26	V	Adilnagar	14	1154	52	47	103	0	0	100	100	0	0	0	0	0	0	0
27	A	Adilnagar	14	1154	52	47	103	0	0	100	100	0	0	0	0	0	0	0
28	M	Adilnagar	14	1154	52	47	103	0	0	100	100	0	0	0	0	0	0	0
29	V	Adilnagar	14	1154	52	47	103	0	0	100	100	0	0	0	0	0	0	0
30	A	Adilnagar	14	1154	52	47	103	0	0	100	100	0	0	0	0	0	0	0
31	M	Adilnagar	14	1154	52	47	103	0	0	100	100	0	0	0	0	0	0	0
32	V	Adilnagar	14	1154	52	47	103	0	0	100	100	0	0	0	0	0	0	0
33	A	Adilnagar	14	1154	52	47	103	0	0	100	100	0	0	0	0	0	0	0
34	M	Adilnagar	14	1154	52	47	103	0	0	100	100	0	0	0	0	0	0	0
35	V	Adilnagar	14	1154	52	47	103	0	0	100	100	0	0	0	0	0	0	0
36	A	Adilnagar	14	1154	52	47	103	0	0	100	100	0	0	0	0	0	0	0
37	M	Adilnagar	14	1154	52	47	103	0	0	100	100	0	0	0	0	0	0	0
38	V	Adilnagar	14	1154	52	47	103	0	0	100	100	0	0	0	0	0	0	0
39	A	Adilnagar	14	1154	52	47	103	0	0	100	100	0	0	0	0	0	0	0
40	M	Adilnagar	14	1154	52	47	103	0	0	100	100	0	0	0	0	0	0	0
41	V	Adilnagar	14	1154	52	47	103	0	0	100	100	0	0	0	0	0	0	0
42	A	Adilnagar	14	1154	52	47	103	0	0	100	100	0	0	0	0	0	0	0
43	M	Adilnagar	14	1154	52	47	103	0	0	100	100	0	0	0	0	0	0	0
44	V	Adilnagar	14	1154	52	47	103	0	0	100	100	0	0	0	0	0	0	0
45	A	Adilnagar	14	1154	52	47	103	0	0	100	100	0	0	0	0	0	0	0
46	M	Adilnagar	14	1154	52	47	103	0	0	100	100	0	0	0	0	0	0	0
47	V	Adilnagar	14	1154	52	47	103	0	0	100	100	0	0	0	0	0	0	0

Sl. No.	DISTRICT	LOCAL BODY	NO OF WARD	No of Household	% Household SID-Dry	% of Household SID-Wet	No of establishments	Number of establishments SID-Dry	% establishments SID-Wet	% of houses & establishments that treated	% of establishments to which sewage first treated	% of sewage to controlled system	% of sewage to controlled system	Quantity of Waste generated (TPD)	Quantity of Waste collected (TPD)	Quantity of Waste treated (TPD)	Quantity of Waste processed in Composting like (TPD)	Quantity of Waste processed in incineration (TPD)
48		Belur	22	16347	35%	0	140	100	0	100	0	0	0	50	0	0	0	0
49		Bellur	13	3875	0	0	712	0	0	0	0	0	0	0.11	0	0	0	0
50		Bellur	13	704	0	0	350	0	0	0	0	0	0	0.05	0	0	0	0
51		Bellur	18	11378	0	0	680	100	0	100	0	0	0	0.28	0.40	0	0	0
52		Bellur	12	12800	0	0	2478	0	0	0	0	0	0	0.28	0	0	0	0
53		Bellur	17	2075	0	0	418	0	0	0	0	0	0	0.29	0.28	0	0	0
54		Bellur	19	2297	0	0	130	0	0	0	0	0	0	0.1	0	0	0	0
55		Bellur	16	871	0	0	150	100	0	100	0	0	0	0.1	0.31	0	0	0
56		Bellur	12	12478	0	0	250	100	0	100	0	0	0	0.16	0.1	0	0	0
57		Bellur	15	450	0	0	74	0	0	0	0	0	0	0.07	0	0	0	0
58		Bellur	10	1000	0	0	100	0	0	0	0	0	0	0.1	0	0	0	0
59		Bellur	12	1119	0	0	100	0	0	0	0	0	0	0.03	0	0	0	0
60		Bellur	12	478	0	0	178	0	0	0	0	0	0	0.1	0.03	0	0	0
61		Bellur	14	100	0	0	20	0	0	0	0	0	0	0.02	0	0	0	0
62		Bellur	18	800	0	0	100	0	0	0	0	0	0	0.02	0	0	0	0
63		Bellur	18	780	0	0	100	0	0	0	0	0	0	0.02	0	0	0	0
64		Bellur	14	100	0	0	100	0	0	0	0	0	0	0.02	0	0	0	0
65		Bellur	12	700	0	0	200	0	0	0	0	0	0	0.1	0	0	0	0
66		Bellur	18	1100	0	0	100	0	0	0	0	0	0	0.02	0	0	0	0
67		Bellur	19	1190	0	0	177	100	100	100	0	0	0	0.02	0	0	0	0
68		Bellur	11	1100	0	0	100	0	0	0	0	0	0	0.02	0	0	0	0
69		Bellur	20	1400	0	0	70	0	0	0	0	0	0	0.02	0	0	0	0
70		Bellur	19	974	0	0	200	100	100	100	0	0	0	0.1	0	0	0	0
71		Bellur	20	1600	0	0	177	0	0	0	0	0	0	0	0	0	0	0
72		Bellur	17	1178	0	0	100	0	0	0	0	0	0	0.02	0	0	0	0
73		Bellur	11	1000	0	0	100	0	0	0	0	0	0	0.02	0	0	0	0

Sl. NO.	DISTRICT	LOCAL BODY	NO OF WARDS	No of Household	% Household O2D-Dry	% of Household O2D-Wet	No of establishments	Establishment -O2D-Dry	% establishments -O2D-Wet	% of houses in which source level treatment	% of establishments in which source level treatment	% disposing to centralised 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 Biogas/landfill (TPD)
74	K	Adichanallur	20	11069	30	83	556	83	47	86	0	2	1	2	0.4	0	0	0
75	O	Ajappal	18	5931	10	0	384	18	0	0	1	0	1	0	0	0	0	0
76	L	Ajappan	14	7550	0	0	1177	0	0	0	0	0	0	0.2	0.1	0	0	0
77	L	Ajithal	19	12968	30	0	1748	83	0	10	15	0	12	4	4	4	0	0
78	A	Ajmanur	12	3244	65	0	232	0	0	0	1	0	1	0.1	0.1	0	0	0
79	M	Ajmanur	15	1861	80	0	1358	80	0	0.5	0.5	0	1	1	1	1	0	0
80		Ajmanur	14	10821	35	0	232	15	0	90	90	0	0	2	2	2	0	0
81		Ajmanur	23	13568	60	0	1400	80	0	13	2	2	0	2	0.8	0.3	0.3	0.1
82		Ajmanur	16	8029	80	0	1305	61	0	0	1	0	0	0	0	0	0	0
83		Ajmanur	25	15164	40	0	450	48	0	2	1	0	1	0	0	0	0	0
84		Ajmanur	13	8330	81	0	1013	0	0	2	1	0	1	0	0	0	0	0
85		Ajmanur	15	7314	0	0	8551	0	0	0	0	0	0	0	0	0	0	0
86		Ajmanur	22	6200	0	0	1560	0	0	0	0	0	0	0	0	0	0	0
87		Ajmanur	17	7728	33	0	83	71	0	1	26	0	26	0	0	0	0	0
88		Ajmanur	21	3253	70	0	25	62.4	0	10	44	0	44	0	0	0	0	0
89		Ajmanur	16	4569	22.9	0	1266	13	0	14	0	0	0	0	0	0	0	0
90		Ajmanur	21	12128	40	0	1780	20	0	3	0	3	2	2.1	2.2	0	0	0
91		Ajmanur	19	8800	28.00	0	2700	2100	0	23.7	0	9.8	2.1	2	1	1	0	0
92		Ajmanur	23	16005	80	0	2024	74	0	33	4	0	11	2	1.8	1.8	0	0
93		Ajmanur	16	8694	71	0	1470	66	0	1	1	0	1	0.27	0.37	0	0	0
94		Ajmanur	18	8000	0	0	0	0	0	1	0	0	0	0	0	0	0	0
95		Ajmanur	21	12978	60	0	552	109	0	1	0	1	0	0.3	0.35	0.35	0	0
96		Ajmanur	19	11253	0	0	536	126	0	1	0	0	0	0.45	2.100	1	0	0
97		Ajmanur	25	13978	78	0	2642	38	0	1	0	0	0	0.25	0.33	0.33	0	0
98		Ajmanur	20	11210	50	0	1330	8	0	2	2	7	0.3	0.3	0.2	0	0	0
99		Ajmanur	14	6210	36	0	271	31	0	1	0	1	0.3	0.1	0.1	0	0	0
100		Ajmanur	14	4961	72	0	220	20	0	0	0	0	0	0	0.1	0	0	0
101		Ajmanur	17	8843	63	0	0	0	0	10	0	0	0	1	0	0	0	0
102		Ajmanur	21	15657	55	0	2890	1	0	20	81	0	0	10	8.1	8.5	4.3	2.3
103		Ajmanur	15	3888	60	0	157	100	0	60	60	0	0	0.25	0.25	0	0	0
104		Ajmanur	13	7238	15	0	113	22	0	25	30	0	0	0.2	0	0	0	0
105		Ajmanur	13	7228	0	0	115	12	0	75	70	0	0	0.2	0	0	0	0
106		Ajmanur	22	150	0	0	0	0	0	0	0	0	0	0	0	0	0	0
107		Ajmanur	21	17190	80	80	177	14	58	2	88	80	68	16	11	0	1.3	2
108		Ajmanur	18	8121	41	0	1130	38	0	52	0	0	0	0	0	0	0	0
109		Ajmanur	13	1085	58	0	717	0.65	0	0.12	0.2	0	0	0.25	0.25	0.25	0	0
110		Ajmanur	13	5827	80	0	1564	10	0	60	58	0	0	0.55	0.25	0	0	0
111		Ajmanur	17	8422	20	0	1025	38	0	0	0	0	0	0.21	0.21	0.23	0	0
112		Ajmanur	18	8771	0	0	0	0	0	0	0	0	0	0	0	0	0	0
113		Ajmanur	23	16073	90	0	3640	0	21	0	0	0	0	0.15	0.125	0.125	0	0
114		Ajmanur	21	11372	50	60	0	34	0	13	81	0	0	0.3	0.3	0	0	0
115		Ajmanur	13	6265	81	0	109	86	0	61	100	0	0	1.5	1.3	1.3	0	0
116		Ajmanur	13	6031	80	0	592	80	0	80	100	0	0	1.25	0	0	0	0
117		Ajmanur	18	12977	51	0	188	81	0	20	32	0	0	0	0	0	4	0
118		Ajmanur	14	6410	0	0	250	0	0	0	0	0	0	0.25	0.25	0	0	0
119		Ajmanur	20	11380	33	0	2201	28	0	0	0	0	0	2	2	24	4	0
120		Ajmanur	21	3600	42	0	1038	12	0	24	33	0	0	2	0.3	0	0	0
121		Ajmanur	21	9621	35	0	368	63	10	20	53	0	0	0	2	2	0	0
122		Ajmanur	16	8870	70	0	976	40	0	82	10	0	0	1	1.1	1.5	0	0

SL. NO.	WARD	LOCAL BODY	NO OF WARDS	No of Household	% Household DSD-Dry	% of Household DSD-Wet	No of establishments	% establishments DSD-Dry	% establishments DSD-Wet	% of houses in which source level treatment	% of establishments 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 generated in Composting Sites (TFD)	Quantity of Waste processed in plants/facilities (TFD)
121		Paravally	16	9581	47	0	1200	47	0	0	0	0	0	4	1	4	0	0
124		Seethanpeta	19	13243	0	0		0	0	0	0	0	0	0	0	0	0	0
127		Saravali North	18	9971	0	0	1933	0	0	0	0	0	0	0	0	0	0	0
128		Saravali South	16	8228	70	0	1120	87	0	0	0	0	0	4	3	3.5	0	0
127		Thalavoor	35	9200	0	0	0	0	0	0	0	0	0	2	1	1	0	0
128		Thudava	22	11019	70	34	3250	55	30	2	6	0	0	3.8	2.9	2.9	0	0
129		Thuduvakkulam	13	5600	82	0	271	70	0	2	1	0	0	4	2.5	2.5	0	0
130		Thuvayala	16	8368	70	0	239	61	0	0	0	0	0	4	3.5	3.5	0	0
131		Thuvakkulam	23	8900	0	0	1368	78	0	0	4	0	1	0	0	0	0	0
132		Thudiyam	23	14231	72	0	2524	82	0	1	2	0	2	5.5	3.5	0	0	0
133		Thudikkavala	16	15238	0	0	2005	86	0	1	1	0	1	4.9	1.8	0	0	0
134		Thudikkavattom	23	21027	0	0	4460	0	0	0	0	0	0	0	0	0	0	0
135		Ummamam	20	11584	80	0	2153	80	0	10	10	0	0	8.036	0.0216	0	0	0
136		Vaidyapuram	17	9010	82	0	2250	4	0	4	1	0	1	0	0	0	0	0
137		Vaidyan	10	6512	81	0	1983	1	0	1	1	0	1	0	0	0	0	0
138		Vaidyapada	21	1850	0	60	805	0	0	0	0	0	0	0	0	0	0	0
139		Vaidyapada	20	10897	48	0	2356	32	11	16	12	0	0	0	0	0	0	0
140		Wazir Kallada	20	5813	78	0	705	74	0	0	0	0	0	0	0	0	0	0
141		Yemur	14	14321	1	0	615	1	1	0	1	0	1	0	0	0	0	0

Sl. No.	DISTRICT	LOCAL BODY	NO OF WARDS	No of Household	% Household DDD-Dry	% of Household DDD-Wet	No of establishments	Non-establishment DDD-Dry	% establishments DDD-Wet	% of houses in which source level treatment	% of establishments in which source level treatment	% disposing to centralized system	% disposing to decentralized 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)
142	P	Arned	13	5067	0	0	0	0	0	0	0	0	0	20kg	20kg	0	0	0
143	A	Aransala	18	9671	0	100	1897	0	100	0	0	0	0	2	2.5	2	0	0
144	T	Aravappalam	13	6818	0	0	179	0	0	1	2	0	0	20	13	0	0	0
145	H	Ayryr	16	6548	0	15	835	0	77	0	0	0	0	20kg	20	0	0	0
146	A	Chelavakkam	14	6515	0	0	0	0	0	0	0	0	0	0	0	0	0	0
147	N	Chelavola	13	4398	0	0	121	0	0	0	0	0	0	20kg	20kg	20kg	0	0
148	A	Chiror	13	5215	0	0	42	0	0	0	0	0	0	48 KG	48KG	48KG	0	0
149	M	Chithar	13	4583	0	0	690	0	0	0	0	0	0	1195g	1195g	0	0	0
150	T	Chudamattam	19	7261	0	38	380	0	0	0	0	0	0	300 KG	300 KG	0	0	0
151	H	Chuthu	17	9011	0	0	110	0	0	0	0	0	0	55 Kg	55Kg	0	0	0
152	T	Chuvappuzha	17	8920	0	73	490	0	81	1	2	40	0	1200g	122g	0	0	0
153	T	Chuvappuzha	20	11533	0	78	2339	0	76	0	0	0	0	1400 kg	1400kg	0	0	0
154	T	Chuvappuzha	14	5807	0	100	1206	0	100	50	50	0	0	0.034	0.034	0.034	0	0
155	A	Chudamattam	17	9029	0	0	1497	0	0	0	0	0	0	120kg	120kg	0	0	0
156	A	Chudamattam	13	8608	0	74	852	0	70	0	1	0	0	0.8	0.8	0	0.2	0
157	A	Chudamattam	20	12980	0	51	882	0	48	0	0	0	0	300	300	0	0	0
158	A	Chudamattam	14	5041	0	1	797	0	0	0	0	0	0	54	30	0	0	0
159	A	Chudamattam	14	6420	0	1	260	0	87	0	0	100	100	16kg	0	0	0	0
160	A	Chudamattam	18	8975	0	0	10425	0	0	0	1	0	0	0	2000 kg	220 kg	0	0
161	A	Chudamattam	17	10486	0	0	2191	0	0	0	0	0	0	0.5	0.5	0.5	0.5	0.5
162	A	Chudamattam	18	10028	0	39	1050	0	10	95	10	1	10	100	250	250	300	0
163	A	Chudamattam	13	4915	0	99	11	0	0	0	0	0	0	0.5	0.5	0	0	0
164	A	Chudamattam	13	5699	0	0	780	0	0	0	0	0	0	0	0	0	0	0
165	A	KOZHIKODI	13	4133	0	12	2191	0	2	0	0	0	0	900 kg	210kg	210kg	160 kg	0
166	A	Chudamattam	16	8220	0	100	420	0	100	0	100	100	100	0.031	0.031	0.031	10	10
167	A	Chudamattam	12	6454	0	52	401	0	70	0	0	0	0	200kg	150kg	0	0	0
168	A	Chudamattam	14	6928	0	0	1988	0	0	0	0	0	0	0	0	0	0	0
169	A	Chudamattam	14	6328	0	74	930	0	100	98	100	0	0	3.4	2.9	0	0	0
170	A	Chudamattam	14	6991	0	96	1170	0	100	0	0	0	0	280 mm	280 mm	0	0	0
171	A	Chudamattam	13	4587	0	70	1054	0	3	2	1	0	0	4	0.01	0.01	0	0
172	A	Chudamattam	13	5145	0	80	871	0	80	0	0	0	0	400kg	290kg	0	290kg	0
173	A	Chudamattam	13	3600	0	0	446	0	12	0	12	0	1	140 kg	140 kg	140	140	140
174	A	Chudamattam	12	4851	0	81	75	0	102	0	102	0	2	450 kg	450 kg	450	450	450
175	A	Chudamattam	14	5276	0	39	126	0	38	100	100	100	100	180 kg	180 kg	180	0	0
176	A	Chudamattam	12	4595	0	77	210	0	44	98	97	0	0	450kg	450kg	450kg	0	0
177	A	Chudamattam	13	4477	0	82	218	0	88	73	80	0	0	412	412	412	0	0
178	A	Chudamattam	14	6188	0	0	350	90	100	90	73	0	0	850kg	5 (plastic only)	5	400kg	0
179	A	Chudamattam	23	14820	0	80	79	0	35	0	0	0	0	0.5	0.5	nil	nil	nil
180	A	Chudamattam	14	7001	0	80	211	0	218	80	88	0	0	0	0	0	0	0
181	A	Chudamattam	15	6700	0	0	310	0	0	0	0	0	0	80 kg	80 kg	0	0	0
182	A	Chudamattam	19	11402	0	79	1236	0	202	0	0	0	0	0	0	0	0	0
183	A	Chudamattam	13	5048	0	52	232	0	78	1	2	0	0	0	0	0	0	0
184	A	Chudamattam	13	6358	0	100	325	0	71	100	96	1	2	0.1	0.1	0.1	0.1	0.13
185	A	Chudamattam	13	5921	0	100	300	10	12	25	0	0	0	300 kg	300 kg	300	100 kg	0
186	A	Chudamattam	17	8229	0	100	420	0	100	0	100	100	100	600 kg/month	600	600	0	0
187	A	Chudamattam	15	7356	0	89	842	0	20	0	0	0	0	20kg	16kg	16kg	0	0

Sl. No.	District	Local Body	No of Wards	No of Household	% Household ODF-Dry	% of Household ODF-Wet	No of establishments	Establishment ODF-Dry	% establishment ODF-Wet	% of houses in which source level treatment	% of establishment in which source level treatment	% disposing in centralized system	% disposing in 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 or (TPD)
188		Seethahalli	13	2881	0	100	72	0	100	0	0	0	0	60kg	24kg	24kg	0	0
189		Theraviboli	13	4090	0	0	193	0	0	0	0	0	0	0	0	0	0	0
190		Thottapurathary	13	5450	0	0	616	0	13	2	2	0	0	350kg/month	350kg/month	350kg	0	0
191		Thrippunithur	17	2887	0	100	367	0	100	0	0	0	0	184 tpd	184 tpd	184	0	0
192		Verambur	15	6834	0	0	401	0	128	0	2	0	0	450 kg	450 kg	450	0	0
193		Valluvala	13	7724	0	70	498	0	21	0	0	0	0	0	0	0	0	0
194		Verapuzha	13	5600	0	100	250	0	100	0	0	0	0	1870 KG	1870 KG	1870 KG	0	0
195	A	Ah	13	4670	0	0	135	0	0	13	0	0	0	0.04	0.04	0.04	NA	NA
196	L	Amalapuram	18	8738	0	0	164	0	0	0	0	0	0	0	0	0	0	0
197	A	Amalapuram north	15	7323	0	0	0	0	0	2	0	0	0	0	0	0	0	0
198	P	Arattupuzha	18	8977	0	0	0	0	0	0	0	0	0	0	0	0	0	0
199	P	Arattupuzha	13	6245	60	0	304	30	0	2	2	0	0	0.2	0.2	0	0	0
200	U	Aravali	22	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
201	X	Aravali	18	9388	100	0	426	100	0	1	2	0	0	0.1	0.1	0.1	0	0
202	R	Arattupuzha	21	13420	46	0	140	0	0	32.0	0.2	0	0	0.4	0.28	1.1	0	0
203	A	Budhanoor	14	6372	0	0	100	0	0	22	34	0	0	0	0	0	0	0
204		Chamburath	12	4900	0	0	122	0	0	11	0	0	0	0	0	0	0	0
205		Chennampattanam	17	6441	28	0	348	45	0	74	100	0	0	0	0	0	0	0
206		Chinnathala	18	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
207		Chinnathala	18	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
208		Chinnathala	14	7480	0	0	212	0	0	0	0	0	0	0	0	0	0	0
209		Chinnathala	15	8320	60	0	118	30	0	10	50	0	0	0.1	1	0	0	0
210		Chinnathala south	22	11458	80	95	247	83	40	35	28	0	0	1	0	0	0	0
211		Chinnathala	13	4247	100	0	0	100	0	0	57	0	0	2.21	1	0	0	0.2
212		Chinnathala	21	10832	0	0	1542	0	0	0	0	0	0	1.3	1.3	1.3	0	0
213		Chinnathala	13	3078	40	0	974	30	0	1	0	0	0	0	0	0	0	0
214		Chinnathala	13	7747	0	0	1340	0	0	0	0	0	0	0.2	0.2	0	0	0
215		Chinnathala	15	6525	100	0	216	100	0	20	100	0	0	0.003	0.003	0.003	0	0
216		Chinnathala	13	4984	58	0	113	80	0	40	58	0	0	0	0	0	0	0
217		Chinnathala	16	5618	0	0	0	0	0	0	0	0	0	0	0	0	0	0
218		Chinnathala	14	6300	0	0	288	0	0	0	0	0	0	0	0	0	0	0
219		Chinnathala	14	5333	30	0	13	30	0	37	100	0	0	0.2	0.2	0.2	0	0
220		Chinnathala	15	7480	86	14	104	90	10	91	90	0	0	0.12	0	0	0	0
221		Chinnathala	18	8300	100	0	450	100	0	90	100	0	0	0.3	0.3	0.3	0.3	0
222		Chinnathala	13	4479	93	0	98	100	0	0	0	0	0	0	0	0	0	0
223		Chinnathala	15	7216	0	0	1437	0	0	0	0	0	0	0	0	0	0	0
224		Chinnathala	13	4126	0	0	471	0	0	0	0	0	0	1.1	0.9	0.9	0	0
225		Chinnathala	15	6035	80	20	269	75	20	20	100	0	0	0	0	0	0	0
226		Chinnathala	17	7055	0	0	403	0	0	0	0	0	0	0	0	0	0	0
227		Chinnathala	12	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
228		Chinnathala	16	3400	90	0	373	0	0	0	0	0	0	0	0	0	0	0
229		Chinnathala	23	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
230		Chinnathala	18	7988	80	0	392	33	0	23	1	0	0	4.7	3.7	3.7	0	0
231		Chinnathala North	18	8175	100	0	409	0	100	1	100	2	0	0	0	0	0	0
232		Chinnathala south	23	25928	93	0	2437	403	0	76	83	0	0	0	0	0	0	0
233		Chinnathala	17	8913	0	0	3883	0	0	0	0	0	0	0	0	0	0	0
234		Chinnathala	18	11661	40	0	1433	0	0	0	0	0	0	0	0	0	0	0
235		Chinnathala	18	7777	50	0	0	70	0	70	50	0	0	1000kg	762kg	0	7390kg	0

Sl. No.	DISTRICT	LOCAL BODY	NO OF WARDS	No of Household	% of Household BDD-Dry	% of Household BDD-Ver	No of establishments	Establishment -BDD-Dry	% of establishments BDD-Ver	% of houses in which more than one establishment	% of establishments in which more than one establishment	% disposing to recognized system	% disposing to uncollected system	Quantity of Waste generated (TPD)	Quantity of Waste collected (TPD)	Quantity of Waste treated (TPD)	Quantity of Waste presented in Composting Sheds (TPD)	Quantity of Waste presented in Landfills (TPD)	
285		Kandukur	16	8046	1000	0	0	0	0	0	0	0	0	0	0	0	0	0	0
286		Kallemuri	13	6688	312	0	0	0	0	13	0	0	0	0	0	0	0	0	0
287		Kempanch	13	8033	241	0	0	0	0	24	0	0	0	0	0	0	0	0	0
288		Kemmal	13	3360	139	0	0	0	0	0	0	0	0	0	0	0	0	0	0
289		Kempanch	13	4800	475	0	0	0	0	14	0	0	0	0	0	0	0	0	0
290		Kempanch	13	4100	250	0	0	0	0	0	0	0	0	0	0	0	0	0	0
291		Kempanch	16	6472	814	0	0	0	0	4	0	0	0	0	0	0	0	0	0
292		Kempanch	14	10972	1229	0	0	0	0	23	0	0	0	0	0	0	0	0	0
293		Kempanch	20	10972	148	0	0	0	0	0	0	0	0	0	0	0	0	0	0
294		Kempanch	20	10972	1100	0	0	0	0	0	0	0	0	0	0	0	0	0	0
295		Kempanch	17	9221	824	0	0	0	0	0	0	0	0	0	0	0	0	0	0
296		Kempanch	15	3420	91	0	0	0	0	0	0	0	0	0	0	0	0	0	0
297		Kempanch	18	4218	1809	0	0	0	0	0	0	0	0	0	0	0	0	0	0
298		Kempanch	14	5384	1107	0	0	0	0	0	0	0	0	0	0	0	0	0	0
299		Kempanch	16	5488	243	0	0	0	0	0	0	0	0	0	0	0	0	0	0
300		Kempanch	13	4800	482	0	0	0	0	0	0	0	0	0	0	0	0	0	0
301		Kempanch	13	4101	524	0	0	0	0	4	0	0	0	0	0	0	0	0	0
302		Kempanch	13	3292	68	0	0	0	0	0	0	0	0	0	0	0	0	0	0
303		Kempanch	10	2073	180	0	0	0	0	0	0	0	0	0	0	0	0	0	0
304		Kempanch	13	2202	212	0	0	0	0	0	0	0	0	0	0	0	0	0	0
305		Kempanch	21	11801	286	0	0	0	0	0	0	0	0	0	0	0	0	0	0
306		Kempanch	13	5345	1118	0	0	0	0	0	0	0	0	0	0	0	0	0	0
307		Kempanch	15	4922	1341	0	0	0	0	0	0	0	0	0	0	0	0	0	0
308		Kempanch	15	4922	702	0	0	0	0	0	0	0	0	0	0	0	0	0	0
309		Kempanch	16	4732	242	0	0	0	0	0	0	0	0	0	0	0	0	0	0
310		Kempanch	16	7198	1205	0	0	0	0	0	0	0	0	0	0	0	0	0	0
311		Kempanch	13	7679	1475	0	0	0	0	0	0	0	0	0	0	0	0	0	0
312		Kempanch	20	10295	2482	0	0	0	0	0	0	0	0	0	0	0	0	0	0
313		Kempanch	29	12190	198	0	0	0	0	0	0	0	0	0	0	0	0	0	0
314		Kempanch	18	11418	271	0	0	0	0	0	0	0	0	0	0	0	0	0	0
315		Kempanch	13	1866	490	0	0	0	0	0	0	0	0	0	0	0	0	0	0
316		Kempanch	18	5478	2877	0	0	0	0	0	0	0	0	0	0	0	0	0	0
317		Kempanch	18	7810	1510	0	0	0	0	0	0	0	0	0	0	0	0	0	0
318		Kempanch	18	9181	1152	0	0	0	0	0	0	0	0	0	0	0	0	0	0
319		Kempanch	14	6161	129	0	0	0	0	0	0	0	0	0	0	0	0	0	0
320		Kempanch	11	3628	484	0	0	0	0	0	0	0	0	0	0	0	0	0	0
321		Kempanch	11	3218	73	0	0	0	0	0	0	0	0	0	0	0	0	0	0
322		Kempanch	13	1933	823	0	0	0	0	0	0	0	0	0	0	0	0	0	0
323		Kempanch	15	4095	159	0	0	0	0	0	0	0	0	0	0	0	0	0	0
324		Kempanch	14	4577	489	0	0	0	0	0	0	0	0	0	0	0	0	0	0
325		Kempanch	14	4511	428	0	0	0	0	0	0	0	0	0	0	0	0	0	0
326		Kempanch	14	4661	121	0	0	0	0	0	0	0	0	0	0	0	0	0	0
327		Kempanch	28	11373	3300	0	0	0	0	0	0	0	0	0	0	0	0	0	0
328		Kempanch	17	4462	44	0	0	0	0	0	0	0	0	0	0	0	0	0	0
329		Kempanch	13	3218	209	0	0	0	0	0	0	0	0	0	0	0	0	0	0
330		Kempanch	20	10580	1400	0	0	0	0	0	0	0	0	0	0	0	0	0	0
331		Kempanch	25	11800	1490	0	0	0	0	0	0	0	0	0	0	0	0	0	0
332		Kempanch	16	4184	517	0	0	0	0	0	0	0	0	0	0	0	0	0	0
333		Kempanch	17	5481	487	0	0	0	0	0	0	0	0	0	0	0	0	0	0

SL NO.	DISTRICT	LOCAL BODY	NO OF WARDS	No of Household	% Household DDD-Dry	% of Household-DSD-Wet	No of establishment	Establishment DDD-Dry	% establishments DSD-Wet	% of houses in which source level treatment	% of establishment in which source level treatment	% disposing to centralized system	% disposing to decentralized 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 to household as (TPD)
324		Vellayamoor	13	3646	416	72	0	5	0	73	80	0	0	0.23	0.05	0.1	0.02	0.021
325		Vellayam	13	6268	918	30	0	7	0	3	0	0	0	0.01	0.02	0.03	0	0
326		Yellai	16	6784	846	73	0	32	0	0	0	0	0	0.8	0.4	0	0	0
327		Vilavayam	19	10741	1125	85	0	5	0	4	0	83	0	6.3	0.2	0.2	0	0
328	I	Adampy	21	10760	1140	92	3	71	20	70	80	25	25	30	0	3	1	0
329	II	Akkodes	13	2660	76	65	0	82	0	25	50	0	0	1	0.1	0.1	1	0.3
340	III	Ankulam	12	6443	182	23	0	32	0	75	68	25	32	1.3	0.3	0.3	0	1
341	IV	Arayampalayam	17	4969	91	10	0	17	0	12	8	35	22	0.5	0.1	0.1	0	0
342	V	Binnampalayam	12	2653	169	18	0	31	0	34	20	43	24	1.5	0.5	0.5	0	0
343	VI	Chakkupalam	13	7126	407	0	0	80	0	20	0	24	78	2.3	2.3	2	0	0
344	VII	Chinnambur	13	4613	823	73	0	0	0	18	65	62	25	1.5	0.75	0.75	0	0
345	VIII	Dindukudi	18	2894	108	40	0	70	0	25	75	85	80	0.4	0.2	0.2	0	0
346	IX	Edamakkudi	13	764	19	0	0	9	0	1	16	25	20	0	0	0	0	0
347	X	Edavetty	13	5216	763	88	0	48	0	23	22	0	0	4.37	4.18	4.18	1.67	0
348	XI	Elampy	17	8160	730	90	0	83	28	65	50	30	80	3.2	3.1	3.1	3.5	0.2
349	XII	Erattayy	14	4698	492	80	0	73	0	30	25	100	100	1.7	0.3	0.3	0	0
350		Irakkudi	18	10560	320	83	0	0	0	50	75	60	80	3.1	1	1	0	0
351		Kambayy	13	6234	450	80	0	75	0	90	60	0	0	4	4	3.5	0	0
352		Kambayy	16	4718	862	83	0	80	0	20	10	65	0	4.7	1.9	1.9	0	0
353		Kankulam	13	4580	0	73	0	100	100	75	75	100	25	1.38	0.5	0.5	0.5	0
354		Karimmoor	14	5564	765	70	0	75	0	50	30	0	0	0.8	0.2	0.2	0.2	0
355		Karimmoor	17	4133	301	0	0	67	0	50	50	0	0	0.43	0.43	0.43	0.84	0
356		Karimmoor	17	8707	1054	83	0	65	0	80	75	0	0	6.5	4.5	4.5	2	0
357		Koduvilam	13	3984	113	92	0	90	0	38	20	0	0	2.80	2.08	2.05	0	0
358		Kokkayy	13	4728	133	93	0	92	0	30	65	0	0	3.65	0.3	0.8	0	0
359		Kuravilayal	18	8730	456	85	0	80	90	87	20	25	32	1.3	0.3	0.3	0	1
360		Kuravilayal	13	1458	140	30	0	68	0	33	20	0	0	1.8	2	2	0	0
361		Kumaravilayal	13	4512	122	30	0	20	0	40	40	0	0	3	1.3	1.3	0.5	0.25
362		Kumbi	20	11856	2280	85	13	96	85	87	4	13	95	4	4	3.8	3.5	3.5
363		Mambayy	13	4738	138	34	0	40	0	45	25	0	0	4.53	2.45	2.45	2	2
364		Mambayy	13	4588	832	48	0	74	0	64	48	74	0	2.25	0.012	0.012	0	0
365		Mannar	13	2650	281	73	0	100	100	75	75	100	75	1.38	0.5	0.5	0.5	0
366		Mannar	13	3592	15	0	0	100	0	98	80	0	90	8.9	0.6	0.3	0.13	0
367		Mannar	21	9107	3132	70	0	90	70	100	100	40	0	44485	44485	44485	6	4
368		Mannar	13	2563	2000	73	0	90	0	60	70	0	0	3.1	0.5	0.5	0.2	0
369		Nedumkandam	22	13113	1016	73	0	90	0	33	30	0	90	13.21	0	0	0	0
370		Pallapalayam	14	4808	1200	70	0	65	0	70	30	60	75	3.26	0.5	0.5	2	0.2
371		Pampadampy	16	6832	150	70	0	30	0	75	75	20	20	0.35	0	0	0	0
372		Pannadi	17	9690	1423	100	0	83	0	70	10	85	85	1.1	1.1	1.1	0	0
373		Pannathalam	14	4242	1630	0	0	72	0	30	33	60	33	2	1.3	0.9	0.9	0
374		Pargalath	13	3170	414	100	0	70	0	30	30	100	70	0.33	0.33	0.33	3.4	0
375		Palkud	13	3419	880	85	82	83	80	75	75	100	90	0.40	0.40	0.40	0.40	0.40
376		Palkud	13	6052	350	75	73	80	0	70	75	50	50	0.68	0.68	0.68	0.68	0.68
377		Panthipalayam	13	4842	170	83	0	100	90	80	91	91	91	4.69	4.26	4.26	0.6	0
378		Pannadi	13	4300	130	78	0	100	84	80	72	74	74	1.30	2.75	2.75	2.8	0
379		Pannadi	14	3607	348	0	0	73	0	90	80	50	50	0.4	0.2	0.2	0.2	0
380		Pannadi	16	6234	1115	80	60	70	70	40	70	60	60	0.3	0.3	0.15	0.13	0
381		Pipparayy	18	8184	1211	0	0	100	0	98	80	60	90	0.9	0.6	0.3	0.13	0
382		Pannadi	18	10373	1509	0	11	0	3	85	96	1	1	9.17	0.6	0.6	0.6	0.2
383		Pannadi	23	13959	1011	0	60	80	60	40	30	70	70	3	3	3	3	2

Sl. No.	DISTRICT	LOCAL BODY	NO OF WARDS	No of Household	% Household DDD-Dry	% of Household DDD-Wet	No of establishments	% establishments DDD-Dry	% establishments DDD-Wet	% of houses in which source level treatment	% of establishments 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 biowaste/anaerobic (TFD)
384		Vannappuram	17	1069	1123	80	0	50	0	23	20	0	0	3.7	1.1	1.1	0	0
385		Vethiandy	18	10788	1812	50	0	20	0	88	10	0	0	9.19	0.1	1.1	0	0
386		Vallavada	13	2747	138	51	0	60	0	0	20	0	0	0.1	0.1	0.1	0.1	0.1
387		Vakkalhoor	14	4300	430	53	0	84	0	49	23	25	0	1.1	1.1	1.1	0	0
388		Vedathurayal	17	6448	1022	93	0	62	0	33	85	0	0	7.89	4.1	4.1	0.1	0
389		Vediyerattom	13	4870	1000	75	0	83	0	83	75	0	0	0.1	0.1	0.1	0.1	0.1

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 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 biometanation (TPD)
380	E	Akkaramala	14	7689	1640	21	0		0	0	0	0	0	5.02	0.3	0.3	0	0
391	B	Alegada	23	16117	920	60	0	85	0	10	10	0	0	4.12	0	0	0	0
392	N	Andalur	16	8454	1690	19	0	12	0	8	1	0	4	0.06	0.0012		0.00036	0.00012
393	A	Arulviche	13	4945	180	0	0	0	0	0	0	0	0	0	0	0	0	0
394	N	Asansole	14	6329	150	4	0	0	0	8	490	0	0	0	0	0	0	0
395	U	Auril	14	6424	1628	0	0	0	0	1	10	0	0	0	0	0	0	0
396	L	Avanoti	14	6021	388	0	0	0	0	0	0	0	0	0	0	0	0	0
397	A	Avanapatha	13	5708	548	5	0	0	0	10	25	0	0	0	0	0	0	0
398	M	Chellanur	21	10335	82	0	0	0	0	0	0	0	0	0	0	0	0	0
399		Chudamangalam	18	9565	1103	16	0	4	0	69	19	0	0	6.3	6.3	6.3	0	0
400		Chinnamanal	18	10166	468	100	0	64	0	95	75	0	0	6.99	6.99	6.99	0	0
401		Chinnar	17	10832	368	74	0	67	0	24	67	0	67	3.7	3.7	3.7	0	0
402		Chinnaras	18	9583	412	16	0	0	0	99	18	0	0	4.2	3	1	0	0
403		Chinnarakata	18	10605	1895	73	0	0	0	0	0	0	0	9.109	9.109	9.109	0	0
404		Chinnarakata	14	9697	480	92	0	88	0	85	88	0	88	4.2 TPD	4.2 TPD	4.2 TPD	0	0
405		Chinnaraswadi	14	6133	860	69	0	100	0	49	44	0	0	7.100	7.100	7.100	0	0
406		Edilhal	21	17907	4124	10	0	61	0	22	63	0	0	3.1	0	0	0	0
407		Edumakkalam	12	6246	854	73	0	100	0	0	0	0	0	6	3	1	0	0
408		Elankunnapuram	23	15479	1982	93	0	100	0	23	42	0	0	7	4	4	0	0
409		Elanj	13	5552	127	84	0	100	0	100	100	0	0	0	0	0	0	0
410		Elakkam	14	6162	185	68	0	100	0	100	100	0	0	0	0	0	0	0
411		Kadambakkal	13	4921	819	0	0	0	0	0	0	0	0	0	0	0	0	0
412		Kadambur	21	16231	5555	0	0	0	0	0	0	0	0	0	0	0	0	0
413		Kalsh	17	9733	2512	82	0	0	0	12	4	0	0	7.26	1.6	0.9	0.3	0.3
414		Kalshakkudi	15	7511	320	0	0	0	0	2	1	0	0	0	0	0	0	0
415		Karoor	12	4792	342	0	0	0	0	0	14	0	0	0	0	0	0	0
416		Karukudi	17	9659	2866	0	0	0	0	0	0	0	0	0	0	0	0	0
417		Karundoor	20	11233	1211	0	0	0	0	1	2	0	0	0	0	0	0	0
418		Kavathegudi	18	9480	1770	0	0	0	0	0	0	0	0	0	0	0	0	0
419		Kemuray	13	4106	730	0	0	0	0	0	0	0	0	NOT ASSESSED	0	0	0	0
420		Kozhikkal	19	12768	716	0	0	0	0	7	21	0	0	Not data available	0	0	0	0
421		Kudakkayalam	19	9253	528	0	0	0	0	0	0	0	0	0	0	0	0	0
422		Kudappali	13	4172	483	0	0	0	0	100	100	0	0	0	0	0	0	0
423		Kudavoli	22	14673	2360	70	0	0	0	86	1	0	0	0	0	0	0	0
424		Kudavoli	18	10125	1725	0	0	0	0	4	2	0	0	1.2	0	0	0	0
425		Kudavoli	17	8719	1400	100	0	90	0	100	90	0	0	not estimated	not estimated	0	0	0
426		Kumarakudi	19	12418	3640	23	0	0	0	4	0	0	0	6.3	0	0	0	0
427		Kumarakudi	15	6200	320	34	0	60	0	46	40	0	0	0	0	0	0	0
428		Kumarakudi	17	9200	220	0	0	0	0	0	0	0	0	0	0	0	0	0
429		Kumarakudi	20	12123	0	0	0	0	0	1	0	0	0	0	0	0	0	0
430		Kudavoli	13	3013	185	34	0	31	0	0	0	0	0	0	0	0	0	0
431		Madhavoor - Methicovaram	17	8366	971	0	0	0	0	0	0	0	0	0	0	0	0	0
432		Madhavoor	12	3248	219	0	0	0	0	0	0	0	0	0	0	0	0	0
433		Madhavoor	12	3253	1383	81	19	0	0	0	0	0	0	0	0	0	0	0
434		Madhavoor	12	3857	173	0	0	0	0	4	0	0	0	17900	0	0	0	0
435		Madhavoor	19	10993	72	0	0	0	0	0	0	0	0	0.03	0.001	0.001	NIL	NIL
436		Madhavoor	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 establishments	Establishment D2D-Dry	% establishments D2D-Wet	% of houses in which source level treatment	% of establishments in which source level treatment	% disposing to decentralized 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)
407		Mookkannur	14	1334	200	0	0	0	0	0	0	0	0	0	0	0	0	0
408		Mudhukudde	03	1346	300	0	0	0	0	0	0	0	0	10000	0	0	0	0
409		Muduvuruthi	16	7728	11	0	0	0	0	0	0	0	0					
410		Muzhukudde	16	1479	1105	0	0	0	0	0	0	0	0					
411		Narayanankulam	19	12509	2321	17	0	10	0	0	0	0	0					
412		Nellurkuppam	21	12171	0	0	0			0				24	0.1	0.1	0	0
413		Nellikavai	16	7851	0	0	0			0				0	0	0	0	0
414		Nellikudi	16	7937	1874	0	0	0	0	0	0	0	0	0	0	0	0	0
415		Olkal	16	4780	2	0	0	0	0	0	0	0	0	0	0	0	0	0
416		Palappan	13	4520	133	36	0	100	0	0	0	0	0	0	0	0	0	0
417		Pakkudde	22	3050	1117	0	0	0	0	0	0	0	0	0	0	0	0	0
418		Pallanamangalam	22	13549	1141	79	0	35	0	82	80	0	0	0	0	0	0	0
419		Pallappan	22	13540	1141	79	0	35	0	82	80	0	0	11	0.01	0	0	0
420		Pambakkudi	18	9660	3022					71	82	0	0	1	4.9			
421		Pantabettu	22	11243	213	0	0	0	0	98	100	0	0					
422		Pattin	13	6129	588	0	0	0	0	100	100	0	0					
423		Pudimangalam	14	7649	1107	34	0	0	0	100	100	0	0					
424		Puzhukkudi	13	6453	1814	13	0	0	0	12	0	0	0	2219 KG	2219 KG	1781 KG	0	0
425		Puzhukkudi	13	6587	750	23	0	17	0	20	0	0	0	100 kg/day	0	0	0	0
426		Puthanakkudi	13	7932	436	0	0	0	0	0	0	0	0	No Estimation	No	0	0	0
427		Ramanangalam	20	12713	1000	49	0	7	0	8	48	0	0	1 TPD	1 TPD	0	3nd	0
428		Ramanangalam	14	6000	2000	25	100	3		14	1	0	0					
429		Sreedevi Nagar	14	3789	250	0	0	0	0	0	0	0	0	0	0	0	0	0
430		Theeravadi	13	7825	608	41	0	34	0	0	0	0	0	0	0	0	0	0
431		Theeravadi	14	7572	654					10	10	0	0	1 Tpd	0	0	0	0
432		Theeravadi	20	13375	363					0	0	0	0		173KG	0	0	0
433		Uthiyappan	20	10022	1588					0	0	0	0					
434		Vaidyankulam	17	9540	1788					4	11	0	0					
435		Vaidyankudi-Pakkudde	14	6174	1428	0	0	0	0	0	0	0	0					
436		Vaidyankudi	14	6361	640	0	0	0	0	0	0	0	0					
437		Vengal	13	6047	771	0	0			0	0	0	0	0.07	0.07	0	0	0
438		Vengal	16	9275	1858	0	0	0	0	0	0	0	0	0	0	0	0	0
439		Vengal	20	17202	788	0	0	0	0	0	0	0	0	1	1	0	0	0
440		Vengal	22	17853	830	0	0	0	0	78	71	0	0	3	0	0	0	0
441		Vengal	15	3855	770	0	0			0	0	0	0	10	10	0	0	0

SL NO	DISTRICT	LOCAL BODY	NO OF WARDS	No of Household	% Household B2D-Dry	% of Household B2D-Wet	No of establishments	Household -B2D-Dry	% establishments B2D-Wet	% of houses in which entry 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 bioreactors or (TPD)
472	T	Adi	18	800	1154	0	0	17	0	0	0	0	0	2	2	2	0	0
472	H	Alagannur	17	0749	1917.0	0	0	0	0	13	8	0	0	2	0	0	0	0
474	H	Alor	22	17550	1700	0	0	0	0	0	0	0	0	1 ton	1/2 ton	0	0	0
475	I	Aranganakal	18	10499	2666	0	0	0	0	14	0	0	0	0	0	0	0	0
476	H	Arakkal	15	6922	1180	0	0	0	0	7	0	0	0	0	0	0	0	0
477	S	Armar	17	10885	60	0	0	0	0	19	0	0	0	2 ton	2 ton	nil	0	0
478	H	Arniappilly	13	3004	967	0	0	0	0	0	0	0	0	Not estimated	Not Estimated	0	0	0
479		Arur	15	8002	273	25	0	1	0	2	0	0	0	8	0	0	0	0
480		Arviyur	14	6213	521	0	0	89	0	2	0	0	0	0	0	0	0	0
481		Chadur	18	7956	7956	100	0	100	0	0	0	0	0	0	0	0	0	0
482		Chelakkai	22	13745	2921	0	0	2	0	0	0	0	0	0	0	0	0	0
483		Cherpai	21	11176	2136	72	0	0	0	1	0	0	0	not estimated	not estimated	nil	not estimated	not estimated
484		Chinnai	18	10440	2027	0	0	0	0	0	0	0	0	0	0	0	0	0
485		Chinnai	13	3251	925	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		Eggnur	14	8642	783	0	0	0	0	0	0	0	0	0	0	0	0	0
488		Eggnur	14	6650	1561	100	0	0	0	0	0	0	0	0	0	0	0	0
488		Elavali	16	8113	1041	76	0	30	0	0	0	0	0	1 ton	1 ton	0	0	0
490		Engudurai	16	7781	1513	72	0	36	0	0	1	0	0	not estimated	not estimated	not	not estimated	not estimated
491		Erudai	21	14185	2704	0	0	0	0	0	0	0	0	0	0	0	0	0
492		Erudipatti	18	7420	2920	0	0	0	0	0	0	0	0	0	0	0	0	0
492		Kadavur	18	8761	2598	0	0	0	0	0	0	0	0	0	0	0	0	0
494		Kadavur	16	6820	901	0	0	0	0	0	0	0	0	0	0	0	0	0
492		Kadavur	20	9274	1222	0	0	0	0	0	0	0	0	0	0	0	0	0
496		Kadavur	16	8276	1172	0	0	0	0	0	0	0	0	0	0	0	0	0
497		Kannanur	20	10800	960	30	0	1	0	0	0	0	0	0	0	0	0	0
498		Kannur	18	8409	818	26	0	4	0	0	0	0	0	not estimated	0	0	0	0
499		Kannur	16	7791	1487	0	0	0	0	0	0	0	0	not estimated	0	0	0	0
500		Kandam	12	6486	829	0	0	21	0	80	23	0	0	0.2	0.2	0.2	0	0
501		Kannur	16	8700	700	0	0	0	0	0	0	0	0	0	0	0	0	0
502		Kannur	14	8572	1074	20	0	0	0	0	0	0	0	0	0	0	0	0
503		Kannur	19	10871	3218	20	0	0	0	17	0	0	0	5.6 tons	6.7 tons	6.7 tons	0.2 tons	0
504		Kannur	20	11741	0	0	0	0	0	0	0	0	0	0	0	0	0	0
505		Kannur	17	10845	1126	0	0	0	0	0	0	0	0	not estimated	not estimated	not estimated	not estimated	not estimated
506		Kannur	13	6764	972	0	0	0	0	0	0	0	0	0	0	0	0	0
507		Kannur	19	10989	670	0	0	0	0	0	0	0	0	0	0	0	0	0
508		Kannur	14	6510	908	0	0	0	0	0	0	0	0	not estimated	0	0	0	0
509		Kannur	16	8800	1502	40	0	52	0	18	0	0	0	2.05 TON	2.05 TON	2.05 TON	0.25TON	1 TON
510		Kannur	20	11816	4466	0	0	0	0	0	0	0	0	0	0	0	0	0
511		Kannur	18	9467	2412	100	0	100	0	100	100	30	0	0.86TON	0.86TON	0.86TON	0.2 TON	0
512		MATHILAKAM	17	7565	388	0	0	0	0	0	0	0	0	0	0	0	0	0
513		Mattur	23	18245	2751	0	0	0	0	0	0	0	0	4.2 ton	4.2 ton	4.2 ton	0	0
514		Mattur	17	6888	0	0	0	0	0	0	0	0	0	200kg	0	100kg	0	0
515		Mullanthokam	14	7083	0	0	0	0	0	0	0	0	0	Mullanthokam hukam	0	0	0	0
516		Mullanthokam	12	6703	412	67	0	0	0	0	0	0	0	0.002	0.000	0	0	0
517		Mullanthokam	20	8927	1302	26	0	4	0	0	0	0	0	0	0	0	0	0
518		Mullanthokam	17	9633	1180	100	0	100	0	0	0	0	0	0	0	0	0	0

SL NO.	DISTRICT	LOCAL BODY	NO OF WARDS	No of Household	% Household DDD-Dry	% of Household DDD-Wet	No of establishments	Establishments DDD-Dry	% establishments DDD-Wet	% of houses in which source level treatment	% of establishments in which source level treatment	% disposing to decentralized 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 Site (TPD)	Quantity of Waste processed in Slam/basins (TPD)
310		Nalchikera	17	10022	100	0				100	0	0	0	2000Kg	2000Kg	2000Kg	1000Kg	000Kg
320		Nerthi	14	6373	2514	84	0	11	0	80	43	0	0	2 ton	1 ton	0	0	0
321		Nomenkova	12	6742	1815	27	0	8	1	0	0	0	0	NA	NA	0	0	NA
322		Omuneswar	12	3022	248	0	0	0	0	0	0	0	0	NA	NA	NA	NA	NA
323		Pallipur	14	6222	802	0	0	0	0	0	0	0	0	NA	NA	NA	NA	NA
324		Pattinabery	23	15443	2231	0	0	0	0	0	0	0	0	0	0	0	0	0
327		Parai	16	6250	1175	0	0	0	0	0	0	0	0	0	0	NA	NA	NA
328		Parolan	18	6263	6	0	0	0	0	0	0	0	0	0	0	0	0	0
327		Parappokara	18	6758	1789	93	0	21	0	0	21	0	0	0.57ton	0.57ton	0	0	0
328		Parayam	15	2406	8816	0	0	0	0	0	0	0	0	NA	NA	NA	NA	NA
329		Pavetta	18	6723	1775	0	0	0	0	0	0	0	0	NA	NA	NA	NA	NA
329		Pattanamur	22	12683	228	43	43	93	87	0	0	0	0	Not estimated	Not	Not	NA	NA
331		Perinjara	15	6882	630	100		100		100	100							
332		Poomappalam	12	4226	0	0	0	0	0	0	0	0	0	Not estimated	Not	Not	Not estimated	NA
333		Porkulam	12	5471	0	0	0	0	0	0	0	0	0	0	0	0	0	0
534		Poyy	15	2602	0	0	0	0	0	0	0	0	0	0	0	0	0	0
335		Pudukud	15	2615	263	0	0	0	0	0	0	0	0	Not estimated	Not	Not	Not estimated	Not estimated
336		Punnamkulam	19	9506	2040	0	0	0	0	0	0	0	0	324	324	324	0	0
337		Punnam	20	9222	2128	0	0	0	0	0	0	0	0	615	615	615	0	0
338		Puthukkara	15	16701	1107	0	0	0	0	0	0	0	0	115 ton	115	115	0	0
339		Puthu	22	12268	2186	0	0	2	0	0	0	0	0	35	35	0.1	0	0
340		Puzhappalam	21	12471	2827	20	0	20	0	0	0	0	0	0.2	0.25	0	0	0
341		Talloor	16	6104	620	29	0	20	0	0	0	0	0	30	30	30	0	0
342		Tharuvam	18	6782	3900	11	0	100	0	0	0	0	0	22 ton	20	20	0	0
343		Thiruvananthapuram	18															
344		Thiruvananthapuram	17	NA	NA									TONDAY	0	TONON	0	0
345		Thiruv	13	4288	30	0	0	31	0	0	0	0	0			20	na	na
346		Thykkur	17	6722	1280	10	0	20	0	10	23	0	0	0.2	0.2	0.2	0	0
347		Vedakkal	16	6320	980	0	0	3	0	0	0	0	0	0	0	0	na	na
348		Velpal	20	10137	1382	4	0	0	0	1	1	0	0	not estimated	not estimated	not estimated	na	na
349		Vellathil	14	7170	670	0	0	0	0	0	0	0	0	0.05	0.04	0.04	0	0
350		Velloppalam	16	6378	1221	80	0	2	0	0	0	0	0	not estimated	not estimated	not estimated	0	0
351		Vandrapally	22	10020	2601	0	0	0	0	3	0	0	0	not estimated	not estimated	not estimated	na	na
352		Vanduvu	14	6411	811	0	0	0	0	0	0	0	0	not estimated	not estimated	not estimated	na	na
353		Vandupally	16	7625	1226	8	0	2	0	0	0	0	0	not estimated	not estimated	not estimated	0	0
354		Vedagalur	21	12318	710	0	0	0	0	0	0	0	0	not estimated	not estimated	not estimated	0	0
355		Vedukkam	18	6260	1266	0	0	0	0	0	0	0	0	not estimated	not estimated	not estimated	0	0
356		Velur	17	6430	1428	0	0	0	0	0	0	0	0	not estimated	not estimated	not estimated	0	0
357		Venkayya	17															

SL. NO.	DISTRICT	LOCAL BODY	NO OF WARDS	No of Household	% Household DDD-Dry	% of Household- DDD-Wet	No of establishments	Non-establishment -DDD-Dry	% establishments -DDD-Wet	% of houses in which source level treatment	% of establishments in which source level treatment	% disposing in centralized system	% disposing in 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)	
358	P A L A K A B A D	Agali	21	12739	2615	72	0	96	4	94	2	0	98						
359		Akathetara	17	9588	3892	45	0	2	8	48	2	0	0		3500 kg	550 kg/ month	0	0	
360		Alurathur	23	15185	4599	83	0	0	8	17	8	82	0	2140 kg	1490 kg	1490 kg	0	0	
361		Aluthur	06																
362		Amalappara	20	12028	1432	83	0	0	8	0	29	0	0	8 Tons	6 Tons	Transported	0	0	
363		Anakkara	16	7046	1401	70	0	0	0	0	0	0	0	0	0	0	0	0	0
364		Ananganadi	15	7526	885	10	0	23	0	13	0	0	0	0	0	0	0	0	0
365		Ayala	07	8327	1289	83	2	0	0	0	0	0	0	0	0	0	0	0	0
366		Chalassery	15	6950	1048	0	0	0	0	0	0	0	0	0	0	0	0	0	0
367		Cheruvu	11	6550	1299	100	0	100	100	15	8	0	0	0	100	0	0	0	0
368		Chingilly	22	11815	2016	70	64	60	47	0	0	0	0	0	100 Kg	1000 Kg	850 Kg	0	0
369		Chirakkal	14	5225	225	0	0	0	0	0	0	0	0	0	0.15	0.1	0	0	0
370		Erinazer	18	9492	889	0	0	0	0	0	0	0	0	0	0	0	0	0	0
371		Erudampally	24	5681	362	32	52	32	43	0	0	0	0	0	0.85	0.03	0.03	0	0
372		Kadampathuram	18	9872	2239	90	0	89	0	0	0	0	0	0	0	0	0	0	0
373		Kandiyazhath	16	9944	1959	0	0	0	0	2	0	0	0	0	0.03	0.03	0	0	0
374		Kannad	19	8667	1199	50	0	11	0	0	0	0	0	0					
375		Kari	18	7784	44	0	0	0	0	0	1								
376		Karumbala	16	7939	650	45	0	100	0	0	0	0	0	0	0.20 tonnes	0.02 tonnes	0.02 tonnes	0	0
377		Kappur	18	8902	1259	0	0	0	0	0	0	0	0	0	0.45	0	0	0	0
378		Karakulam	16	7417	1499	0	0	100	0	100	2	0	0	0	0.01	0.01	0.01	0	0
379		Karimulla	17	8870	2049	70	0	87	0	0	0	0	0	0					
380		Karimuzhath	18	9833	268	64	64	100	4	0	2	0	0	0	0.5	0.5	0.5	0	0
381		Kavayam	17	8966	218	7	0	12	0	0	0	0	0	0					
382		Kavayam	13	4861	218	0	0	0	0	0	0	0	0	0	0.01	0.01	0.01	0	0
383		Kochikasshery	22	13196	2238	69	0	67	0	0	1	0	0	0	0.04	0.04	0.04	0	0
384		Koduvila	13	8182	1323	80	84	90	90	28	4	0	0	0	7 tonnes	8 tonnes	5 tonnes	0.2 tonnes	0
385		Koduvila	18	10183	665	0	0	0	0	5	75	0	0	0	1.05 tonnes	1.05 tonnes	1.05 tonnes	205 kg	0
386		Koduvila	18	7346	1245	0	0	100	0	0	0	0	0	0	1200	1200	1200	200	0
387		Kongal	18	9300	1664	100	0	88	0	14	62	100	42	0	500	500	500	0	0
388		Kongara	17	8915	2482	100	0	81	0	0	0	0	0	0	0.01	0.01	0.01	0	0
389		Kottayam	15	8923	1229	10	0	85	0	1	1	0	0	0	0.05	0.05	0.05	0	0
390		Kottayam	23	13771	3843	0	0	30	0	0	0	0	0	0	0.01	0.01	0.01	0	0
391		Kozhikangara	18	9110	1251	0	0	0	0	0	0	0	0	0	0	0	0	0	0
392		Kozhikode	17	5572	1787	79	0	0	28	0	0	0	0	0	0	0	0	0	0
393		Kumarakudi	18	8932	1832	81	0	0	60	0	0	0	0	0	0.03	0.03	0.03	0	0
394		Kuthuvil	16	6896	824	0	0	0	0	0	0	0	0	0	0	0	0	0	0
395		Kuzhimenam	17	8923	283	100	0	0	100	0	0	0	0	0	0	0	0	0	0
396		Lakkil-Puram																	
397		Madampala	13																
398		Madampala	16	7125	1320	73	0	25	0	0	0	0	0	0	0	0	0	0	0
399		Madampala	18	8925	1300	48	0	18	0	0	0	0	0	0	0	0	0	0	0
400		Madampala	18	11926	2301	50	0	0	0	0	0	0	0	0	0	0	0	0	0
401		Madampala	18	7824	876	73	0	100	0	0	0	0	0	0	0	0	0	0	0
402		Madampala	18	7043	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
403		Madampala	18	9397	1819	0	0	0	0	0	0	0	0	0	0	0	0	0	0
404		Madampala	20	9204	2110	0	0	0	0	0	0	0	0	0	0	0	0	0	0
405		Madampala	13	8948	131	100	0	100	0	18	42	0	0	0	139.25	223.55	223.55	200.15	100.5
406	Madampala	17	8307	590	100	0	100	0	42	23	0	0	0	0	0	0	0	0	
407	Madampala	18	8091	448	100	0	100	0	0	0	0	0	0	0	0	0	0	0	
408	Madampala	18	10587	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	

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609		Nellampatti	13	958	87	100	0	100	0	0	0	0	0	0	0	0	0	0
610		Nemmara	20	11812	2449	81	0	0	0	7	0	0	0	160 KG	172 KG	172	0	0
611		Ongeer	23	12811	2161	99	0	0	0	0	0	0	0	700 kg	0	0	0	0
612		Pallanam	16	8433	268	93	0	17	0	0	0	0	0	0	0	0	0	0
613		Paal	20	10792	2069	0	0	0	0	0	0	0	0	0	0	0	0	0
614		Pandur	16	6762	728	0	0	0	0	0	0	0	0	0	0	0	0	0
615		Panachery	16	8920	150	0	0	0	0	0	0	0	0	0	0	0	0	0
616		Parthasar	18	8467	1784	0	0	0	0	4	0	0	0	0	0	0	0	0
617		Parvathi	18	8000	380	13	0	67	0	0	0	0	0	0	0	0	0	0
618		Panagandurthi	16	9536	0	0	0	0	0	0	0	0	0	0	0	0	0	0
619		Paruvada	14	1757	700	0	0	0	0	0	0	0	0	500 kg	500kg	0	0	0
620		Pavani	21	15283	1959	0	0	0	0	0	0	0	0	1400 Kg	0	0	0	0
621		Pondy	12	3189	890	0	0	0	0	0	0	0	0	300 kg	0	0	0	0
622		Pozhikottai	13	4561	489	0	0	54	0	0	0	0	0	NA	NA	NA	NA	NA
623		Pudukottai	15	6294	6	0	0	0	0	0	0	0	0	NA	NA	NA	NA	NA
624		Pudupattanam	12	4248	873	12	0	0	0	0	0	0	0	NA	NA	NA	NA	NA
625		Pudupattanam	21	17062	21	0	0	0	0	0	0	0	0	0	0	0	0	0
626		Pudur																
627		Pudumari	23	16896	4002	0	0	0	0	0	0	0	0	NA	NA	NA	NA	NA
628		Shelvar	14	6926	270	0	0	0	0	0	0	0	0	0	0	0	0	0
629		Sonabhogaram	14	3280	190	100		100		36				338.25	323.25	323.25	200.13	100.1
630		Theekampar	13	5502	868	0	0	0	0	0	0	0	0	0	0	0	0	0
631		Theekampar	16	6083	170	100	0	0	0	0	0	0	0	133.6	17.2	NA	NA	NA
632		Theer	16	7784	181	90	0	0	0	0	0	0	0	3.8384 tones	3.8384 tones	3.8384 tones	0	0
633		Theer	17	8247	3084	0	0	0	0	0	0	0	0	0	0	0	0	0
634		Theerkurisi	17	8248	820	72	0	50	0	0	0	0	0	0	0	0	0	0
635		Thiruvattakudi	18	5300	450	0	0	0	0	0	0	0	0	0	0	0	0	0
636		Thiruvattur	18	8084	1582	0	0	0	0	0	0	0	0	0	0	0	0	0
637		Thikkodi	18	6698	279	0	0	0	0	0	0	0	0	0	0	0	0	0
638		Thiruv	17	8420	424	0	0	0	0	0	0	0	0	8 tones	7 tones	7 tones	0	0
639		Thiruvattur	17	9068	812	20	0	30	0	0	10	0	0	1	0.25	0	0	0
640		Thiruvattur	20	10160	828	0	0	30	16	30	0	0	0	8 tones	7 tones	7 tones	0	0
641		Thiruvattur	12	5074	880	0	0	0	0	0	0	0	0	0	0	0	0	0
642		Thiruvattur	16	8826	1547	0	0	0	0	0	0	0	0	0	0	0	0	0
643		Thiruvattur	19	10548	728	90	0	20	0	90	20	0	0	0	0	0	0	0
644		Thiruvattur	18	10188	813	0	0	0	0	13	14	0	0	3000kg	3000kg	3000	0	0
645		Thiruvattur	12	5147	281	100	0	100	0	100	100	0	0	880	800	600	800	0
646		Thiruvattur	13	6957	0	0	0	0	0	0	0	0	0	0	0	0	0	0

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647	M	Ayathole	19	11127	200	75	23	2	0	0	0	0	0					NIL
648	A	Ajmanur	21	11621	1982	0	0	0	0	0	0	0	0	0.05	0.01	0.05	NA	NA
649	L	Amambalam	19	7841	604	100	0	100	0	0	0	0	0	0.045	0.045	0.045	0.045	0
650	A	Anakkayes	23	15424	205	100	0	100	0	0	0	0	0	0.05	0.05	0.05	0.05	0
651	F	Angalapuram	23	15220	4251	75	23	80	10	50	30	50	50	0.05	0.01	0.05	0.05	0
652	F	Ancikkode	19	8526	4728	0	0	0	0	33	38	0	0					
653	U	Athavandi	22	12143	3512	0	0	0	0	18	22	0	0	0.04	0.04	0.25	0.13	NIL
654	H	Chelvar	24	9261	267	100	0	100	0	12	82	0	2	0.02	0.02	0.02	0.02	0.02
655	A	Chelkote	18															
656	M	Chelamda	18	10801	1888	100	0	0	0	10	2	0	0	0.025	0.01	0.01	0.01	0.01
657		Cherayamundam	18	6546	420	100	0	100	0	0	0	0	0	0.025	0.01	0.01	0.01	0.01
658		Chinnara	19	11042	426	100	0	100	0	0	0	0	0	0.045	0.045	0	0	0
659		Chinnaru	18	9284	254	0	0	0	0	0	0	0	0	0	0	0	0	0
660		Chinnaru	20															
661		Chinnaru	18	8171	485	72	0	51	0	0	43	0	1	0.025	0.025	0.025	0.01	0.025
662		Chinnaru	19	9428	2427	100	0	100	0	14	7	0	0	0.04	0.04	0.04	0.04	0.04
663		Chinnaru	13	4986	110	22	0	18	0	27	7	0	0	0.020	0.020	0	0	0
664		Chinnaru	18	6528	NIL									0	0	0	0	0
665		Chinnaru	22	11141	2928	92	0	71	0	18	0	0	0	0.06	0.06	0.06	0.06	0.06
666		Chinnaru	19	8206	1729	29	0	0	0	7	0	0	0	0.2	0	0	0	0
667		Chinnaru	18	7919	314	65	0	63	0	45	18	0	0	0.05	0.01	0.04	0	0
668		Chinnaru	17	8228	1720	0	0	0	0	0	0	0	0					
669		Chinnaru	16	7528	1864	24	0	11	0	0	0	0	0	0.13	0.11	0	0	0
670		Chinnaru	18	10200	470	0	0	0	0	48	0	0	0	0.08	0	0	0	0
671		Chinnaru	18	9841	1364	0	0	0	0	0	0	0	0	0.035	0.035	0.035	0	0
672		Chinnaru	20	10141	2293	10	0	20	0	10	10	0	0	1	1.1	1.2	0	0
673		Chinnaru	13	623	320	100	0	100	0	0	0	0	0	0.05	0.05	0.05	0.05	0.05
674		Chinnaru	23	9947	260	0	0	0	0	0	0	0	0	0	0	0	0	0
675		Chinnaru	19	9588	346	0	0	0	0	0	0	0	0	0	0	0	0	0
676		Chinnaru	19	8287	1546	64	0	33	0	18	7	0	0	0.08	0.3	0.7	0	0
677		Chinnaru	14	6028	262	0	0	0	0	0	0	0	0	0	0	0	0	0
678		Chinnaru	20	10200	820	0	0	0	0	0	0	0	0	0	0	0	0	0
679		Chinnaru	19	10018	2224	100	0	100	0	0	0	0	0	0.035	0.035	0.035	0.035	0.035
680		Chinnaru	22	11895	2813	60	0	20	0	10	10	0	0	0.08	0.04	0.04	0.04	0
681		Chinnaru	22	12613	2568	65	0	71	0	25	70	0	0	0.045	0.045	0.045	0.045	0
682		Chinnaru	18	9400	342	60	0	80	0	40	40	0	0	0.025	0.025	0	0	0
683		Chinnaru	13	5861	194	100	0	100	0	0	0	0	0	0.2	0.2	0.2	0.2	0.02
684		Chinnaru	19	9820	220	0	0	0	0	0	0	0	0	0.1	0.1	0.1	0	0
685		Chinnaru	20	7864	7864	100	224	224	100	65	40	0	0	0.02	0.02	0.02	0	0
686		Chinnaru	18	9845	200	0	0	100	0	0	100	0	0	0.1	0.1	0.1	0	0
687		Chinnaru	20	7713	342									0.1	0.1	0.1	0.1	0
688		Chinnaru	19	10609	2291	100	0	0	100	100	100	0	0	0.1	0.1	0.1	0.1	0
689		Chinnaru	16	9400	127	60	0	21	0	22	60	0	0	0.02	0.02	0.02	0.02	0
690		Chinnaru	22	14420	886	60	0	40	0	10	7	0	0	0.03	0.03	0.03	0	0
691		Chinnaru	18	8473	385	78	24	20	0	0	0	0	0	0.13	0.13	0	0.1	NIL
692		Chinnaru	18	8245	317	60	0	100	0	1	0	60	100	0.15	0.13	0.12	0	0
693		Chinnaru	13	7140	204	100	24	100	0	24	0	0	0	0.1	0.1	0.1	0.01	0
694		Chinnaru	13	4347	107	73	23	60	40	96	100	0	0	0.3	0.3	0.3	0.3	0
695		Chinnaru	21	9300	2000	0	0	0	0	0	0	0	0	0.032	0.032	0	0	0
696		Chinnaru	17	6732	490	48	0	100	0	10	0	0	0	0.02	0.5	0	0	0

SL NO.	DISTRICT	LOCAL BODY	NO OF WARDS	No of Household	% Household ODD-Dry	% of Household ODD-Wet	No of establishment	Wet establishment -ODD-Dry	% establishment _ODD-Wet	% of houses in which source level treatment	% of establishment in which source level treatment	% disposing to aerated 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		Gomerathur	17	7669	1156	0	0	0	0	0	0	0	0	0.03	0	0	0	0
698		Oriyam	17	7555	256	11	0	14	0	0	0	0	0	0.025	0.021	0.025	0	0
699		Chakkal	20	10556	2844	35	0	100	0	90	90	90	90	0.033	0.03	0	0	0
700		Chakkal	18	7095	332	36	0	49	0	38	60	0	0	0.035	0.02	0	0	0
701		Pakkil	23	12642	6207	47	1	32	0	0	0	0	0	0.03	0	0	0	0
702		Pakkil	23	12510	482	0	0	0	0	0	0	0	0	0.1	0	0	0	0
703		Perapattur	18	8274	1919	0	1	0	0	0	0	0	0	0	0	0	0	0
704		Perumthi	16	7553	2123	1	0	0	0	1	1	0	0	0	0	0	0	0
705		Perumbavai	18	8123	1682	4	2	33	0	2	0	0	0	0	0	0	0	0
706		Perumbavai	10	9134	30	75	30	0	0	0	30	0	0	0.05	0.01	0	0	0
707		Perumbavai	18	7327	1302	0	0	0	0	0	0	0	0	0	0	0	0	0
708		Perumbavai	10	8452	329	100	100	40	20	0	2	2	0	0.05	0.05	0.05	0	0
709		Perumbavai	17	8076	1482	0	0	0	0	0	0	0	0	0.1	0.05	0	0	0
710		Perumbavai	17	10427	729	0	0	0	0	0	0	0	0	0	0	0	0	0
711		Perumbavai	19	8281	689	0	0	0	0	0	0	0	0	0	0	0	0	0
712		Perumbavai	20	12659	1300	12	10	25	21	7	3	0	0	0.03	0	0	0	0
713		Perumbavai	21	10940	1	0	0	0	0	0	0	0	0	0.01	0.01	0.01	0	0
714		Perumbavai	21	11866	2181	100	0	100	0	0	0	0	0	0.02	0.02	0.02	0	0
715		Perumbavai	19	8959	1689	100	100	49	0	21	0	0	0	0.015	0.015	0.015	0	0
716		Perumbavai	17	9186	340	100	0	100	0	0	29	100	100	4	0	3.5	0	0
717		Perumbavai	19											0.02	0.015	0	0	0
718		Perumbavai	21	12327	1438	100	0	82	0	0	0	0	0	0.02	0.02	0.02	0	0
719		Perumbavai	18	10047	800	100	0	100	0	34	40	0	0	0.018	0.01	0.01	0	0
720		Perumbavai	21	10060	8	100	0	83	0	64	83	0	0	1.1	1.31	0	0	0
721		Perumbavai	17	9831	0	0	0	0	0	0	0	0	0	0	0	0	0	0
722		Perumbavai	17	713	0	0	0	0	0	100	0	0	0	0	0	0	0	0
723		Perumbavai	21	12052	12121	83	0	0	0	0	0	0	0	0	0	0	0	0
724		Perumbavai	18	7182	38	100	0	0	0	0	0	0	0	0	0	0	0	0
725		Perumbavai	21	14853	2436									0	0	0	0	0
726		Perumbavai	21	8175	1100	100	0	80	0	65	0	0	0	0.23	0.83	0	0	0
727		Perumbavai	17	6500	230	100	0	100	0	45	0	0	0	0.21	0	0	0	0
728		Perumbavai	21	11966	2282													
729		Perumbavai	18	8139	2182	100	0	50	0	4	0	0	0	0.025	0.03	NA	0.03	NA
730		Perumbavai	21	12099	2715	100	0	100	0	35	25	0	0	0.25	0	NA	0.1	NA
731		Perumbavai	18	11117	8955													
732		Perumbavai	19	13645	2420													
733		Perumbavai	17	2452	2216	100	0	100	0	100	100	0	0	0.18	0.25	0.14	0	0
734		Perumbavai	23	14141	2111	0	0	0	0	0	0	0	0	16	13	8	0	0
735		Perumbavai	18	8231	2081													
736		Perumbavai	22	10852		0	0			0		0		NA	NA	NA	NA	NA
737		Perumbavai	16															
738		Perumbavai	20	8513	1892	100	0	0	0	0	0	0	0	25	20	14	15	15
739		Perumbavai	22											NA	NA	NA	NA	NA
740		Perumbavai	20	2211		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 B2D-Dry	% of Household B2D-Wet	No of establishment	Microestablishment -B2D-Dry	% establishment -B2D-Wet	% of houses in which source level treatment	% of establishment in which source level treatment	% disposing in controlled system	% disposing to controlled system	Quantity of Waste generated (TPD)	Quantity of Waste collected (TPD)	Quantity of Waste treated (TPD)	Quantity of Waste generated in Composting Sites (TPD)	Quantity of Waste generated in biochemical or (TPD)
741	K O Z H I K O D B E	Arakkulam	13	4009	117%	91	0	81	0	22	70	81	81	15 kg	17%	15 kg	0	0
742		Athaly	17	7103	196%	71	0	81	0	13	10	71	81	30 KG/DAY	20 KG/DAY	20 KG/DAY	0	0
743		Ayathal	17	8554	2437	8	0	0	0	20%	2%	100	1	1 TON	1 TON	1 TON	0	0
744		Ayloor	18	7900	561	43	0	80	0	100	100	0	0	800kg/day	800kg/day	800kg/day	0	0
745		Belavatt	17	8779	171%	87	0	34	10	80	80	0	0	1200 kg/day	1200 kg/day	1200 kg/day	0	0
746		Chakkilappan	15	6818	1811	30	0	75	0	90	80	0	0	20 KG/DAY	20 KG/DAY	20 KG/DAY	0	0
747		Changanth	18	9953	2737	100	0	81	16	80	80	0	0	25 Kg / day	25 Kg / day	25Kg/day	0	0
748		Changanthalam	22	10668	2786	24	0	12	8	24	82	0	0	20 kg/day	20 kg/day	20 kg/day	0	0
749		Chakkil	17	6544	1822	4	0	1	0	0	0	0	0	5 ton	5 ton	0	0	0
750		Chellam	21	13483	2250	8	0	0	0	0	0	0	0	20kg/day	20kg/day	0	0	0
751		Chennamangal	20	11131	3090	7	0	0	0	0	0	0	0	158	1389QUINY	1389QUIN	0	0
752		Chengattalam	17	6920	300	100	0	210	0	53	80	0	0	3 TPD	3	3	0	0
753		Cheruvannur	11	6772	1461	20	0	0	19	10	0	0	0	47	47	0	0	0
754		Cheruvu	21	10118	580	20	0	8	0	11	2	0	0	6	6	0	0	0
755		Edathur	17	7936	514	100	0	195	0	19	140	0	0	3 ton	3 ton	0	0	0
756		Erando	19	9407	2001	79	0	100	0	84	120	0	0	240 kg	240kg	0	240kg	0
757		Kadambur	22	10743	2813	74	0	43	0	82	37	0	0	10 TONS	10 TONS	0	0	0
758		Kakkil	21	12513	2470	100	0	43	0	58	0	0	0	0.25 TONS	0.25 TONS	0	0	0
759		Kakkil	17	7950	1141	76	0	61	7	0	0	0	0	120	120KG	0	120KG	0
760		Kakkil	18	9961	2007	60	0	100	7	0	0	0	0	0.1	0.1	0	0	0
761		Kakkil	17	3668	684	0	0	0	0	0	0	0	0	110kg	145 KG	0	0	0
762		Kakkil	16	7471	2028	67	0	58	3	100	48	67	47	0.21 Tons/Day	1.2 TONS	0	0	0
763		Kakkil	16	6143	1350	79	0	47	0	100	100	0	0	200KG/DAY	200KG/DAY	0	0	0
764		Kakkil	17	4430	624	78	0	100	0	100	100	0	0	85	85	0	0	0
765		Kakkil	17	4575	390	0	0	0	0	0	0	0	0	0.15	0.15	0	0	0
766		Kakkil	18	6183	2723	60	0	67	0	95	88	0	0	105kg	105 kg	0	0	0
767		Kakkil	21	10548	885	78	0	0	0	67	67	0	0	20 KG/day	20 KG	0	0	0
768		Kakkil	16	8382	4710	100	0	100	0	0	100	0	0	210kg	210kg	0	0	0
769		Kakkil	14	6500	118	55	0	0	0	0	0	0	0	0.3 ton/day	ton/day	0	0	0
770		Kakkil	13	3621	120	40	0	0	0	70	60	0	0	300	300	0	0	0
771		Kakkil	13	3727	412	18	0	0	0	0	0	0	0	300	150	0	0	0
772		Kakkil	18	7830	1650	70	0	48	33	100	100	0	0	100kg/day	100kg/day	0	0	0
773		Kakkil	22	17474	5888	0	0	11	0	100	100	0	0	450 kg/day	423 kg/day	0	0	0
774		Kakkil	13	5448	2124	100	0	100	0	100	100	0	0	140 Kg / Day	140 Kg / Day	140 Kg / Day	0	0
775	Kakkil	18	11420	3015	0	0	303	48	80	48	0	0	400 Kg/Day	400 Kg/Day	400 Kg/Day	0	0	
776	Kakkil	16	6282	4241	69	0	143	0	100	100	0	0	170 kg/Day	150kg/Day	155 kg/Day	0	0	
777	Kakkil	17	7126	1383	100	0	20	0	13	1	0	0	300	330	330	0	0	
778	Kakkil	21	12421	1412	25	0	445	0	7	1	0	0	2.5	1 ton / month	0	0	0	
779	Kakkil	14	8762	801	100	0	48	0	41	11	0	0	133K O/Day	133K O/Day	135 kg/Day	0	0	
780	Kakkil	18	9027	1190	65	0	60	0	22	12	0	0	120 Kg / Day	100kg/day	100	0	0	
781	Kakkil	17	7308	1840	89	0	100	0	80	100	0	0	0.3	0.18	0.18	0	0	
782	Kakkil	18	8354	2284	100	0	100	0	82	100	0	0	128 T	128 T	128 T	0	0	
783	Kakkil	22	11000	1300	87	0	0	0	100	100	0	0	1.3 ton per day	4.8 ton per day	0	0	0	
784	Kakkil	16	7930	2090	80	0	80	0	12	12	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 DDD-Dry	% of Household DDD-Wet	No of establishment	Establishment DDD-Dry	% establishment DDD-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 plant or (TPD)
785		Narandol	17	8780	1192	100	0	100	0	100	100	0	0	NOT	NOT	0	0	0
786		Narandol	18	8302	2009	0	0	217	0	70	65	0	0	112 ton	NOT	NOT	NOT	NOT
787		Nadipatti	17	7029	1236	96	0	28	0	80	100	0	0	NOT	NOT	NOT	NOT	NOT
788		Nadhal	17	6800	930	40	0	28	0	82	70	0	0	Not measured	3412kg	3412 kg	NA	0
789		Nalwara	23	18551	6560	0	0	0	0	77	65	0	0	Not measured	Not measured	Not measured	Not measured	Not measured
790		Narasimhan	19	16612	3518	37	0	0	0	83	70	0	0	Not measured	2.3 TON	2.3 TON	0	0
791		Narayan	17	7842	2076	100	0	18	0	70	20	0	0	2 T	2 T	0	0	0
792		Narasimhan	20	8718	1988	63	0	75	0	85	70	0	0	Not measured	2.3 ton	2.3 ton	0	0
793		Narasimhan	19	8048	1430	85	0	62	0	85	48	0	0	Not measured	4.1	4.3	0	0
794		Narasimhan	18	11633	1012	82	0	18	0	80	0	0	0	0.90 ton	0.90 ton	0.90 ton	0	0
795		Narasimhan	22	15467	1318	100	0	100	0	100	100	0	0	3 ton	3 ton	3 ton	0	0
796		Narasimhan	17	8206	1788	74	0	421	0	100	100	0	0	0.200 16 ton	0	0	0	0
797		Narasimhan	21	14588	3269	118	0	100	0	130	0	0	0	5 ton	5 ton	0	0	0
798		Narasimhan	17	8728	1320	73	0	0	0	71	2	0	0	4ton	4 ton	0	0	0
799		Narasimhan	19	8730	1432	84	0	84	84	0	0	0	0	0.74	0.74	0.74	0	0
800		Narasimhan	17	8551	1828	2	0	0	0	0	0	0	0	5 ton	5 ton	5 ton	0	0
801		Narasimhan	20	8948	2339	150	0	1	0	0	0	0	0	1.5	1.2	0	0	0
802		Narasimhan	17	9493	2293	28	0	24	0	28	34	0	0	5.3	3.8	3.8	0	0
803		Narasimhan	13	7943	1158	100	0	100	0	0	0	0	0	0.7	0.18	0.18	0	0
804		Narasimhan	15	7067	1377	0	0	0	0	1	0	89	65	747.5101 ME	747.5101 ME	747.5101	0	0
805		Narasimhan	18	8958	2262	0	0	288	0	100	44	40	0	9 ton	1.8	0	0	0
806		Narasimhan	23	15779	3355	0	0	100	0	100	100	0	0	200 ton	200 ton	0	0	0
807		Narasimhan	14	4485	937	56	0	31	0	100	32	0	0	0.01	0.04	0.05	0	0
808		Narasimhan	16	7340	2025	100	0	51	0	100	100	0	0	15 kg	15kg	15 kg	0	0
809		Narasimhan	17	8754	2826	100	0	100	0	100	100	0	0	170	148	148	0	0
810		Narasimhan	19	8962	3481	60	0	80	0	100	65	0	0	8.3	5	5	0	0
811	W	Narasimhan	20	10291	4279	33	0	7	0	0	0	0	0	4ton	3 ton	3ton	Nil	Nil
812	A	Narasimhan	19	8519	744	89	0	40	0	0	0	0	0	4 ton	3 ton	3 ton	3 ton	Nil
813	Y	Narasimhan	18	11791	2287	24	0	18	0	0	0	0	0	8 ton	6 ton	2 ton	3 ton	Nil
814	A	Narasimhan	18	8779	340	69	0	100	0	100	100	0	0	NA	NA	NA	NA	NA
815	N	Narasimhan	13	3293	632	0	0	0	0	100	100	0	0	2	1	1	2	1
816	A	Narasimhan	19	8735	1020	100	0	100	0	100	100	0	0	NA	NA	NA	NA	NA
817	D	Narasimhan	22	10518	813	100	0	100	0	16	70	0	0	1.2 ton	1.2 ton	0	0	0
818		Narasimhan	18	8736	852	0	0	0	0	0	0	0	0	3 ton	0	0	0	0
819		Narasimhan	19	7667	375	100	0	100	0	100	100	0	0	2 ton	2.5 ton	2.5 ton	3 ton	0
820		Narasimhan	19	10002	680	190	0	100	0	100	100	0	0	10 ton	7 ton	3 ton	0	0
821		Narasimhan	23	14733	703	85	0	100	100	100	100	0	0	4 Tons	3 Tons	3 Tons	3 Tons	0
822		Narasimhan	16	6624	472	100	0	100	0	13	38	0	0	1.63 TONS	1.63 TONS	0	0	0
823		Narasimhan	16	7244	347	87	83	69	0	83	0	0	0	0	0	0	0	0
824		Narasimhan	23	11742	408	100	0	46	0	0	0	0	0	0.06	0.01	0.05	0	0
825		Narasimhan	12	3783	2004	38	0	2	0	100	100	0	0	2 ton	1 ton	1	1	0.5 ton
826		Narasimhan	20	10437	3147	30	0	33	0	11	0	0	0	2	2	2	1	0
827		Narasimhan	13	3671	748	100	0	100	0	0	0	0	0	NA	NA	NA	NA	NA
828		Narasimhan	22	10433	700	25	0	0	0	100	100	0	0	4	3	Nil	Nil	Nil
829		Narasimhan	17	8520	1403	25	0	0	0	0	0	0	0	0	0	0	0	0
830		Narasimhan	15	7947	1329	42	0	38	0	0	0	0	0	2Tons	2Tons	Nil	Nil	Nil
831		Narasimhan	21	11620	1409	0	0	78	0	0	0	0	0	3.3	0	0	Nil	Nil
832		Narasimhan	13	7730	393	89	0	100	0	0	0	0	0	1.5	1.5	0	0	0
833		Narasimhan	14	4096	1582	100	0	100	0	100	100	100	100	50 kg	50 kg	50 kg	50 kg	0
834	N	Narasimhan	21	8980	2180	100	0	100	0	100	100	0	0	2.01	0.8811	2.01	0	0

Sl. No.	District	Local Body	No of Wards	No of Household	% Household D2D-Dry	% of Household D2D-Wet	No of establishments	% establishments D2D-Dry	% of houses in which source level treatment	% of establishments in which source level treatment	% disposing to centralized system	% disposing to decentralized 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)
822	A	Ajappandi	18	8471	739	100	0	100	0	100	0	0	1.26	0.94561	1.26	0	0
826	N	Arilan	17	8215	289	100	0	100	0	100	0	0	1.88	0.43244	1.88	0	0
827	N	Ayyalams	16	7348	455	100	0	100	0	100	0	0	1.54	0.03437	1.54	0	0
828	U	Azhikode	20	13428	360	100	0	100	0	100	0	0	2.73	0.94626	2.73	0	0
829	R	Cheruvayal	19	10281	213	100	0	100	0	100	0	0	2.08	0.94264	2.08	0	0
840		Cherubode	18	8706	381	100	0	100	0	100	0	0	1.77	0.03208	1.77	0	0
841		Chirappal	18	8076	370	100	0	100	0	100	0	0	1.86	0.04031	1.86	0	0
842		Chirakkal	12	4626	538	100	0	100	0	100	0	0	2.45	0.03316	2.45	0	0
843		Chiriyazha	18	8028	427	100	0	100	0	100	0	0	1.88	0.04571	1.88	0	0
844		Chiruvayal	17	10898	428	100	0	100	0	100	0	0	2.22	0.04761	2.22	0	0
845		Chiruvayal	23	14173	1337	100	0	100	0	100	0	0	2.96	2.1522	2.96	0	0
846		Chittiparamba	18	7131	370	100	0	100	0	100	0	0	1.48	0.0378	1.48	0	0
847		Chokki	17	8343	820	100	0	100	0	100	0	0	1.71	0.04168	1.71	0	0
848		Chiruvayal	18	8785	888	100	0	100	0	100	0	0	2.24	0.04173	2.24	0	0
849		Chiruvayal	17	7011	874	100	0	100	0	100	0	0	1.44	0.0364	1.44	0	0
850		Chiruvayal	18	8324	482	100	0	100	0	100	0	0	1.88	0.03321	1.88	0	0
851		Chiruvayal	14	5188	198	100	0	100	0	100	0	0	1.98	0.03363	1.98	0	0
852		Chiruvayal	14	4287	472	100	0	100	0	100	0	0	0.88	0.02018	0.88	0	0
853		Chiruvayal	13	2500	700	100	0	100	0	100	0	0	0.71	0.02363	0.71	0	0
854		Chiruvayal	18	4526	490	100	0	100	0	100	0	0	0.93	0.02354	0.93	0	0
855		Chiruvayal	18	8288	512	100	0	100	0	100	0	0	1.78	0.04417	1.78	0	0
856		Chiruvayal	18	7894	404	100	0	100	0	100	0	0	1.82	0.03181	1.82	0	0
857		Chiruvayal	18	8572	890	100	0	100	0	100	0	0	3.11	0.19504	3.11	0	0
858		Chiruvayal	13	3008	278	100	0	100	0	100	0	0	1.82	0.01954	1.82	0	0
859		Chiruvayal	14	3775	306	100	0	100	0	100	0	0	2.84	0.04425	2.84	0	0
860		Chiruvayal	14	8214	385	100	0	100	0	100	0	0	2.81	0.20773	2.81	0	0
861		Chiruvayal	14	8520	810	100	0	100	0	100	0	0	6.43	1.8903	4.53	0	0
862		Chiruvayal	13	5875	314	100	0	100	0	100	0	0	1.1	0.02482	1.1	0	0
863		Chiruvayal	14	8755	838	100	0	100	0	100	0	0	203.81	6.3696	2.81	0	0
864		Chiruvayal	13	3888	388	100	0	100	0	100	0	0	1.82	0.02188	1.82	0	0
865		Chiruvayal	14	3873	485	100	0	100	0	100	0	0	3.11	0.20888	3.11	0	0
866		Chiruvayal	18	8625	512	100	0	100	0	100	0	0	1.78	0.23108	1.78	0	0
867		Chiruvayal	14	4723	1400	100	0	100	0	100	0	0	0.88	0.23981	0.88	0	0
868		Chiruvayal	14	3298	510	100	0	100	0	100	0	0	1.59	0.22431	1.59	0	0
869		Chiruvayal	14	8545	587	100	0	100	0	100	0	0	302.83	0.2298	2.81	0	0
870		Chiruvayal	21	11484	300	100	0	100	0	100	0	0	4.51	0.84258	4.51	0	0
871		Chiruvayal	17	11252	818	100	0	100	0	100	0	0	2.1	0.25744	2.1	0	0
872		Chiruvayal	18	8588	3121	100	0	100	0	100	0	0	1.74	0.25853	1.74	0	0
873		Chiruvayal	20	8574	325	100	0	100	0	100	0	0	1.86	0.04378	1.86	0	0
874		Chiruvayal	13	2607	126	100	0	100	0	100	0	0	0.23	0.20887	0.23	0	0
875		Chiruvayal	18	8214	428	100	0	100	0	100	0	0	1.42	0.23205	1.42	0	0
876		Chiruvayal	18	10834	492	100	0	100	0	100	0	0	2.17	0.23824	2.17	0	0
877		Chiruvayal	17	8088	336	100	0	100	0	100	0	0	1.23	0.22817	1.23	0	0
878		Chiruvayal	18	8943	748	100	0	100	0	100	0	0	1.97	0.24204	1.97	0	0
879		Chiruvayal	14	3791	440	100	0	100	0	100	0	0	1.18	0.2282	1.18	0	0
880		Chiruvayal	20	8979	380	100	0	100	0	100	0	0	1.85	0.23078	1.85	0	0
881		Chiruvayal	15	7412	1284	100	0	100	0	100	0	0	1.52	0.2488	1.52	0	0
882		Chiruvayal	15	8628	220	100	0	100	0	100	0	0	1.21	0.02153	1.21	0	0

SL. NO.	DISTRICT	LOCAL BODY	NO OF WARDS	No of Household	% Household DSD-Dry	% of Household DSD-Wet	No of establishments	% establishments DSD-Dry	% establishments DSD-Wet	% of houses in which source level treatment	% of establishments in which source level treatment	% disposing in 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 Biomedical ms (TPD)
883		Nedavil	18	6800	280	100	0	100	0	100	100	0	0	1.8	0.01722	1.8	0	0
884		Nelath	17	7021	711	100	0	100	0	100	100	0	0	1.89	0.02618	1.89	0	0
885		New Malai	13	4417	480	100	0	100	0	100	100	0	0	3.81	0.02258	3.81	0	0
886		Padiyoor	25	6400	180	100	0	100	0	100	100	0	0	1.3	0.02222	1.3	0	0
887		Pakkamoor	25	5692	719	100	0	100	0	100	100	0	0	1.37	0.02488	1.37	0	0
888		Pappinam	20	10560	680	100	0	100	0	100	100	0	0	2.07	0.02247	2.07	0	0
889		Pavanan	28	11073	720	100	0	100	0	100	100	0	0	2.47	0.02322	2.47	0	0
890		Pattom	28	9152	568	100	0	100	0	100	100	0	0	1.87	0.02047	1.87	0	0
891		Pattanam	23	3039	227	100	0	100	0	100	100	0	0	0.81	0.01817	0.81	0	0
892		Payal	28	1462	470	100	0	100	0	100	100	0	0	1.32	0.02891	1.32	0	0
893		Payyambur	16	3849	490	100	0	100	0	100	100	0	0	1.17	0.02581	1.17	0	0
894		Peralam	28	3920	481	100	0	100	0	100	100	0	0	2.1	0.02582	2.1	0	0
895		Pitavoor	26	4800	100	100	0	100	0	100	100	0	0	1.28	0.027	1.28	0	0
896		Podingoor-Vayakkara	26	3873	230	100	0	100	0	100	100	0	0	2.06	0.02737	2.06	0	0
897		Poneral	29	10240	681	100	0	100	0	100	100	0	0	2.1	0.04977	2.1	0	0
898		Ramanthall	15	6300	801	100	0	100	0	100	100	0	0	2.15	0.04338	2.15	0	0
899		Talavankal	18	4934	401	100	0	100	0	100	100	0	0	1.43	0.02302	1.43	0	0
900		Thiruvananthapuram	18	6073	301	100	0	100	0	100	100	0	0	1.85	0.02218	1.85	0	0
901		Uthiyannil	15	6221	234	100	0	100	0	100	100	0	0	1.27	0.02718	1.27	0	0
902		Uthral	20	17828	230	100	0	100	0	100	100	0	0	2.79	0.02472	2.79	0	0
903		Vadakkulam	15	1820	1594	100	0	100	0	100	100	0	0	2.38	0.02991	2.38	0	0
904		Vengal	21	12843	820	100	0	100	0	100	100	0	0	2.52	0.02248	2.52	0	0
905	N	Ajanur	23	11373	10273	88	0	700	80	70	60	0	0.04	0.04	0.04	0	0	
906	A	Beddika	19	12807	8654	73	0	920	80	65	45	0	0.04	0.04	0.04	0	0	
907	B	Badi	16	8585	4585	77	0	260	100	0	100	87	0	0.81	0	0	0.81	0
908	A	Beddika	17	8828	6300	70	0	435	100	0	80	96	0	0.2523	0.023	0.023	0.023	0
909	C	Belloor	13	3424	2051	60	0	325	100	0	70	80	0	0.0025	0.0025	0	0	0
910	O	Chennal	23	15169	9169	60	0	435	75	0	45	45	0	0.02150	0.024	0	0	0
911	D	Cyrenal	23	18215	5368	29	0	1841	20	0	98	85	0	0.490	0.490	0	0	0
912		Chennal	13	4623	4613	70	0	330	34	0	86	81	0	0.26	0.101	0.101	0	0
913		Chinnappal	16	2274	5274	100	0	46	80	0	80	70	0	0.008	0.008	0.008	0	0
914		East Bili	16	8205	7280	88	0	452	30	0	90	67	0	0	0	0	0	0
915		Erumbil	17	5525	4525	82	0	140	40	0	70	75	0	0	0	0	0	0
916		Kadu	14	7012	6012	86	0	92	80	0	60	80	0	0.0133	0.0133	0.0133	0	0
917		Kadalka	13	6182	5182	84	0	1258	70	0	60	85	0	0.012	0	0	0	0
918		Kadambur	19	8103	8103	75	0	630	65	0	25	78	0	0	0	0	0	0
919		Kayyil Chennal	16	9334	8334	89	0	678	85	0	84	90	0	0	0	0	0	0
920		Kayyil	17	9648	7448	77	0	430	100	0	100	100	0	1.80	1.80	1.80	0	0
921		Kumbil	13	4605	2005	44	0	110	100	0	89	93	0	0	0	0	0	0
922		Kumbil	23	12552	8500	68	0	240	24	0	54	25	0	0	0	0	0	0
923		Kuttkol	18	7210	3430	71	0	450	70	0	60	68	0	0	0	0	0	0
924		Madhur	20	13203	13203	100	0	418	52	0	56	38	0	1	0.3	0	0	0
925		Madurai	15	6121	6331	100	0	217	100	0	100	100	0	0.7	0.7	0	0	0
926		Mangalady	23	12030	8500	62	0	2300	40	0	32	40	0	0	0	0	0	0
927		Mangalady	23	11503	6000	53	0	390	45	0	45	43	0	0	0	0	0	0
928		Maria	13	7111	7111	100	0	166	34	0	68	78	0	0.7	0	0	0.7	0
929		Madurai Pathur	15	7011	6011	86	0	390	68	0	78	87	0	0.2	0	0	0	0

Sl. NO.	DISTRICT	LOCAL BODY	NO OF WARDS	No of Household	% Household DDD-Dry	% of Household-DD Dry	No of establishments	% establishments -DDD-Dry	% establishments -DDD-Wet	% of houses in which source level treatment	% of establishments 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)
910		Madani	10	7532	6523	87	0	233	30	0	13	84	0	0.2	0	0	0	0
911		Padra	13	6400	4600	69	0	120	45	0	87	87	0	0.2	0	0	0.2	0
912		Phulvadi	19	8726	5700	59	0	260	68	0	68	71	0	0.2	0.2	0.2	0.2	0
913		Pillakere	23	13177	12177	89	0	644	90	0	94	94	0	0.11	0.11	0.11	0	0
914		Purshadi	15	7426	6426	87	0	317	93	0	81	81	0	0.72	0	0	0	0
915		Misodi	18	6842	5932	87	0	473	84	0	90	84	0	0.62				
916		Datta Purva	17	10644	5644	91	0	205	100	0	90	90	0	0.58	0.58	0.58		
917		Dudhga	14	1073	1073	72	0	1081	36	0	48	50	0	1.09	1.09	1.09	0	0
918		Tirunagar	21	11733	8700	74	0	946	60	0	82	82	0	0.125	0.125			
919		Udasa	21	13332	9622	89	0	617	566	0	64	64	0	0.13	0.13	0.13	0	0
920		Valdevastamba	12	6861	4800	70	0	100	100	0	84	70	0	0.18	0.18	0.18	0	0
921		Varkady	18	6834	4800	70	0	200	40	0	81	84	0	0.16	0.16	0	0	0
922		West Dadi	18	6074	5474	78	0	220	70	0	80	87	0	0.75	0.75	0.75	0.02	0

ANNEXURE III

Telephone: 0471-2303644
e.mail: kspcbdtvm@yahoo.com

KERALA STATE POLLUTION CONTROL BOARD

കേരള സംസ്ഥാന മലിനീകരണ നിയന്ത്രണ ബോർഡ്



DISTRICT OFFICE, THIRUVANANTHAPURAM
തിരുവനന്തപുരം, തിരുവനന്തപുരം

P. O. 1296 (C.S. PLAMCHERU) MC, PATTOM P. O. THIRUVANANTHAPURAM - 695 044
പി.ഒ. 1296 (ക. പ്ലംച്ഛേരൂർ) മ.പ. പാട്ടം പി.ഒ. തിരുവനന്തപുരം - 695 044

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 <i>Maheshwar</i> 3/7/2020</p>		
Remarks:				
Scientist-in-Charge of Analysis					ASSISTANT SCIENTIST

o/c

ANNEXURE III

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

KERALA STATE POLLUTION CONTROL BOARD

കേരള സംസ്ഥാന മലിനീകരണ നിയന്ത്രണ ബോർഡ്




DISTRICT OFFICE, THURUVANANTHAPURAM
"ജി.എസ്. മെമ്മോരിൽ", തിരുവനന്തപുരം

P. O. 1296 (A.S. PLAMBOUDI IS. - PAITHOM) THIRUVANANTHAPURAM - 695 004
ഫോൺ: 0471 (A.S.) 2303844, 2303845, 2303846, 2303847 - ഫാക്സ്: 0471 2303844

ANALYSIS REPORT

No: 202175

Date: 03/07/2020

Source		Dumpsite of Vaalkala Municipality (Bore Well Sample)		
Sample received from		TAI	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	70	250
4	BOD	mg/L	6	30
5	Total Dissolved Solids	mg/L	96.1	---
6	Conductivity	S/m	92	---
Signature:		<p>for AS  3/7/2020 ASSISTANT SCIENTIST</p>		
Remarks:				
Scientist-in-Charge of Analysis:				

ANNEXURE III

KERALA STATE POLLUTION CONTROL BOARD CENTRAL LABORATORY



കേരള സംസ്ഥാന മലിനീകരണ നിയന്ത്രണ ബോർഡ്
കേന്ദ്ര പരീക്ഷണശാല



Certificate No:
TC-8525

ANALYSIS REPORT

Analysis Report No.	PCB/CL/1446/20-21	Date	22 Apr 2021	Doc No.	PCB/CL/CHT-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 - 23 Apr 2021		
Source	Brahmapuram solid waste plant leachate	Scientist-in-charge	Rajeeva		
Sample Condition	fit for analysis	Sample Type	Waste Water		
Sample collected by	CEE, RO ERNAKULAM	Sample volume & container type	3L 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, 4-85 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	99.6	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 Web : www.keralapcb.nic.in

Certified for QMS (ISO 45001:2018)

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8	Magnesium	mg/L	89.1	APHA, 3500-Mg B-386, 20rd Edition, 2012	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  22/4/21
RAJEEVA R
 Senior Environmental Scientist


 Authorized Signatory
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



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	Brahmaporam 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
27/3/21

ZAHIDA P Z
Assistant Scientist

Authorised by

Geetha P
24/3/2021
P GEETHA
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

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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 19th 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 ^H	-	6.8	APHA, 4500-H+B,4-95 to 4-99, 23 rd 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 rd Ed.,2017
4	COD	mg/l	448	APHA, 5520-B, 23 rd Ed
5	Nitrate as Nitrogen	mg/l	7.4	APHA,4500NO ₃ -,B,4-127,23 rd Edition (Ultraviolet Spectrophotometric Method) 2017
6	Phosphates	mg/l	36.67	APHA,4500P,E,4-164 to 4-165, 23 rd Edition:2017
7	Sulphates	mg/l	63.1	APHA, 4500-SO ₄ 2-E, 23 rd 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 rd Ed., 2017
10	Total Coliform	CFU/100ml	620000	APHA 9222 B, 23 rd Ed.2017

11	Faecal Coliform	CFU/100ml	480000	APHA 9222 D, 23 rd Ed.2017
12	Faecal Streptococci	CFU/100ml	1000	APHA 9230 C, 9-119 to 9-122. 23 rd Ed.2017
13	Ammoniacal Nitrogen	mg/l	94.0	APHA,4500 NH3 F,4-119 TO 4-120Phenate method, Colourimetric),23 rd 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 19th 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



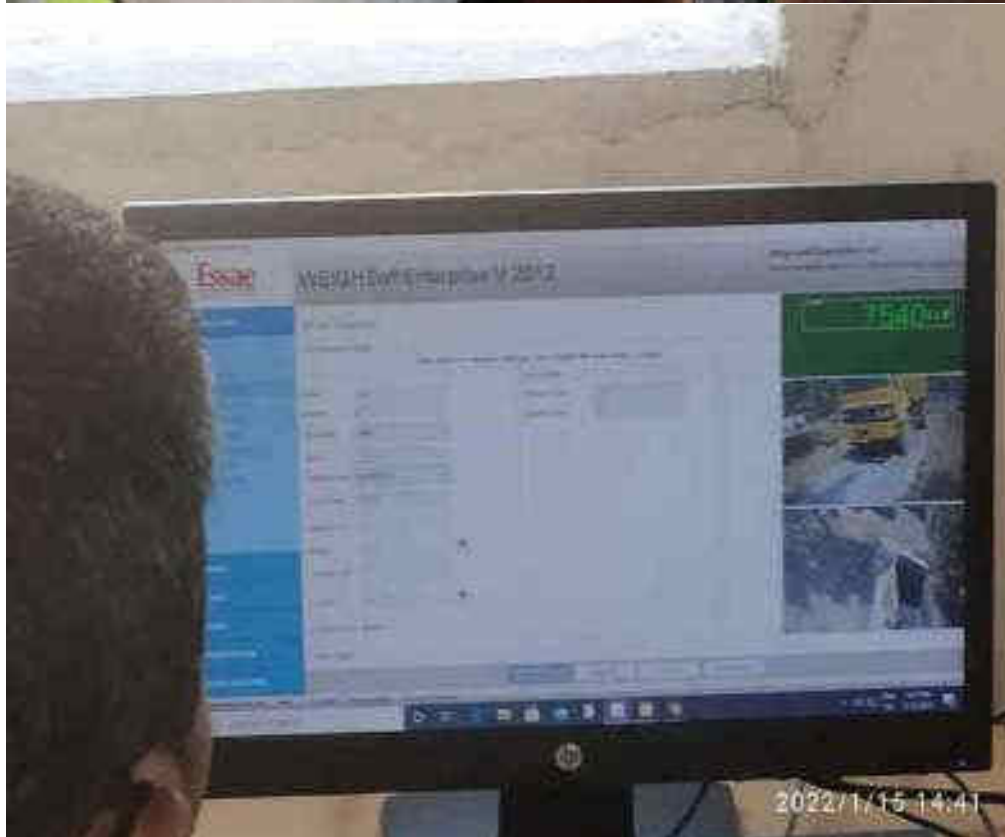
Windrowing



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 Yakkara, 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.പി.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 ഹീർദ് (എൻവയോൺമെന്റൽ എഞ്ചിനീയർ, കേരള സംസ്ഥാന മലിനീകരണ നിയന്ത്രണ ബോർഡ്, ജില്ലാ ഓഫീസ്, മലപ്പുറം).
10. ശ്രീമതി സൗമ ബീവി.പി.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 നിർബന്ധമായും സമയബന്ധിതമായി ചെയ്തു തീർക്കേണ്ടതാണെന്നും പകുതി വഴിക്ക് വെച്ച് ടെർമിനേറ്റ് ചെയ്യാൻ സാധിക്കുകയില്ല. അതുകൊണ്ട് റീ കോൺട്രാക്ടിന് പോകുന്നതല്ലേ 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.

തൃശൂർ 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 നിർഭാഗ്യകരമാണെന്നും 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.

തൃശൂർ 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 ഉൾസാഹിത്യമെന്നും എൻവയോൺമെന്റൽ എഞ്ചിനീയർ ഓർമ്മപ്പെടുത്തുകയുണ്ടായി.

3.45 pm-ന് വീഡിയോ കോൺഫറൻസ് അവസാനിച്ചു.

എൻവയോൺമെന്റൽ എഞ്ചിനീയർ

മലപ്പുറം
13.04.2022

DA 673 ന് 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 ക്ലാർക്ക് (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 പുരോഗതി 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 റെഗുലേറ്ററുടെ നടന്നുകൊണ്ടിരിക്കുകയാണെന്നും തിരുർ മുനിസിപ്പാലിറ്റി ഹെൽത്ത്

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

തിരുവനന്തപുരം മത്സ്യമാർക്കറ്റിലെ ETP-യുടെ renovation work, blower മാറ്റുന്നതിനുമായി ഏകദേശം 6 ലക്ഷത്തോളം രൂപ വരുമെന്നും അതിനായുള്ള പ്രോജക്ട് തയ്യാറാക്കിയിട്ടുണ്ട്. അടുത്ത മാസമാണ് അപ്രവൽ ആവുകയുള്ളൂ. അതിനു ശേഷം മാത്രമേ വീടൊഴുക്ക് വിളിക്കുകയുള്ളൂ എന്നും ശ്രീ.ജീവരാജ് അറിയിച്ചു.

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

അവനവനമായി മലപ്പുറം മ്യൂണിസിപ്പാലിറ്റിയുടെ 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 തോടുകളും ഡ്രൈനേജുകളുടെയും ക്ലീനിങ്ങ് ആണ് നടന്നു കൊണ്ടിരിക്കുന്നതെന്നും ശ്രീ.ഹമീദ് അറിയിച്ചു.

3.30 pm-ന് വിവരങ്ങൾ കോൺഫറൻസ് അവസാനിച്ചു.


ഏൻവയോൺമെന്റൽ 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 Panchayath, building construction for the MSW treatment plant (MCP and RRT) was completed. machineries for RRT were purchased and waiting for KSEB connection for its installation. And waste processing was not started. Pudur Panchayath Secretary informed.
- Harithakemvasena 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 carried out recently to the progress of the other action points, where Pudur Panchayath 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-ROW of the Bhavani Riverbank been earlier started by HERTS and his report will be made available for the action plan implementation.
- Water quality monitoring of Bhavani at Elachivazhi across 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 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.


Chairman


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, മൈനർ 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 മജിസ്ട്രേറ്റ്, 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. ജെറിൻ 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 ഏറ്റെടുത്തിട്ടില്ലെന്നും, വെള്ളപ്പൊക്ക ബാധിത പഞ്ചായത്ത് ആകയാൽ തരം തിരിച്ച് വച്ചിരുന്ന പ്ലാസ്റ്റിക് മാലിന്യങ്ങൾ ഒഴുക്കി നടക്കുന്ന സ്ഥിതി ഉണ്ടായെന്നും പഞ്ചായത്ത് സെക്രട്ടറി അറിയിച്ചു. പഞ്ചായത്ത് പദ്ധതിയാണിതെന്നും പദ്ധതിയിൽ മാറ്റം വരുത്തിയിട്ടും, ടെണ്ടർ ആരും ഏറ്റെടുത്തിട്ടില്ലെന്നും 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 ബാക്ടീരിയയുടെ സാന്നിദ്ധ്യം അറിയാൻ 4 സാമ്പിളുകൾ വീതം ശേഖരിച്ച് കിറ്റുപയോഗിച്ച് പരിശോധന നടത്തി

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

ദ്വൈതം ജലവിവേ 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 പ്ലാസ്റ്റിക്സുകൾ 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
ഡെപ്യൂട്ടി കളക്ടർ (ഇനാർമിംഗ്)
അഡീഷണൽ വിസ്ട്രിക്റ്റ് മജിസ്ട്രേറ്റ്
പത്തനംതിട്ട

[Handwritten signature]
15/5



KERALA STATE POLLUTION CONTROL BOARD

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

കേരള സംസ്ഥാന മലിനീകരണ നിയന്ത്രണ ബോർഡ്

ജില്ലാ ഓഫീസ്, 19/269A, പെരിന്തൽമണ്ണ റോഡ്, കുന്നൂരൂർ, 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 വേസ്റ്റുകളൊന്നും തന്നെ പൊതുസ്ഥലങ്ങളിലേക്ക് ഒഴുക്കുന്നില്ലെന്നും, കൂടാതെ ലിക്വിഡ് വേസ്റ്റുകൾ അതാത് സ്ഥാപനങ്ങളുടെ സോക് പിറ്റുകളിലേക്കും സെപ്റ്റിക് ടാങ്കുകളിലേക്കും ഒഴുക്കുകയാണെന്നും ബയോ വേസ്റ്റുകൾ പന്നി ഫാമിലേക്ക് കൊടുക്കുകയാണെന്നും ശ്രീ.ഹമീദ് അറിയിച്ചു. ഹോട്ടൽ ഡെലീഷ്യസ്കു 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 INL, PATTOM P.O, THIRUVANANTHAPURAM - 695 004
ടി.സി. 12/96 (4.5), പ്ലാമൂടു ഇൻല, 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


ASSISTANT ENVIRONMENTAL SCIENTIST

0471-230544

e-mail: kspcbid@vsnl.com

kspcb@vsnl.com

KERALA STATE POLLUTION CONTROL BOARD

കേരള സംസ്ഥാന പരിമലകരണ നിയന്ത്രണ ബോർഡ്

DISTRICT OFFICE, THIRUVANANTHAPURAM

മിസ്റ്റർ സഹായക മന്ത്രിമാരുടെ

I.C. 12/96 (4.5) PLAMOODU EN, PATTOM P.O. THIRUVANANTHAPURAM - 695 004


മിസ്റ്റർ സഹായക മന്ത്രിമാരുടെ ഓഫീസ്, മിസ്റ്റർ സഹായക മന്ത്രിമാരുടെ - 695 004



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 <u>Muleman (AS)</u> Scientist-in-Charge of Analysis <div style="text-align: right;">  ASSISTANT ENVIRONMENTAL SCIENTIST </div>				



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

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Telephone : 0484-2593747

E-mail : pcbdo2ekm@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 ⁺ B 22 nd Edition 2012	6.0-8.0
2	BOD	mg/l	40	APHA, 5210 B, 22 nd Edition 2012	30
3	COD	mg/l	112	APHA, 5220 B, 22 nd Edition 2012	200
4	OIL & GREASE	mg/l	BDL	APHA, 5520 B, 22 nd Edition 2012	8
5	SS	mg/l	146	APHA, 2540-D, 22 nd Edition 2012	80
6	TDS	mg/l	2038.4	APHA 2540-C, 22 nd Edition 2012	1600
7	Ammoniacal Nitrogen	mg/l	0.012	APHA 4500-NH ₃ -F, 22 nd Edition 2012	50
8	Sulphides	mg/l	BDL	APHA 4500-S ²⁻ F, 22 nd Edition 2012	1

SARANYA DASK

ASSISTANT SCIENTIST

Kerala State Pollution Control Board
Dist: Office, Ernakulam

31 MAR 2022



Perumbayoor - 683542

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01/04/22



KERALA STATE POLLUTION CONTROL BOARD
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Telephone : 0484-2593747

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

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6/5/22
AE3/As
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6/5/22



SARANYA DASK
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 rd Ed., 2017	3 to 12
2	Total Suspended Solids	mg/L	16.0	APHA, 2540-D, 23 rd Ed., 2017	10 mg/L
3	Ammoniacal Nitrogen	mg/L	0.56	APHA-4500 NH3-C, 23 rd 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 rd Ed., 2017	4 to 1000 mg/L
6	Oil & Grease	mg/L	BDL	APHA, 5520-B, 23 rd Ed., 2017	5 mg/l
7	Total Nitrogen	mg/L	37.80	APHA, 4500-N-Org B, 22 nd 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 പരിക്ഷണശാല



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 rd Ed., 2017	3 to 12
2	Total Suspended Solids	mg/L	BDL	APHA, 2540-D, 23 rd Ed., 2017	10 mg/L
3	Ammoniacal Nitrogen	mg/L	10.8	APHA-4500 NH3-C, 23 rd 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 rd Ed., 2017	4 to 1000 mg/L
6	Oil & Grease	mg/L	BDL	APHA, 5520-B, 23 rd Ed., 2017	5 mg/L
7	Total Nitrogen	mg/L	0.55	APHA, 4500-N-Org B, 22 nd 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

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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 ⁺ B 22 nd Edition 2012.	6.0-9.0
2	BOD	mg/l	240	APHA, 5210 B, 22 nd Edition 2012.	30
3	COD	mg/l	720	APHA 5220 B, 22 nd Edition 2012	250
4	SS	mg/l	122	APHA 2540 D, 22 nd Edition 2012	100
5	OIL & GREASE	mg/l	BDL	APHA, 5520 B, 22 nd Edition 2012	10
6	FLUORIDES	mg/l	1	APHA, 4500-F.C, 22 nd Edition 2012	2
7	CHLORIDES	mg/l	114	APHA, 4500-CT B, 22 nd Edition 2012	1000
8	SULPHATES	mg/l	372.9	APHA, 4500-SO ₄ , 22 nd Edition 2012	1000
9	SULPHIDES	mg/l	39.6	APHA-4500-S ²⁻ D 22 nd Edition 2012	2
10	AMMONIACAL NITROGEN	mg/l	0.56	APHA, 4500-NH ₃ -F, 22 nd Edition 2012	50
11	PHENOLIC COMPOUNDS	mg/l	BDL	APHA, 5530 C, 22 nd Edition 2012	1.0

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

07 JUL 2022

SARANYA DASK

ASSISTANT SCIENTIST

Ashamp 2
Dul
08/07/22
2100
17/22



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

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 ⁺ B 22 nd Edition 2012.	6.0-9.0
2	BOD	mg/l	240	APHA, 5210 B, 22 nd Edition 2012.	30
3	COD	mg/l	720	APHA 5220 B, 22 nd Edition 2012	250
4	SS	mg/l	122	APHA 2540 D, 22 nd Edition 2012	100
5	OIL & GREASE	mg/l	BDL	APHA, 5520 B, 22 nd Edition 2012	10
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7	CHLORIDES	mg/l	114	APHA, 4500-CT B, 22 nd Edition 2012	1000
8	SULPHATES	mg/l	372.9	APHA, 4500-SO ₄ , 22 nd Edition 2012	1000
9	SULPHIDES	mg/l	39.6	APHA-4500-S ²⁻ D 22 nd Edition 2012	2
10	AMMONIACAL NITROGEN	mg/l	0.56	APHA, 4500-NH ₃ -F, 22 nd Edition 2012	50
11	PHENOLIC COMPOUNDS	mg/l	BDL	APHA, 5530 C, 22 nd Edition 2012	1.0

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

07 JUL 2022

SARANYA DASK

ASSISTANT SCIENTIST

Ashamp 2
Dul
08/07/22
2100
17/22

Status of CSTPs/CETPs which are operational

Sl. No.	City/Town	STP / ETP Location	Status	Installed capacity	Utilization	Process
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 ³ /day	220 m ³ /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 - for Online registration, visit-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

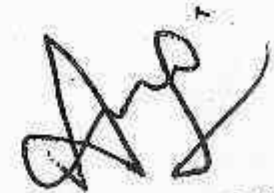
DATASHEET

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: slpy.pcb@gmail.com Telephone: 0477-2235384 web: www.keralapcb.nic.in

ഓൺലൈനിൽ അപേക്ഷകൾ സമർപ്പിക്കുവാൻ 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 st phase 1.5 MLD. 2 nd 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,

Smitha C V

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

S. 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	NH3N, 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	F5, cfu/100 ml	20	20	20	10	20	20	60	50	60	80	40	30

Sample Details

K1	Kainoor	C1	Peringal
K2	Mupiyam	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)	(2)	(3)	(4)	(5)	(6)	(7)	(8)	(9)
KARUVANNOOR	Kainoorchira Bridge		K1	14.06.2022	14.06.2022	14.06.2022		
	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	"	"	"		
	Chalakyudy 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	COD	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.


Assistant Scientist
Assistant Scientist
Kerala State Pollution Control Board
District Office, Kannur-670002

22/07/22

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, കുന്നിക്കോട്ടത്തിൽബിലിയിൽ, 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-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

Sl. No.	City/Town	STP / ETP Location	Status	Installed capacity	Utilization	Process
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 ³ /day	220 m ³ /day	Coagulation & Settling

കേരള സംസ്ഥാന മലിനീകരണ നിയന്ത്രണ ബോർഡ്

KERALA STATE POLLUTION CONTROL BOARD

ജില്ലാ ഓഫീസ്, OPP ജനറൽ ആശുപത്രി, KK Nair Road, കുന്തിയോട്ടത്തിൽബിൽഡിങ്, 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.ആ.എസ്. ഓപ്പറേഷൻ ഓഫീസ്, കെ.കെ. നായർ റോഡ്, കുന്നിത്തോട്ടത്തിൽബിത്വിൽ, പത്തനംതിട്ട-689 645

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

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

ഭരണഭാഷ - മാതൃഭാഷ

ICO/PTA/4337/2022

DESPATCHED

14.07.2022

15/07/2022

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.

പൊതു 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



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, കുന്തിയോട്ടത്തിൽബിൽഡിങ്, പത്തനംതിട്ട-689 645

web site: www.keralapcb.nic- for Online registration, visit-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

2006
21/08/2022

AE₃
2/8

Remarks: BOD,O&G Slightly exceeded the limit

ASSISTANT SCIENTIST



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, 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-krocmmms.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



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

NAMP-I
20/07/22

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20/07/22

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PCB/PBR/LAB/1/2013

Date: 19.09.2022

ANALYSIS REPORT

Source : BPCL KOCHI REFINERY, AMBALAMUGHAL
Sample Point : Outlet A
Ref :
D.O.S : 14.07.2022
D.O. Rd : 15.07.2022
Collected by : NAMP-I
Sample ID : PCB-3482

Sl.No.	Parameters	Unit	Value	Test Method	KSPCB Limit
1	pH		6.72	APHA, 4500 H ⁺ B 22 nd Edition 2012.	6.0-8.5
2	BOD	mg/l	5	APHA, 5210 B, 22 nd Edition 2012.	15
3	COD	mg/l	20	APHA, 5220 B, 22 nd Edition 2012.	125
4	SS	mg/l	46.8	APHA, 2540-D, 22 nd Edition 2012	20
5	Phosphates	mg/l	0.10	APHA-4500 P-F 22 nd Edition 2012	3.0
6	Ammoniacal nitrogen	mg/l	0.11	APHA 4500-NH ₃ -F, 22 nd Edition 2012	15
7	Phenolic Compounds	mg/l	BDL	APHA 5530 C, 22 nd Edition 2012	0.35
8	Oil and Grease	mg/l	BDL	APHA, 5520 B, 22 nd Edition 2012	5.0

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9	Sulphide	mg/L	BDL	APHA,4500 S2 F,4-187,23 rd Edition :2017	0.5
10	Total Kjeldahl nitrogen	mg/L	0.30	APHA,4500 N org B,4-139 to 4-140 ,23 rd Edition :2017	40
11	Hexa valent Chromium	mg/L	BDL	APHA,3500.Cr B, 3-71-3-73,23 rd Edition (Colorimetric method) :2017	0.1
12	Total Chromium	mg/L	BDL	APHA,3111-B,3-20 to 3-21,23 rd Edition:2017	2.0
13	Copper	mg/L	BDL	APHA,3111-B,3-20 to 3-21,23 rd Edition:2017	1.0
14	Nickel	mg/L	BDL	APHA,3111-B,3-20 to 3-21,23 rd Edition:2017	1.0
15	Lead	mg/L	BDL	APHA,3111-B,3-20 to 3-21,23 rd Edition:2017	0.1
16	Zinc	mg/L	0.22	APHA,3111-B,3-20 to 3-21,23 rd Edition:2017	5.0
17	Mercury	mg/L	BDL	APHA,3111-B,3-25to 3-27,23 rd Edition:2017	0.01
18	Vanadium	mg/L	BDL	APHA,3500-V,23 rd Edition:2017	0.2

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PCB/PBR/LAB/1/2013

Date: 03.08.2022

ANALYSIS REPORT

Source : SYNTHITE KOLENCHERY

Sample Point : R.O OUTLET

D.O.S : 27.07.2022

D.O. Rd : 29.07.2022

Collected by : NAMP-1

Sample ID : PCB-149

Sl.No.	Parameters	Unit	Value	Test Method	KSPCB Limit
1	pH		7.30	APHA, 4500 H ⁺ B 22 nd Edition 2012	6.5-9.0
2	BOD	mg/l	26	APHA, 5210 B, 22 nd Edition 2012	30
3	COD	mg/l	72	APHA, 5220 B, 22 nd Edition 2012	250
4	OIL & GREASE	mg/l	BDL	APHA, 5520 B, 22 nd Edition 2012	10
5	SS	mg/l	BDL	APHA, 2540-D, 22 nd Edition 2012	100

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3157
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PCB/PBR/LAB/1/2013

Date: 03.08.2022

ANALYSIS REPORT

Source : PLANT LIPIDS KOLENCHERY

Sample Point : R.O OUTLET

D.O.S : 27.07.2022

D.O. Rd : 29.07.2022

Collected by : NAMP-1

Sample ID : PCB-008

Sl.No.	Parameters	Unit	Value	Test Method	KSPCB Limit
1	pH		7.41	APHA, 4500 H ⁺ B 22 nd Edition 2012.	6.5 - 9.0
2	BOD	mg/l	17	APHA, 5210 B. 22 nd Edition 2012.	30
3	COD	mg/l	16	APHA, 5220 B. 22 nd Edition 2012	250
4	OIL & GREASE	mg/l	BDL	APHA, 5520 B. 22 nd Edition 2012	10
5	SS	mg/l	BDL	APHA, 2540-D. 22 nd Edition 2012	100

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04/08/22

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PCB/PBR/LAB/1/2013

Date: 03.08.2022

ANALYSIS REPORT

Source : HERBAL ISOLATES, PANCODE

Sample Point : ETP OUTLET

D.O.S : 27.07.2022

D.O. Rd : 29.07.2022

Collected by : NAMP-1

Sample ID : PCB-159

Sl.No.	Parameters	Unit	Value	Test Method	KSPCB Limit
1	pH		6.99	APHA, 4500 H ⁺ B 22 nd Edition 2012	5.5 -9.0
2	BOD	mg/l	21	APHA, 5210 B, 22 nd Edition 2012.	30
3	COD	mg/l	100	APHA, 5220 B, 22 nd Edition 2012	250
4	OIL & GREASE	mg/l	BDL	APHA, 5520 B, 22 nd Edition 2012	10
5	SS	mg/l	BDL	APHA, 2540-D, 22 nd Edition 2012	100
6	TDS	mg/l	111.6	APHA, 2540-C, 22 nd Edition 2012	-

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4/8/22



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Website: www.keralapcb.nic.in

PCB/PBR/LAB/1/2013

Date: 21.05.2022

ANALYSIS REPORT

Source : KITEX GARMENTS Ltd (PROCESSING UNIT)
Sample Point : ETP OUTLET
D.O.S : 06.05.2022
D.O. Rd : 06.05.2022
Collected by : NAMP-I
Sample ID : PCB-121

Sl.No.	Parameters	Unit	Value	Test Method	KSPCB Limit
1	pH		7.51	APHA, 4500 H ⁺ B 22 nd Edition 2012.	6.0-8.5
2	BOD	mg/l	28	APHA, 5210 B, 22 nd Edition 2012.	30
3	COD	mg/l	96	APHA, 5220 B 22 nd Edition 2012	250
4	SS	mg/l	BDL	APHA 2540 D, 22 nd Edition 2012	100
5	OIL & GREASE	mg/l	BDL	APHA, 5520 B, 22 nd Edition 2012	10
6	TDS	mg/l	1791.6	APHA, 2540 C, 22 nd Edition 2012	2100
7	SULPHIDES	mg/l	BDL	APHA 4500-S ²⁻ D, 22 nd Edition 2012	2.0
8	AMMONIACAL NITROGEN	mg/l	BDL	APHA 4500 NH ₃ -F, 22 nd Edition 2012	50
9	COLOUR	Hazen	30	APHA, 2120-C, 2120 B, 23 rd Ed., 2017	200
10	PHENOLIC COMPOUNDS	mg/l	BDL	APHA, 5530-C, 23 rd Ed., 2017	1

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23/05/22
23/05/22



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PCB/PBR/LAB/1/2013

Date: 26.08.2022

ANALYSIS REPORT

Source : MOSC MEDICAL MISSION HOSPITAL, KOLENCHERY

Sample Point : ETP-OUTLET

D.O.S : 20.08.2022

D.O. Rd : 22.08.2022

Collected by : AE3

Sample ID : PCB-4

Sl.No.	Parameters	Unit	Value	Test Method	KSPCB Limit
1	pH		7.58	APHA, 4500 H ⁺ B 22 nd Edition 2012.	6.5-9.0
2	BOD	mg/l	17	APHA, 5210 B, 22 nd Edition 2012.	30
3	COD	mg/l	44	APHA, 5220 B, 22 nd Edition 2012	250
4	OIL & GREASE	mg/l	BDL	APHA, 5520 B, 22 nd Edition 2012	10
5	SS	mg/l	3.2	APHA, 2540-D, 22 nd Edition 2012	100

As/AE3
29/08/22.

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Assistant Scientist

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PCB/PBR/LAB/1/2013

Date: 21.05.2022

ANALYSIS REPORT

Source : AVT NATURALS, KAIPPOORIKKARA

Sample Point : R.O. OUTLET

D.O.S : 06.05.2022

D.O. Rd : 06.05.2022

Collected by : NAMP-1

Sample ID : PCB-105

Sl.No.	Parameters	Unit	Value	Test Method	KSPCB Limit
1	pH		7.22	APHA, 4500 H ⁺ B 22 nd Edition 2012.	6.5 - 8.5
2	BOD	mg/l	19	APHA, 5210 B, 22 nd Edition 2012.	30
3	SS	mg/l	8.8	APHA, 2540-D, 22 nd Edition 2012	20
4	OIL & GREASE	mg/l	BDL	APHA, 5520 B, 22 nd Edition 2012	10

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PCB/PBR/LAB/1/2013

Date: 20.04.2022

ANALYSIS REPORT

Source : HOCL AMBALAMUGHAL

Sample Point : TREATED EFFLUENT FINAL PIT

D.O.S : 05.04.2022

D.O. Rd : 06.04.2022

Collected by : NAMP-I

Sample ID : PCB-8

Sl.No.	Parameters	Unit	Value	Test Method	KSPCB Limit
1	pH		7.49	APHA, 4500 H ⁺ B 22 nd Edition 2012.	6.5-8.5
2	BOD	mg/l	16	APHA, 5210 B, 22 nd Edition 2012.	30
3	COD	mg/l	96	APHA, 5220 B, 22 nd Edition 2012	250
4	OIL & GREASE	mg/l	BDL	APHA, 5520 B, 22 nd Edition 2012	10
5	SS	mg/l	64	APHA, 2540-D, 22 nd Edition 2012	100
6	PHENOLIC COMPOUNDS	mg/l	BDL	APHA, 5530C, 22 nd Edition 2012	5



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20/4/22
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PCB/PBR/LAB/1/2013

Date: 20.04.2022

ANALYSIS REPORT

Source : FACT-CD AMBALAMEDU

Sample Point: FINAL DISCHARGE OUTLET

D.O.S : 05.04.2022

D.O. Rd : 06.04.2022

Collected by : NAMP-I

Sample ID : PCB-78

Sl.No.	Parameters	Unit	Value	Test Method	KSPCB Limit
1	pH		7.50	APHA, 4500 H ⁺ B 22 nd Edition 2012.	5.5-9.0
2	BOD	mg/l	3	APHA, 5210 B, 22 nd Edition 2012.	20
3	COD	mg/l	8	APHA, 5220 B, 22 nd Edition 2012	250
4	OIL & GREASE	mg/l	BDL	APHA, 5520 B, 22 nd Edition 2012	5
5	SS	mg/l	BDL	APHA, 2540-D, 22 nd Edition 2012	100
6	PHOSPHATES	mg/l	0.34	APHA-4500 P-E 22 nd Edition 2012	30
7	AMMONIACAL NITROGEN	mg/l	3.36	APHA 4500-NH ₃ -F, 22 nd Edition 2012	75

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POLLUTED RIVER STRETCH WATER QUALITY MONITORING PROGRAMME AUGUST 2022

Station Name		KAVVAYI RIVER			
Type of Water body		RIVER			
Completed by		JSA2			
Agency		KERALA STATE POLLUTION CONTROL BOARD			
Date and time of sample taken		30-08-2022	30-08-2022	30-08-2022	17-08-2022
Sl.No	Determinants	Kankol	Karikzhithodu	Thattarakadavu Bridge	Kuttuvallakun
1	Temperature, 0C	28	28	30	28
2	Dissolved Oxygen, mg/l	6.8	6.2	6.6	6
3	pH	5.94	5.3	5.74	6.5
4	Conductivity, μ mhos/cm	39.2	36.5	111.4	66.7
5	BOD, mg/l	2.2	2	2.9	0.67
6	Turbidity, NTU	0.6	0.6	1.2	0.2
7	Total Alkalinity, mg/l	8	8	14	8
8	Chloride, mg/l	11	12	19	7
9	Ammoniacal-N, mg/l	0.032	BDL	0.0621	0.02
10	Hardness as CaCO ₃ , mg/l	8	6	18	10
11	Calcium as CaCO ₃ , mg/l	6	4	8	6
12	Magnesium as CaCO ₃ , mg/l	2	2	10	4
13	Sulphate, mg/l	BDL	BDL	BDL	RDL
14	Phosphate, mg/l	BDL	BDL	BDL	BDL
15	Fluoride, mg/l	BDL	RDL	BDL	BDL
16	Total Coliform, MPN/100 ml	80	120	160	80
17	Fecal Coliform, MPN/100 ml	50	60	80	40

Shreejith
14/9/22

Assistant Scientist
Kerala State Pollution Control Board
District Office, Kannur-670002

POLLUTED RIVER STRETCH WATER QUALITY MONITORING PROGRAMME AUGUST 2022

Station Name		PERUMBA RIVER			
Type of Water body		RIVER			
Completed by		JSA2			
Agency		KERALA STATE POLLUTION CONTROL BOARD KANNUR			
Date of sample taken		01-08-2022	01-08-2022	17-08-2022	01-08-2022
S/LN	Determinants	KACHERIKADYU	MATAHAMAGAI AM	CHANDAPURA	KANDAKALI
1	Temperature, 0C	29	29	28	30
2	Dissolved Oxygen, mg/l	6.8	6.8	7.47	6.2
3	pH	6.37	6.31	6.2	7.2
4	Conductivity, µmhos/cm	46.4	41.8	64.2	186.2
5	BOD, mg/l	0.6	0.62	2.2	1.2
6	Turbidity, NTU	0.3	0.8	0.1	1.1
7	Total Alkalinity, mg/l	8	8	10	14
8	Chloride, mg/l	9	16	13	26
9	Ammoniacal-N, mg/l	0.003	0.024	0.0694	0.012
10	Hardness as CaCO ₃ , mg/l	6	6	11	22
11	Calcium as CaCO ₃ , mg/l	3	5	10	16
12	Magnesium as CaCO ₃ , mg/l	3	1	1	6
13	Sulphate, mg/l	BDL	BDL	7.231	BDL
14	Phosphate, mg/l	BDL	BDL	0.0658	BDL
15	Fluoride, mg/l	BDL	BDL	BDL	BDL
16	Total Coliform, MPN/100 ml	60	180	200	220
17	Fecal Coliform, MPN/100 ml	40	60	50	140

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01/08/22

Asst. Scientist
Kerala State Pollution Control Board
District Office, Kannur-670002

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POLLUTED RIVER STRETCH WATER QUALITY MONITORING PROGRAMME AUGUST 2022

Station Name		RAMAPURAM RIVER			
Type of Water body		RIVER			
Completed by		JSA2			
Agency		KERALA STATE POLLUTION CONTROL BOARD KANNUR			
Date of sample		23-08-2022	23-08-2022	17-08-2022	30-08-2022
SLNo	Determinants	KAPIGAL	ATHIYADAM	RAMAPURAM	VAYALAPRA
1	Temperature, 0C	28	30	28	30
2	Dissolved Oxygen, mg/l	6.1	3.9	4.87	4.6
3	pH	6.1	5.62	6	6.35
4	Conductivity, μ mhos/cm	51.5	57.9	219	716
5	BOD, mg/l	1	2.9	2.2	2.9
6	Turbidity, NTU	0.3	0.8	0.4	1.5
7	Total Alkalinity, mg/l	12	16	24	18
8	Chloride, mg/l	11	9	34	122
9	Ammoniacal-N, mg/l	BDL	BDL	0.0316	0.053
10	Hardness as CaCO ₃ , mg/l	12	10	22	28
11	Calcium as CaCO ₃ , mg/l	10	8	15	10
12	Magnesium as CaCO ₃ , mg/l	2	2	7	18
13	Sulphate, mg/l	BDL	BDL	11.23	10.026
14	Phosphate, mg/l	BDL	BDL	BDL	0.632
15	Fluoride, mg/l	BDL	BDL	0.3	0.6
16	Total Coliform, MPN/100 ml	90	180	120	320
17	Fecal Coliform, MPN/100 ml	60	120	60	160

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Assistant Scientist
Kerala State Pollution Control Board
District Office, Kannur-670002

POLLUTED RIVER STRETCH WATER QUALITY MONITORING PROGRAMME AUGUST 2022

KUPPAM RIVER

RIVER

JS&Z

KERALA STATE POLLUTION CONTROL BOARD KANNUR

Station Name	Type of Water body	Completed by	Agency	Date of sample taken	30-08-2022	30-08-2022	17-08-2022	30-08-2022	30-08-2022	30-08-2022
					VELLICHIAN KEEL	MANGALAS SERRY	KUPPAM BRIDGE	VARIANKOT TAM	VELLAVU	KUTTIYERIKADAYU
SL.No	Determinants									
1	Temperature, 0C				29	30	28	30	29	29
2	Dissolved Oxygen, mg/l				5.7	6.6	8.13	5.6	6.1	6.1
3	pH				6.81	6.58	6.32	6.18	6.06	6.06
4	Conductivity, µmhos/cm				636	119.9	115.6	118.3	106.3	106.3
5	BOD, mg/l				1.2	2.2	0.93	1	0.8	0.8
6	Turbidity, NTU				1.2	1.2	0.4	1.2	1.1	1.1
7	Total Alkalinity, mg/l				28	32	10	28	20	20
8	Chloride, mg/l				52	21	22	26	15	15
9	Ammoniacal-N, mg/l				0.62	0.05	0	0.252	0.09	0.09
10	Hardness as CaCO ₃ , mg/l				36	20	18	36	18	18
11	Calcium as CaCO ₃ , mg/l				28	16	12	12	14	14
12	Magnesium as CaCO ₃ , mg/l				8	4	6	14	4	4
13	Sulphate, mg/l				BDL	BDL	2.024	BDL	BDL	BDL
14	Phosphate, mg/l				BDL	BDL	0.0126	BDL	BDL	BDL
15	Fluoride, mg/l				BDL	BDL	BDL	BDL	BDL	BDL
16	Total Coliform, MPN/100 ml				350	280	200	300	160	160
17	Fecal Coliform, MPN/100 ml				160	140	50	180	130	150


Assistant Scientist
 Kerala State Pollution Control Board
 District Office, Kannur-570002



**KERALA STATE POLLUTION CONTROL BOARD
CENTRAL LABORATORY**

കേരള സംസ്ഥാന മലിനീകരണ നിയന്ത്രണ ബോർഡ്
കേന്ദ്ര പരീക്ഷണശാല



Certificate No.
TC 8525

ANALYSIS REPORT

Analysis Report No.	PCB/CL/151/2022-23	Date	16.08.2022	Format No.	PCB/CL/CH/F-7
Ref. No.	PCB/EKM/DO-1/dated 15.06.2022	Date of Collection	14.06.2022		
Received From	D O Ernakulam	Date of Receipt	15.06.2022		
No. of Sample	1	Period of Analysis	15.06.2022 - 23.08.2022		
Source	Elamkulam Common Treatment Plant	Scientist-in-charge	Dr. Josemin		
Sample Condition	Fit for analysis	Sample Type	Water samples		
Sample collected by	EE DO Ernakulam	Sample volume & container type	2L Plastic Can		
Sample preservation	As per APHA/IS:3025 (Part-1)	Type of Test	Chemical		

SAMPLE ID: ELM *Treated water outlet*

Sl. No	Parameters	Unit	Value	Test Method	Detection Limit
1	pH	---	6.7	APHA, 4500-H+B, 23 rd Ed., 2017	3 to 12
2	Total Dissolved Solids	mg/L	364.0	APHA, 2540-D, 23 rd Ed., 2017	10 mg/L
3	Ammoniacal Nitrogen	mg/L	0.1	APHA-4500 NH3-C, 23 rd Ed., 2017	0.02 mg/L
4	BOD	mg/L	7.0	IS 3025 Part(44): 1993	2 to 500 mg/L
5	COD	mg/L	32.0	APHA, 5220-B, 23 rd Ed., 2017	4 to 1000 mg/L
6	Oil & Grease	mg/L	BDL	APHA, 5520-B, 23 rd Ed., 2017	10 mg/L
7	Total Nitrogen	mg/L	1.21	APHA, 4500-N-Org B, 23 rd Ed., 2017	0.2 mg/L

--End of Report--

Remya
Checked By

REMYA JOSE
Assistant Scientist

Josemin
Authorized By

Dr. JOSEMIN
Environmental Scientist

