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

KERALA STATE POLLUTION CONTROL BOARD
കേരള സംസ്ഥാന മലിനീകരണ നിയന്ത്രണ ബോർഡ്
Pattom P.O., Thiruvananthapuram – 695 004
പട്ടം പി.ഒ., തിരുവനന്തപുരം – 695 004

PCB/HO/SEE2/Annual Report SWM/2020-21 Dated: 06/09/2021

From

The Member Secretary

To

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

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

Ref: Solid Waste Management Rule 2016

Sir,

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

Yours faithfully

MEMBER SECRETARY

Encl: As above.

Copy to:

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

Form V

[See rule 24(3)]

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

PART A

To,

The Chairman

Central Pollution Control Board

Parivesh Bhawan, East Arjun Nagar

DELHI- 110 0032

ANNUAL REPORT '2020 – 2021'

1)	Name of the State/Union territory	**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:

House-to-house collection:

Segregation:

Storage

Covered transportation

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**).

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 (KPSCB) 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. Thaliparambum 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 cites 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 EnergyPlant 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 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 establishwas 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.

				Clearing of groundfor the plant is undergoing. Land development works are undergoing. Alternate road has been constructed onthe 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 tothe site is nearing completion. 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	

2	Kannur Chelora	Kannur Corporation	(Govt. Land) 9.7 acres at Chelora	Blue Planet Kannur Waste Solutions Private Limited was formed to take up the developmen t of the project. Waste Characterisat ion study was Contuctedby SPCB SLAC directed MD, KSIDC & Secretary, Kannur Municipal Corporation to take immediate steps to execute the Lease Agree ment and Conces sion Agreemen t for the project. KSIDC has completed the tender process and the finaloffer along with details of the contractor, draft agreement to be executed with the Contractor and the technical proposal submitted by the Contractor has been	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 atthe site. Asked Secretary Kannur Municipal Corporation to take immediate steps with the Contractor to expedite the works for rehabilitation of MSW dumpsite at Chelora.

				forwarded to Kannur Corporation on 07th August 2020 for further proceedings. 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 theSecretary Corporation for execution. Further a stake holder meetingwas held to explain the project details tothe 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 authorizin g the Secretary Kannur Corporati	

				on to execute the concessio n agreement has not been passed. Concessi on agreemen t can be executed only on receiving land to KSIDC. The concenssion arire has reported that the field studies including waste characterizat ion andwaste quantificatio nstudies, 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 identifiedat Chelora on 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 inChelora. Detailed waste characterization of study of dumpsite at Chelora was done by the Pollution Control Board. SLAC directed the Board to submit final study	
3.	Palakkad Kanjikode	Palakkad Municipality	(Land taken overfrom Kerala State Electricity Board Ltd. in advance possession) 15 acres at Kanjikode	Blue Planet Palakkad Waste Solutions Private Limited was formedto 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 & Bradstreetfor 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 tobe executed with M/s.Zonta Infratech Pvt Limited is vetted

				Solid Waste Management project with a Wasteto Biogas facility of 200 TPD processing capacity. DPR was evaluatedby the Committee and it has been modified and final DPR submitted to LSGD Concenssionaire hastaken steps to submit applications to the concerned departments and agencies for statutory approvals and clearances.	by the Corporation's Standing Counsel and the same will be placed in the next Council meeting for approval. 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. Again the project has been retendered by the Corporation.
5	Thiruvananthapuram Vizhinjam	Thiruvananthapuram Corporation	Land not identified	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 meetingas part of tender procedures was heldon 08th June 2020. The last date for the submission of bidswas 14th July 2020. KSIDC did not receive	Tendering in advanced stage

				any challenging bids forthe project. KSIDC directed M/s Essential Sustainabilit y 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 Communicat ion Services S.A. is technically qualifiedand recommende d that the financial bid submitted by the Consortium be evaluated. Bid Evaluation Committe e further	

				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 wte 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. Directed State Pollution Control Board to evaluate the Technical proposal submitted by the Consortiumfor confirming	

				the uniqueness and authenticity of the proposed technology.	
6	Ernakulam Brahmapuram	Kochi corporation	(Govt. land) 20 acres at Brahmapuram	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. 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	KSIDC floated e-tender to identify a suitable agency for the rehabilitation of MSW dump site at Brahmapuram. KSIDC submitteda proposal to constitute a Technical Evaluation Committee for technical evaluation of the bids. Evaluation of technical bid is in process. LSGD issued directions to Kochi Corporation to examine the quantity of legacywaste assessed and rate quoted by the bidder in consultation with PCB within 30 days

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

				that the Consorti um 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 evaluationof the Bid	
8	Wayanad Sulthan Bathery	Wayanad Muncipality	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

				Ollookkara Village in Thrissur district and to hand over thesame on lease basis to KSIDC for the development of the project Secretary, Thrissur Municipal Corporatio n to report the status ofprice negotiation done with the owners of the land identified.	
10	Malappuram	Malappuram munciplaity	8.09 acres of land at Kurumbat hoor village in Tirur Taluk	KSIDC reported that Land Board has issued orders to District Administrati on Malappuram to handover 8.09 acres of land at Kurumbatho or 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	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 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.
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. Proj.ect 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 Manage ment	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 Service providers	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 ew-tendered 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 qualitified 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 managemetn 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 aencies 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 Brahmapur am	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(Retenderin g 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 biodegrada ble managed- 6.71TPD Non biodegrada ble 0.7TPD Non biodegrada ble 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 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 Ollookkara 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- biodegrada ble- 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 by the Ministry and the same is being processed.	MCF-12;RRRF-2	Regional landfill site identified at Kochi	1(Njaliyanpa rambu) Biomining started		Yes	Yes

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6		Kannur	Kannur Corporation	2,32,486	370197	167	63.5	89.3	44	85	75	70	Land Filling	Not reported	Trenching Biomethanati 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)M oU with KSIDC for clearing the existing legacy waste at dump site in Chelora	Yes	Under processi ng
7	MUNCIPALITIES	Thiruvana thapuram	Attingal	37648	39150	16	48.5	100	44	16	16	16	Centralised and decentralised systems	Biogas Plant(Dhee nabandhu) 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 wih capacity of 0.25 TPD	Biogas Plant 407 Nos - 0.85TPD	Windrow composting plant, vermic composting 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	MUNCIPALITIES	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 plastinc 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	58HKS	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	MUNCIPALITIES	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		Decentralis ed treatme	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 biodegrada ble waste and 0.35TPD of non biodegrada blewaste managed	Biogas Plant - 2 Nos Aerobin-5	Biogas plant - 400 Compost pits- 520	Nil	MCF-3; RRF-1	At regional level	Nil	Yes	Under processi ng
18			Thiruvalla	52883	54992	22	60	0	55		1.4	12	Decentralis ed treatment	4.79TPD of biodegrada ble waste and 1.5TPD of non biodegrada ble 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	MUNCIPALITIES	Alappuzha	Alappuzha	174176	241219	96	95	80	76	46	36		Aerobic composting Plastic Shredding	Not given	Aerobic Compost (Thumboorm uzhi 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	Decentralis ed treatment	Not given	Aerobic Compost (Thumboormuzhi Model) - 12 bins at 1 location		Nil	MCF-1	At regional level	Nil	Yes	Under processi ng
21			Cherthala	45827	47658	19	73.76	80	35	0.6	0.6	6	Decentralis ed treatment	Not given	Aerobic Compost (Thumboorm uzhi 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 processi ng
22			Haripad	15588	16211	6	88	6	30	1	1	5	Decentralis ed 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 processi ng
23			Kayamkulam	68634	75861	30	65	45	9	5	3		Aerobic Compost	0.06 TPD is managed	Biogas Plant Aerobic compost (Thumboorm uzhi 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 processi ng
24			Mavelikara	264121	27516	11	80	25	30	3.2	2.5		Composting	Not given	Aerobic Compost (Thumboorm uzhi 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 processi ng
25	MUNCIPALITIES	Kottayam	Changanassery	127987	133102	53	0	50	Haritha Karma Sena		3	20	Decentralis ed 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 (Thumboorm uzhi 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	Decentralis ed 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 (Vadavathoo r)	No	No
29			Pala	123000	127915	51	34	94	14	2	7	26	Decentralis ed 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	Decentralis ed treatment	Aerobic compostin g (Thumboo rmuzhi mode) -4 bins at 2 locationsBiogas 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	MUNCIPALITI	Idukki	Kattapana	42646	44350	18	79.4	100	81	3.24	3.24	11	Decentralis ed 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	Vermi compost - 7bin at 1 location	Biogas Plant - 928	Nil	MCF- 2 RRF 1	At regional level	Nil	No	No
33	MUNCIPALITI	Ernakulam	Aluva	22428	23312	9	43	24		7.05	6.14	NA	NA	0	Centralised plant at Brahmapura m	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	Decentralis ed treatment	Aerobins-2	Biogas plant - 1No	Pipe compost - 979 Biogas - 504 Nos		RRF-2Nos; MCF-1;Biodigest er bins-300Nos SWAP shop-1 No.	At regional level	Nil	No	No
35			Eloor	31468	32726	13	0		81	0.87	0.87	5	Decentralis ed 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	Decentralis ed 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	Decentralis ed 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	Decentralis ed 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	Decentralis ed treatment	Aerobic compostin g (Thumboo rmuzhi 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	Decentralis ed treatment	0.75 TPD of non of biodegrada ble 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	Decentralis ed 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	Decentralis ed 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 e waste is managed 0.124 non biodegradabl e waste is managed. Thumbur muzhi model at Anapparamb u -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	MUNCIPALITI	Thrissur	Chalakkudy	49525	51504	21	100	100	54	7.31tpd	7.31tpd	10	Decentralis ed treatment	Plants(50k g capacity) 5 SWM	Thumbur muzhi model at Anapparamb u (41 ward) Vermicompo sting 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	Decentralis ed 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	Decentralis ed treatment	Biogas Plant(3.5tp d)	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	Segragated 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 Aeribic bins	20 Aeribic bins	Aerobic Compost (Thumboo rmuzhi Model)-6 bins at 3 locations with capacity of 10 kg/day	1	Seggregated Non biodegradable waste collected through Haritha karma senaand it is forwarded to MCFand RRF.SCrap 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	Decentralis ed treatment	Aerobic compost (Thumboo r Mozhi model)	composting plant 1.889 TPDBiodegradabl e waste managed, 0.81 TPD Non biodegradabl e 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 llocal 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	Decentralis ed 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	MUNCIPALITI	Palakkad	Cheruplassery	30730	31958	13	60	77	22 HKS	0.2	1.2	4	Decentralis ed treatment	0.427 TPD Non biodegrada ble waste managed.	1.43 TPD Nonbiodegra dable waste managed.	Pipe Compost 1000 Nos Biogas Plant - 200 Nos Composting units-1050	Nil	MCF-1; RRF-1	At regional level	Nil	Yes	Under processi ng
54			Chitttur-Thattamangalam	33000	34319	14	51.7	11.6	56 Nos	2		7	Decentralis ed 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 processi ng
55			Mannarkadu	39463	41040	16		83.7	58		0	6	Decentralis ed 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	Decentralis ed 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	Decentralis ed 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. Asper annual report 2.1 Hectre of land is available.	MCF-7; RRF-1	At regional level	1(BPL) Koottupatha)	Yes	Under processi ng

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58			Pattambi	28632	29776	12	0	60	20	1		3	Decentralis ed 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	Decentralis ed treatment	Not given	Biobin	Biogas 276	Nil	MCF-1; RRF-1	At regional level	Nil	No	No
60	MUNCIPALITI	Malappuram	Kondotty	28794	29945	12	79.7	60	160	0.12	0.12	4	Decentralis ed 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 binBucket 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	Decentralis ed treatment	Not given	Not given	Biogas Plant - 71 Nos. Pipe compost-135; Biocomposter- 75	Nil	Temporar y	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	nill	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 trrough Haritha karmasena send for recycling to clean kerala company	0	0	0	NA
69			Thiroorangadi	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	Composing	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 degradeble waste-bio methenation & composting,Non bio degradeble -send for recycling through forword 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	MUNCIPALITI	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	Decentralis ed treatment	Not given	Not given	Not given	Nil	MCF-1	At regional level	Nil	Yes	Under processi ng
74			Koyilandy	71873	74745	30	59.7	7.9	100	10	2.5	11	Decentralis ed treatment	Not given	1. Thumboor muzhi model composting - 11 unit 2. biogas plant - 500 kg per day	1. Portable biogas 250 nos; 2. pipe, ring; and vermicompost -1933 nos	Nil	MCF-2 MRF-1; Plastic shreding 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	NI,L	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 Manage ment	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	Decentralis ed 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	Decentralis ed 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	Thumburmuzhiu	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	Decentralis ed treatment	0.508 TPD Biodegradable waste managed,0.561 TPD Non biodegrada ble waste managed.	1.3 TPD Biodegradable waste managed, 0.869 TPD Nonbiodegra dable waste managed.	0.4 TPD Biodegradable waste managed, 0.11 TPD Nonbiodegrad able waste managed	8 Acres of land is available in Vellaram kunnu Kalpetta.	MCF-1; RRF-1	At regional level	1	Yes	Under processi ng
80			Mananthavady	59497	62450	25	40	47	26		.5TPD		BUCKET COMPOST,BIOGAS,PIT COMPOST,	NIL	NIL	NIL	NIL	Not given	NIL	YES	NIL	NIL
81			Sulthanbathery	23333	24265	10	0	0	23	0.5	9.1	14	Decentralis ed 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 shruding and bailing 1MCF,1 RRF thumboormuzhi	collectors school bin	0	ring compost BIOGAS KITCHEN BIN	0	0	nil	nil	NIL	NIL
83			Iritty	40369	48501	19	65	30.71	40	2.5	2.35	0	windrow compost	collectors school bin	mcf	ring compost	windrow compost	0	nil	nil	yes	not granted
84			Koothuparamb u	32404	38000	15	100	90	64	2 TPD	2 TPD	2 TPD	COMPOSTING & BAILING	1	0	0	0	0	NIL	NIL	NIL	NIL
85			Mattanur	47078	60000	24	90	90	39	5	5	5	windrow compost unit,plastic shruding and bailing	collectors @school bin	Mini M C F in all wards	pipe compost,ring compost,vermi,biogas	windrow compost unit,plastic shruding and bailing	plastic shruding 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			Sreekantapura m	33489	37000	15	95	90	30	2	2	2	rinng compost,calender waist collection door to door inclooding platic shruding 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 shruding	NA	NIL	biobin,biopot,pipecompost	NIL	plastic shruding	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 Household	% Household D2D-Dry	% of Household-D2D-Wet	No of establishment	%establishment-D2D-Dry	% establishment_D2D-Wet	% of houses in which source level treatment	% of establishment in which source level treatment	% disposing in centralised system	% disposing in decentralised 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)
1	T	Amboori	15	2924	100	0	828	84	0	60	100	0	0	0.4	0	0	0	0
2	H	Anadu	19	11544	32	47	1815	10	2	100	100	0	0	0.3	0	0	0	0
3	I	Anchuthengu	14	4906	41	0	50	80	50	41	80	0	0	0.2	0.1	0	0	0
4	R	Andoorkonam	19	9598	63	0	2199	50	0	13	28	0	0	0.12	0.1	0	0	0
5	U	Aruvikkara	20	13418	100	0	327	21	100	0	0	0	0	0.36	0	0	0	0
6	V	Aryanad	18	11323	78	0	2214	73	0	10	3	0	0	0.1	0.003	0.003	0	0
7	A	Aryancode	16	7820	100	0	255	100	0	3	3	0	0	0.11	0	0	0	0
8	N	Athiyannoor	17	9385	100	0	257	0	0	0	0	0	0	0.002	0.4	0.370	0	0
9	A	Azhoor	18	9428	0	0	176	0	0	1	0	0	0	1.4	0	0	4.8	0
10	T	Balaramapuram	20	10360	47	0	1343	88	0	0	0	0	0	0.1	0	0	0	0
11	H	Chemmaruthy	17	8238	77	21	425	90	0	73	20	0	0	0.05	0.1	0	0	0
12	A	Chenkal	21	12703	28	100	2509	140	7	100	100	0	0	0.45	0	0	0	0
13	P	Cherunniyoor	14	6933	100	0	4322	6	0	100	100	0	0	0.6	0.1	0	0	0
14	U	Chirayinkeezhu	19	9696	32	0	754	40	0	0	0	0	0	0.278	0.17	0	0	0
15	R	Edava	17	9271	100	0	420	100	0	0	0	0	0	0.3	0	0	0	0
16	A	Elakamon	16	9888	86	0	313	70	0	80	0	0	0	0.2	0.8	0	0	0
17	M	Kadakkavoor	16	10347	0	0	1876	0	0	61	12	0	0	0.2	0.12	0	0	0
18		Kadinamkulam	23	23734	5	0	3136	5	0	100	100	0	0	0.2	0	0	0	0
19		Kallara	17	9421	100	0	800	100	0	100	100	0	0	0.2	0	0	0	0
20		Kallikkadu	13	6902	68	0	917	87	0	18	3	0	0	0.2	0	0	0	0
21		Kalliyoor	21	14733	0	64	820	0	76	59	32	0	0	0.5	0	0	0	0
22		Kanjiramkulam	14	6815	100	0	41	100	0	45	100	0	0	0.2	0	0	0	0
23		Karakulam	23	18000	28	28	168	100	0	30	0	0	0	0.1	0.03	0.03	0	0
24		Karavaram	18	11540	31	0	1858	19	0	70	91	0	0	0.3	0.13	0	0	0
25		Karode	19	11334	100	0	1333	100	0	100	100	0	0	0.2	0	0	0	0
26		Karumkulam	18	7383	43	0	618	33	0	78	67	0	0	0.1	0	0	0	0
27		Kattakada	21	14510	3	0	2187	12	0	100	100	0	0	0.841	0	0	0	0
28		Keezhattingal	20	8436	93	0	461	100	0	93	28	0	0	0.1	0	0	0	0
29		Kilimanoor	15	6711	100	0	189	84	67	0	4	0	0	0.2	0.125	0	0	0
30		Kollayil	16	9080	0	0	1083	0	0	100	100	0	0	0.54	0	0	0	0
31		Kottukal	19	13512	80	29	1671	1	83	0	0	0	0	0.45	0.37	0	0	0
32		Kulathoor	20	10196	102	0	1121	16	82	32	20	0	0	0.4	0.23	0	0	0
33		Kunnathukal	21	11367	10	0	202	0	0	35	100	0	0	0.25	0	0	0	0
34		Kuttichal	14	6663	100	0	1801	0	100	0	0	0	0	0.232	0	0	0	0
35		Madavoor	15	7901	79	0	201	90	0	79	90	0	0	0.12	0.11	0	0	0
36		Malayinkeezhu	20	14728	100	0	2017	31	100	44	45	0	0	0.5	0.03	0	0	0
37		Manamboor	16	9425	1	0	1314	1	0	80	0	0	0	0.25	0	0	0	0
38		Mangalapuram	20	14718	93	0	2474	78	0	3	3	3	0	0.1		0	0	0
39		Manickal	21	11800	80	0	860	63	0	0	0	0	0	0.81		0	0	0
40		Maranalloor	21	14321	0	0	2459	0	0	0	0	0	0	0.4	0	0	0	0
41		Mudakkal	20	12843	0	0	1881	100	0	0	0	0	0	0.53	0	0	0	0
42		Nagaroor	17	9963	1	0	1343	2	0	100	100	0	0	0.63	0.1	0	0	0
43		Nanniyode	18	10252	100	100	2453	100	100	100	30	80	0	0.63	0	0	0	0
44		Navaikulam	22	16365	6	2	2962	1	4	0	0	0	0	0.33	0	0	0	0
45		Nellanad	16	9993	90	0	2113	43	0	100	100	0	0	0.28	0.18	0	0	0
46		Ottoor	13	5933	46	25	375	100	0	26	75	0	0	0.5	0	0	0	0
47		Ottashekharamangalam	14	4758	3	2	1373	4	15	0	0	0	0	0.5	0.3	0	0	0

SL NO	DISTRICT	LOCAL BODY	NO OF WARDS	No of Household	% Household D2D-Dry	% of Household D2D-Wet	No of establishment	%establishment-D2D-Dry	% establishment_D2D-Wet	% of houses in which source level treatment	% of establishment in which source level treatment	% disposing to centralised system	% disposing to centralised system	Quantity of Waste generated (TPD)	Quantity of Waste collected (TPD)	Quantity of Waste treated (TPD)	Quantity of Waste processed in Composting Sites (TPD)	Quantity of Waste processed in biomethanation (TPD)
48		Pallichal	23	16542	100	0	140	100	0	100	100	0	0	0.6	0	0	0	0
49		Pallickal	13	2853	1	0	712	2	0	0	0	0	0	0.32	0	0	0	0
50		Panavoor	13	7338	80	0	2563	73	0	2	3	0	0	0.65	0	0	0	0
51		Pangode	19	11178	100	0	1083	100	0	100	100	0	0	0.58	0.41	0	0	0
52		Parassala	23	12800	37	0	2438	1	0	70	10	0	0	0.28	0.268	200kg/m	0	0
53		Pazhayakunnummel	17	10372	78	0	4780	73	0	3	3	0	0	0.3	0	0	0	0
54		Peringamala	19	12097	62	0	1310	71	0	30	2	0	0	0.3	0.21	0	0	0
55		Perumkadavila	16	8571	93	0	1121	100	0	80	84	0	0	0.58	0.4	0	0	0
56		Poovachal	23	13429	100	0	2425	100	0	38	0	0	0	0.87	0	0	0	0
57		Poovar	13	4343	38	0	740	10	0	0	0	0	0	0.1	0	0	0	0
58		Pothencode	18	10638	0	0	2048	0	0	41	44	0	0	0.63	0	0	0	0
59		Pulimath	19	11329	69	0	325	43	0	100	100	100	0	0.1	0.02	10	0	0
60		Pullampara	15	4798	0	0	278	0	0	0	0	0	0	0.72	0	0	0	0
61		Thirupuram	14	5236	0	0	362	0	0	100	0	0	0	0.25	0	0	0	0
62		Tholicode	16	9403	3	0	1154	2	0	80	0	0	0	0.34	0	0	0	0
63		Uzhamalakkal	15	7867	0	0	580	0	0	40	34	0	0	0.25	0	0	0	0
64		Vakkom	14	5240	66	0	262	27	0	66	27	0	0	0.4	0.21	0	40	40
65		Vamanapuram	15	7345	67	0	212	51	0	0	100	100	0	0.1	0	0	0	0
66		Vellanad	18	11836	33	0	400	32	0	100	100	0	0	0.3	0	0	0	0
67		Vellarada	23	11990	79	0	1317	100	100	100	100	0	0	0.105	0	0	0	0
68		Vembayam	21	12402	69	0	151	44	30	3	3			0.61	0	0	0	0
69		Vengannoor	22	14780	1	0	736	3	0	100	70	0	0	42	0	0	0	0
70		Vettoor	14	6246	99	0	265	100	0	99	100	0	0	0.8	0	0	0	0
71		Vilappil	20	16420	0	0	1727	87	0	0	0	0	0	0	0	0	0	
72		Vilavoorkal	17	12798	100	0	233	20	0	78	100	0	0	0.3	0	0	0	0
73		Vithura	17	10547	100	0	680	100	0	100	100	0	0	3.32	0.1	2.1	0	0.1

Sl. NO:	DISTRICT	LOCAL BODY	NO OF WARDS	No of Household	% Household D2D-Dry	% of Household-D2D-Wet	No of establishment	%establishment -D2D-Dry	% establishment _D2D-Wet	% of houses in which source level treatment	% of establishment in which source level treatment	% disposing to centralized system	% disposing to centralized system	Quantity of Waste generated (TPD)	Quantity of Waste collected (TPD)	Quantity of Waste treated (TPD)	Quantity of Waste processed in Composting Sites (TPD)	Quantity of Waste processed in biomethanati on (TPD)
74	K	Adichanallur	20	11069	90	85	686	80	47	90	0	2	1	2	0.4	0	0	0
75	O	Alagapd	16	5931	70	0	384	58	0	0	1	0	1	0	0	0	0	0
76	L	Alayamon	14	7350	0	0	1177	0	0	0	0	0	0	0.2	0.1	0	0	0
77	L	Arcbal	19	12968	70	0	1748	65	0	10	15	0	12	4	4	4	0	0
78	A	Arlenavo	13	3244	65	0	232		0	0	1	0	1	0.1	0.1	0	0	0
79	M	Chadayamangalam	15	7661	80	0	1356	80	0	0.6	0.6	0	1	1	1	1	0	0
80		Chathannoor	18	10927	35	0	732	15	0	90	90	8	0	2	2	2	0	0
81		Chavara	23	13568	60	0	1400	60	0	15	2	2	0	2	0.6	0.5	0.5	0.1
82		Chirakkara	16	8629	90	0	1200	40	0	0	1	0	0	0	0	0	0	0
83		Chithara	23	15164	49	0	450	48	0	3	1	0	1	0	0	0	0	0
84		Clappana	15	8552	83	0	1013	6	0	3	1	0	1	0	0	0	0	0
85		East Kallada	15	7234	0	0	8655	0	0	0	0	0	0	0	0	0	0	0
86		Elamcheikal	22	6200	0	0	1360	0	0	0	0	0	0	0	0	0	0	0
87		Elamadu	17	7728	55	0	83	71	0	1	36	0	36	0	0	0	0	0
88		Elampalloor	21	5753	79	0	25	62.4	0	10	44	0	44	0	0	0	0	0
89		Ezhukone	16	8569	2234	0	1200	12	0	16	0	0	0	0	0	0	0	0
90		Ittiva	21	12278	40	0	1780	20	0	1	3	0	3	3	2.2	2.2	0	0
91		Kadakkal	19	9800	9800	0	3700	2100	0	237	6	9.8	2.1	2	1	1	0	6
92		Kalluvathukkal	23	16006	80	0	2474	74	0	33	4	0	11	2	1.8	1.8	0	0
93		Karavaloor	16	8644	71	0	1470	69	0	1	1	0	1		0.27	0.27	0	0
94		Karuvatta	18	6000	0	0				1		0						
95		Kottamkara	21	12978	65	0	552	109	0	1	0	1	0	0.5	0.35	0.35	0	0
96		Kulakkada	19	11253	0	0	536	126	0	1	0	0	0	0.45	3 ton	3	0	0
97		Kulasekharapuram	23	15978	78	0	3642	38	0	1	0	0	0	0.25	0.33	0.175	0	0
98		Kulathoopuzha	20	11210	59	0	1250	8	0	2	7		7	0.3	0.3	0.2	0	0
99		Kummil	14	8210	55	0	211	31	0	1	5	0	5	0.2	0.1	0.1	0	0
100		Kundara	14	4561	72		220	25	0	0	0	0	0	0	0.1	0	0	0
101		Kunnathoor	17	8843	63	0	0	0	0	10	0	0	0	1	1	0	0	0
102		Mayyanad	23	15657	55	0	2890	5	0	29	81	0	0	16	8.5	8.5	4.5	2.5
103		Melila	15	3888	60	0	157	100	0	60	60	0	0	0.25	0.25	0	0	0
104		Munnethuruthu	13	3228	15	0	113	22	0	75	70	0	0	0.2	0	0	0	0
105		Mylom	13	3228	0	0	115	22	0	75	70	0	0	0.2	0	0	0	0
106		Mynagappally	22	130	0	0				0		0						
107		Nedumpana	23	17193	80	80	133	68	68	2	68	80	68	16	11	0	1.5	2
108		Neduvelhoor	18	8521	41	0	1150	98	0	52	60	0	0	0	0	0	0	0
109		Neendakara	13	3083	58	0	713	0.65	0	0.15	0.3	0	0	0.25	0.25	0.25	0	0
110		Nilamel	13	5827	80	0	1564	35	0	60	58	0	0	0.15	0.75	0	0	0
111		Oachira	17	8422	39	0	1025	36	0	0	0	0	0	0.21	0.21	0.21	0	0
112		panayam	16	8771	0	0				0		0						
113		Panmana	23	16013	90	0	2449	0	21	0	0	0	0	0.15	0.125	0.125	0	0
114		Pathanapuram	23	11372	700	60	0	34	0	15	93	0	0	6.5	6.5	0	0	0
115		Pattazhi	13	6265	85	0	199	90	0	61	100	0	0	1.5	1.5	1.5	0	0
116		Pattazhi Vadakkekara	13	6251	80	0	192	90	0	80	100	0	0	1.25	0	0	0	0
117		Pavithreswaram	19	12977	51	0	786	81	0	20	35	0	0	6	8	5	4	0
118		Perayam	14	6450	0	0	250	0	0	0	0	0	0	0.25	0.25	0.25	0	0
119		Perinad	20	11580	55	0	2201	29	0	0	0	0	0	5	3	24	4	0
120		Piravanthoor	21	3600	42	0	1038	12	0	36	32	0	0	2	0.5	0	0	0
121		Poothakkulam	21	9621	36	0	308	65	10	29	55	0	0	6	3	3	0	0
122		Ponnappally	16	8870	70	0	936	40	0	85	10	0	0	3	1.5	1.5	0	0

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123		Paruvazhy	16	9581	47	0	1200	42	0	0	0	0	0			4	0	0
124		Sasthamcotta	19	13243	0	0				0		0		4	3	2	0	0
125		Sooranad North	18	9671		0	1935	0	0	0	0	0	0					
126		Sooranad South	16	8228	70	0	1120	63	0	0	0	0	0	4	3	2.5	0	0
127		Thalavoor	20	7200	0	0	0	0	0	0		0		2	1	1	0	0
128		Thazhava	22	11019	70	34	3256	50	30	2	6	0	6	3.8	2.9	2.9	0	0
129		Thekkumbhagom	13	5600	62	0	372	70	0	2	1	0	0	4	2.5	2.5	0	0
130		Thenmala	16	8369	70	0	239	65	0	0	0	0	0	4	3.5	3.5	0	0
131		Thovalakkara	23	8000	0	0	1568	78	0	0	4	0	3	0	0	0	0	0
132		Thodiyoor	23	14237	72	0	2224	82	0	1	2	0	2	5.5	3.5	0	0	0
133		Thrikkaruva	16	12238	0	0	2005	86	0	1	1	0	1	4.9	1.8	0	0	0
134		Thrikkovilvattom	23	21027	0	0	4460	0	0	0	0	0	0	0	0	0	0	0
135		Ummannoor	20	11584	60	0	2153	60	0	10	10	0	0	0.036	0.0216	0	0	0
136		Velinalloor	17	9010	82	0	2250	4	0	4	1	0	1	0	0	0	0	0
137		Veliyam	19	10513	81	0	1983	1	0	1	1	0	1	0	0	0	0	0
138		Vettikavala	21	1850	0	460	805	0	0	3	0	0	0	0	0	0	0	0
139		Vilakkudy	20	10897	46	0	3256	52	11	16	12	0	0	0	0	0	0	0
140		West Kallada	20	5813	78	0	909	74	0	0	0	0	0	0	0	0	0	0
141		Yeroor	14	14321	1	0	615	1	1	0	1	0	1	0	0		0	0

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142		Aranad	13	5067	0	6	0	0		0		0		20kg	20kg	0	0	0
143		Aranmula	18	9671	0	100	1697	0	100	0	0	0	0	2	2.5	2	0	0
144		Aruvappulam	15	6816	0	8	175	0	0	1	2	0	0	20	15	0	0	0
145		Ayroor	16	6548	0	53	835	0	77	0	0	0	0	20Kg	20	0	0	0
146		Chennerkara	14	6515	0	0	0			0		0						
147		Cherukole	13	4398	0	0	521	0	0	0	0	0	0	50kg	50kg	50kg	0	0
148		Chirar	13	5215	0	0	42	0	0	0	0	0	0	48 KG	48Kg	48Kg	0	0
149		Elanthur	13	4585	0	0	3980	0	0	0	0	0	0	310Kg	310Kg	0	0	0
150		Enadimangalam	15	7241	0	50	380		0	0	0	0	0	300 KG	100 kG	0	0	0
151		Enathu	17	9011	0	0	510	0	0	0	0	0	0	55 Kg	55Kg	0	0	0
152		Eraviperoor	17	8920	0	72	490	0	81	1	2	40	0	1200kg	122kg	0	0	0
153		Ezhamkulam	20	11555	0	74	2526	0	76	0	0	0	0	1400 kg	1400kg	0	0	0
154		Ezhanattur	14	6807	0	100	1226	0	100	50	50	0	0	0.034	0.034	0.034	0	0
155		Kadampanad	17	9094	0	0	1497	0	0	0	0	0	0	320kg	320kg	0	0	0
156		Kadapra	15	8608	0	74	803	0	76	0	1	0	0	0.8	0.6	0	0.2	0
157		Kanjoor	20	12080	0	51	892	0	44	0	0	0	0	900	900	0	0	0
158		Kallooppara	14	6043	0	1	707	0	0	0	0	0	0	36	30	0	0	0
159		Kaviyoor	14	6450	0	1	260		97	0	0	100	100		16kg	0	0	0
160		Kodumon	18	8972			10495	0	0	0	1	0	0		2000 kg	720 kg	0	0
161		Koipuram	17	10480			2191			0	0	0	0	0.5	0.5	0.5	0.5	0.5
162		Konni	18	10028	3	50	1000		30	90	30	1	10	500	350	350	300	0
163		Kottanad	13	4919	0	50	31	0	0	0	0	0	0	55	55	0	0	0
164		Kottangal	13	5699	0	0	760	0	0	0	0	0	0					
165		KOZHANCHERR Y	13	4133	2	12	2191	0	2	0	0	0	2	900 kg	210kg	210kg	180 kg	0
166		Kuttoor	16	8229	0	100	420	0	100	0	100	100	100	0.033	0.033	0.033	10	10
167		Kunnathoor	15	6854	0	52	401	0	70	0	0	0	0	200kg	150kg	0	0	0
168		Kuttoor	14	6958	0	0	1088	0	0	0	0	0	0					
169		Malayalapuzha	14	6324	0	74	930	0	100	98	100	0	0	3.4	2.9	0	0	0
170		Mallappally	14	6091	0	96	1370	0	100	0	0	0	0	250 ton	200 ton	0	0	0
171		Mallapuzhassery	13	4087	0	70	1014	0	3	2	1	0	0	4	0.01	0.01	0	0
172		Mezhuveli	13	5145	1	80	871	0	60	3	4	0	0	8000kg	7900kg	0	3000kg	0
173		Mylapra	13	3600	0	0	446	0	12	0	12	3	1	540 kg	540 kg	Nil	Nil	Nil
174		Naranamoozhi	13	4851	2	91	51	0	102	65	102	3	2	650 kg	650 kg	Nil	Nil	Nil
175		Naranganam	14	5276	0	50	126	0	38	100	100	100	100	380 kg	380 kg	380	0	0
176		Nedumpuram	13	4595	0	77	230	0	44	98	87	0	0	450kg	450kg	450kg	0	0
177		Niranam	13	4477	2	92	316	0	68	73	82	0	0	412	412	412		0
178		Omallur	14	6448	4	0	350	90	229	90	72	0	0	950kg	5 (plastic only)	5	400kg	0
179		Pallickal	23	14820	1	60	70	0	35	0	0	0	0	0.5	0.5	nil	nil	nil
180		Pandalam Thekkekkara	14	7003	4	80	371	0	216	80	68	0	0					
181		Perinjara	15	6700	0	0	320		0	0	0	0	0	65 kg	60 kg	0	0	0
182		Pramadom	19	11502	0	79	1236	0	205	0	0	0	0			0	0	0
183		Puramattom	13	5049	0	52	212	0	78	1	2							
184		Ranni	13	6358	4	100	325	0	73	100	96	1	2	0.3	0.3	0.3	0.3	0.15
185		Ranni Angadi	13	5005	4	100	300	10	32	95	96	6	5	300 kg	300 kg	300	100 kg	0
186		Ranni Pazhavangady	17	8229	0	100	420	0	100	0	100	100	100	600 kg/month	600	600	0	0
187		Ranni Perunad	15	7356		69	842	0	29	0	0	0	0	20kg	16kg	16kg	0	0

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188		Seethathode	13	5841	0	100	723	0	100	0	0	0	0	60kg	38kg	31kg	0	0
189		Thannithode	13	4590	0	0	195	0	0	0	0	0	0	0	0	0	0	0
190		Thottapuzhassery	13	5450	0	39	636	0	13	2	2	0	0	350kg/month	350kg/month	350Kg	0	0
191		Thumpamon	13	3887	0	100	267	0	100	52	0	0	0	168 tpd	168 tpd	Nil	0	0
192		Vadasserikkara	15	6854	0	0	401	0	129	0	2	0	0	450 kg	450 kg	450	0	0
193		Vallicode	15	7724		70	498	0	21	0	0	0	0	0	0	0	0	0
194		Vechoochira	15	5600	0	100	250	0	100	0	0	0	0	1870 KG	1870 KG	1870 KG	0	0
195	ALAPPUZHA	Ala	13	4670	0	0	136	0	0	15	0	0	0	0.04	0.04	0.04	NA	NA
196		Ambalapuzha	18	8738	0	0	164											
197		Ambalapuzha south	15	7323	0	0				2		0						
198		Arattupuzha	18	9077														
199		Arookutty	13	6245	60	0	324	50	0	2	2	0	0	0.3	0.2	0	0	0
200		Aroor	22															
201		Aryad	18	9188	100	0	426	100	0	3	2	0	0	0.5	0.1	0.5	0	0
202		Bharanikkavu	21	13420	46	0	340	64	0	32.6	69.2	0	0	0.4	0.29	1.1	0	0
203		Budhanoor	14	6523	0	0	320	0	0	33	54	0	0	0	0	0	0	0
204		Chambakulam	13	4900	0	0	122	0	0	15	0	0	0	0	0	0	0	0
205		Chennampallipuram	17	9461	28	0	388	45	0	74	100	0	0					
206		Chennithala Thriperumthura	18															
207		Cheppad	14	7400	0	0	232	0	0	0	0	0	0	0	0	0	0	0
208		Cheriyanad	15	8320	60	0	128	30	0	10	55	0	0	0.5	1	0	0	0
209		Cherthala south	22	11458	80	93	587	85	40	35	28	0	0	1	0	0	0	0
210		Chenuthara	13	4247	100	0	99	100	0	0	57	0	0	3.2T	1	0	0	0.2
211		Chettikulangara	21	10832	0	0	1542	0	0	0	0	0	0	1.5	1.5	1.3	0	0
212		Chingoli	13	5078	40	0	934	50	0	1	0	0	0					
213		Chunakkara	15	7747	0	0	1240	0	0	0	0	0	0	0.5	0.2	0	0	0
214		Devikulangara	15	6525	100	0	226	100	0	20	100	0	0	0.002	0.002	0.002	0	0
215		Edathua	15	6994	58	0	112	80	0	40	58	0	0	0	0	0	0	0
216		Ezhupunna	16	9018														
217		Kadakkarappally	14	6302	0	0	388	0	0	0	0	0	0					
218		Kainakary	15	5335	50	0	13	80	0	37	100	0	0	0.2	0.2	0.2	0	0
219		Kandalloor	15	7440	86	14	1304	90	10	91	90	0	0	0.32	0	0	0	0
220		Kanjikuzhy	18	8300	100	0	450	100	0	90	100	0	0	0.5	0.5	0.5	0.5	0
221		Karthikappally	13	4479	95	0	98	100	0	0	0	0	0	0	0	0	0	0
222		Karuvatta	15	7216	0	0	1417	0	0	0	0	0	0	0	0	0	0	0
223		Kavalam	13	4136			471							1.1	0.9	0.9	0	0
224		Kodamthuruth	15	6055	80	20	268	75	25	30	100	0	0	0	0	0	0	0
225		Krishnapuram	17	7055	0	0	425	0	0	0	0	0	0	0	0	0	0	0
226		Kumarapuram	15															
227		Kuthiathode	16	5400	97	6	372	0	0	0	0	0	0	0	0	0	0	0
228		Mannanchery	23															
229		Mannar	18	7566	90	0	592	53	0	23	1	0	0	4 T	3T	3T	0	0
230		Mararikulam North	18	8375	100	0	469	0	100	1	1664	2	0	0	0	0	0	0
231		Mararikulam south	23	15938	95	0	2437	401	0	76	83	0	0	0	0	0	0	0
232		Mavelikara Thamarakulam	17	8953	59	0	2883	0	5	0	0	0	0	0	0	0	0	0
233		Mavelikara Thekkekara	19	11661	40		1653		9	0	0	0	0					
234		Muhamma	18	7777	50	0	10	70	0	70	50	5	50	1000kg	782kg	0	7395kg	0

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235		Malakuzha	18	8370	100	0	360	0	0	0	0	0	0	1.5	320kg	320kg	0	0
236		Mathakulam	15	8401	0	0	30	0	0	0	0	0	0	0	0	0	0	0
237		Mattar	13	2884	100	100	239	0	0	100	100	0	0	0.05T	0	0	0	0
238		Nedumady	15	5186	0	0	1578	0	0	1	32	0	0	1.2 T	0.8T	0	0	0
239		Nedumperoor	13	3841	100	0	460	0	0	0	0	0	0					
240		Nooranad	17	9328	70	0	469	88	0	0	0	0	0	0	260KG/	0	0	0
241		Palamel	19	8546	89	0	502	0	0	0	0	0	0	1.5 T	1.4 T	1.4T	0	0
242		Pallippad	13	6029	80	0	573	10	0	95	98	0	0	2T	1.33T	1.33T	0	0
243		Panavally	18	7283	8	0	632	50	0	55	0	0	0	0	0	0	0	0
244		Pandanad	13	3946	0	0	110	0	0	0	0	0	0					
245		Pathiyoor	19	11953	100	0	1249	100	0	1	1	0	0	0.000331	0.0002	0.0002	0	0
246		Pattanakkad	19	11005	100	0	2400	100	0	100	100	0	0	1.5	0	0	0	0
247		Perumbalam																
248		Pulincunnu	19	5389	0	0	185	0	0	0	0	0	0	2.5T	2.5T	2.5T	0	0
249		Puliyoor	13	6612	0	0	158	75	0	23	12	0	0	3T	2T	1.5T	0	0
250		Punnapra north	17	8669	0	0	323	0	0	100	100	0	0					
251		Punnapra south	17	8560	0	0	346	0	0	0	0	0	0					
252		Purakkad	18	9354	20	0	1159	0	0	10	1	0	0	0.01	0.001	0	0	0
253		Ramankary	13	3959	30	0	306	0	0	100	100	0	0	989.75kg	0	0	0	0
254		Thakazhy																
255		Thalavady	15	7210	0	0	247	0	0	98	98	0	0	1200kg	1000kg	0	0	0
256		Thannermukkom	23	10203	40	0	396	50	0	30	100	0	0	0.02	0	0	0	0.003
257		Thazhakkara	21	12128	30	0	2141	0	0	3	0	0	0	0	0	0	0	0
258		Thiruvanvandoor	13	4686	0	0	216	0	0	15	0.32	0	0	0	0	0	0	0
259		Thrikkunnappuzha	17	7273	43	0	263	43	0	2	2	0	0	00KG/MONT	00KG/MONT	00KG/MONT	0	0
260		Thuravoor	18	8707														
261		Thykattussery	15	3928	30	0	928	40	0	15	15	0	0	1800KG/m	1000kg	0	0	0
262		Vallikunnam	18	9679	20	0	1919	20	0	20	20	0	0	3	2	0	0	0
263		Vayalar	16	3817	0	0	218	0	0	15	28	0	0	0	0	0	0	0
264		Veeyapuram	13	3678	0	0	212	0	0	0	0	0	0	0	0	0	0	0
265		Veliyanad	13	3680	0	0	246	0	0	0	0	0	0	0	0	0	0	0
266		Venmony	15	7453	0	0	574	6	0	0	0	0	0	1500kg/m	1000kg/m	1000kg/m	0	0
267	K	Akalakunnam	15	5580	436	74	0	70	0	67	64	0	0	2160 kg	2160 kg	2160kg	40 kg	130 kg
268	O	Arpookara	16	6214	362	50	0	45	0	92	0	0	0	1400	0	0	1400	0
269	T	Athirampuzha	22	12380	2608	70	0	38	0	6	3	16	5	3 ton	0	0	550kg	0
270	T	Ayarkunnam	20	10445	1102	69	49	609	424	3	4	0	0	1579 kg	1379 kg	1579 kg	33 kg	110 kg
271	A	Aymanam	20	10522	1130	100	0	71	0	13	10	0	0	3230 kg	3230 kg	3230 kg	115 kg	0
272	Y	Bharananganam	13	3840														
273	A	Chempu	13	6240	1444	73	0	49	0	13	4	0	0	2230Kg	2230Kg	2230 KG	450 Kg	0
274	M	chirakkadavu	20	10986	3122	100	0	81	0	100	81	0	0	2000	2000	2000	0	0
275		Elikulam	16	7790	370	40	0	72	0	40	72	0	0	240KGS	205KGS	35KGS	0	0
276		Erumely	23	16843	2302	5	0	15	0	26	15	0	0	250	305kg	68	6500kg	2500kg
277		Kadanad	14	5717	1482	0	0	0	0	0	0	0	0	220	0	0	0	0
278		Kadaplamattom	13	3317	198	100	0	100	0	100	100	0	0	100kg	75kg	75 kg	0	0
279		Kaduthuruthy	19	10336		35	0			25		0		3350	390	3350	0	350
280		Kallara (Valkom)	13	3905	234	85	0	100	0	90	90	0	0	0.039	0.039	0.039	0	0
281		Kanakkary	15	7567	284	23	0	53	0	8	10	0	0	101kg	75kg	75kg	0	0
282		Kangazha	15	6383	117	45	0	30	0	35	70	0	0	0.5	0.5	0.5	0	0
283		Kanjirappilly	23	12478	3000	85	0	75	0	85	75	0	0	0.6	60 kg	0	0	0
284		Karoor	15	7119	35	32	0	14	0	100	100	0	0	0.15	0.15	0.15	0	0

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285		Kanakachal	16	8040	1093	0	0	0	0	0	0	0	0					
286		Kidangoor	13	6686	512	67	0	29	1	15	3	67	30	2	1	0.5	0.5	0
287		Kooroppada	17	8333	241	0	0	0	0	24	17	0	0	3	0	0	0	0
288		Koottickal	13	3363	739		0		0	0	0	93	42	3	0	0	2	0
289		Koruthodu	13	4903	475	71	71	25	25	14	100	0	0	40	28	0	0	0
290		Kozhuvanal	13	4103	256	0	0	0	0	3	1	0	0	3.8	0	0	1.2	0
291		Kumarakom	16	6472	8714	39	0	0	0	4	0	0	0	0	0	0	0	0
292		Kuravilangad	14	3831	1329	60	0	15	0	73	2	0	0	2	2	0	0	0
293		Kurichi	20	10500	348	42	0	29	0	1	2	0	0	3.1	0.2	0	0.1	0
294		Madappally	20	10718	1100	70	0	70	0	30	10	0	0	1.45	1.01	0	0	0
295		Manarcad	17	9321	824	100	0	100	0	0	100	100	0	110 KG	60 KG	60 KG	0	0
296		Manimala	15	5430	50	6	0	60	0	0	30	0	0	0.41	0.21	0	0	0
297		Manjoor	18	8210	1608	100	0	100	0	1	2	0	2	420	220	220	160	25
298		Marangattupilly	14	5264	1107	64	0	18	0	1	2	0	1					
299		Maravanthuruth	15	5499	243	90	0	35	0	90	75	0	0	1000kg	400kg	400kg	0	0
300		Meenachil	13	4800	402	100	0	100	0	4	14	0	0	337	270	270	0	0
301		Meenadom	13	4161	524	90	0	33	0	90	3	0	0	0.066	0.066	0	0	0
302		Melukavu	13	3300	69	84	0	62	0	0	62	0	0	110	60	60	20	0
303		Moonnilavu	13	2973	100	96	0	98	0	0	98	0	0	900Kg	900Kg	900Kg	0	0
304		Mulakulam	17	7250	322	8	0	10	0	40	10	0	0	50kg	35kg	35kg	0	0
305		Mundakayam	21	11901	700	3	0	100	0	89	100	0	0	0.1	0.1	0	0	0
306		Mutholy	13	3245	1718	62	0	27	0	0	0	0	0	0.2	0.1	0	0	0
307		Nedumkunnam	15	6922	1241	46	0	26	0	46	26	0	0	1840 kg	1840 kg	1840 kg	0	0
308		Neendoor	15	6902	702	0	0	100	0	43	90	0	0	0.1	0.1	0	0.1	0
309		Njeezhoor	14	4732	342	0	0	4	0	49	2	2	8	3.7	0.45	0.45	1.4	0
310		Paippad	16	7766	1245	66	0	73	0	0	0	0	0					
311		Pallickathodu	13	3649	1472	50	0	24	0	20	0	0	0	1200 KG	1200 KG	0	0	0
312		Pampady	20	10700	2822	40	0	7	0	17	0	0	0	3.66	3.66	0	0	0
313		Panachikad	23	12190	899	29	0	11	0	12	0	0	0			0	0	0
314		Parathodu	19	11438	371	31	0	27	0	17	0	0	0					
315		Poonjar	13	3966	690	100	0	100	0	48	1	0	0	12.165	12.165	0	0	0
316		Poonjar Thekkekkara	14	3426	1077	90	0	100	0	30	33	0	0	1950kg	625kg	0	0	0
317		Puthuppally	18	7630	1510	0	0	0	0	40	42	0	0	0.75	0.15	0	0	0
318		Ramapuram	18	9285	1132	11	0	18	0	3	13	0	0	350	75	0	0	0
319		T.V. Puram	14	6161	139	90	90	66	66	0	0	90	65	3.224	0	0	1.24	
320		Teekoy	13	3636	424	70	0	35	0	0	0	0	0	0.640	0	0	0	0
321		Thalanadu	13	2230	73	43	0	27	0	0	18	0	0	0	0	0	0	0
322		Thalappalam	13	3935	872	82	0	31	0	18	27	0	0	0.356	0	0	0	0
323		Thalayazham	15	4900	158	100	0	100	0	2	0	0	0	3.7 ton	3.7	0	0	0
324		Thalayolaparambu	15	8577	630	42	0	100	37	0	0	0	0	0.01	0	0	0.01	0
325		Thidanad	14	6511	808	75	0	18	0	20	15	0	0	.77 Ton	.77 Ton	0	0	0
326		Thiruvarppu	18	8663	321	70	0	67	0	5	27	0	0	.5 Ton	.5 Ton	0	0	0
327		Thrikkodithanam	20	11273	1300	0	0	12	0	0	0	0	0	.4 TON	.4 TON	0	0	0
328		Udayanapuram G.P	17	8462	64	50	0	18	0	10	5	0	0	3000 KG	5 TON	0	0	0
329		Uzhavoor	13	3216	205	16	0	13	0	4	10	0	15	0.8	0.3	0.3	0	0
330		Vakathanam	20	10500	1400	60	0	40	0	45	15	0	0	0.3	2.5	0.3	0.1	0
331		Vazhappally	21	11900	1400	70	0	65	0	20	10	0	0	1.84	0.98	0.3	0	0
332		Vazhoor	16	8384	517	100	0	100	0	15	14	0	0	0.5	0.3	0	0.25	0
333		Vechoor	13	5461	847	28	0	30	0	35	15	0	0	0.4	0.3	0.3	0.1	0

SL NO:	DISTRICT	LOCAL BODY	NO OF WARDS	No of Household	% Household D2D-Dry	% of Household-D2D-Wet	No of establishment	%establishment -D2D-Dry	% establishment _D2D-Wet	% of human in which source level treatment	% of establishment in which source level treatment	% disposing to centralised system	% disposing to centralised system	Quantity of Waste generated (TPD)	Quantity of Waste collected (TPD)	Quantity of Waste treated (TPD)	Quantity of Waste processed in Composting Sites (TPD)	Quantity of Waste processed in biomethanati on (TPD)
334		Veliyannoor	13	3846	436	72	0	5	0	75	80	0	0	0.25	0.05	0.3	0.02	0.075
335		Velizvoor	13	6265	918	20	0	7	0	3	0	0	0	0.01	0.02	0.03	0	0
336		Velloor	16	6184	946	73	0	32	0	0	0	0	0	0.8	0.4	0	0	0
337		Vijayapuram	19	10741	1129	85	0	5	0	4	0	83	0	0.2	0.2	0.2	0	0
338	I	Adimaly	21	10363	1140	92	5	95	20	70	80	25	25	30	5	5	1	0
339	D	Alakode	13	2660	76	85	0	82	0	25	50	0	0	1	0.1	0.1	1	0.5
340	U	Arakulam	13	6445	182	25	0	32	0	75	68	25	32	1.5	0.5	0.5	0	1
341	K	Ayyappancoil	13	4993	92	10	0	27	0	12	8	25	22	0.5	0.1	0.1	0	0
342	K	Bison valley	13	2853	168	18	0	31	0	34	29	43	24	1.5	0.5	0.5	0	0
343	I	Chakkupallam	13	7120	407	0	0	80	0	29	0	24	78	2.5	2.5	2	0	0
344		Chinnakanal	13	4632	923	72	0		0	18	65	62	25	1.5	0.75	0.75	0	0
345		Devikulam	18	7896	108	40	0	70	0	75	75	85	80	0.4	0.2	0.3	0	0
346		Edamalakudy	13	764	19	0	0	0	0	1	16	25	20	0	0	0	0	0
347		Edavetty	13	5316	763	89	0	48	0	23	22	0	0	4.37	4.18	4.18	1.67	0
348		Elappara	17	8160	950	80	0	85	23	65	50	30	80	3.5	3.1	3.1	2.5	0.2
349		Erattayar	14	4695	492	80	0	75	0	50	25	100	100	1.3	0.5	0.5	0	0
350		Idukki Kanjikuzhy	18	10560	320	65	0	0	0	50	75	60	60	3.1	1	1	0	0
351		Kamakshy	15	6234	450	80	0	75	0	90	60	0	0	4	4	3.5	0	0
352		Kanchiyar	16	6718	962	85	0	80	0	20	10	65	0	6.7	1.9	1.9	0	0
353		Kanthalloor	13	4680	0	75	0	100	100	75	75	100	25	1.39	0.5	0.5	0.5	0
354		Karimanoor	14	5064	768	70	0	75	0	50	50	0	0	0.6	0.3	0.2	0.2	0
355		Karimkunnam	13	4133	301	0	0	63	0	50	50	0	0	0.43	0.43	0.43	0.84	0
356		Karunapuram	17	8107	1054	85	0	65	0	80	75	0	0	6.5	4.5	4.5	2	0
357		Kodikulam	13	3984	117	92	0	90	0	38	60	0	0	3.89	2.95	2.95	0	0
358		Kokkayar	13	4728	133	95	0	92	0	30	65	0	0	3.65	2.3	0.6	0	0
359		Konyarhady	19	8730	650	85	0	80	90	87	72	23	32	1.5	0.5	0.3	0	1
360		Kudayathoor	13	3456	163	30	0	68	0	35	20	0	0	3.9	2	2	0	0
361		Kumarumangalam	13	4512	122	30	0	20	0	40	40	0	0	3	1.5	1.5	0.5	0.25
362		Kumily	20	11850	2280	95	13	96	95	87	4	13	95	4	4	3.9	3.5	3.5
363		Manakkad	13	4739	138	94	0	40	0	45	25	0	0	4.53	2.45	2.45	2	2
364		Mankulam	13	4589	632	68	0	74	0	64	48	74	0	3.219	0.012	0.012	0	0
365		Marayoor	13	4650	0	28	0	100	100	75	75	100	75	1.38	0.5	0.5	0.5	0
366		Mariyapuram	13	3592	15	0	0	100	0	98	60	0	90	0.9	0.6	0.3	0.15	0
367		Munnar	21	9107	3132	70	0	90	70	100	100	40	0	44485	44485	44485	6	4
368		Muttom	13	2563	2300	75	0	90	0	60	50	50	50	2.1	0.5	0.6	0.2	0
369		Nedumkandam	22	13133	10361	75	0	90	0	25	10	0	90	13.31				
370		Pallivasal	14	5800	1200	70	0	65	0	70	50	60	75	1.26	0.5	0.5	2	0.2
371		Pampadumpara	16	6832	150	70	0	70	0	75	75	20	20	0.35				
372		Peermade	17	9099	1423	100	0	83	0	30	15	85	85	1.5	1.5	1.5	0	0
373		Peruvanthanam	14	4242	1630	0	0	75	0	30	35	60	25	2	1.5	0.9	0.5	0
374		Purapuzha	13	3170	414	100	0	70	0	50	30	100	70	0.33	0.33	0.33	7.4	0
375		Rajakad	13	3819	880	85	85	85	80	75	75	100	80	0.49	0.49	0.49	0.49	0.49
376		Rajakumary	13	6052	250	75	75	90	0	70	75	50	50	0.68	0.68	0.68	0.68	0.68
377		Santhanpara	13	4845	170	95	0	100	90	81	80	91	91	4.69	4.26	4.26	0.6	0
378		Senapathy	13	4300	150	78	0	100	84	80	72	74	74	3.39	2.75	2.75	0.8	0
379		Udumbanchola	14	7607	248	0	0	75	0	90	80	50	50	0.4	0.2	0.2	0.2	0
380		Udumbannoor	16	6254	1115	60	60	70	70	40	70	60	60	0.5	0.3	0.15	0.15	0
381		Upputhara	18	8184	1211	0	0	100	0	98	60	60	90	0.9	0.6	0.3	0.15	0
382		Vandanmedu	18	10373	1509	0	11	0	5	85	96	3	3	0.17	0.6	0.6	0.6	0.2
383		Vandiperiyar	23	13969	1011	0	60	80	60	40	70	70	70	5	5	3	3	3

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384		Vannappuram	17	11001	1123	30	0	50	0	25	20	0	0	3.3	1.1	1.1	0	0
385		Varkkudy	18	10194	1412	50	0	70	0	68	10	0	0	9.79	0.1	1.1	0	0
386		Vattavada	13	2747	198	51	0	60	0	0	20	0	0	0.1	0.1	0.1	0.1	0.1
387		Vazhathope	14	4500	450	55	0	64	0	60	25	75	0	1.1	1.1	1.1	0	0
388		Vellathooval	17	8448	1072	93	0	62	0	53	85	0	0	7.89	4.1	4.1	0.1	0
389		Veliyanattom	15	6970	1003	75	0	85	0	83	79	0	0	0.1	0.1	0.1	0.1	0.1

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390	E R N A K U L A M	Akkaranadu	14	7889	1649	34	0			0	0	0	0	5.02	0.5	0.5	0	0
391		Alengadu	21	16317	920	60	0	80	0	10	10	0	0	4.12	0	0	0	0
392		Ambalur	16	8454	1690	19	0	12	0	8	1	0	4	0.06	0.0012		0.00036	0.00012
393		Arakuzha	13	4965	189	0	0	0	0	0	0	0	0	0	0	0	0	0
394		Asamannur	14	6329	150	8	0	0	0	8	400	0	0	0	0	0	0	0
395		Avoli	14	6404	1038	0	0	0	0	1	10	0	0	0	0	0	0	0
396		Ayyana	14	6021	588	0	0	0	0	0	0	0	0	0	0	0	0	0
397		Ayyampuzha	13	9706	668	0	0	0	0	10	35	0	0	0	0	0	0	0
398		Chellanam	21	10535	62	0	0	0	0	0	0	0	0	0	0	0	0	0
399		Chendamangalam	18	9665	1108	36	0	4	0	49	19	0	0	6.3	6.3	6.3	0	0
400		Chengamanad	18	10566	468	100	0	64	0	95	75	0	0	6.99	6.99	6.99	0	0
401		Cheranallur	17	10832	568	74	0	67	0	74	67	0	67	3.7	3.7	3.7	0	0
402		Chittattukara	18	9583	412	16	0	0	0	99	58	0	0	4.5	3	1	0	0
403		Choornikkara	18	10805	1996	75	0	0	0	0	0	0	0	9 TDP	9TDP	9TDP	0	
404		Chottanikkara	14	9097	480	92	0	88	0	95	88	3	88	4.3 TPD	4.3 TPD	4.3 TPD	0	0
405		Edakkattuvayal	14	6133	900	49	0	100	0	49	44	0	0	7 TPD	7 TPD	7 TPD	0	0
406		Edathala	21	17007	4154	59	0	91	0	22	45	0	0	3.5	0	0	0	0
407		Edavanakkadu	13	6346	954	75	0	100	0	0	0	0	0	6	3	3	0	0
408		Elamkunnapuzha	23	15479	1562	95	0	100	0	23	42	0	0	7	4	4	0	0
409		Elanji	13	5552	127	64	0	100	0	100	100	0	0					
410		Eloor	14	6162	196	69	0	100	0	100	100	0	0	0	0	0	0	0
411		Kadamakkudi	13	4021	619	0	0	0	0	0	0	0	0					
412		Kadungalloor	21	16221	5505	0	0	0	0	0	0	0	0					
413		Kalady	17	9733	2512	82	0	0	0	12	4	0	0	7.06	1.6	0.9	0.5	0.5
414		Kalloorkadu	15	7511	320		0		0	2	6	0	0					
415		Kanjoor	13	4192	242	0	0	0	0	9	14	0	0	0	0	0	0	0
416		Karukutty	17	9699	2666	0	0	0	0	0	0	0	0	0	0	0	0	0
417		Karumaloor	20	11253	1215	0	0	0	0	1	2	0	0	0	0	0	0	0
418		Kavalangad	18	9880	1770	0	0	0	0	0	0	0	0	0	0	0	0	0
419		Keerambara	13	4106	720	0	0	0	0	0	0	0	0	NOT ASSESSED	0	0	0	0
420		Kizhakkambalam	19	12788	716		0		0	1	21	0	0	No data available	0		0	0
421		Kizhakkambalam	19	9253	539	0	0	0	0	0	0	0	0					
422		Kottappadi	13	6172	685	0	0	0	0	100	100	0	0	0	0	0	0	0
423		Kottuvalli	22	14573	2103	30	0	0	0	86	1	0	0	0	0	0	0	0
424		Kumbalam	18	10129	1725	0	0	0	0	4	5	0	0	7.2	0	0	0	0
425		Kumbalangi	17	8719	1430	100	0	90	0	100	90	0	0	not estimated	not estimated	0	0	0
426		Kunnathunadu	18	12419	3940	23	0	0	0	4	0	0	0	0.5	0	0	0	0
427		Kunnukara	15	6300	250	54		60		46	40							
428		Kuttambuzha	17		220			0	0		0		0	0	0	0	0	0
429		Kuvappady	20	12123	0	10	0			3		0						
430		Kuzhuppilli	13	3015	185	34	0	51	0	0	0	0	0	0	0	0	0	0
431		Malayattoor - Neeleswaram	17	8386	971	0	0	0	0	0	0	0	0	0	0	0	0	0
432		Manjalloor	13	5048	219	0	0	0	0	0	0	0	0	0	0	0	0	0
433		Manjapra	13	5253	1585	81	19	0	0	0	0	0	0	0	0	0	0	0
434		Manjapra	13	3857	173	0	0	0	0	4	0	0	0	17TPD	0	0	0	0
435		Marady	19	10995	72	0	0	0	0	0	0	0	0	0.05	0.001	0.001	NIL	NIL
436		Mazhuvannur	14	6490	353	0	0	0	0	0	0	0	0	nil	nil	nil	0	nil

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437		Mookkannur	14	5334	200	0	0	0	0	0	0	0	0	nil	nil	nil	0	0
438		Mudakkuzha	13	7386	700	0	0	0		0	0	0	0	100KG	0	0	0	0
439		Mutanthurathi	16	7728	11	0	0	0	0	0	0							
440		Mukundakadu	16	5479	1105	0	0	0	0	0	0	0	0					
441		Narayambalam	19	12509	3522	37	0	10	0	0	0	0	0					
442		Nedumbassery	21	12271	0	0	0			0		0		24	0.5	0.5	0	0
443		Nellikkuzhi	16	7801		0	0			0		0		0	0	0	0	0
444		Njarakkal	16	7957	3974	0	0	0	0	0	0	0	0	0	0	0	0	0
445		Okkal	16	4780	2	0	0	0	0	0	0	0	0	0	0	0	0	0
446		Paingottur	13	4900	135	76	0	100	0	0	0	0	0	0	0	0	0	0
447		Palakkuzha	13	5050	1317	0	0	0	0	0	0	0	0	0	0	0	0	0
448		Pallarimangalam	23	13549	1141	75	0	70	0	92	90	0	0				0	0
449		Pallipuram	23	13549	1141	75	0	70	0	92	90	0	0	11	0.01	0	0	0
450		Panthalkkuda	18	9660	3022		0		0	71	93	0	0	1	4.9			
451		Perakadavu	22	11745	315	0	0	0	0	98	1587	0	0					
452		Perumpa	13	6129	588	0	0	0	0	100	100	0	0					
453		Pindimana	14	7649	3107	34	0	6	0	100	100	0	0					
454		Porkkilikka	13	6453	1814	12	0	8	0	12	0	0	0	2219 KG	2219 KG	1780 KG	0	0
455		Puthanikadu	13	3687	750	23	0	17	0	20	0	0	0	100kg/day	0	0	0	0
456		Puthenvelikara	17	9932	436	0	0	0	0	0	0	0	0	Not Estimated	Not	0	0	0
457		Ramamangalam	20	12715	1200	40	0	7		8	46	0	0	3TPD	3TPD	0	3tpd	0
458		Rayamangalam	16	6000	2000	25	20	3		14	3	0	0					
459		Sreenoola Nagaram	16	5769	250	0	0	0	0	0	0	0	0	0	0	0	0	0
460		Thirunaradi	13	7825	606	45	0	34	0	0	0	0	0	0	0	0	0	0
461		Thiruvaniyur	14	7572	1854					10	10	0	0	1 tpd	0	0	0	0
462		Thuravur	20	15375	365		0			0	0	0	0		175KG	0	0	0
463		Udayamperoor	20	10022	1586		0			0	0	0	0					
464		Vadakkekkara	17	9549	1789					4	11	0	0					
465		Vadavukodu-Puthankurisu	14	6174	1628	0	0	0	0	0	0	0	0					
[illegible]		[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]
467		Varapetti	13	6087	771	0	0			0	0	0	0	0.07	0.07	0	0	0
468		Varappuzha	16	9275	1858	0	0	0	0	0	0	0	0	0	0	0	0	0
469		Vazhakkulam	20	17202	788	0	0			0	0	0	0	1	1	0	0	0
470		Vengola	23	17853	850	0	0	0	0	78	71	0	0	3	0	0	0	0
471		Vengoor	15	5855	775	0	0			0	0	0	0	10	10	0	0	

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472	T	Adat	18	8480	1154	0	0	17	0	0	0	0	0	2	3	3	0	0
473	H	Alagaramnagar	17	9749	1917.0	0	0	0	0	13	8	0	0	2	0	0	0	0
474	R	Alnor	23	17500	1700	0	0	0	0	0	0	0	0	1 ton	1/2 ton	0	0	0
475	I	Annamanada	18	10499	2666	0	0	0	0	14	0	0	0	0	0	0	0	0
476	S	Avittikad	15	6922	1160	0	0	0	0	7	0	0	0					
477	S	Azhoor	17	10495	69	0	0	0	0	19	0	0	0	3 ton	2 ton	nil	0	0
478	U R	Athirappilly	13	3604	967	0	0	0	0	0	0	0	0	Not estimated	Not Estimated	0	0	0
479		Avanur	15	8062	373	25	0	5	0	2	0	0	0	8	0	0	0	0
480		Avinissery	14	6213	521	0	0	89	0	3	0	0	0	0	0	0	0	0
481		Chazhur	18	7956	7956	100	0	100	0	0	0	0	0	0	0	0	0	0
482		Chelakkara	22	13745	2921	23	0	3	0	0	0	0	0	0	0	0	0	0
483		Cherpu	21	11176	2136	72	0	0	0	1	0	0	0	not estimated	not estimated	not	not estimated	not estimated
484		Choondal	18	10449	3097	0	0	0	0	0	0	0	0	0	0	0	0	0
485		Chowannur	13	5251	919	0	0	0	0	0	0	0	0	0	0	0	0	0
486		Desamangalam	15	7139		0	0	0	0	0		0		0	0	0	0	0
487		Edathiruthy	18	8642	783	0	0	0	0	0	0	0	0	0	0	0	0	0
488		Edavilangu	14	6469	1363	100	0	0	0	0	0	0	0	0	0	0	0	0
489		Elavally	16	8513	1941	70	0	30	0	0	0	0	0	1 ton	1 ton	0	0	0
490		Engandiyur	16	7781	1515	72	0	30	0	0	1	0	0	not estimated	not estimated	not	not estimated	not estimated
491		Eriyad	23	14585	2704	0	0	0	0	0	0	0	0	0	0	0	0	0
492		Erumapetty	18	7420	3920	0	0	0	0	0	0	0	0	0	0	0	0	0
493		Kadangode	18	8581	2696	0	0	0	0	0	0	0	0	0	0	0	0	0
494		Kadappuram	16	6830	901	0	0	0	0	0	0	0	0	0	0	0	0	0
495		Kadavallur	20	9254	1232	0	0	0	0	0	0	0	0	0	0	0	0	0
496		Kadukutty	16	8276	1173	0	0	0	0	0	0	0	0	0	0	0	0	0
497		Kaipamangalam	20	10800	960	50	0	5	0	0	0	0	0	0	0	0	0	0
498		Kaipamba	18	8409	818	36	0	6	0	0	0	0	0	not estimated	0	0	0	0
499		Kandassamy	16	7791	1487	0	0	0	0	0	0	0	0	not estimated	0	0	0	0
500		Karalam	15	6486	839	0	0	21	0	95	25	0	0	0.2	0.2	0.2	0	0
501		Karukampal	16	8500	700	0	0	0	0	0	0	0	0	0	0	0	0	0
502		Kattoor	16	5975	1479	20	0	5	0	0	0	0	0	0	0	not est	0	0
503		Kechikara	19	10871	3016	29	0	0	0	0	17	0	0	9.6 tons	6.7 tons	6.7 tons	0.5 ton	0
504		Kechissery	20	11343		0	0			0		0		0	0	0	0	0
505		Kolazhy	17	11845	1135	0	0	0	0	0	0	0	0	not estimated	not estimated	not estimated	not estimated	not estimated
506		Kondazhy	15	6764	972	0	0	0	0	0	0	0	0	0	0	0	0	0
507		Koratty	19	10989	610	0	0	0	0	0	0	0	0	0	0	0	0	0
508		Kuzhur	14	6510	908	0	0	0	0	0	0	0	0	not estimated	0	0	0	0
509		Madakkathara	16	8860	1562	40	0	52	0	10	0	0	0	2.05 TON	2.05 TON	2.05 TON	0.25TON	1 TON
510		Mala	20	11856	4446	0	0	0	0	0	0	0	0	0	0	0	0	0
511		Manalur	19	9487	2312	100		100		100	100	90		9.86TON	9.86TON	9.86TON	05. TON	0
512		MATHILAKAM	17	7565	588	0	0	0	0	0	0	0	0	0	0	0	0	0
513		Mattathur	23	16245	2731	0	0	0	0	0	0	0	0	4.9 ton	4.9 ton	4.9 ton	0	0
514		Melpur	17	6888		0	0			0		0		200kg	0	200kg	0	0
515		Melukumathukavu	14	7053		0	0			0		0		Mulankunnat hukavu	0	0	0	0
516		Mullassery	15	6753	413	67	0	0	0	0	0	0	0	0.002	0.002	0	0	0
517		Mullarkkara	60	5927	1383	36	0	4	0	0	0	0	0	0	0	0	0	0
518		Muriyad	17	9633	1180	100	1		100	0	0	0	0					

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519		Nadathara	17	10032	1658	100	0			100	50	100	50	2000Kg	2000Kg	2000Kg	1000Kg	500Kg
520		Nattika	14	6373	2514	84	0	11	0	60	45	0	0	2 ton	1 ton	0	0	0
521		Nenmenikkara	15	6745	1815	22	0	8	1	0	0	0	0	NA	NA	0	0	NA
522		Orumanayur	13	3035	249	0	0	0	0	0	0	0	0	NA	NA	NA	NA	NA
523		Pallyoor	14	6323	902	0	0	0	0	0	0	0	0	NA	NA	NA	NA	NA
524		Panancherry	23	15443	3231	0	0	0	0	0	0	0	0					
525		Panjal	16	8250	1175	0	0	0	0	0	0	0	0	0	0	NA	NA	NA
526		Panalam	15	6065		6	0			0		0						
527		Parappukkara	18	9758	1789	90	0	31	0	0	31	0	0	0.5Ton	0.5Ton	0	0	0
528		Pariyaram	15	5406	8916	0	0	0	0	0	0	0	0	NA	NA	NA	NA	NA
529		Pavaratty	13	6755	1775	0	0	0	0	0	0	0	0	NA	NA	NA	NA	NA
530		Pazhayannur	22	13680	516	45	45	90	87	0	0	0	0	Not estimated	Not	Not	NA	NA
531		Perinjanam	15	6883	650	100		100		100	100							
532		Poomangalam	13	4336		0	0			0		0		Not estimated	Not	Not	Not estimated	NA
533		Porkulam	13	5471		0	0			0		0						
534		Poyya	15	7682		0	0			0		0						
535		Puzhakal	15	7635	565	0	0	0	0	0	0	0	0	Not estimated	Not	Not	Not estimated	Not estimated
536		Punnayurkulam	19	9516	2040	0	0	0	0	0	0	0	0	324	324	324	0	0
537		Punnayur	20	9972	2128	0	0	0	0	0	0	0	0	615	615	615	0	0
538		Puzherchira	15	16797	1107	0	0	0	0	0	0	0	0	115 ton	115	115	0	0
539		Puthur	23	13268	3186	9	0	2	0	0	0	0	0	55	10	0.1	0	0
540		Sreenarayanapuram	21	12471	2857	30	0	50	0	0	0	0	0	0.2	0.15	0	0	0
541		Talikulam	16	8164	420	29	0	100	0	0	0	0	0	50	30	30	0	0
542		Thanniyam	18	9782	5900	51	0	100	0	0	0	0	0	20 ton	20	20	0	0
543		Thekkumkara	18											TTON/DAY	0	5/TON	0	0
544		Thiruvilwamala	17	NA	NA													
545		Thrithur	13	4388	30	0	0	83	0	0	0	0	0			20	na	na
546		Thykkur	17	8552	1280	50	0	26	0	80	75	0	0	0.2	0.2	0.2	0	0
547		Vadakkekad	16	8320	980	0	0	5	0	0	0	0	0	0	0	0	na	na
548		Valapad	20	10127	1787	4	0	0	0	1	1	0	0	not estimated	not estimated	not estimated	na	na
549		Vallachira	14	7320	670	0	0	0	0	0	0	0	0	0.05	0.04	0.04	0	0
550		Vallathol nagar	16	6378	1331	60	0	2	0	0	0	0	0	not estimated	not estimated	not estimated	0	0
551		Varandarappilly	22	13900	2601	0	0	0	0	5	0	0	0	not estimated	not estimated	not estimated	na	na
552		Vavvoor	14	6451	911	0	0	0	0	0	0	0	0	not estimated	not estimated	not estimated	na	na
553		Vatanappally	18	7625	1236	8	0	2	0	0	0	0	0	not estimated	not estimated	not estimated	0	0
554		Velanganur	21	12510	710	0	0	0	0	0	0	0	0	not estimated	not estimated	not estimated	0	0
555		Velukkara	18	8960	1766	0	0	0	0	6	1	0	0					
556		Velur	17	8430	1439	0	0	0	0	0	0	0	0	not estimated	not estimated	not estimated	0	0
557		Venkitangu	17															

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558	PALAKKAD	Agali	21	12739	2615	75	0	96	4	94	2	0	98					
559		Akathethara	17	9500	1892	45	0	2	0	48	2	0	0		3500 kg	500 kg/ mont	0	0
560		Alanallur	23	15185	4290	82	0	0	0	17	6	82	0	2140. kg	1400. kg	1400. kg	0	0
561		Alathur	16															
562		Ambalappara	20	12928	1432	87	0	0	0	0	29	0	0	6 Ton	6 Ton	Transported	0	0
563		Anakkara	16	7066	1401	70	0	0	0	0	0	0	0	0	0	0	0	0
564		Anangandi	15	7526	985	10	0	20	0	15	0	0	0	0	0	0	0	0
565		Ayilur	17	8327	1289	85	2	0	0	0	0	0	0	0	0	0	0	0
566		Chalavara	15	6860	1048	0	0	0	0	0	0	0	0	0	0	0	0	0
567		Chalissery	15	6550	1200	100	0	100	100	15	8	0	0	100	0	0	0	0
568		Elappully	22	11815	3016	70	64	60	47	0	0	0	0	1100 Kg	1000 Kg	850 Kg	0	0
569		Elavanchery	14	5235	235	0	0	0	0	0	0	0	0	0.15	0.1	0	0	0
570		Erimayur	19	9482	889	0	0	0	0	0	0	0	0	0	0	0	0	0
571		Eruthenpathy	14	5681	362	22	52	32	43	0	0	0	0	0.05	0.02	0.03	0	0
572		Kadampazhipuram	18	9872	2239	90	0	89	0	0	0	0	0					
573		Kanjirappuzha	19	9944	1959	0	0	0	0	0	2	0	0	0.03	0.03	0	0	0
574		Kavvadi	15	8063	1100	50	0	11	0	0	0	0	0					
575		Tarur	16	7784	44		0	0	0	0	1							
576		Kavassfira	16	7950	650	45	0	100	0	0	0	0	0	0.10 tonne	0.05 tone	0.05 tone	0	0
577		Kappur	18	8902	1759	0	0	0	0	0	0	0	0	0.45	0	0	0	0
578		Karakurussi	16	7417	1490	0	0	100	0	100	2	0	0	0.05	0.01	0.01	0	0
579		Karimba	17	8870	2049	70	0	97	0	0	0	0	0					
580		Karimpuzha	18	9835	268	64	64	100	4	0	2	0	0	0.5	0.5	0.5	0	0
581		Kavassery	17	8966	218	7	0	12	0	0	0	0	0					
582		keralassery	13	4861	238	0	0	0	0	0	0	0	0	0.03	0.03	0.03	0	0
583		Kizhekkancherry	22	13196	2238	69	0	67	0	0	1	0	0	0.04	0.04	0.04	0	0
584		Kodumbu	13	8182	1333	85	84	90	90	28	4	0	0	7 tonnes	6 tonnes	6 tonnes	0.2 tonnes	0
585		Koduvayur	18	10181	465	0	0	0	0	5	75	0	0	1.05 tonne	1.05 tonne	1.05 tonne	205 kg	0
586		Kollenkode	18	7346	1345	0	0	157	240	0	0	0	0	1500	1200	1200	200	0
587		Kongad	18	9300	1684	100	0	48	0	34	42	100	42	500	500	500	0	0
588		Koppam	17	9915	3482	100	0	41	0	0	0	0	0	0.05	0.05	0.05	0	0
589		Kottappadam	22	13171	2843	0	0	30	0	0	0	0	0	0.05	0.05	0.05	0	0
590		Kozhinjampara	18	9119	1735	0	0	0	0	0	0	0	0					
591		Kulukkallur	17	8572	1787	79	0	0	58	0	0	0	0	0	0	0	0	0
592		Kumaramputhur	18	8902	1832	81	0	0	60	0	0	0	0	0.05	0.05	0.05	0	0
593		Kuthanur	16	6896	824	0	0	0	0	0	0	0	0	0	0	0	0	0
594		Kuzhalmannam	17	8923	283	100	0	0	100	0	0	0	0	0	0	0	0	0
595		Lakkidi-Perur																
596		Malampuzha	13															
597		Mankara	14	7125	1220	75	0	25	0	0	0	0	0	0	0	0	0	0
598		Mannur	14	5925	1300	48	0	19	0	0	0	0	0	0	0	0	0	0
599		Marutharoad	19	11926	2101	50	0	0	0	0	0	0	0					
600		Mathur	18	7924	676	73	0	100	0	0	0	0	0	0	0	0	0	0
601		Melarkode	16	7043	0	0	0		0	0	0	0	0	0	0	0	0	0
602		Mundur	18	9597	1819	0	0	0	0	0	0	0	0	0	0	0	0	0
603		Muthalamada	20	9704	2110	0	0	0	0	0	0	0	0	0	0	0	0	0
604		Muthuthala	13	6945	175	100	0	100	0	18	42	0	0	539.25	323.55	323.55	200.15	100.5
605		Nagalassery	17	8507	590	100	0	100	0	41	23	0	0				0	0
606		Nallepilly	19	8095	448	100	0	100	0	0	0	0	0	0	0	0	0	0
607		Nelliaya	19	10587	0	0	0			0		0						

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609		Nellanpathy	13	950	97	100	0	100	0	0	0	0	0	0	0	0	0	0
610		Nemmara	20	11815	2449	97	0	5	0	7	2	0	0	180 KG	172 KG	172	0	0
611		Ongallur	22	12811	2161	99	0	5	0	0	0	0	0	700 kg	0	0	0	0
612		Pallassena	16	8433	268	93	0	17	0	6	0	0	0	0	0	0	0	0
613		Parali	20	10752	2069	0	0	0	0	0	0	0	0	0	0	0	0	0
614		Paruthur	16	6082	728	0	0	0	0	0	0	0	0	0	0	0	0	0
615		Pattanchery	16	8829	110	0	0	0	0	0	0	0	0	na	na	na	na	na
616		Pazhthara	18	9467	1784	0	0	0	0	4	7	0	0	0	0	0	0	0
617		Peruvaripi	18	9900	380	53	0	67	0	0	0	0	0	0	0	0	0	0
618		Perungottukurissi	16	9539		0	0			0		0						
619		Peruvemba	14	5757	700	0	0	0	0	0	0	0	0	500 kg	50kg	0	0	0
620		Pirayiri	21	13282	1959	0	0	0	0	0	0	0	0	1400 Kg	0	0	0	0
621		Polpully	13	5289	890	0	0	0	0	0	0	0	0	500 kg	0	0	0	0
622		Ponkotukavu	13	4561	489	0	0	54	0	0	0	0	0	NA	NA	NA	NA	NA
623		Pudukkode	15	6294	6	0	0	0	0	0	0	0	0	NA	NA	NA	NA	NA
624		Pudunagaram	13	4248	875	12	0	0	0	0	0	0	0	NA	NA	NA	NA	NA
625		Puduppariyaram	21	12062	21	0	0	0	0	0	0	0	2581					
626		Pudur																
627		Pudusseri	23	16896	4062	0	0	0	0	0	0	0	0	NA	NA	NA	NA	NA
628		Sholayur	14	6926	275	0	0	0	0	0	0	0	0					
629		Sreekrishnapuram	14	5280	350	100		100		96				539.25	323.55	323.55	100.13	100.3
630		Thachampara	15	5502	868	0	0	0	0	0	0	0	0					
631		Thachanattukara	16	6085	170	100	0	0	0	0	0	0	0	153.6	77.2	NA	NA	NA
632		Tharur	16	7784	181	50	0	0	0	6	0	0	50	3.8384 tone	3.8384 tone	3.8384 tone	0	0
633		Thenkara	17	8347	3064	0	0	0	0	0	0	0	0	0	0	0	0	0
634		Thenkurissi	17	8248	820	72	0	56	0	0	0	0	0	0	0	0	0	0
635		Thirumittakkode	18	8300	450	0	0	0	0	0	0	0	0	0	0	0	0	0
636		Thiruvegappura	18	8084	1185	0	0	0	0	0	0	0	0	0	0	0	0	0
637		Thrikkaderi	16	6698	279	0	0	0	0	0	0	0	0	0	0	0	0	0
638		Thrithala	17	8429	424	0	0	0	0	0	0	0	0	8 tone	7 tone	7 tone	0	0
639		Vadakarapathy	17	9066	912	20	0	20	0	5	10	0	0	1	0.25	0	0	0
640		Vadakkancheny	20	10160	829	3	0	29	16	30	20	0	0	4 tone	3 tone	1 tone		
641		Vadavannur	13	5074	980	0	0	0	0	0	0	0	0	0	0	0	0	0
642		Vallapuzha	16	8838	1347	0	0	0	0	0	0	0	0	0	0	0		
643		Vandazhi	19	10149	728	90	0	20	0	90	20	0	0	0	0	0	0	0
644		Veliyankulam	18	10199	815	0	0	0	0	23	74	0	0	3000kg	3000kg	3000	0	0
645		Velleezhi	13	5147	281	100	0	100	0	100	100	0	0	840	600	600	600	0
646		Vilayur	13	6953		0	0			92		0						

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647	M	Alamkodu	19	11127	200	75	25	0	0	0	0	0	0					NIL
648	A	Aliparambu	21	11621	1982	0	0	0	0	0	0	0	0	0.05	0.05	0.05	NA	NA
649	L	Amarambalam	19	7841	604	100	0	100	0	0	0		0	0.045	0.045	0.045	0.045	Nil
650	A	Anakkayam	23	15424	305	100	0	100	0	0	0	9	0	0.05	0.05	0.05	0.05	Nil
651	P	Angadipuram	23	15220	4205	75	25	90	10	50	50	50	50	0.05	0.05	0.05	0.05	nil
652	P	Areekkode	18	8536	4718	0	0	0	0	13	18	0	0					
653	U	Athavanadu	22	12145	3512	0	0	0	0	18	22	0	0	0.04	0.04	0.25	0.15	NIL
654	R	Chaliyar	14	6361	367	100	0	100	0	12	82	0	2	0.02	0.02	0.02	0.02	0.02
655	A	Cheekkode	18											0.075	0.03	0.03	0.02	0.01
656	M	Chalambra	18	10601	1888	100	0	0	0	10	5	0	0	0.075	0.035	0.035	0.02	nil
657		Cheriyamundam	18	6540	420	100	0	100	0	0	0	0	0	0.035	0.035	0.035	0.02	0.02
658		Cherukavu	19	11042	426	100	0	100	0	0	0	0	0	0.045	0.045	nil	nil	nil
659		Chokkadu	18	9284	234	0	0	0	0	0	0	0	0	0	0	0	0	0
660		Chunkathara	20											0.09	0.09	0.09	0.09	nil
661		Edakkara	16	8675	486	73	0	53	0	9	45	0	1	0.055	0.055	0.055	0.055	0.055
662		Edappal	19	9438	3437	100	0	58	0	14	1	0	0	0.04	0.04	0.04	0.04	0.04
663		Edappatta	15	4990	110	32	0	18	0	27	1	0	0	0.036	0.036	0	0	0
664		Edarikkode	16	6500	NIL									0	0	0	0	0
665		Edavanna	22	11141	3978	92	0	73	0	18	6	0	0	0.06	0.06	0.06	0.06	0.06
666		Edayur	19	8706	1799	29	0	0	0	7	0			0.2	nil			
667		Elamkulam	16	7919	314	65	0	55	0	45	18	0	0	0.05	0.05	0.04	Nil	Nil
668		Irimbiliyam	17	8308	1733	0	0	0	0	8	0	0	0					
669		Kaladi	16	7529	1964	24	0	15	0	0	0	0	2	0.13	0.11	nil	nil	nil
670		Kalikavu	19	10292	470	0	0	0	0	48	10	0	0	0.005	0	0	0	0
671		Kalpakanchery	19	9844	3364	0	0	0	0	0	0	0	0	0.035	0.035	0.035	0	0
672		Kannamangalam	20	10141	2793	30	0	30	0	10	10	0	0	1	1.1	1.2	0	0
673		Karulai	15	5625	320	100	0	100	0	0	0	0	3	0.05	0.05	0.05	0.05	0.05
674		Karuvarakkund	21	9967	395	0	0	0	0					0	0	0	0	0
675		Kavanoor	19	9586	346	0	0	0	0									
676		Keezhattur	19	8387	1546	64	0	33	0	18	3	0	0	0.68	0.5	0.3	0	0
677		Kondotyparambu	14	6050	262	0	0	0	0	0	0	0	0	0	0	0	0	0
678		[illegible]	[illegible]	[illegible]	[illegible]	0	0	0	0	8	0		0					
679		Koottilangadi	19	10058	3234	100	0	100	0	0	0	0	0	0.035	0.035	0.035	0.035	NIL
680		Kuruva	22	13895	3813	60	0	70	0	10	10	0	0	0.04	0.04	0.04	0.04	0
681		Kuttippuram	23	13613	3568	65	0	75	0	35	70	0	0	0.045	0.045	0.045	0.045	0
682		Kuzhimanna	18	9400	342	60	0	60	0	40	40	0	0	0.025	0.025	0	0	0
683		Makkaraparambu	13	5861	394	100	0	100	0	0	0	0	0	0.2	0.2	0.2	0.2	0.013
684		Mambad	19	9850	220	0	0	0	0	8	0	0	0	0.3	0.3	0.3	0	0
685		Mangalam	20	7866	7866	100	324	324	100	61	46	0	0	0.02	0.02	0.02	0	0
686		Markada	18	9845	200	0	0	100	0	91	100	0	0	0.1	0.1	0.1	0	0
687		Marakkara	20	7715	342					46	158			0.5	0.5	0.5	0.5	0
688		Maranchery	19	10699	2201	100	0	0	100	100	100	0	0	0.5	0.5	0.5	0.3	0
689		Melattur	16	8402	127	60	0	25	0	35	60	0	0	0.02	0.02	0.02	0.02	0
690		Moonniyur	23	14450	686	60	0	40	0	10	5	0	0	0.05	0.05	0.05	0	0
691		Moorkkanadu	19	8452	385	76	24	70	30	0	0	0	0	0.15	0.15	NIL	0.1	NIL
692		Morayur	18	8745	313	60	0	100	0	1	8	60	100	0.15	0.15		0.12	0
693		Muthedam	13	7145	204	100	24	100	0	24	0	0	0	0.1	0.1	0.1	0.05	0
694		Muthuvallur	15	6347	167	75	25	60	40	90	100	0	0	0.5	0.5	0.5	0.5	0
695		Nannambra	21	9100	3000	0	0	0	0	0	0	0	0	0.032	0.032	0	0	0
696		Nannamukku	17	6752	400	48	0	100	0	10	5	0	0	0.02	25	0	0	0

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697		Nemmenivilur	17	7969	1150	0	0	0	0	0	0	0	0	0.03	0	0	0	0
698		Orukam	17	7995	256	11	0	14	0	0	0	0	0	0.075	0.075	0.075	0	0
699		Othukkungal	20	10666	2844	50	0	100	0	90	90	90	90	0.055	0.02	0	0	0
700		Ottur	18	7996	232	30	0	40	0	20	60	0	0	0.025	0.02	0	0	0
701		Pallikkal	22	12642	4297	47	5	32	8	0	0	0	0	0.02	0	0	0	0
702		Pandikkad	23	13510	482	0	0	0	0	0	0	0	0	0.1	0	0	0	0
703		Parappur	19	9574	1919	0	5	0	0	0	0	0	0	0	0	0	0	0
704		Perumanna Klari	16	7553	2123	2	0	0	0	1	5	0	0	0	0	0	0	0
705		Perumpadappu	18	8127	1647	4	2	33	8	2	8	0	0	0	0	0	0	0
706		Peruvallur	19	9124	30	75	30	0	0	0	10	0	0	0.05	0.01	0	0	0
707		Ponmala	18	7237	1302	0	0	0	0	0	0	0	0	0	0	0	0	0
708		Ponmundam	16	6657	229	100	100	40	20	0	2	2	0	0.05	0.05	0.05	0	0
709		Porur	17	9076	1482	0	0	0	0	0	0	0	0	0.1	0.03	0	0	0
710		Pothukallu	17	10427	726	0	0	0	0	0	0	0	0	0	0	0	0	0
711		Pulikottur	19	8785	689	0	0	0	0	0	0	0	0	0	0	0	0	0
712		Pulamanthol	20	12698	1200	12	10	25	23	3	3	0	0	0.03	0	0		0
713		Pulikkal	21	10949		3	0			0		0		0.02	0.02	0.02	0	0
714		Pulpatta	21	11886	2287	160	0	100	0	0	0	0	0	0.05	0.05	0.05	0	0
715		Purathur	19	6959	1689	100	100	40	0	25	0	0	0	0.015	0.015	0.015	0	0
716		Puzhakkattiri	17	9186	240	100	0	100	0	0	29	100	100	4	0	3.5	0	0
717		Thalakkadu	19											0.02	0.015	0	0	0
718		Thanalur	23	13527	1436	100	0	82	0	0	0	0	0	0.05	0.06	0.06	0	0
719		Thavanur	19	10047	800	100	0	100	0	54	40	0	0	0.18	0.13	0.13	0	0
720		Thazhakkode	23	10080	6	100	0	83	0	64	83	0	0	1.5	1.35	0	0	0
721		Thenhippalam	17	9821		0	0			69		0		0	0	0	0	0
722		Thennala	17	7131	0	0	0			100		0						
723		Thirunavaya	23	13552	13125	83	0			0		0		0	0	0	0	0
724		Thiruvali	16	7182	16	100	0	0	0	97	65	0	0	0	0	0	0	0
725		Thrikkalangode	23	14903	2436													
726		Thriprangode	21	8375	1100	100	0	60	0	65	0	0	0	0.75	0.65	0	0	0
727		Tuvvur	17	6500	220	100	0	100	0	45	0	0	0	0.35		0	0	0
728		Uppummel	21	11046	2202													
729		Velavanur	19	9139	2182	100	0	50	0	4	0	0	0	0.025	0.03	NA	0.05	NA
730		Vellikkunnu	23	12999	2715	100	0	100	0	35	25	0	0	0.35	0	NA	0.1	NA
731		Vattakkulam	19	11117	4956													0
732		Vazhakkad	19	13445	3450													
733		Vazhayur	17	9402	2216	100	0	100	0	100	100	0	0	0.18	0.15	0.14	0	0
734		Vazhikkadavu	23	14161	3111	0	0	0	0	0	0	0	0	16	11	8	0	0
735		Velivanknde	18	9221	2081													
736		Vengara	23	10852		0	0			0		0		NA	NA	NA	NA	NA
737		Vettathur	16											25	20	14	15	15
738		Vettom	20	8313	1892	100		0	0	0	0	0	0			0	0	0
739		Wandoor	23											NA	NA	NA	NA	NA
740		Kainakary	30	5535		100	0	100	0	100	100	0	0	0.7	0.5	0.5	0	0

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741	KOZHIKODE	Arrikulam	13	4409	1178	91	0	85	0	22	30	91	85	15 kg	15kg	15 kg	0	0
742		Atholy	17	7193	1966	71	0	81	0	13	10	71	81	20 KG/DAY	20 KG/DAY	20 KG/DAY	0	0
743		Ayancheri	17	8354	2857	0	0	0	0	30%	5%	100	5	1 TON	1 TON	1 TON	0	0
744		Azhiyur	18	7900	561	63	0	80	0	100	100	0	0	800Kg/day	800Kg/day	800Kg/day	0	0
745		Belassri	17	8779	1715	97	0	96	10	90	80	0	0	1200 kg/day	1200 kg day	1200 kg /day	0	0
746		Chakkittappara	15	6916	1811	80	0	79	0	90	90	0	0	20 KG/DAY	20 KG/DAY	20 KG/DAY	0	0
747		Changaroth	19	9963	2737	100	0	92	16	86	92	0	0	25 Kg / day	25 Kg/ day	25Kg/day	0	0
748		Cherhuvangallam	22	15068	3746	34	0	12	8	24	82	0	0	20 kg/day	20 kg/day	20 kg/day		0
749		Chekkiad	15	6544	1823	4	0	1	0	0	0	0	0	5 ton	5 ton	0	0	0
750		Chelleur	21	12483	2250	8	0	0	0	0	0	0	0	20kg/dy	20kg/dy		0	0
751		Chemmanchery	20	11521	3090	7	0	0	0	0	0	0	0	1589	1389QUINT	1389QUIN	0	0
752		Chengottukavu	17	6990	350	100	0	310	0	55	80	0	0	5 TPD	5	5	0	0
753		Cheruvannur	19	6772	1465	50	0	0	19	10	0	0	0	4T	4T	0	0	0
754		Chorode	21	10118	860	20	0	6	0	11	2	0	0	6	6	0	0	0
755		Edachery	17	7936	514	100	0	195	0	19	146	0	0	5 ton	5 ton	0	0	0
756		Eramala	19	9407	2000	79	0	100	8	84	120	0	0	240 kg	240kg	0	240kg	0
757		Kadalundy	22	10742	2815	74	0	43	0	93	33	0	0	10 TONE	10 TONE	0	0	0
758		Kakkodi	23	12913	3472	100	0	42	0	50	8	0	0	0.25 TONE	0.25 TONE	0	0	0
759		Kakkur	15	5950	1141	76	0	61	7	0	0	0	0	120	120 KG	0	120KG	0
760		Karassery	18	9961	3007	69	0	100	7	0	0	0	0	0.1	0.1	0	0	0
761		Kattippara	15	3668	684	0	0	0	0	0	0	0	0	110kg	145 KG	0	0	0
762		Kavilumpara	16	7471	2028	67	0	38	0	100	48	67	47	0.27 Ton/Day	1.3 TONS	0	0	0
763		Kayakkody	16	6143	1355	79	0	47	0	100	100	0	0	350KG/DAY	350KG/DAY	0	0	0
764		Kayanna	13	4430	624	78	0	100	0	100	100	0	0	85	85	0	0	0
765		Kayaniruur	13	4639	390	0	0	0	0	0	0	0	0	0.15	0.15	0	0	0
766		Kizhakkoth	18	9183	3773	69	0	67	0	95	86	0	0	105kg	105 kg	0	0	0
767		Kodenchery	21	10848	885	58	0	0	0	67	87	0	0	20 KG/day	20 KG	0	0	0
768		Kodiyathoor	16	8383	4710	100	0	100	0	0	100	0	0	210kg	210kg	0	0	0
769		[illegible]	14	6900	518	55	1	52	0	1	0	0	0	0.3 ton/day	0.3210 ton/day	0	0	30
770		Koorachund	13	5601	1369	40	0	0	0	70	60	0	0	350	300	0	0	0
771		Koothali	13	5737	412	18	0	0	0	0	0	0	0	200	150	0	0	0
772		Kottur	19	7830	1050	70	51	48	33	100	100	0	0	150kg/day	100kg/day	0	0	0
773		Kunnamangalam	23	17474	5898	0	0	11	0	100	100	0	0	450 kg/day	425 kg/day	0	0	0
774		Kuruvattur	13	5668	2124	100	0	100	0	100	100	0	0	160 Kg / Day	140 Kg / Day	140 Kg / Day	0	0
775		Kuruvattur	18	11425	3015	0	0	303	48	80	68	0	0	400 Kg/Day	400 Kg/Day	400 Kg/Day	0	0
776		Kuttiady	14	6083	4241	69	0	143	0	100	100	0	0	170 kg/Day	155Kg/Day	155 Kg/Day	0	0
777		Madavoor	17	7126	1383	100	0	29	0	15	1	0	0	300	250	250	0	0
778		Manjur	21	12421	1412	35	0	445	0	5	1	0	0	2.5	1 ton / month	0	0	0
779		Maruthonkara	14	6763	805	100	0	68	0	41	11	0	0	135K G /Day	135K G/Day	135 kg/Day	0	0
780		Mavoor	18	9027	1190	65	0	60	0	22	12	0	0	120 Kg / Day	100kg/day	100	0	0
781		Meppayur	17	7308	1840	89	0	100	0	89	100	0	0	0.2	0.18	0.18	0	0
782		Moodadi	18	8594	2284	100	0	100	0	92	100	0	0	138 T	138 T	138 T	5 T	0
783		Nadapuram	22	11000	1500	87	0	0	0	100	100	0	0	5.5 ton per day	4.6 ton per day	0	0	0
784		Naduvannur	16	7010	2090	80	0	80	0	72	72	0	0	8.50 ton	2.50 ton	0	0	0

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785		Nanninde	17	8780	1192	100	0	100	0	100	100	0	0	NOT	NOT	0	0	0
786		Narikkuni	15	6302	2909	0	0	217	0	70	65	0	0	112 ton	NOT	NOT	NOT	NOT
787		Nellippatta	17	7609	1236	96	0	28	0	90	100	0	0	NOT	NOT	NOT	NOT	NOT
788		Nochad	17	6800	950	40	0	20	0	80	70	0	0	Not measured	3412kg	3412 kg	NA	0
789		Olavanna	23	18531	6560	0	0	0	0	75	65	0	0	Not measured	Not measured	Not	Not measured	Not measured
790		Oorumassery	19	10012	3516	57	0	0	0	85	70	0	0	Not measured	2.5 TON	2.5 TON	0	0
791		Orchiyam	17	7843	2376	100	0	18	0	70	20	0	0	2 T	2 T	0	0	0
792		Panangad	20	8916	1909	65	0	75	0	80	70	0	0	Not measured	2.5 ton	2.5 ton	0	0
793		Panambra	19	9640	1450	85	0	62	0	85	48	0	0	not measured	4.5	4.5	0	0
794		Perumanna	18	11635	1012	82	0	18	0	80	0	0	0	0.90 ton	0.90 ton	0.90 ton	0	0
795		Peruvayal	22	15467	1310	100	0	100	0	100	100	0	0	5 ton	5 ton	5 ton	0	0
796		Purameri	17	8206	1948	24	0	421	0	100	100	0	0	0.20/0.16 tpd	0	0	0	0
797		Puthuppady	21	14388	3269	118	0	300	0	130	0	0	0	5 ton	5 ton	0	0	0
798		Thalakulathur	17	8978	1520	75	0	0	0	75	2	0	0	4ton	4 ton	0	0	0
799		Thavarassery	19	9730	1432	84	0	84	84	0	0	0	0	0.74	0.74	0.74	0	0
800		Thikkodi	17	8561	1828	2	0	0	0	0	0	0	0	5 ton	5 ton	5 ton	0	0
801		Thiruvallur	20	8946	2339	100	0	3	0	0	0	0	0	1.5	1.2	0	0	0
802		Thiruvambady	17	9493	2793	28	0	34	0	28	34	0	0	3.5	3.8	3.8	0	0
803		Thurayur	13	3943	1158	100	0	100	0	0	0	0	0	0.2	0.18	0.18	0	0
804		Tuneri	15	7067	1377	0	0	0	0	1	0	93	65	747.5161 MT	747.5161 MT	747.5161	0	0
805		Ulliyeri	19	9958	2262	0	0	286	0	100	44	60	0	9.08	1.8	0	0	0
806		Unnikulam	23	13779	3355	0	0	100	0	100	100	0	0	200 ton	200 ton	0	0	0
807		Valayam	14	4485	957	56	0	31	0	100	30	0	0	0.05	0.04	0.05	0	0
808		Vanimel	16	7340	2035	100	0	31	0	100	100	0	0	15 kg	15kg	15 kg	0	0
809		Velom	17	6754	2936	100	0	100	0	100	100	0	0	150	148	148	0	0
810		Villappalli	19	9962	3493	60	0	60	0	100	65	0	0	8.2	5	5	0	0
811	W	Ambalavayal	20	10291	4579	33	0	7		0	0	0	0	4tone	3 tone	3tone	Nil	Nil
812	A	Edavaka	19	9519	744	89	0	40		0	0	0	0	4 tone	3 tone	2 tone	3 tone	nil
813	Y	Kaniyambetta	18	11791	3287	24	0	18		0	0	0	0	8 tone	6 tone	3 tone	3 tone	nil
814	A	Kottathara	18	9979	540	69	0	100	0	100	100	0	0	NA	NA	NA	NA	NA
815	N	Meenangadi	13	5293	622	0	0	0	0	100	100	0	0	2	1	1	2	1
816	A	Meppadi	19	8735	1000	100	0	100	0	100	100	0	0	NA	NA	NA	NA	NA
817	D	Mullankolly	22	10616	813	100		100		36	70	0	0	1.2 tone	1.2 tone	0	0	0
818		Muppainadu	18	8736	652					0	0	0	0	3 tone	0	0	0	0
819		Munil	19	7667	575	100	0	100	0	100	100	0	0	5 tonne	3.5 tonne	3.5 tonne	3 tonne	0
820		Nenmeni	19	10002	692	100	0	100	0	100	100	0	0	10 tone	7 tone	3 tones	0	0
821		Neelgusha	23	14755	703	61	0	100	100	100	100			4 Tone	3 Tone	3 Tone	3 Tone	0
822		Padinharathara	16	6624	472	100	0	100	0	13	38			1.652 TONE	1.652 TONE	0	0	0
823		Panamaram	16	7244	347	83	83	69	0	83	0	0	0					
824		Poothadi	23	13782	400	100	0	46	0	0	0	0	0	0.06	0.05	0.05	0	0
825		Pozhuthana	13	5783	2004	38	0	2	0	100	100	0	0	2 tone	1 tone	1	1	0.5 tone
826		Pulpalli	20	10437	3147	30	0	33	0	11	0	0	0	3	3	2	1	0
827		Tharlode	13	3671	340	100	0	100	0	0	0			NA	NA	NA	NA	NA
828		Thavinhal	22	10433	700	25	0	0	0	100	100			4	3	NIL	NIL	NIL
829		Thirunelly	17	8520	1405	25	0	0	0	0	0	0	0					
830		Thondernadu	15	7087	1320	42	0	30	0	0	0	0	0	2Tone	2Tone	Nil	Nil	Nil
831		Vellamunda	21	11620	1439		0	70	0	0	0	0	0	5.3	0	0	Nil	Nil
832		Vengappalli	13	2730	195	69	0	100	0	0	0	0	0	1.5	1.5	0	0	0
833		Vythiri	14	6086	1582	100	0	100	0	100	100	100	100	50 kg	50 kg	50 kg	35 kg	0
834	K	Alakode	21	9850	2982	100	0	100	0	100	100	0	0	2.07	0.0811	2.07	0	0

SL NO.	DISTRICT	LOCAL BODY	NO OF WARDS	No of Household	% Household D2D-Dry	% of Household-D2D-Wet	No of establishment	%establishment -D2D-Dry	% establishment _D2D-Wet	% of houses in which source level tretment	% of establishment in which source level treatment	% disposing to centralized system	% disposing to centralized system	Quantity of Waste generated (TPD)	Quantity of Waste collected (TPD)	Quantity of Waste treated (TPD)	Quantity of Waste processed in Composting Sites (TPD)	Quantity of Waste processed in biomethanation (TPD)
835	A	Anjarakkandi	15	8471	759	100	0	100	0	100	100	0	0	1.38	0.04565	1.38	0	0
836	N	Aralam	17	9215	289	100	0	100	0	100	100	0	0	1.88	0.03244	1.88	0	0
837	N	Ayyankunnu	16	7546	435	100	0	100	0	100	100	0	0	1.54	0.03437	1.54	0	0
838	U	Azhikode	23	13408	360	100	0	100	0	100	100	0	0	2.73	0.04629	2.73	0	0
839	R	Chapparappadavu	18	10255	212	100	0	100	0	100	100	0	0	2.09	0.04264	2.09	0	0
840		Chembilode	19	8700	381	100	0	100	0	100	100	0	0	1.77	0.03225	1.77	0	0
841		Chengalai	18	8270	370	100	0	100	0	100	100	0	0	1.68	0.04031	1.68	0	0
842		Cherukunnu	13	4526	558	100	0	100	0	100	100	0	0	0.95	0.03316	0.95	0	0
843		Cherupuzha	19	9028	457	100	0	100	0	100	100	0	0	1.85	0.04071	1.85	0	0
844		Cheruthazham	17	10898	628	100	0	100	0	100	100	0	0	2.22	0.04269	2.22	0	0
845		Chirakkal	23	14173	1337	100	0	100	0	100	100	0	0	2.96	0.1232	2.96	0	0
846		Chittariparamba	15	7131	370	100	0	100	0	100	100	0	0	1.45	0.0273	1.45	0	0
847		Chokli	17	8343	620	100	0	100	0	100	100	0	0	1.71	0.04108	1.71	0	0
848		Dharmadam	18	8763	868	100	0	100	0	100	100	0	0	2.34	0.04172	2.34	0	0
849		Eramam-Kuttoor	17	7011	874	100	0	100	0	100	100	0	0	1.44	0.0364	1.44	0	0
850		Eranholi	16	8224	462	100	0	100	0	100	100	0	0	1.68	0.03231	1.68	0	0
851		Eruvessi	14	5186	198	100	0	100	0	100	100	0	0	1.06	0.02243	1.06	0	0
852		Ezhom	14	4287	472	100	0	100	0	100	100	0	0	0.88	0.02016	0.88	0	0
853		Irikkoor	13	3602	700	100	0	100	0	100	100	0	0	0.73	0.02363	0.73	0	0
854		Kadamboor	13	4520	450	100	0	100	0	100	100	0	0	0.93	0.02204	0.93	0	0
855		Kadannapally-Panapuzha	15	8586	542	100	0	100	0	100	100	0	0	1.76	0.04417	1.76	0	0
856		Kadirur	18	7934	494	100	0	100	0	100	100	0	0	1.82	0.03151	1.82	0	0
857		Kalliasseri	18	8570	850	100	0	100	0	100	100	0	0	3.11	0.19594	3.11	0	0
858		Kanichar	13	5058	276	100	0	100	0	100	100	0	0	1.02	0.01934	1.02	0	0
859		Kankol-Alappadamba	14	3775	506	100	0	100	0	100	100	0	0	2.84	0.04425	2.84	0	0
860		Kannapuram	14	8214	585	100	0	100	0	100	100	0	0	2.81	0.20773	2.81	0	0
861		Karivelloor-Peralam	14	8520	850	100	0	100	0	100	100	0	0	6.43	5.6963	4.33	0	0
862		Kelakam	13	5379	534	100	0	100	0	100	100	0	0	1.1	0.02492	1.1	0	0
863		Koodballur	14	8755	838	100	0	100	0	100	100	0	0	205.01	0.3696	5.01	0	0
864		[illegible]	[illegible]	[illegible]	[illegible]	100	0	100	0	100	100	0	0	1.87	[illegible]	1.87	0	0
865		Kolayad	14	5823	465	100	0	100	0	100	100	0	0	3.11	0.02866	3.11	0	0
866		Koodali	18	8625	512	100	0	100	0	100	100	0	0	1.78	0.03509	1.78	0	0
867		Kottayam	14	4723	1400	100	0	100	0	100	100	0	0	0.98	0.03387	0.98	0	0
868		Kottiyoor	14	5296	550	100	0	100	0	100	100	0	0	1.08	0.02431	1.08	0	0
869		Kunhimangalam	14	5945	507	100	0	100	0	100	100	0	0	202.63	0.0299	2.63	0	0
870		Kunnothparamba	21	11494	300	100	0	100	0	100	100	0	0	4.51	0.84236	4.51	0	0
871		Kurumathoor	17	11252	816	100	0	100	0	100	100	0	0	2.3	0.05344	2.3	0	0
872		Kuttiattoor	18	8365	2131	100	0	100	0	100	100	0	0	1.74	0.05853	1.74	0	0
873		Madayi	20	8574	323	100	0	100	0	100	100	0	0	1.88	0.04376	1.88	0	0
874		Malappattam	13	2607	126	100	0	100	0	100	100	0	0	0.53	0.00987	0.53	0	0
875		Maloor	15	8214	428	100	0	100	0	100	100	0	0	1.42	0.03235	1.42	0	0
876		Mangattidom	19	10834	450	100	0	100	0	100	100	0	0	2.17	0.03824	2.17	0	0
877		Mattool	17	8089	336	100	0	100	0	100	100	0	0	1.25	0.02817	1.25	0	0
878		Mayyil	18	9943	745	100	0	100	0	100	100	0	0	1.97	0.04039	1.97	0	0
879		Mokeri	14	5781	440	100	0	100	0	100	100	0	0	1.18	0.0282	1.18	0	0
880		Munderi	20	8979	560	100	0	100	0	100	100	0	0	1.83	0.03579	1.83	0	0
881		Muzhakkunnu	15	7412	1384	100	0	100	0	100	100	0	0	1.65	0.04836	1.65	0	0
882		Muzhappilangad	15	5029	230	100	0	100	0	100	100	0	0	1.21	0.02153	1.21	0	0

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883		Naduvil	19	6601	260	100	0	100	0	100	100	0	0	1.8	0.03722	1.8	0	0
884		Narath	17	7821	711	100	0	100	0	100	100	0	0	1.59	0.02618	1.59	0	0
885		New Mahi	13	4417	402	100	0	100	0	100	100	0	0	0.91	0.02258	0.91	0	0
886		Padiyoor	15	6400	180	100	0	100	0	100	100	0	0	1.3	0.02222	1.3	0	0
887		Panniannur	15	6692	319	100	0	100	0	100	100	0	0	1.37	0.02988	1.37	0	0
888		Pappinisseri	20	10580	680	100	0	100	0	100	100	0	0	2.67	0.05247	2.67	0	0
889		Pariyaram	18	11073	720	100	0	100	0	100	100	0	0	2.47	0.05232	2.47	0	0
890		Pattiam	18	9152	546	100	0	100	0	100	100	0	0	1.87	0.0381	1.87	0	0
891		Pattuvam	13	3938	227	100	0	100	0	100	100	0	0	0.81	0.01817	0.81	0	0
892		Payam	18	7462	470	100	0	100	0	100	100	0	0	1.52	0.02991	1.52	0	0
893		Payyavoor	16	5699	496	100	0	100	0	100	100	0	0	1.17	0.02881	1.17	0	0
894		Peralasseri	18	8835	465	100	0	100	0	100	100	0	0	2.1	0.03392	2.1	0	0
895		Peravoor	16	6800	100	100	0	100	0	100	100	0	0	1.38	0.027	1.38	0	0
896		Peringome-Vayakkara	16	9875	350	100	0	100	0	100	100	0	0	2.06	0.08737	2.06	0	0
897		Pinarayi	19	10280	881	100	0	100	0	100	100	0	0	2.1	0.04877	2.1	0	0
898		Ramanthali	15	6502	503	100	0	100	0	100	100	0	0	2.15	0.04538	2.15	0	0
899		Thillankeri	13	4534	401	100	0	100	0	100	100	0	0	1.43	0.02302	1.43	0	0
900		Thripangottoor	18	9075	301	100	0	100	0	100	100	0	0	1.85	0.03218	1.85	0	0
901		Udayagiri	15	8231	254	100	0	100	0	100	100	0	0	1.27	0.02718	1.27	0	0
902		Ulikkal	20	11958	350	100	0	100	0	100	100	0	0	2.79	0.39472	2.79	0	0
903		Valapattanam	13	1850	1594	100	0	100	0	100	100	0	0	0.35	0.02991	0.35	0	0
904		Vengad	21	12883	820	100	0	100	0	100	100	0	0	2.59	0.05246	2.56	0	0
905	K	Ajanur	23	13573	10573	68	0	700	80	0	70	60	0	0.04	0.04	0.04	0	0
906	A	Badiadka	19	12667	9654	75	0	630	40	0	65	45						
907	S	Balal	16	8585	6585	77	0	260	100	0	100	85	0	0.85	m	nil	0.85	0
908	A R	Bedadka	17	8429	6200	70	0	635	100	0	80	86	0	0.2523	0.023	[illegible]	0.023	0
909	G	Belloor	13	3424	2051	60	0	325	100	0	70	80	0	0.0625	0.0625	0		
910	O	Chemnad	23	15169	9169	60	0	436	75	0	8	68	0	0.g2150	0.134	0	0	0
911	D	Chengala	23	18335	5368	29	0	3845	20	0	98	85	0	..e400	d & treated at	0	0	0
912	E	Cheruvathur	17	6073	4673	70	0	330	84	0	86	81	0	0.24	0.195	0.195	0	0
913		Delampady	16	5274	5274	100	0	46	60	0	80	70	0	0.006	0.006	0.006	nil	nil
914		East Eleri	16	8295	7295	88	0	453	30	0	90	57	0	nil	nil	nil	nil	nil
915		Enmakaje	17	5535	4535	82	0	140	40	0	56	75						
916		Kallar	14	7013	6013	86	0	92	90	0	60	80	0	0.0133	0.0133	0.0133	0	0
917		Karadka	15	6183	5183	84	0	1374	70	0	60	85	0	0.012	0	0		0
918		Kodom Belur	19	8163	6163	75	0	630	85	0	58	78	0					
919		Kayyur Cheemeni	16	9356	8356	89	0	636	85	0	84	90	0	0	0	0	0	0
920		Kinanoor Karinthalam	17	9648	7448	77	0	630	100	0	100	100	0	150	100	100	0	0
921		Kumbdaje	13	4605	2005	44	0	110	100	0	89	93	0	0	0	0	0	0
922		Kumbala	23	12355	8500	69	0	340	54	0	54	55						
923		Kuttikol	16	7250	5430	75	0	450	70	0	63	66	0	0	0	0	0	0
924		Madhur	20	13393	13393	100	0	418	52	0	56	58	0	1	0.3	0	0	0
925		Madikai	13	6331	6331	100	0	217	100	0	100	100	0	0.7	0.7	0	0	0
926		Mangalpady	23	13650	8500	62	0	2500	40	0	32	40	0					
927		Manjeshwar	21	11500	6060	53	0	300	45	0	45	43						
928		Meenja	15	7111	7111	100	0	166	54	0	68	78	0	0.7	0	0	0.7	0
929		Mogral Puthur	15	7011	6011	86	0	300	69	0	78	89	0	0.2	0	0	0	0

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930		Maliyur	15	7523	6523	87	0	233	70	0	78	84	0	0.2	0	0	0	0
931		Padne	15	6400	4400	69	0	520	65	0	87	87	0	0.2	0	0	0.2	0
932		Paivelike	19	9709	5700	59	0	260	68	0	68	75	0	0.5	0.2	0.3	0.2	0
933		Pallikkara	22	13177	12177	80	0	644	90	0	94	90	0	0.15	0.15	0.15	0	0
934		Panathady	15	7426	6426	87	0	357	85	0	85	83	0	0.73	0	0	0	0
935		Pilicode	16	6842	5932	87	0	473	84	0	90	84		0.62				
936		Puliar Perlas	17	10644	9644	91	0	300	100	0	90	90	0	0.58	0.58	0.32		
937		Puthige	14	7078	5078	72	0	1081	50	0	48	50	0	1.09	1.09	1.09	0	0
938		Trikaripur	21	11733	8700	74	0	946	60	0	62	53		0.125	0.125			
939		Udma	21	11332	9022	85	0	817	100	0	64	54	0	0.15	0.15	0.15	0	0
940		Valiyaparamba	13	6861	4800	70	0	100	100	0	84	70	0	0.18	0.18	0.18	0	0
941		Varkady	16	6834	4800	70	0	200	40	0	83	64	0	0.16	0.16	0	0	0
942		West Eleri	18	6974	5474	78	0	220	70	0	60	87	0	0.75	0.75	0.72	0.02	Nil

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KERALA STATE POLLUTION CONTROL BOARD
കേരള സംസ്ഥാന മലിനീകരണ നിയന്ത്രണ ബോർഡ്

DISTRICT OFFICE, THIRUVANANTHAPURAM
ജില്ലാ ഓഫീസ്, തിരുവനന്തപുരം

T. C. 12/96 (4.5), PLAMOODU JN., PATTOM P.O, THIRUVANANTHAPURAM – 695 004
ടി.സി. 12/96 (4.5), പ്ലാമൂട് ജംഗ്ഷൻ, പട്ടം പി.ഒ, തിരുവനന്തപുരം – 695 004

ANALYSIS REPORT

No: 202176 **Date: 03/07/2020**

Source	Dumpsite of Attingal Muncipality (Leachite Sample)		
Sample received from	TA1	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:	for AS mahesh 3/7/2020
Remarks:	
Scientist-in-Charge of Analysis	ASSISTANT SCIENTIST

o/c

ANNEXURE III

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KERALA STATE POLLUTION CONTROL BOARD
കേരള സംസ്ഥാന മലിനീകരണ നിയന്ത്രണ ബോർഡ്

DISTRICT OFFICE, THIRUVANANTHAPURAM
ജില്ലാ ഓഫീസ്, തിരുവനന്തപുരം
T. C. 12/96 (4,5), PLAMOODU JN., PATTOM P.O. THIRUVANANTHAPURAM – 695 004
ടി.സി. 12/96 (4,5), പ്ലാമൂട് ജംഗ്ഷൻ, പട്ടം പി.ഒ, തിരുവനന്തപുരം – 695 004

ANALYSIS REPORT

No: 202175 **Date: 03/07/2020**

Source	Dumpsite of Varkala Muncipality (Bore Well Sample)		
Sample received from	**TA1**	Date of sample collection	**24/06/2020**
Date of Receipt	**26/04/2020**	Ref. No.	R11

Sl. No.	Parameter	Unit	Value	Permissible Limit
1	pH	-	5.4	6.5-8.5
2	Suspended Solids	mg/L	52.2	100
3	COD	mg/L	16	250
4	BOD	mg/L	6	30
5	Total Dissolved Solids	mg/L	96.1	——
6	Conductivity	S/m	92	——

Signature:	for AS Mahindra 3/7/2020
Remarks:	
Scientist-in-Charge of Analysis	ASSISTANT SCIENTIST

ANNEXURE III

KERALA STATE POLLUTION CONTROL BOARD
CENTRAL LABORATORY
കേരള സംസ്ഥാന മലിനീകരണ നിയന്ത്രണ ബോർഡ്
കേന്ദ്ര പരിശോധനശാല

Certificate No. TC-8525

ANALYSIS REPORT

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

Sample ID : BLD-GEN

Sl.No	Parameters	Unit	Value	Test Method	Detection Limit
1	pH	-	7.6	APHA, 4500- H+B, 4-95 to 4- 99, 23rdEdition: 2017	1
2	Chloride	mg/L	4573.0	APHA, 4500- Cl /B, 4-75 to 4-76, 23 rd Edition: 2017	1 mg/L
3	Fluoride	mg/L	0.06	APHA, 4500- F C, 4-89 to 4-90 23rd Edition (Ion Selective Electrode Method): 2017	0.1 mg/L
4	Sulphate	mg/L	1014.0	APHA, 4500-SO42- E, 4-199 to 4-200, 23 rd Edition, 2017	1 mg/L
5	Sulphide	mg/L	59.6	APHA, 4500 S2 F, 4-187 ,23rd Edition: 2017	1 mg/L
6	Nitrate as Nitrogen	mg/L	61.98	APHA, 4500 NO3 -B,4-127 , 23 rd Edition (Ultraviolet Spectrophotometric Method): 2017	0.05 mg/L
7	Phosphate	mg/L	58.9	APHA, 4500- P, E, 4-164 to 4-165 ,23 rd 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: kspcbclekm@gmail.com Web : www.keralapcb.nic.in
Certified for OHSMS (ISO 45001:2018)

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

– End of Report –

Checked by 22/4/21

RAJEENA. R
Assistant Environmental Scientist

Authorised by

M. H. SHERAFUDEEN
Senior Environmental Scientist & Govt Analyst

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

KERALA STATE POLLUTION CONTROL BOARD
CENTRAL LABORATORY
കേരള സംസ്ഥാന മലിനീകരണ നിയന്ത്രണ ബോർഡ്
കേന്ദ്ര പരിശോധനശാല

Certificate No. TC-8525

ANALYSIS REPORT

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

Sample ID : 486

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

-- End of Report --

24/3/21

Checked by

ZAHIDA P.Z
Assistant Scientist

24/3/2021

Authorised by

P. GEETHA
Environmental Scientist

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

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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, 23rd Ed.,2017
2	BOD(3Days at 27 ^{0}C)	mg/l	135	IS 3025 part 44 1993
3	Oil and Grease	mg/l	BDL	APHA, 5520-B,5-42 to 5-44, 23rd Ed.,2017
4	COD	mg/l	448	APHA, 5520-B, 23nd Ed
5	Nitrate as Nitrogen	mg/l	7.4	APHA,4500NO3-,B,4-127,23rd Edition (Ultraviolet Spectrophotometric Method) 2017
6	Phosphates	mg/l	36.67	APHA,4500P,E,4-164 to 4-165, 23rd Edition:2017
7	Sulphates	mg/l	63.1	APHA, 4500-SO4 2-E, 23rd 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, 23rd Ed., 2017
10	Total Coliform	CFU/100ml	620000	APHA 9222 B, 23rd Ed.2017

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

STATE POLLUTION CONTROL BOARD
CENTRAL LABORATORY
COCHIN - 20

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.,
Thiruvanathapuram – 695 004.

Copy to: The Chief Environmental Engineer,

Scanned by TapScanner

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 forthe construction of Waste to Energy Plant. Consent to establish was issued
2	K annur Chelora	Kannur Corporation	(Govt.Land) 9.7 acres atChelora	WtE plant is proposed in 9.7 acres of land after clearing the legacy waste. The legacy waste which was ought to have started clearing by m/s Zonta Infratech comp. during last May, they found the quantity is 3 times more than the quantity (40000m3) tendered to them. So they wanted to get the quote revised by 3 times. The govt has now directed the corporation to retender the work. Meanwhile the draft preparation of DPR of WtE plant by /s Blueplanet is over. Again, collection points have to be finalised. Work of WtE plant can be started only after the work of biomining is carried out.
3.	Palakkad Kanjikode	Palakkad Municipality	(Land taken overfrom KeralaState ElectricityBoard Ltd. inadvancepossession) 15 acres atKanjikode	Blue Planet Palakkad Waste Solutions Private Limited was formed to take up the development of the project. Consent to establish was issued to the project.
4	Kollam Kureepuzha	Kollam Corporation	7.05 acres atkureepuzha (Govt.land)	The SPV constituted for setting up of the Waste to Energy Plant of Kollam Corporation, M/s. Venad Waste Management Private Limited had applied for Consent to Establish on 09.09.2021. The proposed waste to energy plant is biomethanation based and is having a capacity of 200 TPD. Consent to establish was issued to project.
5	Ernakulam Brahmapuram	Kochi corporation	20 acres at Brahmapuram (Govt. land)	The technical bids submitted by the Bidders needs to be evaluated by the Bid-Evaluation Committee and the proposal have been submitted to Government to reconstitute the Committee. It was reported by LSGD that

				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.
6	Idukki Munnar	Idukki Muncipality	2 acres of land at Munnar	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. SLAC after detailed discussion resolved to accord sanction to proceed with the financial evaluation of the Bid
7	Thrissur	Thrissur corporation	Identified land at Ollookkara village	Thrissur Corporation identified land at Ollookkara village in Thrissur district. Vide GO(Rt)No111/2020/LSGD dated 13/01/2020State 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	Malappura mmuncipla ity	8.09 acres of land at Kurumbathoor village in TirurTaluk	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

				to Government already by LR Deputy Collector. Not submitted any application to the Board.

Annexure III-b

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 m3 .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 m3 in 9.75 acres of land at Chelora, Kannur. A contractor was identified by KSIDC but the Corporation and the Contractor had disputes on the quantity and terms of engagement. Kannur Corporation has retendered the project and has identified a suitable contractor (m/s Jan-Adhar Sevabhavi sanstha) to remove the legacy waste dumped at the site. Agreement to be executed by, as informed by the Corporation.
10	Thalassery	Kannur	No action reported

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

6	Thodupuzha	Idukki	Direction issued to the local body for bio mining, but not actions initiated by the local body.
7	Munnar	Idukki	Bio mining is in progress
8	Kattapana-Puliyanmala	Idukki	Direction issued to the local body for bio mining, but not actions initiated by the local body.
9	Kothamangalam	Ernakulam	DPR submited 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, kunnamkulam	Thrissur	Dumpsite presently not using as dumping waste. biowaste management plant and non-bio-waste management facilities like MCF, MRF, RRF are functioning at the dumpsite area
16	Kumbalangad, Wadakkancherry	Thrissur	Biomining project for this site is undertaken as part of SBM Urban DPR. A DPC project on the same is also approved for 30 lakhs Invited EOI
17	Ottapalam	Palakkad	Tendered and placed before council for approval
18	Karathodu-Puliyettummal	Malappuram	On Process
19	Manjeri	Malappuram	The file put up to council for approval to remove the legacy waste

20	Thirur - Pottilathara Trenching ground	Malappuram	No issues &waste segregated and stored and not polluted the environment
21	Vadakara, Puthiyapp	Kozhikode	Capping done over a part of legacy waste
22	Kalpetta	Wayanad	Agreement has been entered into with Clean Kerala Company for disposal of non-hazardous waste including legacy waste.The waste is segregated and stored in a manner that does not pollute the environment.
23	Koothuparamba	Kannur	Capping done .Quantification work is going on.
24	Kanjangad, Chemmatamvayal	Kasargod	The waste is segregated and stored in a manner that does not pollute the environment
25	Vidyanager, Kasargod	Kasargod	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	Thrivanathapuram	Thiruvanthapuram 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	Thrissur	Thrissur 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	Thrivanathapuram	Attingal	48.5	48.5	85	100	75.26	106.19
8		Nedumangad	6.2	6.2	40	42	545.16	577.42
9		Neyyattinkara	69	69	64	54	-7.25	-21.74
10		Varkala	29.4	29.4	59	94	100.68	219.73

	District	Name of the city/Town	Percentage of door to door collection (2019-2020)		Percentage of Door to Door Collection(May 2022)		Percentage increase of Door to Door Collection	
			Household (%)	Non-residential premises (%)	Household (%)	Establishments (%)	Household (%)	Establishments (%)
11	Kollam	Paravur (South)	66.6	66.6	55	75	-17.42	12.61
12		Karunagapally	100	100	54	40	-46.00	-60.00
13		Punalur	100	100	85	100	-15.00	0.00
14		Kottarakara	0	0	74	82		
15	Pathanamthitta	Adoor	60	60	70	40	16.67	-33.33
16		Pandalam	28	8	70	55	150.00	587.50
17		Pathanamthitta	100	100	55	70	-45.00	-30.00
18		Thiruvalla	94	82	93	90	-1.06	9.76
19	Alappuzha	Alappuzha	13	60	90	30	592.31	-50.00
20		Chengannur	74	98	70	40	-5.41	-59.18
21		Cherthala	93	77	80	90	-13.98	16.88
22		Haripad	31	40	82	42	164.52	5.00
23		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- residen tial premis es (%)	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		Ettumanoor	35	21	30	25	-14.29	19.05
28		Kottayam			60	30		
29		Pala	77	98	20	20	-74.03	-79.59
30		Vaikom	67	1	40	30	-40.30	2900.00
31	Idukki	Kattapana	43	23	85	65	97.67	182.61
32		Thodupuzha	0	0	100	100		
33	Ernakulam	Aluva	36	91	94	88	161.11	-3.30
34		Angamaly	42	40	90	75	114.29	87.50
35		Eloor	0		85	100		
36		Kalamassery	62	52	71	80	14.52	53.85
37		Koothattukulam	12	7	67	85	458.33	1114.29
38		Kothamangalam	7	3	71	80	914.29	2566.67
39		Maradu	100	89	55	40	-45.00	-55.06
40		Muvattupuzha	29	0	40	40	37.93	
41		North Paravur	41	100	80	80	95.12	-20.00
42		Perumbavoor	80	100	60	100	-25.00	0.00
43		Piravam	87	86	70	55	-19.54	-36.05
44		Thrikkakkara	100	60.5	50	55	-50.00	-9.09
45		Thripunithura	42	100	86	93	104.76	-7.00
46	Thrissur	Chalakkudy	32	96	100	100	212.50	4.17
47		Chavakkad	47	86	78	96	65.96	11.63
48		Guruvayur	70	80	100	100	42.86	25.00
49		Irinjalakuda	100	100	93	96	-7.00	-4.00
50		Kodungallur	34	100	95	93	179.41	-7.00
51		Kunnamkulam	58	89	97	73	67.24	-17.98
52		Vadakkanchery	100	100	100	85	0.00	-15.00

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

	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 (%)
79	Wayanad	Kalpetta	0	0	98	9		
80		Mananthavady	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		Iritty	96	69	63	65	-34.38	-5.80
84		Koothuparambu	60	26	89.2	86	48.67	230.77
85		Mattanur	100	71	90	90	-10.00	26.76
86		Panoor	100	88	95	0	-5.00	-100.00
87		Payyanur	51	1	86	52	68.63	5100.00
88		Sreekantapuram	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	Kasargode	Kanhangad	100	100	85	70	-15.00	-30.00
92		Kasaragod			88	74		
93		Nileshwaram			90	100		
		Average	60.69%	56.90%	74.58%	64.33%		

Annexure III-C

Status report of Waste to Energy Plant				
Sl. No.	***Waste to Energyplant***	***Land Identified***	***Procured***	***Status***
1	Kozhikode Njaliyanparambu	Kozhikode corporation	(Govt. land)12.67acre at Njaliyanparabu	• 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	• 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

				and identified a suitable contractor, Jan-Adhar Sevabhavi Sanstha. Agreement to be executed • 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 Muncipality	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 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)	• 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 bio methanation based and is having a capacity of 200 TPD. • 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)	• 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 Muncipality	2 acres of land at Munnar	• 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

				plan before the Bid evaluation Committee. • 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	• 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	• 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		• Land identification

Annexure III-d

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 ugmentation 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 Biomedical 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 pretreatment 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
1	**IMAGE,CBWTF, MANTHURUTHI, KANJIKODE WEST, PALAKKAD 678623**	Latitude-10*48’54 N Longitude-76*43’34’’E	400 km from Parasala+380km from Manjeswaram	Entire State	16,602	1,63,474	36.8 t/D	Equipment	Numbers	Total installed capacity (kg/day)		
								Incinerator	5	35t/D	4940 t/annun (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-chines 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

Annexure III-e

Submission of Annual Inventory on Hazardous and Other Waste Management

Name of SPCB KERALA — Year: -2020-2021

A1 Details on Hazardous Waste Generation

Sl. No.	Name of the District	Total Number of HW Generating Industry	Number of Units Processing authorisation	Number of Units excempted 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-PartA/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 Utlized

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 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	Quantity of waste Recycled (listed under Schedule-IV Hazardous Wastes)(MT)	Co-processing in Cement plant	Non-captive utilization based on CPCBs SOPs
		Generated within state	Imported	Generated within state	Imported	Generated 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 yeari.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)		Authorized capacity (MT)		Quantity of other waste Imported from other country (MT)	Basel Number	Name of country	Quantity of other waste exported to other country (MT)	Type and category	Name of Country	Quantity of other waste domestically generated (MT)	Quantity of other waste received from other state (MT)	Quantity of other waste sent to other state (MT)	Quantity of other waste (Schedule III waste B and D) utilized/recycled during the year April-March (MT)		Other waste sent for disposal to Common TSDF (MT)	Quantity of HW generated during recycling/ utilization of other waste (MT)	Quantity of HW sent for disposal (MT) (as given at 54)	Quantity ofn other waste stored at occupiers premises (MT) (Including imported and domestically generated)	
		Other Waste Schedule III-Part B	Other Waste Schedule III-Part D	Other Waste Schedule III-Part B	Other Waste Schedule III-Part D										Imported	Domestically generated				at the beginning of the financial year	at the end of financial year
		42	43	44	45	46	46(i)	46(ii)	47	47(i)	47(ii)	48	49	50	51	52	53	54	54(i)	55	56
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			
6	Idukki	Nil	Nil	Nil	Nil	Nil	Nil	Nil	Nil	Nil	Nil	Nil	Nil	Nil	Nil	Nil	Nil	Nil	Nil	Nil	Nil
7	Ernakulam DO 1	NIL	NIL	NIL	NIL	158.93	NIL	NIL	NIL	NIL	NIL	NIL	NIL	NIL	NIL	NIL	NIL	NIL	NIL	NIL	NIL
8	Ernakulam DO 2		4			17800	B3020, B1010 as per Schedule 111-Part D OF HWM Rules	CANADA,UAE, SAUDI ARABIA, HONGKONG, SINGAPORE, MALASIA,DUBAI, , AUSTRAILA, NEW ZEALAND ,MAURATIUS, UK	NA	NA	NA	NA	NA	NA	8671.14	NA	NA	NA	NA	NA	NA
9	ESC Eloor	Nil	Nil	Nil	Nil	Nil			Nil						Nil	Nil	Nil	Nil		Nil	Nil
10	Thrissur	Nil	Nil	Nil	Nil	Nil	Nil	Nil	Nil	Nil	Nil	Nil	Nil	Nil	Nil	Nil	Nil	Nil	Nil	Nil	Nil
11	Palakkad	0	19	0	61000	12548	B1010	Multiple	0	NA	NA	112930	0	0	12548	112930	0	0	0	0	0
12	Mallapuram	NIL	NIL	NIL	NIL	165	NIL	NIL	NIL	NIL	NIL	NIL	NIL	NIL	NIL	NIL	NIL	NIL	NIL	NIL	NIL
13	Kozhikode	0	0	0	0	59500	B1010	Multiple	0	NA	NA	0	0	0	59500	0	0	0	0	0	0
14	Wayanad	NIL	NIL	NIL	NIL	NIL	NIL	NIL	NIL	NIL	NIL	NIL	NIL	NIL	NIL	NIL	NIL	NIL	NIL	NIL	NIL
15	Kannur	.	.	.	.	nil			.			.	.	.	.	.	.				
16	Kasargod	Nil	Nil	Nil	Nil	Nil	Nil	Nil	Nil	Nil	Nil	Nil	Nil	Nil	Nil	Nil	Nil	Nil	Nil	Nil	Nil
Total		NIL	23	NIL	61000	90171.93	2	Multiple	NIL	NIL	NIL	112930	NIL	NIL	80719.14	112930	NIL	NIL	NIL	NIL	NIL
Note:In case of traders,please provide name of the traders,quantity and category of other waste imported and name of actual user to whom the same has been sent																					

A7-A Details of Domestic Hazardous Wastes Resulting from Enforcement of Other Regulation									
S.No.	Name of the District	Name and Address of deposition centres authorized for collection	Authorized capacity (MT)	Quantity of domestic HW received at deposition centres (MT)	Quantity of domestic HW sent for recycling / utilization (MT)	Quantity of domestic HW sent to common TSDF (MT)		Quantity of hazardous waste stored at deposition centres (MT)	
						SLF	Incinerator	at the beginning of the financial year i.e.1st April	at the end of financial year i.e. 31st March
		57	58	59	60	61	62	63	64
1	Trivandrum	Nil	Nil	Nil	Nil	Nil	Nil	Nil	Nil
2	Kollam	Nil	Nil	Nil	Nil	Nil	Nil	Nil	Nil
3	Alappuzha	NIL	NIL	NIL	NIL	NIL	NIL	NIL	NIL
4	Pathanamthitta	Nil	Nil	Nil	Nil	Nil	Nil	Nil	Nil
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	Nil	Nil	Nil	Nil	Nil
9	ESC Eloor	Nil	Nil	Nil	Nil	Nil	Nil	Nil	Nil
10	Thrissur	NIL	NIL	NIL	NIL	NIL	NIL	NIL	NIL
11	Palakkad	Nil	Nil	Nil	Nil	Nil	Nil	Nil	Nil
12	Mallapuram	Nil	Nil	Nil	Nil	Nil	Nil	Nil	Nil
13	Kozhikode	NIL	NIL	NIL	NIL	NIL	NIL	NIL	NIL
14	Wayanad	Nil	Nil	Nil	Nil	Nil	Nil	Nil	Nil
15	Kannur	Nil	Nil	Nil	Nil	Nil	Nil	Nil	Nil
16	Kasargod	Nil	Nil	Nil	Nil	Nil	Nil	Nil	Nil
	TOTAL	NIL	NIL	NIL	NIL	NIL	NIL	NIL	NIL

A7-B Details ofFluorescent 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	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		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/utiliztion/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 Petroleums(Angel group), Neeleswar,Kasaragod	Used Oil	3600KL		
		Waste Oil	3600KL		
	M/s CEE JEE Lubricants, IDA,Edayar	Used oil	7200		86.395
		waste oil	5475		0.35
	M/s Excel petrochemical	Used oil	1200		289.462
		waste oil			
	BPCL KOCHI	Oil Sludge from ETP	13500	2702.493	
	FACT-CD	Used Oil	92	9.22	
	APJ REFINERIES PRIVATE LIMITED NEW INDUSTRIAL DEVELOPMENT AREA, KANJIKODE, PALAKKAD	Used Oil Waste Oil	14600 8760	0 0	3051.622 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 682303	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

D3 Details on Common TSDF(s) involved in disposal of Domestic Hazardous Waste and Fluorescent and Other Mercury containing lamps

Name of SPCB Year :

S .No		Quantity of domestic HW received	Name and address deposition center from where such waste receiv	Quantity of fluorescent and other mercury containing lamps received	Name and address of collection centre from where such waste received	Hazardous Waste Disposed (MT)		Quantity of waste stored (MT)			
						Domestic HW	Fluorescent and other mercury containing lamps	Quantity of waste stored (MT)		Fluorescent and other mercury containing lamps	
								at Occupier premi	at Occupier premis	at the beginning of the	at the end of financial year
	176	177	178	179	180	181	182	183	184	185	186
1	KEIL,Common TSDF Project,Ambalamedu,Kochi	NA	NA	16.161	Directly received to KEIL		16.7	NA	NA	35.6	35.05

☎ 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

FORM-VI

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

Name of the SPCB/ PCC	Estimated Plastic Waste generation Tons per annum (TPA)*	Implementation of thickness of less than 50 microns carry bags (virgin/ recycled). (Rule 4(c)	Details of Plastic Waste Management (PWM) e.g. Collection, Segregation, Disposal (Co- Processing, Road construction, etc.) Rules (5 & 6).(Attach Action Plan)	Partial/complete ban on usage of Plastic carry bags (through Executive Order) Attach copy of notification or Executive Order	No. of registered Manufacturing/Recycling Units (Rule 13)			No. of unregistered Manufacturing or Recycling Units (in residential or unapproved areas). (Rule 13)	Status of Marking, Labelling on carry bags (Rule 11) Specify No. of units not complied	No. of violations & action taken on non- compliance of provisions of PWMRules, 2016, as amended d. 2018(Rule 12)	Explicitly pricing of carry bags from producers, brand owners and importers (Rule 15)	Status of submission of Annual Report by ULBs to SPCB/PCCs (Rule 16)	Submission of Annual Report to CPCB(Rule 17)
					Plastic Units	Compostable Plastic Units	Multilayer Plastic Units						
KERALA STATE POLLUTION CONTROL BOARD	120063.874 TPA	Ban of single use plastic items including plastic carrybags irrespective of thickness in the State w.e.f 01/01/2020 vide G.O.(Ms)No. 6/2019 Env dated 27/11/2019;G.O.(Ms) No. 2/2020 /ENVT dated 27-1-2020; vide GO no G.O.(Ms) No.4/2020 Envt dated 16/02/2020 and G.O.(Ms)No.2/202/ ENVT dated 28/02/2021 (Copy enclosed as Annexure I, II, III & IV)	Material Collection Facility-997; Resource Recovery Facility-178; Recyclable plastics (hard and soft plastics) are taken by waste collectors for recycling in the State and outside the State; Clean Kerala Company produced 975 MT of shredded plastic in the year 2020-21. 379 MT of plastic used for tarring of PWD roads and 529 MT for LSGI roads and 6 MT for NHAI during the year 2020-21. Almost all the brand owners who obtained registration from the Central Pollution Control have not furnished reports to the State Pollution Control Board and hence it is not possible to quantify or verify the quantity of plastic waste if any taken back by them. From these annual reports received, the Board is not able to verify the genuinity of reports.	Ban on single use plastic items in the State w.e.f 01/01/2020 Vide G.O.(Ms) No. 6/2019 Env dated 27/11/2019; G.O. (Ms) No. 2/2020 /ENVT dated 27-1-2020 ; vide GO no G.O. (Ms) No. 4/2020 Envt dated 16/02/2020 and G.O.(Ms)No.2/202/ENVT dated 28/02/2021 G.O. (Rt) No. 37/2021/ Envt. dated 04/05/ 2021 (Copy enclosed as Annexure I, II, III, IV&V) . Plastic carry bags irrespective of thickness are included in the single use plastic ban.	Manufacturers/ producers-1348, Recyclers-187	Manufacturers-5	Nil	No.of unregistered plastic recyclers-41 (list attached annexure iii) Direction issued on 07.10.2020 to apply and obtain board's consent (Copy enclosed)	Usage of plastic carrybags irrespective of thickness banned in the State w.e.f 01/01/2020 Vide G.O.(Ms)No. 6/2019 Env dated 27/11/2019;G.O.(Ms) No. 2/2020 /ENVT dated 27-1-2020; vide GO no G.O.(Ms) No.4/2020 Envt dated 16/02/2020 and G.O.(Ms)No.2/202/ ENVT dated 28/02/2021 (Copy enclosed as Annexure I, II, III & IV)	1. Direction issued for EPR implementation dated on 17.03.2020 to supermarket owners 2. Direction issued to all local bodies to implement Haritha tribunal rule OA..NO. 606/2018 dated 21.07.2020. 3. Direction issued to all local bodies Monitoring use of banned plastic carry bags-dated 07.01.2021 4. Direction issued to all local bodies –Ban on one time use plastics dated on 27.01.2021 5. Direction issued to plastic units to obtain Boards consent-dated on 7.10.2020. 6. Organized Awareness program regarding identification of single use plastic products by simple methods, alternatives and compostable products on 26.02.2020. The Board officers along with the officials of departments conducted inspections for the strict implementation of single use plastic ban in the State.Violations were observed in 153 establishments and an amount of Rs. 13,05,000/- was imposed as fine and Rs.3,35,000/- was obtained as on 4.11.2020. 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.	Usage of plastic carrybags irrespective of thickness banned in the State w.e.f 01/01/2020 Vide G.O.(Ms)No. 6/2019 Env dated 27/11/2019;G.O.(Ms) No. 2/2020 /ENVT dated 27-1-2020; vide GO no G.O.(Ms) No.4/2020 Envt dated 16/02/2020 and G.O.(Ms)No.2/202/ENVT dated 28/02/2021.	372 local bodies (66 urban)	31-07-21

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

7(c)	Quantity of waste co-processed in plastic waste in cement kilns	1300.5 TPA
7(d)	Quantity of waste utilized in production of RDF	Nil
7(e)	Quantity of plastic waste used in production of waste to oil	Nil
7(f)	Quantity of plastic waste used in other purpose (Please specify)	Nil
8(a)	No.of Units registered manufacturing compostable plastic	5 units
8(b)	Total capacity of units manufacturing compostable plastic	104 TPM
9(a)	No. of unregistered plastic manufacturing or recycling units (Annual Report format pt.7)	Nil
10	Whether local bodies have framed bye-laws [Rule 6(4)]?	Yes
11	Whether plastic carry bags & plastic sheet of thickness<50micron banned or not [Rule 4(c)]?	Banned
12	Has complete ban on plastic carry bags been imposed? (Annual Report format pt.3)	Yes
13	Status of action taken on non-compliance of PWM Rules (Annual Report format pt.9)	The Board officers along with the officials of other departments conducted inspections for the strict implementation of single use plastic ban in the State. Out of the 465 inspections conducted as on October 2020, 133 violations were observed. An amount of Rs. 13,05,000/- was imposed as fine to the violators and collected Rs.3,35,000/- as fine. Confiscation of banned items was also done for the strict implementation of ban in the State.The Board inspected various shops and market places through out Idukki district on 04/03/2021 and 188.704 Kg of banned single use plastic items caught in this inspection another inspection was carried out in Kozhikode city and fine of Rs.10,000/- imposed on each violators.
14	Status of marking & labelling on plastic carry bags & multi layered packaging (Rule 11)	Single use Plastic is banned in Kerala
15	Whether State Level Advisory Committee is constituted or not? [Rule 16] If yes, details of number of meetings conducted in a year	Yes
16	Status of phasing out of manufacture and use multi layered plastic which is non-recyclable or non-energy recoverable or with	PVC flex has been banned in the State.
17		
a	Details of Action taken to ensure that plastic waste is not burnt (Rule-6(g))	Instruction given to local bodies
b	Details of Action taken w.r.t. engagement of civil societies/groups with waste pickers (Rule-6(f)	Local bodies with Harithakarma Senas associated with waste pickers
c	Details of Action taken w.r.t. creating awarness among stakeholders (Rule-6(e)	Awareness Programmes were conducted at State, District and Institutional levels.

		Column 9. No. of violations & action taken on non-compliance of provisions of PWM Rules, 2016, as amended, 2018			
Sl. No.	**Rule**	**Provisions**	Violator	Nature of Violation	Action taken
1	4(c)	Carry bag made of virgin or recycled plastic, shall not be less than fifty microns in thickness;	Single use plastic is banned in Kerala		
2	4(d)	Plastic sheet or like, which is not an integral part of multi-layered packaging and cover made of plastic sheet used for packaging, wrapping the commodity shall not be less than fifty microns in thickness except where the thickness of such plastic sheets impair the functionality of the product	Single use plastic is banned in Kerala		
3	4(f)	Sachets using plastic material shall not be used for storing, packing or selling gutkha, tobacco and pan masala;	Banned		
4	4(h)	Carry bags made from compostable plastics shall conform to the Indian Standard: IS 17088:2008 titled as specifications for Compostable Plastics, as amended from time to time. The manufacturers or seller of compostable plastic carrybags shall obtain a certificate from the Central Pollution Control Board before marketing or selling;	Ban of compostable carry bag is subjected to judgement dated 06/02/2021 in WP(C)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 Harithakarma senas, 997 MCFs and178 RRFs		
6	6(2)(g) &7(c)	Ensuring that open burning of plastic waste does not take place	Instruction given to localbodies		
7	8(1)(a)	The waste generator shall take steps to minimize generation of plastic waste and segregate plastic waste at source	950 Harithakarma senas, 997 MCFs and 178 RRFs		
8	8(1)(b)	The waste generator shall not litter the plastic waste	950 Harithakarma senas, 997 MCFs and 178 RRFs		

9	13(2)	Every producer or brand-owner shall, for the purpose of registration or for renewal of registration, make an application in Form-I to i."The concerned State Pollution Control Board or Pollution Control Committee of the Union territory, if operating one or two States or Union Territories"; ii. "The Central Pollution Control Board , if	The proposal for EPR under the consideration of Government
10	13(3)	Every person recycling or processing waste or proposing to recycle or process plastic waste shall make an application to the State Pollution Control Board or the Pollution Control Committee foor 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 engged in manufacturer 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 regisration or for the renewal of registration, in Form III.	Number of registered manufacturers/ producrers 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 labellled or marked, as per prescribed under these rules	Single use plastic is banned in Kerala
13		Any other (Please specify)	Nil

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

Annexure - 1

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 Maharastra 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 Vetinary & 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

Annexure-2

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/Envt dt 17.12.2019

3 G.O (MS) No.6/2019/Envt 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
	1. Carry bags irrespective of thickness, made of plastic	Cloth, paper bags
	2. Sheets made of plastic, for single-use spread on tables in function venues, spread on plates while serving food.	Paper spread
	3. Plates, cups and decorative materials made of styrofoam or Thermocol	Glass, ceramic, steel, cups, plates, paper and plant-based decorations
	4. Single-use utensils like cups, plates, dishes, spoons, forks, straw, stirrer, made of plastic	Glass, ceramic, steel, wooden cups, plates, dishes, spoons, forks, straw, stirrer
	5. Non-woven bags, plastic flags, plastic bunting	Cloth and paper bags, flags and bunting
	6. Plastic packets for packing fruits and vegetables	Paper and cloth bags
	7. Plastic drinking water pouches	
	8. PET/PETE drinking water bottles less than 500 ml	Banned, no substitute
B	**Banned items for which compostable substitutes can be used**	Recommended Compostable substitute

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

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 Dichoromethane (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 Vetinary & 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

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/Envt dt 27.11.2019
3. G.O(MS) No 7/2019/Envt dt 17.12.2019
4. G.O(RT) 128/2019/Envt dt 31.12.2019
5. G.O(RT) No.6/2020/Envt dt 17.1.2020
6 G.O(RT) 9/2020/Envt dt 23.1.2020
7. G.O(MS) NO. 2/2020/Envt 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 polyster/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, Manuthy, 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 Vetinary & 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 Secretar
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 Indi
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(disposible plastics)in the State of Kerala w.e.f 01/01/2020 issued vide G.O.(Ms)7/2019-Envt ,dated 17/12/2019 -Modification -order issued

ENVIRONMENT B DEPARTMENT

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

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

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

ORDER

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

(By order of the Governor)
SHEEBA B
JOINT SECRETARY

To:

1. The Secretary, Ministry of Environment and Climate Change, Govt of India
2. All the District Collectors
3. All the Department Heads
4. All Heads of Public Sector Units/Autonomous bodies

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 Vetinary & 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)

3/3

26. General Administration (SC) Department

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

Copy to:-

1. Private Secretary to Chief Minister

2. Private Secretary to Chief Secretary

3. PA to Principal Secretary

Forwarded /By order

Section Officer

GOVERNMENT OF KERALA

Abstract

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

Environment (B) Department

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

Read 1

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

2

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

India, MoEF&CC.

ORDER

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

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

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

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

1. Chief Secretary - Chairman
2. Additional Chief Secretary - Member

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

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

(By order of the Governor)
SHARMILA C
JOINT SECRETARY

To:

The Chief Secretary

The Additional Chief Secretary, Environment Department

The Principal Secretary, Industries Department

The Director, Directorate of Urban Affairs

The Chairman, Kerala State Pollution Control Board

The Director, Directorate of Environment & Climate Change

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

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

Stock file/Office Copy

Forwarded /By order

Section Officer

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

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

Date : 07.10.2020

From

The Environmental Engineer

To

The Member Secretary

Head Office

Thiruvananthapuram

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 SHEKHAR
Date: 2020.10.07 +05'30'

Copy to:-

The Chief Environmental Engineer

Regional office, Kozhikode

annexure iii

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 sports footwear.
5	CUBIX MOON LIGHT FOOTCARE	IGC, KINALUR, BALUSSERY, KOZHIKODE-673612	Manufacture of footwear (excluding repair) except of vulcalized or moulded rubber or plastic. This class includes manufacture of leather shoes, leather sandals and chappals, leather-cum-rubber/plastic cloth sandals and chappals made by and or by any proce
6	DOHA INTERIORS	PEROD	Manufacture of metallised yarn or gimped yarn; rubber thread or cord covered with textile material; Textile yarn or strip, impregnated, covered or sheathed with rubber or plastics
7	G.M TYRE RETREADINGS MARUTHANKARA ROAD KUTTIADI	Maruthomkara road kuttiadi 673508	Manufacture of machines for extruding, drawing, texturing, manufacturing or cutting man-made textile fibres, materials or yarns and machinery for working rubber or plastics or for the manufacture of products of these materials.

8	GRAMA JYOTHI	POOVAMBAI, 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. KOZHIKODE-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, KOZHIKODE-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, Koxhikode673016	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 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
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, Eranhipalam, 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, KOZHIKODE-673613	Manufacture of other plastic products

24	RAPTURE INDIA FOOT CARE COMPANY PVT LTD	MUNDUPALAM PERUMANNA KOZHIKODE PIN : 673019	Manufacture of footwear (excluding repair) except of vulcalized or moulded rubber or plastic. This class includes manufacture of leather shoes, leather sandals and chappals, leather-cum-rubber/plastic cloth sandals and chappals made by and or by any proce
25	S N Foot wears	Iduvattil thazham, Perumanna-673019	Manufacture of footwear (excluding repair) except of vulcalized or moulded rubber or plastic. This class includes manufacture of leather shoes, leather sandals and chappals, leather-cum-rubber/plastic cloth sandals and chappals made by and or by any proce
26	SANTHOM STITCHING UNIT	KOORACHUNDU, KOZHIKODE-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	POONOOR UNNIKULAM KOZHIKODE-673574	Manufacture of travel goods of plastics (suitcase, vanity bags, holdalls similar articles)
32	TRINITY POLYMERS	Down hiil, 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	EKAROOL KOYILAMDY, KOZHIKODE-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, 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 sports footwear.
38	Al-Ahammed Waste Plastic Bottle Unit	Nallalam, Kozhikode	Plastic Chips
39	Karipa Plastics	6/298D, Jayanthi Road, Nallalam, Kozhikode	Grinded Plastics
40	Kerala Plastics	Kunnamangalam, Kozhikode	Plastic grinding scrap
41	Parammel Granules Industries	Moolath Paramba, Kalpathi, Mavoor	Plastic granules

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

KERALA STATE POLLUTION CONTROL BOARD
കേരള സംസ്ഥാന മലിനീകരണ നിയന്ത്രണ ബോർഡ്

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

PCB/HO/SEE2/Annual Report SWM/2020-21 Dated: 06/09/2021

From

The Member Secretary

To

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

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

Ref: Solid Waste Management Rule 2016

Sir,

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

Yours faithfully

MEMBER SECRETARY

Encl: As above.

Copy to:

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

Form V

[See rule 24(3)]

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

PART A

To,

The Chairman

Central Pollution Control Board

Parivesh Bhawan, East Arjun Nagar

DELHI- 110 0032

ANNUAL REPORT '2020 – 2021'

1)	Name of the State/Union territory	**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:

House-to-house collection:

Segregation:

Storage

Covered transportation

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**).

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 (KPSCB) 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. Thaliparambum 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 cites 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 EnergyPlant 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 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 establishwas 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.

				Clearing of groundfor the plant is undergoing. Land development works are undergoing. Alternate road has been constructed onthe 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 tothe site is nearing completion. 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	

2	Kannur Chelora	Kannur Corporation	(Govt. Land) 9.7 acres at Chelora	Blue Planet Kannur Waste Solutions Private Limited was formed to take up the developmen t of the project. Waste Characterisat ion study was Contuctedby SPCB SLAC directed MD, KSIDC & Secretary, Kannur Municipal Corporation to take immediate steps to execute the Lease Agree ment and Conces sion Agreemen t for the project. KSIDC has completed the tender process and the finaloffer along with details of the contractor, draft agreement to be executed with the Contractor and the technical proposal submitted by the Contractor has been	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 atthe site. Asked Secretary Kannur Municipal Corporation to take immediate steps with the Contractor to expedite the works for rehabilitation of MSW dumpsite at Chelora.

				forwarded to Kannur Corporation on 07th August 2020 for further proceedings. 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 theSecretary Corporation for execution. Further a stake holder meetingwas held to explain the project details tothe 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 authorizin g the Secretary Kannur Corporati	

				on to execute the concessio n agreement has not been passed. Concessi on agreemen t can be executed only on receiving land to KSIDC. The concenssion arire has reported that the field studies including waste characterizat ion andwaste quantificatio nstudies, 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 identifiedat Chelora on 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 inChelora. Detailed waste characterization of study of dumpsite at Chelora was done by the Pollution Control Board. SLAC directed the Board to submit final study	
3.	Palakkad Kanjikode	Palakkad Municipality	(Land taken overfrom Kerala State Electricity Board Ltd. in advance possession) 15 acres at Kanjikode	Blue Planet Palakkad Waste Solutions Private Limited was formedto 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 & Bradstreetfor 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 tobe executed with M/s.Zonta Infratech Pvt Limited is vetted

				Solid Waste Management project with a Wasteto Biogas facility of 200 TPD processing capacity. DPR was evaluatedby the Committee and it has been modified and final DPR submitted to LSGD Concenssionaire hastaken steps to submit applications to the concerned departments and agencies for statutory approvals and clearances.	by the Corporation's Standing Counsel and the same will be placed in the next Council meeting for approval. 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. Again the project has been retendered by the Corporation.
5	Thiruvananthapuram Vizhinjam	Thiruvananthapuram Corporation	Land not identified	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 meetingas part of tender procedures was heldon 08th June 2020. The last date for the submission of bidswas 14th July 2020. KSIDC did not receive	Tendering in advanced stage

				any challenging bids forthe project. KSIDC directed M/s Essential Sustainabilit y 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 Communicat ion Services S.A. is technically qualifiedand recommende d that the financial bid submitted by the Consortium be evaluated. Bid Evaluation Committe e further	

				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 wte 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. Directed State Pollution Control Board to evaluate the Technical proposal submitted by the Consortiumfor confirming	

				the uniqueness and authenticity of the proposed technology.	
6	Ernakulam Brahmapuram	Kochi corporation	(Govt. land) 20 acres at Brahmapuram	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. 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	KSIDC floated e-tender to identify a suitable agency for the rehabilitation of MSW dump site at Brahmapuram. KSIDC submitteda proposal to constitute a Technical Evaluation Committee for technical evaluation of the bids. Evaluation of technical bid is in process. LSGD issued directions to Kochi Corporation to examine the quantity of legacywaste assessed and rate quoted by the bidder in consultation with PCB within 30 days

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

				that the Consorti um 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 evaluationof the Bid	
8	Wayanad Sulthan Bathery	Wayanad Muncipality	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

				Ollookkara Village in Thrissur district and to hand over thesame on lease basis to KSIDC for the development of the project Secretary, Thrissur Municipal Corporatio n to report the status ofprice negotiation done with the owners of the land identified.	
10	Malappuram	Malappuram munciplaity	8.09 acres of land at Kurumbat hoor village in Tirur Taluk	KSIDC reported that Land Board has issued orders to District Administrati on Malappuram to handover 8.09 acres of land at Kurumbatho or 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	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 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.
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. Proj.ect 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 Manage ment	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 Service providers	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 ew-tendered 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 qualitified 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 managemetn 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 aencies 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 Brahmapur am	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(Retenderin g 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 biodegrada ble managed- 6.71TPD Non biodegrada ble 0.7TPD Non biodegrada ble 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 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 Ollookkara 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- biodegrada ble- 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 by the Ministry and the same is being processed.	MCF-12;RRRF-2	Regional landfill site identified at Kochi	1(Njaliyanpa rambu) 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 Manage ment	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 Biomethanati 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)M oU with KSIDC for clearing the existing legacy waste at dump site in Chelora	Yes	Under processi ng
7	MUNCIPALITIES	Thiruvana thapuram	Attingal	37648	39150	16	48.5	100	44	16	16	16	Centralised and decentralised systems	Biogas Plant(Dhee nabandhu) 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 wih capacity of 0.25 TPD	Biogas Plant 407 Nos - 0.85TPD	Windrow composting plant, vermic composting 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	MUNCIPALITIES	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 plastinc 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	58HKS	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	MUNCIPALITIES	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		Decentralis ed treatme	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 biodegrada ble waste and 0.35TPD of non biodegrada blewaste managed	Biogas Plant - 2 Nos Aerobin-5	Biogas plant - 400 Compost pits- 520	Nil	MCF-3; RRF-1	At regional level	Nil	Yes	Under processi ng
18			Thiruvalla	52883	54992	22	60	0	55		1.4	12	Decentralis ed treatment	4.79TPD of biodegrada ble waste and 1.5TPD of non biodegrada ble 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	MUNCIPALITIES	Alappuzha	Alappuzha	174176	241219	96	95	80	76	46	36		Aerobic composting Plastic Shredding	Not given	Aerobic Compost (Thumboorm uzhi 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	Decentralis ed treatment	Not given	Aerobic Compost (Thumboormuzhi Model) - 12 bins at 1 location		Nil	MCF-1	At regional level	Nil	Yes	Under processi ng
21			Cherthala	45827	47658	19	73.76	80	35	0.6	0.6	6	Decentralis ed treatment	Not given	Aerobic Compost (Thumboorm uzhi 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 processi ng
22			Haripad	15588	16211	6	88	6	30	1	1	5	Decentralis ed 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 processi ng
23			Kayamkulam	68634	75861	30	65	45	9	5	3		Aerobic Compost	0.06 TPD is managed	Biogas Plant Aerobic compost (Thumboorm uzhi 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 processi ng
24			Mavelikara	264121	27516	11	80	25	30	3.2	2.5		Composting	Not given	Aerobic Compost (Thumboorm uzhi 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 processi ng
25	MUNCIPALITIES	Kottayam	Changanassery	127987	133102	53	0	50	Haritha Karma Sena		3	20	Decentralis ed 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 (Thumboorm uzhi 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	Decentralis ed 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 (Vadavathoo r)	No	No
29			Pala	123000	127915	51	34	94	14	2	7	26	Decentralis ed 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	Decentralis ed treatment	Aerobic compostin g (Thumboo rmuzhi mode) -4 bins at 2 locationsBiogas 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	MUNCIPALITI	Idukki	Kattapana	42646	44350	18	79.4	100	81	3.24	3.24	11	Decentralis ed 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	Vermi compost - 7bin at 1 location	Biogas Plant - 928	Nil	MCF- 2 RRF 1	At regional level	Nil	No	No
33	MUNCIPALITI	Ernakulam	Aluva	22428	23312	9	43	24		7.05	6.14	NA	NA	0	Centralised plant at Brahmapura m	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	Decentralis ed treatment	Aerobins-2	Biogas plant - 1No	Pipe compost - 979 Biogas - 504 Nos		RRF-2Nos; MCF-1;Biodigest er bins-300Nos SWAP shop-1 No.	At regional level	Nil	No	No
35			Eloor	31468	32726	13	0		81	0.87	0.87	5	Decentralis ed 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	Decentralis ed 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	Decentralis ed 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	Decentralis ed 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	Decentralis ed treatment	Aerobic compostin g (Thumboo rmuzhi 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	Decentralis ed treatment	0.75 TPD of non of biodegrada ble 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	Decentralis ed 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	Decentralis ed 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 e waste is managed 0.124 non biodegradabl e waste is managed. Thumbur muzhi model at Anapparamb u -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	MUNCIPALITI	Thrissur	Chalakkudy	49525	51504	21	100	100	54	7.31tpd	7.31tpd	10	Decentralis ed treatment	Plants(50k g capacity) 5 SWM	Thumbur muzhi model at Anapparamb u (41 ward) Vermicompo sting 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	Decentralis ed 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	Decentralis ed treatment	Biogas Plant(3.5tp d)	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	Segragated 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 Aeribic bins	20 Aeribic bins	Aerobic Compost (Thumboo rmuzhi Model)-6 bins at 3 locations with capacity of 10 kg/day	1	Seggregated Non biodegradable waste collected through Haritha karma senaand it is forwarded to MCFand RRF.SCrap 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	Decentralis ed treatment	Aerobic compost (Thumboo r Mozhi model)	composting plant 1.889 TPDBiodegradabl e waste managed, 0.81 TPD Non biodegradabl e 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 llocal 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	Decentralis ed 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	MUNCIPALITI	Palakkad	Cheruplassery	30730	31958	13	60	77	22 HKS	0.2	1.2	4	Decentralis ed treatment	0.427 TPD Non biodegrada ble waste managed.	1.43 TPD Nonbiodegra dable waste managed.	Pipe Compost 1000 Nos Biogas Plant - 200 Nos Composting units-1050	Nil	MCF-1; RRF-1	At regional level	Nil	Yes	Under processi ng
54			Chitttur-Thattamangalam	33000	34319	14	51.7	11.6	56 Nos	2		7	Decentralis ed 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 processi ng
55			Mannarkadu	39463	41040	16		83.7	58		0	6	Decentralis ed 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	Decentralis ed 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	Decentralis ed 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. Asper annual report 2.1 Hectre of land is available.	MCF-7; RRF-1	At regional level	1(BPL) Koottupatha)	Yes	Under processi ng

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58			Pattambi	28632	29776	12	0	60	20	1		3	Decentralis ed 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	Decentralis ed treatment	Not given	Biobin	Biogas 276	Nil	MCF-1; RRF-1	At regional level	Nil	No	No
60	MUNCIPALITI	Malappuram	Kondotty	28794	29945	12	79.7	60	160	0.12	0.12	4	Decentralis ed 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 binBucket 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	Decentralis ed treatment	Not given	Not given	Biogas Plant - 71 Nos. Pipe compost-135; Biocomposter- 75	Nil	Temporar y	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	nill	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 trrough Haritha karmasena send for recycling to clean kerala company	0	0	0	NA
69			Thiroorangadi	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	Composing	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 degradeble waste-bio methenation & composting,Non bio degradeble -send for recycling through forword 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	MUNCIPALITI	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	Decentralis ed treatment	Not given	Not given	Not given	Nil	MCF-1	At regional level	Nil	Yes	Under processi ng
74			Koyilandy	71873	74745	30	59.7	7.9	100	10	2.5	11	Decentralis ed treatment	Not given	1. Thumboor muzhi model composting - 11 unit 2. biogas plant - 500 kg per day	1. Portable biogas 250 nos; 2. pipe, ring; and vermicompost -1933 nos	Nil	MCF-2 MRF-1; Plastic shreding 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	NI,L	NIL	YES	

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76			Payyoli	23576	24518	10	0		Nil	0.25	0.25	3	Decentralis ed 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	Decentralis ed 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	Thumburmuzhiu	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	Decentralis ed treatment	0.508 TPD Biodegradable waste managed,0.561 TPD Non biodegrada ble waste managed.	1.3 TPD Biodegradable waste managed, 0.869 TPD Nonbiodegra dable waste managed.	0.4 TPD Biodegradable waste managed, 0.11 TPD Nonbiodegrad able waste managed	8 Acres of land is available in Vellaram kunnu Kalpetta.	MCF-1; RRF-1	At regional level	1	Yes	Under processi ng
80			Mananthavady	59497	62450	25	40	47	26		.5TPD		BUCKET COMPOST,BIOGAS,PIT COMPOST,	NIL	NIL	NIL	NIL	Not given	NIL	YES	NIL	NIL
81			Sulthanbathery	23333	24265	10	0	0	23	0.5	9.1	14	Decentralis ed 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 shruding and bailing 1MCF,1 RRF thumboormuzhi	collectors school bin	0	ring compost BIOGAS KITCHEN BIN	0	0	nil	nil	NIL	NIL
83			Iritty	40369	48501	19	65	30.71	40	2.5	2.35	0	windrow compost	collectors school bin	mcf	ring compost	windrow compost	0	nil	nil	yes	not granted
84			Koothuparamb u	32404	38000	15	100	90	64	2 TPD	2 TPD	2 TPD	COMPOSTING & BAILING	1	0	0	0	0	NIL	NIL	NIL	NIL
85			Mattanur	47078	60000	24	90	90	39	5	5	5	windrow compost unit,plastic shruding and bailing	collectors @school bin	Mini M C F in all wards	pipe compost,ring compost,vermi,biogas	windrow compost unit,plastic shruding and bailing	plastic shruding 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			Sreekantapura m	33489	37000	15	95	90	30	2	2	2	rinng compost,calender waist collection door to door inclooding platic shruding 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 shruding	NA	NIL	biobin,biopot,pipecompost	NIL	plastic shruding	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 Household	% Household D2D-Dry	% of Household-D2D-Wet	No of establishment	%establishment-D2D-Dry	% establishment_D2D-Wet	% of houses in which source level treatment	% of establishment in which source level treatment	% disposing in centralised system	% disposing in decentralised 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)
1	THIRUVANATHAPURAM	Amboori	13	2924	100	0	828	84	0	60	100	0	0	0.4	0	0	0	0
2		Anadu	19	11944	32	47	1875	10	3	100	100	0	0	0.3	0	0	0	0
3		Anchuthengu	14	4906	41	0	50	80	50	41	80	0	0	0.2	0.1	0	0	0
4		Andoorkonam	18	9598	63	0	2198	36	0	13	28	0	0	0.12	0.1	0	0	0
5		Aruvikkara	20	13419	100	0	217	21	100	8	0	0	0	0.36	0	0	0	0
6		Aryanad	18	11323	78	0	1214	73	0	10	3	0	0	0.1	0.003	0.003	0	0
7		Aryancode	16	7820	100	0	255	100	0	3	3	0	0	0.33	0	0	0	0
8		Athiyannoor	17	9383	100	0	257	0	0	0	0	0	0	0.002	0.1	0.379	0	0
9		Azhoor	18	9128	0	0	176	0	0	1	0	0	0	3.4	0	0	4.6	0
10		Balaramapuram	20	10360	47	0	1343	88	0	0	0	0	0	0.3	0	0	0	0
11		Chemmaruthy	19	8238	77	21	435	95	0	73	20	0	0	0.05	0.1	0	0	0
12		Chenkal	21	12703	28	100	2800	149	7	100	100	0	0	0.45	0	0	0	0
13		Cherunniyoor	14	6933	100	0	4322	6	0	100	100	0	0	0.6	0.1	0	0	0
14		Chirayinkeezhu	19	9698	32	0	754	40	0	0	0	0	0	0.278	0.17	0	0	0
15		Edava	17	9371	100	0	420	100	0	0	0	0	0	0.3	0	0	0	0
16		Elakamon	16	9888	86	0	313	70	0	80	0	0	0	0.2	0.8	0	0	0
17		Kadakkavoor	16	10347	0	0	1876	0	0	83	12	0	0	0.2	0.12	0	0	0
18		Kadinamkulam	23	22734	5	0	3134	5	0	100	100	0	0	0.2	0	0	0	0
19		Kallara	17	9421	100	0	605	100	0	100	100	0	0	0.2	0	0	0	0
20		Kallikkadu	13	6902	68	0	937	87	0	18	3	0	0	0.2	0	0	0	0
21		Kalliyoor	22	14733	0	64	823	0	70	59	32	0	0	0.5	0	0	0	0
22		Kanjiramkulam	14	6815	100	0	41	100	0	45	100	0	0	0.2	0	0	0	0
23		Karakulam	13	18000	28	28	168	100	0	30	0	0	0	0.1	0.03	0.03	0	0
24		Karavaram	18	11540	31	0	1859	19	0	70	91	0	0	0.3	0.13	0	0	0
25		Karode	19	11334	100	0	1333	100	0	100	100	0	0	0.2	0	0	0	0
26		Karumkulam	18	7583	43	0	616	33	0	78	67	0	0	0.1	0	0	0	0
27		Kattakkada	21	14510	5	0	2187	12	0	100	100	0	0	0.841	0	0	0	0
28		Keezhuvilam	20	9436	93	0	463	100	0	93	28	0	0	0.1	0	0	0	0
29		Kilimanoor	13	6721	100	0	189	84	67	0	4	0	0	0.2	0.125	0	0	0
30		Kollayil	16	9080	0	0	1083	0	0	100	100	0	0	0.56	0	0	0	0
31		Kottukal	19	13512	80	29	1071	1	85	0	0	0	0	0.45	0.77	0	0	0
32		Kulathoor	20	10196	102	0	1121	16	82	32	20	0	0	0.4	0.23	0	0	0
33		Kunnathukal	21	11367	10	0	202	0	0	35	100	0	0	0.35	0	0	0	0
34		Kuttichal	14	8863	100	0	1801	0	100	0	0	0	0	0.331	0	0	0	0
35		Madavoor	15	7901	76	0	201	90	0	79	90	0	0	0.12	0.11	0	0	0
36		Malayinkeezhu	22	14336	100	0	2017	31	100	44	45	0	0	0.5	0.03	0	0	0
37		Manamboor	16	9423	1	0	1314	1	0	80	0	0	0	0.25	0	0	0	0
38		Mangalapuram	20	14338	93	0	2474	78	0	3	3	0	0	0.1		0	0	0
39		Manickal	21	11500	80	0	860	63	0	0	0	0	0	0.81		0	0	0
40		Maranalloor	21	14321	0	0	2499	0	0	0	0	0	0	0.4	0	0	0	0
41		Mudakkal	20	12893	0	0	1882	100	0	0	0	0	0	0.33	0	0	0	0
42		Nagaroor	17	9963	1	0	1542	2	0	100	100	0	0	0.45	0.1	0	0	0
43		Nanniyode	18	10292	100	100	2433	100	100	100	30	30	0	0.63	0	0	0	0
44		Navaikulam	22	16303	6	2	2942	1	4	0	0	0	0	0.33	0	0	0	0
45		Nellanad	16	9993	90	0	2112	43	0	100	100	0	0	0.28	0.13	0	0	0
46		Ottoor	13	2933	46	25	575	100	8	26	75	0	0	0.5	0	0	0	0
47		Ottasekharamangalam	14	4724	3	3	1372	4	13	0	0	0	0	0.5	0.1	0	0	0

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48		Pallichal	23	16342	100	0	140	100	0	100	100	0	0	0.6	0	0	0	0
49		Pallickal	13	2875	5	0	712	2	0	0	0	0	0	0.33	0	0	0	0
50		Panavoor	13	7318	80	0	2363	73	0	2	2	0	0	0.65	0	0	0	0
51		Pangode	19	11178	100	0	1083	100	0	100	100	0	0	0.36	0.41	0	0	0
52		Parassala	23	12800	27	0	2438	2	0	70	10	0	0	0.28	0.200	200kg/m	0	0
53		Pazhayakunnummel	17	10372	73	0	4780	73	0	3	3	0	0	0.3	0	0	0	0
54		Peringamala	19	12097	63	0	1310	71	0	50	2	0	0	0.3	0.21	0	0	0
55		Perumkadavila	16	8571	93	0	1121	100	0	80	84	0	0	0.58	0.4	0	0	0
56		Poovachal	23	13478	100	0	2421	100	0	38	0	0	0	0.87	0	0	0	0
57		Poovar	17	4343	38	0	740	10	0	0	0	0	0	0.1	0	0	0	0
58		Pothencode	18	10638	0	0	3048	0	0	41	44	0	0	0.63	0	0	0	0
59		Pulimath	19	11339	69	0	122	43	0	100	100	100	0	0.1	0.03	50	0	0
60		Pullampara	13	4798	0	0	278	0	0	0	0	0	0	0.23	0	0	0	0
61		Thirupuram	14	5156	0	0	363	0	0	100	0	0	0	0.22	0	0	0	0
62		Tholicode	16	8403	3	0	1154	2	0	80	0	0	0	0.24	0	0	0	0
63		Uzhamalackal	13	7967	0	0	160	0	0	82	34	0	0	0.25	0	0	0	0
64		Vakkom	14	3240	66	0	263	37	0	66	27	0	0	0.4	0.21	0	60	60
65		Vamanapuram	13	7345	67	0	212	35	0	0	100	100	0	0.1	0	0	0	0
66		Vellanad	18	11838	23	0	490	22	0	100	100	0	0	0.3	0	0	0	0
67		Vellarada	23	11990	75	0	1317	100	100	100	100	0	0	0.105	0	0	0	0
68		Vembayam	21	12402	69	0	151	84	36	3	3			0.61	0	0	0	0
69		Venganoor	23	14780	5	0	736	3	0	100	70	0	0	42	0	0	0	0
70		Vettoor	16	8346	99	0	205	100	0	99	100	0	0	0.8	0	0	0	0
71		Vilappil	20	16420	0	0	1727	57	0	0	0	0	0	0	0	0	0	
72		Vilavoorkal	17	12798	100	0	233	20	0	78	100	0	0	0.2	0	0	0	0
73		Vithura	17	10547	100	0	690	100	0	100	100	0	0	1.12	0.1	2.1	0	0.1

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74	K	Adichanallur	20	11069	90	85	686	80	47	90	0	2	1	2	0.4	0	0	0
75	O	Alagapd	16	5931	70	0	384	58	0	0	1	0	1	0	0	0	0	0
76	L	Alayamon	14	7350	0	0	1177	0	0	0	0	0	0	0.2	0.1	0	0	0
77	L	Arcbal	19	12968	70	0	1748	65	0	10	15	0	12	4	4	4	0	0
78	A	Arlenavo	13	3244	65	0	232		0	0	1	0	1	0.1	0.1	0	0	0
79	M	Chadayamangalam	15	7661	80	0	1356	80	0	0.6	0.6	0	1	1	1	1	0	0
80		Chathannoor	18	10927	35	0	732	15	0	90	90	8	0	2	2	2	0	0
81		Chavara	23	13568	60	0	1400	60	0	15	2	2	0	2	0.6	0.5	0.5	0.1
82		Chirakkara	16	8629	90	0	1200	40	0	0	1	0	0	0	0	0	0	0
83		Chithara	23	15164	49	0	450	48	0	3	1	0	1	0	0	0	0	0
84		Clappana	15	8552	83	0	1013	6	0	3	1	0	1	0	0	0	0	0
85		East Kallada	15	7234	0	0	8655	0	0	0	0	0	0	0	0	0	0	0
86		Elamcheikal	22	6200	0	0	1360	0	0	0	0	0	0	0	0	0	0	0
87		Elamadu	17	7728	55	0	83	71	0	1	36	0	36	0	0	0	0	0
88		Elampalloor	21	5753	79	0	25	62.4	0	10	44	0	44	0	0	0	0	0
89		Ezhukone	16	8569	2234	0	1200	12	0	16	0	0	0	0	0	0	0	0
90		Ittiva	21	12278	40	0	1780	20	0	1	3	0	3	3	2.2	2.2	0	0
91		Kadakkal	19	9800	9800	0	3700	2100	0	237	6	9.8	2.1	2	1	1	0	6
92		Kalluvathukkal	23	16006	80	0	2474	74	0	33	4	0	11	2	1.8	1.8	0	0
93		Karavaloor	16	8644	71	0	1470	69	0	1	1	0	1		0.27	0.27	0	0
94		Karuvatta	18	6000	0	0				1		0						
95		Kottamkara	21	12978	65	0	552	109	0	1	0	1	0	0.5	0.35	0.35	0	0
96		Kulakkada	19	11253	0	0	536	126	0	1	0	0	0	0.45	3 ton	3	0	0
97		Kulasekharapuram	23	15978	78	0	3642	38	0	1	0	0	0	0.25	0.33	0.175	0	0
98		Kulathoopuzha	20	11210	59	0	1250	8	0	2	7		7	0.3	0.3	0.2	0	0
99		Kummil	14	8210	55	0	211	31	0	1	5	0	5	0.2	0.1	0.1	0	0
100		Kundara	14	4561	72		220	25	0	0	0	0	0	0	0.1	0	0	0
101		Kunnathoor	17	8843	63	0	0	0	0	10	0	0	0	1	1	0	0	0
102		Mayyanad	23	15657	55	0	2890	5	0	29	81	0	0	16	8.5	8.5	4.5	2.5
103		Melila	15	3888	60	0	157	100	0	60	60	0	0	0.25	0.25	0	0	0
104		Munnethuruthu	13	3228	15	0	113	22	0	75	70	0	0	0.2	0	0	0	0
105		Mylom	13	3228	0	0	115	22	0	75	70	0	0	0.2	0	0	0	0
106		Mynagappally	22	130	0	0				0		0						
107		Nedumpana	23	17193	80	80	133	68	68	2	68	80	68	16	11	0	1.5	2
108		Neduvelhoor	18	8521	41	0	1150	98	0	52	60	0	0	0	0	0	0	0
109		Neendakara	13	3083	58	0	713	0.65	0	0.15	0.3	0	0	0.25	0.25	0.25	0	0
110		Nilamel	13	5827	80	0	1564	35	0	60	58	0	0	0.15	0.75	0	0	0
111		Oachira	17	8422	39	0	1025	36	0	0	0	0	0	0.21	0.21	0.21	0	0
112		panayam	16	8771	0	0				0		0						
113		Panmana	23	16013	90	0	2449	0	21	0	0	0	0	0.15	0.125	0.125	0	0
114		Pathanapuram	23	11372	700	60	0	34	0	15	93	0	0	6.5	6.5	0	0	0
115		Pattazhi	13	6265	85	0	199	90	0	61	100	0	0	1.5	1.5	1.5	0	0
116		Pattazhi Vadakkekara	13	6251	80	0	192	90	0	80	100	0	0	1.25	0	0	0	0
117		Pavithreswaram	19	12977	51	0	786	81	0	20	35	0	0	6	8	5	4	0
118		Perayam	14	6450	0	0	250	0	0	0	0	0	0	0.25	0.25	0.25	0	0
119		Perinad	20	11580	55	0	2201	29	0	0	0	0	0	5	3	24	4	0
120		Piravanthoor	21	3600	42	0	1038	12	0	36	32	0	0	2	0.5	0	0	0
121		Poothakkulam	21	9621	36	0	308	65	10	29	55	0	0	6	3	3	0	0
122		Ponnappally	16	8870	70	0	936	40	0	85	10	0	0	3	1.5	1.5	0	0

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123		Paruvazhy	16	9581	47	0	1200	42	0	0	0	0	0			4	0	0
124		Sasthamcotta	19	13243	0	0				0		0		4	3	2	0	0
125		Sooranad North	18	9671		0	1935	0	0	0	0	0	0					
126		Sooranad South	16	8228	70	0	1120	63	0	0	0	0	0	4	3	2.5	0	0
127		Thalavoor	20	7200	0	0	0	0	0	0		0		2	1	1	0	0
128		Thazhava	22	11019	70	34	3256	50	30	2	6	0	6	3.8	2.9	2.9	0	0
129		Thekkumbhagom	13	5600	62	0	372	70	0	2	1	0	0	4	2.5	2.5	0	0
130		Thenmala	16	8369	70	0	239	65	0	0	0	0	0	4	3.5	3.5	0	0
131		Thovalakkara	23	8000	0	0	1568	78	0	0	4	0	3	0	0	0	0	0
132		Thodiyoor	23	14237	72	0	2224	82	0	1	2	0	2	5.5	3.5	0	0	0
133		Thrikkaruva	16	12238	0	0	2005	86	0	1	1	0	1	4.9	1.8	0	0	0
134		Thrikkovilvattom	23	21027	0	0	4460	0	0	0	0	0	0	0	0	0	0	0
135		Ummannoor	20	11584	60	0	2153	60	0	10	10	0	0	0.036	0.0216	0	0	0
136		Velinalloor	17	9010	82	0	2250	4	0	4	1	0	1	0	0	0	0	0
137		Veliyam	19	10513	81	0	1983	1	0	1	1	0	1	0	0	0	0	0
138		Vettikavala	21	1850	0	460	805	0	0	3	0	0	0	0	0	0	0	0
139		Vilakkudy	20	10897	46	0	3256	52	11	16	12	0	0	0	0	0	0	0
140		West Kallada	20	5813	78	0	909	74	0	0	0	0	0	0	0	0	0	0
141		Yeroor	14	14321	1	0	615	1	1	0	1	0	1	0	0		0	0

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142		Aranad	13	5067	0	6	0	0		0		0		20kg	20kg	0	0	0
143		Aranmula	18	9671	0	100	1697	0	100	0	0	0	0	2	2.5	2	0	0
144		Aruvappulam	15	6816	0	8	175	0	0	1	2	0	0	20	15	0	0	0
145		Ayroor	16	6548	0	53	835	0	77	0	0	0	0	20Kg	20	0	0	0
146		Chennerkara	14	6515	0	0	0			0		0						
147		Cherukole	13	4398	0	0	521	0	0	0	0	0	0	50kg	50kg	50kg	0	0
148		Chirar	13	5215	0	0	42	0	0	0	0	0	0	48 KG	48Kg	48Kg	0	0
149		Elanthur	13	4585	0	0	3980	0	0	0	0	0	0	310Kg	310Kg	0	0	0
150		Enadimangalam	15	7241	0	50	380		0	0	0	0	0	300 KG	100 kG	0	0	0
151		Enathu	17	9011	0	0	510	0	0	0	0	0	0	55 Kg	55Kg	0	0	0
152		Eraviperoor	17	8920	0	72	490	0	81	1	2	40	0	1200kg	122kg	0	0	0
153		Ezhamkulam	20	11555	0	74	2526	0	76	0	0	0	0	1400 kg	1400kg	0	0	0
154		Ezhanattur	14	6807	0	100	1226	0	100	50	50	0	0	0.034	0.034	0.034	0	0
155		Kadampanad	17	9094	0	0	1497	0	0	0	0	0	0	320kg	320kg	0	0	0
156		Kadapra	15	8608	0	74	803	0	76	0	1	0	0	0.8	0.6	0	0.2	0
157		Kanjoor	20	12080	0	51	892	0	44	0	0	0	0	900	900	0	0	0
158		Kallooppara	14	6043	0	1	707	0	0	0	0	0	0	36	30	0	0	0
159		Kaviyoor	14	6450	0	1	260		97	0	0	100	100		16kg	0	0	0
160		Kodumon	18	8972			10495	0	0	0	1	0	0		2000 kg	720 kg	0	0
161		Koipuram	17	10480			2191			0	0	0	0	0.5	0.5	0.5	0.5	0.5
162		Konni	18	10028	3	50	1000		30	90	30	1	10	500	350	350	300	0
163		Kottanad	13	4919	0	50	31	0	0	0	0	0	0	55	55	0	0	0
164		Kottangal	13	5699	0	0	760	0	0	0	0	0	0					
165		KOZHANCHERR Y	13	4133	2	12	2191	0	2	0	0	0	2	900 kg	210kg	210kg	180 kg	0
166		Kuttoor	16	8229	0	100	420	0	100	0	100	100	100	0.033	0.033	0.033	10	10
167		Kunnathoor	15	6854	0	52	401	0	70	0	0	0	0	200kg	150kg	0	0	0
168		Kuttoor	14	6958	0	0	1088	0	0	0	0	0	0					
169		Malayalapuzha	14	6324	0	74	930	0	100	98	100	0	0	3.4	2.9	0	0	0
170		Mallappally	14	6091	0	96	1370	0	100	0	0	0	0	250 ton	200 ton	0	0	0
171		Mallapuzhassery	13	4087	0	70	1014	0	3	2	1	0	0	4	0.01	0.01	0	0
172		Mezhuveli	13	5145	1	80	871	0	60	3	4	0	0	8000kg	7900kg	0	3000kg	0
173		Mylapra	13	3600	0	0	446	0	12	0	12	3	1	540 kg	540 kg	Nil	Nil	Nil
174		Naranamoozhi	13	4851	2	91	51	0	102	65	102	3	2	650 kg	650 kg	Nil	Nil	Nil
175		Naranganam	14	5276	0	50	126	0	38	100	100	100	100	380 kg	380 kg	380	0	0
176		Nedumpuram	13	4595	0	77	230	0	44	98	87	0	0	450kg	450kg	450kg	0	0
177		Niranam	13	4477	2	92	316	0	68	73	82	0	0	412	412	412		0
178		Omallur	14	6448	4	0	350	90	229	90	72	0	0	950kg	5 (plastic only)	5	400kg	0
179		Pallickal	23	14820	1	60	70	0	35	0	0	0	0	0.5	0.5	nil	nil	nil
180		Pandalam Thekkekkara	14	7003	4	80	371	0	216	80	68	0	0					
181		Perinjara	15	6700	0	0	320		0	0	0	0	0	65 kg	60 kg	0	0	0
182		Pramadom	19	11502	0	79	1236	0	205	0	0	0	0			0	0	0
183		Puramattom	13	5049	0	52	212	0	78	1	2							
184		Ranni	13	6358	4	100	325	0	73	100	96	1	2	0.3	0.3	0.3	0.3	0.15
185		Ranni Angadi	13	5005	4	100	300	10	32	95	96	6	5	300 kg	300 kg	300	100 kg	0
186		Ranni Pazhavangady	17	8229	0	100	420	0	100	0	100	100	100	600 kg/month	600	600	0	0
187		Ranni Perunad	15	7356		69	842	0	29	0	0	0	0	20kg	16kg	16kg	0	0

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188		Seethathode	13	5841	0	100	723	0	100	0	0	0	0	60kg	38kg	31kg	0	0
189		Thannithode	13	4590	0	0	195	0	0	0	0	0	0	0	0	0	0	0
190		Thottapuzhassery	13	5450	0	39	636	0	13	2	2	0	0	350kg/month	350kg/month	350Kg	0	0
191		Thumpamon	13	3887	0	100	267	0	100	52	0	0	0	168 tpd	168 tpd	Nil	0	0
192		Vadasserikkara	15	6854	0	0	401	0	129	0	2	0	0	450 kg	450 kg	450	0	0
193		Vallicode	15	7724		70	498	0	21	0	0	0	0	0	0	0	0	0
194		Vechoochira	15	5600	0	100	250	0	100	0	0	0	0	1870 KG	1870 KG	1870 KG	0	0
195	ALAPPUZHA	Ala	13	4670	0	0	136	0	0	15	0	0	0	0.04	0.04	0.04	NA	NA
196		Ambalapuzha	18	8738	0	0	164											
197		Ambalapuzha south	15	7323	0	0				2		0						
198		Arattupuzha	18	9077														
199		Arookutty	13	6245	60	0	324	50	0	2	2	0	0	0.3	0.2	0	0	0
200		Aroor	22															
201		Aryad	18	9188	100	0	426	100	0	3	2	0	0	0.5	0.1	0.5	0	0
202		Bharanikkavu	21	13420	46	0	340	64	0	32.6	69.2	0	0	0.4	0.29	1.1	0	0
203		Budhanoor	14	6523	0	0	320	0	0	33	54	0	0	0	0	0	0	0
204		Chambakulam	13	4900	0	0	122	0	0	15	0	0	0	0	0	0	0	0
205		Chennampallipuram	17	9461	28	0	388	45	0	74	100	0	0					
206		Chennithala Thriperumthura	18															
207		Cheppad	14	7400	0	0	232	0	0	0	0	0	0	0	0	0	0	0
208		Cheriyanad	15	8320	60	0	128	30	0	10	55	0	0	0.5	1	0	0	0
209		Cherthala south	22	11458	80	93	587	85	40	35	28	0	0	1	0	0	0	0
210		Chenuthara	13	4247	100	0	99	100	0	0	57	0	0	3.2T	1	0	0	0.2
211		Chettikulangara	21	10832	0	0	1542	0	0	0	0	0	0	1.5	1.5	1.3	0	0
212		Chingoli	13	5078	40	0	934	50	0	1	0	0	0					
213		Chunakkara	15	7747	0	0	1240	0	0	0	0	0	0	0.5	0.2	0	0	0
214		Devikulangara	15	6525	100	0	226	100	0	20	100	0	0	0.002	0.002	0.002	0	0
215		Edathua	15	6994	58	0	112	80	0	40	58	0	0	0	0	0	0	0
216		Ezhupunna	16	9018														
217		Kadakkarappally	14	6302	0	0	388	0	0	0	0	0	0					
218		Kainakary	15	5335	50	0	13	80	0	37	100	0	0	0.2	0.2	0.2	0	0
219		Kandalloor	15	7440	86	14	1304	90	10	91	90	0	0	0.32	0	0	0	0
220		Kanjikuzhy	18	8300	100	0	450	100	0	90	100	0	0	0.5	0.5	0.5	0.5	0
221		Karthikappally	13	4479	95	0	98	100	0	0	0	0	0	0	0	0	0	0
222		Karuvatta	15	7216	0	0	1417	0	0	0	0	0	0	0	0	0	0	0
223		Kavalam	13	4136			471							1.1	0.9	0.9	0	0
224		Kodamthuruth	15	6055	80	20	268	75	25	30	100	0	0	0	0	0	0	0
225		Krishnapuram	17	7055	0	0	425	0	0	0	0	0	0	0	0	0	0	0
226		Kumarapuram	15															
227		Kuthiathode	16	5400	97	6	372	0	0	0	0	0	0	0	0	0	0	0
228		Mannanchery	23															
229		Mannar	18	7566	90	0	592	53	0	23	1	0	0	4 T	3T	3T	0	0
230		Mararikulam North	18	8375	100	0	469	0	100	1	1664	2	0	0	0	0	0	0
231		Mararikulam south	23	15938	95	0	2437	401	0	76	83	0	0	0	0	0	0	0
232		Mavelikara Thamarakulam	17	8953	59	0	2883	0	5	0	0	0	0	0	0	0	0	0
233		Mavelikara Thekkekara	19	11661	40		1653		9	0	0	0	0					
234		Muhamma	18	7777	50	0	10	70	0	70	50	5	50	1000kg	782kg	0	7395kg	0

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235		Mulakkuzha	18	8370	100	0	360	0	0	0	0	0	0	1.5	320kg	320kg	0	0
236		Muthukulam	15	8401	0	0	30	0	0	0	0	0	0	0	0	0	0	0
237		Mannar	13	3884	100	100	239	0	0	100	100	0	0	0.05T	0	0	0	0
238		Nedumudy	15	5186	0	0	1578	0	0	1	32	0	0	1.2 T	0.8T	0	0	0
239		Neelamperoor	13	3841	100	0	460	0	0	0	0	0	0					
240		Nooranad	17	9328	70	0	469	88	0	0	0	0	0	0	260KG/	0	0	0
241		Palamel	19	8546	89	0	502	0	0	0	0	0	0	1.3 T	1.4 T	1.4T	0	0
242		Pallippad	13	6029	80	0	573	10	0	95	98	0	0	2T	1.33T	1.33T	0	0
243		Panavally	18	7283	8	0	632	50	0	55	0	0	0	0	0	0	0	0
244		Pandanad	13	3946	0	0	110	0	0	0	0	0	0					
245		Pathiyoor	19	11953	100	0	1249	100	0	1	1	0	0	0.000331	0.0002	0.0002	0	0
246		Pattanakkad	19	11005	100	0	2400	100	0	100	100	0	0	1.5	0	0	0	0
247		Perumbalam																
248		Pulincunnu	19	5389	0	0	185	0	0	0	0	0	0	2.5T	2.5T	2.5T	0	0
249		Puliyoor	13	6612	0	0	158	75	0	23	12	0	0	3T	2T	1.5T	0	0
250		Punnapra north	17	8669	0	0	323	0	0	100	100	0	0					
251		Punnapra south	17	8560	0	0	346	0	0	0	0	0	0					
252		Purakkad	18	9354	20	0	1139	0	0	10	1	0	0	0.01	0.001	0	0	0
253		Ramankary	13	3959	30	0	506	0	0	100	100	0	0	989.75kg	0	0	0	0
254		Thakazhy																
255		Thalavady	15	7210	0	0	247	0	0	98	98	0	0	1200kg	1000kg	0	0	0
256		Thannermukkom	23	10203	40	0	396	50	0	30	100	0	0	0.02	0	0	0	0.003
257		Thazhakkara	21	12128	30	0	2141	0	0	3	0	0	0	0	0	0	0	0
258		Thiruvanvandoor	13	4686	0	0	216	0	0	15	0.32	0	0	0	0	0	0	0
259		Thrikkunnappuzha	17	7273	63	0	263	43	0	2	2	0	0	00KG/MONT	00KG/MONT	00KG/MONT	0	0
260		Thuravoor	18	8707														
261		Thykattussery	15	5928	30	0	928	40	0	15	15	0	0	1800KG/m	1000kg	0	0	0
262		Vallikunnam	18	9679	20	0	1919	20	0	20	20	0	0	3	2	0	0	0
263		Vayalar	16	3817	0	0	218	0	0	15	28	0	0	0	0	0	0	0
264		Veeyapuram	13	3678	0	0	212	0	0	0	0	0	0	0	0	0	0	0
265		Veliyanad	13	3680	0	0	246	0	0	0	0	0	0	0	0	0	0	0
266		Venmony	15	7453	0	0	534	6	0	0	0	0	0	1500kg/m	1000kg/m	1000kg/m	0	0
267	K	Akalakunnam	15	5580	436	74	0	70	0	67	64	0	0	2160 kg	2160 kg	2160kg	40 kg	130 kg
268	O	Arpookara	16	6214	362	50	0	45	0	92	0	0	0	1400	0	0	1400	0
269	T	Athirampuzha	22	12380	2608	70	0	38	0	6	3	16	5	3 ton	0	0	550kg	0
270	T	Ayarkunnam	20	10445	1102	69	49	609	424	3	4	0	0	1579 kg	1579 kg	1579 kg	33 kg	110 kg
271	A	Aymanam	20	10523	1150	100	0	71	0	13	10	0	0	3230 kg	3230 kg	3230 kg	115 kg	0
272	Y	Bharananganam	13	3840														
273	A	Chempu	15	6240	1444	73	0	49	0	13	4	0	0	2230Kg	2230Kg	2230 KG	450 Kg	0
274	M	chirakkadavu	20	10986	3122	100	0	81	0	100	81	0	0	2000	2000	2000	0	0
275		Elikulam	16	7790	370	40	0	72	0	40	72	0	0	240KGS	205KGS	35KGS	0	0
276		Erumely	23	16843	2302	5	0	15	0	28	15	0	0	250	305kg	68	6500kg	2500kg
277		Kadanad	14	5717	1482	0	0	0	0	0	0	0	0	220	0	0	0	0
278		Kadaplamattom	13	3317	198	100	0	100	0	100	100	0	0	100kg	75kg	75 kg	0	0
279		Kaduthuruthy	19	10336		55	0			25		0		3330	390	3330	0	330
280		Kallara (Vaikom)	13	3905	234	85	0	100	0	90	90	0	0	0.039	0.039	0.039	0	0
281		Kanakkary	15	7567	284	25	0	53	0	8	10	0	0	101kg	75kg	75kg	0	0
282		Kangazha	15	6383	117	45	0	30	0	35	70	0	0	0.5	0.5	0.5	0	0
283		Kanjirappilly	23	12478	3000	85	0	75	0	85	75	0	0	0.6	60 kg	0	0	0
284		Karoor	15	7119	35	32	0	14	0	100	100	0	0	0.15	0.15	0.15	0	0

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285		Karukachal	16	8040	1093	0	0	0	0	0	0	0	0					
286		Kidangoor	15	6686	512	67	0	29	1	15	3	67	30	2	1	0.5	0.5	0
287		Kooroppada	17	8333	241	0	0	0	0	24	17	0	0	3	0	0	0	0
288		Koottickal	13	3363	739		0		0	0	0	93	42	3	0	0	2	0
289		Koruthodu	13	4803	475	71	71	23	23	14	100	0	0	40	28	0	0	0
290		Kozhuvanal	13	4103	256	0	0	0	0	2	1	0	0	2.8	0	0	1.2	0
291		Kumarakom	16	6472	8714	29	0	0	0	4	0	0	0	0	0	0	0	0
292		Kuravilangad	14	3831	1329	60	0	15	0	73	2	0	0	2	2	0	0	0
293		Kurichi	20	10600	348	42	0	29	0	1	2	0	0	3.1	0.2	0	0.1	0
294		Madappally	20	10718	1100	70	0	70	0	30	10	0	0	1.45	1.01	0	0	0
295		Manarcad	17	9331	824	100	0	100	0	0	100	100	0	110 KG	60 KG	60 KG	0	0
296		Manimala	15	3430	50	6	0	60	0	0	30	0	0	0.41	0.21	0	0	0
297		Manjoor	18	8210	1608	100	0	100	0	1	2	0	2	420	220	220	100	25
298		Marangattupilly	14	5264	1107	64	0	18	0	1	2	0	1					
299		Maravanthuruth	15	3499	243	90	0	35	0	90	75	0	0	1000kg	400kg	400kg	0	0
300		Meenachil	13	4800	402	100	0	100	0	4	14	0	0	337	270	270	0	0
301		Meenadom	13	4161	524	90	0	33	0	90	3	0	0	0.066	0.066	0	0	0
302		Melukavu	13	3700	69	84	0	62	0	0	62	0	0	110	60	60	20	0
303		Moonnilavu	13	2973	160	96	0	98	0	0	98	0	0	90Kg	90Kg	90Kg	0	0
304		Mulakulam	17	7250	322	8	0	10	0	40	10	0	0	50kg	25kg	25kg	0	0
305		Mundakayam	21	11901	700	3	0	100	0	89	100	0	0	0.1	0.1	0	0	0
306		Mutholy	13	3245	1718	62	0	27	0	0	0	0	0	0.2	0.1	0	0	0
307		Nedumkunnam	15	6922	1241	46	0	26	0	46	26	0	0	1840 kg	1840 kg	1840 kg	0	0
308		Neendoor	15	6902	702	9	0	100	0	43	90	0	0	0.1	0.1	0	0.1	0
309		Neezhoor	14	4732	342	0	0	4	0	49	2	2	8	2.7	0.45	0.45	1.4	0
310		Paippad	16	7766	1245	66	0	73	0	0	0	0	0					
311		Pallickathodu	13	3649	1472	50	0	24	0	20	0	0	0	1200 KG	1200 KG	0	0	0
312		Pampady	20	10780	2822	40	0	7	0	17	0	0	0	3.66	3.66	0	0	0
313		Panachikad	23	12190	899	29	0	11	0	12	0	0	0			0	0	0
314		Parathodu	19	11438	371	31	0	27	0	17	0	0	0					
315		Poonjar	13	3966	690	100	0	100	0	48	1	0	0	12.165	12.165	0	0	0
316		Poonjar Thekkekkara	14	5426	1077	90	0	100	0	30	33	0	0	1500kg	62Kg	0	0	0
317		Puthuppally	18	7630	1510	0	0	0	0	40	42	0	0	0.75	0.15	0	0	0
318		Ramapuram	18	9285	1132	11	0	18	0	5	13	0	0	350	75	0	0	0
319		T.V. Puram	14	6161	139	90	90	66	66	0	0	90	65	3.224	0	0	1.24	
320		Teekoy	13	3636	424	70	0	35	0	0	0	0	0	0.640	0	0	0	0
321		Thalanadu	13	2230	73	43	0	27	0	0	18	0	0	0	0	0	0	0
322		Thalappalam	13	3935	872	82	0	31	0	18	27	0	0	0.356	0	0	0	0
323		Thalayazham	15	4900	158	100	0	100	0	2	0	0	0	3.7 ton	3.7	0	0	0
324		Thalayolaparambu	15	8377	630	42	0	100	37	0	9	0	0	0.01	0	0	0.01	0
325		Thidanad	14	6511	838	75	0	18	0	20	15	0	0	.77 Ton	.77 Ton	0	0	0
326		Thiruvarppu	18	8663	321	70	0	67	0	5	27	0	0	.5 Ton	.5 Ton	0	0	0
327		Thrikkodithanam	20	11273	1300	0	0	12	0	0	0	0	0	.4 TON	.4 TON	0	0	0
328		Udayanapuram G P	17	8462	64	50	0	18	0	10	5	0	0	3000 KG	3 TON	0	0	0
329		Uzhavoor	13	3216	205	16	0	13	0	4	10	0	13	0.8	0.3	0.3	0	0
330		Vakathanam	20	10500	1400	60	0	40	0	45	15	0	0	0.3	2.5	0.3	0.1	0
331		Vazhappally	21	11900	1400	70	0	65	0	30	10	0	0	1.84	0.98	0.3	0	0
332		Vazhoor	16	8384	517	100	0	100	0	15	14	0	0	0.5	0.3	0	0.25	0
333		Vechoor	13	5461	847	58	0	30	0	35	15	0	0	0.4	0.3	0.3	0.1	0

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334		Veliyannoor	13	3846	436	72	0	5	0	75	80	0	0	0.25	0.05	0.3	0.02	0.075
335		Velizvoor	13	6265	918	20	0	7	0	3	0	0	0	0.01	0.02	0.03	0	0
336		Velloor	16	6184	946	73	0	32	0	0	0	0	0	0.8	0.4	0	0	0
337		Vijayapuram	19	10741	1129	85	0	5	0	4	0	83	0	0.2	0.2	0.2	0	0
338	I	Adimaly	21	10363	1140	92	5	95	20	70	80	25	25	30	5	5	1	0
339	D	Alakode	13	2660	76	85	0	82	0	25	50	0	0	1	0.1	0.1	1	0.5
340	U	Arakulam	13	6445	182	25	0	32	0	75	68	25	32	1.5	0.5	0.5	0	1
341	K	Ayyappancoil	13	4993	92	10	0	27	0	12	8	25	22	0.5	0.1	0.1	0	0
342	K	Bison valley	13	2853	168	18	0	31	0	34	29	43	24	1.5	0.5	0.5	0	0
343	I	Chakkupallam	13	7120	407	0	0	80	0	29	0	24	78	2.5	2.5	2	0	0
344		Chinnakanal	13	4632	923	72	0		0	18	65	62	25	1.5	0.75	0.75	0	0
345		Devikulam	18	7896	108	40	0	70	0	75	75	85	80	0.4	0.2	0.3	0	0
346		Edamalakudy	13	764	19	0	0	0	0	1	16	25	20	0	0	0	0	0
347		Edavetty	13	5316	763	89	0	48	0	23	22	0	0	4.37	4.18	4.18	1.67	0
348		Elappara	17	8160	950	80	0	85	23	65	50	30	80	3.5	3.1	3.1	2.5	0.2
349		Erattayar	14	4695	492	80	0	75	0	50	25	100	100	1.3	0.5	0.5	0	0
350		Idukki Kanjikuzhy	18	10560	320	65	0	0	0	50	75	60	60	3.1	1	1	0	0
351		Kamakshy	15	6234	450	80	0	75	0	90	60	0	0	4	4	3.5	0	0
352		Kanchiyar	16	6718	962	85	0	80	0	20	10	65	0	6.7	1.9	1.9	0	0
353		Kanthalloor	13	4680	0	75	0	100	100	75	75	100	25	1.39	0.5	0.5	0.5	0
354		Karimanoor	14	5064	768	70	0	75	0	50	50	0	0	0.6	0.3	0.2	0.2	0
355		Karimkunnam	13	4133	301	0	0	63	0	50	50	0	0	0.43	0.43	0.43	0.84	0
356		Karunapuram	17	8107	1054	85	0	65	0	80	75	0	0	6.5	4.5	4.5	2	0
357		Kodikulam	13	3984	117	92	0	90	0	38	60	0	0	3.89	2.95	2.95	0	0
358		Kokkayar	13	4728	133	95	0	92	0	30	65	0	0	3.65	2.3	0.6	0	0
359		Konyarhady	19	8730	650	85	0	80	90	87	72	23	32	1.5	0.5	0.3	0	1
360		Kudayathoor	13	3456	163	30	0	68	0	35	20	0	0	3.9	2	2	0	0
361		Kumarumangalam	13	4512	122	30	0	20	0	40	40	0	0	3	1.5	1.5	0.5	0.25
362		Kumily	20	11850	2280	95	13	96	95	87	4	13	95	4	4	3.9	3.5	3.5
363		Manakkad	13	4739	138	94	0	40	0	45	25	0	0	4.53	2.45	2.45	2	2
364		Mankulam	13	4589	632	68	0	74	0	64	48	74	0	3.219	0.012	0.012	0	0
365		Marayoor	13	4650	0	28	0	100	100	75	75	100	75	1.38	0.5	0.5	0.5	0
366		Mariyapuram	13	3592	15	0	0	100	0	98	60	0	90	0.9	0.6	0.3	0.15	0
367		Munnar	21	9107	3132	70	0	90	70	100	100	40	0	44485	44485	44485	6	4
368		Muttom	13	2563	2300	75	0	90	0	60	50	50	50	2.1	0.5	0.6	0.2	0
369		Nedumkandam	22	13133	10361	75	0	90	0	25	10	0	90	13.31				
370		Pallivasal	14	5800	1200	70	0	65	0	70	50	60	75	1.26	0.5	0.5	2	0.2
371		Pampadumpara	16	6832	150	70	0	70	0	75	75	20	20	0.35				
372		Peermade	17	9099	1423	100	0	83	0	30	15	85	85	1.5	1.5	1.5	0	0
373		Peruvanthanam	14	4242	1630	0	0	75	0	30	35	60	25	2	1.5	0.9	0.5	0
374		Purapuzha	13	3170	414	100	0	70	0	50	30	100	70	0.33	0.33	0.33	7.4	0
375		Rajakad	13	3819	880	85	85	85	80	75	75	100	80	0.49	0.49	0.49	0.49	0.49
376		Rajakumary	13	6052	250	75	75	90	0	70	75	50	50	0.68	0.68	0.68	0.68	0.68
377		Santhanpara	13	4845	170	95	0	100	90	81	80	91	91	4.69	4.26	4.26	0.6	0
378		Senapathy	13	4300	150	78	0	100	84	80	72	74	74	3.39	2.75	2.75	0.8	0
379		Udumbanchola	14	7607	248	0	0	75	0	90	80	50	50	0.4	0.2	0.2	0.2	0
380		Udumbannoor	16	6254	1115	60	60	70	70	40	70	60	60	0.5	0.3	0.15	0.15	0
381		Upputhara	18	8184	1211	0	0	100	0	98	60	60	90	0.9	0.6	0.3	0.15	0
382		Vandanmedu	18	10373	1509	0	11	0	5	85	96	3	3	0.17	0.6	0.6	0.6	0.2
383		Vandiperiyar	23	13969	1011	0	60	80	60	40	70	70	70	5	5	3	3	3

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384		Vannappuram	17	11001	1123	30	0	50	0	25	20	0	0	3.3	1.1	1.1	0	0
385		Varkkudy	18	10194	1412	50	0	70	0	68	10	0	0	9.79	0.1	1.1	0	0
386		Vattavada	13	2747	198	51	0	60	0	0	20	0	0	0.1	0.1	0.1	0.1	0.1
387		Vazhathope	14	4500	450	55	0	64	0	60	25	75	0	1.1	1.1	1.1	0	0
388		Vellathooval	17	8448	1072	93	0	62	0	53	85	0	0	7.89	4.1	4.1	0.1	0
389		Veliyanattom	15	6970	1003	75	0	85	0	83	79	0	0	0.1	0.1	0.1	0.1	0.1

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390	E R N A K U L A M	Akkaranadu	14	7889	1649	34	0			0	0	0	0	5.02	0.5	0.5	0	0
391		Alengadu	21	16317	920	60	0	80	0	10	10	0	0	4.12	0	0	0	0
392		Ambalur	16	8454	1690	19	0	12	0	8	1	0	4	0.06	0.0012		0.00036	0.00012
393		Arakuzha	13	4965	189	0	0	0	0	0	0	0	0	0	0	0	0	0
394		Asamannur	14	6329	150	8	0	0	0	8	400	0	0	0	0	0	0	0
395		Avoli	14	6404	1038	0	0	0	0	1	10	0	0	0	0	0	0	0
396		Ayyana	14	6021	588	0	0	0	0	0	0	0	0	0	0	0	0	0
397		Ayyampuzha	13	9706	668	0	0	0	0	10	35	0	0	0	0	0	0	0
398		Chellanam	21	10535	62	0	0	0	0	0	0	0	0	0	0	0	0	0
399		Chendamangalam	18	9665	1108	36	0	4	0	49	19	0	0	6.3	6.3	6.3	0	0
400		Chengamanad	18	10566	468	100	0	64	0	95	75	0	0	6.99	6.99	6.99	0	0
401		Cheranallur	17	10832	568	74	0	67	0	74	67	0	67	3.7	3.7	3.7	0	0
402		Chittattukara	18	9583	412	16	0	0	0	99	58	0	0	4.5	3	1	0	0
403		Choornikkara	18	10805	1996	75	0	0	0	0	0	0	0	9 TDP	9TDP	9TDP	0	
404		Chottanikkara	14	9097	480	92	0	88	0	95	88	3	88	4.3 TPD	4.3 TPD	4.3 TPD	0	0
405		Edakkattuvayal	14	6133	900	49	0	100	0	49	44	0	0	7 TPD	7 TPD	7 TPD	0	0
406		Edathala	21	17007	4154	59	0	91	0	22	45	0	0	3.5	0	0	0	0
407		Edavanakkadu	13	6346	954	75	0	100	0	0	0	0	0	6	3	3	0	0
408		Elamkunnapuzha	23	15479	1562	95	0	100	0	23	42	0	0	7	4	4	0	0
409		Elanji	13	5552	127	64	0	100	0	100	100	0	0					
410		Eloor	14	6162	196	69	0	100	0	100	100	0	0	0	0	0	0	0
411		Kadamakkudi	13	4021	619	0	0	0	0	0	0	0	0					
412		Kadungalloor	21	16221	5505	0	0	0	0	0	0	0	0					
413		Kalady	17	9733	2512	82	0	0	0	12	4	0	0	7.06	1.6	0.9	0.5	0.5
414		Kalloorkadu	15	7511	320		0		0	2	6	0	0					
415		Kanjoor	13	4192	242	0	0	0	0	9	14	0	0	0	0	0	0	0
416		Karukutty	17	9699	2666	0	0	0	0	0	0	0	0	0	0	0	0	0
417		Karumaloor	20	11253	1215	0	0	0	0	1	2	0	0	0	0	0	0	0
418		Kavalangad	18	9880	1770	0	0	0	0	0	0	0	0	0	0	0	0	0
419		Keerambara	13	4106	720	0	0	0	0	0	0	0	0	NOT ASSESSED	0	0	0	0
420		Kizhakkambalam	19	12788	716		0		0	1	21	0	0	No data available	0		0	0
421		Kizhakkambalam	19	9253	539	0	0	0	0	0	0	0	0					
422		Kottappadi	13	6172	685	0	0	0	0	100	100	0	0	0	0	0	0	0
423		Kottuvalli	22	14573	2103	30	0	0	0	86	1	0	0	0	0	0	0	0
424		Kumbalam	18	10129	1725	0	0	0	0	4	5	0	0	7.2	0	0	0	0
425		Kumbalangi	17	8719	1430	100	0	90	0	100	90	0	0	not estimated	not estimated	0	0	0
426		Kunnathunadu	18	12419	3940	23	0	0	0	4	0	0	0	0.5	0	0	0	0
427		Kunnukara	15	6300	250	54		60		46	40							
428		Kuttambuzha	17		220			0	0		0		0	0	0	0	0	0
429		Kuvappady	20	12123	0	10	0			3		0						
430		Kuzhuppilli	13	3015	185	34	0	51	0	0	0	0	0	0	0	0	0	0
431		Malayattoor - Neeleswaram	17	8386	971	0	0	0	0	0	0	0	0	0	0	0	0	0
432		Manjalloor	13	5048	219	0	0	0	0	0	0	0	0	0	0	0	0	0
433		Manjapra	13	5253	1585	81	19	0	0	0	0	0	0	0	0	0	0	0
434		Manjapra	13	3857	173	0	0	0	0	4	0	0	0	17TPD	0	0	0	0
435		Marady	19	10995	72	0	0	0	0	0	0	0	0	0.05	0.001	0.001	NIL	NIL
436		Mazhuvannur	14	6490	353	0	0	0	0	0	0	0	0	nil	nil	nil	0	nil

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437		Mookkannur	14	5334	200	0	0	0	0	0	0	0	0	nil	nil	nil	0	0
438		Mudakkuzha	13	7386	700	0	0	0		0	0	0	0	100KG	0	0	0	0
439		Mutanthurathi	16	7728	11	0	0	0	0	0	0							
440		Mukundakadu	16	5479	1105	0	0	0	0	0	0	0	0					
441		Narayambalam	19	12509	3522	37	0	10	0	0	0	0	0					
442		Nedumbassery	21	12271	0	0	0			0		0		24	0.5	0.5	0	0
443		Nellikkuzhi	16	7801		0	0			0		0		0	0	0	0	0
444		Njarakkal	16	7957	3974	0	0	0	0	0	0	0	0	0	0	0	0	0
445		Okkal	16	4780	2	0	0	0	0	0	0	0	0	0	0	0	0	0
446		Paingottur	13	4900	135	76	0	100	0	0	0	0	0	0	0	0	0	0
447		Palakkuzha	13	5050	1317	0	0	0	0	0	0	0	0	0	0	0	0	0
448		Pallarimangalam	23	13549	1141	75	0	70	0	92	90	0	0				0	0
449		Pallipuram	23	13549	1141	75	0	70	0	92	90	0	0	11	0.01	0	0	0
450		Panthalkkuda	18	9660	3022		0		0	71	93	0	0	1	4.9			
451		Perakadavu	22	11745	315	0	0	0	0	98	1587	0	0					
452		Perumpa	13	6129	588	0	0	0	0	100	100	0	0					
453		Pindimana	14	7649	3107	34	0	6	0	100	100	0	0					
454		Porkkilikka	13	6453	1814	12	0	8	0	12	0	0	0	2219 KG	2219 KG	1780 KG	0	0
455		Puthanikadu	13	3687	750	23	0	17	0	20	0	0	0	100kg/day	0	0	0	0
456		Puthenvelikara	17	9932	436	0	0	0	0	0	0	0	0	Not Estimated	Not	0	0	0
457		Ramamangalam	20	12715	1200	40	0	7		8	46	0	0	3TPD	3TPD	0	3tpd	0
458		Rayamangalam	16	6000	2000	25	20	3		14	3	0	0					
459		Sreenoola Nagaram	16	5769	250	0	0	0	0	0	0	0	0	0	0	0	0	0
460		Thirunaradi	13	7825	606	45	0	34	0	0	0	0	0	0	0	0	0	0
461		Thiruvaniyur	14	7572	1854					10	10	0	0	1 tpd	0	0	0	0
462		Thuravur	20	15375	365		0			0	0	0	0		175KG	0	0	0
463		Udayamperoor	20	10022	1586		0			0	0	0	0					
464		Vadakkekkara	17	9549	1789					4	11	0	0					
465		Vadavukodu-Puthankurisu	14	6174	1628	0	0	0	0	0	0	0	0					
[illegible]		[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]
467		Varapetti	13	6087	771	0	0			0	0	0	0	0.07	0.07	0	0	0
468		Varappuzha	16	9275	1858	0	0	0	0	0	0	0	0	0	0	0	0	0
469		Vazhakkulam	20	17202	788	0	0			0	0	0	0	1	1	0	0	0
470		Vengola	23	17853	850	0	0	0	0	78	71	0	0	3	0	0	0	0
471		Vengoor	15	5855	775	0	0			0	0	0	0	10	10	0	0	

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472	T	Adat	18	8480	1154	0	0	17	0	0	0	0	0	2	3	3	0	0
473	H	Alagaramnagar	17	9749	1917.0	0	0	0	0	13	8	0	0	2	0	0	0	0
474	R	Alnor	23	17500	1700	0	0	0	0	0	0	0	0	1 ton	1/2 ton	0	0	0
475	I	Annamanada	18	10499	2666	0	0	0	0	14	0	0	0	0	0	0	0	0
476	S	Avittikad	15	6922	1160	0	0	0	0	7	0	0	0					
477	S	Azhoor	17	10495	69	0	0	0	0	19	0	0	0	3 ton	2 ton	nil	0	0
478	U R	Athirappilly	13	3604	967	0	0	0	0	0	0	0	0	Not estimated	Not Estimated	0	0	0
479		Avanur	15	8062	373	25	0	5	0	2	0	0	0	8	0	0	0	0
480		Avinissery	14	6213	521	0	0	89	0	3	0	0	0	0	0	0	0	0
481		Chazhur	18	7956	7956	100	0	100	0	0	0	0	0	0	0	0	0	0
482		Chelakkara	22	13745	2921	23	0	3	0	0	0	0	0	0	0	0	0	0
483		Cherpu	21	11176	2136	72	0	0	0	1	0	0	0	not estimated	not estimated	not	not estimated	not estimated
484		Choondal	18	10449	3097	0	0	0	0	0	0	0	0	0	0	0	0	0
485		Chowannur	13	5251	919	0	0	0	0	0	0	0	0	0	0	0	0	0
486		Desamangalam	15	7139		0	0	0	0	0		0		0	0	0	0	0
487		Edathiruthy	18	8642	783	0	0	0	0	0	0	0	0	0	0	0	0	0
488		Edavilangu	14	6469	1363	100	0	0	0	0	0	0	0	0	0	0	0	0
489		Elavally	16	8513	1941	70	0	30	0	0	0	0	0	1 ton	1 ton	0	0	0
490		Engandiyur	16	7781	1515	72	0	30	0	0	1	0	0	not estimated	not estimated	not	not estimated	not estimated
491		Eriyad	23	14585	2704	0	0	0	0	0	0	0	0	0	0	0	0	0
492		Erumapetty	18	7420	3920	0	0	0	0	0	0	0	0	0	0	0	0	0
493		Kadangode	18	8581	2696	0	0	0	0	0	0	0	0	0	0	0	0	0
494		Kadappuram	16	6830	901	0	0	0	0	0	0	0	0	0	0	0	0	0
495		Kadavallur	20	9254	1232	0	0	0	0	0	0	0	0	0	0	0	0	0
496		Kadukutty	16	8276	1173	0	0	0	0	0	0	0	0	0	0	0	0	0
497		Kaipamangalam	20	10800	960	50	0	5	0	0	0	0	0	0	0	0	0	0
498		Kaipamba	18	8409	818	36	0	6	0	0	0	0	0	not estimated	0	0	0	0
499		Kandassamy	16	7791	1487	0	0	0	0	0	0	0	0	not estimated	0	0	0	0
500		Karalam	15	6486	839	0	0	21	0	95	25	0	0	0.2	0.2	0.2	0	0
501		Karukampal	16	8500	700	0	0	0	0	0	0	0	0	0	0	0	0	0
502		Kattoor	16	5975	1479	20	0	5	0	0	0	0	0	0	0	not est	0	0
503		Kechikara	19	10871	3016	29	0	0	0	0	17	0	0	9.6 tons	6.7 tons	6.7 tons	0.5 ton	0
504		Kechissery	20	11343		0	0			0		0		0	0	0	0	0
505		Kolazhy	17	11845	1135	0	0	0	0	0	0	0	0	not estimated	not estimated	not estimated	not estimated	not estimated
506		Kondazhy	15	6764	972	0	0	0	0	0	0	0	0	0	0	0	0	0
507		Koratty	19	10989	610	0	0	0	0	0	0	0	0	0	0	0	0	0
508		Kuzhur	14	6510	908	0	0	0	0	0	0	0	0	not estimated	0	0	0	0
509		Madakkathara	16	8860	1562	40	0	52	0	10	0	0	0	2.05 TON	2.05 TON	2.05 TON	0.25TON	1 TON
510		Mala	20	11856	4446	0	0	0	0	0	0	0	0	0	0	0	0	0
511		Manalur	19	9487	2312	100		100		100	100	90		9.86TON	9.86TON	9.86TON	05. TON	0
512		MATHILAKAM	17	7565	588	0	0	0	0	0	0	0	0	0	0	0	0	0
513		Mattathur	23	16245	2731	0	0	0	0	0	0	0	0	4.9 ton	4.9 ton	4.9 ton	0	0
514		Melpur	17	6888		0	0			0		0		200kg	0	200kg	0	0
515		Melukumathukavu	14	7053		0	0			0		0		Mulankunnat hukavu	0	0	0	0
516		Mullassery	15	6753	413	67	0	0	0	0	0	0	0	0.002	0.002	0	0	0
517		Mullarkkara	60	5927	1383	36	0	4	0	0	0	0	0	0	0	0	0	0
518		Muriyad	17	9633	1180	100	1		100	0	0	0	0					

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519		Nadathara	17	10032	1658	100	0			100	50	100	50	2000Kg	2000Kg	2000Kg	1000Kg	500Kg
520		Nattika	14	6373	2514	84	0	11	0	60	45	0	0	2 ton	1 ton	0	0	0
521		Nenmenikkara	15	6745	1815	22	0	8	1	0	0	0	0	NA	NA	0	0	NA
522		Orumanayur	13	3035	249	0	0	0	0	0	0	0	0	NA	NA	NA	NA	NA
523		Pallyoor	14	6323	902	0	0	0	0	0	0	0	0	NA	NA	NA	NA	NA
524		Panancherry	23	15443	3231	0	0	0	0	0	0	0	0					
525		Panjal	16	8250	1175	0	0	0	0	0	0	0	0	0	0	NA	NA	NA
526		Panalam	15	6065		6	0			0		0						
527		Parappukkara	18	9758	1789	90	0	31	0	0	31	0	0	0.5Ton	0.5Ton	0	0	0
528		Pariyaram	15	5406	8916	0	0	0	0	0	0	0	0	NA	NA	NA	NA	NA
529		Pavaratty	13	6755	1775	0	0	0	0	0	0	0	0	NA	NA	NA	NA	NA
530		Pazhayannur	22	13680	516	45	45	90	87	0	0	0	0	Not estimated	Not	Not	NA	NA
531		Perinjanam	15	6883	650	100		100		100	100							
532		Poomangalam	13	4336		0	0			0		0		Not estimated	Not	Not	Not estimated	NA
533		Porkulam	13	5471		0	0			0		0						
534		Poyya	15	7682		0	0			0		0						
535		Puzhakal	15	7635	565	0	0	0	0	0	0	0	0	Not estimated	Not	Not	Not estimated	Not estimated
536		Punnayurkulam	19	9516	2040	0	0	0	0	0	0	0	0	324	324	324	0	0
537		Punnayur	20	9972	2128	0	0	0	0	0	0	0	0	615	615	615	0	0
538		Puzherchira	15	16797	1107	0	0	0	0	0	0	0	0	115 ton	115	115	0	0
539		Puthur	23	13268	3186	9	0	2	0	0	0	0	0	55	10	0.1	0	0
540		Sreenarayanapuram	21	12471	2857	30	0	50	0	0	0	0	0	0.2	0.15	0	0	0
541		Talikulam	16	8164	420	29	0	100	0	0	0	0	0	50	30	30	0	0
542		Thanniyam	18	9782	5900	51	0	100	0	0	0	0	0	20 ton	20	20	0	0
543		Thekkumkara	18											TTON/DAY	0	5/TON	0	0
544		Thiruvilwamala	17	NA	NA													
545		Thrithur	13	4388	30	0	0	83	0	0	0	0	0			20	na	na
546		Thykkur	17	8552	1280	50	0	26	0	80	75	0	0	0.2	0.2	0.2	0	0
547		Vadakkekad	16	8320	980	0	0	5	0	0	0	0	0	0	0	0	na	na
548		Valapad	20	10127	1787	4	0	0	0	1	1	0	0	not estimated	not estimated	not estimated	na	na
549		Vallachira	14	7320	670	0	0	0	0	0	0	0	0	0.05	0.04	0.04	0	0
550		Vallathol nagar	16	6378	1331	60	0	2	0	0	0	0	0	not estimated	not estimated	not estimated	0	0
551		Varandarappilly	22	13900	2601	0	0	0	0	5	0	0	0	not estimated	not estimated	not estimated	na	na
552		Vavvoor	14	6451	911	0	0	0	0	0	0	0	0	not estimated	not estimated	not estimated	na	na
553		Vatanappally	18	7625	1236	8	0	2	0	0	0	0	0	not estimated	not estimated	not estimated	0	0
554		Velanganur	21	12510	710	0	0	0	0	0	0	0	0	not estimated	not estimated	not estimated	0	0
555		Velukkara	18	8960	1766	0	0	0	0	6	1	0	0					
556		Velur	17	8430	1439	0	0	0	0	0	0	0	0	not estimated	not estimated	not estimated	0	0
557		Venkitangu	17															

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558	PALAKKAD	Agali	21	12739	2615	75	0	96	4	94	2	0	98					
559		Akathethara	17	9500	1892	45	0	2	0	48	2	0	0		3500 kg	500 kg/ mont	0	0
560		Alanallur	23	15185	4290	82	0	0	0	17	6	82	0	2140. kg	1400. kg	1400. kg	0	0
561		Alathur	16															
562		Ambalappara	20	12928	1432	87	0	0	0	0	29	0	0	6 Ton	6 Ton	Transported	0	0
563		Anakkara	16	7066	1401	70	0	0	0	0	0	0	0	0	0	0	0	0
564		Anangandi	15	7526	985	10	0	20	0	15	0	0	0	0	0	0	0	0
565		Ayilur	17	8327	1289	85	2	0	0	0	0	0	0	0	0	0	0	0
566		Chalavara	15	6860	1048	0	0	0	0	0	0	0	0	0	0	0	0	0
567		Chalissery	15	6550	1200	100	0	100	100	15	8	0	0	100	0	0	0	0
568		Elappully	22	11815	3016	70	64	60	47	0	0	0	0	1100 Kg	1000 Kg	850 Kg	0	0
569		Elavanchery	14	5235	235	0	0	0	0	0	0	0	0	0.15	0.1	0	0	0
570		Erimayur	19	9482	889	0	0	0	0	0	0	0	0	0	0	0	0	0
571		Eruthenpathy	14	5681	362	22	52	32	43	0	0	0	0	0.05	0.02	0.03	0	0
572		Kadampazhipuram	18	9872	2239	90	0	89	0	0	0	0	0					
573		Kanjirappuzha	19	9944	1959	0	0	0	0	0	2	0	0	0.03	0.03	0	0	0
574		Kavvadi	15	8063	1100	50	0	11	0	0	0	0	0					
575		Tarur	16	7784	44		0	0	0	0	1							
576		Kavassfira	16	7950	650	45	0	100	0	0	0	0	0	0.10 tonne	0.05 tone	0.05 tone	0	0
577		Kappur	18	8902	1759	0	0	0	0	0	0	0	0	0.45	0	0	0	0
578		Karakurussi	16	7417	1490	0	0	100	0	100	2	0	0	0.05	0.01	0.01	0	0
579		Karimba	17	8870	2049	70	0	97	0	0	0	0	0					
580		Karimpuzha	18	9835	268	64	64	100	4	0	2	0	0	0.5	0.5	0.5	0	0
581		Kavassery	17	8966	218	7	0	12	0	0	0	0	0					
582		keralassery	13	4861	238	0	0	0	0	0	0	0	0	0.03	0.03	0.03	0	0
583		Kizhekkancherry	22	13196	2238	69	0	67	0	0	1	0	0	0.04	0.04	0.04	0	0
584		Kodumbu	13	8182	1333	85	84	90	90	28	4	0	0	7 tonnes	6 tonnes	6 tonnes	0.2 tonnes	0
585		Koduvayur	18	10181	465	0	0	0	0	5	75	0	0	1.05 tonne	1.05 tonne	1.05 tonne	205 kg	0
586		Kollenkode	18	7346	1345	0	0	157	240	0	0	0	0	1500	1200	1200	200	0
587		Kongad	18	9300	1684	100	0	48	0	34	42	100	42	500	500	500	0	0
588		Koppam	17	9915	3482	100	0	41	0	0	0	0	0	0.05	0.05	0.05	0	0
589		Kottappadam	22	13171	2843	0	0	30	0	0	0	0	0	0.05	0.05	0.05	0	0
590		Kozhinjampara	18	9119	1735	0	0	0	0	0	0	0	0					
591		Kulukkallur	17	8572	1787	79	0	0	58	0	0	0	0	0	0	0	0	0
592		Kumaramputhur	18	8902	1832	81	0	0	60	0	0	0	0	0.05	0.05	0.05	0	0
593		Kuthanur	16	6896	824	0	0	0	0	0	0	0	0	0	0	0	0	0
594		Kuzhalmannam	17	8923	283	100	0	0	100	0	0	0	0	0	0	0	0	0
595		Lakkidi-Perur																
596		Malampuzha	13															
597		Mankara	14	7125	1220	75	0	25	0	0	0	0	0	0	0	0	0	0
598		Mannur	14	5925	1300	48	0	19	0	0	0	0	0	0	0	0	0	0
599		Marutharoad	19	11926	2101	50	0	0	0	0	0	0	0					
600		Mathur	18	7924	676	73	0	100	0	0	0	0	0	0	0	0	0	0
601		Melarkode	16	7043	0	0	0		0	0	0	0	0	0	0	0	0	0
602		Mundur	18	9597	1819	0	0	0	0	0	0	0	0	0	0	0	0	0
603		Muthalamada	20	9704	2110	0	0	0	0	0	0	0	0	0	0	0	0	0
604		Muthuthala	13	6945	175	100	0	100	0	18	42	0	0	539.25	323.55	323.55	200.15	100.5
605		Nagalassery	17	8507	590	100	0	100	0	41	23	0	0				0	0
606		Nallepilly	19	8095	448	100	0	100	0	0	0	0	0	0	0	0	0	0
607		Nelliaya	19	10587	0	0	0			0		0						

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609		Nellanpathy	13	950	97	100	0	100	0	0	0	0	0	0	0	0	0	0
610		Nemmara	20	11815	2449	97	0	5	0	7	2	0	0	180 KG	172 KG	172	0	0
611		Ongallur	22	12811	2161	99	0	5	0	0	0	0	0	700 kg	0	0	0	0
612		Pallassena	16	8433	268	93	0	17	0	6	0	0	0	0	0	0	0	0
613		Parali	20	10752	2069	0	0	0	0	0	0	0	0	0	0	0	0	0
614		Paruthur	16	6082	728	0	0	0	0	0	0	0	0	0	0	0	0	0
615		Pattanchery	16	8829	110	0	0	0	0	0	0	0	0	na	na	na	na	na
616		Pazhthara	18	9467	1784	0	0	0	0	4	7	0	0	0	0	0	0	0
617		Peruvaripi	18	9900	380	53	0	67	0	0	0	0	0	0	0	0	0	0
618		Perungottukurissi	16	9539		0	0			0		0						
619		Peruvemba	14	5757	700	0	0	0	0	0	0	0	0	500 kg	50kg	0	0	0
620		Pirayiri	21	13282	1959	0	0	0	0	0	0	0	0	1400 Kg	0	0	0	0
621		Polpully	13	5289	890	0	0	0	0	0	0	0	0	500 kg	0	0	0	0
622		Ponkotukavu	13	4561	489	0	0	54	0	0	0	0	0	NA	NA	NA	NA	NA
623		Pudukkode	15	6294	6	0	0	0	0	0	0	0	0	NA	NA	NA	NA	NA
624		Pudunagaram	13	4248	875	12	0	0	0	0	0	0	0	NA	NA	NA	NA	NA
625		Puduppariyaram	21	12062	21	0	0	0	0	0	0	0	2581					
626		Pudur																
627		Pudusseri	23	16896	4062	0	0	0	0	0	0	0	0	NA	NA	NA	NA	NA
628		Sholayur	14	6926	275	0	0	0	0	0	0	0	0					
629		Sreekrishnapuram	14	5280	350	100		100		96				539.25	323.55	323.55	100.13	100.3
630		Thachampara	15	5502	868	0	0	0	0	0	0	0	0					
631		Thachanattukara	16	6085	170	100	0	0	0	0	0	0	0	153.6	77.2	NA	NA	NA
632		Tharur	16	7784	181	50	0	0	0	6	0	0	50	3.8384 tone	3.8384 tone	3.8384 tone	0	0
633		Thenkara	17	8347	3064	0	0	0	0	0	0	0	0	0	0	0	0	0
634		Thenkurissi	17	8248	820	72	0	56	0	0	0	0	0	0	0	0	0	0
635		Thirumittakkode	18	8300	450	0	0	0	0	0	0	0	0	0	0	0	0	0
636		Thiruvegappura	18	8084	1185	0	0	0	0	0	0	0	0	0	0	0	0	0
637		Thrikkaderi	16	6698	279	0	0	0	0	0	0	0	0	0	0	0	0	0
638		Thrithala	17	8429	424	0	0	0	0	0	0	0	0	8 tone	7 tone	7 tone	0	0
639		Vadakarapathy	17	9066	912	20	0	20	0	5	10	0	0	1	0.25	0	0	0
640		Vadakkancheny	20	10160	829	3	0	29	16	30	20	0	0	4 tone	3 tone	1 tone		
641		Vadavannur	13	5074	980	0	0	0	0	0	0	0	0	0	0	0	0	0
642		Vallapuzha	16	8838	1347	0	0	0	0	0	0	0	0	0	0	0		
643		Vandazhi	19	10149	728	90	0	20	0	90	20	0	0	0	0	0	0	0
644		Veliyankulam	18	10199	815	0	0	0	0	23	74	0	0	3000kg	3000kg	3000	0	0
645		Velleezhi	13	5147	281	100	0	100	0	100	100	0	0	840	600	600	600	0
646		Vilayur	13	6953		0	0			92		0						

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647	MALAPPURAM	Alamkodu	19	11127	200	75	25	0	0	0	0	0	0					NIL
648		Aliparambu	21	11621	1982	0	0	0	0	0	0	0	0	0.05	0.05	0.05	NA	NA
649		Amarambalam	19	7841	604	100	0	100	0	0	0		0	0.045	0.045	0.045	0.045	Nil
650		Anakkayam	23	15424	305	100	0	100	0	0	0	0	0	0.05	0.05	0.05	0.05	Nil
651		Angadipuram	23	15220	4201	75	25	90	10	50	50	50	50	0.05	0.05	0.05	0.05	nil
652		Areekkode	18	8536	4718	0	0	0	0	13	18	0	0					
653		Athavanadu	22	12145	3512	0	0	0	0	18	22	0	0	0.04	0.04	0.25	0.15	NIL
654		Chaliyar	14	6361	367	100	0	100	0	12	82	0	2	0.02	0.02	0.02	0.02	0.02
655		Cheekkode	18											0.075	0.03	0.03	0.02	0.01
656		Chelambra	18	10601	1888	100	0	0	0	10	5	0	0	0.075	0.035	0.035	0.02	nil
657		Cheriyamundam	18	6540	420	100	0	100	0	0	0	0	0	0.035	0.035	0.035	0.02	0.02
658		Cherukavu	19	11042	426	100	0	100	0	0	0	0	0	0.045	0.045	nil	nil	nil
659		Chokkadu	18	9284	254	0	0	0	0	0	0	0	0	0	0	0	0	0
660		Chunkathara	20											0.09	0.09	0.09	0.09	nil
661		Edakkara	16	8675	486	73	0	55	0	9	45	0	1	0.055	0.055	0.055	0.055	0.055
662		Edappal	19	9438	3437	100	0	58	0	14	1	0	0	0.04	0.04	0.04	0.04	0.04
663		Edappatta	15	4990	110	22	0	18	0	27	1	0	0	0.036	0.036	0	0	0
664		Edarikkode	16	6500	NIL									0	0	0	0	0
665		Edavanna	22	11141	3978	92	0	75	0	18	6	0	0	0.06	0.06	0.06	0.06	0.06
666		Edayur	19	8706	1799	29	0	0	0	7	0			0.2	nil			
667		Elamkulam	16	7919	314	65	0	55	0	45	18	0	0	0.05	0.05	0.04	Nil	Nil
668		Irimbiliyam	17	8308	1733	0	0	0	0	8	0	0	0					
669		Kaladi	16	7529	1964	24	0	15	0	0	0	0	2	0.13	0.11	nil	nil	nil
670		Kalikavu	19	10292	470	0	0	0	0	48	10	0	0	0.005	0	0	0	0
671		Kalpakanchery	19	9844	3364	0	0	0	0	0	0	0	0	0.035	0.035	0.035	0	0
672		Kannamangalam	20	10141	2793	30	0	30	0	10	10	0	0	1	1.1	1.2	0	0
673		Karulai	15	5625	220	100	0	100	0	0	0	0	2	0.05	0.05	0.05	0.05	0.05
674		Karuvarakkund	21	9967	395	0	0	0	0					0	0	0	0	0
675		Kavanoor	19	9586	348	0	0	0	0									
676		Keezhattur	19	8387	1546	84	0	33	0	18	3	0	0	0.68	0.5	0.5	0	0
677		Keezhuparambu	14	6050	262	0	0	0	0	0	0	0	0	0	0	0	0	0
678		Kodoor	[illegible]	[illegible]	[illegible]	[illegible]	0	0	0	8	0	0	0					
679		Koottilangadi	19	10038	3274	100	0	100	0	0	0	0	0	0.035	0.035	0.035	0.035	NIL
680		Kuruva	22	13895	3813	60	0	70	0	10	10	0	0	0.04	0.04	0.04	0.04	0
681		Kuttippuram	23	17613	3568	65	0	75	0	35	70	0	0	0.045	0.045	0.045	0.045	0
682		Kuzhimanna	18	9400	342	60	0	60	0	40	40	0	0	0.025	0.025	0	0	0
683		Makkaraparambu	13	5861	394	100	0	100	0	0	0	0	0	0.2	0.2	0.2	0.2	0.013
684		Mambad	19	9850	220	0	0	0	0	8	0	0	0	0.3	0.3	0.3	0	0
685		Mangalam	20	7866	7866	100	324	324	100	61	46	0	0	0.02	0.02	0.02	0	0
686		Mankada	18	9845	200	0	0	100	0	91	100	0	0	0.1	0.1	0.1	0	0
687		Marakkara	20	7715	342					46	158			0.5	0.5	0.5	0.5	0
688		Maranchery	19	10699	2291	100	0	0	100	100	100	0	0	0.5	0.5	0.5	0.3	0
689		Melattur	16	8403	127	60	0	25	0	35	60	0	0	0.02	0.02	0.02	0.02	0
690		Moonniyur	23	14450	686	60	0	40	0	10	5	0	0	0.05	0.05	0.05	0	0
691		Moorkkanadu	19	8452	385	76	24	70	30	0	0	0	0	0.15	0.15	NIL	0.1	NIL
692		Morayur	18	8745	313	60	0	100	0	1	8	60	100	0.15	0.15		0.12	0
693		Muthedam	13	7145	204	100	24	100	0	24	0	0	0	0.1	0.1	0.1	0.05	0
694		Muthuvallur	13	6347	167	75	25	60	40	90	100	0	0	0.5	0.5	0.5	0.5	0
695		Nannambra	21	9100	3000	0	0	0	0	0	0	0	0	0.032	0.032	0	0	0
696		Nannamukku	17	6752	400	48	0	100	0	10	5	0	0	0.02	25	0	0	0

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697		Nemmenivilur	17	7969	1150	0	0	0	0	0	0	0	0	0.03	0	0	0	0
698		Orukam	17	7995	256	11	0	14	0	0	0	0	0	0.075	0.075	0.075	0	0
699		Othukkungal	20	10666	2844	50	0	100	0	90	90	90	90	0.055	0.02	0	0	0
700		Ottur	18	7996	232	30	0	40	0	20	60	0	0	0.025	0.02	0	0	0
701		Pallikkal	22	12642	4297	47	5	32	8	0	0	0	0	0.02	0	0	0	0
702		Pandikkad	23	13510	482	0	0	0	0	0	0	0	0	0.1	0	0	0	0
703		Parappur	19	9574	1919	0	5	0	0	0	0	0	0	0	0	0	0	0
704		Perumanna Klari	16	7553	2123	2	0	0	0	1	5	0	0	0	0	0	0	0
705		Perumpadappu	18	8127	1647	4	2	33	8	2	8	0	0	0	0	0	0	0
706		Peruvallur	19	9124	30	75	30	0	0	0	10	0	0	0.05	0.01	0	0	0
707		Ponmala	18	7237	1302	0	0	0	0	0	0	0	0	0	0	0	0	0
708		Ponmundam	16	6657	229	100	100	40	20	0	2	2	0	0.05	0.05	0.05	0	0
709		Porur	17	9076	1482	0	0	0	0	0	0	0	0	0.1	0.03	0	0	0
710		Pothukallu	17	10427	726	0	0	0	0	0	0	0	0	0	0	0	0	0
711		Pulikottur	19	8785	689	0	0	0	0	0	0	0	0	0	0	0	0	0
712		Pulamanthol	20	12698	1200	12	10	25	23	3	3	0	0	0.03	0	0		0
713		Pulikkal	21	10949		3	0			0		0		0.02	0.02	0.02	0	0
714		Pulpatta	21	11886	2287	160	0	100	0	0	0	0	0	0.05	0.05	0.05	0	0
715		Purathur	19	6959	1689	100	100	40	0	25	0	0	0	0.015	0.015	0.015	0	0
716		Puzhakkattiri	17	9186	240	100	0	100	0	0	29	100	100	4	0	3.5	0	0
717		Thalakkadu	19											0.02	0.015	0	0	0
718		Thanalur	23	13527	1436	100	0	82	0	0	0	0	0	0.05	0.06	0.06	0	0
719		Thavanur	19	10047	800	100	0	100	0	54	40	0	0	0.18	0.13	0.13	0	0
720		Thazhakkode	23	10080	6	100	0	83	0	64	83	0	0	1.5	1.35	0	0	0
721		Thenhippalam	17	9821		0	0			69		0		0	0	0	0	0
722		Thennala	17	7131	0	0	0			100		0						
723		Thirunavaya	23	13552	13125	83	0			0		0		0	0	0	0	0
724		Thiruvali	16	7182	16	100	0	0	0	97	65	0	0	0	0	0	0	0
725		Thrikkalangode	23	14903	2436													
726		Thriprangode	21	8375	1100	100	0	60	0	65	0	0	0	0.75	0.65	0	0	0
727		Tuvvur	17	6500	220	100	0	100	0	45	0	0	0	0.35		0	0	0
728		Uppummel	21	11046	2202													
729		Velavanur	19	9139	2182	100	0	50	0	4	0	0	0	0.025	0.03	NA	0.05	NA
730		Vellikkunnu	23	12999	2715	100	0	100	0	35	25	0	0	0.35	0	NA	0.1	NA
731		Vattakkulam	19	11117	4956													0
732		Vazhakkad	19	13445	3450													
733		Vazhayur	17	9402	2216	100	0	100	0	100	100	0	0	0.18	0.15	0.14	0	0
734		Vazhikkadavu	23	14161	3111	0	0	0	0	0	0	0	0	16	11	8	0	0
735		Velivanknde	18	9221	2081													
736		Vengara	23	10852		0	0			0		0		NA	NA	NA	NA	NA
737		Vettathur	16											25	20	14	15	15
738		Vettom	20	8313	1892	100		0	0	0	0	0	0			0	0	0
739		Wandoor	23											NA	NA	NA	NA	NA
740		Kainakary	30	5535		100	0	100	0	100	100	0	0	0.7	0.5	0.5	0	0

Sl. NO:	DISTRICT	LOCAL BODY	NO OF WARDS	No of Household	% Household D2D-Dry	% of Household-D2D-Wet	No of establishment	%establishment -D2D-Dry	% establishment _D2D-Wet	% of houses in which source level treatment	% of establishment in which source level treatment	% disposing to centralised system	% disposing to centralised system	Quantity of Waste generated (TPD)	Quantity of Waste collected (TPD)	Quantity of Waste treated (TPD)	Quantity of Waste processed in Composting Sites (TPD)	Quantity of Waste processed in biomethanation (TPD)
741	KOZHIKODE	Arrikulam	13	4409	1178	91	0	85	0	22	30	91	85	15 kg	15kg	15 kg	0	0
742		Atholy	17	7193	1966	71	0	81	0	13	10	71	81	20 KG/DAY	20 KG/DAY	20 KG/DAY	0	0
743		Ayancheri	17	8354	2857	0	0	0	0	30%	5%	100	5	1 TON	1 TON	1 TON	0	0
744		Azhiyur	18	7900	561	63	0	80	0	100	100	0	0	800Kg/day	800Kg/day	800Kg/day	0	0
745		Belassri	17	8779	1715	97	0	96	10	90	80	0	0	1200 kg/day	1200 kg day	1200 kg /day	0	0
746		Chakkittappara	15	6916	1811	80	0	79	0	90	90	0	0	20 KG/DAY	20 KG/DAY	20 KG/DAY	0	0
747		Changaroth	19	9963	2737	100	0	92	16	86	92	0	0	25 Kg / day	25 Kg/ day	25Kg/day	0	0
748		Cherhuvangallam	22	15068	3746	34	0	12	8	24	82	0	0	20 kg/day	20 kg/day	20 kg/day		0
749		Chekkiad	15	6544	1823	4	0	1	0	0	0	0	0	5 ton	5 ton	0	0	0
750		Chelleur	21	12483	2250	8	0	0	0	0	0	0	0	20kg/dy	20kg/dy		0	0
751		Chemmanchery	20	11521	3090	7	0	0	0	0	0	0	0	1589	1389QUINT	1389QUIN	0	0
752		Chengottukavu	17	6990	350	100	0	310	0	55	80	0	0	5 TPD	5	5	0	0
753		Cheruvannur	19	6772	1465	50	0	0	19	10	0	0	0	4T	4T	0	0	0
754		Chorode	21	10118	860	20	0	6	0	11	2	0	0	6	6	0	0	0
755		Edachery	17	7936	514	100	0	195	0	19	146	0	0	5 ton	5 ton	0	0	0
756		Eramala	19	9407	2000	79	0	100	8	84	120	0	0	240 kg	240kg	0	240kg	0
757		Kadalundy	22	10742	2815	74	0	43	0	93	33	0	0	10 TONE	10 TONE	0	0	0
758		Kakkodi	23	12913	3472	100	0	42	0	50	8	0	0	0.25 TONE	0.25 TONE	0	0	0
759		Kakkur	15	5950	1141	76	0	61	7	0	0	0	0	120	120 KG	0	120KG	0
760		Karassery	18	9961	3007	69	0	100	7	0	0	0	0	0.1	0.1	0	0	0
761		Kattippara	15	3668	684	0	0	0	0	0	0	0	0	110kg	145 KG	0	0	0
762		Kavilumpara	16	7471	2028	67	0	38	0	100	48	67	47	0.27 Ton/Day	1.3 TONS	0	0	0
763		Kayakkody	16	6143	1355	79	0	47	0	100	100	0	0	350KG/DAY	350KG/DAY	0	0	0
764		Kayanna	13	4430	624	78	0	100	0	100	100	0	0	85	85	0	0	0
765		Kayaniruur	13	4639	390	0	0	0	0	0	0	0	0	0.15	0.15	0	0	0
766		Kizhakkoth	18	9183	3773	69	0	67	0	95	86	0	0	105kg	105 kg	0	0	0
767		Kodenchery	21	10848	885	58	0	0	0	67	87	0	0	20 KG/day	20 KG	0	0	0
768		Kodiyathoor	16	8383	4710	100	0	100	0	0	100	0	0	210kg	210kg	0	0	0
769		[illegible]	14	6900	518	55	1	52	0	1	0	0	0	0.3 ton/day	0.3210 ton/day	0	0	30
770		Koorachund	13	5601	1369	40	0	0	0	70	60	0	0	350	300	0	0	0
771		Koothali	13	5737	412	18	0	0	0	0	0	0	0	200	150	0	0	0
772		Kottur	19	7830	1050	70	51	48	33	100	100	0	0	150kg/day	100kg/day	0	0	0
773		Kunnamangalam	23	17474	5898	0	0	11	0	100	100	0	0	450 kg/day	425 kg/day	0	0	0
774		Kuruvattur	13	5668	2124	100	0	100	0	100	100	0	0	160 Kg / Day	140 Kg / Day	140 Kg / Day	0	0
775		Kuruvattur	18	11425	3015	0	0	303	48	80	68	0	0	400 Kg/Day	400 Kg/Day	400 Kg/Day	0	0
776		Kuttiady	14	6083	4241	69	0	143	0	100	100	0	0	170 kg/Day	155Kg/Day	155 Kg/Day	0	0
777		Madavoor	17	7126	1383	100	0	29	0	15	1	0	0	300	250	250	0	0
778		Manjur	21	12421	1412	35	0	445	0	5	1	0	0	2.5	1 ton / month	0	0	0
779		Maruthonkara	14	6763	805	100	0	68	0	41	11	0	0	135K G /Day	135K G/Day	135 kg/Day	0	0
780		Mavoor	18	9027	1190	65	0	60	0	22	12	0	0	120 Kg / Day	100kg/day	100	0	0
781		Meppayur	17	7308	1840	89	0	100	0	89	100	0	0	0.2	0.18	0.18	0	0
782		Moodadi	18	8594	2284	100	0	100	0	92	100	0	0	138 T	138 T	138 T	5 T	0
783		Nadapuram	22	11000	1500	87	0	0	0	100	100	0	0	5.5 ton per day	4.6 ton per day	0	0	0
784		Naduvannur	16	7010	2090	80	0	80	0	72	72	0	0	8.50 ton	2.50 ton	0	0	0

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785		Nanninde	17	8780	1192	100	0	100	0	100	100	0	0	NOT	NOT	0	0	0
786		Narikkuni	15	6302	2909	0	0	217	0	70	65	0	0	112 ton	NOT	NOT	NOT	NOT
787		Nellippatta	17	7609	1236	96	0	28	0	90	100	0	0	NOT	NOT	NOT	NOT	NOT
788		Nochad	17	6800	950	40	0	20	0	80	70	0	0	Not measured	3412kg	3412 kg	NA	0
789		Olavanna	23	18531	6560	0	0	0	0	75	65	0	0	Not measured	Not measured	Not	Not measured	Not measured
790		Oorumassery	19	10012	3516	57	0	0	0	85	70	0	0	Not measured	2.5 TON	2.5 TON	0	0
791		Orchiyam	17	7843	2376	100	0	18	0	70	20	0	0	2 T	2 T	0	0	0
792		Panangad	20	8916	1909	65	0	75	0	80	70	0	0	Not measured	2.5 ton	2.5 ton	0	0
793		Panambra	19	9640	1450	85	0	62	0	85	48	0	0	not measured	4.5	4.5	0	0
794		Perumanna	18	11635	1012	82	0	18	0	80	0	0	0	0.90 ton	0.90 ton	0.90 ton	0	0
795		Peruvayal	22	15467	1310	100	0	100	0	100	100	0	0	5 ton	5 ton	5 ton	0	0
796		Purameri	17	8206	1948	24	0	421	0	100	100	0	0	0.20/0.16 tpd	0	0	0	0
797		Puthuppady	21	14388	3269	118	0	300	0	130	0	0	0	5 ton	5 ton	0	0	0
798		Thalakulathur	17	8978	1520	75	0	0	0	75	2	0	0	4ton	4 ton	0	0	0
799		Thavarassery	19	9730	1432	84	0	84	84	0	0	0	0	0.74	0.74	0.74	0	0
800		Thikkodi	17	8561	1828	2	0	0	0	0	0	0	0	5 ton	5 ton	5 ton	0	0
801		Thiruvallur	20	8946	2339	100	0	3	0	0	0	0	0	1.5	1.2	0	0	0
802		Thiruvambady	17	9493	2793	28	0	34	0	28	34	0	0	3.5	3.8	3.8	0	0
803		Thurayur	13	3943	1158	100	0	100	0	0	0	0	0	0.2	0.18	0.18	0	0
804		Tuneri	15	7067	1377	0	0	0	0	1	0	93	65	747.5161 MT	747.5161 MT	747.5161	0	0
805		Ulliyeri	19	9958	2262	0	0	286	0	100	44	60	0	9.08	1.8	0	0	0
806		Unnikulam	23	13779	3355	0	0	100	0	100	100	0	0	200 ton	200 ton	0	0	0
807		Valayam	14	4485	957	56	0	31	0	100	30	0	0	0.05	0.04	0.05	0	0
808		Vanimel	16	7340	2035	100	0	31	0	100	100	0	0	15 kg	15kg	15 kg	0	0
809		Velom	17	6754	2936	100	0	100	0	100	100	0	0	150	148	148	0	0
810		Villappalli	19	9962	3493	60	0	60	0	100	65	0	0	8.2	5	5	0	0
811	W	Ambalavayal	20	10291	4579	33	0	7		0	0	0	0	4tone	3 tone	3tone	Nil	Nil
812	A	Edavaka	19	9519	744	89	0	40		0	0	0	0	4 tone	3 tone	2 tone	3 tone	nil
813	Y	Kaniyambetta	18	11791	3287	24	0	18		0	0	0	0	8 tone	6 tone	3 tone	3 tone	nil
814	A	Kottathara	18	9979	540	69	0	100	0	100	100	0	0	NA	NA	NA	NA	NA
815	N	Meenangadi	13	5293	622	0	0	0	0	100	100	0	0	2	1	1	2	1
816	A	Meppadi	19	8735	1000	100	0	100	0	100	100	0	0	NA	NA	NA	NA	NA
817	D	Mullankolly	22	10616	813	100		100		36	70	0	0	1.2 tone	1.2 tone	0	0	0
818		Muppainadu	18	8736	652					0	0	0	0	3 tone	0	0	0	0
819		Munil	19	7667	575	100	0	100	0	100	100	0	0	5 tonne	3.5 tonne	3.5 tonne	3 tonne	0
820		Nenmeni	19	10002	692	100	0	100	0	100	100	0	0	10 tone	7 tone	3 tones	0	0
821		Neelgusha	23	14755	703	61	0	100	100	100	100			4 Tone	3 Tone	3 Tone	3 Tone	0
822		Padinharathara	16	6624	472	100	0	100	0	13	38			1.652 TONE	1.652 TONE	0	0	0
823		Panamaram	16	7244	347	83	83	69	0	83	0	0	0					
824		Poothadi	23	13782	400	100	0	46	0	0	0	0	0	0.06	0.05	0.05	0	0
825		Pozhuthana	13	5783	2004	38	0	2	0	100	100	0	0	2 tone	1 tone	1	1	0.5 tone
826		Pulpalli	20	10437	3147	30	0	33	0	11	0	0	0	3	3	2	1	0
827		Tharlode	13	3671	340	100	0	100	0	0	0			NA	NA	NA	NA	NA
828		Thavinhal	22	10433	700	25	0	0	0	100	100			4	3	NIL	NIL	NIL
829		Thirunelly	17	8520	1405	25	0	0	0	0	0	0	0					
830		Thondernadu	15	7087	1320	42	0	30	0	0	0	0	0	2Tone	2Tone	Nil	Nil	Nil
831		Vellamunda	21	11620	1439		0	70	0	0	0	0	0	5.3	0	0	Nil	Nil
832		Vengappalli	13	2730	195	69	0	100	0	0	0	0	0	1.5	1.5	0	0	0
833		Vythiri	14	6086	1582	100	0	100	0	100	100	100	100	50 kg	50 kg	50 kg	35 kg	0
834	K	Alakode	21	9850	2982	100	0	100	0	100	100	0	0	2.07	0.0811	2.07	0	0

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835	A	Anjarakkandi	15	8471	759	100	0	100	0	100	100	0	0	1.38	0.04565	1.38	0	0
836	N	Aralam	17	8215	289	100	0	100	0	100	100	0	0	1.88	0.03244	1.88	0	0
837	N	Ayyankunnu	16	7546	435	100	0	100	0	100	100	0	0	1.54	0.03437	1.54	0	0
838	U	Azhikode	23	13408	360	100	0	100	0	100	100	0	0	2.73	0.04629	2.73	0	0
839	R	Chapparappadavu	18	10255	212	100	0	100	0	100	100	0	0	2.09	0.04264	2.09	0	0
840		Chembilode	19	8700	381	100	0	100	0	100	100	0	0	1.77	0.03225	1.77	0	0
841		Chengalai	18	8276	370	100	0	100	0	100	100	0	0	1.88	0.04031	1.88	0	0
842		Cherukunnu	13	4628	558	100	0	100	0	100	100	0	0	0.95	0.03265	0.95	0	0
843		Cherupuzha	19	9008	457	100	0	100	0	100	100	0	0	1.85	0.04071	1.85	0	0
844		Cheruthazham	17	10888	528	100	0	100	0	100	100	0	0	2.22	0.04265	2.22	0	0
845		Chirakkal	23	14173	1337	100	0	100	0	100	100	0	0	2.96	0.1232	2.96	0	0
846		Chittariparamba	16	7131	370	100	0	100	0	100	100	0	0	1.45	0.0273	1.45	0	0
847		Chokli	17	8343	620	100	0	100	0	100	100	0	0	1.71	0.04108	1.71	0	0
848		Dharmadam	16	8783	888	100	0	100	0	100	100	0	0	2.34	0.04172	2.34	0	0
849		Eramam-Kuttoor	17	7011	874	100	0	100	0	100	100	0	0	1.44	0.0364	1.44	0	0
850		Eranholi	16	8224	462	100	0	100	0	100	100	0	0	1.68	0.03231	1.68	0	0
851		Eruvessi	14	5188	198	100	0	100	0	100	100	0	0	1.06	0.02243	1.06	0	0
852		Ezhom	14	4287	472	100	0	100	0	100	100	0	0	0.88	0.02016	0.88	0	0
853		Irikkoor	13	3550	700	100	0	100	0	100	100	0	0	0.72	0.02363	0.72	0	0
854		Kadamboor	13	4526	450	100	0	100	0	100	100	0	0	0.93	0.02254	0.93	0	0
855		Kadannapally-Panapuzha	15	8598	542	100	0	100	0	100	100	0	0	1.76	0.04417	1.76	0	0
856		Kadirur	18	7894	494	100	0	100	0	100	100	0	0	1.62	0.03151	1.62	0	0
857		Kalliasseri	18	8570	850	100	0	100	0	100	100	0	0	3.11	0.19594	3.11	0	0
858		Kanichar	13	5058	276	100	0	100	0	100	100	0	0	1.02	0.01934	1.02	0	0
859		Kankol-Alappadamba	14	5775	506	100	0	100	0	100	100	0	0	2.84	0.04425	2.84	0	0
860		Kannapuram	14	8214	585	100	0	100	0	100	100	0	0	2.81	0.20773	2.81	0	0
861		Karivelloor-Peralam	14	6520	650	100	0	100	0	100	100	0	0	6.43	5.6903	4.33	0	0
862		Kelakam	13	5379	594	100	0	100	0	100	100	0	0	1.1	0.02432	1.1	0	0
863		Keezhallur	14	6755	836	100	0	100	0	100	100	0	0	205.01	0.3696	5.01	0	0
864		[illegible]	[illegible]	[illegible]	[illegible]	100	0	100	0	100	100	0	0	1.87	0.06500	1.87	0	0
865		Kolayad	14	5823	465	100	0	100	0	100	100	0	0	3.11	0.02868	3.11	0	0
866		Koodali	18	8825	512	100	0	100	0	100	100	0	0	1.79	0.03509	1.79	0	0
867		Kottayam	14	4793	1400	100	0	100	0	100	100	0	0	0.98	0.03587	0.98	0	0
868		Kottiyoor	14	5296	550	100	0	100	0	100	100	0	0	1.08	0.02431	1.08	0	0
869		Kunhimangalam	14	5945	507	100	0	100	0	100	100	0	0	202.63	0.0299	2.63	0	0
870		Kunnothparamba	21	11494	300	100	0	100	0	100	100	0	0	4.51	0.04236	4.51	0	0
871		Kurumathoor	17	11252	616	100	0	100	0	100	100	0	0	2.3	0.05344	2.3	0	0
872		Kuttiattoor	18	8388	2131	100	0	100	0	100	100	0	0	1.74	0.05853	1.74	0	0
873		Madayi	20	8574	325	100	0	100	0	100	100	0	0	1.98	0.04378	1.98	0	0
874		Malapattam	13	2607	126	100	0	100	0	100	100	0	0	0.53	0.00907	0.53	0	0
875		Maloor	15	6914	426	100	0	100	0	100	100	0	0	1.42	0.03235	1.42	0	0
876		Mangattidom	19	10834	450	100	0	100	0	100	100	0	0	2.17	0.03824	2.17	0	0
877		Mattool	17	6089	336	100	0	100	0	100	100	0	0	1.25	0.02817	1.25	0	0
878		Mayyil	18	9643	745	100	0	100	0	100	100	0	0	1.97	0.04039	1.97	0	0
879		Mokeri	14	5791	440	100	0	100	0	100	100	0	0	1.18	0.0282	1.18	0	0
880		Munderi	20	8979	560	100	0	100	0	100	100	0	0	1.83	0.03579	1.83	0	0
881		Muzhakkunnu	15	7412	1384	100	0	100	0	100	100	0	0	1.53	0.04856	1.53	0	0
882		Muzhappilangad	15	5529	230	100	0	100	0	100	100	0	0	1.21	0.02155	1.21	0	0

SL. NO:	DISTRICT	LOCAL BODY	NO OF WARDS	No of Household	% Household D2D-Dry	% of Household-D2D-Wet	No of establishment	%establishment -D2D-Dry	% establishment _D2D-Wet	% of houses in which source level treatment	% of establishment in which source level treatment	% disposing to centralized system	% disposing to centralized system	Quantity of Waste generated (TPD)	Quantity of Waste collected (TPD)	Quantity of Waste treated (TPD)	Quantity of Waste processed in Composting Sites (TPD)	Quantity of Waste processed in biomethanation (TPD)
883		Naduvil	19	8601	280	100	0	100	0	100	100	0	0	1.8	0.03722	1.8	0	0
884		Narath	17	7821	711	100	0	100	0	100	100	0	0	1.59	0.02618	1.59	0	0
885		New Mahi	13	4417	402	100	0	100	0	100	100	0	0	0.91	0.02259	0.91	0	0
886		Padiyoor	15	6400	180	100	0	100	0	100	100	0	0	1.3	0.02222	1.3	0	0
887		Panniannur	15	6692	319	100	0	100	0	100	100	0	0	1.37	0.02988	1.37	0	0
888		Pappinisseri	20	10580	680	100	0	100	0	100	100	0	0	2.67	0.05247	2.67	0	0
889		Pariyaram	18	11073	720	100	0	100	0	100	100	0	0	2.47	0.05232	2.47	0	0
890		Pattiam	18	9152	546	100	0	100	0	100	100	0	0	1.87	0.0381	1.87	0	0
891		Pattuvam	13	3938	227	100	0	100	0	100	100	0	0	0.81	0.01817	0.81	0	0
892		Payam	18	7462	470	100	0	100	0	100	100	0	0	1.52	0.02991	1.52	0	0
893		Payyavoor	16	5699	496	100	0	100	0	100	100	0	0	1.17	0.02881	1.17	0	0
894		Peralasseri	18	8820	465	100	0	100	0	100	100	0	0	2.1	0.07392	2.1	0	0
895		Peravoor	16	6800	100	100	0	100	0	100	100	0	0	1.38	0.027	1.38	0	0
896		Peringome-Vayakkara	16	9875	350	100	0	100	0	100	100	0	0	2.06	0.08737	2.06	0	0
897		Pinarayi	19	10280	881	100	0	100	0	100	100	0	0	2.1	0.04877	2.1	0	0
898		Ramanthali	15	8502	503	100	0	100	0	100	100	0	0	2.15	0.04538	2.15	0	0
899		Thillankeri	13	4534	401	100	0	100	0	100	100	0	0	1.43	0.02302	1.43	0	0
900		Thripangottoor	18	9575	301	100	0	100	0	100	100	0	0	1.85	0.03218	1.85	0	0
901		Udayagiri	15	8231	254	100	0	100	0	100	100	0	0	1.27	0.02718	1.27	0	0
902		Ulikkal	20	11958	350	100	0	100	0	100	100	0	0	2.79	0.38472	2.79	0	0
903		Valapattanam	13	1850	1594	100	0	100	0	100	100	0	0	0.35	0.02991	0.35	0	0
904		Vengad	21	12883	820	100	0	100	0	100	100	0	0	2.59	0.05246	2.56	0	0
905	KASARGODE	Ajanur	23	13573	10573	68	0	700	80	0	70	60	0	0.04	0.04	0.04	0	0
906		Badiadka	19	12667	9654	75	0	630	40	0	63	45						
907		Balal	16	8585	6585	77	0	260	100	0	100	85	0	0.85	m	nil	0.85	0
908		Bedadka	17	8429	6200	70	0	635	100	0	80	86	0	0.2523	0.023	[illegible]	0.023	0
909		Belloor	13	3424	2051	60	0	325	100	0	70	80	0	0.0625	0.0625	0		
910		Chemnad	23	15169	9169	60	0	436	75	0	8	68	0	0.g2150	0.134	0	0	0
911		Chengla	23	18335	5368	29	0	3845	20	0	98	85	0	.n400	d & treated at	0	0	0
912		[illegible]	17	[illegible]	[illegible]	70	0	330	84	0	86	81	0	0.74	0.195	0.195	0	0
913		Delampady	16	5274	5274	100	0	46	60	0	80	70	0	0.006	0.006	0.006	nil	nil
914		East Eleri	16	8295	7295	88	0	453	30	0	90	57	0	nil	nil	nil	nil	nil
915		Enmakaja	17	5535	4535	82	0	140	40	0	56	75						
916		Kallar	14	7013	6013	86	0	92	90	0	60	80	0	0.0133	0.0133	0.0133	0	0
917		Karadka	15	6183	5183	84	0	1374	70	0	60	85	0	0.012	0	0		0
918		Kodom Belur	19	8163	6163	75	0	630	85	0	58	78	0					
919		Kayyur Cheemeni	16	9356	8356	89	0	636	85	0	84	90	0	0	0	0	0	0
920		Kinanoor Karindalam	17	9648	7448	77	0	630	100	0	100	100	0	150	100	100	0	0
921		Kumbdaje	13	4605	2005	44	0	110	100	0	89	93	0	0	0	0	0	0
922		Kumbala	23	12355	8500	69	0	340	54	0	54	55						
923		Kuttikol	16	7250	5430	75	0	450	70	0	63	66	0	0	0	0	0	0
924		Madhur	20	13393	13393	100	0	418	52	0	56	58	0	1	0.3	0	0	0
925		Madikai	13	6331	6331	100	0	217	100	0	100	100	0	0.7	0.7	0	0	0
926		Mangalpady	23	13650	8500	62	0	2500	40	0	32	40	0					
927		Manjeshwar	21	11500	6060	53	0	300	45	0	45	43						
928		Meenja	15	7111	7111	100	0	166	54	0	68	78	0	0.7	0	0	0.7	0
929		Mogral Puthur	15	7011	6011	86	0	300	69	0	78	89	0	0.2	0	0	0	0

SL NO:	DISTRICT	LOCAL BODY	NO OF WARDS	No of Household	% Household D2D-Dry	% of Household-D2D-Wet	No of establishment	%establishment -D2D-Dry	% establishment _D2D-Wet	% of houses in which source level tretment	% of establishment in which source level treatment	% disposing to centralised system	% disposing to centralised system	Quantity of Waste generated (TPD)	Quantity of Waste collected (TPD)	Quantity of Waste treated (TPD)	Quantity of Waste processed in Composting Sites (TPD)	Quantity of Waste processed in biomethanation (TPD)
930		Maliyur	15	7523	6523	87	0	233	70	0	78	84	0	0.2	0	0	0	0
931		Padne	15	6400	4400	69	0	520	65	0	87	87	0	0.2	0	0	0.2	0
932		Paivelike	19	9709	5700	59	0	260	68	0	68	75	0	0.5	0.2	0.3	0.2	0
933		Pallikkara	22	13177	12177	80	0	644	90	0	94	90	0	0.15	0.15	0.15	0	0
934		Panathady	15	7426	6426	87	0	357	85	0	85	83	0	0.73	0	0	0	0
935		Pilicode	16	6842	5932	87	0	473	84	0	90	84		0.62				
936		Puliar Perlas	17	10644	9644	91	0	300	100	0	90	90	0	0.58	0.58	0.32		
937		Puthige	14	7078	5078	72	0	1081	50	0	48	50	0	1.09	1.09	1.09	0	0
938		Trikaripur	21	11733	8700	74	0	946	60	0	62	53		0.125	0.125			
939		Udma	21	11332	9022	85	0	817	100	0	64	54	0	0.15	0.15	0.15	0	0
940		Valiyaparamba	13	6861	4800	70	0	100	100	0	84	70	0	0.18	0.18	0.18	0	0
941		Varkady	16	6834	4800	70	0	200	40	0	83	64	0	0.16	0.16	0	0	0
942		West Eleri	18	6974	5474	78	0	220	70	0	60	87	0	0.75	0.75	0.72	0.02	Nil

01

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

KERALA STATE POLLUTION CONTROL BOARD
കേരള സംസ്ഥാന മലിനീകരണ നിയന്ത്രണ ബോർഡ്

DISTRICT OFFICE, THIRUVANANTHAPURAM
ജില്ലാ ഓഫീസ്, തിരുവനന്തപുരം

T. C. 12/96 (4.5), PLAMOODU JN., PATTOM P.O, THIRUVANANTHAPURAM – 695 004
ടി.സി. 12/96 (4.5), പ്ലാമൂട് ജംഗ്ഷൻ, പട്ടം പി.ഒ, തിരുവനന്തപുരം – 695 004

ANALYSIS REPORT

No: 202176 **Date: 03/07/2020**

Source	Dumpsite of Attingal Muncipality (Leachite Sample)		
Sample received from	TA1	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:	for AS mahesh 3/7/2020
Remarks:	
Scientist-in-Charge of Analysis	ASSISTANT SCIENTIST

o/c

ANNEXURE III

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

KERALA STATE POLLUTION CONTROL BOARD
കേരള സംസ്ഥാന മലിനീകരണ നിയന്ത്രണ ബോർഡ്

DISTRICT OFFICE, THIRUVANANTHAPURAM
ജില്ലാ ഓഫീസ്, തിരുവനന്തപുരം
T. C. 12/96 (4,5), PLAMOODU JN., PATTOM P.O. THIRUVANANTHAPURAM – 695 004
ടി.സി. 12/96 (4,5), പ്ലാമൂട് ജംഗ്ഷൻ, പട്ടം പി.ഒ, തിരുവനന്തപുരം – 695 004

ANALYSIS REPORT

No: 202175 **Date: 03/07/2020**

Source	Dumpsite of Varkala Muncipality (Bore Well Sample)		
Sample received from	**TA1**	Date of sample collection	**24/06/2020**
Date of Receipt	**26/04/2020**	Ref. No.	R11

Sl. No.	Parameter	Unit	Value	Permissible Limit
1	pH	-	5.4	6.5-8.5
2	Suspended Solids	mg/L	52.2	100
3	COD	mg/L	16	250
4	BOD	mg/L	6	30
5	Total Dissolved Solids	mg/L	96.1	——
6	Conductivity	S/m	92	——

Signature:	for AS Mahindra 3/7/2020
Remarks:	
Scientist-in-Charge of Analysis	ASSISTANT SCIENTIST

ANNEXURE III

KERALA STATE POLLUTION CONTROL BOARD
CENTRAL LABORATORY
കേരള സംസ്ഥാന മലിനീകരണ നിയന്ത്രണ ബോർഡ്
കേന്ദ്ര പരിശോധനശാല

Certificate No. TC-8525

ANALYSIS REPORT

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

Sample ID : BLD-GEN

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

GANDHI NAGAR, KOCHI - 682 020 ഗാന്ധിനഗർ, കൊച്ചി - 682020
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E Mail: kspcbclekm@gmail.com Web : www.keralapcb.nic.in
Certified for OHSMS (ISO 45001:2018)

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

– End of Report –

Checked by 22/4/21

RAJEENA. R
Assistant Environmental Scientist

Authorised by

M. H. SHERAFUDEEN
Senior Environmental Scientist & Govt Analyst

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

KERALA STATE POLLUTION CONTROL BOARD
CENTRAL LABORATORY
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കേന്ദ്ര പരിശോധനശാല

Certificate No. TC-8525

ANALYSIS REPORT

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

Sample ID : 486

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

-- End of Report --

24/3/21

Checked by

ZAHIDA P.Z
Assistant Scientist

24/3/2021

Authorised by

P. GEETHA
Environmental Scientist

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

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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, 23rd Ed.,2017
2	BOD(3Days at 27 ^{0}C)	mg/l	135	IS 3025 part 44 1993
3	Oil and Grease	mg/l	BDL	APHA, 5520-B,5-42 to 5-44, 23rd Ed.,2017
4	COD	mg/l	448	APHA, 5520-B, 23nd Ed
5	Nitrate as Nitrogen	mg/l	7.4	APHA,4500NO3-,B,4-127,23rd Edition (Ultraviolet Spectrophotometric Method) 2017
6	Phosphates	mg/l	36.67	APHA,4500P,E,4-164 to 4-165, 23rd Edition:2017
7	Sulphates	mg/l	63.1	APHA, 4500-SO4 2-E, 23rd 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, 23rd Ed., 2017
10	Total Coliform	CFU/100ml	620000	APHA 9222 B, 23rd Ed.2017

Scanned by TapScanner

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

STATE POLLUTION CONTROL BOARD
CENTRAL LABORATORY
COCHIN - 20

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.,
Thiruvanathapuram – 695 004.

Copy to: The Chief Environmental Engineer,

Scanned by TapScanner

Bioming 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.

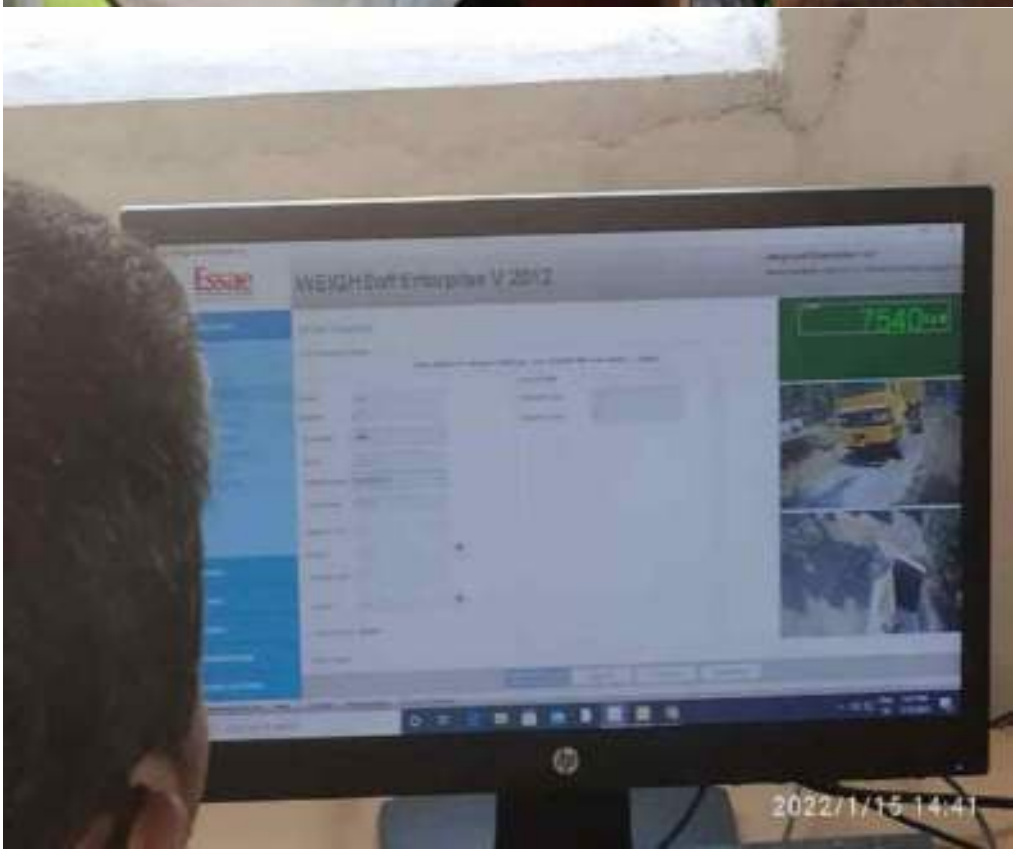
Pre-Stabilisation

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 Jalsakthi, 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 13.04.2022 തീയ്യതിയിൽ സൂപ്രണ്ടിംഗ് എഞ്ചിനീയർ, ഇറിഗേഷൻ വകുപ്പ്-നോർത്ത് സർക്കിളിന്റെ അധ്യക്ഷതയിൽ വീഡിയോ കോൺഫറൻസ് വഴി നടത്തിയ DLTC മീറ്റിങ്ങിന്റെ മിനുട്സ്.

ഹാജരായവർ

1. ശ്രീമതി.അഞ്ജന, (പേഴ്സണൽ അസിസ്റ്റന്റ് ഓഫ് സൂപ്രണ്ടിംഗ് എഞ്ചിനീയർ, ഇറിഗേഷൻ വകുപ്പ്).
2. ശ്രീമതി.പഞ്ചൽ (അസിസ്റ്റന്റ് എഞ്ചിനീയർ, മേജർ ഇറിഗേഷൻ ഡിവിഷൻ, തിരൂർ).
3. ശ്രീ.ജീവരാജ് (ഹെൽത്ത് സൂപ്പർവൈസർ, തിരൂർ മുനിസിപ്പാലിറ്റി).
4. ശ്രീ.ഹരിന്ദ്രനാഥ്.വി.ടി (അസിസ്റ്റന്റ് എക്സിക്യൂട്ടീവ് എഞ്ചിനീയർ (ഇറിഗേഷൻ സബ്ഡിവിഷൻ, തിരൂർ).
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 (പെരിയമുണ്ടം ഗ്രാമപഞ്ചായത്ത്)
9. ശ്രീമതി സൗമ ഹമീദ് (എൻവയോൺമെന്റൽ എഞ്ചിനീയർ, കേരള സംസ്ഥാന മലിനീകരണ നിയന്ത്രണ ബോർഡ്, ജില്ലാ ഓഫീസ്, മലപ്പുറം).
10. ശ്രീമതി. സൗദ 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 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 നീ കോണ്ട്രാക്ടിന് പോകുന്നതല്ലേ നല്ലതെന്നും, വീഴ്ച്ച വരുത്തിയാൽ NGTയുടെ വിമർശനം നേരിടേണ്ടി വരുമെന്നും തുടർ നടപടികളിലേക്ക് നീങ്ങുമെന്നും എൻവയോൺമെന്റൽ എഞ്ചിനീയർ ഓർമ്മപ്പെടുത്തുകയുണ്ടായി. തിരൂർ പൊന്നാനി പുഴയുടെ വലതുഭാഗത്തുള്ള ബണ്ട് ശക്തിപ്പെടുത്തുന്നതിന് ഡി.പി.ആർ തയ്യാറാക്കി സമർപ്പിച്ചിട്ടുണ്ടെന്നും, എന്നാൽ നാളിതുവരെ ഫണ്ട് ലഭ്യമാകാത്തതിനാൽ പുരോഗതിയൊന്നും ഉണ്ടായിട്ടില്ലെന്ന് ശ്രീ.ഹരീന്ദ്രനാഥ് അറിയിച്ചു.

തുടർന്ന് മുനിസിപ്പാലിറ്റിയുടെ പ്രവർത്തനങ്ങളാണ് വിലയിരുത്തിയത്. തിരൂർ 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. തിരൂർ 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. അതുപ്രകാരം 30.03.2022-ന് മലിനീകരണ നിയന്ത്രണ ബോർഡ് ഓഫീസിൽ നിന്നും ഒരു ഇൻസ്പെക്ഷൻ നടത്തിയിരുന്നു. മഴവെള്ളം നിറഞ്ഞു കിടക്കുന്ന ടാങ്കിൽ കാക്കവരെ ചത്തു 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 മീറ്റിങ്ങ് കൂടിയിട്ട് ഒരു കാര്യവുമില്ലെന്ന് നിലവിലെ പുരോഗതി എഴുതി റിപ്പോർട്ട് NGT-യ്ക്ക് സമർപ്പിക്കുമെന്നും Environmental Clearance അടക്കമുള്ള നടപടികളിലേക്ക് ശക്തമായി നീങ്ങുമെന്നും എൻവയോൺമെന്റൽ എഞ്ചിനീയർ ഓർമ്മപ്പെടുത്തുകയുണ്ടായി. ഈ അവലോകനത്തിന്റെ അടിസ്ഥാനത്തിൽ തിരൂർ മുനിസിപ്പാലിറ്റിയ്ക്ക് ഒരു നിർദ്ദേശ കത്ത് നൽകണമെന്ന് എൻവയോൺമെന്റൽ എഞ്ചിനീയർ DLTC സെയർ സെക്രട്ടറിയോട് അഭ്യർത്ഥിച്ചു.

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

തുടർന്ന് മംഗലം ഗ്രാമപഞ്ചായത്തിന്റെ പ്രവർത്തനങ്ങളാണ് വിലയിരുത്തിയത്. തിരൂർ 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 സാമ്പിൾ സ്റ്റേഷനുകളിൽ നിന്നും സാമ്പിൾ എടുത്ത് ടെസ്റ്റ് ചെയ്ത് വരുന്നുണ്ട്. അതിന്റെ റിസൾട്ടിൽ BOD മൂല്യം വളരെ കുറവാണ്. അതിൻ പ്രകാരം polluted stretches ആക്ഷൻ പ്ലാനിൽ നിന്ന് dellsting ചെയ്യുന്നതിനായി എഴുതി ചോദിച്ചിരുന്നു. 6 മാസം heavy metals sampling കൂടി ചെയ്തതിനു ശേഷം തീരുമാനിച്ചാൽ മതിയെന്നാണ് അറിയിച്ചത്. കഴിഞ്ഞ നവംബറിൽ heavy metals അനാലിസിസ് ചെയ്തത് 11എണ്ണത്തിന്റെ 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 പൂർത്തീകരിച്ചതായി അറിയിക്കാം എന്നും, അതിനായി എല്ലാവരും ഉൽസാഹിക്കണമെന്നും എൻവയോൺമെന്റൽ എഞ്ചിനീയർ ഓർമ്മപ്പെടുത്തുകയുണ്ടായി.

3.45 pm-ന് വീഡിയോ കോൺഫറൻസ് അവസാനിച്ചു.

എൻവയോൺമെന്റൽ എഞ്ചിനീയർ

മലപ്പുറം
13.04.2022

OA 673 ൽ 17.05.2022 തീയ്യതിയിൽ സൂപ്രണ്ടിംഗ് എഞ്ചിനീയർ, ഇറിഗേഷൻ വകുപ്പ്-നോർത്ത് സർക്കിളിന്റെ അധ്യക്ഷതയിൽ വീഡിയോ കോൺഫറൻസ് വഴി നടത്തിയ DLTC മീറ്റിങ്ങിന്റെ മിനുട്സ്.

ഹാജരായവർ

1. ശ്രീമതി.അഞ്ജന, (പേഴ്സണൽ അസിസ്റ്റന്റ് ഓഫ് സൂപ്രണ്ടിംഗ് എഞ്ചിനീയർ, ഇറിഗേഷൻ വകുപ്പ്).
2. ശ്രീമതി.ചഞ്ചൽ (അസിസ്റ്റന്റ് എഞ്ചിനീയർ, മേജർ ഇറിഗേഷൻ ഡിവിഷൻ, തിരൂർ).
3. ശ്രീ.ജീവരാജ് (ഹെൽത്ത് സൂപ്പർവൈസർ, തിരൂർ മുനിസിപ്പാലിറ്റി).
4. ശ്രീ.ഹരീന്ദ്രനാഥ്.വി.ടി (അസിസ്റ്റന്റ് എക്സിക്യൂട്ടീവ് എഞ്ചിനീയർ (ഇറിഗേഷൻ സബ്ഡിവിഷൻ, തിരൂർ).
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, തിരൂർ)
10. ശ്രീമതി സുനില ഹമീദ് (എൻവയോൺമെന്റൽ എഞ്ചിനീയർ, കേരള സംസ്ഥാന മലിനീകരണ നിയന്ത്രണ ബോർഡ്, ജില്ലാ ഓഫീസ്, മലപ്പുറം).
11. ശ്രീമതി സുനു ബീഡി.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. കുട്ടായി റെഗുലേറ്ററിന്റെ വർക്കിൽ പുരോഗതി ഒന്നും ഉണ്ടായിട്ടില്ലെന്നും, ടെർമിനേറ്റ് ചെയ്യാനുള്ള നടപടിയിലേക്ക് പോയിരുന്നെങ്കിലും ഈ വർഷം ഫണ്ട് കിട്ടാനുള്ള ബുദ്ധിമുട്ടുള്ളതുകൊണ്ട് അടുത്ത വർഷം ചെയ്യാനുള്ള റിവൈസ്ഡ് ഷെഡ്യൂൾ എറണാകുളം ഓഫീസിൽ സൂപ്രണ്ടിങ്ങ് എഞ്ചിനീയർ അയച്ചു തന്നിട്ടുണ്ടെന്നും ശ്രീ.ഹരീന്ദ്രനാഥ് അറിയിച്ചു. തിരൂർ പൊന്നാനി പുഴയുടെ വലതുഭാഗത്തുള്ള ബണ്ട് ശക്തിപ്പെടുത്തുന്നതിന് ഡി.പി.ആർ തയ്യാറാക്കി സമർപ്പിച്ചിട്ടുണ്ടെന്നും, എന്നാൽ ഫണ്ട് ലഭ്യമാകാത്തതിനാൽ പുരോഗതിയൊന്നും ഉണ്ടായിട്ടില്ലെന്നും ശ്രീ.ഹരീന്ദ്രനാഥ് അറിയിച്ചു.

തിരൂർ മുനിസിപ്പൽ ബസ് സ്റ്റാന്റ് STP-യുടെ truss വർക്ക് പൂർത്തീകരിച്ചിട്ടുണ്ടെന്നും ഇലക്ട്രിഫിക്കേഷൻ നടന്നുകൊണ്ടിരിക്കുകയാണെന്നും തിരൂർ മുനിസിപ്പാലിറ്റി ഹെൽത്ത് Slaughter House-ന്റെ ഉപകരണങ്ങൾ

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

തിരൂർ മത്സ്യമാർക്കറ്റിലെ ETP-യുടെ renovation work, blower മാറ്റുന്നതിനുമായി
ഏകദേശം 6 ലക്ഷത്തോളം രൂപ വരുമെന്നും അതിനായുള്ള പ്രൊജക്ട് തയ്യാറാക്കി
സമർപ്പിച്ചിട്ടുണ്ട്. അടുത്ത മാസമാണ് അപ്രൂവൽ ആവുകയുള്ളൂ. അതിനു ശേഷം മാത്രമേ റീ
ടെണ്ടർ വിളിക്കുകയുള്ളൂ എന്നും ശ്രീ.ജീവരാജ് അറിയിച്ചു.

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

അവസാനമായി മലപ്പുറം മുനിസിപ്പാലിറ്റിയുടെ പ്രവർത്തന പുരോഗതിയാണ്
വിലയിരുത്തിയത്. STP വിഷയത്തിൽ യാതൊരു പുരോഗതിയും ഉണ്ടായിട്ടില്ലെന്നും
മലപ്പുറം ഹെൽത്ത് ഇൻസ്പെക്ടർ ശ്രീ.ഹമീദ് അറിയിച്ചു. Slaughter House-
സ്ഥാപിക്കുന്നതിനായുള്ള ഫണ്ട് ഇതുവരെ ലഭ്യമാകാത്തതിനാൽ ഒരു പുരോഗതിയും
ഉണ്ടായിട്ടില്ലെന്നും അറിയിക്കുകയുണ്ടായി. തെളിനീർ ഒഴുകും നവകേരളം എന്ന
പദ്ധതിയുടെ ഭാഗമായി ഇപ്പോൾ തോടുകളും ഡ്രൈനേജുകളുടെയും ക്ലീനിങ് ആണ് നടന്നു
കൊണ്ടിരിക്കുന്നതെന്നും ശ്രീ.ഹമീദ് അറിയിച്ചു.

3.30 pm-ന് വീഡിയോ കോൺഫറൻസ് അവസാനിച്ചു.

എൻവയോൺമെന്റൽ 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 0A673 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 bought 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.

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- 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 1[illegible] pm

Convener

Chairman

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

അഡീഷണൽ ജില്ലാ മജിസ്ട്രേറ്റ്, ശ്രീ. അലക്സ് പി. തോമസ് അവർകളുടെ അദ്ധ്യക്ഷത യിൽ മെയ് മാസത്തെ അവലോകനയോഗം 11.00 am ന് ആരംഭിച്ചു. യോഗത്തിൽ താഴെപ്പറ യുന്നവർ പങ്കെടുത്തു.

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 രജിസ്ട്രാർ, ജില്ലാ വ്യാവസായിക കേന്ദ്രം
6) ശ്രീ. എസ്. വിജയ്	- സെക്രട്ടറി, നിരണം ഗ്രാമപഞ്ചായത്ത്
7) ശ്രീ.ഹരികുമാർ എൻ.	-അസി.സെക്രട്ടറി, മാന്നാർ 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, എല്ലാവരേയും യോഗത്തിലേക്ക് സ്വാഗതം ചെയ്തു. തുടർന്ന് കർമ്മ പദ്ധതികളുടെ പുരോഗതി വിലയിരുത്തി.

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

നിരണം ഗ്രാമപഞ്ചയാത്തിൽ MCF നു ചുറ്റുമതിൽ കെട്ടാൻ ടെണ്ടർ നടപടി സ്വീകരിച്ചെങ്കിലും ആരും ഏറ്റെടുത്തിട്ടില്ലെന്നും, വെള്ളപൊക്ക ബാധിത പഞ്ചായത്ത് ആകയാൽ തരം തിരിച്ച് വച്ചിരുന്ന പ്ലാസ്റ്റിക് മാലിന്യങ്ങൾ ഒഴുകി 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, ലെഗസി 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 പ്ലാസ്റ്റിക്ക് വേസ്റ്റ് ക്ലീൻ കേരള കമ്പനിക്കു നൽകിയിട്ടുണ്ടെന്നും, ലഗസി വേസ്റ്റ് എടുക്കാൻ മടിയാണെന്നും നിരോധിച്ച പ്ലാസ്റ്റിക്കുകൾ പിടിച്ചെടുത്ത് പരിശോധനയ്ക്കായി അയച്ചിട്ടുണ്ടെന്നും അറിയിച്ചു. 'തെളിനീരൊഴുകും 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 ക്ലാർക്കുമാർ 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 എഞ്ചിനീയർക്കാണെന്നും, പമ്പാ നദിയുടേത് 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 സംസ്ക്കരണവുമായി ബന്ധപ്പെട്ട് 'തെളിനീരൊഴുകും നവകേരളം' പദ്ധതിയുടെ ഭാഗമായി ഓരോ വാർഡിലെയും, തോടുകളിലെയും, കൈത്തോടുകളിലേയും, കോളിഫോം ബാക്ടീരിയായുടെ സാന്നിദ്ധ്യം അറിയാൻ 4 സാമ്പിളുകൾ വീതം ശേഖരിച്ച് കിറ്റുപയോഗിച്ച് പരിശോധന നടത്തി

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

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

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

യോഗത്തിൽ പങ്കെടുത്ത എല്ലാവർക്കും എ.ഡി.എം നന്ദി അറിയിച്ചു.

യോഗം 11.20 ന് അവസാനിച്ചു.

അഡീഷണൽ ജില്ലാ മജിസ്ട്രേറ്റ്

ഡെപ്യൂട്ടി കളക്ടർ (ജനറൽ)&
അഡീഷണൽ ഡിസ്ട്രിക്റ്റ് മജിസ്ട്രേറ്റ്
പത്തനംതിട്ട

12/5

KERALA STATE POLLUTION CONTROL BOARD

DISTRICT OFFICE, 19/269 A, PERINTHALMANNA ROAD, UP HILL .P.O, MALAPPURAM - 676 505

കേരള സംസ്ഥാന മലിനീകരണ നിയന്ത്രണ ബോർഡ്

ജില്ലാ ഓഫീസ്, 19/269A, പെരിന്തൽമണ്ണ റോഡ്, കുന്നുമ്മൽ, പി.ഒ, മലപ്പുറം - 676 505

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 673/2018- 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 673/2018.

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.

OA 673 ൽ 17.06.2022 തീയതിയിൽ സൂപ്രണ്ടിംഗ് എഞ്ചിനീയർ, ഇറിഗേഷൻ വകുപ്പ്-നോർത്ത് സർക്കിളിന്റെ അധ്യക്ഷതയിൽ വീഡിയോ കോൺഫറൻസ് വഴി നടത്തിയ 250മത് DLTC മീറ്റിങ്ങിന്റെ മിനുട്സ്.

ഹാജരായവർ

1. ശ്രീമതി.അഞ്ജന, (പേഴ്സണൽ അസിസ്റ്റന്റ് ഓഫ് സൂപ്രണ്ടിംഗ് എഞ്ചിനീയർ, ഇറിഗേഷൻ വകുപ്പ്).
2. ശ്രീമതി.ചഞ്ചൽ (അസിസ്റ്റന്റ് എഞ്ചിനീയർ, മേജർ ഇറിഗേഷൻ ഡിവിഷൻ, തിരൂർ).
3. ശ്രീ.ജീവരാജ് (ഹെൽത്ത് സൂപ്പർവൈസർ, തിരൂർ മുനിസിപ്പാലിറ്റി).
4. ശ്രീ.ഹരിന്ദ്രനാഥ്.വി.ടി (അസിസ്റ്റന്റ് എക്സിക്യൂട്ടീവ് എഞ്ചിനീയർ (ഇറിഗേഷൻ സബ്ഡിവിഷൻ, തിരൂർ).
5. ശ്രീ.രജോഷിലാൽ, 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, തിരൂർ)
10. ശ്രീമതി സൗമ ഹമീദ് (എൻവയോൺമെന്റൽ എഞ്ചിനീയർ, കേരള സംസ്ഥാന മലിനീകരണ നിയന്ത്രണ ബോർഡ്, ജില്ലാ ഓഫീസ്, മലപ്പുറം).
11. ശ്രീമതി. സൗദ ബീവി.വി.സി. അസിസ്റ്റന്റ് സയന്റിസ്റ്റ്, (കേരള സംസ്ഥാന മലിനീകരണ നിയന്ത്രണ ബോർഡ്, ജില്ലാ ഓഫീസ്, മലപ്പുറം.)

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

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

തിരൂർ മത്സ്യമാർക്കറ്റിലെ ETP-യുടെ പ്രവർത്തനത്തിൽ പുരോഗതിയൊന്നും തന്നെ ഉണ്ടായിട്ടില്ല എന്ന് ശ്രീ.ജീവരാജ് അറിയിച്ചു. 28.04.2022 തീയ്യതിയിലെ സ.ഉ(സാധാ)നം.1068/2022/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 മേൽകാര്യം 15.06.2022-ലെ ജില്ലാതല DLMC യോഗത്തിൽ ചർച്ച ചെയ്ത് തീരുമാനമായതാണെന്നും എൻവയോൺമെന്റൽ എഞ്ചിനീയർ ഓർമ്മപ്പെടുത്തുകയുണ്ടായി.

അടുത്തതായി Encroachment സർവ്വെയുടെ പുരോഗതിയാണ് വിലയിരുത്തിയത്. തിരൂർ പുഴയുമായി ബന്ധപ്പെട്ട Encroachment സർവ്വെ പൂർത്തീകരിച്ചിട്ടുണ്ടെന്നും സർവ്വേക്കല്ല് സ്ഥാപിച്ചുകൊണ്ടിരിക്കുകയാണെന്നും റവന്യൂ ഡിവിഷണൽ ഓഫീസിലെ ഹെഡ് ക്ലാർക്ക് 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 ഡെലീഷ്യയ്ക്കു മാത്രമാണ് സ്വന്തമായി STP ഉള്ളതെന്നും അറിയിക്കുകയുണ്ടായി.

3.30 pm-ന് വീഡിയോ കോൺഫറൻസ് അവസാനിച്ചു.

എൻവയോൺമെന്റൽ എഞ്ചിനീയർ

മലപ്പുറം
17.06.2022

Telephone: 0471-2303844
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KERALA STATE POLLUTION CONTROL BOARD
കേരള സംസ്ഥാന മലിനീകരണ നിയന്ത്രണ ബോർഡ്

DISTRICT OFFICE, THIRUVANANTHAPURAM
ജില്ലാ ഓഫീസ്, തിരുവനന്തപുരം
T. C. 12/96 (4,5), PLAMOODU JN., PATTOM P.O, THIRUVANANTHAPURAM – 695 004
ടിസി 12/96 (4,5), പ്ലാമൂട് ജംഗ്ഷൻ, 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: Mudeena (AS)

Scientist-in-Charge of Analysis

16/06/22
ASSISTANT ENVIRONMENTAL SCIENTIST

☎0471-2303844
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kspcbdotypm@yahoo.com

KERALA STATE POLLUTION CONTROL BOARD

കേരള സംസ്ഥാന പരിസ്ഥിതി സംരക്ഷണ നിയന്ത്രണ ബോർഡ്

DISTRICT OFFICE, THIRUVANANTHAPURAM
ജില്ലാ ഓഫീസ്, തിരുവനന്തപുരം
T.C. 12/96 (4.5), PLAMOODU JN., PATTOM P.O.THIRUVANANTHAPURAM – 695 004
ടി.സി. 12/96 (4. 5), പ്ലാമൂട് ജംഗ്ഷൻ, പട്ടം പി.ഒ, തിരുവനന്തപുരം - 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 Mulesan (AES)

Scientist-in-Charge of Analysis

30/05/2022

ASSISTANT ENVIRONMENTAL SCIENTIST

KERALA STATE POLLUTION CONTROL BOARD
DISTRICT OFFICE (ERNAKULAM -II), PERUMBAVOOR
PMC 20/733,Govt. Hospital- KSRTC Road, Near Kallunkal Auditorium, Perumbavoor-683 542

Telephone 0484-2593747

E-mail: pcbdo2ekm@gmail.com
Website: www.keralapcb.nic.in

PCB/PBR/LAB/1/2013

Date: 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 22nd Edition 2012	6.0-8.0
2	BOD	mg/l	40	APHA, 5210 B, 22nd Edition 2012	30
3	COD	mg/l	112	APHA, 5220 B, 22nd Edition 2012	200
4	OIL &GREASE	mg/l	BDL	APHA, 5520 B, 22nd Edition 2012	8
5	SS	mg/l	146	APHA, 2540-D, 22nd Edition 2012	80
6	TDS	mg/l	2038.4	APHA 2540-C, 22nd Edition 2012	1600
7	Ammoniacal Nitrogen	mg/l	0.012	APHA 4500-NH3-F, 22nd Edition 2012	50
8	Sulphides	mg/l	BDL	APHA 4500-S²⁻ F, 22nd Edition 2012	1

SARANYA DAS K

ASSISTANT SCIENTIST

AS NAMP I
01/04/22

1249
01/04/22

Kerala State Pollution C
Dist. Office (Ernak
31 MAR 2022
Perumbavoor-683542

KERALA STATE POLLUTION CONTROL BOARD
DISTRICT OFFICE (ERNAKULAM –II), PERUMBAVOOR
PMC 20/733,Govt. Hospital- KSRTC Road, Near Kallunkal Auditorium, Perumbavoor-683 542
Telephone : 0484-2593747
E-mail: pcbdo2ekm@gmail.com
Website: www.keralapcb.nic.in

PCB/PBR/LAB/1/2013 Date: 05.05.2022

ANALYSIS REPORT

Source : SEPTAGE TREATMENT PLANT, BRAHMAPURAM

Sample Point: TREATED FINAL EFFLUENT TANK

D.O.S : 26.04.2022

D.O. Rd : 26.04.2022

Collected by : NAMP-II

Sample ID : PCB-3481

Sl.No.	Parameters	Unit	Value	Test Method	KSPCB Limit
1	pH		7.29	APHA, 4500 H^+ B 22 nd Edition 2012.	6-9
2	BOD	mg/l	40	APHA, 5210 B, 22nd Edition 2012.	30
3	COD	mg/l	120	APHA, 5220 B, 22nd Edition 2012	250
4	OIL &GREASE	mg/l	BDL	APHA, 5520 B, 22nd Edition 2012	10
5	SS	mg/l	BDL	APHA, 2540-D, 22nd Edition 2012	100
6	PHOSPHATES	mg/l	0.18	APHA-4500 P-E 22nd Edition 2012	5
7	NITRATES	mg/l	3.18	APHA 4500-NO3-E, 22nd Edition 2012	10
8	SULPHATES	mg/l	58.0	APHA, 4500-SO4, 22nd Edition 2012	1000
9	SULPHIDES	mg/l	BDL	APHA-4500-S^{2-} D 22nd Edition 2012	2
10	AMMONIACAL NITROGEN	mg/l	0.37	APHA, 4500-NH_3-F, 22nd Edition 2012	50
11	PHENOLIC COMPOUNDS	mg/l	BDL	APHA, 5530 C, 22nd Edition 2012	1
12	TOTAL COLIFORM	cfu/100ml	24000	APHA 9222B, 22nd Edition 2012	-
13	FAECAL STREPTOCOCCI	cfu/100ml	28	APHA 9230 A, 22nd Edition 2012	-

1703
6/5/22

AE3/AS
6/05/22

Kerala State Pollution Control Board
Dist. Office (Ernakulam-II)
05 MAY 2022

SARANYA DAS.K
ASSISTANT SCIENTIST

KERALA STATE POLLUTION CONTROL BOARD
CENTRAL LABORATORY
കേരള സംസ്ഥാന മലിനീകരണ നിയന്ത്രണ ബോർഡ്
കേന്ദ്ര പരീക്ഷണശാല

Certificate No.
TC 8525

ANALYSIS REPORT

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

SAMPLE ID: TS

Sl. No	Parameters	Unit	Value	Test Method	Detection Limit
1	pH	---	7.9	APHA, 4500-H+B,23rd Ed., 2017	3 to 12
2	Total Suspended Solids	mg/L	16.0	APHA, 2540-D, 23rd Ed., 2017	10 mg/L
3	Ammoniacal Nitrogen	mg/L	0.56	APHA-4500 NH3-C, 23rd 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, 23rd Ed., 2017	4 to 1000 mg/L
6	Oil & Grease	mg/L	BDL	APHA, 5520-B, 23rd Ed., 2017	5 mg/l
7	Total Nitrogen	mg/L	37.80	APHA, 4500-N-Org B, 22ND 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

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UKAS

KERALA STATE POLLUTION CONTROL BOARD
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കേന്ദ്ര പരീക്ഷണശാല

Certificate No.
TC 8525

ANALYSIS REPORT

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

SAMPLE ID: ELM

Sl. No	Parameters	Unit	Value	Test Method	Detection Limit
1	pH	---	7.24	APHA, 4500-H+B,23rd Ed., 2017	3 to 12
2	Total Suspended Solids	mg/L	BDL	APHA, 2540-D, 23rd Ed., 2017	10 mg/L
3	Ammoniacal Nitrogen	mg/L	10.8	APHA-4500 NH3-C, 23rd 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, 23rd Ed., 2017	4 to 1000 mg/L
6	Oil & Grease	mg/L	BDL	APHA, 5520-B, 23rd Ed., 2017	5 mg/L
7	Total Nitrogen	mg/L	0.55	APHA, 4500-N-Org B, 22ND Ed., 2012	0.2 mg/L

--End of Report--

Checked By ANJU . LAL
ASSISTANT SCIENTIST

Authorised By
Dr. JOSEMIN
Environmental Scientist

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UKAS