

**BEFORE THE HON'BLE NATIONAL GREEN TRIBUNAL
SOUTHERN ZONE, CHENNAI**

IN

ORIGINAL APPLICATION NO. 77 of 2021

Petitioner : Justice A.V. Ramakrishna Pillai,
Former Judge, High Court of
Kerala, Chairman, SLMC, Kerala.

Versus

Respondents : The Chief Secretary,
Government of Kerala,
Thiruvananthapuram & Others

**VOLUME 4
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Dated this the 30th day of March 2021

Rema Smrithi, Advocate
ADDITIONAL STANDING COUNSEL FOR THE RESPONDENT



GOVERNMENT OF KERALA

Abstract

Environment Department – NGT case no OA 606/2018 (suomotu)--Judgment dt 25.4.2019 of National Green Tribunal-List of Panchayaths/Municipalities/Corporations to pilot the Model Waste Management Practices -Notified- Orders - issued.

ENVIRONMENT(B)DEPARTMENT

G.O.(Rt)No.45/2019/ENVT Dated,Thiruvananthapuram, 31/05/2019

Read NGT order dt 25.4.2019 in OA 606/2018 (Suomotu)

ORDER

Pollution and waste management have been burning issues all over the country. The lack of proper waste management plans has resulted in environmental damage and outbreak of serious diseases which resulted in National Green Tribunal (NGT) taking a suomotu case No OA 606/2018. Following the Chief Secretary's appearance before NGT to present the status of waste management in the State, NGT pronounced the order on 25.4.2019, directing the State to identify at least three cities and three towns in the State and at least three villages in every District within two weeks and to make them fully compliant in respect of environmental norms within six months and the remaining State to be made fully compliant within one year and to furnish quarterly reports every three months, of which the first report is to be furnished by **July 30, 2019**. Further, Chief Secretary has to be present before NGT on **6.11.2019** to report on the status of compliance of the order.

The Environment Department has examined the matter in detail in consultation with LSGD and Water Resources Department. The following directions are hereby issued:

1. The following local bodies shall pilot the full compliance of environmental regulations and norms by October 24, 2019.

Corporations	Municipalities	Panchayaths(Districts Concerned)
Thiruvananthapuram	Attingal	Karakulam, Poovachal, Parassala(Thiruvananthapuram)
Thrissur	Punalur	Kadakkal, Chavara, Perinad(Kollam)
Kozhikode	Kunnumkulam	Kulanada, Aranmula, Thumpamon(Pathanamthitta)

	Aaryad, Mararikkulam North, Thamarakulam(Alappuzha)
	Moonilavu, Kadaplomatam, Poonjar(Kottayam)
	Adimali, Nedumkandam, Kumali(Idukki)
	Pampakuda, Chottanikkara, Kalady(Ernakulam)
	Manalur, Parappukkara, Peringanam,(Thrissur)
	Muthuthala, Sreekrishnapuram, Vellinezhi(Palakkad)
	Maranchery,Chaliyar, Thuvur(Malappuram)
	Kunnumel, Kuttiadi, Meppayur(Kozhikode)
	Meenangadi, Muttil, Vythiri(Wayanad)
	Pariyaram, Padiyur, Udayagiri(Kannur)
	Kinanoor-Karinthalam, Bedadukka, Madikkai(Kasaragod)

2. Kerala State Pollution Control Board shall impart necessary training to the representatives of the local bodies including the Secretaries and provide technical knowhow to the local bodies regarding the implementation of Solid Waste Management Rules 2016, Plastic Waste Management Rules 2016 and Biomedical Waste Management Rules 2016. Suchitwa Mission and Clean Kerala Company Ltd shall help the Board in this regard.

3. Local Bodies shall utilise their Plan allocation/own sources and raise revenues for managing pollution and treating waste using the "Polluter Pays Principle"

4. A Core Committee with the Principal Secretary (Environment) as Chairperson and Chairman PCB, Director Suchitwa Mission, Director Clean Kerala Company, CE Irrigation, MD KWA, Director Panchayats, Director Urban Development and Director (Environment) as members shall monitor the progress made by these Panchayaths/Municipalities/Corporations towards making them fully compliant before 24.10.2019. The Committee shall also prepare the quarterly statements to be filed before NGT on 30.7.2019, 30.10.2019, 30.1.2020 & 25.4.2020.

5. Steps shall be parallely taken to make the remaining local bodies fully compliant by 25.4.2020.

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

To:

The Registrar, National Green Tribunal(SZ), Chennai

The Advocate General , Kerala, Ernakulam.

The Director, Department of Urban Affairs , Thiruvananthapuram.

The Director, Panchayath Department, Thiruvananthapuram.

✓ Chairman, Kerala State Pollution Control Board

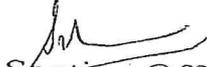
Executive Director, Suchitwa Mission ,Thiruvananthapuram.

Chairman, Central Pollution Control Board

Local Self Government Department

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Forwarded /By order


Section Officer

ANNEXURE 2

Status of Solid Waste Management in the State as on February 2021

Name of District	Quantity of Municipal Solid Waste		Status of door to door collection (%)	Status of segregation at source	No: of MSW treatment facilities with their capacities		Quantity of waste treated (TPD)			Gap in generation and treatment (Compost pits are provided in premises of panchayaths and municipalities is yet to be reported)	Plan of action to overcome the gaps	Number of Dumpsites and status of legacy waste management	
	Total Generated (TPD)	Collected (TPD) (Dry waste)			Designed	Operational	Composting and other decentralised facilities	Materials recovered, recycled & Coprocessed, Scrap feeders	Quantity of waste Landfilled			Major	Minor
Thiruvananthapuram	1211.05	162.41	48.42	Yes	One WtE plant of 300 TPD proposed Land identified	Aerobins, Windrow composting, Biogas plants, Pipe compost, compost pits, Kitchen bins	480.29	351.92	0	378.84	Action is being taken for the procurement of land. Tendering is being conducted for WtE plant	1	4
Kollam	902.49	128.82	54.67	Yes	One WtE plant of 200 TPD proposed	Aerobins, Biogas plants, Pipe and ring compost, compost pits, Kitchen bins	384.21	262.51	0	255.77	Planned to construct WtE plant of 200 TPD	1	
Pathanamthitta	391.80	48.62	38.40	Yes		Aerobins, Biogas plants, Pipe compost, compost pits, Kitchen bins, Windrow composting	186.53	114.26	0	91.00			

Name of District	Quantity of Municipal Solid Waste		Status of door to door collection (%)	Status of segregation at source	No: of MSW treatment facilities with their capacities		Quantity of waste treated (TPD)			Gap in generation and treatment (Compost pits are provided in premises of panchayats and municipalities is yet to be reported)	Plan of action to overcome the gaps	Number of Dumpsites and status of legacy waste management	
	Total Generated (TPD)	Collected (TPD) (Dry waste)			Designed	Operational	Composting and other decentralised facilities	Materials recovered, recycled & Coprocessed, Scrap feeders	Quantity of waste Landfilled			Major	Minor
Alappuzha	702.54	109.07	59.33	Yes		Aerobins, Biogas plants, Pipe compost, compost pits, Kitchen bins	314.77	204.06	1.5	182.22		1	
Kottayam	669.40	82.65	39.08	Yes		Aerobins, Biogas plants, Pipe compost, compost pits, Kitchen bins	291.05	194.97	0.5	182.88		1	4
Idukki	357.11	29.27	49.72	Yes	Proposed one WtE plant of 20 TPD Land available	Aerobins, Biogas plants, Pipe compost, compost pits, Kitchen bins	182.97	104.40	5.24	64.50	Planned to construct WtE plant of 200 TPD		3
Ernakulam	1199.68	370.57	50.54	Yes	Proposed one WtE plant of 300 TPD Land available	Aerobins, Windrow composting, Biogas plants, Pipe compost, compost pits, Kitchen bins	592.37	349.51	93.8	164.01	Planned to construct WtE plant of 300 TPD	1	4
Thrissur	1065.24	84.34	36.34	Yes	Proposed one WtE plant of 200 TPD Land identified	OWC, Aerobins, Biogas plants, Pipe compost, compost pits, Kitchen bins,	463.46	309.60	9	283.18	Planned to construct WtE plant of 200	1	3

Name of District	Quantity of Municipal Solid Waste		Status of door to door collection (%)	Status of segregation at source	No: of MSW treatment facilities with their capacities		Quantity of waste treated (TPD)			Gap in generation and treatment (Compost pits are provided in premises of panchayaths and municipalities is yet to be reported)	Plan of action to overcome the gaps	Number of Dumpsites and status of legacy waste management	
	Total Generated (TPD)	Collected (TPD) (Dry waste)			Designed	Operational	Composting and other decentralised facilities	Materials recovered, recycled & Coprocessed, Scrap feeders	Quantity of waste Landfilled			Major	Minor
						Windrow and vermi composting units					TPD		
Palakkad	918.91	103.62	47.75	Yes	Proposed one WtE plant of 200 TPD Land available	Aerobins, Biogas plants, Pipe compost, compost pits, Kitchen bins, Windrow composting	444.73	267.59	1.2	205.38	Planned to construct WtE plant of 200 TPD	1	1
Malappuram	1360.62	172.88	50.13	Yes	Proposed one WtE plant of 200 TPD Land available	Aerobins, Biogas plants, Pipe compost, compost pits, Kitchen bins	619.00	396.42	0.6	344.59	Planned to construct WtE plant of 200 TPD		3
Kozhikode	1098.40	223.31	69.88	Yes	One WtE plant of 300 TPD started	Windrow composting, Aerobins, Biogas plants, Pipe compost, compost pits, Kitchen bins	460.29	319.37	1.5	317.23	Work for WtE plant of 300 TPD started	1	1

Name of District	Quantity of Municipal Solid Waste		Status of door to door collection (%)	Status of segregation at source	No: of MSW treatment facilities with their capacities		Quantity of waste treated (TPD)			Gap in generation and treatment (Compost pits are provided in premises of panchayats and municipalities is yet to be reported)	Plan of action to overcome the gaps	Number of Dumpsites and status of legacy waste management	
	Total Generated (TPD)	Collected (TPD) (Dry waste)			Designed	Operational	Composting and other decentralised facilities	Materials recovered, recycled & Coprocessed, Scrap feeders	Quantity of waste Landfilled			Major	Minor
Wayanad	265.37	36.83	45.04	Yes	Proposed one WtE plant Land identified	Aerobins, Biogas plants, Pipe compost, compost pits, Kitchen bins	139.10	77.33	0	48.95			2
Kannur	872.76	176.33	68.32	Yes	Proposed one WtE plant of 200 TPD Land available	Aerobins, Biogas plants, Pipe compost, compost pits, Kitchen bins	382.27	254.39	17.5	218.60	Planned to construct WtE plant of 200 TPD	2	2
Kasaragod	434.03	44.24	43.48	Yes		Aerobins, Biogas plants, Pipe compost, compost pits, Kitchen bins	193.96	126.46	0	113.61			2
Total	11449.39	1772.96			10 WtE plant of total 1920 TPD		5135.01	3332.79	130.84	2850.76		10	29

Annexure 3

STATUS REPORT ON SOLID WASTE MANAGEMENT AS ON FEB 2021 (Details submitted by localbodies)

A. Corporation

A.1. Segregation and Collection									
Name of District		Thiruvananthapuram	Kollam	Ernakulam	Thrissur	Kozhikode	Kannur		
Name of Corporation		Thiruvananthapuram (Model city)	Kollam	Kochi	Thrissur (Model city)	Kozhikode (Model city)	Kannur		
Population (2011)		958000	348657	677000	317546	609000	356000		
No of Wards		100	55	74	55	75	55		
No of Household		2,72,820	88,332	1,67,935	86,604	1,39,507	68,059		
No of Establishment		18,882	9,825	18,706	15,250	30,120	11,887		
Total waste generated (TPD)		353.58		326		300	21		
Total bio waste generated (TPD)		253.66		226		205	20		
Total non bio waste generated (TPD)		100		100			1		
Total waste collected (TPD)				206		100	15		
Total waste treated (TPD)	Centralised units	Nil		206			15		
	decentralised units	152.23		20		254	36		
	Other	90		11		40			
Total waste treated (TPD)		242.23				294			
No of Household having segregation at source		Dry	2,18,150	56,803	1,13,306	18,000	82,500	43,210	
		Wet	2,18,150	56803	1,13,307		22,550	43,210	
No of Establishment having segregation at source		Dry	16,723	1720	13,665	18,000	20,350	28,824	
		Wet	16,723	Nil	13,665		17,463	28,824	
D2D Collection	Households	Number	Dry	52,726	52809	1,50,730	75,000	69,355	43,210
			Wet	NIL	Nil	150730	716	50540	28824
		Perce	Dry	19.4	59.8	89.8	23.3	49.72	63.5

A.1. Segregation and Collection									
Name of District		Thiruvananthapuram	Kollam	Ernakulam	Thrissur	Kozhikode	Kannur		
Name of Corporation		Thiruvananthapuram (Model city)	Kollam	Kochi	Thrissur (Model city)	Kozhikode (Model city)	Kannur		
	Collection Frequency	Wet			89.8	0.9	36.23	60.4	
		Dry	Weekly once	monthly once or twice	Daily	Once in month	Weekly once	Monthly	
		Wet	NIL	NIL	Daily	once in two days	Daily	Daily	
	Establishments	Number	Dry	17,382	4,800	11,175	10,000	23,580	25312
			Wet	17,382	NIL	11,175	2,500	20,650	7,517
		Percentage	Dry	92.1	48.9	59.8	19.7	78.29	89.3
			Wet	92.1		59.8	16.4	68.56	63.3
		Collection Frequency	Dry	DAILY	WEEKLY ONCE	Daily	once in two days	Daily	Fortnightly
			Wet	WEEKLY ONCE	NIL	Every 3 days	daily	Daily	Daily
	No of collectors		25 SERVICE PROVIDERS	124 (HKS)	1200	145	645	44	
	No of vehicles used		54	2	84	48	18	7	
	No. having source level treatment of wet waste in operation	Household	11,0341	2,206	15,466	716	13,603	23,318	
		Establishment	1,850	68	315	2,500	1,435	3,120	
	Percentage having source level treatment of wet waste in operation	Household	40.44	2.5	9	1	9.75	34.3	
Establishment		9.8	0.69	1.7	16.4	4.76	26.2		
No. disposing to centralised system	Household	NIL	NIL	150,730		Nil	Nil		
	Establishment	NIL	NIL	13,665	2000	8	Nil		
Percentage having disposal to	Household	NIL	0	89.7			0		

A.1. Segregation and Collection							
Name of District		Thiruvananthapuram	Kollam	Ernakulam	Thrissur	Kozhikode	Kannur
Name of Corporation		Thiruvananthapuram (Model city)	Kollam	Kochi	Thrissur (Model city)	Kozhikode (Model city)	Kannur
centralised system	Establishment	NIL	0	73	13.1	0.26	0
No. existing	MCF	54	7	3	11	12	2
	RRF	4	1	5	3	2	1
No. needed	MCF	55	275	71	15		25
	RRF	10	2	1	35		5
Qty of dry waste given to	Registered recyclers for plastic			NIL			Nil
	Registered recycler for e-waste			NIL			Nil
	Registered recycler for domestic hazardous waste			NIL			Nil
	Recyclers for other wastes			NIL			Nil
	Clean Kerala Company	64.8		NIL			Nil
	Road tarring			84 tons till 2019			Nil
	Cement kiln			NIL			Nil
	Landfill			NIL			nil
	Others			1TPD sent for recycling			Nil
	Total						
ULBs in which sweeping is carried out twice or more in public areas				NA	NA	Yes	

A.1. Segregation and Collection						
Name of District	Thiruvananthapuram	Kollam	Ernakulam	Thrissur	Kozhikode	Kannur
Name of Corporation	Thiruvananthapuram (Model city)	Kollam	Kochi	Thrissur (Model city)	Kozhikode (Model city)	Kannur
User fee	Rs.7/kg for poultry waste rs.5/kg for commercial waste plan 100- collection of nonbiodegradable from households plan 200-providing kitchen bin and inoculam to households	60-750	100-300	Rs. 50 for non bio degradable. Rs 350 for biodegradable. Commerical establishment depends on the quantity of waste	Rs 60/- - Rs 150/-	Collecting
Remarks						Nil

A.2. Centralised System

Name of District	Thiruvananthapuram	Kollam	Ernakulam	Thrissur	Kozhikode	Kannur
Name of Corporation	Thiruvananthapuram corporation	Kollam Corpn.	Kochi Corpn	Thrissur corpn.	Kozhikode	Kannur
Quantity of Waste generated (TPD) based on population	399	10460	326	127	254	148
Quantity of Waste generated (TPD) as reported by localbodies	353.58	112.45	326	152.5 TPD	300	15
Quantity of Waste collected (TPD)		10.5	308	122.55 TPD	98	15

Quantity of Waste treated (TPD)	242.2 Dry: 54.5 TPD, Wet: 187.7 TPD	10.5	211	122.55 TPD	95	15
Quantity of Waste processed in Composting Sites (TPD)			211	16 TPD (OWC 8+4+4)	75	15
Quantity of Waste processed in biomethanation (TPD)	NIL	7.75	NIL	2 TPD	65	0
Quantity of Waste processed in waste to energy plants (TPD)	NIL	NIL	NIL	NIL	0	0
Quantity of Waste processed in Landfill (TPD)	NIL	NIL	97	Nil	0	0
Existing capacity of Waste Processing Facilities: (TPD)		20	250	103 TPD	100	0
Existing capacity of Waste Disposal Facilities: (TPD)		nil	100	103 TPD	100	0
Planned Capacity of Waste Processing Facilities (TPD)		16	300	48.37 TPD	100	0
Planned Capacity of Waste Disposal Facilities (TPD)		nil	300	48.37 TPD	100	0
Timeframe for installation of planned capacity of Waste Processing Facilities: (Months)		6	18	1 year	1 Year	0
Timeframe for installation of planned capacity of Waste Disposal Facilities: (Months)		6	18	1 year	8 Months	0
Number of Legacy waste dumpsites in the State/UTs and plan for their Remediation:		1 (Kureepuzha)	1(Kochi M.Corp)	1	1 Njeliyan Paramba	1
Informal waste collectors (hotels & chicken stall)		25				
Non- Biodegradable waste		331 T		44.5 TPD		

A.3. Decentralised units namely pipe compost, kitchen bin, bio composter, biobin, pot bin, biogas plant.

Name of District	Thiruvanthapuram	Kollam	Ernakulam	Thrissur	Kozhikode	Kannur
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Name of Corporation	Thiruvanthapuram	Kollam	Kochi	Thrissur	Kozhikode	Kannur
No of units supplied:	110,091	2,206	NIL	3,499	11,360	2,299
No of units working:	97,365	1,986	NIL	3,499	11,185	2,299
No of units not working:	12,726	220	NIL	nil	175	0
Reason for failure:	Improper usage by the beneficiaries	Due to improper usage	NA	nil		0
Total quantity of Waste treated through decentralised facilities (TPD) as reported by localbodies	88.9	65.9	9.7	82.5	100	10

A.3.1 Details of Decentralised Facilities as reported by Localbodies

Name of District	Thiruvanthapuram	Kollam	Ernakulam	Thrissur	Kozhikode	Kannur	
Name of Corporation	Thiruvanthapuram	Kollam	Kochi	Thrissur	Kozhikode	Kannur	
pipe compost	Total no of units supplied	87000	1750	NIL	2272	11360	1892
	No of units working	50000	634	NIL	2272	11165	1682
	No of units not working	37000	116	NIL	-	195	210
	Quantity of waste treated using pipe composting facilities (TPD)	43.5	1.5	NIL		5.125	9.5
Kitchen bin	Total no of units supplied	49000(15833+ Old Bin)	0	NIL	Nil		102
	No of units working	49000(15833+ Old Bin)	0	NIL	Nil		NA
	No of units not working	Nil	0	NIL	Nil		NA
	Quantity of waste treated using kitchen bin facilities (TPD)		0	NIL	nil		NA

Name of District		Thiruvanthapuram	Kollam	Ernakulam	Thrissur	Kozhikode	Kannur
Name of Corporation		Thiruvanthapuram	Kollam	Kochi	Thrissur	Kozhikode	Kannur
Biogas plant (Household level)	Total no of units supplied	3982	2100	NIL	727	444	50
	Smart Biobins				400		
	No of units working	3892	2100	NIL	727	424	40
	No of units not working	2.39	318	NIL	0	20	50
	Quantity of waste treated using biogas plant (TPD)	3.98	4.2	NIL		1.726	0
Biogas plant (Community level)	Total no of units supplied	23	13	NIL	727	3	1
	No of units working	18	13	NIL	727	3	1
	No of units not working	5	0	6	0	0	0
	Quantity of waste treated using biogas plant (TPD)	18.4	5.6	NIL	nil	6	0.25
Aerobins (Community level)	Total no of units supplied	55	27	NIL	50	289	NIL
	No of units working	53	13	NIL	50	289	NA
	No of units not working	2	0	NIL	nil	0	NA
	Quantity of waste treated using aerobins (TPD)	12	1.3	NIL	nil	0.528	NA
biocomposter, biobin, pot bin	Total no of units supplied	Bio Bin 109	8200	NIL	450		NIL
	No of units working	109	8200	NIL	450		NA
	No of units not working	Nil	0	NIL	-		NA
	Quantity of waste treated using these units (TPD)	15	27.5	NIL			NA
Others	Total no of units supplied	109	0	NIL	52655 Compost pit	289	1
	No of units working	109	0	NIL	52655	289	1
	No of units not working	109	0	NIL	-	0	0

Name of District	Thiruvanthapuram	Kollam	Ernakulam	Thrissur	Kozhikode	Kannur
Name of Corporation	Thiruvanthapuram	Kollam	Kochi	Thrissur	Kozhikode	Kannur
Quantity of waste treated using these units (TPD)		25	NIL	47.1	0.584	0.25

B. Municipalities

B.1. Municipalities in Thiruvananthapuram

B.1.1. Segregation and Collection

Name of District		Thiruvananthapuram			
Name of Municipality		Attingal (Model Town)	Neyyattinkara	Nedumangad	Varkala
Population (2011)		37648	70850	60161	40048
No of Wards		31	44	39	33
No of Household		13,891	19,696	16,169	12,908
No of Establishment		1813	1,940	1,600	11020
No of Household having segregation at source	Dry	6,731	17,531	10000	5,850
	Wet	2433		0	0
No of Establishment having segregation at source	Dry	974	1145	1060	980
	Wet	974		0	81
Total waste generated (TPD)		17.2		19	15
Total biodegradable waste generated		16			9
Total non biodegradable waste generated		1.2		6	6
Total waste collected (TPD)					
Total waste treated (TPD)	Centralised units				
	decentralised units				

B.1.1. Segregation and Collection								
Name of District				Thiruvananthapuram				
Name of Municipality				Attingal (Model Town)	Neyyattinkara	Nedumangad	Varkala	
Other								
Total waste treated (TPD)								
D2D Collection	Households	Number	Dry	6731	9454	1000	5850	
			Wet	2433	0		0	
		Percentage	Dry	50	48	60	51	
			Wet	20	0	0	0	
		Collection Frequency	Dry	monthly	Twice in a month	15 days	1/month	
			Wet	daily	Nil	nil	0	
	Establishments	Number	Dry	974	355	1000	980	
			Wet	974	0	nil	80	
		Percentage	Dry	100	18.3	62.5	88	
			Wet	100	0		90	
		Collection Frequency	Dry	weekly twice	Once in a week	Thrise in a week	twice in a week	
			Wet	daily	Nil		daily	
	No of collectors				44	88	22	18
	No of vehicles used				15 Push cart 2 LCV	2	2	3
No. having source level treatment of wet waste in operation			Household	412	14181	15000	4370	
			Establishment	6(Community Level	213	1500	31	

B.1.1. Segregation and Collection					
Name of District		Thiruvananthapuram			
Name of Municipality		Attingal (Model Town)	Neyyattinkara	Nedumangad	Varkala
Percentage having source level treatment of wet waste in operation	Household	10	72		100
	Establishment		11		45
No. disposing to centralised system	Household	only one centralized plant	nil	10000	0
	Establishment	only one centralized plant	nil	1000	0
Percentage having disposal to centralised system	Household	90	0	60	0
	Establishment	90	0	50	0
No. existing	MCF	1	1	3	3
	RRF	1	0	3	1
No. needed	MCF	nil	3	1	2
	RRF	2	1	1	0
Qty of dry waste given to	Registered recyclers for plastic				
	Registered recycler for e-waste				
	Registered recycler for domestic hazardous waste				
	Recyclers for other wastes				
	Clean Kerala Company			0.5	
	Road tarring				800 kg
	Cement kiln				
	Landfill				

B.1.1. Segregation and Collection

Name of District		Thiruvananthapuram			
Name of Municipality		Attingal (Model Town)	Neyyattinkara	Nedumangad	Varkala
	Others				
	Total				
User fee		Rs 50-150 house hold/monthly Rs 300-2000 shop/monthly		60-1600	100 - Dry waste
Remarks		User fee various depending on the quantity of waste collected	User fee collections started	User fee charged as per the type of plastic collected from establishments and house holds	Wet waste - 3/Kg (As per Kg)

B.1.2. Centralised System

Name of District	Thiruvananthapuram			
Name of Corporation /Municipality /Panchayath	Attingal (Model Town)	Neyyattinkara	Nedumangad	Varkala
Quantity of Waste generated (TPD) based on population	17	30	25	17
Quantity of Waste generated (TPD)	17 TPD	24	3	8
Quantity of Waste collected (TPD)	16 TPD	3	1.5	4.8

Name of District	Thiruvananthapuram			
	Attingal (Model Town)	Neyyattinkara	Nedumangad	Varkala
Quantity of Waste treated (TPD)	16 TPD	2.25	1.75	4.8
Quantity of Waste processed in Composting Sites (TPD)	15	0	1750	4.3
Quantity of Waste processed in biomethanation (TPD)	1.5	1	0	4.3
Quantity of Waste processed in waste to energy plants (TPD)		0	nil	0
Quantity of Waste processed in Landfill (TPD)		0	nil	0
Existing capacity of Waste Processing Facilities: (TPD)	16	1	1.75	5
Existing capacity of Waste Disposal Facilities: (TPD)	16	0.25	1.5	0
Planned Capacity of Waste Processing Facilities (TPD)	16	0.5	1.75	3
Planned Capacity of Waste Disposal Facilities (TPD)	16	0.5	1.75	0
Timeframe for installation of planned capacity of Waste Processing Facilities: (Months)	2007	3		5
Timeframe for installation of planned capacity of Waste Disposal Facilities: (Months)	commissioned months	3	6 months	0
Number of Legacy waste dumpsites in the State/UTs and plan for their Remediation:	1	NIL	nil	Nil

B.1.3. Decentralised units namely pipe compost, kitchen bin, bio composter, biobin, pot bin, biogas plant.

Name of District	Thiruvananthapuram			
Name of Municipality	Attingal (Model Town)	Neyyattinkara	Nedumangad	Varkala
No of units supplied:	410 house hold level 2 kitchen bio bin 6 community level bio gas plant	110	150 Biogas, 1548 Kitchen bin	Ring Compost : 500 Pipe compost 180 Compost pit- 82
No of units working:	410 portable bio gas plant 2 kitchen bio bin	104	150 Biogas, 1548 Kitchen bin	Ring Compost : 500 Pipe compost 180 Compost pit- 82
No of units not working:	2 bio gas plant	6	nil	
Reason for failure:	not proper maintain(O&M)	Inproper Handling	All are maintainig properly	
Total quantity of Waste treated through decentralised facilities (TPD) as reported by localbodies	1.7	1.5	0.074	5

B.1.3.1 Details of Decentralised Facilities as reported by Localbodies

Name of District	Thiruvanthapuram
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Name of Municipality		Attingal (Model Town)	Neyyattinkara	Nedumangad	Varkala
pipe compost	Total no of units supplied	NIL		2700	180
	No of units working	-		2700	180
	No of units not working	-			
	Quantity of waste treated using pipe composting facilities (TPD)				
Kitchen bin	Total no of units supplied	412	110	2617	
	No of units working	407	104	2617	
	No of units not working	5	6	nil	
	Quantity of waste treated using kitchen bin facilities (TPD)	0.850	0.5	200	
Biogas plant (Household level)	Total no of units supplied	412	NIL	163	
	No of units working	407	NIL	37	
	No of units not working	5	NIL	5 Kg. per day	
	Quantity of waste treated using biogas plant (TPD)	0.850	NIL	NIL	
Biogas plant (Community level)	Total no of units supplied	407		10	
	No of units working	10		27	
	No of units not working	5			

Name of District		Thiruvanthapuram			
		Attingal (Model Town)	Neyyattinkara	Nedumangad	Varkala
Name of Municipality					
	Quantity of waste treated using biogas plant (TPD)	0.850 TPO		66 Kg./day	
Aerobins (Community level)	Total no of units supplied	NIL	10		
	No of units working	-	10	nil	
	No of units not working	-	-		
	Quantity of waste treated using aerobins (TPD)	-	1		
biocomposter, biobin, pot bin	Total no of units supplied	NIL	-		
	No of units working	-	-		
	No of units not working	-	-		
	Quantity of waste treated using these units (TPD)	-	-		
Others	Total no of units supplied	NIL	-	15 ring compost	Ring Compost : 500 Compost pit- 82
	No of units working	-	-		
	No of units not working	-	-		
	Quantity of waste treated using these units (TPD)	-	-		

B.2. Municipalities in Kollam

B.2.1. Segregation and Collection

Name of District		Kollam			
Name of Municipality		Karunagapally	Paravur (South)	Punalur (Model Town)	Kottarakara
Population (2011)		47483	36798	48648	31256
No of Wards		35	32	35	29
No of Household		14929	15069	13062	8393
No of Establishment		1700	2570	1232	3774
No of Household having segregation at source	Dry	4375	15069	3265.5 kg	7508
	Wet	0	15069	4571.7 kg	6327
No of Establishment having segregation at source	Dry	350	4500	2525 kg	3396
	Wet	45		527 kg	2641
Total waste generated (TPD)					
Total waste collected (TPD)					
Waste treated (TPD)	Centralised units				
	decentralised units				
	Other				
Total waste treated (TPD)					

B.2.1. Segregation and Collection

Name of District				Kollam				
Name of Municipality				Karunagapally	Paravur (South)	Punalur (Model Town)	Kottarakara	
D2D Collection	Households	Number	Dry	4375	15069	12954	7508	
			Wet	0	Nil	Nil	7200	
		Percentage	Dry	30	100	99.2	90	
			Wet	0			86	
		Collection Frequency	Dry	15 days	weekly	4 days	15 days	
			Wet	0	nil	Nil	daily	
	Establishments	Number	Dry	350	2570	1230	756	
			Wet	0	nil	Nil	7200	
		Percentage	Dry	21	100	99.9	20.1	
			Wet	0			90	
		Collection Frequency	Dry	15days	weekly	Daily	weekly	
			Wet	0		Nil	daily	
	No of collectors				35	32	127	58HKS
	No of vehicles used				3	1	3	1
No. having source level treatment of wet waste in operation			Household	375	1751	13062	7402	
			Establishment	225	500	1232	3300	
Percentage having source level treatment of wet waste in operation			Household	25	80	100%	88	
			Establishment	22	80	100%	87	

B.2.1. Segregation and Collection					
Name of District		Kollam			
Name of Municipality		Karunagapally	Paravur (South)	Punalur (Model Town)	Kottarakara
No. disposing to centralised system	Household	0		Nil	0
	Establishment	0		Nil	60
Percentage having disposal to centralised system	Household	0		Nil	0
	Establishment	0		Nil	2
No. existing	MCF	1	1	200	2
	RRF	1	1	1	1
No. needed	MCF	1	32	0	29
	RRF	1	0	0	1
User fee		Rs 50/month/household		Each house 30 Shop 100 Rs fee	
Remarks		nil			Lack of suitable land for MCF

B.2.2. Centralised System

Name of District	Kollam	Kollam	Kollam	Kollam
Name of Municipality	Karunagapally	South Paravur	Punalur (Model Town)	Kottarakara
Quantity of Waste generated (TPD) based on population	20	15	20	13
Quantity of Waste generated (TPD)	13	250 TON (250 KG)	10.5	
Quantity of Waste collected (TPD)	7	250 TON (250 KG)	10.5	
Quantity of Waste treated (TPD)	1	250 TON (250 KG)	10.5	
Quantity of Waste processed in Composting Sites (TPD)	0	250 TON	500 KG	
Quantity of Waste processed in biometanation (TPD)	0	NIL	Nil	
Quantity of Waste processed in waste to energy plants (TPD)	0	NIL	Nil	
Quantity of Waste processed in Landfill (TPD)	0	NIL	Nil	
Existing capacity of Waste Processing Facilities: (TPD)	0.5	250 TON	15 ton	
Existing capacity of Waste Disposal Facilities: (TPD)	1.5	250 TON	10.5 ton	
Planned Capacity of Waste Processing Facilities (TPD)	Nil	NIL	Nil	
Planned Capacity of Waste Disposal Facilities (TPD)	0		Nil	
Timeframe for installation of planned capacity of Waste Processing Facilities: (Months)	0			
Timeframe for installation of planned capacity of Waste Disposal Facilities: (Months)				

Number of Legacy waste dumpsites in the State/UTs and plan for their Remediation:	nil		Nil	
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B.2.3. Decentralised units namely pipe compost, kitchen bin, bio composter, biobin, pot bin, biogas plant.

Name of District	Kollam				
	Name of Municipality	Karunagapally	Paravur (South)	Punalur	Kottarakara
No of units supplied:		27 Biogas	75 biogas, 300 pipe compost	1250 Biogas, 5000 Pipe Compost,6500 Compost pit	
No of units working:		22	biogas 20	1250 Biogas, 5000 Pipe Compost,6500 Compost pit	
No of units not working:		5	biogas-55, pipe compost 300	Nil	
Reason for failure:		lack of maintenance	Smell and worms	All are maintaining properly	
Total quantity of Waste treated through decentralised facilities (TPD) as reported by		0	0.6	16.77	

localbodies				
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B.2.3.1 Details of Decentralised Facilities as reported by Localbodies

Name of District		Kollam			
		Karunagapally	Paravur (South)	Punalur (Model Town)	Kottarakara
Name of Municipality					
pipe compost	Total no of units supplied	1900	300	5000	
	No of units working	1900	0	5000	
	No of units not working	0	300	Nil	
	Quantity of waste treated using pipe composting facilities (TPD)	2.85	0.3	10 TPD	
Kitchen bin	Total no of units supplied		600		1450
	No of units working		600		1450
	No of units not working		0		0
	Quantity of waste treated using kitchen bin facilities (TPD)		0.5		0.72
Biogas plant (Household level)	Total no of units supplied	27	75	1250	360
	No of units working	10	15	1250	360
	No of units not working	17	60	Nil	0
	Quantity of waste treated using biogas plant (TPD)	1.25	0.22		0.54

Name of District		Kollam				
		Name of Municipality	Karunagapally	Paravur (South)	Punalur	Kottarakara
(Model Town)						
Biogas plant (Community level)	Total no of units supplied			0		120
	No of units working			0		120
	No of units not working			0		0
	Quantity of waste treated using biogas plant (TPD)			0		0.09
Aerobins (Community level)	Total no of units supplied		4 units		27	5
	No of units working		4 units		27	5
	No of units not working			0	Nil	0
	Quantity of waste treated using aerobins (TPD)		0.38 ton		0.27 TPD	
biocomposter, biobin, pot bin	Total no of units supplied	250	600			560
	No of units working	250	600			560
	No of units not working	0	0			0
	Quantity of waste treated using these units (TPD)	0.5	0.5			0.75
Others	Total no of units supplied	1900		0	6000 (compost pit)	400
	No of units working	1900		0	6000	400

Name of District		Kollam			
Name of Municipality		Karunagapally	Paravur (South)	Punalur (Model Town)	Kottarakara
	No of units not working	0	0	Nil	0
	Quantity of waste treated using these units (TPD)	2.85	0	6 TPD	2.117

B.3. Municipalities in Pathanamthitta

B.3.1. Segregation and Collection

Name of District		Pathanamthitta			
Name of Municipality		Adoor	Pathanamthitta	Thiruvalla	Pandalam
Population (2011)		29171	38002	52883	41604
No of Wards		28	32	39	33
No of Household		7911	12275	21099	15440
No of Establishment		1860	2456	6756	1324
No of Household having segregation at source	Dry	0	8600	21099	987
	Wet	0	2400		957
No of Establishment having segregation at source	Dry	65	1450	6756	7464
	Wet	0	160		130

B.3.1. Segregation and Collection								
Name of District				Pathanamthitta				
Name of Municipality				Adoor	Pathanamthitta	Thiruvalla	Pandalam	
D2D Collection	Households	Number	Dry	0	8600	21099	7664	
			Wet	0	0	-	60	
		Percentage	Dry		70	100	60	
			Wet	0	59		0	
		Collection Frequency	Dry		daily	once in a month	2 days per Week	
			Wet		0			
	Establishments	Number	Dry	65	150	6756	987	
			Wet	0	150		130	
		Percentage	Dry	3.5	59	100	74.5	
			Wet	0	6	0	9.81	
		Collection Frequency	Dry		daily	Weekly twice	Once in a week	
			Wet		daily		daily	
	No of collectors				4	16+1 (1 agency)	55	83
	No of vehicles used				1	2	3	2
	No. having source level treatment of wet waste in operation			Household	1250 Pipe Compost, 250 Ring Compost	900 Ring Bin	-	40

B.3.1. Segregation and Collection					
Name of District		Pathanamthitta			
Name of Municipality		Adoor	Pathanamthitta	Thiruvalla	Pandalam
	Establishment		15	1140	5
Percentage having source level treatment of wet waste in operation	Household	0	Nil		0.32
	Establishment	65	Nil	90%	0.32
No. disposing to centralised system	Household		0		0
	Establishment		0		130
Percentage having disposal to centralised system	Household	0	0		0
	Establishment	65	0		2.56
No. existing	MCF	1	3	1	1
	RRF	0	1		1
No. needed	MCF	4	59	5	3
	RRF	0	4	1	0
User fee		75000/-per month	House hold- Rs-60/- Per month Establishment- Asper quantity	House hold- Rs-60/- Per month Establishment- Asper quantity	
Remarks			Establishment waste collected through a pvt agency aproved		

B.3.1. Segregation and Collection				
Name of District	Pathanamthitta			
Name of Municipality	Adoor	Pathanamthitta	Thiruvalla	Pandalam
		by council		

B.3.2. Centralised System

Name of District	Pathanamthitta			
Name of Municipality	Adoor	Pathanamthitta	Thiruvalla	Pandalam
Quantity of Waste generated (TPD) based on population	12	16	22	17
Quantity of Waste generated (TPD)	10.96TPD	4		2
Quantity of Waste collected (TPD)	10.96TPD	3		1.5
Quantity of Waste treated (TPD)		1		1.5
Quantity of Waste processed in Composting Sites (TPD)	0.8TPD			
Quantity of Waste processed in bimethanation (TPD)				

Quantity of Waste processed in waste to energy plants (TPD)	Nil			
Quantity of Waste processed in Landfill (TPD)	Nil			1.5
Existing capacity of Waste Processing Facilities: (TPD)	10.96TPD			2
Existing capacity of Waste Disposal Facilities: (TPD)	10.96TPD			
Planned Capacity of Waste Processing Facilities (TPD)	18Months			
Planned Capacity of Waste Disposal Facilities (TPD)	18Months			
Timeframe for installation of planned capacity of Waste Processing Facilities: (Months)	18Months			
Timeframe for installation of planned capacity of Waste Disposal Facilities: (Months)	18Months			
Number of Legacy waste dumpsites in the State/UTs and plan for their Remediation:				

B.3.3. Decentralised units namely pipe compost, kitchen bin, bio composter, biobin, pot bin, biogas plant.

Name of District	Pathanamthitta			
Name of Municipality	Adoor	Pathanamthitta	Thiruvalla	Pandalam
No of units supplied:	1210, 8 Units, 9 Nos	Ring 350, Bio Bin 150, Bio Gas 250		40
No of units working:	1010, 3 Unit, 9 Nos	700		40
No of units not working:	200, 5 Unit, 9 Nos	50		0
Reason for failure:	Mismanagement from beneficiaries, construction not completed	lack of Proper maintenance		0
Total quantity of waste treated through decentralised facilities (TPD) as reported by localbodies				

B.3.3.1 Details of Decentralised Facilities as reported by Localbodies

Name of District		Pathanamthitta			
Name of Municipality		Adoor	Pathanamthitta	Thiruvalla	Pandalam
pipe compost	Total no of units supplied	1210		4000	0
	No of units working	1010		2360	0
	No of units not working	200		1640	0
	Quantity of waste treated using pipe composting facilities (TPD)			492 TPD	0
Kitchen bin	Total no of units supplied	NIL		Nil	0
	No of units working	NIL		Nil	0
	No of units not working	NIL		Nil	0
	Quantity of waste treated using kitchen bin facilities (TPD)	NIL		Nil	0
Biogas plant (Household level)	Total no of units supplied	NIL		300	40
	No of units working	NIL		170	40
	No of units not working	NIL		130	0
	Quantity of waste treated using biogas plant (TPD)	NIL		39 ton	0
Biogas plant (Community level)	Total no of units supplied	NIL		Nil	0
	No of units working	NIL		Nil	0
	No of units not working	NIL		Nil	0
	Quantity of waste treated using biogas plant (TPD)	NIL		Nil	0

Name of District		Pathanamthitta			
Name of Municipality		Adoor	Pathanamthitta	Thiruvalla	Pandalam
Aerobins (Community level)	Total no of units supplied	Thumboor muzhi model Aerobic Compost Unit			0
	No of units working	6 Bins, 3 units		Nil	0
	No of units not working	NIL		Nil	0
	Quantity of waste treated using aerobins (TPD)	NIL		Nil	0
biocomposter, biobin, pot bin	Total no of units supplied	NIL		Nil	0
	No of units working	NIL		Nil	0
	No of units not working	NIL		Nil	0
	Quantity of waste treated using these units (TPD)	NIL		Nil	0
Others	Total no of units supplied	NIL		Nil	0
	No of units working	Ring compost-250		Nil	0
	No of units not working			Nil	0
	Quantity of waste treated using these units (TPD)			Nil	0

B.4. Municipalities in Alappuzha

B.4.1. Segregation and Collection

Name of District		Alappuzha							
Name of Municipality		Alappuzha	Chengannur	Cherthala	Kayamkulam	Mavelikara	Haripad		
Population (2011)		174000	23456	45827	71376	26421	15588		
No of Wards		52	27	35	44	28	29		
No of Household		48000	9000	21913	17145	7184	9129		
No of Establishment		9800	2000	2467	2250	1412	1423		
No of Household having segregation at source		Dry	45231	1234	14913	9300	6345	8000	
		Wet	45231	0		0	1240	457	
No of Establishment having segregation at source		Dry	8054	678	2452	1000	645	350	
		Wet	8054	234	232	215	340	0.25	
D2D Collection	Households	Number	Dry	45000	1000	11000	5400	4487	8000
			Wet	0	0	0	0	340	Nil
		Percentage	Dry	93.8	11.12	74	32	62.5	87.7
			Wet	0	0	0	0	4.7	
		Collection Frequency	Dry	MONTHLY	ONCE A MONTH	ONCE A MONTH	Weekly	ONCE A MONTH	Monthly
			Wet	N A	0	0	Nil	ONCE A MONTH	----
	Establishments	Number	Dry	8054	500	128	1000	0	80
			Wet	6203		0	0	142	Nil
		Percentage	Dry	82.2	25	95	90	0	24.6
			Wet	63.3	0	0	0	10	22

B.4.1. Segregation and Collection									
Name of District				Alappuzha					
Name of Municipality				Alappuzha	Chengannur	Cherthala	Kayamkulam	Mavelikara	Haripad
		Collection Frequency	Dry	WEEKELY		Monthly	ONCE A MONTH	0	Monthly
			Wet	DAILY		0	Nil	DAILY	DAILY
No of collectors				76	25	35	9	12	30
No of vehicles used				6	1	1	2	2	1
No. having source level treatment of wet waste in operation	Household			17200	250	1050	2500	1057	457
	Establishment			102	5	22	90	142	5
Percentage having source level treatment of wet waste in operation	Household			35	27.8	7.04	20	22	0.7
	Establishment			1	0.25	0.9	4	10.05	0.35
No. disposing to centralised system	Household			0		NIL	80	0	0
	Establishment			0		NIL	0	0	
Percentage having disposal to centralised system	Household			0		0	6	0	
	Establishment			0		0	3	0	
No. existing	MCF			123	1	1	1	1	1
	RRF			3	0	1	1	1	1
No. needed	MCF			15	3	1	1	28	28
	RRF			5	13	1	1	27	28

B.4.1. Segregation and Collection						
Name of District	Alappuzha					
Name of Municipality	Alappuzha	Chengannur	Cherthala	Kayamkulam	Mavelikara	Haripad
User fee	House hold -Rs 40 per month (dry waste)	House hold- Rs-50/- Per month Establishment- rs 100,200,300 as per category	NIL		30	
Remarks	People bringing waste to their nearby aerobic compost unit and no user fee is charged by the ULB		Need one more mcf & rrf for proper functioning			

B.4.2. Centralised System

Name of District	Alappuzha					
Name of Corporation /Municipality /Panchayath	Alappuzha	Chengannur	Cherthala	Kayamkulam	Mavelikara	Haripad
Quantity of Waste generated (TPD) based on population	72	10	19	30	11	13
Quantity of Waste generated (TPD)	58/51.388/40		7	15	6.5	1.5
Quantity of Waste collected (TPD)	35/2/00/TPD	0.5	2	3	3.5	1

Quantity of Waste treated (TPD)	40	0.5	7	2.5	3	1
Quantity of Waste processed in Composting Sites (TPD)	35	0.4	1	2	1	1
Quantity of Waste processed in biomethanation (TPD)	2	0	0	1	0	Nil
Quantity of Waste processed in waste to energy plants (TPD)	0-	0	0	0	0	Nil
Quantity of Waste processed in Landfill (TPD)	0	0	1	2	100	Nil
Existing capacity of Waste Processing Facilities: (TPD)	39	0.5	1		4	Nil
Existing capacity of Waste Disposal Facilities: (TPD)	6	0.5	26	2	0.1	1.5
Planned Capacity of Waste Processing Facilities (TPD)	30	0.5	26	2	205	Nil
Planned Capacity of Waste Disposal Facilities (TPD)	8	0.5	2 years	0	0	0.03
Timeframe for installation of planned capacity of Waste Processing Facilities: (Months)	5	0	0	0	1 year	..
Timeframe for installation of planned capacity of Waste Disposal Facilities: (Months)	5	7	0	8	3	5
Number of Legacy waste dumpsites in the State/UTs and plan for their Remediation:	1`	1	0			0

B.4.3. Decentralised units namely pipe compost, kitchen bin, bio composter, biobin, pot bin, biogas plant.

Name of District	Alappuzha					
Name of Municipality	Alappuzha	Chengannur	Cherthala	Kayamkulam	Mavelikara	Haripad
No of units supplied:	17200	568	1050			72
No of units working:	16400	568	950			72
No of units not working:	800		100			0
Reason for failure:	Noproper handling		Not properly maintained			NA

B.4.3.1. Details of Decentralised Facilities as reported by Localbodies

Name of District		Alappuzha					
Name of Municipality		Alappuzha	Chengannur	Cherthala	Kayamkulam	Mavelikara	Haripad
pipe compost	Total no of units supplied	0	Nil	Nil	1920	0	Nil
	No of units working	0		Nil		0	Nil
	No of units not working	0		Nil		0	NA

Name of District		Alappuzha					
Name of Municipality		Alappuzha	Chengannur	Cherthala	Kayamkulam	Mavelikara	Haripad
	Quantity of waste treated using pipe composting facilities (TPD)	0	0	Nil	1920	0	NA
Kitchen bin	Total no of units supplied	9000	0	0		0	Nil
	No of units working	9000	0	0		0	NA
	No of units not working	0	0	0		0	NA
	Quantity of waste treated using kitchen bin facilities (TPD)	6	0	0		0	NA
Biogas plant (Household level)	Total no of units supplied	150	130	389	364	817	72
	No of units working	150	130	39	364	242	72
	No of units not working	0	0	350	364	575	0
	Quantity of waste treated using biogas plant (TPD)	1	0	100 KG		112 Kg	350 Kg
Biogas plant (Community level)	Total no of units supplied	0	0	0	6	0	Nil
	No of units working	0	0	0	6	0	NA
	No of units not working	0	0	0	6	0	NA
	Quantity of waste treated using biogas plant (TPD)	0	0	0	6	0	NA

Name of District		Alappuzha					
Name of Municipality		Alappuzha	Chengannur	Cherthala	Kayamkulam	Mavelikara	Haripad
Aerobins (Community level)	Total no of units supplied	32	2	26	Nil	4	Nil
	No of units working	32	2	26		4	NA
	No of units not working	0	2	0		0	NA
	Quantity of waste treated using aerobins (TPD)	37	0.4	2 TON/ UNIT		126 Kg	NA
biocomposter, biobin, pot bin	Total no of units supplied	0	703	1750 UNIT BIOBIN		0	Nil
	No of units working	0	703	0		0	NA
	No of units not working	0	0	0		0	NA
	Quantity of waste treated using these units (TPD)	0	0.05	0	Nil	0	NA
Others	Total no of units supplied	0	Nil	Nil	Nil	0	Nil
	No of units working	0	Nil	Nil		0	NA
	No of units not working	0	Nil	Nil		0	NA
	Quantity of waste treated using these units (TPD)	0	Nil	Nil	Nil		NA

B.5. Municipalities in Kottayam

B.5.1. Segregation and Collection

Name of District		Kottayam							
		Changanassery	Ettumanoor	Erattupetta	Kottayam	Pala	Vaikom		
Name of Municipality									
Population (2011)		127987	26423	29675	136812	123000	23234		
No of Wards		37	35	28	52	26	26		
No of Household		16606	110129	7686	48273	5280	7843		
No of Establishment		3000	1807	1282	6568	1900	1782		
No of Household having segregation at source		Dry	16000	10964	23	8	4500	0	
		Wet	16000	10964	11	24	250	0	
No of Establishment having segregation at source		Dry	2800	1801	6	14		0	
		Wet	2000		2	6		0	
Collect	Households	Number	Dry	404	10964	4212	8	1815	0
			Wet			1866	24	0	0

B.5.1. Segregation and Collection										
Name of District				Kottayam						
Name of Municipality				Changanassery	Ettumanoor	Erattupetta	Kottayam	Pala	Vaikom	
	Percentage	Dry	2.5	100	55	0.1	34.4	0		
		Wet	0	0	24.3	0.1	0	0		
		Collection Frequency	Dry	monthly	monthly	Monthly	2 TIMES IN A MONTH	Weekly	0	
			Wet		0	Monthly	0	Nil	0	
	Number	Dry	Nil	1027	22	14	94	0		
		Wet	Nil	0	26	6	0	0		
		Percentage	Dry		100	1.8	0.3	5	0	
			Wet		0	2.1	0.1	0	0	
	Collection Frequency	Dry	Nil	Monthly	daily	0	weekly	once in month		
		Wet	Nil	0	daily	3 TON PER DAY	Nil	daily		
	No of collectors				Haritha Karma Sena	56	62	104	14	64
	No of vehicles used				1	1	2	13	2	1
	No. having source level treatment of wet waste in operation	Household	2600	10964	5432	48273	5162	0		
		Establishment	70	118		Not started	250	0		
Percentage having source level treatment of wet waste in operation	Household	18%	100%	68		5162	0			
	Establishment	2.2	100%			250	0			
No. disposing to centralised system	Household	1200	Nil	0	0	1815	0			
	Establishment	Nil	80	0	0	94	0			

B.5.1. Segregation and Collection							
Name of District		Kottayam					
Name of Municipality		Changanassery	Ettumanoor	Erattupetta	Kottayam	Pala	Vaikom
Percentage having disposal to centralised system	Household	8%	0			0	0
	Establishment	0	67%			0	0
No. existing	MCF	1	1	1	1	1	1
	RRF	1	1	1	1	0	0
No. needed	MCF	28	35	7	15		0
	RRF	28	1	1	15		0
User fee		100 Rs per houses	50 for HH 150 for Establishments		61 including cess	60, 120	0
Remarks						60(for houses) 120(establishments)	0

B.5.2. Centralised System

Name of District	Kottayam					
Name of Municipality	Changanassery	Ettumanoor	Erattupetta	Kottayam	Pala	Vaikom

Name of District	Kottayam					
Name of Municipality	Changanassery	Ettumanoor	Erattupetta	Kottayam	Pala	Vaikom
Quantity of Waste generated (TPD) based on population	54	11	13	57	52	10
Quantity of Waste generated (TPD)	15 Tone/day	5	6 ton/day	30 ton	4.2 ton	1.5
Quantity of Waste collected (TPD)	2 tone/day	4.5	4 ton/day	6 ton	4.2 ton	1.5
Quantity of Waste treated (TPD)	2 tone/day	4.5	2.5 ton/day	3 ton/day	4.2 ton	1
Quantity of Waste processed in Composting Sites (TPD)	2 tone	0.5	2.5 ton/day	yes	4.2 ton	0
Quantity of Waste processed in biomethanation (TPD)	Nil	0	nil	0	0	0
Quantity of Waste processed in waste to energy plants (TPD)	Nil	0	nil	0	0	0
Quantity of Waste processed in Landfill (TPD)	Nil	0	nil	0	0	0
Existing capacity of Waste Processing Facilities: (TPD)	2	4.5	24 unit aerobic bin	62 unit aerobic bin\0	pipe compost	0
Existing capacity of Waste Disposal Facilities: (TPD)	2 Tone/day	4.5	10 ton/day	0	0	0
Planned Capacity of Waste Processing Facilities (TPD)	9 TPD	10	0	0	0	0
Planned Capacity of Waste Disposal Facilities (TPD)	100 tone	10	0	0	0	0
Timeframe for installation of planned capacity of Waste Processing Facilities: (Months)	3 months	1	0	0	0	0

Name of District	Kottayam					
Name of Municipality	Changanassery	Ettumanoor	Erattupetta	Kottayam	Pala	Vaikom
Timeframe for installation of planned capacity of Waste Disposal Facilities: (Months)	1 years	3	0	0	0	0
Number of Legacy waste dumpsites in the State/UTs and plan for their Remediation:	NA	NA	0	0	0	0

B.5.3. Decentralised units namely pipe compost, kitchen bin, bio composter, biobin, pot bin, biogas plant.

Name of District	Kottayam					
Name of Municipality	Changanassery	Ettumanoor	Erattupetta	Kottayam	Pala	Vaikom
No of units supplied:		6580		1479	5162	125
No of units working:		6548		1479	4500	65
No of units not working:		38			662	0
Reason for failure:	8800 Ring compost 1800 Biobin unit included in 2019- 20 project and is under process	Mishandling	750 biobin included in 2019-20 project and will supply from march 2020		Not properly manage.	

B.5.3.1. Details of Decentralised Facilities as reported by Localbodies

Name of District		Kottayam					
Name of Municipality		Changanassery	Ettumanoor	Erattupetta	Kottayam	Pala	Vaikom
pipe compost	Total no of units supplied	0		Nil	429	5162	Nil
	No of units working	0		Nil	429	4500	Nil
	No of units not working			Nil	0.7	662	Nil
	Quantity of waste treated using pipe composting facilities (TPD)			Nil	700kg	6.75	Nil
Kitchen bin	Total no of units supplied	250		Nil	Nil		Nil
	No of units working	250		Nil	Nil		Nil
	No of units not working			Nil	Nil		Nil
	Quantity of waste treated using kitchen bin facilities (TPD)	2		Nil	Nil		Nil
Biogas plant (Household level)	Total no of units supplied	0		Nil	1320	1	135
	No of units working	0		Nil	1320	1	135
	No of units not working	0		Nil	0	0	0
	Quantity of waste treated using biogas plant (TPD)	-		Nil	0.98	5kg.	Nil
Biogas plant	Total no of units supplied			Nil	62	1	Nil

Name of District		Kottayam					
Name of Municipality		Changanassery	Ettumanoor	Erattupetta	Kottayam	Pala	Vaikom
(Community level)	No of units working			Nil	52	1	Nil
	No of units not working			Nil	10	0	Nil
	Quantity of waste treated using biogas plant (TPD)			Nil	Nil		Nil
Aerobins (Community level)	Total no of units supplied	36bins		28	Nil		18
	No of units working	36		28	Nil		0
	No of units not working	0		0	Nil		18
	Quantity of waste treated using aerobins (TPD)	2tons		300 Kg	Nil	50kg.	0
biocomposter, biobin, pot bin	Total no of units supplied	250		Nil	Nil		0
	No of units working	250		Nil	Nil		0
	No of units not working	0		Nil	Nil		0
	Quantity of waste treated using these units (TPD)	2		Nil	Nil		0
Others	Total no of units supplied	250		Nil	Nil		Nil
	No of units working	250		Nil	Nil		Nil
	No of units not working	0		Nil	Nil		Nil
	Quantity of waste treated using these units (TPD)	2		Nil	Nil		Nil

B.6. Municipalities in Idukki

B.6.1. Segregation and Collection					
Name of District		Idukki			
Name of Municipality		Thodupuzha	Kattapana		
Population (2011)		52045	42646		
No of Wards		35	34		
No of Household		12604	10419		
No of Establishment		3286	2500		
No of Household having segregation at source		Dry	11466	7815	
		Wet	11466	7815	
No of Establishment having segregation at source		Dry	2500	2000	
		Wet	2200	820	
☺	Households	Number	Dry	11466	7815

B.6.1. Segregation and Collection					
Name of District			Idukki		
Name of Municipality			Thodupuzha	Kattapana	
			Wet	0	4800
		Percentage	Dry	91	75.1
			Wet	0	46.1
		Collection Frequency	Dry	Weekly	Monthly
	Wet		Nil	nil	
	Establishments	Number	Dry	2500	2000
			Wet	80	65
		Percentage	Dry	80.5	80
			Wet	3	2.6
		Collection Frequency	Dry	Daily	Daily
			Wet	Daily	Daily
	No of collectors			81	82
	No of vehicles used			3	2
	No. having source level treatment of wet waste in operation		Household	10000	7815
Establishment			2500	2000	
Percentage having source level treatment of wet waste in operation		Household	80	80	
		Establishment	80	80	
No. disposing to centralised system		Household	0	0	

B.6.1. Segregation and Collection			
Name of District		Idukki	
Name of Municipality		Thodupuzha	Kattapana
	Establishment	0	0
Percentage having disposal to centralised system	Household	0	0
	Establishment	0	0
No. existing	MCF	2	1
	RRF	1	1
No. needed	MCF	4	2
	RRF	2	0
User fee		30	20
Remarks		0	

B.6.2. Centralised System

Name of District	Idukki	Idukki
Name of Municipality	Thodupuzha Municipality	Kattappa Municipality

Name of District	Idukki	Idukki
Name of Municipality	Thodupuzha Municipality	Kattappa Municipality
Quantity of Waste generated (TPD) based on population	22	18
Quantity of Waste generated (TPD)	10	4.98
Quantity of Waste collected (TPD)	5.5	3.24
Quantity of Waste treated (TPD)	5	3.24
Quantity of Waste processed in Composting Sites (TPD)	0	3
Quantity of Waste processed in biometanation (TPD)	0	0
Quantity of Waste processed in waste to energy plants (TPD)	1	0
Quantity of Waste processed in Landfill (TPD)	3	0
Existing capacity of Waste Processing Facilities: (TPD)	5	5
Existing capacity of Waste Disposal Facilities: (TPD)	4	4
Planned Capacity of Waste Processing Facilities (TPD)	10	10
Planned Capacity of Waste Disposal Facilities (TPD)	10	10
Timeframe for installation of planned capacity of Waste Processing Facilities: (Months)	18	12

Name of District	Idukki	Idukki
Name of Municipality	Thodupuzha Municipality	Kattappa Municipality
Timeframe for installation of planned capacity of Waste Disposal Facilities: (Months)	18	12
Number of Legacy waste dumpsites in the State/UTs and plan for their Remediation:	0	1

B.6.3. Decentralised units namely pipe compost, kitchen bin, bio composter, biobin, pot bin, biogas plant

Name of District	Idukki	
	Thodupuzha	Kattapana
No of units supplied:	1300	1325
No of units working:	1300	1325
No of units not working:	0	0

Name of District	Idukki	
Name of Municipality	Thodupuzha	Kattapana
Reason for failure:	Nil	nil

B.6.3.1. Details of Decentralised Facilities as reported by Localbodies

Name of District		Idukki	
Name of Municipality		Thodupuzha	Kattapana
pipe compost	Total no of units supplied	69	
	No of units working	69	
	No of units not working	Nil	
	Quantity of waste treated using pipe composting facilities (TPD)	10 k g	
Kitchen bin	Total no of units supplied	69	
	No of units working	Nil	
	No of units not working	Nil	
	Quantity of waste treated using kitchen bin facilities (TPD)	Nil	

Name of District		Idukki	
Name of Municipality		Thodupuzha	Kattapana
Biogas plant (Household level)	Total no of units supplied	928	328
	No of units working	928	328
	No of units not working	nil	0
	Quantity of waste treated using biogas plant (TPD)	500 kg	8
Biogas plant (Community level)	Total no of units supplied	2	1.3
	No of units working	2	25
	No of units not working	nil	23
	Quantity of waste treated using biogas plant (TPD)	1000 k g	2
Aerobins (Community level)	Total no of units supplied	Nil	0.6
	No of units working	Nil	
	No of units not working	Nil	
	Quantity of waste treated using aerobins (TPD)	0	
biocomposter, biobin, pot bin	Total no of units supplied	34	
	No of units working	34	
	No of units not working	34	

Name of District		Idukki	
Name of Municipality		Thodupuzha	Kattapana
	Quantity of waste treated using these units (TPD)	9 k g	
Others	Total no of units supplied	nil	
	No of units working	nil	
	No of units not working	nil	
	Quantity of waste treated using these units (TPD)	nil	

B.7. Municipalities in Ernakulam

B.7.1. Segregation and Collection							
Name of District	Ernakulam						
Name of Municipality	Aluva	Angamaly	Eloor	Koothat tukulam	Kalamassery	Kothamangalam	Muvattupuzha
Population (2011)	24110	33465	31468	17942	71038	114574	30397
No of Wards	26	30	31	25	42	31	28

B.7.1. Segregation and Collection										
Name of District			Ernakulam							
Name of Municipality			Aluva	Angamaly	Eloor	Koothatukulam	Kalamassery	Kothamangalam	Muvattupuzha	
No of Household			5641	8421	10307	4832	27924	12000	7414	
No of Establishment			2214	2500	1015	1072	3360	2950	2448	
No of Household having segregation at source		Dry	2400	4500	10307	5	11800	1075	1800	
		Wet	1673	4500	10307	5	11800	source level management	source level management	
No of Establishment having segregation at source		Dry	520	3000	925	5	1345	600	200	
		Wet	150	3000	155	195	1345	800	250	
D2D Collection	Households	Number	Dry	5200	7500	Harithakar masena	195	11800	450	500
			Wet	1673	0	Source level management	195	11800	source level management	source level management
		Percentage	Dry	96	89	85	100	43	95	98
			Wet	29.7	0	90	100	43	95	90
		Collection Frequency	Dry	monthly	monthly	Monthly	monthly	weekly	MONTHLY	monthly
			Wet	daily	monthly	not collected	daily	alternate days	NOT COLLECTED	not collected
	Establishments	Number	Dry	2372	2250	925		1345	300	200
			Wet	179	75	155		1345	240	250
		Percentage	Dry	100	0	90	0	40.1	10.2	

B.7.1. Segregation and Collection										
Name of District				Ernakulam						
Name of Municipality				Aluva	Angamaly	Eloor	Koothattukulam	Kalamassery	Kothamangalam	Muvattupuzha
			Wet	90	1	15.3	0	40.1	8.2	
		Collection Frequency	Dry	weekly	0	monthly		twice in a week	MONTHLY	monthly
			Wet	daily	daily	not collected		daily	MONTHLY	monthly
No of collectors						81	0	19	2	49
No of vehicles used						2	0	4	1	auto 17,tipper lorry 4
No. having source level treatment of wet waste in operation		Household	1673	3500	598	18	nil	1800	2000	
		Establishment	80	2500	30	12	130	collected by harithakarmasena	collected by haritha karma sena	
Percentage having source level treatment of wet waste in operation		Household	80	42	85	-	0	95	90	
		Establishment	80	80	80	-	4	95	90	
No. disposing to centralised system		Household	0	NIL	Nil	-	11800	1	1	
		Establishment	0	NIL	Nil	-	1345	1	1	
Percentage having disposal to centralised system		Household	0	NA	NA	-	40	100	100	
		Establishment	0	NA	NA	-	40	100	100	
No. existing		MCF	nil	NIL	1	Nil	1	1	1	

B.7.1. Segregation and Collection								
Name of District		Ernakulam						
Name of Municipality		Aluva	Angamaly	Eloor	Koothattukulam	Kalamassery	Kothamangalam	Muvattupuzha
	RRF	1	NIL	0	Nil	1	1	0
No. needed	MCF	3	5	5	6	2	11	2
	RRF	0	1	1	1	2	0	1
User fee		50	Rs.50	50 Rs.	-	Rs.100/month /house, Rs.5 /kg for wet, Rs10/kg for dry waste for hotel and others	Rs. 50/house and Rs. 80 - 100/shops	50
Remarks					-			

B.7.3. Centralised System

Name of District	Ernakulam						
Name of Corporation /Municipality /Panchayath	Aluva	Angamaly	Eloor	Koothattukulam	Kalamassery	Kothamangalam	Muvattupuzha
Quantity of Waste generated (TPD) based on population	10	14	14	8	30	48	13
Quantity of Waste generated (TPD)	10	10	10	0.6	14	5	5

Quantity of Waste collected (TPD)	8	1	2		14	5	5
Quantity of Waste treated (TPD)	8	0	2		14	5	3
Quantity of Waste processed in Composting Sites (TPD)	nil	nil	1		Nil	nil	3
Quantity of Waste processed in biomethanation (TPD)	nil	nil	1		Nil	nil	Nil
Quantity of Waste processed in waste to energy plants (TPD)	nil	nil	Nil		Nil	nil	Nil
Quantity of Waste processed in Landfill (TPD)	nil	nil	Nil		Nil	nil	Nil
Existing capacity of Waste Processing Facilities: (TPD)	nil	nil	15 TPD (5 Unit)		Nil	5	3
Existing capacity of Waste Disposal Facilities: (TPD)	nil	nil	15 TPD (5 Unit)		Nil	NA	Nil
Planned Capacity of Waste Processing Facilities (TPD)	nil	nil	NA		Na	nil	Nil
Planned Capacity of Waste Disposal Facilities (TPD)	nil	nil	Na		NA	6 months	Nil
Timeframe for installation of planned capacity of Waste Processing Facilities: (Months)	na	na	Na		NA	nil	Nil
Timeframe for installation of planned capacity of Waste Disposal Facilities: (Months)	na	na	Na		NA	6 months	Nil

Number of Legacy waste dumpsites in the State/UTs and plan for their Remediation:	nill	na	NA		NA	NA	Yes
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B.7.3. Decentralised units namely pipe compost, kitchen bin, bio composter, biobin, pot bin, biogas plant

Name of District	Ernakulam						
Name of Municipality	Aluva	Angamaly	Eloor	Koothattukulam	Kalamassery	Kothamangalam	Muvattupuzha
No of units supplied:	53		598	Nil	Nil	204	1224
No of units working:	53	3000	326	Nil	Nil	204	1000
No of units not working:	0		272	Nil	Nil	204	224
Reason for failure:	na		Flood	Not established	Nil	nil	flood

B.7.3.1. Details of Decentralised Facilities as reported by Localbodies

Name of District		Ernakulam						
Name of Municipality		Aluva	Angamaly	Eloor	Koothattukulam	Kalamassery	Kothamangalam	Muvattupuzha
pipe compost	Total no of units supplied	43					nil	1175
	No of units working	43						

Name of District		Ernakulam						
Name of Municipality		Aluva	Angamaly	Eloor	Koothattukulam	Kalamassery	Kothamangalam	Muvattupuzha
	No of units not working	NIL						
	Quantity of waste treated using pipe composting facilities (TPD)							
Kitchen bin	Total no of units supplied	10					10000	24
	No of units working	10					10000	
	No of units not working	NIL					0	
	Quantity of waste treated using kitchen bin facilities (TPD)	NIL					0	2kg/day
Biogas plant (Household level)	Total no of units supplied	NIL					202	15
	No of units working	NIL					202	15
	No of units not working	NIL					0	0
	Quantity of waste treated using biogas plant (TPD)	NIL					nil	
Biogas plant (Community level)	Total no of units supplied	NIL					0	
	No of units working	NIL					0	
	No of units not working	NIL					0	

Name of District		Ernakulam						
Name of Municipality		Aluva	Angamaly	Eloor	Koothattukulam	Kalamassery	Kothamangalam	Muvattupuzha
	Quantity of waste treated using biogas plant (TPD)	NIL					0	
Aerobins (Community level)	Total no of units supplied	NIL					0	50
	No of units working	NIL					0	
	No of units not working	NIL					0	
	Quantity of waste treated using aerobins (TPD)	NIL					0	
biocomposter, biobin, pot bin	Total no of units supplied	NIL					0	
	No of units working	NIL					0	
	No of units not working	NIL					0	
	Quantity of waste treated using these units (TPD)	NIL					0	
Others	Total no of units supplied	NIL					0	
	No of units working	NIL					0	
	No of units not working	NIL					0	
	Quantity of waste treated using these units (TPD)	NIL					0	

B.7. Municipalities in Ernakulam

B.7.1. Segregation and Collection									
Name of District			Ernakulam						
Name of Municipality			North Paravur	Maradu	Perumbavoor	Piravam	Thrikkakkara	Thripunithura	
Population (2011)			31503	44704	28110	27229	77319	92522	
No of Wards			29	33	27	27	43	49	
No of Household			8964	53305	10495	8905	31230	29495	
No of Establishment			2500	1475	3364	1155	958	3400	
No of Household having segregation at source			Dry	6089		10388	8905	31230	25690
			Wet	source level management		3364	NIL	31230	26730
No of Establishment having segregation at source			Dry	1975		5860	1155	68	2920
			Wet	200		0	0	0	2860
D2D Collection	Households	Number	Dry	6089	6500	0	3621	31230	25690
			Wet	source level management	source level management	0	0	31230	26730
		Percentage	Dry	68	12.2	0	40.7	100	87.1
			Wet			0	0	100	90.7
		Collection Frequency	Dry	monthly	monthly	Twicw in a month	monthly	daily	Daily
			Wet	not collected	not collected	0	0	daily	Daily
	Establishments	Number	Dry	1975	100	0	545	680	2920
			Wet	200	200	0	0	278	2860
		Percentage	Dry	79	6.8	0	47.2	71	85.9

B.7.1. Segregation and Collection									
Name of District				Ernakulam					
Name of Municipality				North Paravur	Maradu	Perumbavoor	Piravam	Thrikkakkara	Thripunithura
			Wet	8	13.6	0	0	29.1	84.2
		Collection Frequency	Dry	monthly	monthly	0	daily	daily	Daily
			Wet	not collected	not collected	0	0	daily	Daily
	No of collectors					185	66	12	64
	No of vehicles used					5	0	1	2
No. having source level treatment of wet waste in operation			Household	1800	20	1671	8905	31	26730
			Establishment	collected by the municipality	not collected	96	32	0	2860
Percentage having source level treatment of wet waste in operation			Household	100	70	0	100%	0.50%	40%
			Establishment	100	80	0	100%	0	65%
No. disposing to centralised system			Household	29	1		3621	0	450
			Establishment	1	1		545	0	Nil
Percentage having disposal to centralised system			Household	100	65		40%	nil	Nil
			Establishment	100	70		47%	nil	Nil
No. existing			MCF	1	4	1	1	nil	1
			RRF	1	1	1	1	nil	Nil
No. needed			MCF	10	29	3	5	43	48
			RRF	3	1	1	2	1	49

B.7.1. Segregation and Collection						
Name of District	Ernakulam					
Name of Municipality	North Paravur	Maradu	Perumbavoor	Piravam	Thrikkakkara	Thripunithura
User fee	50 per house	30 per house, 100 Establishme nt	Rs.30/- for houses and rupess 50/- for shops/month	Yes.	130 /- per house	3.50/kg
Remarks	in institution rs 100			Varies in commercia l area . Rs. 50/- per month from Household		

B.7.2. Centralised System

Name of District	Ernakulam					
Name of Corporation /Municipality /Panchayath	North paravur	Maradu	Perumbavoor	Piravom	Thrikkakara	Tripunithura
Quantity of Waste generated (TPD) based on population	14	19	12	12	33	39
Quantity of Waste generated (TPD)	12.27	nil	10	1.54	5 TON	5 tonne
Quantity of Waste collected (TPD)	3.12	nil	3.2	0.4	4 TON	4.50 tonne

Name of District	Ernakulam					
Name of Corporation /Municipality /Panchayath	North paravur	Maradu	Perumbavoor	Piravom	Thrikkakara	Tripunithura
Quantity of Waste treated (TPD)	3.120/day	nil	2	0.4	Treated at Brahmapuram Plant	Composting at Brahmapuram Plant (Ownership Kochi Corporation)
Quantity of Waste processed in Composting Sites (TPD)	3.12	nil	2	0.8	NIL	Nil
Quantity of Waste processed in biomethanation (TPD)	na	nil	0	0	NIL	Nil
Quantity of Waste processed in waste to energy plants (TPD)	na	nil	0	0.34	NIL	Nil
Quantity of Waste processed in Landfill (TPD)	na	nil	1.2	0	NIL	NA
Existing capacity of Waste Processing Facilities: (TPD)	3.41	Nil	2	1 TPD	NIL	NA
Existing capacity of Waste Disposal Facilities: (TPD)	na	Nil	2	1 TPD	NIL	NA
Planned Capacity of Waste Processing Facilities (TPD)	3.41	Nil	2	2	3 TON	NA
Planned Capacity of Waste Disposal Facilities (TPD)	3.41		2	2	NA	NA
Timeframe for installation of planned capacity of Waste Processing Facilities: (Months)	na	Nil	6	12	NA	NA

Name of District	Ernakulam					
Name of Corporation /Municipality /Panchayath	North paravur	Maradu	Perumbavoor	Piravom	Thrikkakara	Tripunithura
Timeframe for installation of planned capacity of Waste Disposal Facilities: (Months)	na	Nil	6	12	NA	NA
Number of Legacy waste dumpsites in the State/UTs and plan for their Remediation:	yes	Na	NA	0	NA	NA

B.7.3. Decentralised units namely pipe compost, kitchen bin, bio composter, biobin, pot bin, biogas plant

Name of District	Ernakulam					
Name of /Municipality	North Paravur	Maradu	Perumbavoor	Piravam	Thrikkakkara	Thripunithura
No of units supplied:	1800	900			31	13741
No of units working:	1500	450	Biogas plant-140, Pot compost -895, Ring compost-616	1167	31 BIOGAS	13741
No of units not working:	300	450	21	NIL	0	Nil

Name of District	Ernakulam					
Name of /Municipality	North Paravur	Maradu	Perumbavoor	Piravam	Thrikkakkara	Thripunithura
Reason for failure:	flood	not working	Lack of Maintenance by beneficiaries		nil	Nil

B.7.3.1. Details of Decentralised Facilities as reported by Localbodies

Name of District		Ernakulam					
Name of Municipality		North paravur	Maradu	Perumbavoor	Piravom	Thrikkakara	Tripunithura
pipe compost	Total no of units supplied	1800		1654	874	0	9410
	No of units working	50		580	821	0	7620
	No of units not working	affected flood		1074	53	0	1790
	Quantity of waste treated using pipe composting facilities (TPD)	2kg		0.174	0.6 TPD	0	0
Kitchen bin	Total no of units supplied	nil		0	0	0	26
	No of units working	nil		0	0	0	8

Name of District		Ernakulam					
Name of Municipality		North paravur	Maradu	Perumbavoor	Piravom	Thrikkakara	Tripunithura
	No of units not working	nil		0	0	0	18
	Quantity of waste treated using kitchen bin facilities (TPD)	nil		0	0	0	0.1
Biogas plant (Household level)	Total no of units supplied	20		161	159	31	1300
	No of units working	5		161	159	31	1300
	No of units not working	affected flood and repairing stage		0	0	0	0
	Quantity of waste treated using biogas plant (TPD)	4kg		0.08	0.34 TPD	0.002	1.00 Tonne
Biogas plant (Community level)	Total no of units supplied	0		1	0	0	3
	No of units working	0		1	0	0	3
	No of units not working	0		0	0	0	0
	Quantity of waste treated using biogas plant (TPD)	0		0.5	0	0	1.10 Tonne
Aerobins (Community level)	Total no of units supplied	0		2	0	0	4
	No of units working	0		2	0	0	1
	No of units not working	0		0	0	0	3
	Quantity of waste treated using aerobins (TPD)	0		1	0	0	0.13

Name of District		Ernakulam					
Name of Municipality		North paravur	Maradu	Perumbavoor	Piravom	Thrikkakara	Tripunithura
biocomposter, biobin, pot bin	Total no of units supplied	0		898	134	0	2497
	No of units working	0		898	134	0	1210
	No of units not working	0		0	0	0	1287
	Quantity of waste treated using these units (TPD)	0		0.5	0.2 TPD	0	0.74
Others	Total no of units supplied	0		650	0	0	0
	No of units working	0		650	0	0	0
	No of units not working	0		0	0	0	0
	Quantity of waste treated using these units (TPD)	0		0.325	0	0	0

B.8. Municipalities in Thrissur

B.8.1. Segregation and Collection

Name of District		Thrissur					
Name of Municipality	Chalakkudy	Chavakkad	Guruvayoor	Irinjalakuda	Kodungallur	Kunnamkulam (Model Town)	Vadakkanchery

B.8.1. Segregation and Collection											
Name of District				Thrissur							
Name of Municipality				Chalakkudy	Chavakkad	Guruvayoor	Irinjalakuda	Kodungallur	Kunnamkulam (Model Town)	Vadakkanchery	
Population (2011)				49525	39098	70012	62532	94883	54071	15674	
No of Wards				36	32	43	41	44	37	41	
No of Household				14850	9947	18000	15933	19492	13156	17536	
No of Establishment				2682	1483	2683	2898	2846	3351	4844	
No of Household having segregation at source		Dry	14850		18000	7563	14896	13156	17536		
		Wet	12297		18000	7563	14896		17536		
No of Establishment having segregation at source		Dry	1620		2683	2500	2846		4844		
		Wet			2683	150	2846		4844		
Total waste generated (TPD)				19.81					5.39		
Total bio waste generated (TPD)				10.1					5.196		
Total non bio waste generated (TPD)				9.8					0.194		
Total waste collected (TPD)				15							
Total waste treated (TPD)		Centralised units		2							
		decentralised units		1.7							
		Other									
Total waste treated (TPD)				3.7			5.6		12.17		
D2D Collection	Households		Number	Dry	14850	3600	4400	7563	14896	13156	6000
				Wet	12297	NIL	880	1200	0	0	Nil
			Percentage	Dry	100	36.2	24.5	47.5	76.5	100	34.3
				Wet	82.8		4.9	7.6	0	0	

B.8.1. Segregation and Collection										
Name of District				Thrissur						
Name of Municipality				Chalakkudy	Chavakkad	Guruvayoor	Irinjalakuda	Kodungallur	Kunnamkulam (Model Town)	Vadakkanchery
	Collection Frequency	Dry	14850	once in a month	monthly	monthly	weekly	monthly	1/month	
		Wet		nil	alternative days	alternative days	source reduction method	nil	Nil	
	Number	Dry	2682	756	2683	2500	1412	3148	4844	
		Wet	2012	nil	193	150	0	148	100	
		Percentage	Dry	100	51	100	86.3	49.7	100	100
			Wet	75		7.2	5.2	0	4.7	2.1
	Collection Frequency	Dry		once in a week	weekly	weekly		weekly	1/month	
		Wet		nil	daily	daily		Daily	All working days	
	No of collectors			54	31	58	130	84	56	40
	No of vehicles used			3	2	6	7	2	5	2
No. having source level treatment of wet waste in operation		Household	12297	1082 Municipality is taken action to disribute 2600 kitchen bins and 500 Bio - gas plant to promote source level treatment of	13000	4600	6200	9500	17536	

B.8.1. Segregation and Collection								
Name of District		Thrissur						
Name of Municipality		Chalakkudy	Chavakkad	Guruvayoor	Irinjalakuda	Kodungallur	Kunnamkulam (Model Town)	Vadakkanchery
			wet waste at house hold level. The project received technical sanction and its ready to implement with in two weeks					
	Establishment	548	6	2400	1400	1350	13	4744
Percentage having source level treatment of wet waste in operation	Household		11%	72	28.87	32%	72.2	100%
	Establishment		0.40%	89	48.31	47		97.90%
No. disposing to centralised system	Household	0	nil	600	7563	0	0	0
	Establishment	2682	nil	90	2500	0	50	100
Percentage having disposal to centralised system	Household	0	N.A	3.2	47.47	0		0
	Establishment	100%	N.A	3.3	86.26	75%		2.1
No. existing	MCF	1	1	1	2	Temporary MCF	1	2
	RRF	1	1	1	1	under construction	1	1

B.8.1. Segregation and Collection								
Name of District		Thrissur						
Name of Municipality		Chalakkudy	Chavakkad	Guruvayoor	Irinjalakuda	Kodungallur	Kunnamkulam (Model Town)	Vadakkanchery
No. needed	MCF	2	1	10	2	10	37	3
	RRF	1	1	2	1	3	1	1
User fee		30/household, 100/establishment	Rs.60/- per month/Home	dry waste house hold 50/month .wet waste 200/month. dry waste establishment 100/sack .wet waste 5/kg	Rs.60/- per month/Home	House 50/Rs /month establishments 100/month	House 60 Rs/month and establishments 100-200s / month	House 60Rs/month, Estsblishments 100-500 Rs/month
Remarks							Door to door collection Facility of dry waste provide at 100%. But due to unwillingness of certain households. Full collection of dry waste could not be done.	

B.8.3. Centralised System

Name of District	Thrissur						
	Chalakkudy	Chavakkad	Guruvayoor	Irinjalakuda	Kodungallur	Kunnamkulam	Vadakkanchery
Quantity of Waste generated (TPD) based on population	21	17	29	26	40	23	22.68
Quantity of Waste generated (TPD)	19.81	0.8 to 1 TPD	18	25.8	4.72 TPD	15	22.68
Quantity of Waste collected (TPD)	13.6	0.8 to 1 TPD	4	5.5	3TPD	3.197 TPD	2.5
Quantity of Waste treated (TPD)	15	0.5 to 0.8 TPD	4	1.5	Nil	3.197 TPD	2.5
Quantity of Waste processed in Composting Sites (TPD)	2.5	0.5 to 1 TPD	2.75	0	Nil	3.197 TPD	2
Quantity of Waste processed in biomethanation (TPD)	0.85	Nil	0	0.6	Nil		2
Quantity of Waste processed in waste to energy plants (TPD)	nil	Nil	0	0	Nil		2
Quantity of Waste processed in Landfill (TPD)	0.5	Nil	0	0.4	nil		0
Existing capacity of Waste Processing Facilities: (TPD)	3.95	0.5 to 1	4	0.6	10TPD	5 TPD-Dry waste	2TPD
Existing capacity of Waste Disposal Facilities: (TPD)	3.95	0.5 to 1 TPD	4	5	9TPD		2TPD
Planned Capacity of Waste Processing Facilities (TPD)	1	0.5 to 1	5	10	22TPD		2TPD
Planned Capacity of Waste Disposal Facilities (TPD)	0.5	12	5	5	5TPD		
Timeframe for installation of planned capacity of Waste Processing Facilities: (Months)	12	NA	2yrs	4	24 Months	NA	

Name of District	Thrissur						
Name of Municipality	Chalakkudy	Chavakkad	Guruvayoor	Irinjalakuda	Kodungallur	Kunnamkulam	Vadakkanchery
Timeframe for installation of planned capacity of Waste Disposal Facilities: (Months)	12	NA	2yrs	4	24 months	100%	
Number of Legacy waste dumpsites in the State/UTs and plan for their Remediation:		1	1	1	1	0	

B.8.3. Decentralised units namely pipe compost, kitchen bin, bio composter, biobin, pot bin, biogas plant

Name of District	Thrissur						
Name of /Municipality	Chalakkudy	Chavakkad	Guruvayoor	Irinjalakuda	Kodungallur	Kunnamkulam	Vadakkanchery
No of units supplied:	1300		bio gas 294,pot bin 500	4600	3450 PIPE COMPOST		219
No of units working:	1300	1082	bio gas 290,pot bin 490	4590	2860	Biogas plant - 196, Biobin - 4226	217
No of units not working:	NIL	NA	bio gas 4,pot bin 10		590	Nil	2
Reason for failure:	NA	NA	lack of awareness	mis handling	Mishanling	NA	technical error

B.8.3.1. Details of Decentralised Facilities as reported by Localbodies

Name of District		Thrissur						
Name of Municipality		Chalakkudy	Chavakkad	Guruvayoor	Irinjalakuda	Kodungallur	Kunnamkulam	Vadakkanchery
pipe compost	Total no of units supplied	0	0			2713	Nil	Nil
	No of units working	0	0			2511		
	No of units not working	0	0			220		
	Quantity of waste treated using pipe composting facilities (TPD)	0	0			6-7 tone		
Kitchen bin	Total no of units supplied	0	2600			nil	6972	Nil
	No of units working	0	2600				6972	
	No of units not working	0	0					
	Quantity of waste treated using kitchen bin facilities (TPD)	0	3.9 TPD					
Biogas plant (Household level)	Total no of units supplied	363	100	294		412	196	219
	No of units working	363	95	290		378	196	219
	No of units not working	0	5	4		34		
	Quantity of waste treated using biogas plant (TPD)	0.85	0.38 TPD	290		1.9TDP		
Biogas plant	Total no of units supplied	0	0	0		16	Nil	Nil
	No of units working	0	0	0		16	0	

Name of District		Thrissur						
Name of Municipality		Chalakkudy	Chavakkad	Guruvayoor	Irinjalakuda	Kodungallur	Kunnamkulam	Vadakkanchery
(Community level)	No of units not working	0	0	0		0	0	
	Quantity of waste treated using biogas plant (TPD)	0	0	0		1TPD	0	
Aerobins (Community level)	Total no of units supplied	0	TS obtained for 36 bins in 7 places and agreement executed with IRTC	3		NIL	3(school level)	Nil
	No of units working	0		0		NIL	3	
	No of units not working	0		3		NIL	0	
	Quantity of waste treated using aerobins (TPD)	0		3.5 TON		NIL		
biocomposter, biobin, pot bin	Total no of units supplied	408	0	500		NIL	4850	Nil
	No of units working	408	0	490			4835	
	No of units not working	0	0	10			15	
	Quantity of waste treated using these units (TPD)	0	0	490				
Others	Total no of units supplied	308	0			NIL		Nil
	No of units working	308	0					
	No of units not working	0	0					
	Quantity of waste treated	0	0					

Name of District		Thrissur						
Name of Municipality		Chalakkudy	Chavakkad	Guruvayoor	Irinjalakuda	Kodungallur	Kunnamkulam	Vadakkanchery
	using these units (TPD)							

B.9. Municipalities in Palakkad

B.9.1. Segregation and Collection										
Name of District			Palakkad							
Name of Corporation/Municipality/Panchayath			Cheruplassery	Chitttur-Thattamangalam	Mannarkadu	Ottapalam	Palakkad	Pattambi	Shornur	
Population (2011)			30730	33000	39463	53792	131000	28632	43533	
No of Wards			33	29	29	36	52		33	
No of Household			8892	10956	8718	12484	42124	5286	10407	
No of Establishment			1634	1210	1434	2030	7200	1600	1468	
No of Household having segregation at source			Dry	5320	5656	8718	7200	16850	0	10407
			Wet	5320	1235	1434	0	2200	0	400
No of Establishment having segregation at source			Dry	1260	140	8718	1020	761	0	1200
			Wet	1260	112	Nil	0	nil	0	0
D2D Collection	Households	Number	Dry	5320	5656	One day/month	7200	16850	0	10407
			Wet	Nil	1235	0	0	2200	0	400
		Percentage	Dry	59.9	51.7		57.7	40.1	0	100
			Wet		11.3	0	0	5.3	0	3.9
		Collection Frequency	Dry	Monthly one	4 Time per month	one day/Month	twice in a month	Weekly once	0	Fortnight

B.9.1. Segregation and Collection

Name of District			Palakkad							
Name of Corporation/Municipality/Panchayath			Cheruplassery	Chitttur-Thattamangalam	Mannarkadu	Ottapalam	Palakkad	Pattambi	Shornur	
Establishments		Wet	Nil	14 Time per month	0	0	weekly Twice	0	Daily	
	Number	Dry	1260	140	1200	1020	761	0	1200	
		Wet	Nil	1235	0	0	Nil	0	0	
	Percentage	Dry	77.2	11.6	83.7	50.3	10.6	0	81.8	
		Wet		102.1	0	0		0	0	
	Collection Frequency	Dry	Daily/Weekly	4 Times per month	Weekly	twice in a month	Weekly Once	0	Once in a week	
		Wet	Nil	25 Times per month	0	0	Nil	0	na	
	No of collectors			22 HKS	56 Nos	58	56	156	20	65
	No of vehicles used			2	5 Nos	Nil	2	52	1	2
	No. having source level treatment of wet waste in operation		Household	1230	1242	8565	5400	4650	0	2902
Establishment			46	NIL	1434	400	20	0	136	
Percentage having source level treatment of wet waste in operation		Household	9%	15%	55%		11%	0	0	
		Establishment	2.50%	NIL	20%		0.30%	0	0	
No. disposing to centralised system		Household	Nil	NIL	0	210	490	0	0	
		Establishment	Nil	NIL	0	60	Nil	0	0	
Percentage having disposal to centralised		Household	Nil	NIL	0		1.20%	0	0	

B.9.1. Segregation and Collection

Name of District		Palakkad						
Name of Corporation/Municipality/Panchayath		Cheruplassery	Chitttur-Thattamangalam	Mannarkadu	Ottapalam	Palakkad	Pattambi	Shornur
system	Establishment	Nil	NIL	0		0	0	0
No. existing	MCF	1 Temperory	7 Nos	1	1	7	1	1
	RRF	Under Constructio n	1 Nos	Under Constructi on	1	1	1	1
No. needed	MCF	6	9 Nos	4	12	18	1	0
	RRF	0	1 Nos	1	0	0	1	0
User fee		House hold 30establish ment 50	50/100/250	Household 25 to 30pm Establish ment 50/Week	40	House Hold Dry waste-100 Wet waste-150 Establish ment -300	ESTABLI SHMENT 10/DAY.5 /DAY	Househo ld 50/- pm Establish ment 150 to 300/- pm
Remarks			collected userfess in Rs.50 /- per house and Rs.100 / 250 per				AMOUNT I	na

B.9.1. Segregation and Collection

Name of District	Palakkad						
Name of Corporation/Municipality/Panchayath	Cheruplassery	Chitttur-Thattamangalam	Mannarkadu	Ottapalam	Palakkad	Pattambi	Shornur
		establishment					

B.9.2. Centralised System

Name of District	Palakkad						
Name of Corporation /Municipality /Panchayath	Cheruplassery	Chitttur-Thattamangalam	Mannarkadu	Ottapalam	Palakkad	Pattambi	Shornur
Quantity of Waste generated (TPD) based on population	13	14	17	23	55	12	19
Quantity of Waste generated (TPD)		9.7 Ton	2.6	1.4ton	42	3TPD	1.5
Quantity of Waste collected (TPD)		3 Ton	2	0.980ton	18	500KG	1.5
Quantity of Waste treated (TPD)		2.85 Ton	2	0.980ton	15	50KG	1.5
Quantity of Waste processed in Composting Sites (TPD)		2.85 Ton	Nil	880 ton	8	NA	NIL
Quantity of Waste processed in biomethanation (TPD)			Nil	0	15	NA	NIL
Quantity of Waste processed in waste to energy plants (TPD)		NIL	Nil	0	nil	NA	NIL
Quantity of Waste processed in Landfill (TPD)		NIL	Nil	0	Nil	NA	NIL

Name of District	Palakkad						
Name of Corporation /Municipality /Panchayath	Cheruplassery	Chitttur-Thattamangalam	Mannarkadu	Ottapalam	Palakkad	Pattambi	Shornur
Existing capacity of Waste Processing Facilities: (TPD)		4 Ton	2	1 ton	18	NA	3
Existing capacity of Waste Disposal Facilities: (TPD)		2.85 Ton	2	0	18	NA	3
Planned Capacity of Waste Processing Facilities (TPD)		2.85 Ton	2	1 ton	0.5 ton	NA	3
Planned Capacity of Waste Disposal Facilities (TPD)		2.85 Ton	2	NA	10 ton	NA	3
Timeframe for installation of planned capacity of Waste Processing Facilities: (Months)		NA	12 Months	1 MONTH	2 ton	NA	3
Timeframe for installation of planned capacity of Waste Disposal Facilities: (Months)		NA	12 Months	1 MONTH	24 Months	NA	3
Number of Legacy waste dumpsites in the State/UTs and plan for their Remediation:		NA	NA	3	24 Month	NA	NA

B.9.3. Decentralised units namely pipe compost, kitchen bin, bio composter, biobin, pot bin, biogas plant

Name of District	Palakkad
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Name of Municipality	Cheruplassery	Chitttur-Thattamangalam	Mannarkadu	Ottapalam	Palakkad	Pattambi	Shornur
No of units supplied:		1537		4426	4550	1800	2902
No of units working:		998	55	4426	2650	0	2092
No of units not working:		539	Nil	0	1900	0	0
Reason for failure:		not avalabilty of inaculam and techical error	NA	NA	Foul Smell & Insects	0	na

B.9.3.1. Details of Decentralised Facilities as reported by Localbodies

Name of District		Palakkad						
Name of Municipality		Cheruplasse ry	Chitttur-Thattaman galam	Mannarkad u	Ottapalam	Palakkad	Pattambi	Shornur
pipe compost	Total no of units supplied		NIL	40		2500	Nil	
	No of units working		NIL	40		2500	NIL	
	No of units not working		NIL	0		NIL	NIL	
	Quantity of waste treated using pipe composting facilities (TPD)		NIL	75 Kg.		3200	NIL	

Name of District		Palakkad						
Name of Municipality		Cheruplassery	Chitttur-Thattamangalam	Mannarkadu	Ottapalam	Palakkad	Pattambi	Shornur
Kitchen bin	Total no of units supplied		NIL	Nil		NIL	Nil	
	No of units working		NIL	N.A		NIL	NIL	
	No of units not working		NIL	N.A		NIL	NIL	
	Quantity of waste treated using kitchen bin facilities (TPD)		NIL	N.A		NIL	NIL	
Biogas plant (Household level)	Total no of units supplied		42	20		NIL	69	
	No of units working		42	20		NIL	NIL	
	No of units not working		NIL	0		NIL	NIL	
	Quantity of waste treated using biogas plant (TPD)		250	125 Kg		NIL	IM3 Capacity	
Biogas plant (Community level)	Total no of units supplied		NIL	Nil		1	Nil	
	No of units working		NIL	Nil		NIL	NIL	
	No of units not working		NIL	N.A		1	NIL	
	Quantity of waste treated using biogas plant (TPD)		NIL	N.A		500KG/DAY	NIL	
Aerobins (Community level)	Total no of units supplied		NIL	Nil		NIL	Nil	
	No of units working		NIL			NIL	NIL	
	No of units not working		NIL			NIL	NIL	
	Quantity of waste treated		NIL			NIL	NIL	

Name of District		Palakkad						
Name of Municipality		Cheruplassery	Chitttur-Thattamangalam	Mannarkadu	Ottapalam	Palakkad	Pattambi	Shornur
	using aerobins (TPD)							
biocomposter, biobin, pot bin	Total no of units supplied		NIL	315		NIL	Nil	
	No of units working		NIL			NIL	NIL	
	No of units not working		NIL			NIL	NIL	
	Quantity of waste treated using these units (TPD)		NIL	475 Kg./day		NIL	NIL	
Others	Total no of units supplied		Bucket-1300, Ring-395	Nil		RING COMPOST-60	NIL	
	No of units working		Bucket-1300, Ring-395			60	NIL	
	No of units not working					NIL	NIL	
	Quantity of waste treated using these units (TPD)					24Kg/day	NIL	

B.10. Municipalities in Malappuram

B.10.1. Segregation and Collection									
Name of District			Malappuram						
Name of Municipality			Kondotty	Kottakkal	Malappuram	Manjeri	Nilambur	Parappanangadi	
Population (2011)			28794	44382	101000	97104	46366	35243	
No of Wards			40	32	40	50	33	45	
No of Household			11807	11080	18889	19386	13685	18256	
No of Establishment			1700	2020	3246	4809	1800	1155	
No of Household having segregation at source		Dry	600	9600	15112	9886	5135	8358	
		Wet	8000		0	2115	0	7250	
No of Establishment having segregation at source		Dry	1000	1500	876		1750	615	
		Wet	100		0			527	
D2D Collection	Households	Number	Dry	9400	1480	15112	180 Ton	0	8358
			Wet	590		0	NIL	0	7250
		Percentage	Dry	79.7	13.4	80.1		0	45.8
			Wet	5	0	0		0	39.8
		Collection Frequency	Dry	Quarterly		Once in a month	One time in Month	monthly	
			Wet	Daily		-		Nil	
	Establishments	Number	Dry	200	520	876	2100	Nil	615
			Wet	Nil		0		21	527
		Percentage	Dry	11.8	25.8	27	43.7		53.3
			Wet		0	0	0	1.2	45.7
		Collection Frequency	Dry	quarterly		Once in a week	Daily	weekly	
			Wet			-	NIL	Nil	
No of collectors			160	15	24	16	29	90	
No of vehicles used			1 Owned and	1	2	2	1	1	

B.10.1. Segregation and Collection							
Name of District		Malappuram					
Name of Municipality		Kondotty	Kottakkal	Malappuram	Manjeri	Nilambur	Parappanangadi
		1 Hired					
No. having source level treatment of wet waste in operation	Household	8000	Nil	17735		33	
	Establishment	100	Nil	876		Nil	40
Percentage having source level treatment of wet waste in operation	Household	67%		93			70
	Establishment	1%		27			
No. disposing to centralised system	Household			Nil	1	Nil	3750
	Establishment			75	1	Nil	337
Percentage having disposal to centralised system	Household	nil	Nil	Nil			20.54
	Establishment	nil	Nil	2.3			29.17
No. existing	MCF	1	1	3	3	Temporary	1
	RRF	nil	1	1	0	Nil	1
No. needed	MCF	2	30	4	2	3	4
	RRF	1	2	1	1	1	1
User fee		Yes, Collecting	House Hold- 50, Establishment - 100	HH- 30/- per month Estmnt- 50/- per week	300/-	60	Rs 30 (House) RS 100(Shop)
Remarks			User fee based on openlyQuantity of waste		The user free Charged in kg		

B.10.1. Segregation and Collection

Name of District	Malappuram					
Name of Municipality	Kondotty	Kottakkal	Malappuram	Manjeri	Nilambur	Parappanangadi
				base		

B.10.2. Centralised System

Name of District	Malappuram					
Name of Municipality	Kondotty	Kottakkal	Malappuram	Manjeri	Nilambur	Parappanangadi
Quantity of Waste generated (TPD) based on population	12	18	43	41	20	15
Quantity of Waste generated (TPD)	0.12 TPD(non bio degradable)		3.23		3 1/2 TPD	2
Quantity of Waste collected (TPD)	0.12 TDP(non biodegradable)		2.2		2 TPD	1
Quantity of Waste treated (TPD)	0.12 TPD		2.2		1 1/2 TPD	1
Quantity of Waste processed in Composting Sites (TPD)	nil		Nil		1 1/2 TPD	
Quantity of Waste processed in biomethanation (TPD)	nil		Nil		Nil	
Quantity of Waste processed in waste to energy plants (TPD)	nil		Nil		Nil	
Quantity of Waste processed in Landfill (TPD)	nil		Nil		Nil	
Existing capacity of Waste Processing Facilities: (TPD)	0.12 TPD		Nil		1 TPD	1

Existing capacity of Waste Disposal Facilities: (TPD)	na		Nil		0.5 TPD	1
Planned Capacity of Waste Processing Facilities (TPD)	na		Nil		1	50
Planned Capacity of Waste Disposal Facilities (TPD)					1.5	3
Timeframe for installation of planned capacity of Waste Processing Facilities: (Months)	6 months				4	1 year
Timeframe for installation of planned capacity of Waste Disposal Facilities: (Months)	6 months				4	2 year
Number of Legacy waste dumpsites in the State/UTs and plan for their Remediation:	NA				0	Nil

B.10.3. Decentralised units namely pipe compost, kitchen bin, bio composter, biobin, pot bin, biogas plant

Name of District	Malappuram					
	Kondotty	Kottakkal	Malappuram	Manjeri	Nilambur	Parappanangadi
No of units supplied:	Pipe Composting-600 Ring Compost-183 Biogas Plant-18	NIL	31BIOGAS			biogas - 13, kitchenbin-75
No of units working:	801		1061		33	kitchen bin -73

Name of District	Malappuram					
Name of Municipality	Kondotty	Kottakkal	Malappuram	Manjeri	Nilambur	Parappanangadi
No of units not working	nil		Nil		NA	biogas 13
Reason for failure:	NA	NA			NA	

B.10.3.1. Details of Decentralised Facilities as reported by Localbodies

Name of District		Malappuram					
Name of Municipality		Kondotty	Kottakkal	Malappuram	Manjeri	Nilambur	Parappanangadi
pipe compost	Total no of units supplied	600			3792	321	
	No of units working	420			2844	135	
	No of units not working	180			948	186	
	Quantity of waste treated using pipe composting facilities (TPD)	125			2.8 ton	0.33	
Kitchen bin	Total no of units supplied	Nil			0	NIL	73
	No of units working	NA			0	NIL	73
	No of units not working	NA			0	NIL	0
	Quantity of waste treated using kitchen bin facilities (TPD)	NA			0		

Name of District		Malappuram					
Name of Municipality		Kondotty	Kottakkal	Malappuram	Manjeri	Nilambur	Parappanangadi
Biogas plant (Household level)	Total no of units supplied	NA			0	104	13
	No of units working	18			0	71	13
	No of units not working	Nil			0	33	0
	Quantity of waste treated using biogas plant (TPD)	45 Kg/day			0	0.18	
Biogas plant (Community level)	Total no of units supplied	Nil			0	NIL	
	No of units working	Na			0	NIL	
	No of units not working	Na			0	NIL	
	Quantity of waste treated using biogas plant (TPD)	Na			0	NIL	
Aerobins (Community level)	Total no of units supplied	Na			0	NIL	
	No of units working	Na			0	NIL	
	No of units not working	Na			0	NIL	
	Quantity of waste treated using aerobins (TPD)	Na			0		
biocomposter, biobin, pot bin	Total no of units supplied	Nil			0	75	
	No of units working	Na			0	75	

Name of District		Malappuram					
Name of Municipality		Kondotty	Kottakkal	Malappuram	Manjeri	Nilambur	Parappanangadi
	No of units not working	Na			0	NIL	
	Quantity of waste treated using these units (TPD)	Na			0	0.19	
Others	Total no of units supplied	123 Ring Compost			0	NIL	
	No of units working	123			0	NIL	Ongoing
	No of units not working	Nil			0	NIL	
	Quantity of waste treated using these units (TPD)	50 Kg/day			0	NIL	

B.10. Municipalities in Malappuram

B.3.1. Segregation and Collection

Name of District		Malappuram					
Name of Corporation/Municipality/Panchayath		Perinthalmanna	Ponnani	Thanoor	Thiroorangadi	Tirur	Valanchery
Population (2011)		49723	90491	44973	56632	56058	35795
No of Wards		34	51	44	39	38	33
No of Household		16242	16394	15400	13146	12769	7651
No of Establishment		3202	2540	1500	2000	8412	1224
No of Household having segregation at	Dry	6242	11475	8490	5500	12769	NA

B.3.1. Segregation and Collection

Name of District		Malappuram							
Name of Corporation/Municipality/Panchayath		Perinthalmanna	Ponnani	Thanoor	Thiroorangadi	Tirur	Valanchery		
source		Wet	0	11475	0	0	12769	NA	
No of Establishment having segregation at source		Dry	1102	1778	150	500	8412	No	
		Wet	193	1778	0	0	8412	No	
D2D Collection	Households	Number	Dry	6242	11475	8490	5500	12769	
			Wet	0	0	0	0	0	
		Percentage	Dry	38.5	70	55.2	41.9	100	0
			Wet	0	0	0	0	0	0
		Collection Frequency	Dry	Monthly	monthly	once in month	once in every three months	twice in one month	Once in a month
			Wet	Nil	Nil	0	Nil	0	
	Establishments	Number	Dry	1102	1778	150	500	8412	Nil
			Wet	193	0	0	0	0	Nil
		Percentage	Dry	34.5	70	10	25	100	
			Wet	6.1	0	0	0	0	
		Collection Frequency	Dry	Daily	Twice/month	once in week	fortnightly	twice in one month	Nil
			Wet	Daily	nil	0	Nil	0	Nil
No of collectors			52	49	0	28	38	13	
No of vehicles used			6	1	1	1	2	Nil	
No. having source level treatment of wet waste in operation		Household	1310	13115	8000	1912	12769	20%	
		Establishment	32	1905	1000	10	8412	Nil	

B.3.1. Segregation and Collection

Name of District		Malappuram					
Name of Corporation/Municipality/Panchayath		Perinthalmanna	Ponnani	Thanoor	Thiroorangadi	Tirur	Valanchery
Percentage having source level treatment of wet waste in operation	Household		80	52		100	Nil
	Establishment		75	67		100	Nil
No. disposing to centralised system	Household	Nil	Nil	0	Nil	nil	Nil
	Establishment	Nil	2	0	Nil	nil	Nil
Percentage having disposal to centralised system	Household	0	0	0	Nil	0	Nil
	Establishment	0	near to 0	0	Nil	0	Nil
No. existing	MCF	1	8	1	1	1	1
	RRF	1	1	1	0	1	Nil
No. needed	MCF	2	10	4	4	1	3
	RRF	0	0	1	1	15	1
User fee		50per House	50 per house	50 per house hold 100 per establish ment	Rs 50/- per Household and Rs 100/- per establishment (for each 50kg bag)	Rs 50/- per house hold	Rs 50/- per house hold
Remarks							

B.10.2. Centralised System

Name of District	Malappuram					
Name of Municipality	Peinthalmanna	Ponnani	Thanoor	Thiroorangadi	Tirur	Valanchery

Quantity of Waste generated (TPD) based on population	21	38	19	24	24	15
Quantity of Waste generated (TPD)	10	6	12.38	17 TPD	8	6 ton per day
Quantity of Waste collected (TPD)	6	2	0.3	0.5	1	3
Quantity of Waste treated (TPD)	6	2	0	0	1	2.5
Quantity of Waste processed in Composting Sites (TPD)	6	2	0	0	0.75	0.3
Quantity of Waste processed in biomethanation (TPD)	Nil	0	0	0	nil	NA
Quantity of Waste processed in waste to energy plants (TPD)	Nil	0	0	0	nil	NA
Quantity of Waste processed in Landfill (TPD)	Nil	0	0	0	0.25	NA
Existing capacity of Waste Processing Facilities: (TPD)	7	2	0	0	2	0.2
Existing capacity of Waste Disposal Facilities: (TPD)	Nil	2	0	0	0.25	Nil
Planned Capacity of Waste Processing Facilities (TPD)	11	6	0	0	2	Nil
Planned Capacity of Waste Disposal Facilities (TPD)	Nil	0	0	0	2	Nil
Timeframe for installation of planned capacity of Waste Processing Facilities: (Months)	3	6 months	12	12	6	On Processing
Timeframe for installation of planned capacity of Waste Disposal Facilities: (Months)	3	0	12	6	6	Nil
Number of Legacy waste dumpsites in the State/UTs and plan for their Remediation:	Nil	0	0	0	1	Nil

B.10.3. Decentralised units namely pipe compost, kitchen bin, bio composter, biobin, pot bin, biogas plant

Name of District	Malappuram
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Name of Corporation/Municipality/Panchayath	Peinthalmanna	Ponnani	Thanoor	Thiroorangadi	Tirur	Valanchery
No of units supplied:	472	1302		1912	468	230
No of units working:	0	1302	56	800	468	230
No of units not working	0	0	0	1112	.	
Reason for failure:	NA	NA	NA	improper handling	.	NA

B.10.3.1. Details of Decentralised Facilities as reported by Localbodies

Name of District		Malappuram					
Name of Municipality		Peinthalmanna	Ponnani	Thanoor	Thiroorangadi	Tirur	Valanchery
pipe compost	Total no of units supplied		364	Nil	1912	453	Nil
	No of units working		364	Nil	1850	230	Nil
	No of units not working		0	Nil	62	223	Nil
	Quantity of waste treated using pipe composting facilities (TPD)		0.546	Nil	2.86	0.21	Nil
Kitchen bin	Total no of units supplied		nil	Nil	NIL	2769	Nil
	No of units working		nil	Nil	NIL	1480	Nil
	No of units not working		nil	Nil	NIL	1289	Nil
	Quantity of waste treated using kitchen bin facilities		nil	Nil	NIL	1.2	Nil

Name of District		Malappuram					
Name of Municipality		Peinthalmanna	Ponnani	Thanoor	Thiroorangadi	Tirur	Valanchery
	(TPD)						
Biogas plant (Household level)	Total no of units supplied		22	Nil	NIL	468	28
	No of units working		22	Nil	NIL	462	28
	No of units not working		0	Nil	NIL	6	Nil
	Quantity of waste treated using biogas plant (TPD)		0.11	Nil	NIL	0.58	50 Kg/ day
Biogas plant (Community level)	Total no of units supplied		nil	Nil	NIL	nil	Nil
	No of units working		nil	Nil	NIL		Nil
	No of units not working		nil	Nil	NIL		Nil
	Quantity of waste treated using biogas plant (TPD)		nil	Nil	NIL		Nil
Aerobins (Community level)	Total no of units supplied		1	Nil	NIL	nil	Nil
	No of units working		1	Nil	NIL		Nil
	No of units not working		0	Nil	NIL		Nil
	Quantity of waste treated using aerobins (TPD)		0.2	Nil	NIL		Nil
biocomposter, biobin, pot bin	Total no of units supplied		686	Nil	NIL		Nil
	No of units working		686	Nil	NIL		Nil

Name of District		Malappuram					
Name of Municipality		Peinthalmanna	Ponnani	Thanoor	Thiroorangadi	Tirur	Valanchery
	No of units not working		0	Nil	NIL		Nil
	Quantity of waste treated using these units (TPD)		1	Nil	NIL		Nil
Others	Total no of units supplied		235(bucket compost)	67(Ring Compost)	NIL		Nil
	No of units working		235	67	NIL		Nil
	No of units not working		0	Nil	NIL		Nil
	Quantity of waste treated using these units (TPD)		0.35	0.134	NIL		Nil

B.11. Municipalities in Kozhikode

B.11.1. Segregation and Collection							
Name of District	Kozhikode						
Name of Corporation	Faroke	Koduvally	Koyilandy	Mukkam	Payyoli	Ramanattukara	Vadakara
Population (2011)	32122	48678	71873	40670	23576	35937	75295
No of Wards	38	36	44	33	36	31	47
No of Household	14562	10623	17086	8134	13800	10123	18000
No of Establishment	1750	1292	2860	2022	1400	1400	5938

B.11.1. Segregation and Collection										
Name of District		Kozhikode								
Name of Corporation		Faroke	Koduvally	Koyilandy	Mukkam	Payyoli	Ramanattukara	Vadakara		
No of Household having segregation at source	Dry	6500	5300	10241	7315	6900	nil	16000		
	Wet	6500	310	12040	Nil	10400	Nil	nil		
No of Establishment having segregation at source	Dry	59	2520	1950	1836	840	Nil	4000		
	Wet	12	0	2100	Nil	1220	nil	nil		
D2D Collection	Households	Number	Dry	6500	-	10200	7315	Nil	16000	
			Wet	6500	-	NIL	nil	Nil	nil	
		Percentage	Dry	44.7		59.7	90	0		88.9
			Wet	44.7				0		
	Collection Frequency	Dry	once in a month	per month	MONTHLY	monthly		nil	13500	
		Wet	not collecting	-	NIL	nil		nil	nil	
	Establishments	Number	Dry	59	-	225	1836	nil	5938	
			Wet	12	-	225	nil	nil	nil	
		Percentage	Dry	3.4		7.9	90.9	0		100
			Wet	0.7		7.9		0		
Collection Frequency	Dry	once in a week	-	DAILY	monthly		Nil	4000		
	Wet	daily	-	DAILY	nil		Nil	nil		
No of collectors		18	72 (Haritha Karma Sena)	100	38		Nil	63		
No of vehicles used		1	one (on contract)	1	1		Nil	3		
No. having source level treatment of wet waste	Household	6500	-	4200	237		Nil	8890		

B.11.1. Segregation and Collection								
Name of District		Kozhikode						
Name of Corporation		Faroke	Koduvally	Koyilandy	Mukkam	Payyoli	Ramanattukara	Vadakara
in operation	Establishment	8	-	8	11		Nil	600
Percentage having source level treatment of wet waste in operation	Household	44.7		24.6	3	0		49.4
	Establishment	0.5		0.3	0.6	0		10.2
No. disposing to centralised system	Household	0	0	0	nil		Nil	50unit
	Establishment	0	0	1050	nil		Nil	20unit
Percentage having disposal to centralised system	Household	0	0	0		0		
	Establishment	0	0	36.8		0		
No. existing	MCF	1	1	2	1		1	13
	RRF	under construction	0	1	nil		nil	2
No. needed	MCF	2	2	3	1		mini MCF need for 31 wards	34
	RRF	1	1	1	1		nil	1
User fee		Rs 30/month/house, Rs 50/week/shop	Rs.50/ house Rs.100/Establishment	Rs50/house-Rs.100/establishment and may vary as per weight	50		Rs50 for Housed and 100/- for shopes	50/month
Remarks		Only Nonbiodegradable waste is collecting by door to door	Only dry waste D2D collection. Wet waste at source level					

B.11.1. Segregation and Collection							
Name of District	Kozhikode						
Name of Corporation	Faroke	Koduvally	Koyilandy	Mukkam	Payyoli	Ramanattukara	Vadakara
	collection	treatment. Daily 600 Kg wet waste collecting from Town street by 8 Sanitary workers.					

B.11.2. Centralised System

Name of District	Kozhikode						
Name of Municipality	Faroke	Koduvally	Koyilandy	Mukkam	Payyoli	Ramanattukara	Vadakara
Quantity of Waste generated (TPD) based on population	14	21	30	17	10	15	32
Quantity of Waste generated (TPD)	4	4.8	10			nil	19.93
Quantity of Waste collected (TPD)	0.5	0.6	2.5			nil	11.95
Quantity of Waste treated (TPD)	0.5	0.6	2.5			nil	11.95
Quantity of Waste processed in Composting Sites (TPD)	0.05	0.6	2			nil	Nil
Quantity of Waste processed in biomethanation (TPD)	0	-	0		nil	nil	Nil
Quantity of Waste processed in waste to energy plants (TPD)	0	-	0		nil	nil	Nil

Quantity of Waste processed in Landfill (TPD)	nil	-	0		nil	nil	0.95
Existing capacity of Waste Processing Facilities: (TPD)	0	-	2		nil	nil	nil
Existing capacity of Waste Disposal Facilities: (TPD)	0	- (2 Acre land)	2.5		nil	nil	2
Planned Capacity of Waste Processing Facilities (TPD)	0	-	3		nil	nil	5
Planned Capacity of Waste Disposal Facilities (TPD)	0	-	nil		nil	nil	5
Timeframe for installation of planned capacity of Waste Processing Facilities: (Months)	2020March	-	2020March		nil	nil	NIL
Timeframe for installation of planned capacity of Waste Disposal Facilities: (Months)	2020 March	-	na		nil	nil	NIL
Number of Legacy waste dumpsites in the State/UTs and plan for their Remediation:	Nil	Nil	nil		nil	nil	NIL

B.11.3. Decentralised units namely pipe compost, kitchen bin, bio composter, biobin, pot bin, biogas plant

Name of District	Kozhikode						
	Faroke	Koduvally	Koyilandy	Mukkam	Payyoli	Ramanattukara	Vadakara
Name of Corporation/Municipality/Panchayath							

Name of District	Kozhikode						
Name of Corporation/Municipality/Panchayath	Faroke	Koduvally	Koyilandy	Mukkam	Payyoli	Ramanattukara	Vadakara
No of units supplied:	4550		4100		0		8840
No of units working:	1550	-	4055			nil	5000
No of units not working:	3000 pipe compost	-				nil	3840
Reason for failure:	lack of awairness	-	improper maintainance			nil	improper maintainance

B.11.3.1. Details of Decentralised Facilities as reported by Localbodies

Name of District		Kozhikode						
Name of Municipality		Faroke	Koduvally	Koyilandy	Mukkam	Payyoli	Ramanattukara	Vadakara
pipe compost	Total no of units supplied	4500				750	Nil	3000
	No of units working	1500				100	Nil	520
	No of units not working	3000				650	Nil	2480
	Quantity of waste treated using pipe composting facilities (TPD)	1.5 tpd				Nil	Nil	1.25

Name of District		Kozhikode						
Name of Municipality		Faroke	Koduvally	Koyilandy	Mukkam	Payyoli	Ramanattukara	Vadakara
Kitchen bin	Total no of units supplied					500	Nil	Nil
	No of units working					300	Nil	Nil
	No of units not working	no				200	Nil	Nil
	Quantity of waste treated using kitchen bin facilities (TPD)					Nil	Nil	Nil
Biogas plant (Household level)	Total no of units supplied	50				Nil	Nil	100
	No of units working	50				Nil	Nil	75
	No of units not working	0				Nil	Nil	25
	Quantity of waste treated using biogas plant (TPD)	75 kg				Nil	Nil	75
Biogas plant (Community level)	Total no of units supplied					Nil	Nil	Nil
	No of units working					Nil	Nil	Nil
	No of units not working					Nil	Nil	Nil
	Quantity of waste treated using biogas plant (TPD)					Nil	Nil	Nil
Aerobins (Community)	Total no of units supplied					Nil	Nil	18
	No of units working	1				Nil	Nil	18

Name of District		Kozhikode						
Name of Municipality		Faroke	Koduvally	Koyilandy	Mukkam	Payyoli	Ramanattukara	Vadakara
level)	No of units not working	50 kg/day				Nil	Nil	Nil
	Quantity of waste treated using aerobins (TPD)					Nil	Nil	2
biocomposter, biobin, pot bin	Total no of units supplied	nil				Nil	Nil	49
	No of units working					Nil	Nil	49
	No of units not working					Nil	Nil	Nil
	Quantity of waste treated using these units (TPD)					Nil	Nil	1
Others	Total no of units supplied	nil				Nil	Nil	1065
	No of units working					Nil	Nil	1020
	No of units not working					Nil	Nil	45
	Quantity of waste treated using these units (TPD)					Nil	Nil	2.5

B.12. Municipalities in Wayanad

B.12.1. Segregation and Collection			
Name of District	Wayanad		
Name of Municipality	Kalpetta	Mananthavady	Sulthanbathery
Population (2011)	31580	34663	23333
No of Wards	28	36	35

B.12.1. Segregation and Collection							
Name of District			Wayanad				
Name of Municipality			Kalpetta	Mananthavady	Sulthanbathery		
No of Household			7519	12538	15889		
No of Establishment			2100	1724	2200		
No of Household having segregation at source			Dry	1998	4970		
			Wet	0	0		
No of Establishment having segregation at source			Dry	1710	812		
			Wet	0	0		
D2D Collection	Households	Number	Dry	1998	4970	waste to energy SWM plant under construction	
			Wet	0	0	waste to energy SWM plant under construction	
		Percentage	Dry	26.6	39.7		
			Wet	0	0		
		Collection Frequency	Dry	weekly	Once in a Month	waste to energy SWM plant under construction	
			Wet	0	0	Not still started	
	Establishments	Number	Dry	1710	812	Not still started	
			Wet	0	0	Not still started	
		Percentage	Dry	81.5	47.1		
			Wet	0	0		
		Collection Frequency	Dry	daily	Once in a Month	Not still started	
			Wet	0		Not still started	
	No of collectors			32	26	23	

B.12.1. Segregation and Collection				
Name of District		Wayanad		
Name of Municipality		Kalpetta	Mananthavady	Sulthanbathery
	No of vehicles used	4	1	1
No. having source level treatment of wet waste in operation	Household	nil	Nil	Nil
	Establishment	7	22	Nil
Percentage having source level treatment of wet waste in operation	Household			
	Establishment	0.4	1.3	
No. disposing to centralised system	Household	nil	nil	Nil
	Establishment	nil	nil	Nil
Percentage having disposal to centralised system	Household			
	Establishment			
No. existing	MCF	1	1	1
	RRF	1	0	0
No. needed	MCF	1	15	1
	RRF	1	1	1
User fee		Rs 50 per month from household and Rs 100 to 2000 from establishments according to the quantity of waste	RS 50 to 250 FOR SHOPES Rs. 30 for houses	waste to energy plant under construction
Remarks				

B.12.2. Centralised System

Name of District	Wayanad		
Name of Municipality	Kalpetta	Mananthavady	Sulthanbathery
Quantity of Waste generated (TPD) based on population	14	15	10
Quantity of Waste generated (TPD)	8tpd	0.5 ton	13.66
Quantity of Waste collected (TPD)	6tpd	0.5 ton	2.74
Quantity of Waste treated (TPD)	4tpd	0.5 ton	10.92
Quantity of Waste processed in Composting Sites (TPD)	0	NA	10.92
Quantity of Waste processed in biomethanation (TPD)	0		Nil
Quantity of Waste processed in waste to energy plants (TPD)	0	NA	Nil . Plant under construction
Quantity of Waste processed in Landfill (TPD)	4tpd	NA	Nil
Existing capacity of Waste Processing Facilities: (TPD)	na	NA	
Existing capacity of Waste Disposal Facilities: (TPD)	3tpd	NA	
Planned Capacity of Waste Processing Facilities (TPD)	na	NA	5

Planned Capacity of Waste Disposal Facilities (TPD)	3tpd	NA	5
Timeframe for installation of planned capacity of Waste Processing Facilities: (Months)	NA	NA	6
Timeframe for installation of planned capacity of Waste Disposal Facilities: (Months)	NA		6
Percentage of Urban Local Bodies (ULBs)/ Village Panchayats (VPs) Covered	80		20
Timeframe for covering all the ULBs/VPs (Months)	12 MONTHS		6
Number of Legacy waste dumpsites in the State/UTs and plan for their Remediation:	NIL		Nil

B.12.3. Decentralised units namely pipe compost, kitchen bin, bio composter, biobin, pot bin, biogas plant

Name of District	Wayanad		
	Kalpetta	Mananthavady	Sulthanbathery
No of units supplied:		1061	Nil
No of units working:		0	Nil
No of units not working:		0	Nil
Reason for failure:		Implementing Stage	Waste to energy plant under construction

B.12.3.1 Details of Decentralised Facilities as reported by Localbodies

Name of District	Wayanad
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Name of Municipality		Kalpetta	Kalpetta	Kalpetta
pipe compost	Total no of units supplied	Nil	NIL	NIL
	No of units working	Nil	NIL	NIL
	No of units not working	Nil	NIL	NIL
	Quantity of waste treated using pipe composting facilities (TPD)	Nil		NIL
Kitchen bin	Total no of units supplied	Nil	-	NIL
	No of units working	Nil	-	NIL
	No of units not working	Nil	-	NIL
	Quantity of waste treated using kitchen bin facilities (TPD)	Nil		NIL
Biogas plant (Household level)	Total no of units supplied	Nil	Project ongoing	NIL
	No of units working	Nil	Project ongoing	NIL
	No of units not working	Nil	Project ongoing	NIL
	Quantity of waste treated using biogas plant (TPD)	Nil		NIL
Biogas plant (Community level)	Total no of units supplied			NIL
	No of units working			NIL
	No of units not working			NIL

Name of District		Wayanad		
Name of Municipality		Kalpetta	Kalpetta	Kalpetta
	Quantity of waste treated using biogas plant (TPD)			NIL
Aerobins (Community level)	Total no of units supplied		NIL	NIL
	No of units working	Nil	NIL	NIL
	No of units not working	Nil	NIL	NIL
	Quantity of waste treated using aerobins (TPD)	Nil		NIL
biocomposter, biobin, pot bin	Total no of units supplied	Nil	Project ongoing	NIL
	No of units working	Nil	Project ongoing	NIL
	No of units not working	Nil	Project ongoing	NIL
	Quantity of waste treated using these units (TPD)	Nil		NIL
Others	Total no of units supplied	Nil	NIL	NIL
	No of units working	Nil	NIL	NIL
	No of units not working	Nil	NIL	NIL
	Quantity of waste treated using these units (TPD)	NIL		NIL

B.13. Municipalities in Kannur

B.13.1. Segregation and Collection

Name of District		Kannur										
Name of Municipality		Anthoor	Panoor	Koothuparambu	Iritty	Mattanur	Payyanur	Sreekantapuram	Thalassery	Thaliparambu		
Population (2011)		36290	17438	29619	40369	47078	72111	17630	92558	72465		
No of Wards		28	40	28	33	35	44	30	52	34		
No of Household		8460	14148	9015	8484	9796	17061	8627	24317	10300		
No of Establishment		944	1948	2200	1856	1783	3345	795	8256	4100		
No of Household having segregation at source	Dry	8460	7285	9015	8323		13600	8627	24317	9000		
	Wet	NIL	Nil	nil	NIL		0	795	0	Nil		
No of Establishment having segregation at source	Dry	ONCE A MONTH	1900	1980	1214		2300		6000	450		
	Wet	NIL	Nil	167	227				800	400		
D2D Collection	Households	Number	Dry	944	7285	9015	8323	8100	13600	8627	18000	9000
			Wet	NIL	Nil	nil	NIL	NIL	0	Nil	0	Nil
		Percentage	Dry	11.2	51.5	100	98.2	82.7	79.8	100	74.1	87.4
			Wet						0		0	
	Collection Frequency	Dry	ONCE A MONTH	once in month	once in month	monthly	MONTHLY	Monthly	Monthly	weekly	Monthly	
		Wet	NIL	nil	nil	NA	NA	0	Nil	na		
Establishments	Number	Dry		500	1980	1214	1650	2300	700	0	450	
		Wet		nil	167	227	1400	0	Nil Source Reducion	0	400	

B.13.1. Segregation and Collection

Name of District		Kannur									
Name of Municipality		Anthoor	Panoor	Koothuparambu	Iritty	Mattanur	Payyanur	Sreekantapuram	Thalassery	Thaliparambu	
Percentage	Dry	0	25.7	90	65.5	92.6	68.8	88.1	0	11	
	Wet	0		7.6	12.3	78.6	0		0	9.8	
Collection Frequency	Dry		weekly	daily	Weekly	DAILY	Weekly	100%	not collecting	Monthly	
	Wet		nil	daily	DAILY	DAILY	0	Nil	not collecting	Daily, Weekly	
No of collectors		28	40	64	39	52	44	30	97	34	
No of vehicles used		1	1	2	1	1	4	1	1	4	
No. having source level treatment of wet waste in operation	Household	8460	Nil	3334	8484	5420	4835 unit	8627	18000	4800	
	Establishment	944	Nil	72	147	560	1600	795	800	60	
Percentage having source level treatment of wet waste in operation	Household	100		37	100	55.4		100	74.1	46.7	
	Establishment	100		3.3	8	31.5	47.9	100	9.7	1.5	
No. disposing to centralised system	Household	8460	nil	5000	NIL	NIL	Nil	Nil	nil	Nil	
	Establishment	944	nil	2052	227	1100	1745	Nil	nil	Nil	
Percentage having disposal to centralised system	Household	100		55.5							
	Establishment	100		93.3	12.3	61.7	52.2				

B.13.1. Segregation and Collection

Name of District		Kannur								
Name of Municipality		Anthoor	Panoor	Koothuparambu	Iritty	Mattanur	Payyanur	Sreekantapuram	Thalassery	Thaliparambu
No. existing	MCF	1	nil	1	1	1	1	1	1	1
	RRF	1	nil	nil	NIL	2	1	0	nil	1
No. needed	MCF	NIL	40	7(one for every four ward)	33	NIL	5	1	3	1
	RRF	NIL	3	1	1	NIL	20	1	3	1
User fee		RS. 30 FOR HOUSES RS 50 FOR SHOPE S	Rs.30 for House Rs.50 for Shope	Rs 40 for every household per month	HOUSE 30 Establishment (Quantity based)	30 FOR PLASTIC FROM HOUSE		30 Rs from each registration house/Month	Rs 30 for each house	50Rs from Households 100 to 750 from Establishments
Remarks				Municipality has fixed a collection fee of Rs 40 per month for a household and Rs 100 from an establishment for plastic collection but				MCF the Kavumbai recycling unit temporarily close due to strike	existing MCF is insufficient to store plastic waste collected by Haritha karmasena	

B.13.1. Segregation and Collection

B.13.1. Segregation and Collection									
Name of District	Kannur								
Name of Municipality	Anthoor	Panoor	Koothuparambu	Iritty	Mattanur	Payyanur	Sreekantapuram	Thalassery	Thaliparambu
			people are reluctant to pay the amount regularly.						

B.13.2. Centralised System

Name of District	Kannur								
Name of Municipality	Anthoor	Panoor	Koothuparambu	Iritty	Mattanur	Payyanur	Sreekantapuram	Thalassery	Thaliparambu
Quantity of Waste generated (TPD) based on population	16	8	13	17	20	30	8	39	31
Quantity of Waste generated (TPD)			3.5	10		15 MT	3 MT	5T/D	15
Quantity of Waste collected (TPD)			2	2.5		6MT	1.5 MT	1T/D	5
Quantity of Waste treated (TPD)			1.5	2.25		6MT	1.5 MT	1T/D	5
Quantity of Waste processed in Composting Sites (TPD)			1	2		6 MT		1T/D	2
Quantity of Waste processed in biomethanation (TPD)			Nil	0			Nil	0	Nil

Name of District	Kannur								
Name of Municipality	Anthoor	Panoor	Koothuparambu	Iritty	Mattanur	Payyanur	Sreekantapuram	Thalassery	Thaliparambu
Quantity of Waste processed in waste to energy plants (TPD)			Nil	0			Nil	0	Nil
Quantity of Waste processed in Landfill (TPD)			Nil	0			Nil	0	Nil
Existing capacity of Waste Processing Facilities: (TPD)			1.5	4			0.5 MT	1T/D	5
Existing capacity of Waste Disposal Facilities: (TPD)			1.5	4				1T/D	5
Planned Capacity of Waste Processing Facilities (TPD)			2	5		2 years	Collected waste by Harithakarmasena	1T/D	10
Planned Capacity of Waste Disposal Facilities (TPD)			2	5			From Houses and dispose to MCF Unit	10	
Timeframe for installation of planned capacity of Waste Processing Facilities: (Months)			24 months	12				As per DPR	
Timeframe for installation of planned capacity of Waste Disposal Facilities: (Months)			24 months	15				As per DPR	
Number of Legacy waste dumpsites in the State/UTs and plan for their Remediation:			Nil	NA		''		NA	NA

B.13.3. Decentralised units namely pipe compost, kitchen bin, bio composter, biobin, pot bin, biogas plant

Name of District	Kannur								
Name of /Municipality	Anthoor	Panoor	Koothuparambu	Iritty	Mattanur	Payyanur	Sreekantapuram	Thalassery	Thaliparambu
No of units supplied:	33	1200 (Ring compost, KichenBin)		341 (Ring Compost)	5236			6661	4800
No of units working:	3471	1200	3014	341	5236	4835	NA	6661	4800
No of units not working:	NIL	0	320	0	NIL	Nil	NA	0	Nil
Reason for failure:	NIL	NA	Mismanagement of units and lack of awareness among the people.	NA	NA	NA	Lack of sufficient fund	na	NA

B.13.3.1. Details of Decentralised Facilities as reported by Localbodies

Name of District	Kannur
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Name of Municipality		Anthoor	Panoor	Koothuparambu	Iritty	Mattanur	Payyanur	Sreekantapuram	Thalassery	Thaliparambu
pipe compost	Total no of units supplied	NIL		2774			1750	Nil	5200	
	No of units working	NA		2651			1750	Nil	5200	
	No of units not working	NA		123			Nil	Nil	Nil	
	Quantity of waste treated using pipe composting facilities (TPD)	NA		1 TPD			Nil	Nil	0.5 - 1 Kg/day	
Kitchen bin	Total no of units supplied	NIL		0	NIL		Nil	Nil	Nil	
	No of units working	NIL		0	NIL		Nil	Nil	Nil	
	No of units not working	NIL		0	NIL		Nil	Nil	Nil	
	Quantity of waste treated using kitchen bin facilities (TPD)	NIL		Nil	NIL		645	Nil	Nil	
Biogas plant (Household level)	Total no of units supplied	179		22			645	Nil	218	
	No of units working	179		22			-	Nil	218	
	No of units not working	0		0			-	Nil	Nil	
	Quantity of waste treated using biogas			100 Kg			-	Nil	4 - 7.5 Kg/day	

Name of District		Kannur								
Name of Municipality		Anthoor	Panoor	Koothuparambu	Iritty	Mattanur	Payyanur	Sreekantapuram	Thalassery	Thaliparambu
	plant (TPD)									
Biogas plant (Community level)	Total no of units supplied	NIL		72			-	Nil	3	
	No of units working	NIL		65			-	Nil	Nil	
	No of units not working	NIL		7			-	Nil	3	
	Quantity of waste treated using biogas plant (TPD)	NIL		400 Kg			-	Nil	Nil	
Aerobins (Community level)	Total no of units supplied	NIL		0	NIL		-	Nil	1	
	No of units working	NIL		0	NIL		-	Nil	1	
	No of units not working	NIL		0	NIL		-	Nil	Nil	
	Quantity of waste treated using aerobins (TPD)	NIL		0	NIL		-	Nil	600 Kg/day	
biocomposter, biobin, pot bin	Total no of units supplied	NIL		538	NIL		-	Nil	Bin - 229 Pot - 115	
	No of units working	NIL		538	NIL		-	Nil	Bin - 229 Pot - 115	
	No of units not working	NIL		0	NIL		-	Nil	Nil	

Name of District		Kannur								
Name of Municipality		Anthoor	Panoor	Koothuparambu	Iritty	Mattanur	Payyanur	Sreekantapuram	Thalassery	Thaliparambu
	Quantity of waste treated using these units (TPD)	NIL		5 TPD	NIL		-	Nil	1.5 to 2 Kg/day	
Others	Total no of units supplied	5186		0			2440	Ring Compost-300	Ring Compost -58	
	No of units working	5186		0			2440	300	58	
	No of units not working	0		0			-	0	Nil	
	Quantity of waste treated using these units (TPD)			0			-	0.5TPD	0.5 to 1 Kg/day	

B.14. Municipalities in Kasargod

B.14.1. Segregation and Collection						
Name of District			Kasaragod			
Name of Municipality			Kanhangad	Kasaragod	Nileshwaram	
Population (2011)			73536	131000	40802	
No of Wards			43	38	32	
No of Household			21000	14835	11921	
No of Establishment			3680	9930	1502	
No of Household having segregation at source			Dry	21000	12685	11921
			Wet	21000	12685	11921
No of Establishment having segregation at source			Dry	1250	6218	1502
			Wet	2430	6218	1502
D2D Collection	Households	Number	Dry	21000	12685	9517
			Wet		0	
		Percentage	Dry	100	85.6	79.9
			Wet	0	0	0
	Collection Frequency	Dry	Monthly	monthly	daily	
		Wet		0		
	Establishments	Number	Dry	800	3150	901
			Wet	600	0	
Percentage		Dry	22	31.8	60	

B.14.1. Segregation and Collection						
Name of District				Kasaragod		
Name of Municipality				Kanhangad	Kasaragod	Nileshwaram
		Collection Frequency	Wet	16	0	0
			Dry	Daily	weekly	daily
			Wet	Daily	0	
	No of collectors			36	17	30
	No of vehicles used			3	3	2
No. having source level treatment of wet waste in operation		Household	21000	9654	193	
		Establishment	2430	368	38	
Percentage having source level treatment of wet waste in operation		Household	100	65.1	1.7	
		Establishment	66	3.8	2.6	
No. disposing to centralised system		Household	NIL	nil	nil	
		Establishment	3	8	nil	
Percentage having disposal to centralised system		Household				
		Establishment	0.1	0.1		
No. existing		MCF	2	4	1	
		RRF	1	1	1	
No. needed		MCF	0	38	3	
		RRF	0	2	Nil	

B.14.1. Segregation and Collection			
Name of District	Kasaragod		
Name of Municipality	Kanhangad	Kasaragod	Nileshwaram
User fee	Rs.50 from household Rs 200-10,000 from establishments	house hold 50, establishments 100	Approximately- 75000
Remarks			Household- Rs.30/m, Shops -small-50/m, Big-100/m

B.14.2. Centralised System

Name of District	Kasaragod		
Name of Municipality	Kanhangad	Kasaragod	Nileshwaram
Quantity of Waste generated (TPD) based on population	45	55	17
Quantity of Waste generated (TPD)	45	11 mt	
Quantity of Waste collected (TPD)	0.7	3mt	
Quantity of Waste treated (TPD)	0.5	3 mt	
Quantity of Waste processed in Composting Sites (TPD)	0.5	2.5	
Quantity of Waste processed in biometanation (TPD)	NIL.	2.5	

Name of District	Kasaragod		
Name of Municipality	Kanhangad	Kasaragod	Nileshwaram
Quantity of Waste processed in waste to energy plants (TPD)	NIL.	0	
Quantity of Waste processed in Landfill (TPD)	NIL.	0	
Existing capacity of Waste Processing Facilities: (TPD)	5	3	
Existing capacity of Waste Disposal Facilities: (TPD)		3	
Planned Capacity of Waste Processing Facilities (TPD)		5	
Planned Capacity of Waste Disposal Facilities (TPD)		5	
Timeframe for installation of planned capacity of Waste Processing Facilities: (Months)			
Timeframe for installation of planned capacity of Waste Disposal Facilities: (Months)			
Number of Legacy waste dumpsites in the State/UTs and plan for their Remediation:	NA		

B.14.3. Decentralised units namely pipe compost, kitchen bin, bio composter, biobin, pot bin, biogas plant

Name of District	Kasaragod		
Name of Municipality	Kanhangad	Kasaragod	Nileshwaram
No of units supplied:	1300	768	2942

No of units working:	1300	768	2942
No of units not working:	NIL	0	nil
Reason for failure:	NA	na	na

B.14.3.1 Details of Decentralised Facilities as reported by Localbodies

Name of District		Kasaragod		
		Kanhangad	Kasaragod	Nileshwaram
pipe compost	Total no of units supplied	893	768	2840
	No of units working	893	768	2840
	No of units not working	0	0	--
	Quantity of waste treated using pipe composting facilities (TPD)	1.33	2.3 ton	2.1 TPD
Kitchen bin	Total no of units supplied	0	Nil	0
	No of units working	0	Nil	-
	No of units not working	0	Nil	-
	Quantity of waste treated using kitchen bin facilities (TPD)	0	Nil	-

Name of District		Kasaragod		
		Kanhangad	Kasaragod	Nileshwaram
Name of Municipality				
Biogas plant (Household level)	Total no of units supplied	156	Nil	64
	No of units working	156	Nil	64
	No of units not working	0	Nil	-
	Quantity of waste treated using biogas plant (TPD)	0.6	Nil	0.5TPD
Biogas plant (Community level)	Total no of units supplied	0	Nil	-
	No of units working	0	Nil	-
	No of units not working	0	Nil	-
	Quantity of waste treated using biogas plant (TPD)	0	Nil	-
Aerobins (Community level)	Total no of units supplied	5	Nil	
	No of units working	5	Nil	
	No of units not working	0	Nil	
	Quantity of waste treated using aerobins (TPD)	0.25	Nil	
biocomposter, biobin, pot bin	Total no of units supplied	0	Nil	
	No of units working	0	Nil	
	No of units not working	0	Nil	
	Quantity of waste treated using these units (TPD)	0	Nil	
Others	Total no of units supplied	21	Nil	172
	No of units working	21	Nil	172

Name of District		Kasaragod		
Name of Municipality		Kanhangad	Kasaragod	Nileshwaram
	No of units not working	0	Nil	
	Quantity of waste treated using these units (TPD)	0.04	Nil	0.5TPD

Annexure 4

STATUS OF SETTING UP OF WASTE to ENERGY PLANT AS ON MARCH 2021

Sl. No	Corporation/ Municipality	Status	
1)	Waste to Energy Plant, Kozhikode Njaliyanparambu (Govt. land)12.67 acre	1.1 Waste to Energy Plant <ul style="list-style-type: none"> • 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 establish was issued to the waste to Energy plant. • Clearing of ground for the plant is undergoing. • Land development works are undergoing. Alternate road has been constructed on the periphery and vehicles started moving through alternate roads. The main road through the Centre for the site has now been closed. Request submitted to Social Forestry department for cutting trees in the site. Laying of water supply line to the site is nearing completion. • M/s. MITCON Consultancy and Engineering Services has been appointed as the project management consultant for the development of the project with WtE facility at Kozhikode 	
		1.2 Biomining at Njaliyanparambu <ul style="list-style-type: none"> • 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. 	
2)	Kannur Chelora (Govt. Land) 9.7 acres	2.1 Waste to Energy Plant <ul style="list-style-type: none"> • Blue Planet Kannur Waste Solutions Private Limited was formed to take up the development of the project. • Waste Characterisation study was Conducted by SPCB • SLAC directed MD, KSIDC & Secretary, Kannur Municipal Corporation to take 	

		<p>immediate steps to execute the Lease Agreement and Concession Agreement for the project.</p> <ul style="list-style-type: none"> • KSIDC has completed the tender process and the final offer along with details of the contractor, draft agreement to be executed with the Contractor and the technical proposal submitted by the Contractor has been 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 the Secretary Corporation for execution. Further a stake holder meeting was held to explain the project details to the councilors on 24th August 2020 and all concerns raised were discussed and explained. Despite all these steps, Kannur Corporation has not leased the land at Chelora to KSIDC and a council resolution authorizing the Secretary Kannur Corporation to execute the concession agreement has not been passed. Concession agreement can be executed only on receiving land to KSIDC. • The concenssionaire has reported that the field studies including waste characterization and waste quantification studies, as part of DPR preparation will be commencing next week. 	
		<p>2.2 Legacy waste</p> <ul style="list-style-type: none"> • Govt vide GO(Rt) No. 714/2020/LSGD dated 27-3-2020 issued direction to Kannur Municipal Corporation to hand over the 9.75 acres of the land identified at Chelora on lease basis to KSIDC for the development of Waste to Energy project and to execute MoU with KSIDC for clearing the existing legacy waste at dump site in Chelora. • Detailed waste characterization of study of dumpsite at Chelora was done by the Pollution Control Board. SLAC directed the Board to submit final study report along with remarks to KSIDC for further proceedings. The Board submitted the report to KSIDC. • Agreement has been executed with M/s Zonta Infratech Pvt Ltd, the selected bidder 	

		<p>on 21st October for carrying out the rehabilitation of MSW dumpsite at the site. Asked Secretary Kannur Municipal Corporation to take immediate steps with the Contractor to expedite the works for rehabilitation of MSW dumpsite at Chelora.</p>	
3)	<p>Palakkad Kanjikode (Land taken over from Kerala State Electricity Board Ltd. in advance possession) 15 acres</p>	<p>3.1 Waste to Energy Plant</p> <ul style="list-style-type: none"> • Blue Planet Palakkad Waste Solutions Private Limited was formed to take up the development of the project. • The Concession Agreement for the project has been executed and the Concessionaire has taken steps for preparing the DPR for the project. The Concessionaire has engaged M/s Dun & Bradstreet for preparing the DPR and that the study is in the final stages. As instructed by the Committee, modifications are incorporated in the DPR. Final DPR will be submitted by the end of February 2021. 	
4)	<p>Kollam Kureepuzha (Govt. land) 7.05 acres</p>	<p>4.1 Waste to Energy Plant</p> <ul style="list-style-type: none"> • M/s Venad Waste Management Solutions Pvt Ltd has submitted the draft DPR for the Integrated Solid Waste Management project with a Waste to Biogas facility of 200 TPD processing capacity. • DPR was evaluated by the Committee and it has been modified and final DPR submitted to LSGD. • Concessionaire has taken steps to submit applications to the concerned departments and agencies for statutory approvals and clearances. 	
		<p>4.2 Biomining</p> <ul style="list-style-type: none"> • For biomining the site, the Corporation informed that draft agreement to be executed with M/s.Zonta Infratech Pvt Limited is vetted 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 	

		<p>tender conditions or cancel the present tender and go for re-tender immediately.</p> <ul style="list-style-type: none"> • Again the project has been retendered by the Corporation. 	
5.	Thiruvananthapuram Vizhinjam	<p>5.1 Waste to Energy Plant</p> <ul style="list-style-type: none"> • 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. The Port department informed that notification to take back the land will be submitted soon. • KSIDC re tendered the project on Swiss Challenge mode on 27th May 2020 and 30th June was the last date for the submission of bids. The pre bid meeting as part of tender procedures was held on 08th June 2020. The last date for the submission of bids was 14th July 2020. KSIDC did not receive any challenging bids for the project. • KSIDC directed M/s Essential Sustainability Services Incorporated to submit details regarding the technical and financial capabilities of the Consortium members and in response received certain details from them which was then evaluated • The Bid Evaluation Committee is satisfied with the technical plan presented by the consortium, and resolved that the consortium led by M/s. Pan American Communication Services S.A. is technically qualified and recommended that the financial bid submitted by the Consortium be evaluated. • Bid Evaluation Committee further 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 Consortium for confirming the uniqueness and authenticity of the proposed technology. 	

6)	Ernakulam Brahmapuram (Govt. land) 20 acres	<ul style="list-style-type: none"> • 6.1 Waste to energy plant • • KSIDC was authorized to take immediate steps to float an RFP for the selection of suitable concessionaire to set up 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 and order in this regard will be issued soon. Also expressed that a restriction can be brought in the tender conditions to prevent one particular company being awarded more than 3 WtE projects on PPP mode at a particular project development time, so as to ensure more competition and also easier financial closure. 	
		<p>6.2 Biomining</p> <ul style="list-style-type: none"> • KSIDC floated e-tender to identify a suitable agency for the rehabilitation of MSW dump site at Brahmapuram. KSIDC submitted a proposal to constitute a Technical Evaluation Committee for technical evaluation of the bids. Evaluation of technical bid is in process. • LSGD issued directions to Kochi Corporation to examine the quantity of legacy waste assessed and rate quoted by the bidder in consultation with PCB within 30 days 	
7)	Idukki Munnar 2 acres	<p>7.1 Waste to Energy Plant</p> <ul style="list-style-type: none"> • Evaluated the technical bid submitted by the Consortium of M/s Al Bucheeri General Transport Est, Pathanamthitta, M/s Al Bucheeri Transporting Est UAE and M/s Organic Recycling Systems Pvt Ltd, Mumbai on 19th August 2020. • The Committee observed that the Consortium is meeting the technical and financial minimum eligibility criteria. The consortium made a detailed presentation of their technical plan before the Bid Evaluation Committee. • SLAC after detailed discussion resolved to accord sanction to proceed with the Financial evaluation of the Bid 	

		7.2 Biomining started at Munnar Panchyath. Macro particles like plastic, tyres, metal particles etc already finished with the help of JCB. Action for installing machinery for further process is going on for turning it into briquests for construction purpose.	
8)	Wayanad Sulthan Bathery 0.5 acres	<ul style="list-style-type: none"> • Construction of platform completed • Action to be taken on the installation of machinery 	
9)	Thrissur	<p>9.1 Waste to Energy Plant</p> <ul style="list-style-type: none"> • 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 • Secretary, Thrissur Municipal Corporation to report the status of price negotiation done with the owners of the land identified. <p>9.2 Biomining of legacy waste</p> <p>Proposal submitted to Suchitwamission for sanction.</p>	
10)	Malappuram 8.09 acres	<ul style="list-style-type: none"> • KSIDC reported that Land Board has issued orders to District Administration Malappuram to hand over 8.09 acres of land at Kurumbathoor village in Tirur Taluk to KSIDC and that KSIDC has submitted necessary application in prescribed format to District Administration. SLAC directed to expedite the process. 	



GOVERNMENT OF KERALA
Abstract

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

Environment (B) Department

G.O.(MS) No.6/2019/Envt.

Dated, Thiruvananthapuram: 27/11/2019

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

2. Expert Technical Committee Report.

ORDER

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

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

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

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

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

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

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

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

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

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

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

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

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

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

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

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

(By order of the Governor)

Dr. ASHA THOMAS IAS

ADDITIONAL CHIEF SECRETARY

To

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

Copy to:-

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

Forwarded/By Order

Section Officer



GOVERNMENT OF KERALA
Abstract

Environment Department – Blanket ban on single-use plastic (disposable plastic) in the State of Kerala w.e.f 1.1.2020 issued vide G.O(MS)6/2019/Env dt 27.11.2019- Modifications and detailed clarifications -Orders issued

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Environment (B) Department

G.O.(Ms) No.7 / 2019/Envt.

Dated, Thiruvananthapuram: 17.12.2019

Read:

1. G.O(MS) 6/2019-Envt dt 27.11.2019
2. Notification Number S.O. 152 (E) dated 10.02.1988, issued by Govt. of India

ORDER

Right after the inception of Plastic Waste Management Rules , 2016 the State Government have imposed strict restriction on the use and sale of plastic carry bags less than 50 microns to facilitate collection and recycle of such plastic. State Government have already taken all possible steps with regard to setting up of facilities for collection, segregation and disposal of all kinds of wastes including Plastic Waste. But the uncontrolled and irresponsible usage of plastic have been posing environmental as well as health hazards. The plastic items are mostly ending up in rivers and water bodies making even recycling impossible. The ecological system and specifically the marine ecology are disturbed. The grim situation was never been more evident than the after flood situation in Kerala witnessing heap of plastic bottles/debris reaching shores from sea and lakes. The alarming situation has reached a level where the trans generational equality is threatened. The menace of plastic is also a well documented one and with the general sentiment against plastic, more than ten states have already banned the manufacture, storage, sale and use of single use (disposable) plastic items. Government of India is also exhorting State Governments to come up with innovative steps to minimize the use of Single use Plastic.

2. Numerous cases were being filed before the National Green Tribunal and High Court by many NGOs and individuals praying for direction to take steps to ban single use plastic. Especially in OA 606/2014 filed by Almitra Patel the NGT directed to phase out the use of PVC/flex items. A WPC 5636/2016 was filed by All Kerala River Protection Council on the same and the High Court have been specific directing State Government to consider steps to phase out plastic especially Single use (disposable plastic) items.

3. As per Section 23 of the Environment Protection Act 1986, the Central Government have issued a Notification No.S.O-152(E) dt 10.2.1988 delegating its powers to invoke the provisions of Section 5 of the Environment (Protection) Act, 1986 to all the State Governments including Kerala, whereby State Government is empowered to issue directions for the closure, prohibition, or regulation of any industry.

4. Despite continuous genuine attempts made by various NGOs, media houses, Municipal Corporations to create awareness and reduce and regulate the use of PVC products and one-time use of plastic products, all these products still tend to end up in various water bodies, rivers, drains and finally the oceans. The Local Self Government Department through the Suchitwa Mission, has been promoting Green Protocol for the last 5 years, which is a programme that stresses on the importance of discarding disposable plastic items and using eco friendly, reusable substitutes. This programme has been implemented in all the Government offices and in all Government functions. Special attention is also being given to implement it in private functions like weddings. State Government is now convinced that the strict implementation of Plastic Waste Management Rules, 2016 alone does not mitigate the menace of plastic and on realization of this grim situation have decided to consider to impose a complete ban on single use plastic items in the State invoking the power delegated and now vested with it as per the section (5) of the Environment Protection Act 1986. Government then appointed an Expert technical Committee as per G.O (RT) 134/2018/Envvt dt 12.12.2018 to list out the plastic items to be banned and to find substitutes for them. The Expert Technical committee submitted its report to the Government recommending partial ban on some items like PVC, flags and regulation in case of majority of items and to establish a return and earn scheme.

5. Government examined the whole matter in detail. Despite all its efforts, there is no respite to the uncontrolled usage of single use plastic. Many of the States have imposed complete as well as partial ban on single use plastic items. The ban is effective in the States where the ban is imposed and have been found to be successful. The report of the Expert Technical Committee was also considered. After detailed scrutiny of the orders/notifications issued in other States where the single use plastic ban is effective and successful, State Government decided vide G.O (MS)6/2019/Envvt dt 27.11.2019, to impose a complete ban on the manufacture, storage, transport and sale of following single use items in the State of Kerala wef 1.1.2020.

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.

6. Following the issuance of the order, industry associations have raised apprehensions and sought more clarity over the items listed for banning.

7. Government have examined the whole matter in detail and is hereby issuing a clarification to the Government Order, read as 1st paper above. State Government in exercise of the powers conferred by Section 5 of the Environment Protection Act 1986, (No 29 of 1986) as delegated under section 23 of the said Act by the Central Government vide Notification No S.O 152(E) , New Delhi dt 10.2.1988, hereby order as follows:

8. No person or company or entity or industry shall manufacture, transport, store or sell any of the plastic products classified as, single use (one-time use) or other chlorinated plastic products as mentioned in the table below within the territory of State of Kerala with effect from **1.1.2020**

S. No.	Product	Remarks
1	Plastic carry bags irrespective of thickness /	[No further remarks]
2	Plastic sheets (sheets used as table spread)	Cling film excluded
3	Plates, cups and decorative materials made of Styrofoam or Thermocol	[No further remarks]
4	Single-use plastic utensils like cups, plates, dishes, spoons, forks, straw, stirrer	Cups includes tumblers
5	Plastic-coated paper cups, plastic-coated paper plates, plastic-coated paper bowls, plastic-coated paper bags	[No further remarks]
6	Non woven bags, plastic flags, plastic bunting	[No further remarks]
7	Plastic water pouches, non-branded plastic juice packets	[No further remarks]
8	Plastic juice packets	Branded plastic juice packets will come under EPR regulations
9	PET/PETE bottles of drinking water of capacities less than 500 ml	This is applicable only for drinking water Branded juice PET bottles of all sizes and drinking water PET bottles of 500ml and more will come under EPR regulations

10	Garbage bags (Plastic)	[No further remarks]
11	PVC flex materials	[No further remarks]
12	Plastic packets	Clarified in Para No. 10 below

9. It is reiterated that 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 equipment.
- 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

10. The use of plastic packets in retail outlets (including street vendors/hawkers) for packing fruits and vegetables is prohibited. It is clarified that this includes plastic packets used for pre-cut fish and meat as well as pre-weighed quantities of cereals/pulses/sugar/flour etc.

11. It is clarified that branded items/products are excluded from the ambit of the ban. With respect to these products, the manufacturers/producers are bound to comply with the Extended Producers Responsibility (EPR plan) submitted to the Kerala State Pollution Control Board. All the producers/retailers/importers are mandated to comply with the EPR guidelines. This includes the Kerala State Beverages Corporation, KERAFED, MILMA, Kerala Water Authority and other PSUs, whose products are sold with plastic packaging. The wastes generated thus has to be dealt as per the EPR plan and is to be channelized through the existing waste collection facilities set up by local bodies. In case of non compliance, strict actions will be taken as per Act/rules in this regard. A detailed guidelines regarding EPR will be issued separately.

12. Alternatives to the single-use plastics prohibited by this order, other than compostable plastics which have been allowed by the earlier GO, shall be examined and tested by the Kerala State Pollution Control Board (KSPCB) and recommendations made to Government.

Explanation (1) - "Plastic" means any item mentioned in this order made out of PolyPropylene(PP) , non-woven Polypropylene, multi-layer-co-extruder polypropylene, Polyethylene(PE), Poly vinyl chloride (PVC), high and low density polyethylene(HDPE and LDPE), Poly Styrene(PS) which is also called thermocol, Polyamides(nylon), Polyethylene Terephthalate(PET), Polymethyl Methacrylate(PMM) and plastic microbeads and any other plastic microbeads and any other plastic defined as plastic under the Plastic Waste Management Rules, 2016

(2) Carry bags will have the same meaning that is provided in the provisions of Plastic Waste Management Rules , 2016

By Order of the Governor
VALSA V.
ADDITIONAL 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
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21. The Managing Director, Clean Kerala Company
22. Executive Director, Suchitwa Mission
23. CIPET (Institute of Plastic Technology), Kochi
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25. All Depts in Government Secretariat (to give direction to all institutions under their control)
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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-Blanket ban on single -use plastic (disposable plastic items) in the State of Kerala w.e.f 1.1.2020- Government Order (MS) NO 7/2019/Envvt dt 17.12.2019-
Erratum-Orders issued

ENVIRONMENT(B) DEPARTMENT

G.O.(Ms)No.8/2019/ENVVT Dated,Thiruvananthapuram, 19/12/2019

Read. 1. G.O(Ms) No. 7/2019/Envvt dt 17.12.2019

ORDER

As per the Government order order read above , it is ordered at para 10 that

“ the use of plastic packets in retail outlets (including street vendors/hawkers) for packing fruits and vegetables is prohibited. It is clarified that this includes plastic packets used for pre-cut fish and meat as well as pre-weighted quantities of cereals /pulses/sugar/flour etc”.

2. The para 10 of the Government Order read above may be corrected and read as “ the use of plastic packets in retail outlets (including street vendors/hawkers) for packing fruits and vegetables is prohibited .It is clarified that this does not include plastic packets used for pre-cut fish and meat as well as pre-weighted quantities of cereals /pulses/sugar/flour etc”.

3.The G.O read above stands modified to the above extent only.

4.The above correction is effected only to the English version of the Government order read above .

(By order of the Governor)

VALSA.V

ADDITIONAL 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
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Copy to:-

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

Forwarded/By Order



Section Officer



GOVERNMENT OF KERALA

Abstract

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

ENVIRONMENT(B) DEPARTMENT

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

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

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

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

ORDER

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

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

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

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

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

wrappy/packaging films around sweet boxes
 invite cards
 cigarette packs
 plastic / PVC banner for the
 100 mm

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 Dichloromethane (Methylene dichloride) and this shall be indicated in the packaging bag/cover/sheet material, as a preliminary test for identification. This shall be printed on the product as 'This product dissolve in

Dichloromethane (Methylene dichloride).

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

To:

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

Pookode, Wayanad

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

Copy to:-

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

Forwarded /By order

Section Officer

Minutes of the 1st Task Force meeting on Plastic Ban held on 28.01.2020

The Task Force meeting was convened in the aftermath of plastic ban which was imposed in the State of Kerala w.e.f 01.01.2020, and the various issues that need to be resolved in its wake. The meeting started at 12.30 PM. The participant list is attached below.

The Task Force reviewed the situation after the imposition of ban on single use plastic items in Kerala.

1. The ban has been received positively by the public.

2. However there is a flood of the so called compostable alternative materials in the market. Many of which are fake. This needs to be tackled.

3. The G.O(MS) No. 2/2020/Envt dt 27.01.2020 needs to be amended to include other alternative/substitute materials that can replace the banned items. The following decisions were taken.

1. Compostable materials should not be used as a substitute for carry bags and only cloth and paper carry bags should be used.

2. Garbage bags made of Compostable materials should be used for collecting/segregating biomedical waste as well.

3. In the wake of fake compostable products that enter the market. Random checks shall be done on such products to verify the authenticity of the product and test the same in the NIIST lab/KSPCB labs.

4. 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 plastic 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.

5. With regard to flex, the Order issued from Local self government Department should

that effect. Meanwhile, polyester/nylon materials need to be lab tested in CSIR NII lab or any lab authorized by KSPCB so that a decision on its utilization can be taken

6. Soda water is not drinking water hence it is exempted from the ban.
7. Plastic leaves need to be banned.
8. Plastic sapling bags are banned. It may be substituted with non plastic materials. For Grow bags, compostable materials can be used.
9. From 02.04.2020, the plastic packets used to store pre-weighed goods like cereals, sugar, flour, pulses meat, fish etc in the supermarkets/retailing shops would be banned and steps shall be taken to replace them with compostable materials. The retailer/shops may be made aware of this decision and they may be encouraged to embrace compostable materials for this purpose and for that a meeting may be called with the retailers/shops.
10. Waste littering in forest is a serious issue and therefore Forest Department officials (Range forest officer, Deputy range officer, Section forest officer, Beat forest officer) may be empowered to impose spot fine under the EP Act . Member Secretary, Pollution Control Board shall examine and report.
11. Local Self Government Department should take strict action including penalization against violators of the Government order banning single use plastic in the State (LSGD).

Next meeting will be held on 04.02.2020

List of Participants

- Dr. Usha Titus, Principal Secretary, Environment Department
Mir Mohammed Ali IAS, Director, Department of Environment & Climate Change
Valsa.V, Addl Secretary, Environment Department
Sreekala.S, Member Secretary, KSPCB
Balaraj Joint Director, (Urban)
K.Radhakrishnan, Industries Department
Sheela A.M. EE, KSPCB



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.

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

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

To:

1. The Secretary, Ministry of Environment and Climate Change, Govt of India
2. All the District Collectors
3. All the Department Heads
4. All Heads of Public Sector Units /Autonomous bodies
5. The Secretary to Governor, Raj Bhavan, Thiruvananthapuram
6. The Secretary, Legislative Assembly, Thiruvananthapuram
7. The Secretary, Kerala Public Service Commission
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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
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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 6

LIST OF FINE IMPOSED AS ON 04/11/2020 BY THE CHECK SQUAD ON THE BAN SINGLE USE PLASTIC

Sl. No	District Office	Date of Inspection	No. of Shops Inspected	No. of Violations Observed	Fine Imposed	Fine Collected	Remarks
1	Thiruvananthapuram	13.02.2020	3	3	30,000	10,000	Notice and Mahassar issued and imposed fine
2	Kollam	18.02.2020,27.02.2020	47	17	170,000	20,000	Notice and Mahassar issued and imposed fine
3	Pathanamthitta	03.03.2020	25	6	60,000	0	Notice and Mahassar issued and imposed fine
4	Alappuzha	25.02.2020&26.06.2020	61	3	30,000	30,000	Notice and Mahassar issued . Joint inspection by KSPCB &LSGD
5	Kottayam	13.02.2020&17.02.2020	7	2	20,000	0	Notice and Mahassar issued and imposed fine
6	Idukki	18.02.2020&29.02.2020	33	15	150,000	10,000	Notice and Mahassar issued and imposed fine of Rs. 90,000
7	Ernakulam-DO2	17.02.202	23	8	80,000	30,000	Notice and Mahassar issued and imposed fine
8	Ernakulam-DO1	17.02.202 &18.02.2020	45	8	80,000	50,000	Notice and Mahassar issued and imposed fine
9	ESC	17.02.2020	5	5	50,000	0	Notice and Mahassar issued and imposed fine
10	Thrissur	17.02.2020&18.02.2020	6	6	50,000	0	Notice and Mahassar issued and imposed fine
11	Palakkad	02.2020&30.09.2020, 03.11.20	69	2	20,000	10,000	Notice and Mahassar issued and imposed fine
12	Malappuram	27.02.2020	7	4	40,000	40,000	Notice and Mahassar issued and imposed fine. Stock kept at MCF, Kottakkal
13	Kozhikode	29.02.20,03.03.20,0503.2020.	76	33	330,000		Notice and Mahassar issued . Joint inspection by KSPCB & KKD Corporation
14	Wayanad	19.02.2020	14	6	60,000		Four by Municipality Notice and Mahassar issued and imposed fine of Rs. 60,000. Stock kept at Suchitwamission
15	Kannur		5	5			Notice and Mahassar issued and asked to remit fine by 25-2-2020 of Rs. 50,000
16	Kasargod	17.01.202,27.02.2020,06.03.202,13.03.2020,18.09.2020	39	30	135,000	135,000	Notice and Mahassar issued and asked to remit fine by 25-2-2020 of Rs. 50,000
	Total		465	153	1,305,000	335,000	

LIST OF SELLERS OF COMPOSTABLE PRODUCT AS ON MARCH 2021

Sl. No	Name and Address	Name and Address of Establishment	District	Product	Registration No. Date of issue	validity
1	Jaisal Joseph, Proprietor Ph no: 9447548303 E-mail: jaisaljoseph@gmail. Com	JBR Group, X/226, Manimala, Kottayam - 686544	Kottayam	PLA coated paper cup- 1T/month.	PCB/HO/PWM /REGN/24/ 2020 dated 17/02/2020.	16/02/2021
2	Shilpa Ravindra Jain, properietor Ph no: 9892939878 E-mail : shilpa.pp@gmail.co m	Parshva Poly Impex, UNIT NO.101 Bulding NO.A/9,Hari Har Complex Village Dapode, Tal.Bhiwandi District, Thane, Maharashtra	Thane	Compostable garbage bag – 40T/month	PCB/HO/PWM/ REGN/25/2020 Dated 19.02.2020	18.02.2021
3	Saju, Proprietor, Ph no: 9447056593 E-mail: aliassaju10@gmail.c om	Sea Paper Products, KavattParavattil House, Mekkad P.O, Nedumbassery, Ernakulam-683589	Ernakulam	PLA coated paper cup- 4 T/month	PCB/HO/PWM /REGN/26/ 2020 dated 22/02/2020.	21/02/2021
4	Binil K. Rag, Proprietor, Ph no: 9447211098 E-mail: sannidhanam18@gm ail.com	Sannidhanam Paper products, Vikas Nagar 67, Pattathanam (PO), Kollam-691021	Kollam	PLA coated paper cup- 4 T /month	PCB/HO/PWM /REGN/27/ 2020 dated 22/02/2020.	21/02/2021
5	Mini, Proprietor Ph no: 9847707051 E-mail: teeyespaperproducts @ gmail.com	Teeyes Paper Products, Ramson Building, Vazhayilapalam (P.O), Karakulam, Trivandrum-695564	Thiruvananth apuram-	PLA coated paper cup – 50,000 cup/month	PCB/HO/PWM /REGN/28/ 2020 dated 22/02/2020.	21/02/2021
6	Pushpa Giji, Proprietor Ph no: 9847122466 E-mail: ss.ceramics2009@ gmail.com	S.S Ceramics, Olakettyambalam PO, Mavelikkara, Alappuzha-690510	Alappuzha	PLA coated paper cup – 50,000 cup/month	PCB/HO/PWM /REGN/29/ 2020 dated 22/02/2020.	21/02/2021
7	Saheer Mohammed, Proprietor, Ph no: 9895628134 saheermsm@gmail. Com	MSM Paper Products, Pettanada Lane, Vizhinjam road, Balaramapuram, Trivandrum-695501	Thiruvananth apuram-	PLA coated paper cup – 50,000 cup/month	PCB/HO/PWM /REGN/30/ 2020 dated 22/02/2020.	21/02/2021

8	A. Venukuttan Nair, Ph no : 9497008477 E-mail : avs859285@gmail.com	Nandu Traders 18/411 C Malayinkeezhu Trivandrum-695571	Thiruvananthapuram-	Compostable Garbage bag- 510kg/month	PCB/HO/PWM/ REGN/31/2020 dated 24.02.2020	23.02.2021 19
9	Sumon.N.S. Partner , Ph no:7306501060 Email:info@aiosolutions.co.in	ALL IN ONE , SUI palace building, pullepady junction, chittoor road, cochin -682035	Ernakulam	Compostable Garbage bag- 5T/month	PCB/HO/PWM/ REGN/32/2020 dated 27.02.2020	26.02.2021
10	V.A. Abdul Samad, Managing Partner, Ph no : 8893579621, 9846095291 E-mail : kingspackings@gmail.com	KINGS Packing, Edayar, Muppathadam, Ernakulam-683110	Ernakulam	Compostable garbage bag - 20T/month	PCB/HO/PWM/ REGN/33/2020 dated 27.02.2020	26.02.2021
11	Shyira Krishnan , Partner, Ph no : 8281853513 E-mail : sannidhanam2018@gmail.com	Sannidhanam Paper Industries, Near Krishna Bhavan, Karikkuzhi, Mayyanad. P.O., Kollam- 691021	Kollam	PLA coated paper cup- 1500kg/month	PCB/HO/PWM/ REGN/34/2020 dated 03.03.2020	02.03.2021
12	Liza Annie Varghese, Proprietor, Ph no: 9447278485 E-mail : annapolymers2019@gmail.com	AnnaPolymers, Industrial Estate, Kochalummoodu, Mavelikkara , Alappuzha- 690509 (for manufacture and stock& sale)	Alappuzha	Compostable garbage bag, PLA coated paper cup - 50T/month	PCB/HO/PWM/ REGN/35/2020 dated 06.03.2020	05.03.2021
13	Shahul Hameed, Proprietor, Mobile : 9447234563 E-mail : faisalkorothmala@gmail.com	Galaxy Trading, New South Indian Bank, Mala Post, Thrissur- 680732	Thrissur	PLA coated paper cup, Garbage bags, Grow bags- 1000kg/month	PCB/HO/PWM/ REGN/36/2020 dated 06.03.2020	05.03.2021
14	Sumesh Babu, Proprietor, Ph no:9048183333 E-mail : reflectionzz4u@gmail.com	REFLECTIONZZ, XII/696-D, Moolayil Buildings, Rajiv Junction, Satellite Township, Padamugal- Palachuvadu, Kakkanad, Cochin- 682030	Ernakulam	Garbage bags, Grow bags - 1000kg/month	PCB/HO/PWM/ REGN/37/2020 dated 22.05.2020	21.05.2021
15	Smitha Rajeev, Proprietor, Ph no:9747943376 E-mail : rjpaperproducts@gmail.com	RJ Paper Products Poovanthuruth u. P.O, Kottayam-686012	Kottayam	PLA coated paper cup- 1T/month	PCB/HO/PWM/ REGN/38/2020 dated 05.06.2020	04.06.2021

16	John Puthanparampil Ph no:9447271077/ 7025473833 Email:nexustraders7@gmail.com	NEXUS TC 31/3304, DPN125 Peerorkkada P.O Thiruvananthapuram- 695005	Thiruvananthapuram-	Garbage bags500kg/month	PCB/HO/PWM/REGN/39/2020 dated 15.09.2020	07.12.2020
17	KakunjePlastipacks(Pvt.) LTD., Ph no : 9448495600 E-mail : kakunjeplastipacks@gmail.com	KakunjePlastipacks(Pvt.) LTD., MPVIII- 401 & 404 Near G.P.M College, Manjeshwar, Kasargod- 671323 (for manufacture and stock& sale)	Kasargod	Compostable plastic garbage bag4MT/ Month	PCB/HO/PWM/REGN/40/2020 Dated 10.11.2020	04.04.2021
18	Pandiyan Meena Paper Company(EKM) Ph no:9843078285 Email:anu@pmpc.in	Pandiyan Meena Paper Company XL/2134 Ernakulam Merchants Road, Broad Way Ernakulam, Cochin-682031	Ernakulam,	PLA coated paper & PLA coated paper cups	PCB/HO/PWM/REGN/41/2020 dated 23.11.2020	29.10.2021
19	Kings Packings , Mobile : 8893579621, 9846095291 kingspackings@gmail.com	Kings Packing, Edayar, Muppathadam , Ernakulam-683110	Ernakulam	Compostable garbage bag - 20T/month	PCB/HO/PWM/REGN/42/2020 Dated 29/01/2020	23/12/2021
20	Cochin Packagings, Ph: 9995865328 cochinpacks@gmail.com	Cochin Packagings, IDA, Edayar, Muppathadam P.O, Aluva-683110, COCHIN	Ernakulam	Compostable Plastic garbage bags- 500kg/day	PCB/HO/PWM/REGN/43/2020 Dated 24/11/2020	23/11/2021
21	Leetha pack (Pvt.)Ltd, Ph: 9388441602 jackson@leetha.com , sales@leetha.com	Leetha pack (Pvt.)Ltd, Muringoor- Kadukutty road, Kallur, Vadakkummuri,Kerala 680309	Thrissur	PLA coated Paper cups- 500000 No/day	PCB/HO/PWM/REGN/44/2021 Dated 20/01/2021	19/01/2022
22	SAM Industries Ph; 9946000576 sales@samindus.com	SAM Industries, 33/116 E, Poyil, Neeleswaram P.O, Mukkam, Kozhikode, Kerala 673582	Kozhikode	PLA coated paper cups- 48000 No/day	PCB/HO/PWM/REGN/45/2021 Dated 07/12/2020	06/12/2021
23	Ajithkumar.K Mobile :9847062630 newharipolypackings@gmail.com	New Hari Poly Packings, Techno Industrial Park, Kinfrac,Kakkanchery ChelembraP.O Malappuram -673635, (for manufacture and stock& sale)	Malappuram	Compostable Packing bags @ 500kg/ day	PCB/HO/PWM/REGN/46/2021 Dated 20/03/2021	17/02/2022
24	Mrs. Mary	M/S. Mythri Trade	Ernakulam	Compostable	PCB/HO/PWM/	28/02/2022

	VijayamMobile :9847394959 mythritradelinks@g mail.com	Links,No.39/2475-B, South Janatha Road, Palarivattom P.O, Kochi -682025.		carry bags, garbage bags and pouches @ 5-7 Tones/month	REGN/47/2021 Dated 22/03/2021	2
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LIST OF MANUFACTURE OF COMPOSTABLE PRODUCT AS ON MARCH 2021

Sl. No	Name and Address	Name and Address of Establishment	District	Product	Registration No. Date of issue	validity
1	Liza Annie Varghese, Proprietor, Ph no: 9447278485 E-mail : annapolymers2019@gmail.com	AnnaPolymers , Industrial Estate, Kochalumoodu, Mavelikkara , Alappuzha- 690509	Alappuzha	Compostable garbage bag, PLA coated paper cup - 50T/month	PCB/HO/PWM/REGN/35/2020 dated 06.03.2020	05.03.2021
2	KakunjePlastipacks(Pvt.) LTD., Ph no : 9448495600 E-mail : kakunjeplastipacks@gmail.com	KakunjePlastipacks (Pvt.) LTD., MPVIII- 401 & 404 Near G.P.M College, Manjeshwar, Kasargod- 671323	Kasargod	Compostable plastic garbage bag4MT/ Month	PCB/HO/PWM/REGN/40/2020 Dated 10.11.2020	04.04.2021
3	Ajithkumar.K Mobile :9847062630 newharipolypackings@gmail.com	New Hari Poly Packings, Techno Industrial Park, Kinfra,Kakkanchery ChelembraP.O Malappuram -673635,	Malappuram	Compostable Packing bags @ 500kg/ day	PCB/HO/PWM/REGN/46/2021 Dated 20/03/2021	17/02/2022

Annexure 8

Door to Door collection in all Municipalities

HOUSEHOLDS

Status of Achievement		75 -100%	50- <75%	25 - <50%	Below 25 %
Thiruvananthapuram	Dry		3 (Nedumagad, Attigal Varkala)	1 (Neyyattinkara)	
	Wet				1 (Attigal)
Kollam	Dry	3 (S.paravur, Punalur, Kottarakara)		1 (Karunagapally)	-
	Wet	1 (Kottarakara)			4 (Karunagapally, Kottarakara, S.paravur, Punalur)
Pathanamthitta	Dry	1 (Thiruvalla)	2 (Pandalam, Pathanamthitta)	-	1 (Adoor)
	Wet	Composting at source level in the premises is yet to be reported by the panchayat and municipalities	1 (Pathanamthitta)	Composting at source level in the premises is yet to be reported by the panchayat and municipalities	3 (Adoor, Pandalam, Thiruvalla)
Alappuzha	Dry	2 (Alappuzha, Harippad)	2 (Kayamkulam Mavelikkara)	1 (Cherthala,)	1 (Chengananur)
	Wet	1 (Cherthala, Kayamkulam Alappuzha)		1 (Chengananur)	2 Mavelikkara,Harip pad)
Kottayam	Dry		1 (Erattupetta)	1 (Pala)	4 (Changanassery, Ettumanoor, Kottayam, Vaikom)
	Wet	Composting at source level in the premises is yet to be reported by the panchayat and municipalities			6 (Changanassery, Ettumanoor, Kottayam, Vaikom, Pala, Erattupetta)
Idukki	Dry	2 (Thodupuzha,Katta pana)			

Status of Achievement		75 -100%	50- <75%	25 - <50%	Below 25 %
	Wet	Composting at source level in the premises is yet to be reported by the panchayat and municipalities	1 (Kattapana)	Composting at source level in the premises is yet to be reported by the panchayat and municipalities	1 (Thodupuzha)
Ernakulam	Dry	7 (Aluva Angamaly, Eloor, Kuthattukulam, Kothamagalam, Muvatupuzha, Thrikkakara)	1 (N.paravur)	2 (Kalamassery, Piravam)	2 (Maradu, Perumbavoor)
	Wet	6 (Angamaly, Eloor, Kothattukulam, Kothamangalam, Muvatupuzha, Thrikkakara, Thripunithura)		1 (Aluva)	4 (N.Paravur, Maradu, Perumbavoor, Piravom)
Thrissur	Dry	3 (Chalaky, Kodungallur, Kunnankulam)	-	3 (Chavakkad, Irinjalkuda, Vadakan chery)	1 (Guruvayur)
	Wet	1 Chalaky			7 (Guruvayur, Chavakkad, Irinjalkuda, Vadakan chery, Kodungallur, Kunnankulam)
Palakkad	Dry	1 (Shornur, Mannarkkad)	4 (Cheruplassery, Chittur-Thattamangalam, Ottapalam, Palakkad)	-	1 (Pattambi)
	Wet				7 (Cheruplassery, Chittur-Thattamangalam, Ottapalam, Mannarkkad, Pattambi, Palakkad, Shornur)
Malappuram	Dry	3 (Kondotty, Malappuram, Tirur)	2 (Ponnani, Thanoor)	3 (Parappanangadi, Perinthalmanna, Thiroorangadi)	4 (Kottakkal, Manjeri, Nilambur, Valanchery)

Status of Achievement		75 -100%	50- <75%	25 - <50%	Below 25 %
	Wet	Composting at source level in the premises is yet to be reported by the panchayat and municipalities		1 Parappanangadi	11 (Kondotty, Kottakkal, Malappuram, Manjeri, Nilambur, Perinthalmanna, Ponnani, Thanoor, Thiroorangadi, Tirur, Valanchery)
Kozhikode	Dry	2 (Mukkam, Vadakara)	1 (Koyilandy)	1 (Faroke,)	3 (Payyoli, Ramantukara, Koduvally)
	Wet	Composting at source level in the premises is yet to be reported by the panchayat and municipalities		1 (Faroke)	5 (Koduvally, Ramantukara Payyoli, Koyilandy, Mukkam, Vadakara)
Wayanad	Dry	-	-	2 (Kalpetta, Mananthavady)	1 (Sulthanbathery)
	Wet	Composting at source level in the premises is yet to be reported by the panchayat and municipalities		-	3 (Sulthanbathery, Kalpetta, Mananthavady)
Kannur	Dry	6 (Kuthuparambu, Iritty, Matannur, Payannur, Sreekandapuram, Thaliparambu)	2 (Panoor, Thalassery)	-	1 (Anthoor)
	Wet	Composting at source level in the premises is yet to be reported by the panchayat and municipalities			9 (Anthoor, Panoor, Kuthuparambu, Iritty, Matannur, Payannur, Sreekandapuram, Thalassery, Thaliparambu)
Kasargod	Dry	3 (Kanhangad, Kasargod, Nileshwaram)	-	-	-
	Wet	Composting at source level in the premises is yet to be reported by the panchayat and municipalities			3 (Kanhangad, Kasargod, Nileshwaram)

ESTABLISHMENTS

Status of Achievement		75 -100%	50- <75%	25 - <50%	Below 25 %
Thiruvananthapuram	Dry	2 (Attingal Varkala)	1 (Nedumangad)	-	1 (Neyyattinkara)
	Wet	1 (Attingal)	-	-	3 (Neyyattinkara, Nedumangad, Varkala)
Kollam	Dry	2 (S.paravur, Punalur)	-	1 Karunagapally	1 (Kottarakara,)
	Wet	-	-	-	4 (Karunagapally, Kottarakara, S.paravur, Punalur)
Pathanamthitta	Dry	1 (Thiruvalla)	2 Pathanamthitta, (Pandalam)	-	1 (Adoor,)
	Wet	-	-	-	4 (Adoor, Pathanamthitta, (Pandalam, Thiruvalla)
Alappuzha	Dry	-	1 (Alappuzha)	-	6 (Cherthala, Kayamkulam, Mavelikkara, Haripad Chengananur, Kayamkulam)
	Wet	-	1 (Alappuzha)	-	5 (Chengannur, Cherthala, Kayamkulam, Mavelikkara, Haripad)
Kottayam	Dry	-	1 (Ettumanor)	-	5 (Changanassery, Kottayam, Vaikom, Pala, Erattupetta)
	Wet	-	-	-	6 (Changanassery, Ettumanoor, Kottayam, Vaikom, Pala, Erattupetta)
Idukki	Dry	2 (Thodupuzha, Kattappana)	-	-	-
	Wet	-	-	-	2 (Thodupuzha, Kattappana)
Ernakulam	Dry	3 (Eloor, N.Paravur, Thripunithura)	1 (Thrikkakara)	2 (Kalamassery, Piravam)	7 (Aluva, Angamaly, Koothatukulam, Kothamangalam, Muvattupuzha, Maradu, Perumbavoor)
	Wet	1 (Aluva Thripunithura)	-	2 (Kalamassery, Thrikkakara)	9 ,Angamaly, Eloor, Koothatukulam, Kothamangalam, Muvattupuzha, N. Para

Status of Achievement		75 -100%	50- <75%	25 - <50%	Below 25 %
					vur,Maradu,Perumbavoor,Piravom)
Thrissur	Dry	4 (Guruvayur,irinjalakuda,kunnamkulam,vadakanchery)	2 (chalakudy, chavakkad)	1 (kodungallur)	-
	Wet	1 Chavakkad	-	-	6 (Guruvayur,irinjalakuda,Vadakanchery, Chalakudy,kodungallur, Kunnamkulam)
Palakkad	Dry	3 (Cheruplassery,Manarkkad,Shornur)	1 (Ottapalam)	-	3 (chittur-Thattamangalam, Palakkad,Pattambi)
	Wet	1 (Chittur-Thattamangalam)	-	-	6 (Cheruplassery, Ottapalam, Mannarkkad,Pattambi, Palakkad, Shornur)
Malappuram	Dry	1 (Tirur)	1 (Parappanangadi, i)	5 (Kottakkal,Malappuram,Manjeri,Perinthalmanna, Ponnani)	5 (Kondotty,Nilambur,Thanoor,Thiroorangadi, Valanchery)
	Wet	-	-	1 (Parappanangadi)	11 (Kondotty Kottakkal,Malappuram,Manjeri, Nilambur,Perinthalmanna, Ponnani,Thanoor,Thiroorangadi,Tirur, Valanchery)
Kozhikode	Dry	2 (Mukkam,Vadakara)		-	5 (Faroke,Koduvally,Koyilandy, Ramanattukara 1 (Payyoli))
	Wet	-	-	-	7 (Faroke,Koduvally,Koyilandy, Payyoli,Ramanattukara, Mukkam,Vadakara)
Wayanad	Dry	1 (Kalpetta)	-	1 (Mananthavady)	1 (Sulthanbathery)
	Wet	-	-	-	3 (Sulthanbathery, Mananthavady, Kalpetta)
Kannur	Dry	3 (Koothuparambu, Mattanur, Sreekantapuram)	2 (Iritty, Payannur)	1 (Panoor)	3 (Thaliparambu,Anthoor, Thalassery)
	Wet	1 (Mattanur)	-	-	8 (Anthoor, Panoor, Koothuparambu, Iritty, Payannur, Sreekantapuram, Thalassery,

Status of Achievement		75 -100%	50- <75%	25 - <50%	Below 25 %
					Thaliparambu)
Kasargod	Dry	-	1 (Nileshwaram)	1 (Kasargod)	1 (Kanhangad)
	Wet	-	-	-	3 (Kanhangad,Kasargod, Nileshwaram)

PROPOSAL FOR IMPLEMENTATION OF RULE 17(1) OF THE SOLID WASTE
MANAGEMENT RULES, 2016 BY PRODUCERS, BRAND OWNERS,
MANUFACTURERS AND IMPORTERS

Background

Solid Wastes Management Rules, 2016 in Rule 17(1) states that all manufacturers of disposable products such as tin, glass, plastics packaging etc or brand owners who introduce such products in the market shall provide necessary financial assistance to local authorities for establishment of waste management system. Rule 17(2) states that all such brand owners who sell or market their product in such packaging material which are non-biodegradable shall put in place a system to collect back packaging waste generated due to their production. Though four years was over, there is no compliance of these rules by the brand owners, producers, manufacturers and importers. Majority brand owners are not taking back waste packaging from Kerala and some brand owners have made some arrangements through PROs, the information on quantity of packaging taken back have not been furnished to Kerala State Pollution Control Board. Hence the Kerala State Pollution Control Board is unable to furnish the said details to Hon'ble National Green Tribunal and to Central Pollution Control Board through statutory annual reports under Solid Waste Management Rules, 2016 and Plastic Waste Management rules, 2016

As per Solid Waste Management Rules, 2016, scientific collection, transport, treatment and disposal of solid waste is to be implemented in the State. But there is failure in the implementation especially of door- to-door collection mechanism due to paucity of funds for giving wages to waste collectors. Door-to- door collection can be implemented by local authorities and village panchayaths census towns and urban agglomeration effectively by giving wages to waste collectors through user fee as well as EPR fund.

Objectives

The financial assistance by brand owners/producers/manufacturers/importers can be remitted in the EPR fund and this fund can be utilized for meeting to the extent possible cost of door-to-door collection.

Methodology

- 1) Separate fund under Rule 17 of the Solid Waste Management Rules (EPR fund) is to be created from the fee paid by brand owners/producers/manufacturers/importers who introduce disposable products and packaging in the market.
- 2) The disposable products/packagings coming under the purview of EPR and its rate are given below. The rate for packaging except for Large dimension packages is fixed on weight basis. Large dimension packages are charged on volume basis as collector costs would correspond more closely with volume for materials of low bulk density.

3) EPR fee for Producer/manufacturer/brandowner of disposable products and packaging

Material	Quantity produced (from SI.No.4)	Quantity transferred by producer to Branddowners / Exporters	Quantity collected by Return Deposit Scheme	Qty. collected through own arrangement - Brand specific	Qty. collected by own arrangement (brand neutral)	Quantity assessed for EPR fee	Rate of EPR fee		EPR fee to be deposited
	a	b	c	d	e	f = a-b-c-d-0.25e	g		h = g*f
Metal (in kg)	14250	0	0	0	1000	14000	₹ 10.00 /kg		₹ 140,000
Plastic (kg)	12100	0	0	0	2000	11600	₹ 10.00 /kg		₹ 116,000
Compostable Plastic (kg)	0	0	0	0	0	0	₹ 10.00 /kg		₹ 0
Glass (kg)	0	0	0	0	0	0	₹ 10.00 /kg		₹ 0
Paper(kg)	38750	0	0	0	0	38750	₹ 10.00 /kg		₹ 387,500
Large box (m3)	2800	0	0	0	0	2800	₹ 100.00 /m ³		₹ 280,000

4) Estimation of quantity of disposable product / packaging manufactured in or introduced into Kerala

Product name	Product HSN code	Prod. packaging Size		Number of units	Disposable product or packaging materials per unit					
					Metal	Plastic	Compo stable Plastic	Glass	Paper	Large box
					g	g	g	g	g	litre
Shampoo	33051090	250	ml	200,000	0	15	0	0	0	0
		100	ml	500,000	0	11	0	0	0	0
Detergent	34029011	1	kg	1,000,000	0	3	0	0	20	0
		2	kg	150,000	0	4	0	0	30	0
Toothpaste	33061020	100	g	1,200,000	10	2	0	0	10	0
		250	g	150,000	15	2	0	0	15	0
Split air-conditioner	84151010	1	TR	28,000	0	100	0	0	0	100
				Total (kg or m3)	14250	12100	0	0	38750	2800

Payment to Local Bodies carrying out Household Door-to-door collection (Rule 15.b)

	Freq	Reimbursement of costs
Wet & Dry waste	6 d/week	₹ 60 per house per month
Wet & Dry waste	4 d/week	₹ 40 per house per month
Dry waste only	1 d/week	₹ 16 per house per month
Dry waste only	2 d/month	₹ 8 per house per month
Dry waste only	1 d/month	₹ 4 per house per month

Expected income and expenditure from EPR Fund

EPR covered waste	200 g/house/d
	6 kg/house/month
EPR rate	10 /kg
EPR amount collected	60 /house/month

- 5) The amount to be remitted is based on the quantity of packaging proposed to be introduced in the State of Kerala in a year. A self-affidavit is to be given in advance regarding the quantity of products, and packaging. The deviation exceeding the declared quantity in the affidavit by 25% shall be reported by the applicant by the end of that financial year. If any deviation observed thereafter from the self-declaration given is observed, the registration stands cancelled.
- 6) At least 1% of the application will be counter checked with GST department for ensuring the correctness of information provided through self-affidavit by the manufacturer/producer/brand owner/importer.
- 7) For branded items, brand owners are to remit fee based on the quantity of packaging entered into the State. For non-branded items, manufacturer/importer/producer are to remit the fee.
- 8) The responsibility of the manufacturer/producer/brandowner/importer will be over by remitting fee in the EPR fund. With regard to disposable/plastic products and packaging also, the responsibility of the manufacturer/producer/brand owner/importer as per the Plastic Waste Management Rules is discharged by payment of EPR fee. The responsibility of collection, treatment and disposal shall entirely lie with the local body.
- 9) The EPR fee will be collected through online application. The format of online application and EPR registration form are attached as Format 1 and 2. The fund will be maintained by the Pollution Control Board.
- 10) The sharing of EPR fund is based on the successful providing of door- to- door collection by the local authority. The success is examined based on the statutory annual reports submitted by the local bodies under the Solid Waste Management Rules, 2016 and Plastic Waste Management Rules, 2016 and also based on the field verification by the Kerala State Pollution Control Board.

- 11) The list of unsuccessful local bodies will be transferred to the Director, Urban Affairs Directorate and to the Director, Panchayath Directorate for not giving the EPR share to them.
- 12) The amount will be transferred to the Director, Urban Affairs Directorate and to the Director, Panchayath Directorate for transferring fund to the successful local bodies.
- 13) 5% of the fund will be set apart as operation charges of Kerala State Pollution Control Board namely creation and maintenance of online application for EPR fund, auditing, and salary for staff deployed for implementation, monitoring and enforcement of SWM and PWM 2016.
- 14) The details regarding the applications received, EPR registration given, amount collected, amount transferred to local bodies, status of door-to door collection, status of waste management by local bodies etc., will be displayed on EPR online portal.



KERALA STATE POLLUTION CONTROL BOARD

File No. :

Date of issue:

**REGISTRATION UNDER RULE 17 (1) OF THE SOLID WASTE MANAGEMENT
RULES, 2016**

Registration No. : Kerala pcb/

Ref:

M/s. has complied with Rule 17 (1) of Solid Waste Management Rules, 2016 for the quantities given. This discharges their responsibility for the packaging and disposable products under Plastic Waste Management Rules, 2016 for the quantities given below, subject to the following conditions.

1. The deviation exceeding the declared quantity by 25% shall be reported by the end of financial year
2. If any violation is observed thereafter from the self declaration given, the registration stands cancelled.

6 Estimation of quantity of disposable product / packaging manufactured in or introduced into Kerala

Product name	Product HSN code	Prod. packaging Size	Number of units	Disposable product or packaging materials per unit					
				Metal g	Plastic g	Compostable Plastic g	Glass g	Paper g	Large box litre
Shampoo	33051090	250 ml	2,00,000	0	15	0	0	0	0
		100 ml	5,00,000	0	11	0	0	0	0
Detergent	34029011	1 kg	10,00,000	0	3	0	0	20	0
		2 kg	1,50,000	0	4	0	0	30	0
Toothpaste	33061020	100 g	12,00,000	10	2	0	0	10	0
		250 g	1,50,000	15	2	0	0	15	0
Split air-condition	84151010	1 TR	28,000	0	100	0	0	0	100
Total (kg or m3)				14250	12100	0	0	38750	2800

Payment to Local Bodies carrying out Household Door-to-door collection (Rule 15.b)

	Freq	Reimbursement of costs
Wet & Dry waste	6 d/week	₹ 60 per house per month
Wet & Dry waste	4 d/week	₹ 40 per house per month
Dry waste only	1 d/week	₹ 16 per house per month
Dry waste only	2 d/month	₹ 8 per house per month
Dry waste only	1 d/month	₹ 4 per house per month

Expected income and expenditure from EPR Fund

EPR covered waste	200 g/house/d
	6 kg/house/month
EPR rate	10 /kg
EPR amount collected	60 /house/month

KERALA STATE POLLUTION CONTROL BOARD

Application Form for Registration as per Rule 17(1) Solid Waste Management Rules, 2016

1	Name	Abc Ltd.
	GSTIN	11abcdf1234a1x1
2	Address	
3	Phone	
	Land line	
	Mobile	

4 Category

Producer of packaging or disposable product	x
Importer of packaged goods or disposable product	
Brandowner of packaged goods / disposable product	

5 EPR fee for Producer/manufacturer/brandowner of disposable products and packaging

Material	Quantity produced (from Sl.No.6)	Quantity transferred by producer to Brandowners / Exporters	Quantity collected by Return Deposit Scheme	Qty. collected through own arrangement - Brand specific	Qty. collected by own arrangement (brand neutral)	Quantity assessed for EPR fee	Rate of EPR fee	EPR fee to be deposited
	a	b	c	d	e	f = a-b-c-d-0.25e	g	h = g*f
Metal (in kg)	14250	0	0	0	1000	14000	₹ 10.00 /kg	₹ 1,40,000
Plastic (kg)	12100	0	0	0	2000	11600	₹ 10.00 /kg	₹ 1,16,000
Compostable Plastic (kg)	0	0	0	0	0	0	₹ 10.00 /kg	₹ 0
Glass (kg)	0	0	0	0	0	0	₹ 10.00 /kg	₹ 0
Paper(kg)	38750	0	0	0	0	38750	₹ 10.00 /kg	₹ 3,87,500
Large box (m3)	2800	0	0	0	0	2800	₹ 100.00 /m ³	₹ 2,80,000

3) EPR fee for brandowner/importer/ manufacturer/Producer of disposable products and packaging

Material	Quantity produced (from SI.No.6)	Quantity transferred by producer to Brandowners / Exporters	Quantity collected by Return Deposit Scheme	Qty. collected through own arrangement - Brand specific	Qty. collected by own arrangement (brand neutral)	Quantity assessed for EPR fee	Rate of EPR fee	EPR fee to be deposited
	a	b	c	d	e	f = a-b-c-d-0.25e	g	h = 1000* g*f
Aluminium / tin (in MT)							₹ 10.00 /kg	
Compostable plastic (MT)	aerobic						₹ 10.00 /kg	
Compostable plastic (MT)	aerobic & anaerobic						₹ 5.00 /kg	
Paper (MT)							₹ 10.00 /kg	
Plastic (MT)							₹ 10.00 /kg	
Glass (MT)							₹ 10.00 /kg	
Large dimension packaging (m ³)*							₹ 100.00 /m ³	

4) Estimation of quantity of disposable product / packaging manufactured in or introduced into Kerala

Product name	Product HSN code	Prod. packaging Size		Number of units	Disposable product or packaging materials per unit					
					Met al	Plastic	Compo stable Plastic	Glass	Paper	Large box
					g	g	g	g	g	litre
Shampoo	33051090	250	ml	200,000	0	15	0	0	0	0
		100	ml	500,000	0	11	0	0	0	0
Detergent	34029011	1	kg	1,000,000	0	3	0	0	20	0
		2	kg	150,000	0	4	0	0	30	0
Toothpaste	33061020	100	g	1,200,000	10	2	0	0	10	0
		250	g	150,000	15	2	0	0	15	0
Split air-conditioner	84151010	1	TR	28,000	0	100	0	0	0	100
				Total (kg or m3)	1425	12100	0	0	38750	2800

Payment to Local Bodies carrying out Household Door-to-door collection (Rule 15.b)

	Freq	Reimbursement of costs
Wet & Dry waste	6 d/week	₹ 60 per house per month
Wet & Dry waste	4 d/week	₹ 40 per house per month
Dry waste only	1 d/week	₹ 16 per house per month
Dry waste only	2 d/month	₹ 8 per house per month
Dry waste only	1 d/month	₹ 4 per house per month

Expected income and expenditure from EPR Fund

EPR covered waste	200 g/house/d
	6 kg/house/month
EPR rate	10 /kg
EPR amount collected	60 /house/month

SIGNATURE & SEAL OF ISSING AUTHORITY

Date:

Annexure 10

DUMPSITES IN KERALA AS ON MARCH 2021

Major Dumpsites locations					
Sl No:	Location	District	Latitude	Longitude	Status
1	Vilappilshala	Thiruvanthapuram	8.5388	77.0388	
2	Kureepuzha	Kollam	8.9116	76.5671	Corporation has selected M/s Zonta Infratech Pvt Ltd as the contractor for the project and the matter is being followed up.
3	Kottayam Vadavathoor	Kottayam	9.5808	76.5253	Biowaste had been decomposed and tendering in progress for the disposal of non biodegradable waste
4	Sarvodayapuram	Alappuzha	9.5527	76.3189	Action being taken.
5	Brahmapuram	Ernakulam	9.9983	76.3786	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	10.5149	76.1858	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.

Sl No:	Location	District	Latitude	Longitude	Status
7	BPL Koottupatha, Palakkad	Palakkad	10.7674	76.6881	Under Consideration
8	Njeliyamparambu, Calicut	Kozhikode	11.2036	75.8169	<p>M/s Zonta Infratech Pvt Ltd started the work of clearing of legacy waste on 3rd March, 2020.</p> <p>The clearing work of legacy waste resumed at the dumpsite on 4th May 2020 and approximately 15000 cum of legacy waste was cleared from the project site as on 12th May 2020. Some disruption due to Covid and Monsoon. Machineries have been installed and resumed clearing of dumpsites.</p>
9	Chelora	Kannur	11.9018	75.4389	Work awarded to Zonta Infratech Private Limited. Corporation directed contractor to expedite the work.
10	Thalassery	Kannur	11.7207	75.5153	-

Other Dumpsite locations					
SI No:	Location	District	Latitude	Longitude	Status
1	Attingal	Thiruvanthapuram	8.6911	76.8105	Tendering process
3	Palayam	Thiruvanthapuram	8.5029	76.9519	Clearing is in an advanced stage
4	Varkala	Thiruvanthapuram	8.7509	76.7301	Clearing going
5	Changanassery, Fathimapuram	Kottayam	9.447	76.5541	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	9.696229	76.7852972	Planned a proposal with Suchitwa mission, Kerala. Project taken by DPC
7	Mundakkayam - Vettukallamkuzhy	Kottayam	9.5683483	76.8746208	-
9	Kattapana-Vandenmedu	Idukki	9.7583	77.1468	-
10	Thodupuzha	Idukki	9.883	76.6886	-
11	Munnar	Idukki	10.2697	76.9677	Tendering in Progress
12	Kalamassery	Ernakulam	10.0653	76.3282	-
13	Kothamangalam	Ernakulam	10.0797	76.6476	-
14	Moovattupuzha	Ernakulam	9.9942	76.5614	-

SI No:	Location	District	Latitude	Longitude	Status
15	North Paravoor	Ernakulam	10.1505	76.2424	Central Financial grant 25 Lakhs to disposal of legacy waste.
16	Chavakkad	Thrissur	10.589	76.0099	-
17	Chalakkudy	Thrissur			50 cents reclaimed
18	Irijalakuda-Kuthuparamba	Thrissur	10.3617	76.2115	Some area is reclaimed and construction of windrow compost plant is going on.
19	Kunnamkulam				One acre reclaimed
20	Kumblagad, Wadakkancherry	Thrissur	10.6565	76.223	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	10.7868	76.3456	-
22	Karathodu-Puliyettummal	Malappuram	11.0692	76.0434	-
23	Manjeri	Malappuram	11.1101	76.1379	SEUF is entrusted to prepare DPR
24	Thirur - Pottilathara Trenching ground	Malappuram	10.903	75.9316	-
25	Vadakara, Puthiyapp	Kozhikode	11.5945	75.6056	Capping done over a part of legacy waste
26	Kalpetta	Wayanad	11.5906	76.0555	-

Sl No:	Location	District	Latitude	Longitude	Status
27	Sulthan bathery, Karuvallikunnu	Wayanad	11.6814	76.2772	-
28	Koothuparamba	Kannur	11.8364	75.5718	-
29	Payyannur	Kannur	12.109	75.2158	-
30	Kanjangad, Chemmatam vayal	Kasargod	12.3251	75.1098	-
31	Vidyanager, Kasargod	Kasargod	12.5196	75.0154	-

"ഭരണഭാഷ- മാതൃഭാഷ"



കേരള സർക്കാർ

സംഗ്രഹം

തദ്ദേശസ്വയംഭരണ വകുപ്പ് - എറണാകുളം ജില്ലയിൽ പെട്രോ കെമിക്കൽ പാർക്ക് സ്ഥാപിക്കുന്നതിനായി FACT-യിൽ നിന്നും വാങ്ങിയതും കിൻഫ്രയുടെ കൈവശമുള്ളതുമായ ഭൂമിയിൽ നിന്ന് 25 ഏക്കർ സ്ഥലത്ത് തദ്ദേശസ്വയംഭരണ സ്ഥാപനങ്ങളുടെ നേതൃത്വത്തിൽ സംഭരിക്കുന്ന mixed (inert) മാലിന്യങ്ങൾ സംസ്കരിക്കുന്നതിനായി സാനിറ്ററി ലാൻഡ് ഫിൽ നിർമ്മിക്കുന്നതിന് അനുമതി നൽകിയും സംസ്ഥാനത്ത് ക്ലീൻ കേരള കമ്പനി സംഭരിച്ചതിൽ അവശേഷിക്കുന്ന 3000MT നിഷ്ക്രിയ മാലിന്യം (inert waste) കൂടി ഉടൻ എടുക്കുന്നതിന് കേരള എൻവൈറോ ഇൻഫ്രാസ്ട്രക്ചർ ലിമിറ്റഡിന് നിർദ്ദേശം നൽകിയും ഉത്തരവ് പുറപ്പെടുവിക്കുന്നു.

തദ്ദേശസ്വയംഭരണ (ഡി.സി) വകുപ്പ്

G.O.(Rt) No.1198/2020/LSGD

തീയതി,തിരുവനന്തപുരം, 18/06/2020

പരാമർശം:- ക്ലീൻ കേരള കമ്പനി മാനേജിംഗ് ഡയറക്ടറുടെ 11.05.2020-ലെ C49/CKCL/2020നമ്പർ കത്ത്

ഉത്തരവ്

കൊവിഡ്-19 വ്യാപനത്തിന്റെയും മഴക്കാല പൂർവ്വ ശുചീകരണ പ്രവർത്തനങ്ങളുടെയും ഭാഗമായി ക്ലീൻ കേരള കമ്പനിയുടെ നേതൃത്വത്തിൽ തദ്ദേശ സ്വയംഭരണ സ്ഥാപനങ്ങളിൽ നിന്നും ഖരമാലിന്യങ്ങൾ ശേഖരിച്ച് റിസോഴ്സ് റിക്കവറി ഫെസിലിറ്റികളിലേക്കും കമ്പനിയുടെ ഗോഡൗണുകളിലേക്കും മാറ്റുന്ന പ്രവർത്തനങ്ങൾ നടന്നു വരികയാണ്. നിഷ്ക്രിയ മാലിന്യങ്ങൾ (inert waste) കൊച്ചി അമ്പലമുക്കിലുള്ള കേരള എൻവൈറോ ഇൻഫ്രാസ്ട്രക്ചർ ലിമിറ്റഡിന്റെ (KEIL) ലാൻഡ് ഫില്ലിലേക്ക് നിശ്ചിത ഫീസ് നൽകി നീക്കം ചെയ്യാൻ ക്ലീൻ കേരള കമ്പനി നടപടിയെടുത്തു വരവേ KEIL-ന് സംസ്കരിക്കാനായി നൽകാവുന്ന മാലിന്യത്തിന്റെ അളവ് 2000 MT ആയി കേരള സംസ്ഥാന മലിനീകരണ നിയന്ത്രണ ബോർഡ് പരിമിതപ്പെടുത്തി. എന്നാൽ KEIL-ന് നൽകിയിട്ടുള്ള 2000 MT നിഷ്ക്രിയ മാലിന്യങ്ങൾക്ക് പുറമേ 3000 MT മാലിന്യം കൂടി ക്ലീൻ കേരള കമ്പനിക്ക് സംസ്കരണത്തിനായി കൈമാറേണ്ടതുണ്ട്. ഈ പ്രതിസന്ധി തരണം ചെയ്യുന്നതിന് വ്യവസായ വകുപ്പിന്റെ കീഴിൽ കിൻഫ്രയുടെ കൈവശം FACT യിൽ നിന്നും വാങ്ങിയ ഭൂമിയിൽ നിന്നും 25 ഏക്കറോളം ഭൂമിയിൽ തദ്ദേശ ഭരണ സ്ഥാപനങ്ങൾക്ക് വേണ്ടി "സാനിറ്ററി ലാൻഡ്ഫിൽ" സജ്ജമാക്കാൻ കേരള എൻവൈറോ ഇൻഫ്രാസ്ട്രക്ചർ ലിമിറ്റഡിനെ ചുമതലപ്പെടുത്താമെന്നും ശാശ്വത പരിഹാരം എന്ന നിലയിൽ സംസ്ഥാനത്തിന്റെ വടക്ക്, മദ്ധ്യ, തെക്ക് പ്രദേശങ്ങൾക്കായി ഇൻഡസ്ട്രിയൽ പാർക്കുകളിൽ ഇപ്പോൾ ഉപയോഗിക്കാത്ത സ്ഥലങ്ങൾ ലാൻഡ് ഫില്ലുകൾക്കായി കണ്ടെത്താമെന്നും ചീഫ്

സെക്രട്ടറിയുടെ അധ്യക്ഷതയിൽ ചേർന്ന ക്രൈസിസ് മാനേജ്മെന്റ് ഗ്രൂപ്പിൽ നിർദ്ദേശമുണ്ടായി.

2. FACT-യിൽ നിന്നും വാങ്ങിയതും കിൻഫ്രയുടെ കൈവശമുള്ളതുമായ ഭൂമിയിൽ നിന്നും 25 ഏക്കറോളം സ്ഥലം ക്ലീൻ കേരള കമ്പനിക്ക് കൈമാറുകയാണെങ്കിൽ സാനിറ്ററി ലാൻഡ്ഫിൽ നിർമ്മിക്കുന്നതിൽ വൈദഗ്ധ്യമുള്ള KEIL-ന്റെ മേൽനോട്ടത്തിൽ പ്രസ്തുത ഭൂമിയിൽ സാനിറ്ററി ലാൻഡ്ഫിൽ സ്ഥാപിക്കുന്നത് സംബന്ധിച്ച് ഒരു പദ്ധതി രൂപരേഖ ക്ലീൻ കേരള കമ്പനി മാനേജിംഗ് ഡയറക്ടർ പരാമർശം (1) പ്രകാരം സമർപ്പിച്ചിട്ടുണ്ട്.

3. സർക്കാർ ഇക്കാര്യം വിശദമായി പരിശോധിച്ചു. സംസ്ഥാനം നിലവിൽ അഭിമുഖീകരിക്കുന്ന മാലിന്യ പ്രശ്നത്തിന് ഒരു പരിഹാരം ഉണ്ടാകണമെങ്കിൽ ക്ലീൻ കേരള കമ്പനി സംസ്ഥാനത്തെ തദ്ദേശസ്വയംഭരണ സ്ഥാപനങ്ങളിൽ നിന്നും മറ്റും ശേഖരിക്കുന്ന 3000 MT നിഷ്ക്രിയ മാലിന്യം കൂടി ശാസ്ത്രീയമായി സംസ്കരിക്കേണ്ടതുണ്ട്. കൂടാതെ നിഷ്ക്രിയ മാലിന്യങ്ങളുടെ സംസ്കരണത്തിനായി സംസ്ഥാനത്ത് അടിയന്തിരമായി ഒരു സാനിറ്ററി ലാൻഡ്ഫിൽ സജ്ജീകരിക്കേണ്ടതുണ്ട്.

4. മേൽ സാഹചര്യത്തിൽ താഴെ പറയുന്ന അനുമതികളും നിർദ്ദേശങ്ങളും നൽകി ഉത്തരവാകുന്നു.

- i. എറണാകുളം ജില്ലയിൽ പെട്രോ കെമിക്കൽ പാർക്ക് സ്ഥാപിക്കുന്നതിനായി FACT-യിൽ നിന്നും വാങ്ങിയിട്ടുള്ളതും കിൻഫ്രയുടെ കൈവശമുള്ളതുമായ ഭൂമിയിൽ നിന്ന് അനുയോജ്യമായ 25 ഏക്കർ സ്ഥലത്ത് തദ്ദേശസ്വയംഭരണ സ്ഥാപനങ്ങളുടെ Mixed (inert) മാലിന്യങ്ങൾ സംസ്കരിക്കുന്നതിനായി സാനിറ്ററി ലാൻഡ്ഫിൽ നിർമ്മിക്കുന്നതിന് അനുമതി നൽകുന്നു. ഇപ്രകാരം പ്രസ്തുത സ്ഥലത്ത് സാനിറ്ററി ലാൻഡ്ഫിൽ നിർമ്മിക്കുന്നതിന് EIA notification, 2006 പ്രകാരം സ്റ്റേറ്റ് എൺവയോൺമെന്റ് ഇംപാക്ട് അസ്സെസ്സ്മെന്റ് അതോറിറ്റി (SIEAA) യിൽ നിന്നും പാരിസ്ഥിതിക അനുമതി (Environmental clearance) ലഭ്യമാക്കേണ്ടതാണ്. Solid Waste Management Rules, 2006 പ്രകാരം സാനിറ്ററി ലാൻഡ്ഫിൽ നിർമ്മിക്കുന്നതിനുള്ള സ്ഥലം തെരഞ്ഞെടുക്കുന്നതിന് വ്യവസ്ഥ ചെയ്തിട്ടുള്ള നിബന്ധനകൾ പാലിക്കേണ്ടതാണ്. സാനിറ്ററി ലാൻഡ്ഫിൽ നിർമ്മിക്കുന്നതിന് ആവശ്യമായ നിയമപരമായ അനുമതികൾ ലഭ്യമാക്കുന്നതിനുള്ള ഉത്തരവാദിത്തം ക്ലീൻ കേരള കമ്പനിയെ, എഗ്രിമെന്റ് വ്യവസ്ഥ പ്രകാരം, കേരള എൻവയോൺമെന്റ് ഇൻഫ്രാസ്ട്രക്ചർ ലിമിറ്റഡിന് ചുമതലപ്പെടുത്താവുന്നതാണ്.
- ii. സാനിറ്ററി ലാൻഡ്ഫിൽ നിർമ്മിക്കുന്നതിനായി പ്രസ്തുത ഭൂമി കേരള എൻവയോൺമെന്റ് ഇൻഫ്രാസ്ട്രക്ചർ ലിമിറ്റഡിന് നൽകി ക്ലീൻ കേരള കമ്പനിയും കേരള എൻവയോൺമെന്റ് ഇൻഫ്രാസ്ട്രക്ചർ ലിമിറ്റഡും തമ്മിൽ ഏർപ്പെടുന്ന ധാരണാപത്രത്തിന്റെ അടിസ്ഥാനത്തിൽ സാനിറ്ററി ലാൻഡ്ഫിൽ സജ്ജമാക്കേണ്ടതും ഇതിന്റെ operation & management കേരള എൻവയോൺമെന്റ് ഇൻഫ്രാസ്ട്രക്ചർ ലിമിറ്റഡ് തന്നെ ഏറ്റെടുക്കേണ്ടതുമാണ്.
- iii. സംസ്ഥാനത്ത് സംസ്കരണത്തിനായി അവശേഷിക്കുന്ന 3000 MT നിഷ്ക്രിയ

മാലിന്യങ്ങൾ (non bio-degradable / non usable, non recyclable, non combustible and non reactive inert waste) കൂടി കേരള എൻവൈറോ ഇൻഫ്രാസ്ട്രക്ചർ ലിമിറ്റഡ് ഉടൻ ലാന്റ്ഫിൽ ചെയ്യുന്നതിനായി സ്വീകരിക്കേണ്ടതാണ്. ഇപ്രകാരം മാലിന്യം സംസ്കരിക്കുമ്പോൾ കത്തുന്ന വാതകങ്ങൾ നിർഗമിക്കുന്നതിനും അഗ്നിബാധയുണ്ടാകുന്നതിനുമുള്ള സാഹചര്യങ്ങൾ ഒഴിവാക്കുന്നതിനുള്ള മുൻകരുതൽ നടപടികൾ KIEL സ്വീകരിക്കേണ്ടതാണ്. ലീച്ചറ്റ് ശേഖരിക്കുന്നതിനും അത് സംസ്കരിക്കുന്നതിനുമുള്ള ക്രമീകരണങ്ങളും ഏർപ്പെടുത്തേണ്ടതാണ്.

iv. മേല്പറഞ്ഞ പ്രകാരം KIEL സംസ്കരിക്കുന്ന 5000 MT നിഷ്ക്രിയ മാലിന്യങ്ങൾക്ക് പകരമായി 5000 MT ആപത്കരമായ മാലിന്യങ്ങൾ സംസ്കരിക്കുന്നതിന് പര്യാപ്തമായ ഒരു സെൽ അല്ലെങ്കിൽ മതിയായ സ്ഥലം KIEL-ന് നൽകുന്നതിനും അനുമതി നൽകുന്നു.

5. മേൽ പറഞ്ഞ പ്രകാരം കിൻഫ്രയുടെ കൈവശമുള്ള 25 ഏക്കർ ഭൂമി KIELന് കൈമാറുന്നതിനുള്ള വിശദമായ ഉത്തരവ് വ്യവസായ വകുപ്പ് പ്രത്യേകം പുറപ്പെടുവിക്കേണ്ടതാണ്.

(ഗവർണ്ണറുടെ ഉത്തരവിൻ പ്രകാരം)
SARADA MURALEEDHARAN IAS
PRINCIPAL SECRETARY

മാനേജിംഗ് ഡയറക്ടർ, കേരള എൻവൈറോ ഇൻഫ്രാസ്ട്രക്ചർ ലിമിറ്റഡ്
മാനേജിംഗ് ഡയറക്ടർ, ക്ലീൻ കേരള കമ്പനി ലിമിറ്റഡ്
പഞ്ചായത്ത് ഡയറക്ടർ, തിരുവനന്തപുരം
നഗരകാര്യ ഡയറക്ടർ, തിരുവനന്തപുരം
എക്സിക്യൂട്ടീവ് ഡയറക്ടർ, ശുചിത്വ മിഷൻ
വ്യവസായ വകുപ്പ്
പരിസ്ഥിതി വകുപ്പ്
മാനേജിംഗ് ഡയറക്ടർ, കിൻഫ്ര.

പ്രിൻസിപ്പൽ അക്കൗണ്ടന്റ് ജനറൽ (A&E) കേരള, തിരുവനന്തപുരം
അക്കൗണ്ടന്റ് ജനറൽ (G&SSA/E& RSA) കേരള, തിരുവനന്തപുരം
പൊതുഭരണ (എസ്.സി) വകുപ്പ് (ഇനം നമ്പർ 4027 തീയതി 03.06.2020)
എക്സിക്യൂട്ടീവ് ഡയറക്ടർ, ഇൻഫർമേഷൻ കേരള മിഷൻ, തിരുവനന്തപുരം
ഡയറക്ടർ, ഐ&പി.ആർ.ഡി/ വെബ് & ന്യൂ മീഡിയ, തിരുവനന്തപുരം
കരുതൽ ഫയൽ/ ഓഫീസ് കോപ്പി

ഉത്തരവിൻ പ്രകാരം

Signature Not Verified

Digitally signed by SMITHA B. HANDE

Date: 2020.06.18 19:02:48 IST

Reason: Approved

സെക്ഷൻ ഓഫീസർ

പകർപ്പ്:-

ബഹു. തദ്ദേശസ്വയംഭരണ വകുപ്പ് മന്ത്രിയുടെ പ്രൈവറ്റ് സെക്രട്ടറിക്ക്
 ബഹു. വ്യവസായ വകുപ്പ് മന്ത്രിയുടെ പ്രൈവറ്റ് സെക്രട്ടറിക്ക്
 തദ്ദേശ സ്വയംഭരണ വകുപ്പ് പ്രിൻസിപ്പൽ സെക്രട്ടറിയുടെ പി.എ. യ്ക്ക്
 വ്യവസായ വകുപ്പ് പ്രിൻസിപ്പൽ സെക്രട്ടറിയുടെ പി.എ യ്ക്ക്
 തദ്ദേശസ്വയംഭരണ വകുപ്പ് സ്പെഷ്യൽ സെക്രട്ടറിയുടെ സി.എ യ്ക്ക്
 തദ്ദേശസ്വയംഭരണ വകുപ്പ് ജോയിന്റ് സെക്രട്ടറിയുടെ സി.എ യ്ക്ക്

Annexure 12



☎ : 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

കേരളസംസ്ഥാന മലിനീകരണ നിയന്ത്രണ ബോർഡ്

Pattom P.O., Thiruvananthapuram – 695 004

പട്ടം പി.ഒ., തിരുവനന്തപുരം - 695 004

PCB/HO/RULES/SWM - Thrissur/2018

Date: 21 /10/2019

Regd. with A/D

DIRECTION UNDER SECTION 5 OF THE ENVIRONMENTAL PROTECTION ACT, 1986

Sub: Issue of notice for the noncompliance of the Solid Waste Management Rules, 2016

- Ref:
1. The Hon'ble NGT order OA no. 606/2018 dated 16/01/2019 and 25/04/2019
 2. Letter no. PCB/HO/SEE2/RMC- Meeting/2018 dated 09/10/2018, 22/10/2018 and 24/10/2018
 3. This office notice of even no. PCB/HO/EE4/NGT/SWM DIRECTIONS TO LB/2019 dated 17/04/2019
 4. This office notice of even no. PCB/HO/EE4/AG/2019 dated 09/05/2019
 5. Letter no. PH4/5475/09 dated 24/06/2019
 6. Letter no. PH4/5475/09 dated 31/05/2019
 7. Annual Report send by email dated 02/07/2019
 8. Email on 14/08/2019
 9. This office notice of even no. PCB/HO/RULES/SWM - Thrissur/2018 dated 14/08/2019
 10. Letter no. PH4/28606/16 dated 27/08/2019
 11. Letter no PCB/TSR/MSW/3/2002 dated 14/10/2019

WHEREAS the Central Government notified the Environmental (Protection) Act, 1986 for the protection and improvement of environment and for matters connected therewith;

WHEREAS as per Section 3, 6, and 25 of the Environment (Protection) Act, 1986, the Central Government re-notified the Solid Wastes Management Rules, 2016 (herein after referred as SWM Rules) vide notification S.O. 1357(E) dated 8-4-2016;

WHEREAS as per Rule 22 (1) of the SWM Rules, suitable sites for setting up solid waste processing facilities are to be identified;

WHEREAS as per Rule 22(3) of the SWM Rules, suitable sites for setting up solid waste processing facility and sanitary landfill facilities are to be procured;

WHEREAS as per Rule 22 (5) of the SWM Rules, door to door collection of segregated waste and its transportation in covered vehicles to processing or disposing facility shall be ensured by 8-4-2018;

WHEREAS as per Rule 22 (7) of the SWM Rules, solid waste processing facilities for the complete quantity of waste generated from the local body @ 0.4 to 0.5 kg/person/day, shall be set up by 8-4-2018;

WHEREAS facilities with the technologies specified in CPHEEO manual and SWM Rules are to be in place for the effective treatment and disposal of the solid waste generated in the local body;

WHEREAS as per Rule 22 (6) of the SWM Rules, separate storage, collection and transportation of construction and demolition waste shall be provided by 8-4-2018;

WHEREAS as per Rule 22(11) of the SWM Rules, bio-remediation or capping of old and abandoned dump site shall be ensured;

WHEREAS repeated instructions were issued vide the communications read above, for the compliance of the SWM Rules;

WHEREAS the following information was submitted by you vide the Annual Report read 7th above;

No. of Households	86604
No. of non-residential premises	15250
Quantity of Solid waste generated	177 TPD
Quantity of Solid waste collected	37 TPD
Quantity of Solid waste processed (Community level)	37 TPD
Quantity of Solid waste processed in Household level	Biogas plant- 632 Compost pits- 20,118 } \approx 60 TPD

WHEREAS it is noted that you are not processing 80 TPD of waste generated;

WHEREAS it is noted that you have not identified the land for the solid waste processing facility and sanitary landfill;

WHEREAS the Hon'ble National Green Tribunal, Principal Bench, New Delhi in the order dated 22/11/2018 in O.A. No. 353/2016 clarified that apart from prosecution, the statutory authorities under the Environment (Protection) Act, 1986, the Air (Prevention and Control of Pollution) Act, 1981 and the Water (Prevention and Control of Pollution) Act, 1974, must, in exercise of their incidental powers, prescribed scale of compensation to be collected from the polluters on the "Polluter Pay's Principle". Such scale which may be laid down at various levels, having regard to the local condition or as per direction in the hierarchy of the authorities. In various other application also, the Hon'ble NGT passed similar orders, for instance, in the Order dated 20/11/2018 in O.A No. 117/2014, 499/2014 and 102/2014 the Hon'ble NGT noted as; "Needless to say that statutory authorities under the Environment (Protection) Act, 1986, Air (Prevention and Control of Pollution) Act, 1981 and the Water (Prevention and Control of Pollution) Act, 1974 are entitled to assess and recover damages as "Polluter Pay's Principle" in exercise of incidental powers to protect environment".

WHEREAS notice was issued to you as you have not complied with above provision;

WHEREAS Environmental Engineer, District Office, reported that the solid waste management measures reported by you are inadequate to cater to the quantity of waste expected from Thrissur Corporation.

WHEREAS the Board is constrained to assess the Environmental Compensation from 22/11/2018 to 31/07/2019 (Days = 252) as follows;

City	Thrissur
Population (2011)	317,526
Class	Class-I Town
Waste Generation (kg. per person per day) as per Annual Report	0.55
Waste Generation (TPD) as per Annual Report	177.00
Waste Disposal as per Rules (TPD) as per Annual Report	97.00
Waste Management Capacity Gap (TPD)	80.00
Calculated EC (capital cost component) in Lakhs. Rs.	192.00
Minimum and Maximum values of EC (Capital Cost Component) recommended by the Committee (Lakhs Rs.)	Min. 100 Max. 1000
Final EC (capital cost component) in Lakhs. Rs.	192.00
Calculated EC (O&M Component) in Lakhs. Rs./Day	1.60
Minimum and Maximum values of EC (O&M Cost Component) recommended by the Committee (Lakhs Rs./Day)	Min. 0.1 Max. 1.0
Final EC (O&M Component) in Lakhs. Rs./Day	1.00
Final EC (O&M Component) in Lakhs	252
Calculated Environmental Externality (Lakhs Rs. Per Day)	0.00
Minimum and Maximum value of Environmental Externality recommended by the Committee (Lakhs Rs.per day)	Min. 0.05 Max. 0.10
Final Environmental Externality (Lakhs Rs. per day)	0.05
Final Environmental Externality in Lakhs	12.6

WHEREAS an amount of Rs.456.6 Lakhs (Four Crore Fifty Six Lakh Sixty Thousand) is assessed as environmental compensation from 22/11/2018 to 31/07/2019 (Capital cost component (Rs.192 Lakhs) + O&M Component (Rs.252 Lakhs) + Environmental Externality (Rs.12.6 Lakhs));

WHEREAS continued failure to comply with SWM 2016 shall incur Environmental Compensation at rates that are multiples of the rates assessed above;

WHEREAS notice was issued to you vide this office notice cited 9th above to show cause why the Environmental Compensation of Rs 456.6 Lakhs (Four Crore Fifty Six Lakh Sixty Thousand) shall not be recovered from you for the non compliance of Rule 22(1), 22(3) 22(5), 22(6), 22(7) and 22(11) of the SWM Rules, 2016;

WHEREAS as per order dated 25/04/2019 in OA.No 606/2018, the time line for compliance of environmental statutes will be elapsed on 24/10/2019;

WHEREAS in the said letter, while quantifying the waste generated, the quantity of non bio-degradable waste from market is not included in 1(b) in page 4;

WHEREAS you have vide reply no. PH4/28606/16 dated 27/08/2019 reported that the present dumpsite of Corporation is converted to stadium and steps are taken to identify the new space for solid waste processing plant as per Rule 22(1);

WHEREAS it is noted that you are converting the land acquired for waste management to stadium which is against Rule 22(1) and 22(3);

WHEREAS you have yet to comply with 22(5), 22(6) and 22(7) of the Solid Waste Management Rules, 2016;

WHEREAS NGT order dated 17/07/2019 in OA. No. 519/2019 directed to ensure allocation of funds for processing of legacy waste dumpsites and the remediation work is to be commenced from 01/11/2019 and preferably within 6 month to be completed;

WHEREAS you have yet to report the action taken for the compliance of above matter;

WHEREAS the Environmental Engineer, District Office, Thrissur, based on their inspection on 17/07/2019, reported that the procedure adopted for closure of the dump yard is not in compliance with the Rule 15(zj) and Schedule 1(j) of the SWM Rules, 2016;

WHEREAS the reply submitted by you is not satisfactory;

WHEREAS the KSPCB District office, Thrissur has found that the Corporation has provided facilities to 14 T of biodegradable waste against the 99.12 T of biodegradable waste generated as mentioned in your reply under ref.11;

WHEREAS though you have claimed to have waste treatment facility for treating 63.87T at source and this is far from reality and the disposal method through piggery farm and agricultural activities cannot be taken in account, as the same is not authorized;

WHEREAS the KSPCB, District Office inspected 10 houses each from 31 wards and found that non-biodegradable waste is collected from 107 houses and biodegradable wastes from 10 houses from a total of 310 houses;

WHEREAS the Corporation has not reported the mode of treatment and disposal of non-biodegradable wastes;

WHEREAS the wastes generated in flats, educational institutions, industrial establishments are disposed in incinerator without having satisfactory air pollution control system and disposal measures for burnt residues;

WHEREAS the Corporation has not submitted a detailed plan for the treatment and disposal of remaining wastes;

WHEREAS though the instruction was given to Corporation authorities for doing bio mining as per statutory rules in Laloor dumping sites, you are continuing the construction activities for the stadium in the said area against the Board's directions and you are not complying with the Board's direction and has not given reply to the Board's directions on bio mining;

ANDWHEREAS it is noted that you have not complied with the Solid Waste Management Rules, 2016;

NOW THEREFORE, in exercise of the powers vested under Section 5 of the Environment Protection Act, 1986, you are directed to remit the Environmental Compensation of Rs 456.6 Lakhs (Four Crore Fifty Six Lakh Sixty Thousand) from 22/11/2018 to 31/07/2019 against you for the non compliance of Rule 22(1), 22(3) 22(5), 22(6), 22(7) and 22(11) of the SWM Rules, 2016 within 15 days of receipt of this direction failing which further legal action shall be initiated against you.



CHAIRMAN

To

The Secretary,
Thrissur Corporation

Copy to:

The Chairman
State Level Monitoring Committee

The Additional Chief Secretary
Local Self Government Department

The District Collector, Thrissur

The Director, Urban Directorate

The Chief Environmental Engineer, Regional Office, Ernakulam

The Environmental Engineer, District Office, Thrissur



KERALA STATE POLLUTION CONTROL BOARD
കേരള സംസ്ഥാന മലിനീകരണ നിയന്ത്രണ ബോർഡ്

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

o/c

PCB/HO/SEE2/585/2018/2019(VOL-II)

KERALA STATE POLLUTION CONTROL BOARD
 THIRUVANANTHAPURAM
 Date: 28/10/2020
 Regd. with A/D
 03 NOV 2020
 DESPATCHED

SHOW CAUSE NOTICE

Sub: Noncompliance of Solid Waste Management Rules, 2016

- Ref: 1. Order dated 16/01/2019 in O.A. No. 606/2018
 2. Order dated 25/1/2019 in O.A.No. 585/2018
 3. Order dated 8/4/2019 in O. A. No. 585/2018
 4. Order dated 23/9/2019 in O. A. 585/2018
 5. Order dated 22/11/2018 in O.A. No. 353/2016
 6. Order dated 20/11/2018 in O.A No. 117/2014, 499/2014 and 102/2014
 7. This office notice of even no. PCB/HO/EE4/NGT-585/09/2019 dated 07/06/2019
 8. Letter No. PCB/IDK/GEN/10/NGT-585 dated 27/8/2019
 9. This office direction no. PCB/HO/RULES/SWM-IDUKKI/2018 dated 3/9/2019 to the Urban Directorate and Panchayath Directorate
 10. Minutes of the meeting on 18/5/2020 held with Urban Directorate and Panchayath Directorate
 11. Minutes of the meeting on 17/8/2020 with local bodies in Idukki district
 12. Your status report dated 03/09/2020
 13. Letter No PCB/IDK/GEN/10/NGT585 of 2018/2019/Vol II dated 28.10.2020 from the Environmental Engineer, District Office, Idukki
 14. Letter No.PCB/RO-EKM/GEN-221/2019 dated 26/10/2020

WHEREAS the Central Government notified the Environmental (protection) Act, 1986 for the protection and improvement of environment and for matters connected therewith;

WHEREAS as per Section 3, 6 and 25 of the Environment (Protection) Act, 1986, the Central Government re-notified the Solid Waste Management Rules, 2016 (hereinafter referred as SWM Rules) vide notification S.O.1357 (E) dated 8-4-2016;

WHEREAS as per Rule 22(1) of the SWM Rules, suitable sites for setting up solid waste processing facilities are to be identified;

WHEREAS as per Rule 22(3) of the SWM Rules, suitable sites for setting up solid waste processing facility and sanitary landfill facilities are to be procured;

WHEREAS as per Rule 22(5) of the SWM Rules, door to door collection of segregated waste and its transportation in covered vehicles to processing or disposing facility shall be ensured;

WHEREAS as per the Rule 22(8) of the SWM Rules, solid waste facilities are to be installed by local bodies and census towns below 1 lakh population by 8/4/2019;

WHEREAS as per Rule 22(10) of the SWM Rules, common or regional landfill is to be set up by all local bodies and census towns under 0.5 million population for the disposal of permitted waste under the rules;

WHEREAS as per the Rule 22(11) of the SWM Rules, bio-remediation or capping of old and abandoned dump site shall be done;

WHEREAS the Hon'ble NGT vide order dated 25/01/2019 in O.A. No.585/2018 constituted a Joint Committee of Central Pollution Control Board, Kerala State Pollution Control Board and District Magistrate to prepare an action plan for compliance of law particularly Bio-medical waste and Solid waste Management Rules and to furnish an action taken report and the Committee is to assess the damages caused to the environment and the persons from whom the same to be recovered;

WHEREAS the Hon'ble NGT vide order dated 8/4/2019 in O. A. No. 585/2018 directed the Joint Committee to complete its exercise within a period of two months and to submit a detailed action plan with time lines for compliance by the respective authorities and also assess the damages caused to the environment and amount to be collected from the defaulting units including the two medical centres;

WHEREAS the Hon'ble NGT vide order dated 23/9/2019 in O. A. No. 585/2018 directed the Board to submit a report showing the local bodies who are not complying with the Rules in spite of the direction given so that the tribunal can take appropriate action against erring municipalities and local bodies to ensure that the rules are implemented by them;

WHEREAS notice was issued to local bodies vide the communication read 7th above as they have not properly managed solid waste by adopting scientific methods of collection, segregation, storage, transport, processing and disposal as per the Solid Waste Management Rules, 2016;

WHEREAS the Environmental Engineer, District Office, Idukki vide the letter read 8th above, reported that 37 local bodies have not responded to the notice and the reply from 17 local bodies were unsatisfactory;

WHEREAS direction was issued vide the communication read 9th above to the Director, Urban Directorate and to the Director, Panchayath Directorate to show cause for not imposing Environmental Compensation as assessed on the 54 local bodies for the non compliance of Rule 22(1), 22(3), 22(5), 22(8), 22(10) and 22(11) of the Solid Waste Management Rules, 2016;

WHEREAS hearing was conducted with the Directorate of Urban affairs and with the Directorate of Panchayath on 18/5/2020 (ref. 10) and they were requested to submit latest status report on solid waste management and the progress to be achieved on June and July, 2020 by the local bodies in Idukki district;

WHEREAS subsequently video conference was held with all the local bodies in Idukki district on 17/8/2020 (ref. 11) and directed them to submit detailed action taken report and time bound action plan;

WHEREAS report submitted by you vide the communication read 12th above is reported to have been not satisfactory;

WHEREAS the Hon'ble National Green Tribunal, Principal Bench, New Delhi in the order dated 22/11/2018 in O.A. No. 353/2016 (ref. 16) clarified that apart from prosecution, the statutory authorities under the Environment (Protection) Act, 1986, the Air (Prevention and Control of Pollution) Act, 1981 and the Water (Prevention and Control of Pollution) Act, 1974, must, in

exercise of their incidental powers, prescribed scale of compensation to be collected from the polluters on the "Polluter Pay's Principle". Such scale which may be laid down at various levels, having regard to the local condition or as per direction in the hierarchy of the authorities;

WHEREAS in various other application also, the Hon'ble NGT passed similar orders, for instance, in the Order dated 20/11/2018 in O.A No. 117/2014, 499/2014 and 102/2014 (ref. 17) the Hon'ble NGT noted as; "Needless to say that statutory authorities under the Environment (Protection) Act, 1986, Air (Prevention and Control of Pollution) Act, 1981 and the Water (Prevention and Control of Pollution) Act, 1974 are entitled to assess and recover damages as "Polluter Pay's Principle" in exercise of incidental powers to protect environment".

WHEREAS the Chief Environmental Engineer, Regional Office, Ernakulam vide the letter No. PCB/RO-EKM/GEN-221/2019 dated 26/10/2020 informed that the Environmental Engineer of the District Office, Idukki requested to issue individual notice to the local body;

AND WHEREAS the Chief Environmental Engineer, Regional Office, Ernakulam in the said letter recommended to issue individual notice imposing EC on local bodies and forwarded the following assessment as done by the Environmental Engineer, District Office, Idukki;

City	Adimaly
Population (2011)	40,593
Area in Sq. Km	271.5
Population Density	149.51
%Achievement	71
Class	Class-III
Waste Generation (kg. per person)	0.3
Waste Generation	12.18
Waste Disposal (TPD)	8.65
Waste Management Capacity Gap	3.53
Calculated EC (capital cost component) in Lacs. Rs.	8.48
Minimum and Maximum values of EC (Capital Cost Component)	Min. 100 Max. 1000
Final EC (capital cost component)	100.00
Calculated EC (O&M Component)	0.071
Minimum and Maximum values of EC (O&M Cost Component) recommended by the	Min. 0.1 Max. 1.0
Final EC (O&M Component) in	0.100
Calculated Environmental	0.00018
Minimum and Maximum value of Environmental Externality	Min. 0.05 Max. 0.10
Final Environmental Externality	0.05
EC to be collected(In Lakhs)	181.15

NOW THEREFORE, in exercise of the powers vested under Section 5 of the Environment Protection Act 1986, read with Government of India Notification S.O. 327(E) dated 10/04/2001, you are directed to show cause within 15 days of receipt of this notice, why the Board shall not recover Environmental Compensation of Rs. 181.15 lakhs (Rupees One hundred and eighty one lakh and fifteen thousand only) for the period from 9/4/2019 to 30/09/2020 towards the noncompliance of Solid Waste Management Rules, 2016.


CHAIRMAN

To

The Secretary
Adimaly Panchayat

Copy to:

The Chairman, State Level Monitoring Committee
The Additional Chief Secretary, Local Self Government Department (with C/L)
The Principal Secretary, Environment Department (with C/L)
The Director, Urban Directorate
The Director, Panchayath Directorate
The District Collector, Idukki
The Chief Environmental Engineer, Regional Office, Ernakulam
The Environmental Engineer, District Office, Idukki
Environment Monitoring Cell



KERALASTATE POLLUTION CONTROL BOARD

കരളസംസ്ഥാന മലിനീകരണ നിയന്ത്രണ ബോർഡ്

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

PCB/HO/SEE2/Aluva Municipality /2019

Date: 17/02/2021

Regd. with A/D

SHOWCAUSE NOTICE UNDER SECTION 5 OF THE ENVIRONMENTAL PROTECTION ACT, 1986

Sub: Non-compliance of Solid Waste Management Rules, 2016.

- Ref: 1. The Hon'ble NGT order dated 16/01/2019 in OA no. 606/2018.
2. The Hon'ble NGT order dated 22/11/2018 in O.A. No. 353/2016.
3. The Hon'ble NGT order dated 20/11/2018 in O.A No. 117/2014, 499/2014 and 102/2014.
4. Letter No. PCB/HO/RULES/SWM-ERNAKULAM/2018 dated 13/02/2019
5. Letter No. H4-2655/19 dated 27/03/2019.
6. Letter No. PCB/RO-EKM/NEW-97/12 dated 22/05/2019 from CEE, RO, Ernakulam.
7. Notice of even No. dated 12/10/2019.
8. Your letter dated 24/08/2020
9. Minutes of Video Conference held on 19/11/2020.
10. Letter No. PCB/RO-EKM/GEN-258/19 dated 10/01/2021.

WHEREAS the Central Government notified the Environmental (Protection) Act, 1986 for the protection and improvement of environment and for matters connected therewith;

WHEREAS as per Section 3, 6 and 25 of the Environment (Protection) Act, 1986, the Central Government re-notified the Solid Wastes Management Rules, 2016 hereinafter referred as SWM Rules) vide notification S.O. 1357(E) dated 8/4/2016;

WHEREAS as per Rule 22 (1) of the SWM Rules, suitable sites for setting up solid waste processing facilities are to be identified;

WHEREAS as per Rule 22(3) of the SWM Rules, suitable sites for setting up solid waste processing facility and sanitary landfill facilities are to be procured;

WHEREAS as per Rule 22 (5) of the SWM Rules, door to door collection of segregated waste and its transportation in covered vehicles to processing or disposing facility shall be ensured by 8-4-2019;

WHEREAS as per Rule 22 (7) of the SWM Rules, solid waste processing facilities for the complete quantity of waste generated from the local body at 0.4 to 0.5 kg/person/day, shall be set up by 8-4-2019;

WHEREAS facilities with the technologies specified in CPHEEO manual and SWM Rules are to be in place for the effective treatment and disposal of the solid waste generated in the local body;

WHEREAS as per Rule 22 (6) of the SWM Rules, separate storage, collection and transportation of construction and demolition waste shall be provided;

WHEREAS as per Rule 22 (11) of the SWM Rules, bio-remediation or capping of old and abandoned dump site shall be ensured;

WHEREAS as per NGT order dated 25/04/2019 in O.A. 606/2018 (ref.1 above), all environmental statutes are to be complied by the model city/town/village by 25.10.2019 and all other local bodies by 25.04.2020;

WHEREAS repeated instructions were issued including the communications read 4th and 6th above, for the compliance of the SWM Rules;

WHEREAS it is pointed out vide the letter cited 6th above that you had been continuously violating the rules by evading from adopting suitable measures for Solid Waste Management;

WHEREAS the Board issued direction vide communication read 7th to take step to provide bio-methanation plant for the waste generated within Aluva Municipality;

WHEREAS it is noted vide ref. 8 that you are still disposing biodegradable waste to the Brahmapuram plant which is in dilapidated condition;

WHEREAS it is noted vide ref. 8 that you are disposing non-biodegradable waste to the hazardous landfill of KEIL, which is meant for the disposal of Hazardous Wastes as per Hazardous Waste Management Rule and is against the rule;

WHEREAS in the meeting held on 19/11/2020 through video conference with municipality, Chief Environmental Engineer, Regional Office had been directed to submit a detailed report in Solid Waste Management;

WHEREAS the Hon'ble National Green Tribunal, Principal Bench, New Delhi in the order dated 22/11/2018 in O.A. No. 353/2016 clarified that apart from prosecution, the statutory authorities under the Environment (Protection) Act, 1986, the Air (Prevention and Control of Pollution) Act, 1981 and the Water (Prevention and Control of Pollution) Act, 1974, must, in exercise of their incidental powers, prescribed scale of compensation to be collected from the polluters on the "Polluter Pay's Principle". Such scale which may be laid down at various levels, having regard to the local condition or as per direction in the hierarchy of the authorities. In various other application also, the Hon'ble NGT passed similar orders, for instance, in the Order dated 20/11/2018 in O.A No. 117/2014, 499/2014 and 102/2014 the Hon'ble NGT noted as; "Needless to say that statutory authorities under the Environment (Protection) Act, 1986, Air (Prevention and Control of Pollution) Act, 1981 and the Water (Prevention and Control of Pollution) Act, 1974 are entitled to assess and recover damages as "Polluter Pay's Principle" in exercise of incidental powers to protect environment".

WHEREAS the Chief Environmental Engineer, Regional Office, Ernakulum made assessment for levying Environmental Compensation, details of assessment were furnished vide letter No.PCB/RO-EKM/GEN-258/19 dated 10/01/2021(Ref.9 above) as follows for the non-compliance with the Solid Waste Management Rules, 2016;

Population(2011)	22,428
Class	Class III
Total waste generation (kg per person per day)	0.3
Waste generation (TPD)	6.73
Waste disposed as per Rules (TPD)	0.67
Waste Management Capacity Gap(TPD)	$6.73-0.67=6.06$
EC - Capital Cost Component (Rs in lakhs) (Min:100 & Max:1000)	$2.4 \times 6.06 = 14.54$ (Taken as 100)
EC - O&M Component(Rs in lakhs/day) (Min: 0.1 & Max: 1)	$0.02 \times 6.06 = 0.12$
Environmental Externality(Rs in lakhs/day) (Min: 0.05 & Max: 0.1)	$5 \times 6.06 / 100000 = 0.0003$ (Taken as 0.05)
No. of days (N) (Taken as days from 09.04.2019 to 31.12.2020)	663
Environmental Compensation (Rs in lakhs)	$100 + 0.12 \times 663 + 0.05 \times 663 = 212.71$

AND WHEREAS an amount of **Rs. 212.71 lakhs (Rupees Two hundred twelve lakh and seventy one thousand only)** is assessed as environmental compensation from 09/04/2019 to 31/12/2020 against you for the non-compliance of the Solid Waste Management Rules, 2016;

NOW THEREFORE, in exercise of the powers vested under Section 5 of the Environment Protection Act, 1986, read with Government of India Notification S.O. 327(E) dated 10/04/2020 you are directed to show cause within 15 days of receipt of this notice as to why the Board shall not recover Environmental Compensation of **Rs. 212.71 lakhs (Rupees Two hundred twelve lakh and seventy one thousand only)** from 09/04/2019 to 31/12/2020 against you for the non-compliance of Rule 22 of the SWM Rules, 2016.


CHAIRMAN

To

The Secretary
Aluva Municipality

Copy to:

1. The Chairman
State Level Monitoring Committee.
2. The Additional Chief Secretary
Local Self Government Department.
3. The District Collector, Ernakulam.
4. The Director, Urban Directorate.
5. The Chief Environmental Engineer, Regional Office, Ernakulam.
6. The Environmental Engineer, District Office, Ernakulam.



KERALASTATE POLLUTION CONTROL BOARD
കേരളസംസ്ഥാന മലിനീകരണ നിയന്ത്രണ ബോർഡ്

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

PCB/HO/SEE2/Chalakkudy Municipality/2020

Date: 03/11/2020

Regd. with A/D

SHOW CAUSE NOTICE

Sub: Non-compliance of Solid Waste Management Rules, 2016.

- Ref: 1. This office Notice No. PCB/HO/EE4/AG/209 dated 9-5-2019 the Secretary, Chalakkudy Municipality
2. Hon'ble NGT order dated 27.07.2020 in O.A no.6/2020
3. Minutes of the Video Conference conducted by the undersigned on 09/09/2020
4. Notice no. PCB/HO/EE4/AG/2019 dated 09.05.2019
5. Letter No. Nil dated 17-10-2020 from the Secretary, Municipality of Chalakkudy
6. Letter no. PCB/TSR/MSW/5/2002 dated 2.11.2020

WHEREAS the Central Government notified the Environmental (Protection) Act, 1986 for the protection and improvement of environment and for matters connected therewith;

WHEREAS as per Section 3, 6, and 25 of the Environment (Protection) Act, 1986, the Central Government re-notified the Solid Wastes Management Rules, 2016 (hereinafter referred as SWM Rules) vide notification S.O. 1357(E) dated 8/4/2016;

WHEREAS as per Rule 22 (1) of the SWM Rules, suitable sites for setting up solid waste processing facilities are to be identified;

WHEREAS as per Rule 22(3) of the SWM Rules, suitable sites for setting up solid waste processing facility and sanitary landfill facilities are to be procured;

WHEREAS as per Rule 22 (5) of the SWM Rules, door to door collection of segregated waste and its transportation in covered vehicles to processing or disposing facility shall be ensured by 8-4-2019;

WHEREAS as per Rule 22 (7) of the SWM Rules, solid waste processing facilities for the complete quantity of waste generated from the local body at 0.4 to 0.5 kg/person/day, shall be set up by 8-4-2019;

WHEREAS facilities with the technologies specified in CPHEEO manual and SWM Rules are to be in place for the effective treatment and disposal of the solid waste generated in the local body;

WHEREAS as per Rule 22 (6) of the SWM Rules, separate storage, collection and transportation of construction and demolition waste shall be provided;

WHEREAS as per Rule 22(11) of the SWM Rules, bio-remediation or capping of old and abandoned dump site shall be ensured;

WHEREAS notice was issued to you vide the communication cited first above for not complying with the provisions of the Solid Waste Management Rules, 2016;

WHEREAS the Hon'ble NGT initiated a Suo moto case in O.A no.6/2020 based on the report in the news paper on 9/1/2020 with respect to the fire accident that occurred in the material recovery facility at Chalakkudy Municipality and the NGT vide order dated 20/1/2020 and 28/2/2020 ordered regarding the necessity of obtaining authorization under SWM Rules and for rectifying the lapses on the part of Municipality and assessment of environmental compensation and damage to environment;

WHEREAS the Hon'ble NGT vide order dated 27.07.2020 in the OA directed the Board to submit report in respect of the assessment of environmental compensation and damage to environment;

WHEREAS in compliance with the order of the Hon'ble NGT, the undersigned conducted a video conference on 09/09/2020 for ascertaining the progress achieved in the Solid waste management Rules, 2016 by the Chalakkudy Municipality;

WHEREAS you were directed to submit (i) details called for with respect to the authorisation application before 6.10.2020 (ii) action taken report and time bound action plan for the treatment and disposal of biodegradable and non biodegradable wastes from both households and establishments incorporating quantity and mode of disposal of non-recyclable waste, quantity of e-waste, plastic waste given to registered recyclers/scrap collectors, and decentralised units for biodegradable wastes on or before 9.10.2020 (iii) action taken report regarding the removal of legacy waste in detail on or before 9.10.2020 and (iv) to upload the details of centralised and decentralised facility in the Enviclean app, immediately;

WHEREAS it was reported by the Environmental Engineer, District office of the Board that clarifications submitted by the municipality including that on their application for authorization submitted on 20-2-2020 are not satisfactory and the documents regarding decentralized facility are not submitted and the details are not uploaded in the Enviclean App;

WHEREAS the Hon'ble National Green Tribunal, Principal Bench, New Delhi in the order dated 22/11/2018 in O.A. No. 353/2016 clarified that apart from prosecution, the statutory authorities under the Environment (Protection) Act, 1986, the Air (Prevention and Control of Pollution) Act, 1981 and the Water (*Prevention and Control of Pollution*) Act, 1974, must, in exercise of their incidental powers, prescribe scale of compensation to be collected from the polluters on the "Polluter Pay's Principle". Such scale which may be laid down at various levels, having regard to the local condition or as per direction in the hierarchy of the authorities;

WHEREAS in various other application also, the Hon'ble NGT passed similar orders, for instance, in the Order dated 20/11/2018 in O.A No. 117/2014, 499/2014 and 102/2014 the Hon'ble NGT noted as; "Needless to say that statutory authorities under the Environment (Protection) Act, 1986, Air (Prevention and Control of Pollution) Act, 1981 and the Water (*Prevention and Control of Pollution*) Act, 1974 are entitled to assess and recover damages as "Polluter Pay's Principle" in exercise of incidental powers to protect environment".

WHEREAS as per Hon'ble NGT order dated 23/09/2019 in O.A 585/2018, if the rules are violated, the Pollution Control Board can independently proceed against local bodies who are not complying with the rules including initiation of prosecution of those persons who are not complying with the same and assessment of damage caused to the Environment;

ANDWHEREAS the Environmental Engineer, District Office, Thrissur made recommendation for levying Environmental Compensation against Chalakkudy Municipality and forwarded the following assessment details vide the letter dated 2.11.2020 cited 4 above;

CHALAKKUDY MUNICIPALITY	
Population (2011)	49,481
Class	Class-II Town
Waste Generation (kg. per person per day)	0.400
Waste Generation (TPD)	20.00
Waste Disposal as per Rules (TPD)	7.06
Waste Management Capacity Gap (TPD)	12.94
Calculated EC (capital cost component) in Lacs. Rs.	31.06
Minimum and Maximum values of EC (Capital Cost Component) recommended by the Committee (Lacs Rs.)	Min.100 Max. 1000
Final EC (capital cost component) in Lacs. Rs.	100.00
Calculated EC (O&M Component) in Lacs. Rs./Day	0.26
Minimum and Maximum values of EC (O&M Cost Component) recommended by the Committee (Lacs Rs./Day)	Min.0.1 Max. 1.0
Final EC (O&M Component) in Lacs. Rs./Day	0.26
Calculated Environmental Externality (Lacs Rs. Per Day)	0.00
Minimum and Maximum value of Environmental Externality recommended by the Committee (Rs.per day)	Min.0.05 Max. 0.10
Final Environmental Externality (Rs. per day)	0.05
No of days of violation	572.00
EC to be collected in Lacs. (9/4/2019 to	276.63

NOW THEREFORE, in exercise of the powers vested under Section 5 of the Environment Protection Act 1986, read with Government of India Notification S.O. 327(E) dated 10/04/2001, you are directed to show cause within 15 days of receipt of this notice, to why the Board shall not recover Environmental Compensation of Rs. 276.63 lakhs (Rupees two hundred and seventy six lakhs and sixty three thousand only) from 9/4/2019 to 31/10/2020 towards the noncompliance of Solid Waste Management Rules, 2016.


CHAIRMAN

To

The Secretary,
Chalakkudy Municipality

Copy to:

1. The Additional Chief Secretary
Local Self Government Department with C/L
2. The Principal Secretary
Environment Department with C/L
3. The Director, Urban Directorate
4. The Chief Environmental Engineer, Regional Office, Ernakulam
5. The Environmental Engineer, District Office Thrissur



KERALASTATE POLLUTION CONTROL BOARD
കേരളസംസ്ഥാന മലിനീകരണ നിയന്ത്രണ ബോർഡ്

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

PCB/HO/SEE-2 /SWM- KASARAGOD /2018

Date: 19/02/2021

Regd. with A/D

SHOWCAUSE NOTICE

Sub: Non-compliance of Solid Waste Management Rules, 2016-Chengala Panchayath.

- Ref: 1. The Hon'ble NGT Order dated 16/01/2019, 25/04/2019 & 02/07/2020 in OA No. 606/2018
2. Letter No. PCB/ HO/SEE-2 /OA 606/2018-2nd July/2020 dated 09/04/2020 from Chairman to the Director of Panchayath
3. Letter No. PCB/KSRD/SWM/127/2016 dated 21/06/2019 and 17/09/2020 from Environmental Engineer, District Office, Kasargod
4. Showcause Notice No. PCB/KSRD/COMP/KASARAGOD/134/2019 dated 12/03/2020 from Environmental Engineer, District Office, Kasargod
5. Letter No. PCB/KSRD/COMP/KASARAGOD/134/2019 dated 05/11/2020 from Environmental Engineer, District Office, Kasargod

WHEREAS the Central Government notified the Environmental (Protection) Act, 1986 for the protection and improvement of environment and for matters connected therewith;

WHEREAS as per Section 3, 6, and 25 of the Environment (Protection) Act, 1986, the Central Government re-notified the Solid Wastes Management Rules, 2016 (hereinafter referred as SWM Rules) vide notification S.O. 1357(E) dated 8-4-2016;

WHEREAS as per Rule 22 (1) of the SWM Rules, suitable sites for setting up solid waste processing facilities are to be identified by 8-4-2017;

WHEREAS as per Rule 22 (2) of the SWM Rules, suitable sites for setting up common regional sanitary landfill facilities for suitable clusters of local authorities under 0.5 million population and for setting up common regional sanitary landfill facilities or stand alone sanitary landfill facilities by all local authorities having a population of 0.5 million or more by 8-4-2017;

WHEREAS as per Rule 22 (3) of the SWM Rules, suitable sites for setting up solid waste processing facility and sanitary landfill facilities are to be procured by 8-4-2019;

WHEREAS as per Rule 22 (4) of the SWM Rules, the practice of segregation of bio degradable, recyclable, combustible, sanitary waste, domestic hazardous and inert solid waste shall be ensured at source for waste generators at source by 8-4-2019;

WHEREAS as per Rule 22 (5) of the SWM Rules, door to door collection of segregated waste and its transportation in covered vehicles to processing or disposing facility shall be ensured by 8-4-2018;

WHEREAS as per Rule 22 (6) of the SWM Rules, separate storage, collection and transportation of construction and demolition waste shall be ensured by 8-4-2019;

WHEREAS as per Rule 22(8) of the SWM Rules, solid waste processing facilities for the complete quantity of waste generated from the local body shall be set up by 8-4-2019;

WHEREAS facilities with the technologies specified in CPHEEO manual and SWM Rules are to be in place for the effective treatment and disposal of the solid waste generated in the local body;

WHEREAS as per Rule 22 (11) of the SWM Rules, bio-remediation or capping of old and abandoned dump site shall be ensured;

WHEREAS repeated instructions including communication vide 2nd to 5th were issued to the local body for the compliance of the SWM Rules;

WHEREAS as per order dated 25/04/2019 in OA 606/2018, the time limit for compliance of environmental statutes by all the local bodies elapsed on 24/04/2020;

WHEREAS the Hon'ble National Green Tribunal vide dated 02/07/2020 in OA 606/2018 laid down compensation scale for continued failure in implementation of Solid Waste Management Rules 2016, after 31-3-2020 and reiterated that the compliance of the rules requires taking of several steps in Rule 22, from serial no. 1 to 10 and the Court directed that any such continued failure will result in liability of every local body to pay compensation at the rate of Rs. 10 lakhs per month per local body for population above 10 lakhs; Rs. 5 lakhs per month per local body for population between 5 lakhs and 10 lakhs and Rs. 1 lakh per month per other local body from 01/04/2020 till compliance and final compensation may be assessed and recovered by the State PCB/PCCs in the light of the above order;

WHEREAS as per the said direction of Hon'ble NGT, template for the assessment of final compensation for non compliance of solid waste management has been prepared and forwarded to SPCBs by CPCB;

WHEREAS as per the CPCB template, the local body shall be liable to pay compensation if there is any gap in the solid waste generated and treated; there is no cent percent door to door collection; there is no segregation of waste; segregated waste is not transported in covered vehicle; there is no adequate material recovery facility, plastic waste recycling facility, composting, biomethanation, RDF, WtE plant and not carried out legacy waste management;

WHEREAS the observations during the inspections on 04/11/2020, 02/11/2020 are as follows:

1. 100% door to door collection is not achieved in Pachayat area.
2. Not practicing 100% collection of waste from many commercial and residential areas like Chengala Bus Stand, Market road, Edneer etc and a lot of wastes are seen dumped near the Chengala Bus Stand
3. Chengala Panchayat is not collecting any wastes from the households and from establishments and working of Haritha Karmasena is not started yet.
4. Composting, bio-methanation are not practiced, RDF facility is not provided and have not set up sanitary landfill as per Solid Waste Management rules for rejects

WHEREAS the Panchayath is not practicing bio-methanation;

WHEREAS the Panchayath has not provided RDF facility, no waste was supplied for co-incineration in cement plant and waste to energy plant and secured landfill was not for solid waste management;

WHEREAS it is noted that there is gap in solid waste management; there is no cent percent door to door collection; there is no segregation of waste; segregated waste is not transported in covered vehicle; non adequacy of material recovery facility, resource recovery facility and no waste recycling facility, composting, biomethanation, RDF, and WtE plant for solid waste management;

WHEREAS the continued failure to comply with SWM Rules. 2016 is still continuing in the Panchayath and is liable to the compensation as per the order dated 02/07/2020 of the Hon'ble NGT in OA 606/2018 and the Environmental Engineer suggested for levying environmental compensation for the failure of the Panchayath;

AND WHEREAS on account of this an amount Rs 7 lakhs is assessed as Environmental Compensation for seven months, from 01.04.2020 to 31.10.2020 at the rate of 1 lakh per month;

NOW THEREFORE, in exercise of the powers vested under section 5 of the Environment Protection Act, 1986, read with Government of India notification S.O. 327 (E) dated 10/04/2001 you

are directed to show cause within 15 days as to why the Board shall not recover Environmental compensation of Rs.7 Lakhs (Rupees Seven Lakh only) calculated for a period from 01/04/2020 to 31/10/2020 against the Panchayath for the non compliance of the SWM Rules 2016 especially of Rule 22 of the SWM Rules, 2016.


CHAIRMAN

To

The Secretary
Chengala Panchayath

Copy to:

1. The Chairman
State Level Monitoring Committee
2. The Additional Chief Secretary
Local Self Government Department
3. The District Collector, Kasargod
4. The Director, Urban Directorate
5. The Chief Environmental Engineer, Regional Office, Kozhikod
6. The Environmental Engineer, District Office, Kasargod



KERALA STATE POLLUTION CONTROL BOARD

കേരള സംസ്ഥാന മലിനീകരണ നിയന്ത്രണ ബോർഡ്

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

PCB/HO/TVM/AIR/1285/89

Dated: 25 /06/2019

DIRECTION

(Direction under section 5 of the Environment (Protection) Act, 1986.)

- Ref:-1. Order dated 20.08.2018 in O.A. No.606/2018 of the Hon'ble NGT.
2. CPCB Guidelines for Co-processing of plastic waste in Cement Kilns.

WHEREAS, section 5 of the Environment (Protection) Act, 1986 mandates the Kerala State Pollution Control Board to direct the concerned parties to implement the adequate requirements for the prevention and control of environmental pollution and for the protection of the environment,

WHEREAS, section 12 of the plastic Waste Management Rules, 2016, and section 16 of the Solid Waste Management Rules,2016, under schedule VII(4) of the Hazardous and other wastes (Management and Transboundary Movement) Rules 2016, mandates the SPCB to take necessary steps to process and dispose the wastes defined in the concerned rules;

WHEREAS, in pursuant to Hon'ble National Green Tribunal order dated 20.08.2018 in OA no 606/2018, mandatory arrangements have to be made by cement plants to collect and use Refused Derived Fuel (RDF), from the RDF plants, located within 200 kms;

WHEREAS, co-processing of plastic wastes, and other combustible wastes, RDF, different kinds of hazardous waste etc. in cement kiln is practiced substantially in different countries as an environmentally sound option for management of these wastes and as a replacement to the fossil raw materials and fossil fuels that are conventionally utilized in the kiln;

NOWHEREFORE, you are hereby directed to submit the proposal for fully implementing the infrastructure for co-processing in your unit as detailed below:

Submit a budgetary proposal to implement co-processing in your cement klin invariably consisting the following items.

1. Co-processing of plastics waste as Alternate Fuel and Raw Material (AFR) in your cement kiln and monitoring/controlling emission as per set standards.
2. Use of Refused Derived Fuel from solid waste plant.
 1. @ 25% Thermal Substitution Rate.
 2. @ 50% Thermal Substitution Rate.
3. Co-processing of hazardous waste and sludges from effluent Treatment plant.

Guidelines for co-processing in cement kilns by CPCB shall be adhered while preparing the proposal.

The Proposal shall be submitted within a month time of receipt of this direction.

Receipt of this direction shall be acknowledged and the action taken shall be communicated to the undersigned within 7 days.

AJ

(Dr. AJITH HARIDAS)
CHAIRMAN

To:-

Managing Director
Malabar Cements Limited
Walayar, Palakkad -678 624.

o/c

Copy to:-

1. Chief Environmental Engineer, Regional Office, Kozhikkode.
2. Environmental Engineer, District Office, Palakkad.

} For follow up.



മലബാർ സിമന്റ് ലിമിറ്റഡ്
 (A Government of Kerala Undertaking)
MALABAR CEMENTS LIMITED
 (A Government of Kerala Undertaking)

CIN: U26941KL197853C002975



EN/C-46/02/2019/
 July 11, 2019

The Chairman
 Kerala State Pollution Control Board,
 Thiruvananthapuram-695 004

Exalted Sir,

Sub: Direction under section 5 of Environment(Protection) Act 1986

- Ref 1. Direction From KSPCB No. PCB/HO/TVM/AIR/1285/89, dt. 25.06.19
- Ref 2. Direction from Hon. Chairman, KSPCB on 17.05.19 during the visit to Malabar Cements Limited.
- Ref 3. Letter to ACS No. Mdo/3-01/2018/174, dt. 12.01.17

This has kind reference to the Direction issued to Malabar Cements Limited (MCL), under section 5 of Environment(Protection) Act 1986, and we would like to invite your kind attention to the following:

As per the directions of the Hon. Chairman, KSPCB, during the plant visit on 17.05.2019 we immediately initiated actions for critically reviewing our infrastructure for the technical suitability for co-incineration.

It is submitted that though we have promptly invested over the years to meet the improving environmental standards, we haven't expended much for the modernization and capacity enhancement due to the constrains in availability of limestone. We have a 4-stage suspended pre-heater without a Pre-Calciner through which the homogenized raw meal is fed to the kiln inlet. Almost all the cement plants in the country have Pre-Calciner which is required for effective co-processing. At present Alternate Fuel and Raw material (AFR) feeding is possible only through kiln outlet along with the fuel for ideal burning in a comfortable temperature of above 1100 °C with required retention time for effective destruction of hazardous emissions like dioxin, furan etc.

In this connection, it is submitted that there is lack of experience of feeding of fine/shredded AFR along with fuels through Multichannel Burners in the Cement Kiln at outlet side in the Indian industry. There is also insufficient data available on the performance for verifications. Therefore a need is felt that the feasibility of installing and integrating such facilities in our plant will have to be studied by a professional technical agency. It is also submitted that

system suitable for thermal substitution varies from plant to plant depending on the plant infrastructure, raw material used, nature of AFR available in the area etc., and customization to some extent is necessary with the help and guidance of an expert agency after a thorough study.

Hence for coming up with a correct and sustainable techno-commercial proposition after a through examination of all aspects, we are contemplating to entrust M/s. National Council for Cement and Building Materials (NCBM) to carryout the work for us. M/s. NCBM is a premier Government Agency who is familiar with this matter and is interacting with all major cement units and CPCB for various similar assignments including co-processing in the country. We would be carrying out the study expeditiously after getting necessary approvals, and would be requesting the agency to interact with the State Pollution Control Board while formulating the proposal.

Thanking You,

Yours Faithfully
For Malabar Cements Limited



Managing Director

Encl: As above



Copy to: The Member Secretary
Kerala State Pollution Control Board,
Thiruvananthapuram- 695 004

The Chief Environmental Engineer,
Regional Office, Kerala State Pollution Control Board,
3rd Floor, Zamorin's Square, Link Road, Kozhikode - 673 002

The Environmental Engineer
Kerala State Pollution Control Board,
District office, Near Jilla Panchayath Office,
Palakkad-678 001



☎ : 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

KERALASTATE POLLUTION CONTROL BOARD

കേരളസംസ്ഥാന മലിനീകരണ നിയന്ത്രണ ബോർഡ്

Pattom P.O., Thiruvananthapuram – 695 004

പട്ടം പി.ഒ., തിരുവനന്തപുരം - 695 004

PCB/HO/RULES/SWM - Thrissur/2018

Date: 21 /10/2019

Regd. with A/D

DIRECTION UNDER SECTION 5 OF THE ENVIRONMENTAL PROTECTION ACT, 1986

Sub: Issue of notice for the noncompliance of the Solid Waste Management Rules, 2016

- Ref:
1. The Hon'ble NGT order OA no. 606/2018 dated 16/01/2019 and 25/04/2019
 2. Letter no. PCB/HO/SEE2/RMC- Meeting/2018 dated 09/10/2018, 22/10/2018 and 24/10/2018
 3. This office notice of even no. PCB/HO/EE4/NGT/SWM DIRECTIONS TO LB/2019 dated 17/04/2019
 4. This office notice of even no. PCB/HO/EE4/AG/2019 dated 09/05/2019
 5. Letter no. PH4/5475/09 dated 24/06/2019
 6. Letter no. PH4/5475/09 dated 31/05/2019
 7. Annual Report send by email dated 02/07/2019
 8. Email on 14/08/2019
 9. This office notice of even no. PCB/HO/RULES/SWM - Thrissur/2018 dated 14/08/2019
 10. Letter no. PH4/28606/16 dated 27/08/2019
 11. Letter no PCB/TSR/MSW/3/2002 dated 14/10/2019

WHEREAS the Central Government notified the Environmental (Protection) Act, 1986 for the protection and improvement of environment and for matters connected therewith;

WHEREAS as per Section 3, 6, and 25 of the Environment (Protection) Act, 1986, the Central Government re-notified the Solid Wastes Management Rules, 2016 (herein after referred as SWM Rules) vide notification S.O. 1357(E) dated 8-4-2016;

WHEREAS as per Rule 22 (1) of the SWM Rules, suitable sites for setting up solid waste processing facilities are to be identified;

WHEREAS as per Rule 22(3) of the SWM Rules, suitable sites for setting up solid waste processing facility and sanitary landfill facilities are to be procured;

WHEREAS as per Rule 22 (5) of the SWM Rules, door to door collection of segregated waste and its transportation in covered vehicles to processing or disposing facility shall be ensured by 8-4-2018;

WHEREAS as per Rule 22 (7) of the SWM Rules, solid waste processing facilities for the complete quantity of waste generated from the local body @ 0.4 to 0.5 kg/person/day, shall be set up by 8-4-2018;

WHEREAS facilities with the technologies specified in CPHEEO manual and SWM Rules are to be in place for the effective treatment and disposal of the solid waste generated in the local body;

WHEREAS as per Rule 22 (6) of the SWM Rules, separate storage, collection and transportation of construction and demolition waste shall be provided by 8-4-2018;

WHEREAS as per Rule 22(11) of the SWM Rules, bio-remediation or capping of old and abandoned dump site shall be ensured;

WHEREAS repeated instructions were issued vide the communications read above, for the compliance of the SWM Rules;

WHEREAS the following information was submitted by you vide the Annual Report read 7th above;

No. of Households	86604
No. of non-residential premises	15250
Quantity of Solid waste generated	177 TPD
Quantity of Solid waste collected	37 TPD
Quantity of Solid waste processed (Community level)	37 TPD
Quantity of Solid waste processed in Household level	Biogas plant- 632 Compost pits- 20,118 } \approx 60 TPD

WHEREAS it is noted that you are not processing 80 TPD of waste generated;

WHEREAS it is noted that you have not identified the land for the solid waste processing facility and sanitary landfill;

WHEREAS the Hon'ble National Green Tribunal, Principal Bench, New Delhi in the order dated 22/11/2018 in O.A. No. 353/2016 clarified that apart from prosecution, the statutory authorities under the Environment (Protection) Act, 1986, the Air (Prevention and Control of Pollution) Act, 1981 and the Water (Prevention and Control of Pollution) Act, 1974, must, in exercise of their incidental powers, prescribed scale of compensation to be collected from the polluters on the "Polluter Pay's Principle". Such scale which may be laid down at various levels, having regard to the local condition or as per direction in the hierarchy of the authorities. In various other application also, the Hon'ble NGT passed similar orders, for instance, in the Order dated 20/11/2018 in O.A No. 117/2014, 499/2014 and 102/2014 the Hon'ble NGT noted as; "Needless to say that statutory authorities under the Environment (Protection) Act, 1986, Air (Prevention and Control of Pollution) Act, 1981 and the Water (Prevention and Control of Pollution) Act, 1974 are entitled to assess and recover damages as "Polluter Pay's Principle" in exercise of incidental powers to protect environment".

WHEREAS notice was issued to you as you have not complied with above provision;

WHEREAS Environmental Engineer, District Office, reported that the solid waste management measures reported by you are inadequate to cater to the quantity of waste expected from Thrissur Corporation.

WHEREAS the Board is constrained to assess the Environmental Compensation from 22/11/2018 to 31/07/2019 (Days = 252) as follows;

City	Thrissur
Population (2011)	317,526
Class	Class-I Town
Waste Generation (kg. per person per day) as per Annual Report	0.55
Waste Generation (TPD) as per Annual Report	177.00
Waste Disposal as per Rules (TPD) as per Annual Report	97.00
Waste Management Capacity Gap (TPD)	80.00
Calculated EC (capital cost component) in Lakhs. Rs.	192.00
Minimum and Maximum values of EC (Capital Cost Component) recommended by the Committee (Lakhs Rs.)	Min. 100 Max. 1000
Final EC (capital cost component) in Lakhs. Rs.	192.00
Calculated EC (O&M Component) in Lakhs. Rs./Day	1.60
Minimum and Maximum values of EC (O&M Cost Component) recommended by the Committee (Lakhs Rs./Day)	Min. 0.1 Max. 1.0
Final EC (O&M Component) in Lakhs. Rs./Day	1.00
Final EC (O&M Component) in Lakhs	252
Calculated Environmental Externality (Lakhs Rs. Per Day)	0.00
Minimum and Maximum value of Environmental Externality recommended by the Committee (Lakhs Rs.per day)	Min. 0.05 Max. 0.10
Final Environmental Externality (Lakhs Rs. per day)	0.05
Final Environmental Externality in Lakhs	12.6

WHEREAS an amount of Rs.456.6 Lakhs (Four Crore Fifty Six Lakh Sixty Thousand) is assessed as environmental compensation from 22/11/2018 to 31/07/2019 (Capital cost component (Rs.192 Lakhs) + O&M Component (Rs.252 Lakhs) + Environmental Externality (Rs.12.6 Lakhs));

WHEREAS continued failure to comply with SWM 2016 shall incur Environmental Compensation at rates that are multiples of the rates assessed above;

WHEREAS notice was issued to you vide this office notice cited 9th above to show cause why the Environmental Compensation of Rs 456.6 Lakhs (Four Crore Fifty Six Lakh Sixty Thousand) shall not be recovered from you for the non compliance of Rule 22(1), 22(3) 22(5), 22(6), 22(7) and 22(11) of the SWM Rules, 2016;

WHEREAS as per order dated 25/04/2019 in OA.No 606/2018, the time line for compliance of environmental statutes will be elapsed on 24/10/2019;

WHEREAS in the said letter, while quantifying the waste generated, the quantity of non bio-degradable waste from market is not included in 1(b) in page 4;

WHEREAS you have vide reply no. PH4/28606/16 dated 27/08/2019 reported that the present dumpsite of Corporation is converted to stadium and steps are taken to identify the new space for solid waste processing plant as per Rule 22(1);

WHEREAS it is noted that you are converting the land acquired for waste management to stadium which is against Rule 22(1) and 22(3);

WHEREAS you have yet to comply with 22(5), 22(6) and 22(7) of the Solid Waste Management Rules, 2016;

WHEREAS NGT order dated 17/07/2019 in OA. No. 519/2019 directed to ensure allocation of funds for processing of legacy waste dumpsites and the remediation work is to be commenced from 01/11/2019 and preferably within 6 month to be completed;

WHEREAS you have yet to report the action taken for the compliance of above matter;

WHEREAS the Environmental Engineer, District Office, Thrissur, based on their inspection on 17/07/2019, reported that the procedure adopted for closure of the dump yard is not in compliance with the Rule 15(zj) and Schedule 1(j) of the SWM Rules, 2016;

WHEREAS the reply submitted by you is not satisfactory;

WHEREAS the KSPCB District office, Thrissur has found that the Corporation has provided facilities to 14 T of biodegradable waste against the 99.12 T of biodegradable waste generated as mentioned in your reply under ref.11;

WHEREAS though you have claimed to have waste treatment facility for treating 63.87T at source and this is far from reality and the disposal method through piggery farm and agricultural activities cannot be taken in account, as the same is not authorized;

WHEREAS the KSPCB, District Office inspected 10 houses each from 31 wards and found that non-biodegradable waste is collected from 107 houses and biodegradable wastes from 10 houses from a total of 310 houses;

WHEREAS the Corporation has not reported the mode of treatment and disposal of non-biodegradable wastes;

WHEREAS the wastes generated in flats, educational institutions, industrial establishments are disposed in incinerator without having satisfactory air pollution control system and disposal measures for burnt residues;

WHEREAS the Corporation has not submitted a detailed plan for the treatment and disposal of remaining wastes;

WHEREAS though the instruction was given to Corporation authorities for doing bio mining as per statutory rules in Laloor dumping sites, you are continuing the construction activities for the stadium in the said area against the Board's directions and you are not complying with the Board's direction and has not given reply to the Board's directions on bio mining;

ANDWHEREAS it is noted that you have not complied with the Solid Waste Management Rules, 2016;

NOW THEREFORE, in exercise of the powers vested under Section 5 of the Environment Protection Act, 1986, you are directed to remit the Environmental Compensation of Rs 456.6 Lakhs (Four Crore Fifty Six Lakh Sixty Thousand) from 22/11/2018 to 31/07/2019 against you for the non compliance of Rule 22(1), 22(3) 22(5), 22(6), 22(7) and 22(11) of the SWM Rules, 2016 within 15 days of receipt of this direction failing which further legal action shall be initiated against you.



CHAIRMAN

To

The Secretary,
Thrissur Corporation

Copy to:

The Chairman
State Level Monitoring Committee

The Additional Chief Secretary
Local Self Government Department

The District Collector, Thrissur

The Director, Urban Directorate

The Chief Environmental Engineer, Regional Office, Ernakulam

The Environmental Engineer, District Office, Thrissur

List of Local Bodies to which notice have been issued

	Panchayats
1	Adimali
2	Alakkode
3	Arakkulam
4	Ayyappancoil
5	Bysonvalley
6	Chakkupallam
7	Chinnakkanal
8	Devikulam
9	Edavetty
10	Elappara
11	Erattayar
12	Kanjikkuzhy
13	Kamakshy
14	Kanchiyar
15	Kanthalloor
16	Karimannoor
17	Karimkunnam
18	Karunapuram
19	Kodikulam
20	Kokkayar
21	Konnathady
22	Kudayathoor
23	Kumaramangalam
24	Kumily
25	Manakkadu
26	Mankulam
27	Marayur
28	Mariyapuram
29	Munnar
30	Muttam
31	Nedumkandam
32	Pallivasal
33	Pampadumpara
34	Peerumedu
35	Peruvanthanam

36	Purappuzha
37	Rajakkadu
38	Rajakumari
39	Santhanpara
40	Senapathy
41	Udumbanchola
42	Udumbannoor
43	Upputhara
44	Vandanmedu
45	Vandiperiyar
46	Vannappuram
47	Vathikudy
48	Vattavada
49	Vazhathoppe
50	Vellathooval
51	Velliyamattam
	Name of Municipality
53	Kattappana
54	Thodupuzha

☎ 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



KERALASTATE POLLUTION CONTROL BOARD

കേരളസംസ്ഥാന മലിനീകരണ നിയന്ത്രണ ബോർഡ്

Pattom P.O., Thiruvananthapuram – 695 004

പട്ടം പി.ഒ., തിരുവനന്തപുരം - 695 004

PCB/HO/SEE2/SLMC - KALAMASSERY/2019

Date: 04 /12/2019

Regd. with A/D

NOTICE UNDER SECTION 5 OF THE ENVIRONMENTAL PROTECTION ACT, 1986

Sub: Noncompliance of Solid Waste Management Rules, 2016.

- Ref:
1. The Hon'ble NGT order dated 16/01/2019 in OA No. 606/2018.
 2. The Hon'ble NGT order dated 22/11/2018 in O.A. No. 353/2016.
 3. The Hon'ble NGT order dated 20/11/2018 in O.A No. 117/2014, 499/2014 and 102/2014.
 4. This office letter No. PCB/HO/RULES/SWM-ERNAKULAM/2018 dated 13-02-2019.
 5. This office letter No. PCB/HO/RULES/SWM-ERNAKULAM/2018 dated 04-04-2019.
 6. Your office letter No. H-17192/18 dated 09-04-2019.-
 7. Letter No. PCB/HO/SEE2/RMC- Meeting/2018 dated 09/10/2018, 22/10/2018 and 24/10/2018.
 8. Annual Report No.PCB/HO/SWM/AR/18/2019 dated 23/07/2019.
 9. Minutes of the 4th meeting of the State Level Monitoring Committee on 08-05-2019.
 10. Report on Environmental Compensation in case of failure of preventing the pollutants being discharged in water bodies and failure to implement waste management rules.
 11. This office letter No.PCB/RO-EKM/GEN-227/19 dated 01-08-2019.
 12. This office letter No. PCB/HO/SEE 2/SLMC- KALAMASSERY/2019
 13. Your office letter No. H-18267/15 dated 31-10-2019.

WHEREAS the Central Government notified the Environmental (Protection) Act, 1986 for the protection and improvement of environment and for matters connected therewith;

WHEREAS as per Section 3, 6, and 25 of the Environment (Protection) Act, 1986, the Central Government re-notified the Solid Wastes Management Rules, 2016 (herein after referred as SWM Rules) vide notification S.O. 1357(E) dated 8-4-2016;

WHEREAS as per Rule 22 (1) of the SWM Rules, suitable sites for setting up solid waste processing facilities are to be identified;

WHEREAS as per Rule 22 (3) of the SWM Rules, suitable sites for setting up solid waste processing facility and sanitary landfill facilities are to be procured;

Annexure 9

WHEREAS as per Rule 22 (5) of the SWM Rules, door to door collection of segregated waste and its transportation in covered vehicles to processing or disposing facility shall be ensured by 8-4-2019;

WHEREAS as per Rule 22 (7) of the SWM Rules, solid waste processing facilities for the complete quantity of waste generated from the local body at 0.4 to 0.5 kg/person/day, shall be set up by 8-4-2019;

WHEREAS facilities with the technologies specified in CPHEEO manual and SWM Rules are to be in place for the effective treatment and disposal of the solid waste generated in the local body;

WHEREAS as per Rule 22 (6) of the SWM Rules, separate storage, collection and transportation of construction and demolition waste shall be provided;

WHEREAS as per Rule 22 (11) of the SWM Rules, bio-remediation or capping of old and abandoned dump site shall be ensured;

WHEREAS repeated instructions were issued vide the communications read above, for the compliance of the SWM Rules;

WHEREAS the Chairman, State Level Monitoring Committee during their 4th meeting on 08-05-19 observed that even after repeated directions regarding waste management from the Kerala State Pollution Control Board, the Kalamassery Municipality has not taken any earnest step to implement those directions, not provided adequate leachate treatment facility, no proper segregation of waste is being carried out and the waste water from the Kalamassery Market, sewage from Kalamassery Township, leachate from the waste dumping yard etc., reaches Periyar causing severe pollution in Periyar.

WHEREAS Chairman SLMC directed to submit specific and detailed time bound action plan to the Kerala State Pollution Control Board, to adopt mechanized system for the disposal of legacy waste, to implement heavy fining/ surveillance cameras/ strict squad to prevent waste dumping on roads, to insist on segregation of wastes at source, to transport vehicles with adequate cover, leachate collection tank and logbook, to provide adequate personal protective equipments to workers and they should be compelled to wear the same, to prohibit deposit of wastes on roads and other public places, to deploy Haritha karma sena for door to door collection, to report on the action taken shall be submitted to the SLMC.

WHEREAS the Chief Environmental Engineer, Regional Office, Ernakulam vide letter dated 05/07/2019, reported that the dumping yard is exclusively used for dry waste collected from Kalamassery Municipal limit, enclosures are not provided to store plastic waste and there is every chance of heavy leachate flow due to rain to Thoombunkal thodu which inturn reach Periyar river, they have provided a shredder, but they neither have sufficient capacity to shred entire plastic waste collected nor transferring to safer places, due to the open dumping of plastic and other waste materials in an about 2.5 acres there are chance of leachate flow to Thoombunkal thodu ultimately reach river Periyar which is already identified by the CPCB as a polluted river stretch;

WHEREAS the Hon'ble National Green Tribunal, Principal Bench, New Delhi in the order dated 22/11/2018 in O.A. No. 353/2016 clarified that apart from prosecution, the statutory

authorities under the Environment (Protection) Act, 1986, the Air (Prevention and Control of Pollution) Act, 1981 and the Water (Prevention and Control of Pollution) Act, 1974, must, in exercise of their incidental powers, prescribed scale of compensation to be collected from the polluters on the "Polluter Pay's Principle". Such scale which may be laid down at various levels, having regard to the local condition or as per direction in the hierarchy of the authorities. In various other application also, the Hon'ble NGT passed similar orders, for instance, in the Order dated 20/11/2018 in O.A No. 117/2014, 499/2014 and 102/2014 the Hon'ble NGT noted as; "Needless to say that statutory authorities under the Environment (Protection) Act, 1986, Air (Prevention and Control of Pollution) Act, 1981 and the Water (Prevention and Control of Pollution) Act, 1974 are entitled to assess and recover damages as "Polluter Pay's Principle" in exercise of incidental powers to protect environment".

WHEREAS the Chief Environmental Engineer, Regional office Ernakulam vide letter No. PCB/RO-EKM/GEN-227/19 dated 01-08-2019 informed that on receiving a complaint on 23-07-2019 from local public and media personnel against a fire outbreak occurred in the Kalamassery plastic dumpsite and during inspection it was noted that the temporary office shed provided was destroyed due to fire and recommended strict actions against the municipality for noncompliance;

WHEREAS it is noted that you have not fully complied with the above directions and not obtained authorization under SWM Rules, 2016.

WHEREAS it is noted that no treatment facility has been provided for the treatment of biodegradable waste generated in your jurisdiction and wastes were still seen accumulated on the road sides and on land and you have not fully complied with SWM Rules;

WHEREAS notice was issued to you to take steps to provide biomethanation plant for the food wastes generated within Kalamassery Municipality and to report compliance of all above directions;

WHEREAS you have vide in your reply dated 31-10-2019, the action to be taken in providing of biomethanation plant was not reported and you are still transporting waste to Brahmapuram plant which is already working in violation of the solid waste Management Rules, 2016;

WHEREAS you are still considering the dumping yard as Solid Waste processing plant which is in violation of the solid waste Management Rules, 2016;

WHEREAS you are dumping Construction and Demolition waste in the dumping yard which is in violation of Construction and Demolition Waste Rules, 2016 and 22(6) of SWM Rules 2016;

WHEREAS you are not having proper facility for storing plastic waste, which is in violation of Plastic Waste Management Rules, 2016;

WHEREAS the Chief Environmental Engineer, Regional Office, Ernakulam vide letter dated 23/09/2019 informed that there is no change in the status of dumping yard so far;

WHEREAS it is observed that you are not complying with the solid waste Management Rules, Plastic Waste Management Rules, Construction and Demolition Waste Rule, 2016;

Annexure 9

WHEREAS as per Hon'ble NGT order O.A. 585/2018 dated 23-09-2019, if the rules are violated, Pollution Control Board can independently proceed against the local bodies who are not complying with the rules including institution of prosecution of those persons who are not complying with the same and assessment of damage caused to the Environment;

WHEREAS based on the methodology for assessing Environmental Compensation as per Hon'ble NGT O.A. 593/2017 dated 19-02-2019 and 28-08-2019 an amount of Rs. 247.92 Lakhs (Rupees Two crore fourty seven lakhs ninety two thousand) is calculated for a period from 22-11-2018 to 31-10-2019 (344 days);

Town	Kalamassery
Population (2011)	70,776
Class	Class II
Waste Generation (Kg. Per person per day)	0.3
Waste Generation (TPD)	21.23
Waste disposal as per Rules (TPD) (assumed as 10% of waste generation for calculation)	2.12
Waste Management capacity Gap (TPD)	19.11
Calculated EC (capital cost component) in Lakhs Rs.	45.86
Minimum and Maximum values of EC (Capital cost component) recommended by the committee (lakhs Rs.)	Min. 100 Max 1000
Final EC (capital cost component) in lakhs Rs.	100
Calculated EC (O&M component) in lakhs Rs. /Day	0.38
Minimum and Maximum values of EC (O&M cost component) recommended by the committee (lakhs Rs./Day)	Min. 0.1 Max. 1.0
Final EC (O&M component) in lakhs Rs./Day	0.38
Final EC (O&M Component) in Lakhs	130.72
Calculated Environmental Externality (lakhs Rs. / Day)	0
Minimum and Maximum values of Environmental Externality recommended by the committee (lakhs Rs./Day)	Min. 0.05 Max. 0.10
Period of Violation	22/11/2018 to 31/10/2019
Number of Days of Violation	344

Annexure 9

Final Environmental Externality (Rs. Lakh Per day)	0.05
Final Environmental Externality in Lakhs	17.2
EC to be collected (from 22-11-2018 to 31-10-2019 [344 days])	247.92

WHEREAS an amount of Rs. 247. 92 Lakhs (Rupees Two crore fourty seven lakhs ninety two thousand) is assessed as environmental compensation from 22/11/2018 to 31/10/2019 (Capital cost component (Rs.100 Lakhs) + O&M Component (Rs. 130.72 Lakhs) + Environmental Externality (Rs. 17.2 Lakhs));

AND WHEREAS continued failure to comply with SWM 2016 shall incur Environmental compensation at rates that are multiples of the rates assessed above.

NOW THEREFORE, in exercise of the powers vested under section 5 of the Environment Protection Act, 1986, read with government of India notification S.O. 327 (E) dated 10-4-2001 you are directed to show cause within 15 days as to why the Board shall not recover Environmental compensation of Rs. 247.92 Lakhs (Rupees Two crore fourty seven lakhs ninety two thousand) calculated for a period from 22/11/2018 to 31/10/2019 against you for not taking steps to provide biomethanation plant and the non-compliance of Rule 22 of the SWM Rules, 2016.


CHAIRMAN

To

The Secretary,
Kalamassery Municipality

Copy to:

1. The Chairman
State Level Monitoring Committee.
2. The Additional Chief Secretary
Local Self Government Department.
3. The District Collector, Ernakulam.
4. The Director, Urban Directorate.
5. The Chief Environmental Engineer, Regional Office, Ernakulam.
6. The Environmental Engineer, District Office, Ernakulam.



KERALASTATE POLLUTION CONTROL BOARD

കരളസംസ്ഥാന മലിനീകരണ നിയന്ത്രണ ബോർഡ്

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

PCB/HO/SEE2/KOCHI CORPN/2019

Date: 13/01/2021

Regd. with A/D

DIRECTION UNDER SECTION 5 OF THE ENVIRONMENTAL PROTECTION ACT, 1986

Sub: Non-compliance of Solid Waste Management Rules, 2016.

- Ref: 1. Order dated 23/10/2018 of the Hon'ble NGT in O.A. 533-535/2018.
2. Order dated 9/11/2018 of the Hon'ble High Court in WP(c) No. 36204/2018(A)
3. Order dated 16/01/2019 in OA no. 606/2018
4. This office notice No. PCB/HO/RULES/SWM-ERNAKULAM/2018 dated 12/10/ 2019
5. Letter no. PCB/RO-EKM/GEN-221/19 dated 18/10/2019 from the Chief Environmental Engineer, Regional Office, Ernakulum
6. This office notice No. PCB/HO/SEE2/KOCHI CORPN/2019 dated 11/12/2019
7. Letter No. MOE2/10948/2017 dated 01/ 01/ 2020 and 06/01/2020 of Secretary, Kochi Corporation
8. Order dated 30/01/2020 in OA no. 442/2013 by the Hon'ble NGT.
9. Letter no. PCB/RO/EKM/GEN-258/19 dated 20/02/2020.
10. Minutes of the meeting on 16-3-2020 with the Secretary, Kochi Corporation
11. Order dated 03/07/2020 in OA no.514/2019
12. Letter No PCB/RO-EKM/GEN-258/19 D dated 23.07.2020 from the Chief Environmental Engineer, Regional office, Ernakulum
13. Minutes of the video conference held on 17/08/2020 with Secretary, Kochi Corporation and allied municipalities
14. Letter No. MOE2/10948/2017 dated 11/09/2020 of Secretary, Kochi Corporation.
15. Order dated 22/11/2018 in O.A. No. 353/2016
16. Order dated 20/11/2018 in O.A No. 117/2014, 499/2014 and 102/2014
17. Order dated 16/09/2020 in OA no.514/2018.
18. Show cause notice of even No. dated 15/10/2020.
19. Letter No.MOE2-10948/17 dated 02/11/2020 from Kochi Corporation.

WHEREAS the Central Government notified the Environmental (Protection) Act, 1986 for the protection and improvement of environment and for matters connected therewith;

WHEREAS as per Section 3, 6 and 25 of the Environment (Protection) Act, 1986, the Central Government re-notified the Solid Wastes Management Rules, 2016 (hereinafter referred as SWM Rules) vide notification S.O. 1357(E) dated 8/4/2016;

WHEREAS as per Rule 22 (1) of the SWM Rules, suitable sites for setting up solid waste processing facilities are to be identified;

WHEREAS as per Rule 22(3) of the SWM Rules, suitable sites for setting up solid waste processing facility and sanitary landfill facilities are to be procured;

WHEREAS as per Rule 22 (5) of the SWM Rules, door to door collection of segregated waste and its transportation in covered vehicles to processing or disposing facility shall be ensured by 8-4-2018;

WHEREAS as per Rule 22 (7) of the SWM Rules, solid waste processing facilities for the complete quantity of waste generated from the local body at 0.4 to 0.5 kg/person/day, shall be set up by 8-4-2018;

WHEREAS facilities with the technologies specified in CPHEEO manual and SWM Rules are to be in place for the effective treatment and disposal of the solid waste generated in the local body;

WHEREAS as per Rule 22 (6) of the SWM Rules, separate storage, collection and transportation of construction and demolition waste shall be provided;

WHEREAS as per Rule 22(11) of the SWM Rules, bio-remediation or capping of old and abandoned dump site shall be ensured;

WHEREAS the Hon'ble NGT vide order dated 23/10/2018 read first above, ordered to complete the new integrated solid waste treatment processing plant in six months to commence the treatment of legacy waste, impose a penalty of Rs. 1 crore on Kochi Corporation and to deposit a performance guarantee of Rs. 3 crore with Kerala State Pollution Control Board and the Hon'ble High Court vide the order read 2nd above, ordered to place bank guarantee of Rs. 50 lakh each to Central Pollution Control Board and Kerala State Pollution Control Board and to exempt you from depositing Rs. 3 crore towards bank guarantee and accordingly bank guarantee was placed by the Kochi Corporation;

WHEREAS during the second meeting on 15/3/2019 of the State Level Monitoring Committee constituted by the Hon'ble NGT vide the order under ref.3, the resolutions were made to conduct bio mining of legacy waste part by part; keep ESCROW amount for handling emergency situation; provide adequate cover, leachate collection tank and log book for waste transporting vehicles and allow waste transportation only by those vehicles by Health Supervisor; engage Ex-service armed security at the site in the dump yard; to make the roads, NH Bypass, Sahodaran Ayyappan Road and Banerjee Road as Zero Waste road; to insist door to door collection and prohibit the deposition of waste on roads and other public places and insist for segregation of waste before disposal; ban the plastic carry bags below the prescribed limit and to proceed against violators under the law of penalization; to give adequate protective equipment namely gumboots, gloves, masks etc., proceed against the violators disposing sewage, septage and chicken waste in the water resources; apartments, hospitals, hospitals which are not operating their sewage treatment plants and to evolve methods for the effective disposal of plastics and not to dispose plastic by burning;

WHEREAS Chairman SLMC during their 4th meeting on 08/05/19 directed to submit specific and detailed time bound action plan to the Kerala State Pollution Control Board, to adopt mechanized system for the disposal of legacy waste, to implement heavy fining/insisted surveillance cameras/strict squad to prevent waste dumping on roads, to insist on segregation of wastes at source, to transport vehicles with adequate cover, leachate collection tank and logbook, to provide adequate personal protective equipments to workers and to compel them to wear the same,

to prohibit deposit of wastes on roads and other public places, to deploy Haritha Karma Sena for door to door collection, to report on the action taken to the SLMC;

WHEREAS the fifth meeting of the State Level Monitoring Committee on 14/06/2019, noticed with distress that a good number of directions issued were yet to be complied with and therefore expressed displeasure over the same and it was again directed to issue directions by the Corporation to the bulk generators to take steps to channelize their own wastes as the same is homogenous and clean, channelization can be done easily; to submit the details of wards, in which segregation is complete; segregate plastic waste for shredding to be stored in areas attached to the zonal office of the Corporation; and to submit action plan in each ward for solid waste management, projects to be implemented and to improve the existing waste management facility, existing material collection facility and resource recovery facility; to publish the information on waste management in the website; to take legal action against open burning of non-biodegradable waste and dumping of waste in water bodies; to take steps to establish MCFs in all wards and RRF at least in six wards; issue identity card to all workers engaged in waste management and to prepare action plan for developing a business model for effective treatment of waste;

WHEREAS it is noted that you have not identified the land for managing Construction and Demolition waste and sanitary landfill;

WHEREAS notice dated 12/10/2019 was issued vide reference 4th above for not taking steps to provide biomethanation plant for the food wastes generated within Kochi Corporation;

WHEREAS the Chief Environmental Engineer, Regional Office, Ernakulam vide the letter dated 18/10/2019 cited 5th above, reported about the improper functioning of solid waste plant and non installation of proper leachate treatment plant at the site;

WHEREAS the Board issued notice dated 11/12/2019 read 6th above to the Secretary, Kochi Corporation to show cause why the Environmental compensation of Rs. 1.122 Crore shall not be levied for not providing leachate treatment plant and the replies of the Kochi Corporation under ref. 7th above were received;

WHEREAS the Hon'ble National Green Tribunal vide the order read 8th above on 30-1-2020 directed that, on receipt of the explanation from the Corporation to the notice issued by Board, the Pollution Control Board is to pass appropriate orders and complete the proceedings initiated on the basis of their inspection and dispose of the same in accordance with law and come with compliance report before the Tribunal;

WHEREAS the Chief Environmental Engineer, Regional Office, Emakulam in the report (ref. 9) dated 20/02/2020 to the Chairman, State Level Monitoring Committee, reported that the Corporation is not taking earnest steps to solve the issue which is a long pending case from the Corporation side and to assess environmental compensation as done on 18/10/2019;

WHEREAS the Chief Environmental Engineer, Regional Office, Emakulam vide letter No. PCB/RO-EKM/GEN-258/2019 dated 28-2-2020 reported that the Corporation is allowing five municipalities and two grama panchayaths to bring their biodegradable waste in addition to Corporation's biodegradable waste and non biodegradable waste and the total actual quantity of waste estimated as 365.19TPD;

WHEREAS on receiving the reply from the Secretary, Kochi Corporation, hearing was conducted with the Secretary, Kochi Corporation on 16/3/2020 vide ref., 10 reported status to the NGT;

WHEREAS the Hon'ble NGT on 3/7/2020 in OA514/2019 (ref. 11) observed the delay in setting up of waste to energy plant and was doubtful whether leachate can be treated in an ordinary septage treatment plant as it contains heavy metals and the tribunal also observed that the progress appears to be very slow and in disregard to the statutory and constitutional obligation of providing clean environment;

WHEREAS it was reported by the Chief Environmental Engineer, Regional office Ernakulam vide letter No. PCB/RO-EKM/GEN-221/19 dated 23/07/2020 (ref. 12) that during the inspection conducted by the Board on various occasions, it was noticed

- a) The facilities provided for the treatment and disposal of solid waste provided at Brahmapuram are not maintained properly;
- b) The windrow composting shed is in dilapidated condition and the mixed solid waste including plastic waste is dumped in the yard in open condition;
- c) The manure produced seems to be marginal compared to the daily waste collected at the plant;
- d) Manure produced did not meet the fertilizer standard as per the SWM Rule, 2016 and contain heavy metals;
- e) Due to the unscientific treatment of biodegradable solid waste, huge quantity of rejects have been dumped at various places and which in turn got converted to legacy waste;
- f) Fire accident were occurred in the legacy waste dump yard at Brahmapuram 3 or 4 times during the period of 2019 and 2020 which lead to air pollution in and around the dump site
- g) Leachate from the windrow composting shed and the biodegradable solid waste dumping area is not collected and treated properly due to improper drains and there are chances of leachate reaching the Kadambayar river, one of the polluted river stretch identified by CPCB;
- h) The leachate treatment plant provided prior to the visit of Regional Monitoring Committee (RMC) appointed by the Hon'ble NGT is not operational now;
- i) During the inspection conducted on 16.07.2020 it was noticed that no progress in the installation of leachate treatment plant except the construction of a new collection tank having capacity of 100 m³ on which the Hon'ble Court made adverse remarks;
- j) No effective steps were taken for construction activities for the installation of waste to energy plant and for the removal of legacy waste. The Corporation authorities are still not able to assess the quantum of legacy waste settled there;

WHEREAS hearing was conducted by the Chairman on 17/8/2020 with the Kochi Corporation (ref. 13) and accordingly details were submitted by you vide the letter under ref. 14;

WHEREAS from the above observations, it is noted that you have not fully complied with the directions of Hon'ble SLMC, Solid Waste Management Rules and also not obtained authorization under SWM Rules, 2016;

WHEREAS the Hon'ble National Green Tribunal, Principal Bench, New Delhi in the order dated 22/11/2018 in O.A. No. 353/2016 (ref. 15) clarified that apart from prosecution, the statutory authorities under the Environment (Protection) Act, 1986, the Air (Prevention and Control of Pollution) Act, 1981 and the Water (Prevention and Control of Pollution) Act, 1974, must, in exercise of their incidental powers, prescribe scale of compensation to be collected from the polluters on the "Polluter Pay's Principle". Such scale which may be laid down at various levels, having regard to the local condition or as per direction in the hierarchy of the authorities;

WHEREAS in various other application also, the Hon'ble NGT passed similar orders, for instance, in the Order dated 20/11/2018 in O.A No. 117/2014, 499/2014 and 102/2014 (ref. 16) the Hon'ble NGT noted as; "Needless to say that statutory authorities under the Environment (Protection) Act, 1986, Air (Prevention and Control of Pollution) Act, 1981 and the Water (Prevention and Control of Pollution) Act, 1974 are entitled to assess and recover damages as "Polluter Pay's Principle" in exercise of incidental powers to protect environment".

WHEREAS as per Hon'ble NGT order dated 23/09/2019 in O.A 585/2018, if the rules are violated, the Pollution Control Board can independently proceed against local bodies who are not complying with the rules including initiation of prosecution of those person who are not complying with the same and assessment of damage caused to the Environment;

WHEREAS the Hon'ble NGT vide order dated 16/9/2020 in OA 514/2018 (ref. 17), observed the failure in taking effective steps on the matter;

WHEREAS based on the recommendation of the Chief Environmental Engineer, Regional Office, Ernakulum made for levying Environmental Compensation against Kochi Corporation Show Cause Notice was issued to the Corporation vide notice No. PCB/HO/SEE2/KOCHI CORPN/2019 dated 15/10/2020 (ref. 18) for furnishing reasons for not levying the Environmental Compensation of Rs. 1395.42 lakhs (Rupees One thousand three hundred and ninety five lakhs and forty two thousand only);

WHEREAS reply was received from Kochi Corporation vide letter No.MOE2-10948/17 dated 02/11/2020 (ref. 19);

ANDWHEREAS the Chief Environmental Engineer, Regional Office, Ernakulum made recommendations for reassessment of levying Environmental Compensation, vide letter No.PCB/RO-EKM/GEN-258/19 dated 10/01/2021 is as follows;

Population(2011)	6,77,381
Class	Class I
Waste generation (TPD)	315.96
Waste disposed as per Rules (TPD)	31.60
Waste Management Capacity Gap(TPD)	284.36
Calculated EC(capital cost component) in Lakhs, Rs.	682.47
Minimum and Maximum values of EC (Capital cost component) recommended by the Committee (Lakhs, Rs.)	Min. 100 Max. 1000
Final EC (capital cost component) in Lakhs, Rs.	682.47
Calculated EC (O&M component) in Lakhs, Rs./day	5.69
Minimum and maximum values of EC (O&M cost component) recommended by the Committee	Min. 0.1 Max. 1.0
Final EC(O&M component) in Lakhs, Rs./day	1.00

Calculated Environmental Externality (Lakhs Rs./day)	0.01
Minimum and maximum values of Environmental Externality recommended by the committee(Lakhs, Rs./day)	Min. 0.05 Max.0.1
Final Environmental Externality (Rs. Per day)	0.05
EC to be collected (Rs. in Lakhs from 22/11/2018 to 31/12/2020 i.e 771 days)	1492.02

NOW THEREFORE, in exercise of the powers vested under Section 5 of the Environment Protection Act 1986, read with Government of India Notification S.O. 327(E) dated 10/04/2001, you are directed to remit an amount of Rs. 1492.02 lakhs (Rupees One thousand four hundred and ninety two lakh and two thousand only) towards the Environmental Compensation for non-compliance of the Solid Waste Management Rules, 2016, for the period from 22/11/2018 to 31/12/2020 within 15 days of receipt of this direction.


CHAIRMAN

To

The Secretary,
Kochi Corporation

Copy to:

1. The Chairman
State Level Monitoring Committee with C/L
2. The Additional Chief Secretary
Local Self Government Department with C/L
3. The Principal Secretary
Environment Department with C/L
4. The District Collector, Ernakulam
5. The Director, Urban Directorate
6. The Chief Environmental Engineer, Regional Office, Ernakulam
7. The Environmental Engineer, District Office 1 and 2, Ernakulam



KERALASTATE POLLUTION CONTROL BOARD

കേരളസംസ്ഥാന മലിനീകരണ നിയന്ത്രണ ബോർഡ്

Pattom P.O., Thiruvananthapuram – 695 004

പട്ടം പി.ഒ., തിരുവനന്തപുരം - 695 004

PCB/HO/SEE2/OA 515-2018/2019

Date:16/01/2021

Regd. with A/D

SHOW CAUSE NOTICE UNDER SECTION 5 OF THE ENVIRONMENTAL PROTECTION ACT, 1986

Sub: Issue of notice for the non-compliance of the Solid Waste Management Rules, 2016

- Ref:
1. The Hon'ble NGT order dated 16/01/2019 in OA No. 606/2018.
 2. Letter No. PCB/HO/SEE2/RMC-Meeting/2018 dated 09.10.2018, 22.10.2018 and 24.10.2018
 3. Letter No. PCB/HO/SEE2/SWM-TVM CORPN/2018 dated 09.01.2019
 4. Letter No. PCB/KO/G/51/09 dated 21/03/2019 from District Office, KSPCB, Kollam
 5. Letter No. PCB/RO/Kollam/MSW/2012 dated 26/03/2019 from Regional Office, KSPCB, Trivandrum
 6. Notice No. PCB/HO/EE4/NGT/SWM DIRECTIONS TO LB/2019 dated 17.04.2019
 7. The Hon'ble NGT order in OA No. 439/2013 and OA 456/2013 dated 09.10.2018, 07.01.2019, 11.12.2019 and 13.07.2020
 8. Letter No. PCB/KO/MSW/4/06 dated 04.09.2020 from Environmental Engineer, District Office, Kollam
 9. This office letter of even no. dated 24.09.2020

WHEREAS the Central Government notified the Environmental (Protection) Act, 1986 for the protection and improvement of environment and for matters connected therewith;

WHEREAS as per Section 3, 6, and 25 of the Environment (Protection) Act, 1986, the Central Government re-notified the Solid Wastes Management Rules, 2016 (herein after referred as SWM Rules) vide notification S.O. 1357(E) dated 8-4-2016;

WHEREAS as per Rule 22 (5) of the SWM Rules, door to door collection of segregated waste and its transportation in covered vehicles to processing or disposing facility shall be ensured by 8-4-2018;

WHEREAS as per Rule 22 (7) of the SWM Rules, solid waste processing facilities for the complete quantity of waste generated from the local body at 0.4 to 0.5 kg/person/day, shall be set up by 8-4-2018;

WHEREAS as per Rule 22 (6) of the SWM Rules, separate storage, collection and transportation of construction and demolition waste shall be provided by 08.04.2018;

WHEREAS repeated instructions were issued vide the communications read above, for the compliance of the SWM Rules vide ref. 2 to 5;

WHEREAS it is noted that you have not fully complied with the above provisions of the Rules;

WHEREAS the Hon'ble National Green Tribunal, Principal Bench, New Delhi in the order dated 22.11.2018 in O.A. No. 353/2016 clarified that apart from prosecution, the statutory authorities under the Environment (Protection) Act 1986, the Air (*Prevention and Control of Pollution*) Act, 1981 and the Water (*Prevention and Control of Pollution*) Act 1974, must, in exercise of their incidental powers, prescribed scale of compensation to be collected from the polluters on the "Polluters Pay's Principle" in such scale which may be laid down at various levels, having regard to the local condition or as per direction in the hierarchy of the authorities. In various other application also, the Hon'ble NGT passed similar orders. For instance, in the Order dated 20.11.2018 in O.A. No. 117/2014, 499/2014 and 102/2014 the Hon'ble NGT noted as; "Needless to say that statutory authorities under the Environment (Protection) Act 1986, the Air (*Prevention and Control of Pollution*) Act, 1981 and the Water (*Prevention and Control of Pollution*) Act 1974 are entitled to assess and recover damages as "Pollution Pays Principle" in exercise of incidental powers to protect environment";

WHEREAS the Board has issued notice vide ref. 6 above in view of the NGT Orders and in view of the responsibility of the Board under the Rule 16(a) to enforce SWM Rules 2016;

WHEREAS the Hon'ble NGT vide order in OA No. 439/2013(sz) dated 13.07.2020 directed the Kerala State Pollution Control Board to inspect the legacy waste dumping yard at Kureepuzha and submit a status report showing the real state of affairs including violations if any of non-implementation of provisions of the Solid Waste Management Rules, 2016 in Kollam Corporation and any damage that has been caused on account of the negligence, act of mismanagement of legacy waste and then to assess Environmental Compensation (EC), and take steps to realize the same from the defaulter.

WHEREAS based on the inspection conducted by the Board, environmental compensation was assessed for an amount of 889.28 lakhs for 665 days from 22/11/2018 to 17/09/2020 and the matter was informed vide ref. (9) above and hearing conducted vide Video Conference on 29/09/2020;

WHEREAS in the video conference conducted on 29/09/2020, it was instructed to submit action taken report for the treatment and disposal of both biodegradable and non-biodegradable waste from both households and establishments;

WHEREAS as per the order dated 02/11/2020 in OA No. 456/2013 (sz), and OA No. 439/2013 one more opportunity was given to Kollam Corporation to come up with corrected details;

WHEREAS based on the details submitted by the Secretary, Kollam Corporation, reassessment of environmental compensation was done from the District Office of the Board at Kollam and the assessment details are as follows;

Population (as per census 2011)	348657
Total waste generation (kg per person per day)	0.3

Waste Generation (TPD)	104.60
Dry waste disposed (dry waste collected by HKS)	25.563 TPD
Wet Waste disposed (house hold level + community level + informal waste collectors)	65.9TPD
Total waste disposed	91.463TPD
Waste Management Capacity Gap (TPD)	104.60 – 91.463= 13.137TPD
EC - Capital Cost Component (Rs in lakhs) (Min:100 & Max:1000)	2.4 x 13.137 = 31.529 (Taken as 100)
EC - O&M Component(Rs in lakhs/day) (Min: 0.1 & Max: 1)	0.02 x 13.137 = 0.263
Environmental Externality(Rs in lakhs/day) (Min: 0.05 & Max: 0.1)	5x13.137/100000= 0.0006; taken as 0.05
No. of days (N) (Taken as no. of days elapsed since 22.11.2018)	782
Environmental Compensation (Rs in lakhs)	100+0.263x 782+0.05 x 782 = 344.766

WHEREAS an amount of Rs. 344.766 Lakhs (Rupees Three hundred and forty four lakhs seven hundred sixty six thousand only) is assessed as environmental compensation from 22/11/2018 to 13/01/2021;

AND WHEREAS continued failure to comply with SWM 2016 shall incur Environmental compensation at rates that are multiples of the rates assessed above;

NOW THEREFORE, in exercise of the powers vested under section 5 of the Environment Protection Act, 1986, read with Government of India notification S.O. 327 (E) dated 10-4-2001 you are directed to show cause within 15 days as to why the Board shall not recover Environmental compensation for a period from 22/11/2018 to 13/01/2021 for the non compliance of the Solid Waste Management Rules, 2016;


CHAIRMAN

To

The Secretary,
Kollam Corporation

Copy to:

1. The Additional Chief Secretary
Local Self Government Department.
2. The District Collector, Kollam.
3. The Director, Urban Directorate.
4. The Chief Environmental Engineer, Regional Office, Thiruvananthapuram.
5. The Environmental Engineer, District Office, Kollam.

☎: 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



KERALASTATE POLLUTION CONTROL BOARD
കേരളസംസ്ഥാന മലിനീകരണ നിയന്ത്രണ ബോർഡ്

Pattom P.O., Thiruvananthapuram – 695 004

പട്ടം പി.ഒ., തിരുവനന്തപുരം - 695 004

PCB/HO/SEE-2 /SWM- KASARAGOD /2018

Date: 19/02/2021

Regd. with A/D

SHOWCAUSE NOTICE

Sub: Non-compliance of Solid Waste Management Rules, 2016-Mangalpady Panchayath.

- Ref: 1. The Hon'ble NGT Order dated 16/01/2019, 25/04/2019 & 02/07/2020 in OA No. 606/2018
2. Letter No. PCB/HO/SEE-2/OA 606/2018 dated 09/04/2020 from Chairman to the Director of Panchayath
3. Letter No. PCB/KSRD/SWM/127/2016 dated 21/06/2019 from Environmental Engineer, District Office, Kasargod
4. Showcause Notice No. PCB/KSRD/COMP/KASARAGOD/134/2019 dated 12/03/2020

WHEREAS the Central Government notified the Environmental (Protection) Act, 1986 for the protection and improvement of environment and for matters connected therewith;

WHEREAS as per Section 3, 6, and 25 of the Environment (Protection) Act, 1986, the Central Government re-notified the Solid Wastes Management Rules, 2016 (hereinafter referred as SWM Rules) vide notification S.O. 1357(E) dated 8-4-2016;

WHEREAS as per Rule 22 (1) of the SWM Rules, suitable sites for setting up solid waste processing facilities are to be identified by 8-4-2017;

WHEREAS as per Rule 22 (2) of the SWM Rules, suitable sites for setting up common regional sanitary landfill facilities for suitable clusters of local authorities under 0.5 million population and for setting up common regional sanitary landfill facilities or stand alone sanitary landfill facilities by all local authorities having a population of 0.5 million or more by 8-4-2017;

WHEREAS as per Rule 22 (3) of the SWM Rules, suitable sites for setting up solid waste processing facility and sanitary landfill facilities are to be procured by 8-4-2018;

WHEREAS as per Rule 22 (4) of the SWM Rules, the practice of segregation of bio degradable, recyclable, combustible, sanitary waste, domestic hazardous and inert solid waste shall be ensured at source for waste generators at source by 8-4-2018;

WHEREAS as per Rule 22 (5) of the SWM Rules, door to door collection of segregated waste and its transportation in covered vehicles to processing or disposing facility shall be ensured by 8-4-2018;

WHEREAS as per Rule 22 (6) of the SWM Rules, separate storage, collection and transportation of construction and demolition waste shall be ensured by 8-4-2019;

WHEREAS as per Rule 22(8) of the SWM Rules, solid waste processing facilities for the complete quantity of waste generated from the local body at 0.4 to 0.5 kg/person/day, shall be set up by 8-4-2019;

WHEREAS facilities with the technologies specified in CPHEEO manual and SWM Rules are to be in place for the effective treatment and disposal of the solid waste generated in the local body;

WHEREAS as per Rule 22 (11) of the SWM Rules, bio-remediation or capping of old and abandoned dump site shall be ensured;

WHEREAS repeated instructions including communication vide ref. (2, 3 and 4) were issued to the local body for the non compliance of the SWM Rules;

WHEREAS as per order dated 25/04/2019 in OA 606/2018, the time limit for compliance of environmental statutes by all the local bodies elapsed on 24/04/2020;

WHEREAS the Hon'ble National Green Tribunal vide dated 02/07/2020 in OA 606/2018 laid down compensation scale for continued failure in implementation of Solid Waste Management Rules 2016, after 31-3-2020 and reiterated that the compliance of the rules requires taking of several steps in Rule 22, from serial no. 1 to 10 and the Court directed that any such continued failure will result in liability of every local body to pay compensation at the rate of Rs. 10 lakhs per month per local body for population above 10 lakhs; Rs. 5 lakhs per month per local body for population between 5 lakhs and 10 lakhs and Rs. 1 lakh per month per other local body from 01/04/2020 till compliance and final compensation may be assessed and recovered by the State PCB/PCCs in the light of the above order;

WHEREAS as per the said direction of Hon'ble NGT, template for the assessment of final compensation for non compliance of solid waste management has been prepared and forwarded to SPCBs by CPCB;

WHEREAS as per the CPCB template, the local body shall be liable to pay compensation if there is any gap in the solid waste generated and treated; there is no cent percent door to door collection; there is no segregation of waste; segregated waste is not transported in covered vehicle; there is no adequate material recovery facility, plastic waste recycling facility, composting, biomethanation, RDF, WtE plant and not carried out legacy waste management;

WHEREAS the observations during the inspections on 02/11/2020 are as follows:

1. Local body collect waste from a few establishments only in some areas and transport the waste in an uncovered vehicle and wet waste is disposed in open trenches in MCF premises located in Kubanoor
2. Dry waste is collected from few establishments and residences only and dumped in an open area in MCF premises
3. MCF building is not adequate and it is already full
4. No material recovery is being done and there is no shredding unit
5. 100% door to door collection is not achieved in the panchayat area
6. A lot of wastes seen dumped on both sides of NH66 (Nayabazar, Bandhiyod, Uppala)
7. The trench composting facility provided has reached its maximum capacity, which shows that the facility provided is not adequate
8. They are not practicing biomethanation

WHEREAS the Panchayath has not provided RDF facility, no waste was supplied for co-incineration in cement plant and waste to energy plant and secured landfill was not setup as per Rules;

WHEREAS it is noted that there is gap in solid waste management; there is no cent percent door to door collection; there is no segregation of waste; segregated waste is not transported in covered vehicle; non adequacy of material recovery facility, resource recovery facility, waste recycling facility, composting, biomethanation, RDF, and WtE plant for solid waste management;

WHEREAS the continued failure to comply with SWM Rules. 2016 is still continuing in the Panchayath and is liable to the compensation as per the order dated 02/07/2020 of the Hon'ble NGT in OA 606/2018 and the Environmental Engineer suggested for levying environmental compensation for the failure of the Municipality;

AND WHEREAS on account of this an amount Rs. 7 lakhs (Rupees Seven lakh only) is assessed as Environmental Compensation for seven months, from 01.04.2020 to 31.10.2020 at the rate of 1 lakh per month;

NOW THEREFORE, in exercise of the powers vested under section 5 of the Environment Protection Act, 1986, read with Government of India notification S.O. 327 (E) dated 10/04/2001 you are directed to show cause within 15 days as to why the Board shall not recover Environmental compensation of Rs.7 Lakhs (Rupees Seven Lakh only) calculated for a period from 01/04/2020 to 31/10/2020 against the Panchayath for the non compliance of the SWM Rules 2016 especially of Rule 22 of the SWM Rules, 2016.



CHAIRMAN

To

The Secretary,
Mangalpady Panchayath

Copy to:

1. The Chairman
State Level Monitoring Committee
2. The Additional Chief Secretary
Local Self Government Department
3. The District Collector, Kasargod
4. The Director, Urban Directorate
5. The Chief Environmental Engineer, Regional Office, Kozhikod
6. The Environmental Engineer, District Office, Kasargod



KERALASTATE POLLUTION CONTROL BOARD
കേരളസംസ്ഥാന മലിനീകരണ നിയന്ത്രണ ബോർഡ്

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

PCB/HO/SEE-2 /SWM- KASARAGOD /2018

Date: 19/02/2021

Regd. with A/D

SHOWCAUSE NOTICE

Sub: Non-compliance of ‘Solid Waste Management Rules, 2016’-Manjeswaram Grama Panchayath.

- Ref:
1. The Hon’ble NGT Order dated 16/01/2019, 25/04/2019 & 02/07/2020 in OA No. 606/2018
 2. Letter No. PCB/HO/SEE-2/OA 606/2018 dated 09/04/2020 from Chairman to the Director of Panchayath
 3. Letter No. PCB/KSRD/SWM/127/2016 dated 17/09/2020 to Manjeswaram Grama Panchayath from Environmental Engineer, District Office, Kasargod
 4. Showcause Notice No. PCB/KSRD/COMP/MANJESWAR/2019 dated 03/02/2020 from Environmental Engineer, District Office, Kasargod

WHEREAS the Central Government notified the Environmental (Protection) Act, 1986 for the protection and improvement of environment and for matters connected therewith;

WHEREAS as per Section 3, 6, and 25 of the Environment (Protection) Act, 1986, the Central Government re-notified the Solid Wastes Management Rules, 2016 (hereinafter referred as SWM Rules) vide notification S.O. 1357(E) dated 8-4-2016;

WHEREAS as per Rule 22 (1) of the SWM Rules, suitable sites for setting up solid waste processing facilities are to be identified;

WHEREAS as per Rule 22 (2) of the SWM Rules, suitable sites for setting up common regional sanitary landfill facilities for suitable clusters of local authorities under 0.5 million population and for setting up common regional sanitary landfill facilities or stand alone sanitary landfill facilities by all local authorities having a population of 0.5 million or more by 8-4-2017;

WHEREAS as per Rule 22 (3) of the SWM Rules, suitable sites for setting up solid waste processing facility and sanitary landfill facilities are to be procured by 8-4-2019;

WHEREAS as per Rule 22 (4) of the SWM Rules, the practice of segregation of bio degradable, recyclable, combustible, sanitary waste, domestic hazardous and inert solid waste shall be ensured at source for waste generators at source by 8-4-2019;

WHEREAS as per Rule 22 (5) of the SWM Rules, door to door collection of segregated waste and its transportation in covered vehicles to processing or disposing facility shall be ensured by 8-4-2019;

WHEREAS as per Rule 22 (6) of the SWM Rules, separate storage, collection and transportation of construction and demolition waste shall be ensured by 8-4-2019;

WHEREAS as per Rule 22(8) of the SWM Rules, solid waste processing facilities for the complete quantity of waste generated from the local body, shall be set up by 8-4-2019;

WHEREAS facilities with the technologies specified in CPHEEO manual and SWM Rules are to be in place for the effective treatment and disposal of the solid waste generated in the local body;

WHEREAS as per Rule 22 (11) of the SWM Rules, bio-remediation or capping of old and abandoned dump site shall be ensured;

WHEREAS repeated instructions including communication 2nd, 3rd and 4th above were issued to the local body for the non compliance of the SWM Rules;

WHEREAS as per order dated 25/04/2019 in OA 606/2018, the time limit for compliance of environmental statutes by all the local bodies elapsed on 24/04/2020;

WHEREAS the Hon'ble National Green Tribunal vide dated 02/07/2020 in OA 606/2018 laid down compensation scale for continued failure in implementation of Solid Waste Management Rules 2016, after 31-3-2020 and reiterated that the compliance of the rules requires taking of several steps in Rule 22, from serial no. 1 to 10 and the Court directed that any such continued failure will result in liability of every local body to pay compensation at the rate of Rs. 10 lakhs per month per local body for population above 10 lakhs; Rs. 5 lakhs per month per local body for population between 5 lakhs and 10 lakhs and Rs. 1 lakh per month per other local body from 01/04/2020 till compliance and final compensation may be assessed and recovered by the State PCB/PCCs in the light of the above order;

WHEREAS as per the said direction of Hon'ble NGT, template for the assessment of final compensation for non compliance of solid waste management has been prepared and forwarded to SPCBs by CPCB;

WHEREAS as per the CPCB template, the local body shall be liable to pay compensation if there is any gap in the solid waste generated and treated; there is no cent percent door to door collection; there is no segregation of waste; segregated waste is not transported in covered vehicle;

there is no adequate material recovery facility, plastic waste recycling facility, composting, biomethanation, RDF, WtE plant and not carried out legacy waste management;

WHEREAS the observations during the inspections on 27/08/2020, 02/11/2020 are as follows:

1. M/s. Green Space, was engaged to collect dry waste and they collect only from a few residence and establishment once/twice in a month
2. MCF location at Gerukatte is not functioning as they are facing some electrical issues.
3. Shredding unit is not functioning.
4. The local body is not collecting wet waste and no composting facility provided for the same.
5. 100% door to door collection is not achieved in Pachayat area.
6. A lot of wastes were seen dumped on both side of NH66 (Kunjathur, Hosangadi, Karoda) and thus the facility provided is not adequate.
7. There is no biomethanation facility, RDF facility, secured landfill for the solid waste management as per SWM Rule, 2016.

WHEREAS the Panchayath is not practicing bio-methanation;

WHEREAS no waste was supplied to RDF facility for co-incineration in cement plant and waste to energy plant and secured landfill was not for the Solid Waste Management Rule as per SWM Rule, 2016;

WHEREAS it is noted that there is gap in solid waste management; there is no cent percent door to door collection; there is no segregation of waste; segregated waste is not transported in covered vehicle; non adequacy of material recovery facility, resource recovery facility and no waste recycling facility, composting, biomethanation, RDF, and WtE plant for Solid Waste Management;

WHEREAS the continued failure to comply with SWM Rules. 2016 is still continuing in the Manjeswaram Panchayath and is liable to the compensation as per the order dated 02/07/2020 of the Hon'ble NGT in OA 606/2018 and the Environmental Engineer suggested for levying environmental compensation for the failure of the Panchayath;

AND WHEREAS on account of this an amount Rs. 8 lakh (Rupees Eight lakh only) is assessed as Environmental Compensation for eight months, from 01.04.2020 to 30.11.2020 at the rate of 1 lakh per month;

NOW THEREFORE, in exercise of the powers vested under section 5 of the Environment Protection Act, 1986, read with Government of India notification S.O. 327 (E) dated 10/04/2001 you are directed to show cause within 15 days as to why the Board shall not recover

Environmental compensation of Rs.8 Lakhs (Rupees Eight Lakh only) calculated for a period from 01/04/2020 to 30/11/2020 against the Panchayath for the non compliance of the SWM Rules 2016 especially of Rule 22 of the SWM Rules, 2016.

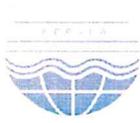

CHAIRMAN

To

The Secretary,
Manjeswaram Panchayath

Copy to:

1. The Chairman
State Level Monitoring Committee
2. The Additional Chief Secretary
Local Self Government Department
3. The District Collector, Kasargod
4. The Director, Urban Directorate
5. The Chief Environmental Engineer, Regional Office, Kozhikod
6. The Environmental Engineer, District Office, Kasargod



KERALASTATE POLLUTION CONTROL BOARD

കരളസംസ്ഥാന മലിനീകരണ നിയന്ത്രണ ബോർഡ്

Pattom P.O., Thiruvananthapuram – 695 004

പട്ടം പി.ഒ., തിരുവനന്തപുരം - 695 004

PCB/HO/SEE2/KOCHI CORPN/2019

Date:15/10/2020

Regd. with A/D

NOTICE UNDER SECTION 5 OF THE ENVIRONMENTAL PROTECTION ACT, 1986

Sub: Non-compliance of Solid Waste Management Rules, 2016.

**KERALA STATE POLLUTION
CONTROL BOARD
THIRUVANANTHAPURAM**

- Ref: 1. Order dated 23/10/2018 of the Hon'ble NGT in O.A. 533-535/2018
2. Order dated 9/11/2018 of the Hon'ble High Court in WP(c) No. 36204/2018(A)
3. Order dated 16/01/2019 in OA no. 606/2018
4. This office notice No. PCB/HO/RULES/SWM-ERNAKULAM/2018 dated 12/10/2019
5. Letter no. PCB/RO-EKM/GEN-221/19 dated 18/10/2019 from the Chief Environmental Engineer, Regional Office, Ernakulam
6. This office notice No. PCB/HO/SEE2/KOCHI CORPN/2019 dated 11/12/2019
7. Letter No. MOE2/10948/2017 dated 01/01/2020 and 06/01/2020 of Secretary, Kochi Corporation
8. Order dated 30/01/2020 in OA no. 442/2013 by the Hon'ble NGT.
9. Letter no. PCB/RO/EKM/GEN-258/19 dated 20/02/2020.
10. Minutes of the meeting on 16-3-2020 with the Secretary, Kochi Corporation
11. Minutes of the meeting on 17-3-2020
12. Order dated 03/07/2020 in OA no.514/2019
13. Letter No PCB/RO-EKM/GEN-258/19 D dated 23.07.2020 from the Chief Environmental Engineer, Regional office, Ernakulam
14. Minutes of the video conference held on 17/08/2020 with Secretary, Kochi Corporation and allied municipalities
15. Letter No. MOE2/10948/2017 dated 11/09/2020 of Secretary, Kochi Corporation.
16. Order dated 22/11/2018 in O.A. No. 353/2016
17. Order dated 20/11/2018 in O.A No. 117/2014, 499/2014 and 102/2014
18. Letter No PCB/RO-EKM/GEN-258/19 D dated 11/08/2020 from the Chief Environmental Engineer, Regional office, Ernakulam
19. Order dated 16/09/2020 in OA no.514/2019.

**16 OCT 2020
DESPATCHED**

WHEREAS the Central Government notified the Environmental (Protection) Act, 1986 for the protection and improvement of environment and for matters connected therewith;

WHEREAS as per Section 3, 6, and 25 of the Environment (Protection) Act, 1986, the Central Government re-notified the Solid Wastes Management Rules, 2016 (hereinafter referred as SWM Rules) vide notification S.O. 1357(E) dated 8/4/2016;

WHEREAS as per Rule 22 (1) of the SWM Rules, suitable sites for setting up solid waste processing facilities are to be identified;

WHEREAS as per Rule 22(3) of the SWM Rules, suitable sites for setting up solid waste processing facility and sanitary landfill facilities are to be procured;

WHEREAS as per Rule 22 (5) of the SWM Rules, door to door collection of segregated waste and its transportation in covered vehicles to processing or disposing facility shall be ensured by 8-4-2019;

WHEREAS as per Rule 22 (7) of the SWM Rules, solid waste processing facilities for the complete quantity of waste generated from the local body at 0.4 to 0.5 kg/person/day, shall be set up by 8-4-2019;

WHEREAS facilities with the technologies specified in CPHEEO manual and SWM Rules are to be in place for the effective treatment and disposal of the solid waste generated in the local body;

WHEREAS as per Rule 22 (6) of the SWM Rules, separate storage, collection and transportation of construction and demolition waste shall be provided;

WHEREAS as per Rule 22(11) of the SWM Rules, bio-remediation or capping of old and abandoned dump site shall be ensured;

WHEREAS the Hon'ble NGT vide order dated 23/10/2018 read first above, ordered to complete the new integrated solid waste treatment processing plant in six months to commence the treatment of legacy waste, impose a penalty of Rs. 1 crore on Kochi Corporation and to deposit a performance guarantee of Rs. 3 crore with Kerala State Pollution Control Board and the Hon'ble High Court vide the order read 2nd above, ordered to place bank guarantee of Rs. 50 lakh each to Central Pollution Control Board and Kerala State Pollution Control Board and to exempt from depositing Rs. 3 crore towards bank guarantee and accordingly bank guarantee was placed by the Kochi Corporation;

WHEREAS during the second meeting on 15/3/2019 of the State Level Monitoring Committee constituted by the Hon'ble NGT vide the order under ref.3, resolutions were made to conduct bio mining of legacy waste part by part; keep ESCROW amount for handling emergency situation; provide adequate cover, leachate collection tank and log book for waste transporting vehicles and allow waste transportation only by those vehicles by Health Supervisor; engage Ex-service armed security at the segregation in the dump yard; to make the roads, NH Bypass, Sahodaran Ayyappan Road and Banerjee Road as Zero Waste road; to insist door to door collection and prohibit the deposition of waste on roads and other public places and insist for segregation of waste before disposal; ban the plastic carry bags below the prescribed limit and to proceed against violators under the law of penalization; to give adequate protective equipment namely gumboots, gloves, masks etc., proceed against the violators disposing sewage, septage and chicken waste in the water resources; apartments, hospitals, hospitals which are not operating their sewage treatment plants and to evolve methods for the effective disposal of plastics and not to dispose plastic by burning;

WHEREAS Chairman SLMC during their 4th meeting on 08/05/19 directed to submit specific detailed time bound action plan to the Kerala State Pollution Control Board, to adopt mechanized system for the disposal of legacy waste, to implement heavy fining, provide surveillance cameras/ strict squad to prevent waste dumping on roads, to insist on segregation of wastes at source, to transport vehicles with adequate cover, to provide proper leachate collection tank and logbook, to provide adequate personal protective equipments to workers and to compel

them to wear the same, to prohibit deposit of wastes on roads and other public places, to deploy haritha karma sena for door to door collection, to report on the action taken and to submit to the SLMC;

WHEREAS the fifth meeting of the State Level Monitoring Committee held on 14/06/2019, noticed with distress that a good number of directions issued are yet to be complied with and therefore expressed displeasure over the same and it was again directed to issue directions by the Corporation to the bulk generators to take steps to channelize their own wastes as the same is homogenous and clean, channelization can be done easily; to submit the details of wards, in which segregation is complete; segregated plastic waste for shredding is to be stored in areas attached to the zonal office of the Corporation; and to submit action plan in each ward for solid waste management, projects to be implemented and to improve the existing waste management facility, existing material collection facility and resource recovery facility; to publish the information on waste management in the website; to take legal action against open burning of non-biodegradable waste and dumping of waste in water bodies; to take steps to establish MCFs in all wards and RRF at least in six wards; issue identity card to all workers engaged in waste management and to prepare action plan for developing a business model for effective treatment of waste;

WHEREAS it is noted that you have not identified the land for managing Construction and Demolition waste and sanitary landfill;

WHEREAS noticed dated 12/10/2019 was issued vide reference 4th above for not taking steps to provide biomethanation plant for the food wastes generated within Kochi Corporation;

WHEREAS the Chief Environmental Engineer, Regional Office, Ernakulam vide the letter dated 18/10/2019 cited 5th above, reported about the improper functioning of solid waste plant including no action taken to install proper leachate treatment plant at the site;

WHEREAS the Board issued notice dated 11/12/2019 read 6th above to the Secretary, Kochi Corporation to show cause why the Environmental compensation of Rs. 1.122 Crore shall not be levied for not providing leachate treatment plant and the replies of the Kochi Corporation under ref. 7th above were ;

WHEREAS the Hon'ble National Green Tribunal vide the order read 8th above on 30-1-2020 directed that, on receipt of the explanation from the Corporation to the notice issued by Board, the Pollution Control Board is to pass appropriate orders and complete the proceedings initiated on the basis of their inspection and dispose of the same in accordance with law and come with compliance report before the Tribunal;

WHEREAS the Chief Environmental Engineer, Regional Office, Ernakulam in the report (ref. 9) dated 20/02/2020 to the Chairman, State Level Monitoring Committee, reported that the Corporation is not taking earnest steps to solve the issue which is a long pending case from the Corporation side and to assess environmental compensation as done on 18/10/2019;

WHEREAS the Chief Environmental Engineer, Regional Office, Ernakulam vide letter No. PCB/RO-EKM/GEN-258/2019 dated 28-2-2020 reported that the Corporation is allowing five municipalities and two grama panchayaths to bring their biodegradable waste in addition to Corporation's biodegradable waste and non biodegradable waste and the total actual quantity of waste estimated as 365.19TPD;

WHEREAS on receiving the reply from the Secretary, Kochi Corporation, hearing was conducted with the Secretary, Kochi Corporation on 16/3/2020 vide ref., 10 and 11 and reported

status to the NGT;

WHEREAS the Hon'ble NGT on 3/7/2020 in OA514/2019 (ref. 12) observed the delay in setting up of waste to energy plant and was doubtful whether leachate can be treated in an ordinary septage treatment plant as it contains heavy metals and the tribunal also observed that the progress appears to be very slow and in disregard to the statutory and constitutional obligation of providing clean environment;

WHEREAS it was reported by the Chief Environmental Engineer, Regional office Ernakulam vide letter No. PCB/RO-EKM/GEN-221/19 dated 23/07/2020 (ref. 13) reported that during the inspection conducted by the Board on various occasions, it was noticed that

- a) The facilities provided for the treatment and disposal of solid waste provided at Brahmapuram are not maintained properly;
- b) The windrow composting shed is in dilapidated condition and the mixed solid waste including plastic waste is dumped in the yard in open condition;
- c) The manure produced seems to be marginal compared to the daily waste collected at the plant;
- d) Manure produced did not meet the fertilizer standard as per the SWM Rule, 2016 and contain heavy metals;
- e) Due to the unscientific treatment of biodegradable solid waste, huge quantity of rejects have dumped at various places and which in turn got converted to legacy waste;
- f) Fire accident were occurred in the legacy waste dump yard at Brahmapuram 3 or 4 times during the period of 2019 and 2020 which lead to air pollution in and around the dump site
- g) Leachate from the windrow composting shed and the biodegradable solid waste dumping area is not collected and treated properly due to improper drains and there are chances of leachate reaches the Kadambayar river, one of the polluted river stretch identified by CPCB;
- h) The leachate treatment plant provided prior to the visit of Regional Monitoring Committee (RMC) appointed by the Hon'ble NGT is not operational now;
- i) During the inspection conducted on 16.07.2020 it was noticed that no progress in the installation of leachate treatment plant except the construction of a new collection tank having capacity of 100 m³ on which the Hon'ble Court made adverse remarks ;
- j) No effective steps were taken for construction activities for the installation of waste to energy plant and for the removal of legacy waste. The Corporation authorities are still not able to assess the quantum of legacy waste settled there;

WHEREAS hearing was conducted by the Chairman on 17/8/2020 with the Kochi Corporation (ref. 14) and accordingly details were submitted by you vide the letter under ref. 15;

WHEREAS from the above observations, it is noted that you have not fully complied with the directions of Hon'ble SLMC, provisions of Solid Waste Management Rules, 2016 and also not obtained authorization under SWM Rules, 2016;

WHEREAS the Hon'ble National Green Tribunal, Principal Bench, New Delhi in the order dated 22/11/2018 in O.A. No. 353/2016 (ref. 16) clarified that apart from prosecution, the statutory authorities under the Environment (Protection) Act, 1986, the Air (Prevention and Control of Pollution) Act, 1981 and the Water (*Prevention and Control of Pollution*) Act, 1974, must, in exercise of their incidental powers, prescribed scale of compensation to be collected from the

polluters on the “Polluter Pay’s Principle”. Such scale which may be laid down at various levels, having regard to the local condition or as per direction in the hierarchy of the authorities;

WHEREAS in various other application also, the Hon’ble NGT passed similar orders, for instance, in the Order dated 20/11/2018 in O.A No. 117/2014, 499/2014 and 102/2014 (ref. 17) the Hon’ble NGT noted as; “Needless to say that statutory authorities under the Environment (Protection) Act, 1986, Air (Prevention and Control of Pollution) Act, 1981 and the Water (Prevention and Control of Pollution) Act, 1974 are entitled to assess and recover damages as “Polluter Pay’s Principle” in exercise of incidental powers to protect environment”.

WHEREAS as per Hon’ble NGT order dated 23/09/2019 in O.A 585/2018, if the rules are violated, the Pollution Control Board can independently proceed against local bodies who are not complying with the rules including initiation of prosecution of those persons who are not complying with the same and assessment of damage caused to the Environment;

WHEREAS the Hon’ble NGT vide order dated 16/9/2020 in OA 514/2018 (ref. 19), observed the failure in taking effective steps on the matter;

AND WHEREAS the Chief Environmental Engineer, Regional Office, Ernakulummade recommendation for levying Environmental Compensation against Kochi Corporation and forwarded the following assessment details vide the letter dated 11/8/2020 cited 18th above;

City	Kochi Corporation
Population(2011)	6,77,381
Class	Class I
Waste generation (kg per person per day)	-
Waste generation (TPD)	315.96
Waste disposed as per Rules (TPD)	31.60
Waste Management Capacity Gap(TPD)	284.36
Calculated EC(capital cost component) in lakhs, Rs.	682.47
Minimum and Maximum values of EC (Capital cost component) recommended by the Committee (lakhs, Rs.)	Min. 100 Max. 1000
Final EC (capital cost component) in lakhs, Rs.	682.47
Calculated EC (O&M component) in lakhs, Rs./day	5.69
Minimum and maximum values of EC (O&M cost component) recommended by the Committee	Min. 0.1 Max. 1.0
Final EC(O&M component) in lakhs, Rs./day	1.00
Calculated Environmental Externality (lakhs Rs./day)	0.01
Minimum and maximum values of Envriionmetnal Externality recommended by the committee(lakhs, Rs./day)	Min. 0.05 Max.0.1

Final Environmental Externality (Rs. Per day)	0.05
EC to be collected (Rs. in lakhs from 22/11/2018 to 30/9/2020 i.e.679 days)	1395.42

NOW THEREFORE, in exercise of the powers vested under Section 5 of the Environment Protection Act 1986, read with Government of India Notification S.O. 327(E) dated 10/04/2001, you are directed to show cause within 15 days of receipt of this notice, why the Board shall not recover Environmental Compensation of Rs. 1395.42 lakhs (Rupees One thousand three hundred and ninety five lakhs and forty two thousand only) from 22/11/2018 to 30/09/2020 towards the noncompliance of Solid Waste Management Rules, 2016.


CHAIRMAN

To

The Secretary,
Kochi Corporation

Copy to:

1. The Chairman
State Level Monitoring Committee with C/L
2. The Additional Chief Secretary
Local Self Government Department with C/L
3. The Principal Secretary
Environment Department with C/L
4. The District Collector, Ernakulam
5. The Director, Urban Directorate
6. The Chief Environmental Engineer, Regional Office, Ernakulam
7. The Environmental Engineer, District Office 1 and 2, Ernakulam



KERALASTATE POLLUTION CONTROL BOARD
കേരളസംസ്ഥാന മലിനീകരണ നിയന്ത്രണ ബോർഡ്

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

PCB/HO/SEE-2 /SWM- KASARAGOD /2018

Date: 20/01/2021

Regd. with A/D

SHOWCAUSE NOTICE

Sub: Non-compliance of Solid Waste Management Rules, 2016.

- Ref:
1. The Hon'ble NGT Order dated 16/01/2019, 25/04/2019 & 02/07/2020 in OA No. 606/2018
 2. Letter No. PCB/KSRD/MSW/909/2001 dated 28/05/2019 from District Office Kasaragod
 3. Showcause Notice No. PCB/KSRD/MSW/909/2001 dated 03/08/2019 from Regional Office Kozhikode.
 4. Letter No.P.H2-14162/19 dated 20/08/2019 from Kasaragod Municipality
 5. Showcause Notice No. PCB/KSRD/MSW/909/2001 dated 17/10/2019 from Regional Office Kozhikode
 6. Letter No. PCB/KSRD/MSW/909/2001 dated 10/12/2019 from District Office, Kasaragod
 7. Letter No. PCB/KSRD/COMP/KASARGOD/2019 dated 13/01/2020 from District Office, Kasaragod
 8. Showcause Notice No. PCB/KSRD/MSW/909/2001 dated 14/01/2020 from District Office, Kasaragod.
 9. Video Conference held on 04/09/2020 from the Chairman, Kerala State Pollution Control Board with Secretary, Kasaragod Municipality.
 10. Letter No PH2-10916/2020 dated 07/08/2020 & 11/09/2020 from Secretary, Kasaragod Municipality.
 11. Letter No. PCB/KSRD/G/EC/142/2019 dated 17/11/2020 from District Office, Kasaragod.

WHEREAS the Central Government notified the Environmental (Protection) Act, 1986 for the protection and improvement of environment and for matters connected therewith;

WHEREAS as per Section 3, 6, and 25 of the Environment (Protection) Act, 1986, the Central Government re-notified the Solid Wastes Management Rules, 2016 (hereinafter referred as SWM Rules) vide notification S.O. 1357(E) dated 8-4-2016;

WHEREAS as per Rule 22 (1) of the SWM Rules, suitable sites for setting up solid waste processing facilities are to be identified by 8-4-2017;

WHEREAS as per Rule 22 (2) of the SWM Rules, suitable sites for setting up common regional sanitary landfill facilities for suitable clusters of local authorities under 0.5 million population and for setting up common regional sanitary landfill facilities or stand alone sanitary landfill facilities by all local authorities having a population of 0.5 million or more by 8-4-2017;

WHEREAS as per Rule 22 (3) of the SWM Rules, suitable sites for setting up solid waste processing facility and sanitary landfill facilities are to be procured by 8-4-2018;

WHEREAS as per Rule 22 (4) of the SWM Rules, the practice of segregation of bio degradable, recyclable, combustible, sanitary waste, domestic hazardous and inert solid waste shall be ensured at source for waste generators at source by 8-4-2018;

WHEREAS as per Rule 22 (5) of the SWM Rules, door to door collection of segregated waste and its transportation in covered vehicles to processing or disposing facility shall be ensured by 8-4-2018;

WHEREAS as per Rule 22 (6) of the SWM Rules, separate storage, collection and transportation of construction and demolition waste shall be ensured by 8-4-2018;

WHEREAS as per Rule 22 (7) & Rule 22(8) of the SWM Rules, solid waste processing facilities for the complete quantity of waste generated from the local body at 0.4 to 0.5 kg/person/day, shall be set up by 8-4-2019;

WHEREAS facilities with the technologies specified in CPHEEO manual and SWM Rules are to be in place for the effective treatment and disposal of the solid waste generated in the local body;

WHEREAS as per Rule 22 (11) of the SWM Rules, bio-remediation or capping of old and abandoned dump site shall be ensured;

WHEREAS repeated instructions were issued to the local body for the compliance of the SWM Rules;

WHEREAS during the inspection conducted on 15-5-2019 based on the application for authorization under SWM Rules submitted by the Kasargod Municipality, it was observed that plastic shredding unit was not functional and the incinerator plant is in a dilapidated condition and hence instructions were issued vide letter no. letter No. PCB/KSRD/MSW/909/2001 dated 28/05/2019 from District Office Kasaragod;

WHEREAS as there was no reply to the said instructions, show cause notice was issued from Regional Office of the Board at Kozhikode for not complying with the directions, but its reply was not satisfactory;

WHEREAS during the further inspection from the District Office on 27-11-2019 and on 05/12/2019 to the waste disposal facility of Kasaragod Municipality, it was observed that the plastic waste collected were being burnt in the incinerator whose chimney was broken at the neck of the chamber itself; plastic wastes were not processed; old wastes mostly plastic wastes were dumped in the area, and no MRFs and MCFs existed for the local body and recommended for levying environmental compensation vide the letter No. PCB/KSRD/MSW/909/2001 dated 10/12/2019 from District Office, Kasaragod;

WHEREAS show cause was again issued vide notice No. PCB/KSRD/MSW/909/2001 dated 09/01/2020 to the Kasargod Municipality for non compliance of SWM Rules and the reply was not satisfactory;

WHEREAS hearing was conducted by the undersigned with the Kasargod Municipality on 04/09/2020 and instructed to comply with the provisions of SWM Rules and the details submitted by Letter no. PH2-10916/2020 dated 11/09/2020 was not satisfactory and also noted that waste from hotels and establishments are taken to pig farm which is violation of SWM Rules;

WHEREAS as per order dated 25/04/2019 in OA 606/2018, the time limit for compliance of environmental statutes by the local bodies elapsed on 24/04/2020;

WHEREAS the Hon'ble National Green Tribunal vide dated 02/07/2020 in OA 606/2018 laid down compensation scale for continued failure in implementation of Solid Waste Management Rules 2016, after 31-3-2020 and reiterated that the compliance of the rules requires taking of several steps in Rule 22, from serial no. 1 to 10 and the Court directed that any such continued failure will result in liability of every local body to pay compensation at the rate of Rs. 10 lakhs per month per local body for population above 10 lakhs; Rs. 5 lakhs per month per local body for population between 5 lakhs and 10 lakhs and Rs. 1 lakh per month per other local body from 01/04/2020 till compliance and final compensation may be assessed and recovered by the State PCB/PCCs in the light of the above order;

WHEREAS as per the said direction of Hon'ble NGT, template for the assessment of final compensation for non compliance of solid waste management by urban local bodies has been prepared and forwarded to SPCBs by CPCB;

WHEREAS as per the CPCB template, the local body shall be liable to pay compensation if there is any gap in the solid waste generated and treated; there is no cent percent door to door collection; there is no segregation of waste; segregated waste is not transported in covered vehicle; there is no adequate material recovery facility, plastic waste recycling facility, composting, biomethanation, RDF, WtE plant and not carried out legacy waste management;

WHEREAS Environmental Engineer, District Office, Kasaragod vide letter No. PCB/KSRD/G/EC/142/2019 dated 17/11/2020, reported that during their inspection on 04/11/2020, the Municipality had not achieved cent percent door to door collection of waste from many commercial and residential areas like Bank Road, Adkathbail etc and a lot of wastes were seen dumped near the road side behind Government Hospital in municipality area;

WHEREAS it was reported that as per the annual report submitted by municipality, the quantity of waste collected was 3TPD, but the Municipality was processing dry waste of 1.5TPD and the remaining waste of 1.5TPD was not processed which shows that the facility provided is not adequate;

WHEREAS as per the report submitted by the municipality, the required capacity for composting is 3.8 TPD, but the Municipality had provided 749 pipe composts and 238 compost pits with a total capacity of 2.3 TPD of waste and the remaining waste of 1.5 TPD was not processed, which shows that the facility provided is not adequate;

WHEREAS the Municipality is not practicing bio-methanation;

WHEREAS the Municipality has not provided RDF facility, no waste was supplied for co-incineration in cement plant and waste to energy plant and secured landfill was not setup as per Rules;

WHEREAS it is noted that there is gap in solid waste management; there is no cent percent door to door collection; there is no segregation of waste; segregated waste is not transported in covered vehicle; non adequacy of material recovery facility, resource recovery facility, waste recycling facility, composting, biomethanation, RDF, and WtE plant and not carried out legacy waste management;

WHEREAS the continued failure to comply with SWM Rules. 2016 is still continuing in the Kasargod Municipality and is liable to the compensation as per the order dated 02/07/2020 of the Hon'ble NGT in OA 606/2018 and the Environmental Engineer suggested for levying environmental compensation for the failure of the Municipality;

AND WHEREAS on account of this an amount Rs 8 Lakhs is assessed as Environmental Compensation for eight months, from 01.04.2020 to 30.11.2020 at the rate of 1 lakh per month;

NOW THEREFORE, in exercise of the powers vested under section 5 of the Environment Protection Act, 1986, read with Government of India notification S.O. 327 (E) dated 10/04/2001 you are directed to show cause within 15 days as to why the Board shall not recover Environmental compensation of Rs.8 Lakhs (Rupees Eight Lakh only) calculated for a period from 01/04/2020 to

30/11/2020 against the Municipality for the non compliance of the SWM Rules 2016 especially of Rule 22 of the SWM Rules, 2016.


CHAIRMAN

To
The Secretary,
Kasaragod Municipality

Copy to:

1. The Chairman
State Level Monitoring Committee
2. The Additional Chief Secretary
Local Self Government Department
3. The District Collector, Kasargod
4. The Director, Urban Directorate
5. The Chief Environmental Engineer, Regional Office, Kozhikod
6. The Environmental Engineer, District Office, Kasargod



KERALASTATE POLLUTION CONTROL BOARD

കേരളസംസ്ഥാന മലിനീകരണ നിയന്ത്രണ ബോർഡ്

Pattom P.O., Thiruvananthapuram - 695 004

പട്ടം പി.ഒ., തിരുവനന്തപുരം - 695 004

PCB/HO/SEE2/Thrikkakara Municipality/2019

Date: 18/02/2021

Regd. with A/D

SHOW CAUSE NOTICE ISSUED UNDER SECTION 5 OF THE ENVIRONMENTAL (PROTECTION) ACT, 1986

Sub: Non-compliance of Solid Waste Management Rules, 2016 - Thrikkakara Municipality.

- Ref:
1. The Hon'ble NGT order dated 20/11/2018 in O.A No. 117/2014, 499/2014 and 102/2014
 2. The Hon'ble NGT order dated 22/11/2018 in O.A. No. 353/2016
 3. The Hon'ble NGT order dated 16/01/2019 and 25/04/2019 in OA no. 606/2018.
 4. This office letter No. PCB/HO/Rules/SWM-Ernakulam/2018 dated 13/02/2019 and 04/04/2019.
 5. Your letter No. H2-4958/19 dated 12/06/2019
 6. Letter No. PCB/RO-EKM/NEW-97/12 dated 22.5.19 from CEE, RO, Ernakulam
 7. Notice of even number dated 12.10.19
 8. Minutes of Video Conference held on 19/11/2020.
 9. Letter No. PCB/RO-EKM/GEN-258/19 dated 10/01/2021

WHEREAS the Central Government notified the Environmental (Protection) Act, 1986 for the protection and improvement of environment and for matters connected therewith;

WHEREAS as per Section 3, 6, and 25 of the Environment (Protection) Act, 1986, the Central Government re-notified the Solid Wastes Management Rules, 2016 herein after referred as SWM Rules) vide notification S.O. 1357(E) dated 8-4-2016;

WHEREAS as per Rule 22 (1) of the SWM Rules, suitable sites for setting up solid waste processing facilities are to be identified;

WHEREAS as per Rule 22(3) of the SWM Rules, suitable sites for setting up solid waste processing facility and sanitary landfill facilities are to be procured;

WHEREAS as per Rule 22 (5) of the SWM Rules, door to door collection of segregated waste and its transportation in covered vehicles to processing or disposing facility shall be ensured by 8-4-2018;

WHEREAS as per Rule 22 (7) of the SWM Rules, solid waste processing facilities for the complete quantity of waste generated from the local body at 0.4 to 0.5 kg/person/day, shall be set up by 8-4-2019;

WHEREAS facilities with the technologies specified in CPHEEO manual and SWM Rules are to be in place for the effective treatment and disposal of the solid waste generated in the local body;

WHEREAS as per Rule 22 (6) of the SWM Rules, separate storage, collection and transportation of construction and demolition waste shall be provided;

WHEREAS as per Rule 22 (11) of the SWM Rules, bio-remediation or capping of old and abandoned dump site shall be ensured;

WHEREAS as per NGT order dated 25.04.2019 in O.A. 606/2018 (ref.1 above), all environmental institutions are to be complied by the model city/town/village by 25.10.2019 and all other local bodies by 25.04.2020;

WHEREAS repeated instructions were issued including the communication reads 4th and 6th above, for the compliance of the SWM Rules;

WHEREAS it is pointed out vide the letter cited 6th above that you had been continuously violating the rules by evading from adopting suitable measures for Solid Waste Management;

WHEREAS the Board issued direction vide communication read 7th to take step to provide bio-methanation plant for the waste generated within Thrikkakara Municipality;

WHEREAS in the meeting held on 19/11/2020 through video conference with Thrikkakara Municipality, Chief Environmental Engineer, Regional Office had been directed vide ref.8 to submit a detailed report in Solid Waste Management;

WHEREAS it is noted vide ref. (9) that you are still disposing biodegradable waste to the Brahmapuram plant which is in dilapidated condition;

WHEREAS it is noted vide ref. (9) that you are disposing non-biodegradable waste to the hazardous landfill of KEIL, which is meant for the disposal of Hazardous Wastes as per Hazardous Waste Management Rule and is against the rule;

WHEREAS the Hon'ble National Green Tribunal, Principal Bench, New Delhi in the order dated 22/11/2018 in O.A. No. 353/2016 clarified that apart from prosecution, the statutory authorities under the Environment (Protection) Act, 1986, the Air (Prevention and Control of Pollution) Act, 1981 and the Water (*Prevention and Control of Pollution*) Act, 1974, must, in exercise of their incidental powers, prescribed scale of compensation to be collected from the polluters on the "Polluter Pay's Principle". Such scale which may be laid down at various levels, having regard to the local condition or as per direction in the hierarchy of the authorities. In various other application also, the Hon'ble NGT passed similar orders, for instance, in the Order dated 20/11/2018 in O.A No. 117/2014, 499/2014 and 102/2014 the Hon'ble NGT noted as; "Needless to say that statutory authorities under the Environment (Protection) Act, 1986, Air (Prevention and Control of Pollution) Act, 1981 and the Water (*Prevention and Control of Pollution*) Act, 1974 are entitled to assess and recover damages as "Polluter Pay's Principle" in exercise of incidental powers to protect environment".

WHEREAS the Chief Environmental Engineer, Regional Office, Ernakulum made assessment for levying Environmental Compensation, details of assessment were furnished vide letter No.PCB/RO-EKM/GEN-258/19 dated 10/01/2021 (Ref.9 above) as follows for the non compliance of the Solid Waste Management Rules, 2016;

Population(2011)	77,319
Class	Class II
Total waste generation (kg per person per day)	0.3

Waste generation (TPD)	23.20
Waste disposed as per Rules (TPD)	2.32
Waste Management Capacity Gap(TPD)	23.2-2.32=20.88
EC - Capital Cost Component (Rs in lakhs) (Min:100 & Max:1000)	20.88x2.4=50.112 (Taken as 100)
EC - O&M Component(Rs in lakhs/day) (Min: 0.1 & Max: 1)	0.02x20.88=0.4176 ≈0.42
Environmental Externality(Rs in lakhs/day) (Min: 0.05 & Max: 0.1)	5x20.88/100000=.001 (Taken as 0.05)
No. of days (N) (Taken as days from 09.04.2019 to 31.12.2020)	663
Environmental Compensation (Rs in lakhs) (09/04/2019 to 31/12/2020)	100+0.42x663+0.05x 663=411.61

AND WHEREAS an amount of **Rs. 411.61 lakhs (Rupees Four hundred eleven lakh and sixty one thousand only)** is assessed as environmental compensation from 09/04/2019 to 31/12/2020 against you for the non-compliance of the Solid Waste Management Rules, 2016;

NOW THEREFORE, in exercise of the powers vested under Section 5 of the Environment Protection Act, 1986, read with Government of India Notification S.O. 327(E) dated 10/04/2021 you are directed to show cause within 15 days of receipt of this notice as to why the Board shall not recover Environmental Compensation of **Rs. 411.61 lakhs (Rupees Four hundred eleven lakh and sixty one thousand only)** from 09/04/2019 to 31/12/2020 against you for the non-compliance of Rule 22 of the SWM Rules, 2016.


CHAIRMAN

To
The Secretary,
Thrikkakara Municipality

Copy to:

1. The Chairman
State Level Monitoring Committee.
2. The Additional Chief Secretary
Local Self Government Department.
3. The District Collector, Ernakulam.
4. The Director, Urban Directorate.
5. The Chief Environmental Engineer, Regional Office, Ernakulam.
6. The Environmental Engineer, District Office, Ernakulam.



KERALA STATE POLLUTION CONTROL BOARD

കേരളസംസ്ഥാന മലിനീകരണ നിയന്ത്രണ ബോർഡ്

Pattom P.O., Thiruvananthapuram – 695 004

പട്ടം പി.ഒ., തിരുവനന്തപുരം - 695 004

PCB/HO/RULES/SWM - ERNAKULAM/2018

Date: 08/02/2021

Regd. with A/D

SHOW CAUSE NOTICE ISSUED UNDER SECTION 5 OF THE ENVIRONMENTAL (PROTECTION) ACT, 1986

Sub: Non-compliance of Solid Waste Management Rules, 2016.

- Ref: 1. The Hon'ble NGT order dated 20/11/2018 in O.A No. 117/2014, 499/2014 and 102/2014.
2. The Hon'ble NGT order dated 22/11/2018 in O.A. No. 353/2016.
3. The Hon'ble NGT order dated 16/01/2019 and 25/04/2019 in OA no. 606/2018.
4. Your letter no. PH-14345/81 dated 15/03/2019
5. Letter No. PCB/RO-EKM/NEW-97/12 dated 22.5.19 from CEE,RO, Ernakulam
6. Notice of even number dated 12.10.19
7. Minutes of Video Conference held on 19/11/2020.
8. Letter No. PCB/RO-EKM/GEN-258/19 dated 10/01/2021.

WHEREAS the Central Government notified the Environmental (Protection) Act, 1986 for the protection and improvement of environment and for matters connected therewith;

WHEREAS as per Section 3, 6, and 25 of the Environment (Protection) Act, 1986, the Central Government re-notified the Solid Wastes Management Rules, 2016 hereinafter referred as SWM Rules) vide notification S.O. 1357(E) dated 8-4-2016;

WHEREAS as per Rule 22 (1) of the SWM Rules, suitable sites for setting up solid waste processing facilities are to be identified;

WHEREAS as per Rule 22(3) of the SWM Rules, suitable sites for setting up solid waste processing facility and sanitary landfill facilities are to be procured;

WHEREAS as per Rule 22 (5) of the SWM Rules, door to door collection of segregated waste and its transportation in covered vehicles to processing or disposing facility shall be ensured by 8-4-2018;

WHEREAS as per Rule 22 (7) of the SWM Rules, solid waste processing facilities for the complete quantity of waste generated from the local body at 0.4 to 0.5 kg/person/day, shall be set up by 8-4-2019;

WHEREAS facilities with the technologies specified in CPHEEO manual and SWM Rules are to be in place for the effective treatment and disposal of the solid waste generated in the local body;

WHEREAS as per Rule 22 (6) of the SWM Rules, separate storage, collection and transportation of construction and demolition waste shall be provided;

WHEREAS as per Rule 22 (11) of the SWM Rules, bio-remediation or capping of old and abandoned dump site shall be ensured;

WHEREAS as per NGT order dated 25.04.2019 in O.A. 606/2018 (ref.1 above), all environmental statutes are to be complied by the model city/town/village by 25.10.2019 and all other local bodies by 25.04.2020;

WHEREAS repeated instructions were issued including the communication read 5th above, for the compliance of the SWM Rules;

WHEREAS it is pointed out vide the letter cited 5th above that you had been continuously violating the rules by evading from adopting suitable measures for Solid Waste Management;

WHEREAS the Board issued direction vide communication read 6th to take step to provide bio-methanation plant for the waste generated within Thrippunithura Municipality;

WHEREAS it is noted vide ref. (8) that you are still disposing biodegradable waste to the Brahmapuram plant which is in dilapidated condition;

WHEREAS it is noted vide ref. (8) that you are disposing non-biodegradable waste to the hazardous landfill of KEIL, which is meant for the disposal of Hazardous Wastes as per Hazardous Waste Management Rule and is against the rule;

WHEREAS in the meeting held on 19/11/2020 through video conference with Municipality, Chief Environmental Engineer, Regional Office had been directed to submit a detailed report in Solid Waste Management;

WHEREAS the Hon'ble National Green Tribunal, Principal Bench, New Delhi in the order dated 22/11/2018 in O.A. No. 353/2016 clarified that apart from prosecution, the statutory authorities under the Environment (Protection) Act, 1986, the Air (Prevention and Control of Pollution) Act, 1981 and the Water (Prevention and Control of Pollution) Act, 1974, must, in exercise of their incidental powers, prescribed scale of compensation to be collected from the polluters on the "Polluter Pay's Principle". Such scale which may be laid down at various levels, having regard to the local condition or as per direction in the hierarchy of the authorities. In various other application also, the Hon'ble NGT passed similar orders, for instance, in the Order dated 20/11/2018 in O.A No. 117/2014, 499/2014 and 102/2014 the Hon'ble NGT noted as; "Needless to say that statutory authorities under the Environment (Protection) Act, 1986, Air (Prevention and Control of Pollution) Act, 1981 and the Water (Prevention and Control of Pollution) Act, 1974 are entitled to assess and recover damages as "Polluter Pay's Principle" in exercise of incidental powers to protect environment".

WHEREAS the Chief Environmental Engineer, Regional Office, Ernakulum made assessment for levying Environmental Compensation, details of assessment were furnished vide letter No.PCB/RO-EKM/GEN-258/19 dated 10/01/2021(Ref.8 above) as follows for the non compliance with the Solid Waste Management Rules, 2016;

Population(2011)	69,390
Class	Class II
Total waste generation (kg per person per day)	0.3
Waste generation (TPD)	20.82

Waste disposed as per Rules (TPD)	2.08
Waste Management Capacity Gap(TPD)	20.82-2.08=18.74
EC - Capital Cost Component (Rs in lakhs) (Min:100 & Max:1000)	2.4x18.74=44.96 (Taken as 100)
EC - O&M Component(Rs in lakhs/day) (Min: 0.1 & Max: 1)	0.02x18.74=0.37
Environmental Externality(Rs in lakhs/day) (Min: 0.05 & Max: 0.1)	5x18.74/10000=0.009 (Taken as 0.05)
No. of days (N) (Taken as days from 09.04.2019 to 31.12.2020)	663
Environmental Compensation (Rs in lakhs)	100+0.37x663+0.05x 663=378.46

ANDWHEREAS an amount of **Rs. 378.46 lakhs (Rupees Three hundred seventy eight lakh and forty six thousand only)** is assessed as environmental compensation from 09/04/2019 to 31/12/2020 against you for the non-compliance of the Solid Waste Management Rules, 2016;

NOW THEREFORE, in exercise of the powers vested under Section 5 of the Environment Protection Act, 1986, read with Government of India Notification S.O. 327(E) dated 10/04/2020 you are directed to show cause within 15 days as to why the Board shall not recover Environmental Compensation of Rs. 378.46 lakhs (Rupees Three hundred seventy eight lakh and forty six thousand only) from 09/04/2019 to 31/12/2020 from you for the non-compliance of Rule 22 of the SWM Rules, 2016.


CHAIRMAN

To

The Secretary
Thrippunithura Municipality

Copy to:

1. The Chairman
State Level Monitoring Committee.
2. The Additional Chief Secretary
Local Self Government Department.
3. The District Collector, Ernakulam.
4. The Director, Urban Directorate.
5. The Chief Environmental Engineer, Regional Office, Ernakulam.
6. The Environmental Engineer, District Office, Ernakulam.



☎ 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

KERALASTATE POLLUTION CONTROL BOARD

കേരളസംസ്ഥാന മലിനീകരണ നിയന്ത്രണ ബോർഡ്

Pattom P.O., Thiruvananthapuram – 695 004

പട്ടം പി.ഒ., തിരുവനന്തപുരം - 695 004

PCB/HO/RULES/SWM - Thrissur/2018

Date: 14/08/2019

Regd. with A/D

NOTICE UNDER SECTION 5 OF THE ENVIRONMENTAL PROTECTION ACT, 1986

Sub: Issue of notice for the noncompliance of the Solid Waste Management Rules, 2016

- Ref:
1. The Hon'ble NGT order OA no. 606/2018 dated 16/01/2019
 2. Letter no. PCB/HO/SEE2/RMC- Meeting/2018 dated 09/10/2018, 22/10/2018 and 24/10/2018
 3. This office notice of even no. PCB/HO/EE4/NGT/SWM DIRECTIONS TO LB/2019 dated 17/04/2019
 4. This office notice of even no. PCB/HO/EE4/AG/2019 dated 09/05/2019
 5. Letter no. PH4/5475/09 dated 24/06/2019
 6. Letter no. PH4/5475/09 dated 31/05/2019
 7. Annual Report send by email dated 02/07/2019
 8. Email on 14/08/2019

WHEREAS the Central Government notified the Environmental (Protection) Act, 1986 for the protection and improvement of environment and for matters connected therewith;

WHEREAS as per Section 3, 6, and 25 of the Environment (Protection) Act, 1986, the Central Government re-notified the Solid Wastes Management Rules, 2016 (herein after referred as SWM Rules) vide notification S.O. 1357(E) dated 8-4-2016;

WHEREAS as per Rule 22 (1) of the SWM Rules, suitable sites for setting up solid waste processing facilities are to be identified;

WHEREAS as per Rule 22(3) of the SWM Rules, suitable sites for setting up solid waste processing facility and sanitary landfill facilities are to be procured;

WHEREAS as per Rule 22 (5) of the SWM Rules, door to door collection of segregated waste and its transportation in covered vehicles to processing or disposing facility shall be ensured by 8-4-2018;

WHEREAS as per Rule 22 (7) of the SWM Rules, solid waste processing facilities for the complete quantity of waste generated from the local body @ 0.4 to 0.5 kg/person/day, shall be set up by 8-4-2018;

WHEREAS facilities with the technologies specified in CPHEEO manual and SWM Rules are to be in place for the effective treatment and disposal of the solid waste generated in the local body;

WHEREAS as per Rule 22 (6) of the SWM Rules, separate storage, collection and transportation of construction and demolition waste shall be provided by 8-4-2018;

WHEREAS as per Rule 22(11) of the SWM Rules, bio-remediation or capping of old and abandoned dump site shall be ensured;

WHEREAS repeated instructions were issued vide the communications read above, for the compliance of the SWM Rules;

WHEREAS the following information was submitted by you vide the Annual Report read 7th above;

No. of Households	86604
No. of non-residential premises	15250
Quantity of Solid waste generated	177 TPD
Quantity of Solid waste collected	37 TPD
Quantity of Solid waste processed (Community level)	37 TPD
Quantity of Solid waste processed in Household level	Biogas plant- 632 Compost pits- 20,118 } \approx 60 TPD

WHEREAS it is noted that you are not processing 80 TPD of waste generated;

WHEREAS it is noted that you have not identified the land for the solid waste processing facility and sanitary landfill;

WHEREAS the Hon'ble National Green Tribunal, Principal Bench, New Delhi in the order dated 22/11/2018 in O.A. No. 353/2016 clarified that apart from prosecution, the statutory authorities under the Environment (Protection) Act, 1986, the Air (Prevention and Control of Pollution) Act, 1981 and the Water (Prevention and Control of Pollution) Act, 1974, must, in exercise of their incidental powers, prescribed scale of compensation to be collected from the polluters on the "Polluter Pay's Principle". Such scale which may be laid down at various levels, having regard to the local condition or as per direction in the hierarchy of the authorities. In various other application also, the Hon'ble NGT passed similar orders, for instance, in the Order dated 20/11/2018 in O.A No. 117/2014, 499/2014 and 102/2014 the Hon'ble NGT noted as; "Needless to say that statutory authorities under the Environment (Protection) Act, 1986, Air (Prevention and Control of Pollution) Act, 1981 and the Water (Prevention and Control of Pollution) Act, 1974 are entitled to assess and recover damages as "Pollution Pays Principle" in exercise of incidental powers to protect environment".

WHEREAS notice was issued to you as you have not complied with above provision;

WHEREAS Environmental Engineer, District Office, reported that the solid waste management measures reported by you are inadequate to cater to the quantity of waste expected from Thrissur Corporation.

WHEREAS the Board is constrained to assess the Environmental Compensation from 22/11/2018 to 31/07/2019 (Days = 252) as follows;

City	Thrissur
Population (2011)	317,526
Class	Class-I Town
Waste Generation (kg. per person per day) as per Annual Report	0.55
Waste Generation (TPD) as per Annual Report	177.00
Waste Disposal as per Rules (TPD) as per Annual Report	97.00

Waste Management Capacity Gap (TPD)	80.00
Calculated EC (capital cost component) in Lakhs. Rs.	192.00
Minimum and Maximum values of EC (Capital Cost Component) recommended by the Committee (Lakhs Rs.)	Min. 100 Max. 1000
Final EC (capital cost component) in Lakhs. Rs.	192.00
Calculated EC (O&M Component) in Lakhs. Rs./Day	1.60
Minimum and Maximum values of EC (O&M Cost Component) recommended by the Committee (Lakhs Rs./Day)	Min. 0.1 Max. 1.0
Final EC (O&M Component) in Lakhs. Rs./Day	1.00
Final EC (O&M Component) in Lakhs	252
Calculated Environmental Externality (Lakhs Rs. Per Day)	0.00
Minimum and Maximum value of Environmental Externality recommended by the Committee (Lakhs Rs.per day)	Min. 0.05 Max. 0.10
Final Environmental Externality (Lakhs Rs. per day)	0.05
Final Environmental Externality in Lakhs	12.6

WHEREAS an amount of Rs.456.6 Lakhs is assessed as environmental compensation from 22/11/2018 to 31/07/2109 (Capital cost component (Rs.192 Lakhs) + O&M Component (Rs.252 Lakhs) + Environmental Externality (Rs.12.6 Lakhs));

WHEREAS continued failure to comply with SWM 2016 shall incur Environmental Compensation at rates that are multiples of the rates assessed above;

Now therefore, in exercise of the powers vested under Section 5 of the Environment Protection Act, 1986, you are directed to show cause within 15 days why the Board shall not recover Environmental Compensation of Rs 456.6 Lakhs from 22/11/2018 to 31/07/2019 against you for the non compliance of Rule 22(1), 22(3) 22(5), 22(6), 22(7) and 22(11) of the SWM Rules, 2016.

Ajit Handas

CHAIRMAN

To

The Secretary,
Thrissur Corporation

Copy to:

The Chairman
State Level Monitoring Committee

The Additional Chief Secretary
Local Self Government Department

The District Collector, Thrissur

The Director, Urban Directorate

The Chief Environmental Engineer, Regional Office, Ernakulam

The Environmental Engineer, District Office, Thrissur



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

KERALASTATE POLLUTION CONTROL BOARD

കേരളസംസ്ഥാന മലിനീകരണ നിയന്ത്രണ ബോർഡ്

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

PCB/HO/RULES/SWM-TVM-CORPN /2018

Date: 25/09/2019

Regd. with A/D

NOTICE UNDER SECTION 5 OF THE ENVIRONMENTAL PROTECTION ACT, 1986

Sub: Levying of Environmental Compensation for non compliance of SWM Rule 2016

- Ref: 1.The Hon’ble NGT order OA no. 606/2018 dated 16/01/2019 & 25/04/2019
2.This office notice no.PCB/HO/EE4/NGT/SWM DIRECTIONS TO LB/2019dated 17/04/2019
3.Letter no. H15/64522/13 dated 06/06/2019
4.Annual Report dated 14/06/2019
5.Letter no.PCB/TVM-DO/TMC-1245/2019 dated 21/08/2019
6.Letter no.PCB/TVM-DO/TMC-1245/2019 dated 23/09/2019

WHEREAS the Central Government notified the Environmental (Protection) Act, 1986 for the protection and improvement of environment and for matters connected therewith;

WHEREAS as per Section 3, 6, and 25 of the Environment (Protection) Act, 1986, the Central Government re-notified the Solid Wastes Management Rules, 2016 (herein after referred as SWM Rules) vide notification S.O. 1357(E) dated 8-4-2016;

WHEREAS as per Rule 22 (1) of the SWM Rules, suitable sites for setting up solid waste processing facilities are to be identified;

WHEREAS as per Rule 22(3) of the SWM Rules, suitable sites for setting up solid waste processing facility and sanitary landfill facilities are to be procured;

WHEREAS as per Rule 22 (5) of the SWM Rules, door to door collection of segregated waste and its transportation in covered vehicles to processing or disposing facility shall be ensured by 8-4-2018;

WHEREAS as per Rule 22 (7) of the SWM Rules, solid waste processing facilities for the complete quantity of waste generated from the local body @ 0.4 to 0.5 kg/person/day, shall be set up by 8-4-2018;

WHEREAS facilities with the technologies specified in CPHEEO manual and SWM Rules are to be in place for the effective treatment and disposal of the solid waste generated in the local body;

WHEREAS as per Rule 22 (6) of the SWM Rules, separate storage, collection and transportation of construction and demolition waste shall be provided by 8-4-2018;

WHEREAS as per Rule 22(11) of the SWM Rules, bio-remediation or capping of old and abandoned dump site shall be ensured;

WHEREAS repeated instructions were issued vide the communications read above, for the compliance of the SWM Rules;

WHEREAS the following information was submitted by you vide the Annual Report read 4th above;

No. of Households		
No. of non-residential premises	2,72,820	
Quantity of Solid waste generated	383 TPD	
Quantity of Solid waste collected as per Annual Report	175 TPD	
Quantity of Solid waste processed as per Annual Report	175 TPD	
Quantity of Solid waste processed in Household level (Report on performance of the processing facilities is not submitted)	Biogas plant- 1749 Kitchen bin – 7000 Pipe compost- 87000 Biocomposter-15833	} ≈ 20.2 TPD

WHEREAS it is noted that you are not processing 187.8 TPD of waste generated;

WHEREAS it is noted that you have not identified the land for the solid waste processing facility and sanitary landfill;

WHEREAS the Hon'ble National Green Tribunal, Principal Bench, New Delhi in the order dated 22/11/2018 in O.A. No. 353/2016 clarified that apart from prosecution, the statutory authorities under the Environment (Protection) Act, 1986, the Air (Prevention and Control of Pollution) Act, 1981 and the Water (Prevention and Control of Pollution) Act, 1974, must, in exercise of their incidental powers, prescribed scale of compensation to be collected from the polluters on the "Polluter Pay's Principle". Such scale which may be laid down at various levels, having regard to the local condition or as per direction in the hierarchy of the authorities. In various other application also, the Hon'ble NGT passed similar orders, for instance, in the Order dated 20/11/2018 in O.A No. 117/2014, 499/2014 and 102/2014 the Hon'ble NGT noted as; "Needless to say that statutory authorities under the Environment (Protection) Act, 1986, Air (Prevention and Control of Pollution) Act, 1981 and the Water (Prevention and Control of Pollution) Act, 1974 are entitled to assess and recover damages as "Pollution Pays Principle" in exercise of incidental powers to protect environment".

WHEREAS notice was issued to you vide the notice read Ref 2nd above as you have not complied with above provision;

WHEREAS you have failed to establish alternate modern treatment plant upon closure of the solid waste treatment facility at Vilapilsala in 2012

WHEREAS you have stopped door-to-door collection of biodegradable organic waste, on closure of the solid waste treatment facility at Vilapilsala;

WHEREAS you provided in some households in the Corporation, various devices for composting of organic waste known as 'pipe compost', 'kitchen bin', 'pot compost' and '3-pot compost';

WHEREAS you have used promotion of various source level treatment schemes as convenient method of denying households, slums and informal settlements, commercial and other non-residential premises, door-to-door collection of organic waste in violation of Rule 15(b);

WHEREAS the KSPCB District office has found that a number of composting devices have malfunctioned causing unhygienic conditions because of worm, fly and rodent nuisance in violation of Rule 15(t), leaving the waste generators to depend on private services to remove the waste from their premises;

WHEREAS you have not published ward-wise list of concessionaires providing waste service;

WHEREAS you have failed to provide public information on door-to-door waste collection on the official web site of Corporation of Thiruvananthapuram and on the 'Smart Trivandrum' mobile application with waste management services;

WHEREAS the private services operating in the city have not obtained registration from the Board for treatment facilities for the disposal of wastes collected;

WHEREAS you have failed to implement mandatory GPS in collection and transportation vehicles in cities with population above 5 lakh along with the publication of route map, as directed by Hon'ble NGT order dated 17-5-2019 in OA 606-2018(PB-I);

WHEREAS in violation of Rule 15(c), you have failed to establish a system for integration of informal waste pickers into the system of waste management;

WHEREAS in violation of Rule 15(n), you have not provided satisfactory sweeping of streets causing build-up of litter in numerous locations;

WHEREAS in violation of Rule 15(w), you have failed to establish sanitary landfill facility;

WHEREAS in violation of Rule 15(x), you have allocated funds to discretionary welfare schemes without meeting the requirement of funds for obligatory functions under Solid Waste Management rules such as procurement of land for solid waste treatment plant and sanitary landfill, setting up solid waste treatment plant, procurement of vehicles for solid waste collection and making provision for daily door-to-door collection and sweeping of roads in public and commercial areas twice daily and residential roads daily;

WHEREAS you have failed to submit to the Board, Annual Report before 31 May 2019, in violation of Rule 15(zb);

WHEREAS the KSPCB District office has found that pipe compost system has been supplied to most of the people with no technical guidance on how to use this system. The defects namely lack of technical knowledge, unpleasant odour generation from the pipe the compost pipe, nuisance from rodents, fly and worms, difficulty of disposal of greasy and oily foods pointed out by beneficiaries has resulted in widespread failure;

WHEREAS for kitchen bin it was reported that out of 116 beneficiaries contacted of which 46 are using kitchen bins, 53 are not using the system and 17 people are not even supplied with the system. The defects pointed out by beneficiaries are lack of technical knowledge, unpleasant odour generation, fly and worm nuisance;

WHEREAS for biogas the KSPCB District office has reported that 9 beneficiaries informed that the facility is working properly and one informed that the facility is not working properly after monsoon season;

WHEREAS KSPCB District office reported in community level decentralized systems, highly skilled operators are to be engaged for the proper maintenance and operation of the facility;

WHEREAS the Corporation has not provided details regarding quantity of municipal solid waste treated from non residential sources;

WHEREAS you have continued to promote failed household treatment schemes such as pipe compost and kitchen bin as a cover to avoid obligatory functions in SWM 2016 that incur political costs, such as procuring land and establishing a modern solid waste treatment plant and sanitary landfill;

WHEREAS the rank of 365 out of 425 cities in 2019 Swachh Survekshan conducted by Ministry of Housing and Urban Affairs, Government of India is indicative of the poor quality of waste management service you have provided in the city and failure to implement a modern waste treatment facility;

WHEREAS the KSPCB District office reported that the facilities provided by the Corporation do not seem to cater the quantity of waste expected to be generated from Corporation;

WHEREAS the Board is constrained to assess the Environmental Compensation from 22/11/2018 to 31/07/2019 (Days = 252) as follows;

City	Thiruvananthapuram
Population (2011)	958,000
Class	Million –plus City
Waste Generation (kg. per person per day)	0.4
Waste Generation (TPD)	383.00
Waste Disposal as per Rules (TPD) as per Annual Report	195.2
Waste Management Capacity Gap (TPD)	187.8
Calculated EC (capital cost component) in Lakhs. Rs.	450.72
Minimum and Maximum values of EC (Capital Cost Component) recommended by the Committee (Lakhs Rs.)	Min. 500 Max. 5000
Final EC (capital cost component) in Lakhs. Rs.	500
Calculated EC (O&M Component) in Lakhs. Rs./Day	3.756
Minimum and Maximum values of EC (O&M Cost Component) recommended by the Committee (Lakhs Rs./Day)	Min. 0.5 Max. 5.0
Final EC (O&M Component) in Lakhs. Rs./Day	3.756
Final EC (O&M Component) in Lakhs	946.512
Calculated Environmental Externality (Lakhs Rs. Per Day)	0.009
Minimum and Maximum value of Environmental Externality recommended by the Committee (LakhsRs.per day)	Min. 0.05 Max. 0.10
Final Environmental Externality (LakhsRs. per day)	0.05
Final Environmental Externality in Lakhs	12.6

WHEREAS an amount of Rs.1459.112 Lakhs (Rupees Fourteen Crore Fifty Nine Lakh Eleven Thousand Two Hundred) is assessed as environmental compensation from 22/11/2018 to 31/07/2019 (Capital cost component (Rs.500 Lakhs) + O&M Component (Rs. 946.512 Lakhs) + Environmental Externality (Rs.12.6 Lakhs));

WHEREAS continued failure to comply with SWM 2016 shall incur Environmental Compensation at rates that are multiples of the rates assessed above;

Now therefore, in exercise of the powers vested under Section 5 of the Environment Protection Act, 1986, you are directed to show cause within 15 days why the Board shall not recover Environmental Compensation of Rs 1459.112 Lakhs (Rupees Fourteen Crore Fifty Nine Lakh Eleven Thousand Two Hundred) from 22/11/2018 to 31/07/2019 against you for the non compliance of Rule 22(1), 22(3)22(5), 22(6), 22(7) and 22(11) of the SWM Rules, 2016.

Ajit Kandas
CHAIRMAN

To

The Secretary,
Thiruvananthapuram Corporation

Copy to:

The Chairman
State Level Monitoring Committee

The Additional Chief Secretary
Local Self Government Department

The District Collector, Thiruvananthapuram

The Director, Urban Directorate

The Chief Environmental Engineer, Regional Office, Thiruvananthapuram

The Environmental Engineer, District Office, Thiruvananthapuram



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

കേരളസംസ്ഥാന മലിനീകരണ നിയന്ത്രണ ബോർഡ്

Pattom P.O., Thiruvananthapuram - 695 004

പട്ടം പി.ഒ., തിരുവനന്തപുരം - 695 004

PCB/HO/EE4/NGT/SWM DIRECTIONS TO LB/2019

Date: 17/04/2019

Regd. with A/D

NOTICE UNDER SECTION 5 OF THE ENVIRONMENTAL PROTECTION ACT, 1986

Sub: Issue of notice for the noncompliance of the Solid Waste Management Rules, 2016

Ref: 1. The Hon'ble NGT order OA no 606/2018 dated 16/01/2019

2. Letter no PCB/TVM -DO/MSW/GEN/2007 dated 13/03/2018 from KSPCB DO TVM

3. Letter no PCB/HO/EE1/SWM /306/2016 dated 22/09/2018

4. Letter no PCB/HO/SEE2/RMC- Meeting/2018 dated 09/10/2018, 22/10/2018 and 24/10/2018

5. Letter no PCB/HO/SEE2/SWM-TVM CORPN /2018 dated 2/11/2018 and 08/01/2019

6. Letter no PCB/RO/SWM/GEN/2015 dated 22/02/2019 from KSPCB Regional office , TVM

WHEREAS the Central Government notified the Environmental (Protection) Act, 1986 for the protection and improvement of environment and for matters connected therewith;

WHEREAS as per Section 3, 6, and 25 of the Environment (Protection) Act, 1986, the Central Government re-notified the Solid Wastes Management Rules, 2016 (here in after referred as SWM Rules) vide notification S.O. 1357(E) dated 8-4-2016;

WHEREAS as per Rule 22 (5) of the SWM Rules, door to door collection of segregated waste and its transportation in covered vehicles to processing or disposing facility shall be ensured by 8-4-2018;

WHEREAS as per Rule 22 (7) of the SWM Rules, solid waste processing facilities for the complete quantity of waste generated from the local body @ 0.4 to 0.5 kg/person/day, shall be set up by 8-4-2018;

WHEREAS as per Rule 22 (6) of the SWM Rules, separate storage, collection and transportation of construction and demolition waste shall be provided by 8-4-2018;

WHEREAS repeated instructions were issued vide the communications read above, for the compliance of the SWM Rules;

WHEREAS it is noted that you have not complied with the above provisions of the Rules;

WHEREAS the Hon'ble National Green Tribunal, Principal Bench, New Delhi in the order dated 22/11/2018 in O.A. No. 353/2016 clarified that apart from prosecution, the statutory authorities under the Environment (Protection) Act, 1986, the Air (Prevention and Control of

Pollution) Act, 1981 and the Water (*Prevention and Control of Pollution*) Act, 1974, must, in exercise of their incidental powers, prescribed scale of compensation to be collected from the polluters on the "Polluter Pay's Principle". Such scale which may be laid down at various levels, having regard to the local condition or as per direction in the hierarchy of the authorities. In various other application also, the Hon'ble NGT passed similar orders, for instance, in the Order dated 20/11/2018 in O.A No. 117/2014, 499/2014 and 102/2014 the Hon'ble NGT noted as; "Needless to say that statutory authorities under the Environment (Protection) Act, 1986, Air (*Prevention and Control of Pollution*) Act, 1981 and the Water (*Prevention and Control of Pollution*) Act, 1974 are entitled to assess and recover damages as "Pollution Pays Principle" in exercise of incidental powers to protect environment".

AND WHEARAS the Board is constrained to issue legal notice in view of the NGT orders and in view of the responsibility of Board under the Rule 16 (a) to enforce SWM Rules 2016;

Now therefore, in exercise of the powers vested under Section 5 of the Environment Protection Act, 1986, you are directed to show cause within 15 days why the Board shall not initiate assessment and recovery of damages, against you for the non compliance of Rule 22(5), 22(6) and 22(7) of the SWM Rules, 2016.

Ajit Handan

CHAIRMAN

To

✓ The Secretary,
Thiruvananthapuram Corporation

Copy to:

The Additional Chief Secretary
Local Self Government Department

The District Collector,
Thiruvananthapuram
The Director,
Urban Directorate

The Chief Environmental Engineer, Regional Office
Thiruvananthapuram

The Environmental Engineer, District Office
Thiruvananthapuram



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GOVERNMENT OF KERALA

ADDITIONAL

Environment Department -NGT order dt 24.1.2020 in OA 514/2019- State Level Monitoring Committee, Kerala vs State of Kerala- - Environment Monitoring cell in the office of Chief Secretary- constituted - orders issued

ENVIRONMENT(B)DEPARTMENT

G.O.(R)No.22/2020/ENV1 Dated, Thiruvananthapuram, 27/02/2020

Read NGT order dt 24.1.2020 in OA 514/2019

ORDER

National Green Tribunal has taken numerous suo motu cases on the lack of proper waste management systems in the State and directed Government to take all possible steps to enforce the provisions of the different Environmental Acts and Rules. Recently in OA 514/2019, the Tribunal directed Government to set up an Environment Monitoring Cell in the Office of Chief Secretary for efficient coordination and compliance of the NGT orders in OA 606/2018, OA 519/2019 and OA 514/2019 wherein the court directed Chief Secretary to monitor the compliance of the court orders and file Action Taken Reports before the court in the stipulated time limit.

Government have examined the matter in detail and are pleased to constitute an Environment Monitoring Cell in the office of Chief Secretary with the following officers.

1. Legal officer from Law Department in the cadre of Under Secretary
2. Environmental Engineer, Kerala State Pollution Control Board
3. Assistant, General Administration Department

The Environment Monitoring Cell will be responsible for co-ordinating with various Government departments with regard to the compliance of the NGT orders in OA 606/2018, OA 519/2019 and OA 514/2019 within the stipulated time.

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

To: The Principal Secretary, General Administration Department

The Secretary, Law Department

The Member Secretary, Kerala State Pollution Control Board

The Additional Chief Secretary, Local Self Government Department

The Chairperson, National Green Tribunal (Principal Bench), New Delhi

Stock File /Office Copy

Main actions of DLMC

District	Actions
Kasargod	<ol style="list-style-type: none"> 1) Awareness programmes on environmental laws were conducted. 2) Initiation of action against defaulters 3) Directed to prevent waste water discharge to public drains leading to water bodies. 4) Issued notice on fail to control waste dumping on roads and drains. 5) Started assessing environmental compensation. 6) Gave regular instructions to implement the rules and NGT orders. 7) Conducted regular inspections to the waste processing/collection facilities. 8) Carried out surveys to assess the waste management by local bodies
Kannur	<ol style="list-style-type: none"> 1) District Environmental Plan has prepared for time bound implementation of all Rules 2) Mining and Geology department shall be included in DLMC to ensure the safe disposal of quarry wastes 3) Work of Harithakarmasena is become more effective and reached 90% achievement in most of GP 4) Consent condition added in Consent to Operate from PCB to ensure the use maximum quantity of plastics in the tar mixing plants 5) Steel Plates and glasses are introduced issued to schools by the local bodies 6) Bottle booths and RRF units are started in most of the local bodies 7) New rendering plant will be commissioned within 1 months in Mattanur Industrial, Iritty taluk in addition to the existing plant at Pappinissery. 8) Complaints raised by local people on functioning of the existing rendering plant are resolved and started to function in full swing. 9) Raid has conducted on weekly basis for arresting plastic and other banned materials from establishments and penalty imposed 10) Introduced an awarding system for the best eco-friendly, pollution free Panchayath and municipality in Kannur districts 11) Training program arranged for the secretaries of the local

	bodies in the district on environmental laws
Kozhikode	<p>1) DLMC link created in the website of the district administration</p> <ol style="list-style-type: none"> 1) Constitution of technical squad to find out illegal connections to drain and canal and to find out major polluters and to impose spot fine. Technical committee conducted surprise inspections to about 101 industrial units on the sides of Canoli canal and Kallayi river and issued notice to 60 units which are illegally discharging untreated effluent into water bodies and the matter is being followed up. 2) Subcommittee constituted for social auditing and monitoring and action has been initiated. 3) Initiation of action against defaulters 4) Squad is formed for inspecting tourism area and to impose spot fine to defaulters and action is initiated. 5) Action is being initiated to form a complaint cell 6) Action has been taken to document activities of door to door collection of segregated solid waste arranged by local bodies and the same will be audited by DLSA 7) Direction issued and meeting convened with DMO and district officers of all health care facilities including homeo, Ayurveda, veterinary, AYUSH, lab, clinic for the effective implementation of BMW Rules 8) Action taken to speed up setting up of common BMW facility at Kinalur in Kozhikode 9) Action is initiated by the Kozhikode for conducting meeting with brand owners of plastic, sanitary napkin 10) Training programmes conducted at block level, ward level and at Municipality level
Malappuram	<ol style="list-style-type: none"> 1) Expanded DLMC with full chorus of members as per direction of SLMC Chairman. 2) Continuing with social auditing (Grievance management) by all concerned departments. 3) 100% compliance of three Model Panchayats in the District in respect of environmental norms implemented successfully. 4) All municipalities have implemented Door to Door collection of segregated waste. 5) All municipalities have implemented Door to Door collection of segregated waste. 6) The action plan was prepared, submitted and approved for rejuvenation of polluted stretch of Tirur-Ponnani River at Tirur. Implementation level completed more than 90

	<p>percentage. Surveying by the revenue department is to be done.RRC meetings are being conducted to monitor the monthly progress.</p> <ol style="list-style-type: none"> 7) All urban local bodies shall prepare action plans and implement bio mining of legacy waste. Action pending with Malappuram Municipality. 8) Collected compiled and submitted District Environmental Plan and got it approved by District Collector for submission. 9) Lot numbers of cleaning programs were carried out in all the local bodies through employment schemes and Governments Special cleaning drive. 10) Action on complaints regarding illegal disposal of wastes on a District level is implemented and the activity is continuing. 11) Regular plastic ban inspections were conducted and fine were imposed on offenders by PCB. Fine of 40,000 rupees collected by Board officials. Authorised officials from local bodies and from office of sub-collector are also conducting inspections and levying fine. 12) Monetary fines for illegal dumping was collected by local bodies. 13) District Collector directed to levy fine from all local bodies which are not showing progress in installation and functioning of MCF, RRF etc and rules implementation. As an initial step, issued notices to 19 local bodies on the subject and they reported compliance later. 14) Six squads were formed on district level. Board officials conducted inspection at printing press to collect sample materials for identification. Environmental engineer had given a practical training to the implementing officers and anti defacement squad regarding easy methods to identify the plastics/ polymer materials used , to differentiate flex material from PE,PP etc. 15) Applications for starting chicken waste rendering/ composting plants are considered after studying the pollution control facility, land availability,distance to nearest residence etc(minimum 100 m distance) under red category. This reduced the number of complaints regarding unethical practices of illegal transportation and dumping of chicken wastes inside the District 16) Directions issued to all local body secretaries and District medical officer to take action all Non- complying health care facilities to apply for Boards consent and install and function STP as per necessity. Continuing efforts to achieve 100 percent compliance. 17) Directed all hazardous waste producing units to comply with the directions as per NGT OA 829. Conducted
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	<p>inspections to verify compliance Other Actions</p> <p>18) As part of stringent implementation of Environmental Rules wrt OA 606/2018, Technical assistants from Pollution Control Board District Office collected inventory list of industries from local bodies and from that, conducted and completed.</p> <p>19) Industrial survey in 29 Panchayats of the District. (We are having 94 Panchayats and 12 Municipalities in total).</p> <p>20) Completed BMW inventorization and Batteries inventorization.</p> <p>21) Industrial survey with ENVI CLEAN app completed and uploaded in the site for 1034 industries.</p> <p>22) All the local bodies were directed to comply with the timely directions on implementing the Environmental Acts & Rules, to direct to apply all units under their jurisdiction for obtaining Boards mandatory consent for functioning.</p> <p>23) Training programmes conducted on the implementation of Environmental laws & how to use ENVI CLEAN app for SWM surveying for Secretaries of Local bodies on 29/10/2019.</p> <p>24) Training conducted on restoration of water bodies ,for all local bodies having polluted stretches 20.02.2020.</p> <p>25) Directed Suchitwa mission to train and educate people through FM radio and conduct classes in Educational institutions regarding waste management. Also entrusted Suchitwa Mission to have a discussion with representatives of Hotel & Restaurants Association to implement a prizing system and award based on best practices on waste management. Complied with the directions and the activities are continuing</p>
Wayanad	<p>1) Action taken for introducing alternate materials for plastic products</p> <p>2) Steps taken for clean drive</p> <p>3) Steps taken for finding out suitable materials for processing of waste</p> <p>4) Regular plastic ban inspections were conducted and fine were imposed on offenders by PCB and action taken for levying of fine.</p> <p>5) Training to the Local bodies on environmental laws conducted.</p> <p>6) Conducted workshops for home stay, hotel and restaurants, wood industries,workshops etc.</p>

Palakkad	<ol style="list-style-type: none"> 1) DLMC link created in the website of district administration 2) Action plan prepared, actions are progressing, monthly progress is reported. 3) Plastic shredded wastes to be used in Bituminous plant and for Road Tarring was implemented. 4) Several cleaning programs were carried out in all local bodies through employment schemes & special cleaning drive 5) The DLSA inspected shops, malls and hotels in various areas and they have found that plastic waste is burned in open places at early morning. Lack of proper facilities for collection of MSW and weak legal actions are the causes, DLSA reported 6) Regular plastic ban inspections were conducted and fine were imposed on offenders by Pollution Control Board twice. Many local bodies and office of sub-collector have also enforced the ban 7) Fines levied and reported by local bodies. 8) 100% compliance in the model panchayaths has been implemented. 9) All seven municipalities implemented door to door collection 10) Palakkad Municipality has allocated Rs.50.00 Lakhs in 2021-2022 for Biomining of legacy waste 11) Training programmes on environmental laws were conducted for the local bodies
Thrissur Ernakulam Idukki Pathanamthitta	<ol style="list-style-type: none"> 1) Inspections carried out for the compliance of Government order on use of single use plastic and fine was imposed on violators. 2) Awareness programmes on environmental rules done for local bodies
Alappuzha	<ol style="list-style-type: none"> 3) For the DLMC meetings, Secretary and nodal officer from the local body are to be attended. Nodal officer is to arrange awareness programmes 4) For Alappuzha Municipality, tender procedure completed for STP in General Hospital and for Women and Children Hospital, application for STP submitted under Amruth Project 5) Action is initiated for setting up FSTP, slaughter house in Alappuzha Municipality and action also initiated for identifying land for FSTP at Chunkam. 6) For Cherthala Municipality, DPR for FSTP submitted for funding and the matter is being taken up.

	<p>7) Action initiated for collection, segregation and treatment of waste from public in Cherthala Municipality.</p> <p>8) For Chengannur municipality, Haritha Karma Sena is functioning in 16 wards</p> <p>9) Action is being taken to provide FSTP.</p> <p>10) For Harippad municipality, Harith karmana Sena is functioning in all wards</p> <p>11) Action is being taken to provide FSTP and also for the collection of segregated waste.</p> <p>12) Action is being taken to provide FSTP in Mavelikkara and Kayamkulam Municipalities.</p> <p>13) Inspections carried out for the compliance of Government order on use of single use plastic and fine was imposed on violators.</p> <p>14) Awareness programmes on environmental rules done for local bodies</p>
Kollam	<p>1) Inspections carried out for the compliance of Government order on use of single use plastic and fine was imposed on violators.</p> <p>2) Awareness programmes on environmental rules done for local bodies</p>
Thiruvananthapuram	<p>1) Action is being initiated for preventing the discharge of waste water and solid waste into water bodies</p> <p>2) Action is being initiated to provide waste water treatment facilities at Poojappura Central Jail and SAP camp, Peroorkada</p> <p>3) Action taken to regulate pollution due to solid waste in Medical College, Thiruvananthapuram</p> <p>4) Action being taken on waste disposal by Thiruvananthapuram Corporation canteen in the University Men's Hostel premises, Palayam</p> <p>5) Directions issued to the Executive Engineer, LSGD and Chief Executive Engineer, PWD to use 20% shredded plastic</p> <p>6) Inspections carried out for the compliance of Government order on use of single use plastic and fine was imposed on violators.</p> <p>7) Police was instructed to register case based on petitions</p>

	<p>from LSGIs, Irrigation, Civil Society Organisation. Also instructed to take legal steps against polluters of water bodies</p> <p>8) Awareness programmes on environmental rules done for local bodies</p>
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ANNEXURE - 15

PROCEEDINGS OF THE CHIEF ENGINEER, IRRIGATION AND ADMINISTRATION, THIRUVANANTHAPURAM

(Present : Alex Varghese)

Sub :- Collaboration between Engineering Colleges and Irrigation Department for DPR Preparation of 21 River stretches identified by CPCB- reg.

Read :-

1. Order dated 20.09.2018 of Hon'ble NGT in OA No. 673/2018.
2. Decision taken in the V.C meeting convened by the Additional Chief Secretary, WRD with the 33 Engineering Colleges in the State held on 27.11.2020 and subsequent meetings.

ORDER NO. PL2/15862/2019 Dated :5/01/2021

The Hon'ble National Green Tribunal (NGT) in OA No 673/2018 dated 20.09.2018 ordered for rejuvenation of the 21 rivers identified as "critically polluted" rivers in the State.

In order to comply the order within a short span of time and with the limited resources the support of good Engineering Colleges in the state was solicited. Thirty three (33) Engineering College have come to collaborate with Water Resources Department for this purpose. Hence it was decided to go ahead with an innovative concept in which the Irrigation department would tie up with good Engineering Colleges spread out in the state through which, the pollution in the 21 critically polluted rivers could be abated by carrying out appropriate interventions in a holistic manner. Through this concept the participating Engineering Colleges would conduct site visit, collect data (primary and

secondary) and conduct series of tests for assessing the level of pollution and prepare Actionable Detailed Project Reports (DPR) for each river.

Collaboration with educational institutions is widely acknowledged as an important medium for exchanging new ideas and innovations, and held to overcome some of the present hurdles faced by the department. The said NGT order too acknowledges the important of educational institutions in such ventures.

The Hon'ble NGT is empowered to penalize defaulters to extreme length for non compliance to their directives. Hence this project is of highest priority for the Department and to the Government of Kerala. Moreover the project gives a rare opportunity for these institutions to work on real life, socially useful projects, making this exercise a win-win situation to all. The example of LSGD effectively utilizing the engineering expertise and experience of Engineering Colleges in DPR preparations during Rebuild Kerala exercise in 2019-20 may be recollected in this context.

In this connection a series of sessions of Techno-academic collaboration meetings were held at Government level, wherein almost 33 Engineering Colleges had participated and expressed their willingness to joint hands with the Water Resources Department for the DPR preparation and preparation of an action plan for the abatement of pollution and rejuvenation of the 21 rivers. Further, with the support and guidance from the Government, this endeavour can bring in tangible results.

In this context, Irrigation Department desires to collaborate with Engineering Colleges and Polytechnics for the preparation of DPRs and preparation of an action plan for the abatement of pollution and rejuvenation of the 21 rivers.

The Engineering Colleges shall be entrusted with the responsibility of site visit, data collection, compilation of data (primary and secondary), testing of water quality, content and composition of pollution and for the documentation of the results and preparation of actionable DPRs. Appropriate officers will be designated as Nodal Officers for this program of rejuvenation of the river stretches, who shall co-ordinate and take the support of the Engineering Colleges for the proper implementation of the programme. They have to guide and lead the participating Engineering Colleges in this endeavor, so that it is completed in time. This item of task will be made an integral part of their Performance appraisal and form part of Annual Confidential Report 2021. The details of Engineering Colleges who have shown interest, river stretches selected by them and name of Nodal Officer (from Irrigation Department) are listed in Annexure.

All the Engineering Colleges enlisted in Annexure-I are hereby permitted to take up all necessary activities, steps and processes for the expeditious completion of preparation of DPRs for pollution abatement of identified rivers. Respective Nodal Officers shall extend all necessary support to the Engineering College faculty and students so that the actionable DPRs could be completed before 28.02.2021 and take them up for implementation during this Financial Year itself.


CHIEF ENGINEER

CHIEF ENGINEER
IRRIGATION & ADMINISTRATION
THIRUVANANTHAPURAM



Annexure - I

Sl. No	River	District	Stretch/River	Institution/ Colleges which have shown interest	Nodal Officer
1	Uppala	Kasargod	Poyya to Mulinja	College of Engineering Trikaripur, Cheemeni, Kasargod	Sajeew Kumar V S Executive Engineer. Irrigation Division, Kasargod Mobile No: 9446420664 exe.eng.irrgn.ksd@gmail.com
2	Mogral		Along Mogral	LBS college of Engineering college, Kasargod	
3	Kavvai	Kannur	Along Kavvai	-NIL-	
4	Kuppam	Kannur	Thaliparamba to Velichangool	Vimal Jyothi Engineering College, Chemperi, Kannur	Besil. J Executive Engineer. Irrigation Division, Thalassery Mobile No: 8606205424 eeidty@gmail.com
5	Peruvamba		Along Peruvamba	Sree Narayana Guru College of Engineering And Technology, Payyannur	
6	Ramapuram		Along Ramapuram	College of Engineering & Technology, Payyannur	
7	Kallayi	Kozhikode	Thekepuram to Arakkinar	Government Engineering College, Kozhikode	Shalu Sudhakaran Executive Engineer. Irrigation Division, Kozhikode Mobile No: 9446310534 eeirrigationkkd@gmail.com
8	Kuttiyadi		Along Kuttiyady	NIT Calicut	
9	Thirur	Malappuram	Naduvilangadi to Thalakkadathur	1. KMCT Polytechnic College, Kuttippuram 2. Rajadhani Institute of Science and Technology, Palakkad	Suja K S Executive Engineer, Irrigation Division, Malappuram Mobile No: 9961734844 eeirrgnmpm@yahoo.co.in
10	Kadalundi		Along Hajirapalli / Hajiyarpalli	1. KMCT College of Engineering for Women, Kozhikkode 2. MES College of Engineering, Kuttipuram	
11	Bharathapuzha	Palakkad	Kalpathipuzha (Bharathapuzha-Cheruthuruthi - Shornur area)	1. IIT Palakkad 2. Jyothi Engineering College (JEC), Cheruthuruthy, Thrissur 3. Nehru College of Engineering & Research Centre, Thrissur	Anil Kumar D Executive Engineer, Irrigation Division, Malampuzha Mobile No: 9446110109 executiveengineermalampuzha@gmail.com
12	Bhavani	Palakkad	Along Elachivazhy	NSS College of Engineering, Palakkad	Dr. Sudheer Padikkal, Consultant General Manager (Micro Irrigation), KIIDC Mobile No: 7306561269 padikkalsudheer@gmail.com
13	Kecheri	Thrissur	Puliyannor to Kechery	1. Kerala Engineering Research Institute, Peechi, Thrissur 2. SCMS School of Engineering & Technology, Emakulam	Suja S S Joint Director, Hydraulic Research, KERI Mobile No: 9497640641 jdhydraulicresearch@gmail.com

Sl. No	River	District	Stretch/River	Institution/ Colleges which have shown interest	Nodal Officer
14	Karuvannur	Thrissur	Along Karuvannur	1. Vidya Academy of Science and Technology, Thrissur 2. Rajadhani Institute of Engineering & Technology, Attingal, Trivandrum	Mohan I K Executive Engineer, Additional Irrigation Division, Thrissur Mobile No: 9447215299 adthrissur@gmail.com
15	Puzhakkal	Thrissur	Olarikkara to Puzhakkal	FISAT, Angamaly	
16	Chithrapuzha	Ernakulam	Irumpanam to Karingachira	1. Rajagiri School of Engineering & Technology, Kakkanaad 2. Muthoot Institute of Technology & Science, Ernakulam	Abbas B Executive Engineer, Irrigation Division, Ernakulam Mobile No: 9447291624 majorirrigationekm@hotmail.com
17	Kadambrayar		Manckakadavu to Brahmapuram	SCMS School of Engineering & Technology, Ernakulam	
18	Muvattupuzha	Ernakulam/ Idukki	(i) Kaliyar to Muvattupuzha (ii) Muvattupuzha To Thodupuzha	1. Sree Narayana Gurukulam College of Engineering, Kolenchery 2. Mar Baselios Institute of Technology and Science, Kothamangalam 3. Viswajyothi College of Engineering and Technology	
19	Periyar		Ernakulam	(i) Aluva-Eloor to Kalamassery (ii) Aluva to Muppathadam (iii) Kalady to Pathalam	
20	Pamba	Pathanamthitta	Mannar to Thakazhy	1. T.K.M College of Engineering, Kollam 2. Saint Gits College of Engineering, Kottayam	Nadeer A Executive Engineer, Irrigation Division, Kollam Mobile No: 9447726830 eeirrigationklm@gmail.com
21	Manimala	Alappuzha	Kalloopara to Thondra	1. IDR B 2. Amal Jyoti College of Engineering, Kanjirapally 3. St. Joseph's College, Palai	Sindhu B Executive Engineer, Hydrology, Chengannur Mobile No: 9446512742 hydrologydivisioncgnr@gmail.com
22	Karamana	Trivandrum	Malekkdu to Thiruvallam	1. Irrigation & Administration, Trivandrum 2. Govt. Engineering College, Barton Hill, Trivandrum 3. College of Engineering, Thiruvananthapuram 4. Marian Engineering College, Thiruvananthapuram 5. Mar Baselios College of Engineering and Technology, Thiruvananthapuram 6. Mohandas College of Engineering and Technology, Thiruvananthapuram	Balachandran P K Executive Engineer, Irrigation Division Thiruvananthapuram Mobile No: 9447450809 ccirrigationvpm@gmail.com



Chief Engineer,
Irrigation & Administration,
Thiruvananthapuram

