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JUSTICE A.V. RAMAKRISHNA PILLAI
(Former Judge, High Court Of Kerala)
CHAIRMAN

State Level Monitoring Committee, Kerala

(An authority constituted by the
National Green Tribunal)
'AMPAZHAVELIL'
Rajeev Nagar, Elamakkara
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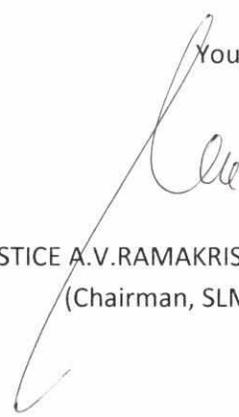
28.08.2019

Dear Registrar,

Kindly see the appended Supplementary Report in O.A.No.606/2018 prepared in due compliance of order dated 18.07.2019 in the aforesaid case. This supplementary report is in continuation of the previous report dated 30.07.2019, regarding the progress of implementation of Environmental Laws in the State of Kerala, prepared in compliance of the order dated 25.4.2019.

The supplementary report may kindly be placed before the Hon'ble Tribunal along with the previous report dated 30.07.2019 for consideration and orders.

Yours Sincerely,



JUSTICE A.V.RAMAKRISHNA PILLAI,
(Chairman, SLMC, KERALA)

To
The Registrar,
National Green Tribunal,
Principal Bench, Faridkot House,
Copernicus Marg, New Delhi-110001.

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**BEFORE THE HON'BLE NATIONAL GREEN TRIBUNAL,
PRINCIPAL BENCH, NEW DELHI**

O.A.No.606/2018

SUPPLEMENTARY REPORT

**PRESENTED BY JUSTICE A.V.RAMAKRISHNA PILLAI
(FORMER JUDGE, HIGH COURT OF KERALA)
CHAIRMAN, STATE LEVEL MONITORING COMMITTEE, KERALA
(FOR AND ON BEHALF OF THE AFORESAID COMMITTEE)
REGARDING THE PRESENT STATUS REGARDING THE
IMPLEMENTATION OF ENVIRONMENTAL LAWS IN KERALA WITH
SPECIAL REFERENCE TO THE MODEL LOCAL BODIES IDENTIFIED**

PRESENTED ON 28.08.2019

COMPLIANCE: ORDER DATED 18.07.2019

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SUPPLEMENTARY REPORT

A detailed report, regarding the developments in the activities for the implementation of Municipal Solid Waste Management Rules, 2016 in the State of Kerala after the order dated 25.04.2019, was forwarded to this Hon'ble Tribunal on 30.07.2019.

However, this Tribunal had passed an order on 18.07.2019 (while considering the status of solid waste management in the State of Jammu and Kashmir) directing the State Level Monitoring Committees (SLMC for short) to furnish report in cumulative terms, consolidating their conclusions and giving the status as well as the gaps, in tabulated form on or before 2019. It is in the light of the said order that this supplementary report is presented. This report may be read as part and continuation of the report dated 30.07.2019.

The steps adopted by the SLMC, Kerala till date, are as follows;

a. **State Level Meetings.**

The first meeting of the SLMC was held on 14.02.2019 at Thiruvananthapuram wherein the background of creation of SLMC, the various orders passed by this Tribunal and the need for implementation of various environmental legislations in a time bound manner were explained by the Chairman, SLMC.

Thereafter, another special meeting of the SLMC was held at Ernakulam on 22.2.2019 in the light of a major fire that broke out at about 4 p.m. on 22.02.2019 at the yard of Brahmapuram solid waste treatment plant which is situated at the outskirts of Kochi city.

The 2nd meeting of the SLMC was held at Thiruvananthapuram on 15.02.2019. In the said meeting matters relating to polluted stretches of Karamana and Killiyar rivers as per orders in O.A.Nos.673/2018, 581/2018 and 582/2018 were discussed. Also, discussions on the strategies evolved by the various Departments were held. The action taken report by the Kochi Municipal Corporation on the fire hazard was also considered.

The third meeting of the SLMC was held at Thiruvananthapuram on 06.04.2019. In the said meeting, the matters relating to polluted stretches of Karamana and Killiyar rivers were considered. Further decisions were taken and directions were given to the authorities concerned. In the same meeting the status cum action taken reports submitted by the various Government Departments regarding solid waste management were also considered.

The fourth meeting of the SLMC was held at Thiruvananthapuram on 08.05.2019. The following were included in the agenda.

- Discussion with respect to order in E.A. No.13/2019 in O.A. No. 247/2017 regarding Plastic - Action Plan
- Discussion on action taken by the Kochi Corporation regarding solid waste management
- Discussion on waste disposal and management of Kalamassery Municipality.
- Follow up action on the order of this Tribunal dated 25.04.2019 in O.A. No 606/2018

The fifth meeting of the SLMC was held at Thiruvananthapuram on 04.06.2019. The following matters were discussed in the meeting.

- Action plan for Plastic waste management in the light of the order of the NGT in E.A.13/2019 in OA.247/2019 - follow up action
- Consideration of the list of local bodies identified/to be identified as per the orders of the NGT
- Progress of preparation of action plan relating to Tirur-Ponnai river stretches
- Bio-medical waste management
 - Problems at IMAGE Palakkad noted by Chairman, KSPCB during local inspection
 - Bio Medical Waste Management Rules, 2016 - Action plan submitted by KSPCB & follow up
- Report regarding alleged deposit of concrete waste in the back waters near the proposed Metro Station under KMRL at Elamkulam.

- Progress regarding the implementation of the directions of SLMC on Brahmapuram issue.
- Progress regarding the implementation of the directions of SLMC to Kalamassery Municipality.

The Sixth meeting of the SLMC was held at Thiruvananthapuram on 01.07.2019. The following matters were discussed in the meeting.

- Action plan for plastic waste management - consideration of.
- Action plan for rejuvenation of polluted stretches of Tirur - Ponnani rivers - consideration of.
- Thiruvananthapuram Corporation - directions issued in the meeting of 24.05.2019 chaired by Additional Chief Secretary, Local Self Government - progress review.
- Model Local Bodies identified in the Thiruvananthapuram District - progress review.
- Strengthening the checking of Forest Department in Check posts

The Seventh meeting of the SLMC was held at Thiruvananthapuram on 03.08.2019. The following matters were discussed in the meeting.

- Progress of waste management in Kochi Corporation with special reference to Brahmapuram dumping yard
- Report regarding alleged deposit of concrete waste in the back waters near the proposed Metro Station under KMRL at Elamkulam – consideration of the developments after the field visit of the Chairman, SLMC and KSPCB.
- Progress regarding the implementation of the directions of SLMC to Kalamassery Municipality
- Progress of waste management in Pathanamthitta Municipality.
- Evaluation of the progress of waste management in the model local bodies of Kollam district.

The copies of the minutes of all meetings of SLMC are uploaded in the website of the SLMC ie., www.krslmc.in.

b. **Formation of District Level Monitoring Committees.**

District Level Monitoring Committees (DLMC for short) were formed in all the fourteen districts in the State with the District Collector(District Magistrate) as the Chairman and the following as its members.

- a) District Police Chief
- (b) District Medical Officer
- (c) Deputy Director of Panchayath in the District
- (d) A senior officer of the KSPCB from its District Office
- (e) A representatives of the District Legal Services Authority preferably its Secretary duly nominated by the Chairman, DLSA (District Judge) with the approval sought by the Chairman SLMC from the Hon'ble Chairman, KELSA.
- f) A representative of Suchitwa Mission in the District.
- g)) A representative of Haritha Keralam Mission in the District.
- (h) A senior official of the Collectorate to act as the Nodal officer cum Secretary of the DLMC.
- i) A senior officer of the Forest Department in Districts, where there are forests areas.
- (j) Deputy Director of Education.
- (k) Representative of Irrigation Department.
- (l) Representative of Local Authority.
- (m) Representative of PWD Roads as well as Buildings Division.
- (n) Representative of Urban Affairs.
- (o) LSGD Engineer of the locality.
- (p) Senior most officer of Animal Husbandry in the District.

(q) Any other authority or person who, in the opinion of the District Collector is necessary for the proper implementation of the activities of the DLMC.

Start up meetings were held in all the fourteen districts in the State, in which the Chairman, SLMC explained the necessity for the implementation of various environmental laws. General directions were also given by the Chairman, SLMC in the said meetings. The directions given by the Chairman, SLMC to those Committees are detailed out in the report dated 30.07.2019 (Kindly refer to pages 8 to 11 of the report dated 30.07.2019).

All the DLMCs are reported to have initiated action as directed by this Hon'ble Tribunal.

c. **Training for the Secretaries of the Model Local Bodies identified and Interaction with them.**

As directed by this Tribunal the following local bodies in the State were identified for making them fully compliant within six months from 25.04.2019.

A. Corporations

1. Thiruvananthapuram, 2. Thrissur, 3. Kozhikode.

B. Municipalities

1. Attingal in Thiruvananthapuram District, 2. Punalur in Kollam District, 3. Kunnankulam in Thrissur District.

C. Villages

1. *Thiruvananthapuram District*

a. Karakulam, b. Poovachal, c. Parassala

2. *Kollam District*

a. Kadakkal, b. Chavara, c. Perinad

3. *Pathanamthitta District*

a. Kulanada, b. Aranmula, c. Thumpamon

4. *Alappuzha District*

a. Aaryad, b. Mararikkulam North, c. Thamarakkulam

5. Kottayam District

- a. Moonnilavu, b. Kadaplamattom, c. Poonjar

6. Idukki District

- a. Adimali, b. Nedumkandam, c. Kumaly

7. Ernakulam District

- a. Pampakuda, b. Chottanikara, c. Kalady

8. Thrissur District

- a. Manalur, b. Parappukkara, c. Peringanam

9. Palakkad District

- a. Muthuthala, b. Sreekrishnapuram, c. Vellinezhi

10. Malappuram District

- a. Maranchery, b. Chaliyar, c. Thuvvur

11. Kozhikode District

- a. Kunnummel, b. Kuttiyadi, c. Meppayur

12. Wayanad District

- a. Meenangadi, b. Muttil, c. Vythiri

13. Kannur District

- a. Pariyaram, b. Padiyur, c. Udayagiri

14. Kasaragod District

- a. Kinanoor – Karinthalam, b. Bedadukka, c. Madikkai

A training cum work shop on legal and technical aspects, was conducted at Thiruvananthapuram on 01.06.2019, for the Secretaries of the aforesaid model local bodies.

The SLMC is interacting with the Secretaries of the local bodies and remedial measures are suggested as and when required. The data received during such interaction with some of such local bodies are included in the report dated 30.07.2019.

The present status of the model local bodies regarding the implementation of Solid Waste Management Rules, 2016 is given in a tabular form in the latter part of this report.

d. Field visits.

Five field visits were conducted by the SLMC.

The first one was by the Chairman along with officials of the Regional Office of Kerala State Pollution Control Board (KSPCB for short) at Ernakulam, on 17.02.2019 near Pathalam Bridge across the river Periyar. This was in the light of a report in the National Daily 'The Hindu', regarding colour change noticed at the stagnated water near the aforesaid bridge.

The next field visit was on 23.02.2019. The Chairman, SLMC along with the officials of the Regional Office of the KSPCB visited the Brahmapuram Solid Waste Dumping Yard maintained by Kochi Municipal Corporation in connection with the fire that broke out on the previous evening.

The next field visit was on 5.4.2019 by the Chairman, SLMC along with the officials of KSPCB, Kerala Water Authority, State Irrigation Department and Thiruvananthapuram Municipal Corporation along the banks of Karamana and Killiyar rivers for assessing the magnitude of pollution in those river stretches and for suggesting remedial measures.

The Chairman, SLMC along with the Chairman and Engineers of the Regional Office, KSPCB made another field visit at the Brahamapuram Solid Waste Dumping Yard on 21.05.2019 for assessing the progress of the implementation of the directions given by the SLMC.

On 14.06.2019, the Chairman, SLMC along with the Chairman and Engineers of the Regional Office, KSPCB made a field visit of Chilavannur lake at Ernakulam on a report of an alleged illegal reclamation of the said water body by depositing concrete waste.

The next field visit was on 12.07.2019 along the stretches of Tirur - Ponnani River, by the Chairman, SLMC along with the Member Secretary, Engineers of the District Office, KSPCB, Revenue Divisional Officer, Engineers of Water Authority and Irrigation Department, Municipal Secretary, Thirur, officials of other various departments as well as the petitioner in the O.A.582/2018 for enquiring into the allegation regarding pollution of the said river stretches.

e. **Awariness Programme.**

An awareness programme on environmental legislations was conducted at Idukki with the assistance of KSPCB on 3.4.2019. The participants were the Secretaries of the various local bodies in the District.

Here it is apt to point out that because of the thrust given by the SLMC as well as the office of the Chief Secretary, the local bodies in the State had acquired a momentum in implementing the various environmental laws, though not in the full swing. However, the progress was slightly retarded on account of the General Election to the Parliament in May, 2019 and also due to the flood relief operations in majority of the districts in the State during August, 2019, as the District administration and local bodies were involved in the activities relating to above.

It is also relevant to point out that continuous monitoring as done at present is required at least for a further period of one year, if the desired result has to be achieved.

Exhibit-X1 appended to this report is the tabular form, showing the activity, earlier status, current status and gaps in the implementation of various environmental laws in the State of Kerala. Recommendations in relation to each rule (on technical advice) are also included in the table.

Exhibit-X2(a) tabular form appended to this report relates to the progress of achievement by the model local bodies. The table contains the **number** of wards, **number** of houses and establishments having segregation at source, **number** of houses and establishments having door to door collection, **number** of houses and establishments having source level treatment of wet waste, **number** of houses and establishments transmitting waste to centralized system, **number** of MCFs and RRFs (Now existing as well as needed) as well as the hurdles experienced.

Exhibit-X2(b) tabular form shows the **percentage** of achievements pertaining to matters referred to the previous paragraph.

Hurdles and Remedial Measures.

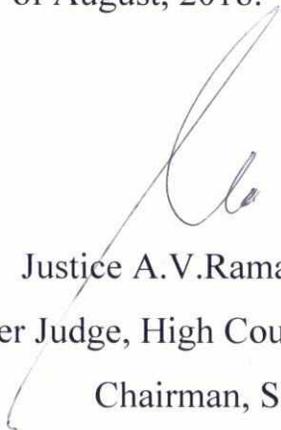
In this context it may be pointed out that 'Haritha Karma Sena' is expected to carry out door to door collection of waste in the State. It is reported that they are not properly paid and as a result, they are driven to the risk of resorting to other methods to make both ends meet. This is not a sustainable method. Proper wages can be paid only if proper user fee is levied from the waste generators.

Reportedly, a common byelaw has been formulated by the Kerala Suchitwa Mission. However, the same is yet to be finalized by the government. To make the collection of user fee and imposition of fine uniform throughout the State, the byelaw has to be notified expeditiously.

It is advisable to have standard specifications of collection system. Guidelines showing the numbers of collection workers, collection frequency for a particular number of workers, specifications regarding collection vehicles, necessity of providing personal protection equipments for collection workers, standard wages, frequency of road sweeping are to be notified by the Local Self Government Department for implementation by all urban local bodies in the State.

The suggestions incorporated in the report dated 30.07.2019 (Kindly see page 21 of the said report) may also be considered.

Dated this the 28th day of August, 2018.


Justice A.V. Ramakrishna Pillai
(Former Judge, High Court of Kerala)
Chairman, SLMC, Kerala.

SOLID WASTE MANAGEMENT RULES, 2016

	Activity	Earlier status	Current status	Gaps																
1.	Identification of suitable sites for solid waste processing plant(Rule 22(1))	Dumping of wastes in dumpyard <table border="1" style="width: 100%;"> <tr> <td>Thiruvananthapuram</td> <td>Vilappilsala</td> </tr> <tr> <td>Kochi</td> <td>Brahmapuram</td> </tr> <tr> <td>Kozhikode</td> <td>Najaliyanparambu</td> </tr> <tr> <td>Alappuzha</td> <td>Sarvodyapuram</td> </tr> <tr> <td>Kollam</td> <td>Kureepuzha</td> </tr> <tr> <td>Kannur</td> <td>Chelora</td> </tr> <tr> <td>Kottayam</td> <td>Vadavathoor</td> </tr> <tr> <td>Thrissur</td> <td>Laloor</td> </tr> </table>	Thiruvananthapuram	Vilappilsala	Kochi	Brahmapuram	Kozhikode	Najaliyanparambu	Alappuzha	Sarvodyapuram	Kollam	Kureepuzha	Kannur	Chelora	Kottayam	Vadavathoor	Thrissur	Laloor	1.1 Site for Waste to Energy plant identified at eight locations 1. Kozhikode 2. Kochi 3. Kollam 4. Idukki- Munnar 5. Palakkad 6. Malappuram- Perinthalmanna 7. Wayanad- Sulthan Bathery 8. Kannur 1.2 State Level Advisory Committee is reviewing the progress. 1.3 Malabar Cements, Palakkad was issued notice to install co-incineration facilities and feasibility study is being conducted. 1.4 Notice for environmental compensation issued to 87 local bodies for noncompliance of Solid Waste Rules	<ul style="list-style-type: none"> Site not identified 1.Thiruvananthapuram 2. Alappuzha 3. Pathanamthitta 4. Kasargod 5. Kottayam 6. Thrissur
Thiruvananthapuram	Vilappilsala																			
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Kozhikode	Najaliyanparambu																			
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Kannur	Chelora																			
Kottayam	Vadavathoor																			
Thrissur	Laloor																			
2.	Identification of site for sanitary landfill for local authorities Regional sanitary landfill – Population below 5 lakh Standalone or	Dumping of wastes in dump yards	Dump yards are to be biomined and land to be reclaimed	<ul style="list-style-type: none"> No sites identified. At least 3 sites must be identified with service life of 25 years. 																

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Exhibit XI
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	regional sanitary landfill – Population above five lakh(Rule 22(2))																																												
3.	Procurement of suitable land for solid waste processing facility (Rule 22(3))			Government identified appropriate land for waste to energy plants in Kannur, Kollam, Kozhikode, Malappuram, Palakkad, Thrissur and Thiruvananthapuram vide G.O. (Ms) no. 82/2018/LSGD dated 11-6-2018	<ul style="list-style-type: none"> Only Government owned lands have been identified for SW processing facility 																																								
4.	Enforcing waste generators to practice segregation of bio-degradable, recyclable, combustible, sanitary waste domestic hazardous and inert solid waste at source (Rule 22(4))	<table border="1"> <thead> <tr> <th colspan="2">Corporation</th> <th>Percentage</th> </tr> </thead> <tbody> <tr> <td rowspan="3">> 5 Lakh population</td> <td>Thiruvananthapuram Corporation</td> <td>No Collection</td> </tr> <tr> <td>Kochi Corporation</td> <td>-</td> </tr> <tr> <td>Kozhikode Corporation</td> <td>-</td> </tr> <tr> <td rowspan="3">Between 5 lakh and 1 lakh</td> <td>Kollam Corporation</td> <td>-</td> </tr> <tr> <td>Thrissur Corporation</td> <td>-</td> </tr> <tr> <td>Kannur Corporation</td> <td>1.8 %</td> </tr> </tbody> </table> <p>As per SWM Annual report Form IV in the year 2017-2018</p>	Corporation		Percentage	> 5 Lakh population	Thiruvananthapuram Corporation	No Collection	Kochi Corporation	-	Kozhikode Corporation	-	Between 5 lakh and 1 lakh	Kollam Corporation	-	Thrissur Corporation	-	Kannur Corporation	1.8 %	<table border="1"> <thead> <tr> <th colspan="2">Corporation</th> <th>Household</th> <th>Commercial</th> </tr> </thead> <tbody> <tr> <td rowspan="3">> 5 Lakh population</td> <td>Thiruvananthapuram Corporation</td> <td>-</td> <td>-</td> </tr> <tr> <td>Kochi Corporation</td> <td>88%</td> <td>76%</td> </tr> <tr> <td>Kozhikode Corporation</td> <td>60%</td> <td>75%</td> </tr> <tr> <td rowspan="3">Between 5 lakh and 1 lakh</td> <td>Kollam Corporation</td> <td colspan="2">76 %</td> </tr> <tr> <td>Thrissur Corporation</td> <td colspan="2">93 %</td> </tr> <tr> <td>Kannur Corporation</td> <td colspan="2">80%</td> </tr> </tbody> </table> <p>As per SWM Annual report Form IV in the year 2018-2019</p>	Corporation		Household	Commercial	> 5 Lakh population	Thiruvananthapuram Corporation	-	-	Kochi Corporation	88%	76%	Kozhikode Corporation	60%	75%	Between 5 lakh and 1 lakh	Kollam Corporation	76 %		Thrissur Corporation	93 %		Kannur Corporation	80%		
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5.	Ensure door to door collection of segregated waste and its transportation in covered vehicles to processing or disposal facility (Rule 22(5))	<table border="1"> <thead> <tr> <th colspan="2">Corporation</th> <th>Percentage</th> </tr> </thead> <tbody> <tr> <td rowspan="3">> 5 Lakh population</td> <td>Thiruvananthapuram Corporation</td> <td>No Collection</td> </tr> <tr> <td>Kochi Corporation</td> <td>-</td> </tr> <tr> <td>Kozhikode Corporation</td> <td>-</td> </tr> <tr> <td rowspan="3">Between 5 lakh and 1 lakh</td> <td>Kollam Corporation</td> <td>-</td> </tr> <tr> <td>Thrissur Corporation</td> <td>-</td> </tr> <tr> <td>Kannur Corporation</td> <td>1.8 %</td> </tr> </tbody> </table> <p>As per SWM Annual report Form IV in the year 2017-2018</p>	Corporation		Percentage	> 5 Lakh population	Thiruvananthapuram Corporation	No Collection	Kochi Corporation	-	Kozhikode Corporation	-	Between 5 lakh and 1 lakh	Kollam Corporation	-	Thrissur Corporation	-	Kannur Corporation	1.8 %	<table border="1"> <thead> <tr> <th colspan="2">Corporation</th> <th>Household</th> <th>Commercial</th> </tr> </thead> <tbody> <tr> <td rowspan="3">> 5 Lakh population</td> <td>Thiruvananthapuram Corporation</td> <td>-</td> <td>-</td> </tr> <tr> <td>Kochi Corporation</td> <td>88%</td> <td>76%</td> </tr> <tr> <td>Kozhikode Corporation</td> <td>60%</td> <td>75%</td> </tr> <tr> <td rowspan="3">Between 5 lakh and 1 lakh</td> <td>Kollam Corporation</td> <td colspan="2">76 %</td> </tr> <tr> <td>Thrissur Corporation</td> <td colspan="2">93 %</td> </tr> <tr> <td>Kannur Corporation</td> <td colspan="2">80%</td> </tr> </tbody> </table> <p>As per SWM Annual report Form IV in the year 2018-2019</p>	Corporation		Household	Commercial	> 5 Lakh population	Thiruvananthapuram Corporation	-	-	Kochi Corporation	88%	76%	Kozhikode Corporation	60%	75%	Between 5 lakh and 1 lakh	Kollam Corporation	76 %		Thrissur Corporation	93 %		Kannur Corporation	80%		<ul style="list-style-type: none"> • Door to Door Collection of dry waste is being practiced. Full fledged collection practice is to be achieved.
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6.	Ensure separate storage, collection and transportation of construction and demolition waste (Rule 22(6))	Land not identified	<p>Initiatives taken for the identification of land for construction and demolition waste</p> <table border="1"> <thead> <tr> <th>Corporation</th> <th>Land identified for C&D waste</th> </tr> </thead> <tbody> <tr> <td>Thiruvananthapuram</td> <td>Kalladimugham, Ambalathara ward</td> </tr> <tr> <td>Other</td> <td>Not identified</td> </tr> </tbody> </table>	Corporation	Land identified for C&D waste	Thiruvananthapuram	Kalladimugham, Ambalathara ward	Other	Not identified	<ul style="list-style-type: none"> • Lack of coordination by different departments 																																			
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Thiruvananthapuram	Kalladimugham, Ambalathara ward																																												
Other	Not identified																																												

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7.	Setting up solid waste processing facilities by all local bodies having 1 lakh or more (Rule 22(7))		<table border="1"> <tr> <td data-bbox="1077 212 1373 321">Kochi Corporation</td> <td data-bbox="1373 212 1663 321">Work awarded to G. J. Ecco Power Private Limited</td> </tr> <tr> <td data-bbox="1077 321 1373 430">Kozhikode</td> <td data-bbox="1373 321 1663 430">Work awarded to Zonata Infratech Private Limited</td> </tr> <tr> <td data-bbox="1077 430 1373 522">Kannur</td> <td data-bbox="1373 430 1663 522">Tendering stage</td> </tr> <tr> <td data-bbox="1077 522 1373 615">Kollam</td> <td data-bbox="1373 522 1663 615">Tendering stage</td> </tr> <tr> <td data-bbox="1077 615 1373 691">Palakkad</td> <td data-bbox="1373 615 1663 691">Tendering stage</td> </tr> </table>	Kochi Corporation	Work awarded to G. J. Ecco Power Private Limited	Kozhikode	Work awarded to Zonata Infratech Private Limited	Kannur	Tendering stage	Kollam	Tendering stage	Palakkad	Tendering stage	<ul style="list-style-type: none"> • Not tendered <ol style="list-style-type: none"> 1. Thiruvanthapuram 2. Alappuzha 3. Kasargod 4. Kottayam 5. Pathanamthitta 6. Thrissur
Kochi Corporation	Work awarded to G. J. Ecco Power Private Limited													
Kozhikode	Work awarded to Zonata Infratech Private Limited													
Kannur	Tendering stage													
Kollam	Tendering stage													
Palakkad	Tendering stage													
8.	Setting up solid waste processing facilities by local bodies and census towns below 1 lakh population (Rule 22(8))		<table border="1"> <tr> <td data-bbox="1077 824 1395 901">Malappuram</td> <td data-bbox="1395 824 1655 901">Work awarded</td> </tr> <tr> <td data-bbox="1077 901 1395 977">Munnar</td> <td data-bbox="1395 901 1655 977">For tendering</td> </tr> <tr> <td data-bbox="1077 977 1395 1053">Sulthanbathery</td> <td data-bbox="1395 977 1655 1053">Construction is going on</td> </tr> </table>	Malappuram	Work awarded	Munnar	For tendering	Sulthanbathery	Construction is going on					
Malappuram	Work awarded													
Munnar	For tendering													
Sulthanbathery	Construction is going on													
9.	Bioremediation or capping of old and abandoned dump sites (Rule 22(11))	Dumping of wastes in dump yards	Dumpsites identified	<ul style="list-style-type: none"> • Lack of expertise • During rainy season, bioremediation/ biomining cannot be done 										

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RECOMMENDATIONS

- Set up Anaerobic digestion plants in all municipalities for treatment of wet wastes.
- Install Biological mechanical treatment (BMT) or mechanical biological treatment (MBT) plants for dry/mix wastes to produce RDF
- RDF to be co-processed in cement plants. Malabar Cement Ltd. (MCL), Government of Kerala Undertaking, should be converted to a co-processing plant with at least 25 % thermal substitution rate (TSR). Govt. of Kerala must give financial support to MCL for kiln and kiln burner conversion as this will benefit the entire State.
- Provide rendering plant for slaughter house and chicken stall wastes in all Districts. Concessions to be awarded.
- Collection of user fee by ULBs for solid waste management services to be enforced.
- Formation of Kerala State Solid Waste Management Authority for planning, installation and operation of comprehensive solid waste plants by GoK. The authority shall generate fund through collecting tipping fee.
- Fix a higher rate for tipping fee for sanitary landfill than that for treatment plant to minimise waste disposal in sanitary landfill. Excess tipping fee at the landfill must be collected as royalty to Government. Landfill operator must be separate from treatment/plant operator.
- Compensation to be given to land owners for limited activity interface area declared around a treatment plant site. There is a legitimate apprehension of loss of land value around treatment plant site and it is one factor fuelling resistance of local residents.
- Municipal cluster formation to be carried out by Government for treatment plants.
- Land Acquisition Route for suitable sites recommended.
- Land for construction and demolition wastes treatment facility shall be identified by Revenue Authorities.

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Plastic Waste Management Rules, 2016

No.	Activity	Earlier status	Current status	Gap
1.	Implementation of EPR by the companies outside the State	<ul style="list-style-type: none"> • Companies are not taking any action on EPR 	<ul style="list-style-type: none"> • National Seminar on EPR conducted on 12-6-2019 with Associations of plastic products • Meeting conducted with Reliance on 25-6-2019 • Meeting conducted with Proctor and Gamble on sanitary napkins on 27-6-2019 • Meeting with association of sleep products ISPF on mattresses conducted on 19-8-2019. • Meeting on 06/08/2019 on Domestic Hazardous Wastes. 	<ul style="list-style-type: none"> • Associations are situated outside the State • Criteria for bringing the companies who are selling their products having plastic packaging under consent purview are to be charted out.
2.	Implementation of EPR by the companies inside the State	-	<ul style="list-style-type: none"> • Meeting conducted with MILMA, BEVCO, KERAFED, KELTRON, HLL Life Care Ltd. on 27/06/2019 	<ul style="list-style-type: none"> • Identification of industrial units producing product having plastic packaging and to bring it under consent regime is a difficult process
3.	Inventorisation of products sold by companies situated outside the State	<p>CGST Department and SGST Department were requested for the data</p> <p>CGST informed that the data is not available</p> <p>SGST provided only GSTIN, name and address only</p>	<ul style="list-style-type: none"> • SGST Department has been again approached for the remaining details namely quantity of products sold, amount of sales, brand owner/producer 	

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4.	Strengthening collection, treatment mechanism	Material collection facility and material recovery facility are being set up by Local self Government	<ul style="list-style-type: none"> • Location Database of the MCF and MRF using mobile application 'Enviclean' developed • Clean Kerala Limited, directed to install blending machinery to ensure consistent quality of material supplied to hot mix asphalt plants. • Direction issued to M/s. Malabar Cements Ltd., a Govt. of Kerala undertaking, to modernize so as to co-process refuse derived fuel and achieve 25% thermal substitution rate. 	<ul style="list-style-type: none"> • Database is to be modified.
5.	Steps to be taken to prevent the entry of plastic carry bags less than 50 microns to Kerala from other states	Carry bags from other states reach Kerala	<ul style="list-style-type: none"> • All local bodies and Urban Directorate and Panchayath Directorate being directed to check and report the action taken 	<ul style="list-style-type: none"> • Local bodies are to take action in case of non compliance
6.	Identification of plastic manufacturers/producers/brand owners which have not obtained Board's authorisation		<ul style="list-style-type: none"> • Details being collected from Industries department for verifying whether all units come under consent regime 	
7.	Monitoring the compliance of conditions of consent and registration issued to manufacturers/producers/brand owners		<ul style="list-style-type: none"> • All consented/registered units being verified on compliance of conditions. In case of violation, notices will be issued. 	

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8.	Monitoring on the use of plastic waste for road tarring and by registered recyclers and check the quantity and monitor the process. Monitor the arrangements made for collection, storage, transfer for process		<ul style="list-style-type: none"> • Hotmix plants in the State being addressed to modify injection system so as to incorporate plastic as per direction of IRC (Indian road Congress) • Hotmix plants also being addressed regarding quantity of plastic used 	
9.	No open burning of plastic		<ul style="list-style-type: none"> • Local bodies are to levy fine in case of non compliance. 	

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RECOMMENDATIONS

- ULBs need to strengthen door-to-door collection for plastic wastes. The collection can be effectively managed if greater financial resources are provided through EPR. Bulk of the plastic wastes must be addressed by local bodies through regular door-to-door waste collection and treatment.
- EPR for Producers/Importers/Brand-Owners (PIB) shall primarily be a financial responsibility while the physical responsibility shall be that of Urban Local Bodies.
- All Producers, Brand Owners, and Importers should take consent of SPCB, remitting EPR fee proportional to packaging waste introduced in to the market. EPR fund can be distributed to the local bodies for the strengthening of their collection system for which they have to submit the annual report periodically.
- Return Deposit Scheme must be implemented for collection and recycling of bottles and containers.
- Producers as defined in E-waste Rules 2016, should implement EPR through Return-Deposit-Scheme or Buy-back scheme for e-waste so as to improve collection through own sales distribution.
- For plastic and other products, recycling units shall be set up in the industrial estate and the land is to be given by the Industries department. Space shall be earmarked for the setting up of dismantling units and end of life vehicles.
- Inventorization of plastic (name and quantity per annum) is to be prepared with the support of all industrial units inside the State.
- The details namely quantity of products sold, amount of sales, brand owner/producer shall be provided by State GST Department.

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BIO MEDICAL WASTE MANAGEMENT RULES ,2016

	Activity	Earlier Status	Present status	Gaps
a)	Inventory of healthcare facilities		<ul style="list-style-type: none"> • Inventory for 2017 prepared 	<ul style="list-style-type: none"> • Inventory to be updated
b)	Submission of Annual Reports to CPCB		<ul style="list-style-type: none"> • The annual report for the period 2018 was submitted to CPCB. 	<ul style="list-style-type: none"> • No gaps
c)	Constitution of State Advisory Monitoring Committee and District Level Monitoring Committee	Committee was not constituted	<ul style="list-style-type: none"> • State Level Monitoring /Advisory Committee was constituted. • District Level Monitoring Committees are constituted. 	<ul style="list-style-type: none"> • No gaps
d)	Authorization to all Healthcare facilities including non-bedded HCFs.	Veterinary , animal houses and AYUSH are not included under Authorisation	<ul style="list-style-type: none"> • 9,331 Health Care Facilities in State (BMW Inventory, KSPCB,2017) • 7,314 HCFs have BMW Authorization • Authorisation has been issued to 150 Veterinary hospitals and one Animal House. • 216 AYUSH hospitals have been brought under the authorisation of the Board. • Direction issued to Department of Animal Husbandry to direct all veterinary institutions to obtain authorisation. 	<ul style="list-style-type: none"> • HCFs are to be fully covered under authorisation
e)	Implementation status of Barcode system		<ul style="list-style-type: none"> • IMAGE has implemented Bar coding system 	<ul style="list-style-type: none"> • No gaps

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f)	Monitoring of compliance to BMWM Rules, 2016 by HCFs including Veterinary Hospitals, Animal Houses, AYUSH Hospitals		<ul style="list-style-type: none"> Monitoring being conducted in bedded hospitals 	<ul style="list-style-type: none"> Veterinary Hospitals, Animal Houses and AYUSH Hospitals to be monitored
g)	Coverage of Common Biomedical Waste Treatment Facilities (CBWTFs) in the entire State/UT.	One CBMWTF operational at Palakkad	<ul style="list-style-type: none"> One CBMWTF operational at Palakkad Consent to establish given for 2 CBMWTF (Kinalur, Ambalamedu) 	<ul style="list-style-type: none"> 1 more CBMWTF required at Thiruvananthapuram District
h)	Compliance of CBWTFs to new emission standards prescribed BMWM Rules 2016.		<ul style="list-style-type: none"> Not upgraded to meet new emission standards 	<ul style="list-style-type: none"> Upgradation and augmentation of incinerators completed by 30/09/2019
i)	Capacity Building programmes / training programmes to SPCBs/ PCCs officials and HCFs.	Trainings were conducted	<ul style="list-style-type: none"> 18 trainings on Bio Medical Waste have been conducted by the Board. More training will be conducted 	<ul style="list-style-type: none"> No gaps

RECOMMENDATIONS:

- Set up 3 more number of CBMWTF in the State. The Department of Health must be made responsible for this activity

E-WASTE MANAGEMENT RULES,2016

	Activity	Earlier Status	Present status	Gaps
a)	Earmarking of industrial space or shed for dismantling and recycling in industrial parks/ estates/ clusters	Not allocated so far	<ul style="list-style-type: none"> Department of Industries identified two places 	Not yet started functioning
b)	Annual Report		<ul style="list-style-type: none"> Annual Report submitted 	<ul style="list-style-type: none"> No gaps
c)	Inventorization of E- waste generation		<ul style="list-style-type: none"> The gathering of adequate and correct data is very difficult 	<ul style="list-style-type: none"> Inventorization is to be carried out
d)	Monitoring and Compliance of EPR Authorisation		<ul style="list-style-type: none"> GST Department addressed for identification of producers who have not obtained EPR Authorisation EPR Authorisation issued to 116 brand owners/producers Inspected e- waste collection centres of Producers and submitted report to CPCB resulting in suspension of EPR Authorisation of 6 producers due to non adherence of EPR Plan No authorized dismantler/recycler in the State. 	<ul style="list-style-type: none"> No authorized dismantler/recycler in the State.

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for

			<ul style="list-style-type: none">• GoK established the Clean Kerala Company for the collection of e-waste and channelization of e-waste to Registered recyclers.• They had collected 736 TPA of e-waste in the year 2017-18, and 1,229 MT during 2016-19.• E- Waste management and Integrated Plastic waste management facility proposed to be set up at KSIDC -KINFRA – park at Kuttippuram, Malappuram District. The KINFRA Management has allotted two plots of 1.50 acres for this purpose. The plant will be commissioned by March 2020.	
e)	Checking of informal trading, dismantling, and recycling of waste		<ul style="list-style-type: none">• Kerala Scrap Merchants Association (KSMA) expressed interest in setting up dismantling/recycling unit. The matter is being followed up.	No authorized dismantler/recycler in the State.
f)	Governance frame work for monitoring compliance		<ul style="list-style-type: none">• District Level Monitoring Committees constituted as per O.A. 606/2018 before the Ho'ble NGT being addressed to include E- waste management also.	

g)	i) Capacity building at district/State/CPCB level ii) IEC plan be firmed up and executed		<ul style="list-style-type: none"> • 6 day long training program on E-Waste Awareness and its health hazards was conducted by MAIT,Delhi in coordination with Kerala State Pollution Control Board involving Participants from Major NGOs like Thanal &Green Army, Scrap Merchants Association ,Clean Kerala Company ,College students etc. • Meant for creating trainers from all over Kerala to provide awareness on the health hazards of E-Waste. • More Regional Level trainings initiated 	<ul style="list-style-type: none"> • No gaps
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RECOMMENDATIONS

- Set up at least one dismantling & recycling facility in the State and IT Department may be made responsible for setting up the facility.
- State wise awareness in micro level regarding the Environmental impact of E-waste shall be imparted.

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Construction and Demolition Waste Management Rules , 2016

Sl No:	Activity	Earlier status	Present Status	Gaps
a)	<ul style="list-style-type: none"> Implementation of Construction and Demolition Waste Management Rules , 2016 		<ul style="list-style-type: none"> Invited Expression of Interest for setting up facilities for Storage, Processing & Recycling facilities for Construction and Demolition waste Rules. No response received till date. Addressed Local Self Government Department, Urban Affairs, Panchayath Directorates, Rural Development Department etc regarding implementation of Construction and Demolition Rules, 2016. Notice for display at Construction and Demolition sites communicated to Local Self Government Department, Urban Affairs Department, Commissionerate of Rural Development, Panchayat Directorate and Suchitwa Mission Guideline and dust utilization measures of Construction and Demolition Wastes included in Consent issued 	<ul style="list-style-type: none"> No facility for Construction and Demolition Waste processing Policy yet to be finalized

RECOMMENDATION

- Setting up of Construction and Demolition Waste processing facility at least in Regional Levels.
- Finalization of policy on Construction and Demolition Waste
- C&D waste shall be utilized as a substitute for construction materials as far as possible and local body shall ensure the same.

COMMON SEWAGE AND SEPTAGE TREATMENT

EXISTING	REQUIREMENT	GAP
Sewage Treatment Plant – 2 nos <ul style="list-style-type: none">• Thiruvananthapuram (partial)• Ernakulam (Partial)	STP with sewerage system covering the entire corporation area to be provided in all Corporations (Thiruvananthapuram, Kollam, Ernakulam, Thrisur, Kozhikkode, Kannur) in the State	<ul style="list-style-type: none">• Thiruvananthapuram- Partial• Kollam – Nil• Ernakulam- Partial• Thrisur– Nil• Kozhikkode– Nil• Kannur– Nil
Septage Treatment Plant – 2 nos <ul style="list-style-type: none">• Ernakulam	At least one septage treatment plant shall be setup in each district.	No sufficient number of septage treatment plants

Recommendations

- There shall be a minimum of one septage treatment plant for each district. The concerned district Panchayath shall be made responsible for setting up and operation of the septage plant.

COMPLIANCE ON HON'BLE NGT DIRECTIONS

O.A.No.	Earlier Status	Present Status	Gaps
<ul style="list-style-type: none"> OA No. 673/2018 & 581/2018 	<ul style="list-style-type: none"> Directed to prepare action plans for 21 polluted river stretches RRC to be constituted for execution of Action plan 	<ul style="list-style-type: none"> River Rejuvenation Committee, State level Special Environment Surveillance Task Force and District level Special Environment Surveillance Task Force constituted Action plan for 21 polluted river stretches submitted to Hon'ble NGT and CPCB Approved the Karamana river Action Plan by CPCB and NGT Action plan being implemented Progress being reviewed 	
<ul style="list-style-type: none"> O.A. 582/2018 	<ul style="list-style-type: none"> Prepare action plan for Tirur-Ponnani River by the River Rejuvenation Committee (RRC) and submit to the Central Pollution Control Board (CPCB) 	<ul style="list-style-type: none"> Action plan submitted to Hon'ble NGT was approved subject to the suggestions of the SLMC. NGT ordered to submit an addendum report taking into account the suggestions made in the report of the SLMC. 	
<ul style="list-style-type: none"> O.A. 1038/2018 	<ul style="list-style-type: none"> Out of 88 industrial clusters in the Country Greater Kochin in Kerala identified with CEPI score of 75.8 	<ul style="list-style-type: none"> Latest CEPI score of 'Greater Kochi' - 52.94, which comes under 'OPA'. Action plan being prepared 	
<ul style="list-style-type: none"> O.A. 681/2018 	<ul style="list-style-type: none"> No cities in the State of Kerala come under the Non-attainment cities 	<ul style="list-style-type: none"> No cities in the State of Kerala come under the Non- attainment cities 	<ul style="list-style-type: none"> No gaps

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<ul style="list-style-type: none">• O.A.No. 606/2018		<ul style="list-style-type: none">• The State has identified three cities, three towns, and three villages in each district (42 villages) and in total 48 model city/town/ villages have been identified in the State. Earnest and demonstrable endeavor has been taken to bring those model city/ town/ villages fully compliant in respect of environmental norms.	<ul style="list-style-type: none">• No gaps
<ul style="list-style-type: none">• Total amount collected from erring industries on the basis of "Polluter Pays Principle" and "Precautionary Principle		<ul style="list-style-type: none">• 15 Industries have been fined and more than INR 7.25 Crores have been collected.• Notices to LSGD and Hospitals are being prepared for levying environmental compensation.	

Name of Corporation/ Municipality/ Panchayath	No of Wards	No of Household	No of Establishment	No of Household having segregation at source		No of Establishment having segregation at source		No of Household having D2D Collection		No of Establishment having D2D Collection		No. having source level treatment of wet waste in operation		No. disposing to centralised system		No. existing		No. needed		Hurdles		
				Dry	Wet	Dry	Wet	Dry	Wet	Dry	Wet	Household	Establishment	Household	Establishment	MCF	RRF	MCF	RRF			
Model City																						
1	Thiruvanthapuram	100	272820	14924	109982	109982	14924	14924	Nil #	Nil	Nil	Nil	109982	55 *	Nil	Nil	44	2	50		*5 nos of community level anaerobic bins & 50 nos of biogas plants. #Dry waste collected at various collection points on prefixed calendar days by the Corporation	
2	Thrissur	55	86604	15250	18000	18000	3000	3000	20150	716	3000	2500	24439	226	716	100	7	3	35	15	1. Insufficient labourers 2. People are not willing to pay userfee 3. Lack of facilities to treat the non-recyclable waste. 4. Suchitwa mission is not giving technical sanction to operate centralised incinerator to treat household hazards	
3	Kozhikode	75	1,26,700	26,550	82500	22550	15450	17463	69355	50540	13,275	9292	13555	1360	38010	14603	1	Nil	75	5	1. Availability of land 2. Resource 3. Fund	
Model Town																						
1	Attingal	31	15633	174	2734	2700	Nil	174	5080	5080	Nil	Nil	2374	174	Nil	Nil	3	1	3	3		
2	Punalur	35	13237	1500	13037	13037	1450	1450	13037	13037	1450	1450	13037	1450	Nil	Nil	200	1	No. needed	No	Shredded plastic is not taken by Clean Kerala company	
3	Kunnamkulam	37	13156	2856	5040	0	2046	160	5040	0	2046	160	3328	115	5040 (dry)	(2046-dry) (160-wet)	1	1	0	1	People need some clarifications regarding the burning of plastic wastes.	
Model Panchayath																						
1	Thiruvanthapuram	Karakulam	23	18000	168	4232	4000	nil	168	4900	4900	Nil	Nil	4234	168	Nil	Nil	1	1	10	2	
2		Parassala	23	3456	188	109	109	188	188	3456	Nil	188	Nil	109	Nil	Nil	Nil	Nil	Nil	1	1	No centralized facility is reported for the treatment of dry waste. Out of 3456 households & 188 establishment only 109 kitchen bins are provided for wet waste. D2D collection is employed for dry waste. Dry waste disposed through outside agency.
3		Poovachal	23	15419	2203	35	35	2203	2203	15419	Nil	2203	Nil	35	Nil	Nil	Nil	1		1	1	Plastic waste is being shredded at Pattakulam & transferred to Clean Kerala Company. Existing shredding unit is not adequate.
4		Chavara	23	10500	2800	5000	4000	800	500	Nil	Nil	20	400	4500	300	5000	200	1	1	23	0	

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EXHIBIT 15, X2(a) 694

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5	Kollam	Kadakkal	19	9800	3700	5586	4018	2257	1295	8240	0	3100	0	2330 (2100 pipe compost units, 230 biogas plant)	10 (bioga s plants at school s)	0	150	1 big (installe d) 20 small(to beinstall ed in ward level)	1	1	0	(1) We request for a government interference to ensure EPR. (2) Remuneration of waste handling volunteers to be increased reasonably.	
6		Perinad	20	8719	1514	Nil	1875	Nil	200	4200	Nil	1100	Nil	Nil	Nil	4200	500	1	Nil	20	1	(1) Shortage of fund for supplying household waste processing devices (2) Sanitary napkin management facility required.	
7	Pathanamthitta	Aranmula	18	9671	1697		20		1	Common collection twice in a month				20	1	Nil	Nil	2	1 (Kotta)	One each in every ward	Two		
8		Kulanada	16	8229	420		445		7	Common collection once in a month	Nil			445	7	Nil	Nil	2	Nil	One each in every ward	One		
9		Thumpamon	13	2870	267		1367		11	Common collection once in a month	Nil			1367	11	Nil	Nil	1	Nil	One each in every ward	Two		
10	Alappuzha	Aaryad	18	8444	254	0	240	0	5	8444	0	254	0	0	0	0	0	1	1	18	0	Lack of fund and land	
11		Mararikkulam North	18	8375	2669					4456		781											
12		Thamarakulam	17	8953	2905																		
13		Kadaplamatom	13	3217	272	2725	3217	175	Nil	3217	Nil	130	Nil	2500	100	Nil	1	15		15			

14	Kottayam	Moonilavu	13	2984	81	1926	150	55	3	2026	150	55	3	150	30	2026	55	1	0	13	0	1. Mini MCF in each ward and -project submitted for implementation through MGNREGS. But MCF does not come under MGNREGS scheme. 2. Increasing the number of harithakarma sena one in each ward is under process 3. Detailed mapping & action plan of solid waste management through haritha sahaya sthapanam also under process
15		Poonjar	13	3944	414	0	0	0	0	3944	0	414	0	0	0	0	0	2	0	11	0	
16		Adimaly	13	10336	1510	880	880	140	140	880	880	140	140	1625	14	880	140	2	1	1	0	
17	Idukki	Kumily	20	11850	2280	9300	5200	1600	750	9300	4100	1600	750	5200	140	9300	1600	2	1	2	1	Insufficient land, modern technology shortage of vehicle and labour duration in converting bio waste into compost is more marketing of compost huge amount of floating population (Tourists and Sabarimala Pilgrims) wanted godown facility huge quantity of shrudded plastic for distribution.
18		Nedumkandam	22	10632	1200	6000	6000	1200	1200	6000	6000	1200	1200	2251	-	6000	1200	1	1			
19		Chottanikara	14	6000	445	3780	3780	420	420	3780	Nil	420	Nil	300	390	3780	420	1	Nil	1	1	
20	Ernakulam	Kalady	17	8000	1800	1250	1250	100	100	1250	Nil	100	12	2000	30	1250	100 + 12 [100 D2D collection (Dry Waste) + 12 biogas plant collection (Wet waste- biodegradable to generate	1	Nil	9	1	1. Panchayat has fixed a collection fee of Rs.50/- from residents and Rs.100 from establishments for plastic waste collection, but people are not willing to pay. 2. People are not much aware of solid waste management practices 3. People from other area is dumping in the waste collection facility of Kalady Gramapanchayat
21		Pampakuda	13	5411	1805					5411		Nil										

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22	Thrissur	Manalur	19	9467	2312	8000	8000	2100	2100	8000	0	2100	0	3328	115	5040 (dry)	(2046- dry). (160- wet)	1	1	0	1	People need some clarifications regarding the burning of plastic wastes
23		Parappukkara	18	9621	1034	6515	0	850	0	7025	0	957	0	0	0	0	0	2	0	2	1	Non Cooperation of public Dry waste disposed through Irinjalakuda block panchayath shredding unit
24		Periganam	15	6869	2333	6869	6869	2333	2333	6869	6869	2333	2333	265	0	6869 (dry)	2333 (dry)	0	1	1	1	
25	Palakkad	Muthuthala	15	6945	175	6945	6945	175	175	4150	Nil	50	Nil	125	Nil	Nil	Nil	Nil	Nil	1	Nil	(1)There is no active participation of all household in D2D collection. (2) Absence of shredding unit makes it difficult to process plastic wastes collected from household in MCF. (3)Due to flood, degradable wastes accumulated largely on the banks of Bharathapuzha which is difficult to process.
26		Sreekrishnapuram	14	6254	850	6254	6254	850	850	5545	Nil	850	Nil	1780	20	Nil	Nil	1	Nil	Nil	Nil	Refusal to pay user fee, exhausting of VGF, wages of Haritha Karma Sena not sustainable.
27		Vellinezhi	13	5722	104	5722	5722	104	104	5722	0	104	0	79	Nil	Nil	Nil	Nil	Nil	1	Nil	Waste dumping in border with nearby municipality, reluctance to pay user fee
28	Malappuram	Chaliyar	14	6361	269	0	0	0	0	4000	0	269	0	6361	269	0	0	1	0			Lack of suitable land for construction of MCF and lack of finance for the project
29		Maranchery	19	12264	2456	2142				10142				2142	48	Nil	Nil	1	1	NA	NA	
30		Thuvur	17	8545	1910					6500		220		5		Nil	Nil	1	Nil	NA	NA	Collection of user fee
31	Kozhikode	Meppayur	17	7308	1840	5600	6003	1840	1840	5978	5978	1840	1840	7308	1840	7308	1840	1	Nil	NA	NA	Manufacturing of plasticbags have to be stoped
32		Kunnumel	13	4500	1600	4500	2800	1600	1600	4000	4000	1300	1300	Nil	Nil	Nil	Nil	1				
33		Kuttiadi	14	6083	4133	6083	6083	4133	4133	6083	6083	4133	4133	160	0	Nil	Nil	1	0	2	0	Non availability of land for waste
34	Wayanad	Meenagadi	19	8628	1015	3000	0	70	0	8628	0	1015	0	0	0	0	0	1	1	0	0	
35		Muttill	19	9845	3284	9845	9845	3284	3284	9739	0	3255	0	9845	3284	0	0	1	1	0	0	
36		Vythiri	14	6075	3381	6075	6075	3381	3381	6075	0	3381	0	6075	3381	0	0	1	1	0	0	
37	Kannur	Padiyur	15	6400	293	4400	4400	210	190	5200	5200	260	260	2200	60	2600	140	1	1	2	1	
38		Pariyaram	18	11073	105	48	60	40	50	7900	-	40	-	3515	75	-	-	1	1	2(wor k tender ed)		Waste throwing in NH,SH,and other major roads. Non co-operation from house holds (project for wet waste treatment for every house holds and istitutions are ongoing for 2019-20 year)
39		Udayagiri	15	6193	1213	1026	152	312	108	5350					0	0	1	0	0	0		

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40		Beddukka	17	11524	2100	-	300		2100	11524		2100	Nil	NA	NA	0	0	1	Nil	NA	NA	-
41	Kasargod	Kinanoor-Karinthalam	17	10,287	3506					10,287	100	3506		-	-	0	0	1	Nil	NA	NA	They have 1 RRF with shredder. Material collection facility is absent in 16 wards and MCF is to be set in 16 wards. Additional space is to be required in RRF considering r the plastic waste transported from other wards in future. Provision is to be made for providing amount to Haritha karmasena. The expense of disposing non biodegradable waste such as chappel, bag through trucks amounts to Rs 23000 per trip. It is difficult to get fund for it. Common Byelaw is yet to approved
42		Madikkai	15	4500	150	-	4500		45	4500		150	Nil	NA	NA	0	0	1	Nil	NA	NA	-

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3	TT	Poovachal	23	15419	2203	100		100	0.3					1		1	1	Plastic waste is being shredded at Pattakulam & transferred to Clean Kerala Company. Existing shredding unit is not adequate.
4		Chavara	23	10500	2800			0.8	14.3	42.9	10.8	47.7	7.2	1	1	23	0	
5	Kollam	Kadakkal	19	9800	3700	84.1	0	83.8	0	23.8	0.3	0	4.1	1 big (installed) 20 small (to be installed in ward level)	1	1	0	(1) We request for a government interference to ensure EPR. (2) Remuneration of waste handling volunteers to be increased reasonably.
6		Perinad	20	8719	1514	48.2		72.7				-48.2	33.1	1	Nil	20	1	(1) Shortage of fund for supplying household waste processing devices (2) Sanitary napkin management facility required.
7		Aranmula	18	9671	1697		0	0	0	0.3	0.1			2	1 (Kotta)	One each in every ward	Two	
8	Pathanamthitta	Kulanada	16	8229	420			0	0	5.5	1.7			2	Nil	One each in every ward	One	
9		Thumpamon	13	2870	267			0	0	47.7	4.2			1	Nil	One each in every ward	Two	

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10	Alappuzha	Aaryad	18	8444	262	100	0	99.7	0	0	0	0	0	1	1	18	0	Lack of fund and land
11		Mararikkulam North	18	8375	2669	53.3	0	29.3	0	0	0	0	0					
12		Thamarakulam	17	8953	2905	0	0	0	0	0	0	0	0					
13	Kottayam	Kadaplomatom	13	3217	272	100	0	47.8	0	77.8	36.8	0.4	15		15			
14		Moonilavu	13	2984	81	67.9	5.1	68	3.8	5.1	37.1	67.9	68	1	0	13	0	1. Mini MCF in each ward and -project submitted for implementation through MGNREGS. But MCF does not come under MGNREGS scheme 2. Increasing the number of harithakarma sena one in each ward is under process 3. Detailed mapping & action plan of solid waste management through haritha sahaya sthapanam also under process
15		Poonjar	13	3944	414	100	0	100	0	0	0	0	0	2	0	11	0	
16		Adimaly	13	10336	1510	8.6	8.6	9.3	9.3	15.8	1	8.6	9.3	2	1	1		
17	Idukki	Kumily	20	11850	2280	78.5	34.6	70.2	32.9	43.9	6.2	78.5	70.2	2	1	2	1	Insufficient land, modern technology shortage of vehicle and labour duration in converting bio waste into compost is more marketing of compost huge amount of floating population (Tourists and Sabarimala Pilgrims) wanted godown facility huge quantity of shrudded plastic for distribution.
18		Nedumkandam	22	10632	1200	56.5	56.5	100	100	21.2		56.5	100	1	1			
19		Chottanikara	14	6000	445	63	0	94.4	0	5	87.7	63	94.4	1	Nil	1	1	

20	Ernakulam	Kalady	17	8000	1800	15.7	0	5.6	0.7	25	1.7	15.7	6.3	1	Nil	9	1	1. Panchayat has fixed a collection fee of Rs.50/- from residents and Rs.100 from establishments for plastic waste collection, but people are not willing to pay. 2. People are not much aware of solid waste management practices 3. People from other area is dumping in the waste collection facility of Kalady Gramapanchayat
21		Pampakuda	13	5411	1805	100	0	0	0	0	0	0	0					
22	Thrissur	Manalur	19	9467	2312	84.6	0	90.9	0	35.2	5	53.3	95.5	1	1	0	1	People need some clarifications regarding the burning of plastic wastes
23		Parappukkara	18	9621	1034	0	0	92.6	0	0	0	0	0	2	0	2	1	Non Cooperation of public Dry waste disposed through Irinjalakuda block panchayath shredding unit
24		Periganam	15	6869	2333	100	100	100	100	3.9	0	100	100	0	1	1	1	
25	Palakkad	Muthuthala	15	6945	175	59.8	0	28.6	0	1.8				Nil	Nil	1	Nil	(1)There is no active participation of all household in D2D collection. (2) Absence of shredding unit makes it difficult to process plastic wastes collected from household in MCF. (3)Due to flood, degradable wastes accumulated largely on the banks of Bharathapuzha which is difficult to process.
26		Sreekrishnapuram	14	6254	850	88.7	0	100	0	28.5	2.4			1	Nil	Nil	Nil	Refusal to pay user fee, exhausting of VGF, wages of Haritha Karma Sena not sustainable
27		Vellinezhi	13	5722	104	100	0	100	0	1.4				Nil	Nil	1	Nil	Waste dumping in border with nearby municipality, reluctance to pay user fee
28	Malapuram	Chaliyar	14	6361	269	62.9	0	100	0	100	100	0	0	1	0			Lack of suitable land for construction of MCF and lack of finance for the project
29		Maranchery	19	12264	2456	82.7	0	0	0	17.5	2			1	1	NA	NA	
30		Thuvur	17	8545	1910	76.1	0	11.6	0	0.1	0			1	Nil	NA	NA	Collection of user fee

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31	Kozhikode	Meppayur	17	7308	1840	81.9	81.9	100	100	100	100	100	100	1	Nil	NA	NA	Manufacturing of plasticbags have to be stoped
32		Kunnumel	13	4500	1600	88.9	88.9	81.3	81.3					1				
33		Kuttiadi	14	6083	4133	100	100	100	100	2.7	0			1	0	2	0	Non availability of land for waste management and protest from public against establishing waste management unit
34	Wayanad	Meenagadi	19	8628	1015	100	0	100	0	0	0	0	0	1	1	0	0	
35		Muttill	19	9845	3284	99	0	99.2	0	100	100	0	0	1	1	0	0	
36		Vythri	14	6075	3381	100	0	100	0	100	100	0	0	1	1	0	0	
37	Kannur	Padiyur	15	6400	293	81.3	81.3	88.8	88.8	34.4	20.5	40.7	47.8	1	1	2	1	
38		Pariyaram	18	11073	105	71.4		38.1		31.8	71.5			1	1	2(wor k tender ed)		Waste throwing in NH,SH,and other major roads Non co-operation from house holds (project for wet waste treatment for every house holds and istitutions are ongoing for 2019-20 year)
39		Udayagiri	15	6193	1213	86.4	0	0	0	0	0	0	0	1	0	0	0	
40	Kasaragod	Beddukka	17	11524	2100	100	0	100	0			0	0	1	Nil	NA	NA	-
41		Kinanoor-Karinthalam	17	10287	3506	100	1	100	0			0	0	1	Nil	NA	NA	They have 1 RRF with shredder Material collection facility is absent in 16 wards and MCF is to be set in 16 wards Additional space is to be required in RRF considering r the plastic waste transported from other wards in future Provision is to be made for providing amount to Haritha karmasena. The expense of disposing non biodegradable waste such as chappel, bag through trucks amounts to Rs 23000 per trip. It is difficult to get fund for it. Common Byelaw is yet to approved.
42		Madikkai	15	4500	150	100	0	100	0			0	0	1	Nil	NA	NA	-

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