

BEFORE THE HON'BLE NATIONAL GREEN TRIBUNAL
SOUTHERN ZONE, CHENNAI IN
Original Application No. 146 of 2025 (SZ)

IN THE MATTER OF:

Shaji A. K.,

Applicants(s)

Versus

State of Kerala and Ors.

Respondents(s)

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Dated this day the 1st September 2025



Adv. Rema Smrithi V. K.,
Standing Counsel for the 5th respondent

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REPORT FILED BY KRISHNAN M. N., CHIEF ENVIRONMENTAL ENGINEER,
KERALA STATE POLLUTION CONTROL BOARD ON BEHALF OF THE 5TH
RESPONDENT

1. I, Krishnan M. N., aged 47 years, am the Chief Environmental Engineer of Kerala State Pollution Control Board and I am duly authorised to file this report. Copy of the authorization is produced herewith and marked as **Annexure R(5)A.**
2. It is respectfully submitted that three matters concerning ambient air quality in Kerala: OA No. 259/2017 filed by LEAF regarding eight cities, OA No. 76/2017 (suo motu) arising from a Malayala Manorama report on black fumes in Kochi titled "BLACK CITY," and OA No. 260/2017 filed by LEAF concerning emissions from heavy vehicles, autorickshaws, and taxis—were heard together and disposed of by a common Order dated 14.07.2021. Earlier, by Order dated 06.01.2020 in OA No. 259/2017, the Hon'ble Tribunal had directed The Environment Department, Government of Kerala to carry out a Source Apportionment (SA) study in Kochi and Trivandrum. The Hon'ble Tribunal had also directed to constitute a committee consisting of the Central Pollution Control Board (CPCB), the Ministry of Environment, Forest and Climate Change (MoEF&CC), the Motor Vehicles Department, Government of Kerala, IIT Madras, and NEERI-Chennai.



3. The funding had to be shared in the proportion 50:30:20 by the State Government, the CPCB and the Kerala State Pollution Control Board (KSPCB) respectively. The Chief Secretary, Government of Kerala, was directed to supervise implementation. In the meeting convened by the Chief Secretary on 14.09.2021, it was decided to obtain an estimate from NIT Calicut. As per letter dated 25.01.2022 of the Environment Department, 5th respondent was directed to examine the proposal of NIT Calicut and to discuss with the Director to reduce the cost.
4. The proposal submitted by NIT Calicut was placed before the committee on 05.08.2022. The committee expressed concern that soliciting a proposal from NIT Calicut alone, without following a transparent process of inviting proposals from other qualified agencies was not in adherence to the standard procedure. The matter was reported to the Government via letter dated 15.09.2022. The list of institutions approved by CPCB's Project Steering Committee for conducting air quality monitoring, emission inventory, and SA studies was also forwarded to the Government on 18.11.2022.
5. Subsequently, the Environment Department, vide letter dated 05.01.2023, directed KSPCB to Expression of Interest (EoI) from CPCB-empowered institutions. Accordingly, EoIs were invited on 07.02.2023 from ARAI (Pune), IIT Bombay, NEERI (Mumbai), IIT Kanpur, IIT Madras, CSIR-NEERI (Nagpur), and TERI (New Delhi). Proposals were received from ARAI, TERI, and IIT Madras and the same were forwarded to the Environment Department on 13.03.2023. As per communication dated 05.06.2023 of the Environment Department, the 5th respondent was directed to place the proposals before the committee. The committee meeting was held on 11.08.2023, where in IIT Madras was screened out as the proposal was submitted by a committee member itself. On 15.09.2023, the committee finalised uniform terms of reference (ToR) for



the SA study based on CPCB's conceptual guidelines. The revised proposals in line with the uniform ToR were invited on 28.12.2023.

6. Revised proposals were submitted by ARAI and TERI. The committee meeting was held at the Head Office at Thiruvananthapuram of the 5th respondent on 06.02.2024; sealed technical bids were opened in the presence of the committee members. Copy of the minutes of the meeting held on 06.02.2024 is produced herewith and marked as **Annexure R(5)B**. Upon technical evaluation, the proposal of TERI was found to be meeting the ToR, while the proposal of ARAI's did not fulfill the requirements for gaseous parameters (CO, Alkenes, NMHC, THC). Since only agency was technically qualified, the committee decided not to proceed with financial evaluation and recommended to the 5th respondent to return all documents, including the sealed financial bids, to the Environment Department, which was the designated agency to conduct the SA study as per the Order dated 14.07.2021 of the Hon'ble NGT in OA Nos. 76/2017, 259/2017, and 260/2017. The documents were forwarded accordingly to the Environment Department vide letter dated 01.03.2024.
7. In the meeting held on 13.08.2024, the Secretary, Environment Department, pointed out that since the ToR was changed after the initial request for proposal, the revised proposal should have been invited from all the empanelled agencies. Further, a committee member had submitted a proposal creating a conflict of interest, it should be specified in the EoI that the same is not permissible. The secretary also clarified that the committee may carry out both technical and financial evaluations and forward its recommendations so that the Environment department can take a decision on the award of work.
8. As per the Secretary's directions, the matter was placed before the committee on 10.10.2024, and the committee recommended inviting



proposals from all the empanelled institutions based on the revised ToR. Proposals were invited vide letter dated 23.10.2024 from ARAI (Pune), IIT Bombay, NEERI (Mumbai/Nagpur), IIT Kanpur, CSIR-NEERI (Nagpur), and TERI (New Delhi). In response, three bids were received—from ARAI (Pune), TERI (New Delhi), and NEERI (Zonal Office, Hyderabad). To avoid conflict of interest, the expert member from NEERI (Chennai) abstained from the technical evaluation of all proposals.

9. Technical evaluation of the proposals were conducted on 29.11.2024, 10.12.2024, and 13.12.2024. All the three institutions that had submitted proposals were found technically qualified. Financial bids were opened on 26.12.2024, and the lowest rate among technically qualified bidders was quoted by TERI (New Delhi). The committee recommended award of work to TERI for conducting SA studies in Kochi and Thiruvananthapuram. This recommendation was forwarded to the Environment Department, Government of Kerala, as per communication dated 11.01.2025. Copy of the said communication is produced herewith and marked as **Annexure R5(C)**. A reminder was also issued vide communication dated 02.04.2025. Copy of the said communication is produced herewith and marked as **Annexure R5(D)**. CPCB was requested to sanction its proportionate share for the study as per communication dated 08.12.2023 and 14.04.2025. Copy of the communication are produced herewith and marked as **Annexure R5(E) & Annexure R5(F)**.
10. In continuation with the above the action taken by the 5th respondent for monitoring and maintaining air quality of the state is submitted as follows:

The Air quality monitoring network of the 5th respondent consists of 40 manual ambient air quality monitoring stations and 9 continuous ambient air quality monitoring stations in the state of Kerala. Key air quality parameters such as PM_{2.5}, PM₁₀, SO₂, and NO_x are monitored at all



manual monitoring sites. The Continuous Ambient Air Quality Monitoring Stations (CAAQMS) provide a broader set of data, measuring the parameters SO₂, NH₃, CO, O₃, PM₁₀, PM_{2.5}, NO_x, NO, and NO₂, as well as meteorological parameters such as Temperature, Relative humidity, Wind speed, Wind direction, Solar radiation and Rain gauge. This extensive monitoring system provides data for environmental management and policy decisions in the state. As per the air quality monitoring data, the Air Quality of Kerala ranges from Moderate to Good. Actions are being taken by the State to maintain and improve the air quality.

11. Pursuant to the Order of the Hon'ble NGT in O.A No 159/2021, a State Action Plan (SAP) on air pollution was prepared in accordance with the CPCB guidelines. As per the common guidelines of CPCB, an Air Quality Monitoring Committee (AQMC) under the Chair of the Principal Secretary, Environment Department shall be constituted for the preparation of the SAP and the SAP shall be approved by a Steering Committee under the Chair of the Chief Secretary. Accordingly, the AQMC and Steering Committee were constituted as per G.O. (Rt) No. 84/2024/ENVT dated 26.10.2024. Copy of the order is produced herewith and marked as **Annexure R5(G)**. As per the order, the AQMC shall monitor the implementation of the SAP and shall meet on a monthly basis. The Steering Committee shall periodically review the progress of implementation and shall meet on a quarterly basis.

Members of Steering Committee:

1. The Chief Secretary, Kerala.
2. The Secretary to Government, Environment Department.
3. The Secretary to Government, Finance Department.
4. The Secretary to Government, Industries Department.
5. The Secretary to Government, Transport Department.



6. The Secretary to Government, Local Self Government Department.
7. The Secretary to Government, Public Works Department.
8. The Secretary to Government, Agriculture Department.
9. The Chairman, Kerala State Pollution Control Board.

Members of Air Quality Monitoring Committee (AQMC) :

1. The Secretary to Government, Environment Department.
 2. The Director, Directorate of Environment and Climate Change.
 3. The Director, Directorate of Industries and Commerce.
 4. The Transport Commissioner, Motor Vehicles Department.
 5. The Director, Road Safety Authority.
 6. The Chairman / Managing Director, Kerala State Road Transport Corporation.
 7. The Director, National Transportation Planning and Research Centre.
 8. The Principal Director, LSGD Principal Directorate.
 9. The Director, Urban Directorate.
 10. The Director, Directorate of Panchayat.
 11. The Executive Director, Suchitwa Mission.
 12. The Director, Agriculture and Farmers welfare Department.
 13. The Chief Engineer, Public Works Department.
 14. The Chairman/ Managing Director, Kerala State Electricity Board.
 15. The Chief Executive Officer, Agency for New and Renewable Energy.
 16. The Director, Energy Management Centre.
 17. The Member Secretary, Kerala State Pollution Control Board.
12. The Air Quality Monitoring Committee meetings were conducted on 18.11.2024 and 07.01.2025 for the preparation of the SAP. The SAP was approved by the Steering Committee on the meeting held on 18.01.2025. The approved SAP was submitted to CPCB as per the letter dated 23.01.2025. Copy of the letter is produced herewith and marked as **Annexure R5(H)**. AQMC meetings were held on 23.05.2025 and 10.07.2025 to review the progress of implementation of the SAP by the line departments.



13. Kerala's ambient air quality is currently in the range 'Satisfactory- Good' and the State is proactively implementing a comprehensive SAP in compliance with Orders of the Hon'ble NGT with necessary guidance from CPCB. The AQMC is regularly reviewing the progress of implementation of the SAP by the departments concerned.

All that stated above are true to the best of my knowledge, information and belief.

Dated this the day 1st of September 2025.



KRISHNAN M.N
Chief Environmental Engineer

Krishnan M. N.

Chief Environmental Engineer

On behalf of Respondent No. 05 in OA no. 146/2025



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KERALA STATE POLLUTION CONTROL BOARD

കേരള സംസ്ഥാന മലിനീകരണ നിയന്ത്രണ ബോർഡ്

Pattom P.O., Thiruvananthapuram – 695 004

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KSPCB/1371/2025-EE-2

Date: 26-08-2025

AUTHORISATION

Sub: Authorization of Officer - Hon'ble NGT O. A. no. 146/2025

Ref: Order dated 04.08.2024 of the Hon'ble NGT in OA no. 146/2025

The Chief Environmental Engineer, Head Office, Thiruvananthapuram is here by authorised to represent the Board in the above O. A 146/2025

**For and on behalf of the
KERALA STATE POLLUTION CONTROL BOARD**

Signed by
CHAIRPERSON
Sreekala S

To
The Chief Environmental Engineer,
Head Office,
Thiruvananthapuram.

Date: 26-08-2025 18:17:06

Copy to:

1. Adv. Rema Smrithi V. K
New No.22 (Old No. 52),1st floor,
M .G Ramachandran road,
Kalakshetra Colony,
Besant Nagar, Chennai-600090
2. The Senior Environmental Engineer-2
Head Office,
Thiruvananthapuram

Minutes of the 12th Joint Committee meeting held on 06.02.2024 in compliance with the Order of the Hon'ble NGT dated 14.07.2021 in O.A Nos. 76/2017, 259/2017 and 260/2017.

The 12th joint committee meeting was held on 06.02.2024 at 11 am for the Evaluation of Revised Proposals received for conducting Source Apportionment Studies in Kochi and Thiruvananthapuram in compliance with the Order of the Hon'ble NGT dated 14.07.2021 in O.A Nos. 76/2017, 259/ 2017 and 260/2017.

The following members attended the meeting:

1. Dr. Murali Krishna,
Additional Director/ Scientist - E,
Govt. of India, MoEF&CC,
Integrated Regional Office, Bangalore (SZ)
2. Er. J. Chandrababu,
Regional Director,
Central Pollution Control Board,
Regional Directorate, Bangalore
3. Dr. E. Arockia Lenin,
Scientist 'D', MoEF & CC,
Regional Office (SEZ), Chennai
4. Dr. R. Sivacoumar,
Chief Scientist, CSIR-NEERI,
CSIR Madras Complex, CMC
CSIR Road, Tharamani, Chennai
5. Dr. Deepesh. V,
Scientist 'C',
Central Pollution Control Board,
Regional Directorate, Bangalore
6. Sri. Bijumon. K,
Regional Transport Officer,
Enforcement Division,
Motor Vehicle Department, Calicut
7. Er. Bindhu Radhakrishnan,
Chief Environmental Engineer,
Kerala State Pollution Control Board
8. Er. Alexander George,
Senior Environmental Engineer,
Kerala State Pollution Control Board

Er. Bindhu Radhakrishnan, the Chief Environmental Engineer, warmly welcomed all the committee members to the meeting and explained the purpose of conducting such a physical meeting. She also appraised the committee members about the follow-up actions taken by the Kerala State Pollution Control Board (KSPCB) in light of the decisions of the meeting held on 15.09.2023. As decided, vide the Kerala State Pollution Control Board's letter dated 28.12.2023, revised proposals were called for from the shortlisted proponents viz., The Energy and Resources Institute (TERI) and The Automotive Research Association of India (ARAI) based on the uniform conditions framed by the Committee on 15.09.2023 in line with the conceptual guidelines of the Central Pollution Control Board (CPCB). It was also requested to submit the revised proposals following two bid systems (Technical & financial quotations separately in two sealed envelopes for each city viz. Thiruvananthapuram and Kochi). Accordingly, the Board had received revised proposals from the above two proponents.

It was decided to evaluate the proposal on 24.01.2024, but due to unavoidable reasons and the non-presence of all the committee members physically, it was decided to evaluate the proposals physically in the next meeting at the convenience of all the committee members. Accordingly, the physical meeting was conducted on 06.02.2024 at KSPCB, Head Office. All the members except the member representing IIT Chennai were present. The sealed technical bids were opened during the meeting in the presence of all the committee members and thereafter each page of the technical proposals was signed by all the members present in the meeting. The committee members have evaluated the technical proposals of TERI and ARAI. The technical proposal of TERI was in line with the requirements as per the uniform conditions stipulated by the committee, whereas ARAI couldn't fulfill the requirement about gaseous parameters viz. Carbon monoxide (CO), Alkenes, Non-methane Hydrocarbons (NMHC), and Total Hydrocarbon (THC).

The representatives of project proponents TERI and ARAI were also given opportunity to appear before the committee in person and heard by the committee members, and clarification about not fulfilling the gaseous parameters namely CO, Alkenes, NMHC, and THC was sought from ARAI. The representative of ARAI specifically clarified to the committee members that they would not be able to cover the above four parameters in the proposed study.

The committee unanimously decided not to conduct a financial evaluation, since only one agency was technically qualified and the Committee also recommended Kerala SPCB to transfer all the documents, to the Environment Department, Government of Kerala, including the sealed financial bids as the Environment Department is the authority to conduct the Source Apportionment Study in compliance to the Hon'ble NGT Order dated 14.07.2021 passed in OA No.s 76/2017, 259/2017 and 260/2017, for taking a final decision in the matter.

The convenor also brought to the notice of the committee that the proportionate amount to be provided by the Kerala State Govt., CPCB, and the Kerala SPCB as per the ratio of 50:30:20 as specified in the Hon'ble NGT Order dated 14.07.2021. As per the Hon'ble NGT order, the Central Pollution Control Board is permitted to utilize the Environment Compensation fund to conduct the study. The convenor informed that the request for providing the share was already communicated to CPCB vide Board's letter dated 08.12.2023. Therefore, it was suggested to Kerala SPCB to follow-up with the CPCB Head Quarters at New Delhi to release the proportionate amount for the study soon after receiving the final decision on the matter from the Environment Department.

The meeting was concluded by 5:15 pm with a vote of thanks to all the committee members.



**Chief Environmental Engineer
& Member Convenor**

Attendance list of the Joint Committee meeting held on 06.02.2024 for the Technical and Financial Evaluation of Revised Proposals received for conducting Source Apportionment Study in Kochi and Thiruvananthapuram as per the Order of the Hon'ble NGT in OA259/2017 dated 14.07.2021

1. Dr. Murali Krishna,
Additional Director/ Scientist-E
Government of India, MoEF&CC
Integrated Regional Office,
Bangalore (Southern Zone)

Ch. Murali Krishna
06/02/24

2. Dr. E. Arockia Lenin,
Scientist 'D', MoEF & CC,
Regional Office (SEZ), Chennai

E. Arockia Lenin
6/2/24

3. Er. J. Chandrababu,
Regional Director,
Central Pollution Control Board,
Regional Directorate, Bangalore

J. Chandrababu
6/2/2024

4. Dr. Deepesh. V,
Scientist 'C',
Central Pollution Control Board,
Regional Directorate, Bangalore

Deepesh V
6/2/24

5. Dr. S.M. Shiva Nagendra,
Professor,
Department of Civil Engineering,
IIT-Madras, Chennai

Absent

6. Dr. R. Sivacoumar,
Chief Scientist, CSIR-NEERI, 72,
CSIR Rd Anbalagan Nagar, Tharamani, Chennai

R. Sivacoumar
6/02/2024

7. Sri. Bijumon. K,
Regional Transport Officer,
Enforcement Division,
Motor Vehicle Department, Calicut

Bijumon K
6/2/24

8. Er. Bindhu Radhakrishnan,
Chief Environmental Engineer & Member Convenor,
Kerala State Pollution Control Board

Bindhu Radhakrishnan
06.02.2024

9. Er. Alexander George,
Senior Environmental Engineer,
Kerala State Pollution Control Board

A. George
6/2/24

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KERALA STATE POLLUTION CONTROL BOARD

കേരള സംസ്ഥാന മലിനീകരണ നിയന്ത്രണ ബോർഡ്

Pattom P.O., Thiruvananthapuram – 695 004

പട്ടം പി.ഒ, തിരുവനന്തപുരം 695 004



No.KSPCB/319/2022-SEE1

Date: 11-01-2025

From

The Chairperson

To

The Secretary to Government,
Environment Department,
Government Secretariat.

Sub: Order of the Hon'ble NGT – OA no.s 76/2017, 259/2017 & 260/2017 –
Source Apportionment Study in Kochi and Thiruvananthapuram – reg.

Ref: 1. Order of the Hon'ble NGT dated 14.07.2021 in OA no.s 76/2017, 259/2017
& 260/2017.

2. Minutes of the meeting held on 13.08.2024 by the Secretary, the
Environment Department.

3. Minutes of the committee meetings held on 29.11.2024, 10.12.2024,
13.12.2024 and 26.12.2024.

Sir,

Vide the order cited 1st, the Hon'ble NGT had directed the Environment Department, Government of Kerala to conduct Source Apportionment Study in Kochi and Thiruvananthapuram cities. A Committee was also appointed by the NGT to provide necessary guidance for the study. The Secretary, Environment Department, is specified as the nodal agency for coordination of all the committee members to supervise the study and also for coordinating with the different departments to implement the recommendations of the study.

In the meeting held on 13.08.2024 by the Secretary, the Environment Department pointed out certain shortcomings in inviting the proposals and consequently instructed Kerala State Pollution Control Board to invite fresh EoI/ proposals after having discussion in the committee. The matter was placed in the committee on 10.10.2024 and the committee recommended to invite fresh proposals for conducting Source Apportionment Study in Kochi and Thiruvananthapuram cities from the institutions approved by the CPCB steering committee. Accordingly proposals were invited vide the letter dated 23.10.2024.

In response, 3 bids were received from (i) Automotive Research Association of India, Pune (ARAI), (ii) The Energy and Resources Institute (TERI), Delhi and (iii) National Environmental Engineering Research Institute (NEERI), Zonal Office,

Hyderabad. The committee unanimously was of the opinion that in the event of a technical proposal from NEERI, Nagpur, the expert member from NEERI, Chennai should abstain from the process of technical evaluation of all the proposals from TERI, ARAI and NEERI. The committee requested the member from NEERI to abstain from the technical evaluation citing the potential allegation of conflict of interest. The member from NEERI, Chennai agreed to the suggestion of the committee and abstained from the process of technical bid evaluation, even though the proposal was from NEERI, Zonal Office, Hyderabad.

The proposals from TERI, ARAI and NEERI were technically evaluated by the committee in the meetings held on 29.11.2024, 10.12.2024 & 13.12.2024 and a technical comparative statement was prepared. The technical proposals from all the three institutions were in accordance with the requirements and all the three proponents were qualified for opening of financial bids. The financial bids were opened by the committee on 26.12.2024. The lowest rate was quoted by the technically qualified bidder viz., M/s. The Energy and Resource Institute (TERI) and was accepted as L1 bidder. Therefore, the committee had suggested to forward the recommendation to the Environment Department to engage M/s. TERI to conduct the Source Apportionment Study in Kochi and Thiruvananthapuram cities. This is for your kind information and further necessary action. (Copy of all minutes (ref.3) and comparative statements (Technical and financial) and also enclosed)

Yours faithfully

Signed by

Sreekala S

Date: 11-01-2025 15:24:16

CHAIRPERSON

☎: General: 0471- 2312910, 2318153, 2318154, 2318155 Chairman: 2318150 Member Secretary: 2318151
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KERALA STATE POLLUTION CONTROL BOARD

കേരള സംസ്ഥാന മലിനീകരണ നിയന്ത്രണ ബോർഡ്

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



No.KSPCB/319/2022-SEE1

Date: 02-04-2025

From

The Chairperson

To

The Secretary to Government,
Environment Department,
Government Secretariat

MOST URGENT

DESPATCHED

Sub: - Order of the Hon'ble NGT – OA no.s 76/2017, 259/2017 & 260/2017 – Source Apportionment Study in Kochi and Thiruvananthapuram – reg.

- Ref:- 1. Order of the Hon'ble NGT dated 14.07.2021 in OA no.s 76/2017, 259/2017 & 260/2017.
2. Minutes of the meeting held on 13.08.2024 by the Secretary, Environment Department.
3. Minutes of the committee meeting held on 26.12.2024.
4. This office letter of even no. dated 11.01.2025 to the Secretary, Environment Department.

Sir,

Vide the order cited 1st, the Hon'ble NGT had directed the Environment Department, Government of Kerala to conduct Source Apportionment Study in Kochi and Thiruvananthapuram cities. A Committee was also appointed by the Hon'ble NGT to provide necessary guidance for the study. The Environment Department is the nodal agency for co-ordination with all the committee members for the supervision of the study and also with the departments concerned to implement the recommendations based on the study.

Vide ref (3), the committee had recommended to engage M/s. TERI to conduct the Source Apportionment Study in Kochi and Thiruvananthapuram cities to the Environment Department. This was conveyed to the Environment Department vide ref cited (4). It is requested to kindly take urgent necessary action for awarding the work at the earliest.

Yours faithfully


CHAIRPERSON

O/c

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KERALA STATE POLLUTION CONTROL BOARD

കേരള സംസ്ഥാന മലിനീകരണ നിയന്ത്രണ ബോർഡ്

Pattom P.O., Thiruvananthapuram – 695 004

പട്ടം പി.ഒ., തിരുവനന്തപുരം - 695 004



No.KSPCB/319/2022-SEE1

Date: 08.12.2023

From

The Member Secretary

To

The Member Secretary,
Central Pollution Control Board,
Parivesh Bhavan, East Arjun Nagar
Delhi -110032

Sub: Source Apportionment Study in Kerala – reg.

Ref: Hon'ble NGT Order dated 14.07.2021 in OA 76/2017, 259/2017, 260/2017
(copy emailed)

Sir,

Kind attention is invited to NGT Order, the Hon'ble NGT had directed to conduct Source Apportionment Studies in Kochi & Thiruvananthapuram cities in Kerala, a copy of the order is submitted herewith. Committee constitution order is enclosed. The Environment Department, Govt. of Kerala was directed to conduct the study and the Committee appointed by the Hon'ble Tribunal to provide necessary guidance for the study and submit periodical reports to the NGT. The proportionate amount to be provided by the State Govt, CPCB and the KSPCB are in the ratio of **50:30:20** (paragraph 55 of the Order, copy of which is enclosed).

As per the direction from Government of Kerala, Expression of Interest was invited from institutions approved by the project steering committee of CPCB. The institutions: Automotive Research Association of India (ARAI), Pune; Indian Institute of Technology (IIT), Madras and The Energy and Resources Institute (TERI), New Delhi have submitted EoI. The Technical evaluation on the EoI received was done by the committee, framed as per the NGT direction, on 11.08.2023 and 15.09.2023. Copy of the minutes of the meetings is attached. As per the minutes of the meeting on 11.08.2023, the committee recommended that one proponent viz., IIT Madras can be screened out in view of the views expressed by the Joint Committee members and the other two proponents can be requested to follow the specified uniform conditions and submit their quotations. In the latest meeting on 15.09.2023, the committee finalized the uniform conditions to conduct source apportionment study based on the conceptual guidelines of CPCB and detailed proposals are being invited. The matter is reported for kind information and necessary action to allocate the proportionate amount as fixed by the NGT.

Yours faithfully,

Shan A J

MEMBER SECRETARY

Ph: General: 0471- 2312910, 2318153, 2318154, 2318155 Chairman:
2318150 Member Secretary: 2318151
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kspcb.kerala.gov.in



KERALA STATE POLLUTION CONTROL BOARD

കേരള സംസ്ഥാന മലിനീകരണ നിയന്ത്രണ ബോർഡ്

Pattom P.O., Thiruvananthapuram – 695 004

പട്ടം പി.ഒ, തിരുവനന്തപുരം 695 004



No.KSPCB/319/2022-SEE1

Date: 14-04-2025

From

MOST IMPORTANT

The Chairperson

To

The Member Secretary,
Central Pollution Control Board,
Parivesh Bhavan, East Arjun Nagar
Delhi -110032

Sub: Source Apportionment Study in Kerala – reg.

Ref: 1. Hon'ble NGT Order dated 14.07.2021 in OA 76/2017, 259/2017 & 260/2017
2. This office letter of even no. dated 08.12.2023.

Sir,

Kind attention is invited to NGT Order cited 1st, the Hon'ble NGT had directed to conduct Source Apportionment Studies in Kochi & Thiruvananthapuram cities in Kerala. The Environment Department, Govt. of Kerala was directed to conduct the study and the Committee appointed by the Hon'ble Tribunal to provide necessary guidance for the study and submit periodical reports to the NGT. The proportionate amount to be provided by the State Govt, CPCB and the KSPCB are in the ratio of **50:30:20** (paragraph 55 of the Order dated 14.07.2021, copy of which is enclosed).

The proposals for conducting Source Apportionment Study received from: (i) Automotive Research Association of India, Pune (ARAI), (ii) The Energy and Resources Institute (TERI), Delhi and (iii) National Environmental Engineering Research Institute (NEERI), Zonal Office, Hyderabad were evaluated by the committee in the meetings held on 29.11.2024, 10.12.2024 & 13.12.2024 and a comparative statement was prepared. The technical proposals from all the three institutions were in accordance with the requirements and all the three proponents were qualified for opening of financial bids. The financial bids were opened by the committee on 26.12.2024. The lowest rate was quoted by M/s. The Energy and Resource Institute (TERI). The Committee had recommended award of work to M/s. TERI. It is requested to kindly take urgent necessary sanction the proportionate amount as fixed by the Hon'ble NGT.

Yours faithfully

Signed by
CHAIRPERSON
Sreekala S

Date: 14-04-2025 23:26:37



GOVERNMENT OF KERALA

Abstract

Environment Dept. - Hon'ble National Green Tribunal (SZ) - OA. No.159/2021 - State Action Plan for Air Pollution as envisaged by the National Clean Air Program - Steering Committee and Air Quality Monitoring Committee - constituted - orders issued.

ENVIRONMENT (A) DEPARTMENT

G.O.(Rt)No.84/2024/ENVT Dated,Thiruvananthapuram, 26-10-2024

Read 1 Order dated 15.03.2023 and 09/05/2023 of the Hon'ble NGT in OA 159 /2021.

2 Letter No.KSPCB/135/2023-CEE dated 22.06.2024 received from the Chairperson, Kerala State Pollution Control Board

ORDER

As per the National Green Tribunal (NGT) Orders read above, Central Pollution Control Board (CPCB) had framed a common guidelines for preparation of State Action Plan (SAP) based on the indicative template shared by the Ministry of Environment, Forest & Climate Change (MoEF&CC). As per the CPCB guidelines, an Air Quality Monitoring Committee (AQMC) under the chair of Secretary, Environment Department shall be constituted for the preparation of ~~the~~ SAP and the SAP shall be approved by the Steering Committee under the Chair of Chief Secretary. AQMC shall monitor the implementation periodically and report to the Steering Committee which will review the progress of implementation.

2. In the above circumstances, vide letter read as 2nd paper above, the Chairperson, Kerala State Pollution Control Board has

requested to constitute Steering Committee and Air Quality Monitoring Committee for the preparation of State Action Plan (SAP) for Air Pollution as envisaged by the National Clean Air Program.

3. Government have examined the matter in detail and are pleased to constitute Steering Committee and Air Quality Monitoring Committee with the following members;

The Steering Committee.

1. The Chief Secretary, Kerala.
2. The Secretary to Government, Environment Department
3. The Secretary to Government, Finance Department.
4. The Secretary to Government, Industries Department.
5. The Secretary to Government, Transport Department.
6. The Secretary to Government, Local Self Government Dept.
7. The Secretary to Government, Public Works Department.
8. The Secretary to Government, Agriculture Department.
9. The Chairman, Kerala State Pollution Control Board.
10. Dr. John Panicker, E.N.T Specialist, Invitee

Air Quality Monitoring Committee

1. The Secretary to Government, Environment Department.
2. The Director, Directorate of Environment and Climate Change.
3. The Director, Directorate of Industries and Commerce.
4. The Transport Commissioner, Motor Vehicles Department.
5. The Director, Road Safety Authority.
6. The Chairman / Managing Director, Kerala State Road Transport

Corporation.

7. The Director, National Transportation Planning and Research Centre.
8. The Principal Director, Local Self Government, Principal Directorate
9. The Director, Urban Directorate.
10. The Director, Directorate of Panchayat.
11. The Executive Director, Suchitwa Mission.
12. The Director. Agriculture and Farmers welfare Department.
13. The Chief Engineer, Public Works Department
14. The Chairman/ Managing Director, Kerala State Electricity Board.
15. The Chief Executive Officer, Agency for New and Renewable Energy.
16. The Director, Energy Management Centre.
17. The Member Secretary, Kerala State Pollution Control Board.

The **Air Quality Monitoring Committee** shall monitor the progress of implementation of the State Action Plan and shall meet on a monthly basis. The Steering Committee shall provide overall guidance for implementing the SAP and shall review the progress on a quarterly basis.

(By order of the Governor)
DR RATHAN U KELKAR I A S
SECRETARY

To:

1. The Advocate General, Kerala, Ernakulam.
2. The Additional Chief Secretary, Finance Department.
3. The Principal Secretary, Industries Department.

4. The Principal Secretary, Local Self Government Dept.
5. The Principal Secretary, Agriculture Department.
6. The Secretary to Government, Public Works Department.
7. The Secretary, Transport Department.
8. The Director, Environment and Climate Change.
9. The Chairperson, Kerala State Pollution Control Board
10. The Air Quality Monitoring Committee Members (Through Kerala State Pollution Control Board)
11. The Member Secretary, Kerala State Pollution Control Board
12. The Principal Accountant General (A&E/ Audit), Kerala
13. Office copy/Stock file.

Forwarded /By order

Signed by

Dhanya Sadasivan

Section Officer

Date: 28-10-2024 11:02:15

Copy to-

The Private Secretary to Hon'ble Chief Minister
The Staff Officer to Chief Secretary
PA to Secretary, Environment

☎: General: 0471- 2312910, 2318153, 2318154, 2318155 Chairman: 2318150 Member Secretary: 2318151
e-mail: chri.kspcb@gov.in; ms.kspcb@gov.in FAX: 231815 web: www.kspcb.kerala.gov.in



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KSPCB/135/2023-CEE

Date: 23.01.2025.

SPEED POST

From

The Member Secretary

To

The Member Secretary,
Central Pollution Control Board,
Parivesh Bhavan, East Arjun Nagar
Delhi -110032

Sub: Submission of State Action Plan of Kerala on Air Quality in O.A. 159/2021.

- Ref: 1. Order dated 11.12.2024 of the Hon'ble NGT in O.A. 159/2021.
2. Minutes of the Air Quality Monitoring Committee held on 18.11.2024 and 07.01.2025.
3. The Steering Committee meeting held on 18.01.2025.

Sir,

Kind attention is invited to the subject matter. As per the order of the Hon'ble NGT dated 11.12.2024 in OA 159/2021, it was directed to get the approval of the State Action Plan (SAP) from the steering committee and forward the same to CPCB before 31.01.2025. The State Action Plan of Kerala on Air Quality was finalized by the Air Quality Monitoring Committee in the meeting held on 18.11.2024 and 07.01.2025 and recommended to place the same before the Steering Committee. A copy of each of the minutes of each meeting are submitted herewith. The SAP was approved by the Steering Committee in the meeting held on 18.01.2025. The approved State Action Plan of Kerala on Air Quality is submitted herewith for your kind information and further necessary action.

Yours faithfully

Shwari

MEMBER SECRETARY

Copy to:

1. Secretary to Government, (with covering letter)
Environment Department,
Government Secretariat.

Indicative Template for STATE ACTION PLAN of KERALA on AIR QUALITY

1. Industrial Emissions

S. No.	Activities	Status of activity (Completed/ Ongoing/ To be Started)	Implementing agency	Timeline for completion	Target (Coverage / Percentag	Financial implications (Yes/ No)	Funds Allocated (Rs crore)	Funds Utilized as on date (Rs			
1.	Policy for permitting new industries in Critically Polluted Areas (CPAs)	No Critically Polluted Areas in Kerala	KSPCB	NA	NA	NA	NA	NA			
2.	Guidelines for laying city gas distribution network	<p>The code of practice for Quality of service for city or local Natral Gas Distribution Networks vide G.S.R 720(E) dated 1.9.2010 and further amendment on 15.3.2018 was issued by Petroleum and Natural gas Regulatory Board.</p> <p>The status of gas distribution pipelines in Kerala:</p> <p>1) GAIL: KKB MPL (Kochi-Koottanad-Bangalore-Mangalore Pipeline) is the only gas distribution pipeline project handled in Kerala by GAIL. This pipeline of 30”/24” is passing through the districts of Ernakulam, Thrissur, Palakkad, Malappuram, Kozhikode, Kannur and Kasargod for distribution of natural gas received from LNG terminal of M/s. Petronet LNG Ltd., Puthuvypeen to Industrial customers and CGD entities (City Gas Distribution) located at various places in the above 7 districts in the state of Kerala. Ph-I of this pipeline was completed in 2013 and Ph-II was completed in year 2020. The entire network was dedicated to nation in January 2021.</p> <p>2) IOAGPL: IOAGPL has laid pipelines in the districts of Ernakulam, Kozhikode – Wayanad, Thrissur – Palakkad, Malappuram, Kannur – Kasaragod.</p> <p>3) AG & P Pratham AG & P Pratham has provided 46,528 PNG Connections across the districts of Thiruvananthapuram, Kollam and Alappuzha.</p>	PESO, Oil companies , GAIL IOAGPL AG&P Pratham	IOAGPL Kerala Geographical Areas (GAs) pipeline infrastructure as on November, 2024							
GA Name		DoA		Steel pipeline infra (Inch-km)			MDPE pipeline infra (Inch-km)				
		Laid		Under Construction	Expected Commissioning timelines	Laid	Under Construction	Expected Commissioning timelines			
Ernakulam	14.10.2015	559		8.1	Jun-25	866	31	Jun-25			
Kozhikode - Wayanad	14.09.2018	500	100	Jun-25	819	0	Jun-25				
Thrissur - Palakkad	26.09.2018	926	46	Jun-25	548	91	Jun-25				
Malappuram	27.09.2018	450	60	Jun-25	401	233	Jun-25				
Kannur - Kasaragod	14.09.2018	503	206	Jun-25	817	157	Jun-25				
AG & P Pratham											
Sl No	Geographical Area	CGD Company	PNG Connections (Nos)			Pipeline laid (Kms) (Steel+ MDPE)					
			Domestic	Commercial	Industrial						
1	Thiruvananthapuram/ Kollam/ Alappuzha	AG & P	46,509	18	1	1965					

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3.	Policy for replacement of heavy oil (eg., furnace oil, diesel etc.) based industries to alternate energy sources (CNG/ PNG/ Electricity)	National policy will be followed.		Ongoing	100%	Industries will incur to expenditure for clean fuels.	Nil	Nil

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		<p>Industries can utilize Kerala State Energy Conservation Fund (KSECF), which is a revolving fund managed by the Energy Management Centre – Kerala to implement energy efficiency improvement and clean energy transformation projects. Applicants must provide a bank guarantees for the loan amount. Loans are offered at a simple interest rate of 4% for private companies and 2% for government, public, and cooperative entities, with a repayment period of up to five years.</p> <p>Industries can conduct energy audit through EMC and identify the opportunities on energy conservation and possible alternate energy sources.</p> <p>This policy is for the purpose of prohibiting / regulating the use of furnace oil to reduce air pollution and its impact on the environment. BPCL Kochi Refinery is using Low Sulphur fuel / furnace oil in heaters / boilers to reduce SO2 emission. In addition to the above, Kochi Refinery is using low hydrocarbon fuel for reducing load of emission.</p> <p>The units namely HLL Lifecare Ltd Factory - Peroorkada, Trivandrum, Vikram Sarabhai Space Centre Thiruvananthapuram, EICL Limited Thonnakkal Trivandrum, The Kerala Minerals and Metals Limited Kollam, IREL (India) Limited, Chavara, Sud Chemie India Pvt Ltd, Binanipuram, Ernakulam, Hindustan Organic Chemicals Limited Ambalamugal Ernakulam, Tcl Ceramics Limited, CSEZ, Kakkanad, Ernakulam, The Fertilisers And Chemicals Travancore Limited, Cochin Division, The Fertilisers And Chemicals Travancore Limited, Cochin Division, The Fertilisers And Chemicals Travancore Limited, Udyogamandal Complex-Petrochemical Plants, The Travancore Cochin Chemicals LTD, have switched over to LNG firing.</p> <p>The units namely Vismaya rocks Private Limited Palm Fibre (India) Private Limited Alappuzha, O/E/N India Ltd, Ernakulam, AVT NATURAL PRODUCTS LTD Aluva, ITI LIMITED Palakkad has switched to solar power.</p>	Industries Dept, KSRTC, KSPCB, EMC	Continuous	100%	Company's own fund	Nil	Nil

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4.	Policy for restriction on usage of Pet coke for industrial use	<p>The Hon'ble Supreme Court vide order dated 24-10-2017 in WP(C)13029/1985 banned use of pet coke and furnace oil in National Capital region states as these fuels emit more sulphur dioxide compared to conventional fuels.</p> <p>The Hon'ble NGT vide order dated 16-5-2017 in OA 471/16 directed all State Governments to take decision as to whether pet coke is an approved fuel or not.</p> <p>Hon'ble NGT vide order dated 4-7-2019 directed that Petcoke and furnace oil may not be allowed in terms of reports of CPCB dated 15-3-2019 as follows. "</p> <p>Considering the various directions and ordes of hon'ble Supreme Court regarding use of pet coke and furnace oil containing higher sulphur, it is required that states, to formulate fuel policies regarding use of pet coke and furnace oil in the light of Supreme /court order dated 24-10-2017(banning use of petcoke and FO in NCR and 17-11-2017(suggesting states to take similar measurs) and further Hon'ble supreme Court order dated 13-12-2017, 5-2-2018 and 26-7-2017 allowing use of pet coke in industries /processes which pet coke and furnace oil either as feed stock (Calcine Pet coke units, Aluminium industries) or where they get absorbed along with product in manufacturing process(cement, lime kiln, calcium carbide industries). It is relevant to mention that use of raw petroleum coke in CPC units has been allowed with condition of 90% recovery of SO2 emission. The instruction of CPCB to use petcoke in lime kiln will be followed and monitoring will be done for compliance.</p>	Industries department, KSPCB	continuous	100%	NA	NA	NA
5.	Rules and Regulations on uninterrupted power supply in State/ UT	<p>Notification of Ministry of Power is followed. No separate regulations, specifically for Uninterrupted Power Supply is currently notified in Kerala.</p> <p>SOP notified vide No.1/1/KSERC -2015 dated 15 .12. 2015.</p> <p>Total installed capacity of power in the State as on September 2023 is 3765.32 MW, of which, hydel power contributed the major share of 2173.77 MW (57.73 per cent); while 696.34 MW (159.96MW - KSEBL +536.38 MW-Private –IPP & CPP) was contributed by thermal projects (18.49 per cent), 824.94MW (21.91 per cent) from solar and 70.28 MW from wind (1.87 per cent).</p>	KSEB	Continuing	98%	No	NA	NA

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6.	Policy for use of DG sets	<p>Regulations of DG sets in the State are as per the notification of Ministry of Environment and Forests and Climate Change.</p> <p>Circular no. KSPCB/226/2022-SEE-3 dated 28/09/2024 is issued by KSPCB regarding the retrofiting of Emission Control Devices/Equipment in DG sets. MoEF notified emission limit for genset vide Notification GSR 804 (E) dated 03.11.2022 and DG set manufacture system has to comply the limit.</p> <p>DG set approved as per notification No. PCB/HO/SEE3/Tech/82/2019 dated 9.12.2020 and 26.3.2021 and which have completed 5 year from the date of engine manufacturing are to be retrofited with retrofit emission control devices.</p>	KSPCB	Continuously implemented	100% wherever applicable	NA	NA	NA
7.	Policy regarding installation of CAAQMS based on the emission potential or capacity of air polluting industries.	<p>Board has installed CAAQMS Stations: 9 no.s (Plamoodu, Kariavattom, Kollam, Thrissur, Kannur, Eloor Ernakulam, MG Road Ernakulam, Vyitilla Ernakulam, Palayam Kozhikode)</p> <p>Proposed CAAQMS Stations: 4 no.s (Idukki, Malappuram, Alappuzha, Palakkad)</p> <p>Central Pollution Control Board issued direction B-29016/04/06PCI-I /5401 dated 5-2-2014 for the providing of CAAQMS in the State. There are 16 number of 17 category units. Out of which 15 industries are complying with environmental standards.</p> <p>Besides the above, three units have provided CAAQMS.</p> <p>CAAQMS installed by Industries: Online data from all the AAQMS is transmitted to CPCB on a continuous basis. The ambient air quality information is also communicated to general public through an electronic display board. In addition to the above, a third party monitoring system is also being maintained which is accredited by NABL Lab to ensure emission and ambient conditions are well within prescribed limits.</p>	KSPCB	<p>9 Installed</p> <p>4 Proposed : 1 Year</p>	Around Kerala	Yes	Rs. 1 crore approx. is required for each CAAQM station. State fund is being utilized for the same.	
		<p>Central Pollution Control Board issued direction B-29016/04/06PCI-I /5401 dated 5-2-2014 for the providing of CAAQMS in the State. There are 16 number of 17 category units. Out of which 15 industries are complying with environmental standards.</p> <p>Besides the above, three units have provided CAAQMS.</p> <p>CAAQMS installed by Industries: Online data from all the AAQMS is transmitted to CPCB on a continuous basis. The ambient air quality information is also communicated to general public through an electronic display board. In addition to the above, a third party monitoring system is also being maintained which is accredited by NABL Lab to ensure emission and ambient conditions are well within prescribed limits.</p>		Continuous	100%	Company's own fund		

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8.	Mechanism to be devised for expansion of OCEMS to air polluting industries are not covered currently (such as emission from utility stacks in 17 categories, etc.)	17 category industrial units have provided OCEMS. 40 industrial units have established OCEMS connectivity. Out of which 13 are 17 category industries. Guidelines for bringing industries under OCEEMS (Online Continuous Effluent & Emission Monitoring System) has been issued by the Board vide PCB/HO/SEE-3/TECH/136/2021 dated 28-2-2022.	KSPCB	On going In 2 years	100%	NA	NA	NA
9.	Mechanisms to control fugitive emissions sources	In the Consent to operate/establish issued by the Board, condition for controlling fugitive emission is included. The standards for ambient air quality with respect to particulate matter is prescribed for the industrial units especially crushers. The compliance of consent condition is also checked.	KSPCB, Industries department	Continuous	100%	NA	NA	NA
		Various measures are taken and maintained by industries to minimise VOC emissions from storage, transport, and effluent handling faciities. - Double seal floating roofs ensure low vapourisation and avoids escape of hydrocarbon vapours. - Double mechanical seals are provided for pumps - Closed loop sample points are employed for sampling. - Fixed VOC meters are provided in Petrochemical complex. - In addition to the above, a third - party monitoring system accredited by NABL Lab is also being done periodically (LDAR Program) - In addition, VOC control and treatment system are installed in ETP for VOC vapours generated in the effluent treatment area.		Continuous	100%	No	NA	NA

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10.	Regulations for conversion of brick kilns to clean technologies	<p>Kerala PCB vide circular no. KSPCB/122/2022-SEE-3 dated 31-8-2022 issued direction that the standards for particulate matter in stack emission and minimum stack height specified in the notification of Ministry of Environment and Climate Change shall be strictly addressed to. All new brick kilns shall be allowed only with zig zag technology or vertical shaft or use of piped natural gas as fuel in brick making.</p> <p>In accordance with the MoEF & CC notification, the consent of existing temporary or seasonal brick kilns can be renewed up to 22.02.2025 subject to compliance of all the conditions in notification and prevailing circulars.</p> <p>Seasonal/Temporary Brick Kilns: 110 Permanent Brick Kilns:19</p>	KSPCB	In 2 years	100%	No	NA	NA
11.	Regulations for Emission Trading Scheme (ETS)	<p>The Carbon Credit Trading Scheme by the Bureau of Energy Efficiency (BEE) is part of India's strategy to reduce greenhouse gas emissions and meet its climate commitments under the Paris Agreement. The scheme operates within the broader framework of India's Energy Conservation Act, 2001, and complements other market-based mechanisms like the Perform, Achieve, and Trade (PAT) Scheme and the Renewable Energy Certificates (RECs) system. The Government of India is working on finalizing the regulatory and operational guidelines for this scheme, ensuring alignment with global carbon market practices. This includes creating an institutional framework and identifying potential trading platforms for carbon credits. (For more details https://beeindia.gov.in/en/programmes/carbon-market)</p>	DoECC	In the stage of finalization of GHG Inventory report. Carbon Neutrality by 2050.	100% wherever applicable	NA	NA	NA

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1. Industrial Emissions

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	Regulations for Emission Trading Scheme (ETS)	<p>The State government has declared its ambitious carbon neutral target to be achieved by 2050 and is keen to formulate an action plan for carbon neutrality. To facilitate this, the State has constituted a Working Group as per G.O. (Rt) No. 81/2021/Envnt dated 10.11.2021, with the Additional Chief Secretary, Environment, as the Chairperson, to draw up an action plan for achieving carbon neutrality by 2050. The State Action Plan on Climate Change (SAPCC) 2.0 (Approved in principle by the State Govt as per G.O. (Rt)No 4/2023/Envnt dated 21.01.2023) devised strategies and interventions for climate change adaptation and mitigation for the 2023-30 period. The planned mitigation strategies devised in SAPCC 2.0 for the 2023-30 period could avoid ~ 57000 kt CO₂ in 2030 from various sectors. Further, the Climate Change Cell (CCC) of the Directorate of Environment and Climate Change (DoECC) is leading the initiatives for the formulation of the Carbon Neutral Framework for the State in coordination with all the major stakeholder departments/agencies. In this regard, the DoECC has partnered with Vasudha Foundation, an independent not- for-profit policy research institution, working in the areas of climate policy and clean energy, for a detailed Greenhouse Gas (GHG) inventory for the State of Kerala and the development of a Carbon Neutral Pathway. DoECC has conducted the GHG inventory for the period 2005 to 2021, accounting for carbon dioxide (CO₂), methane (CH₄), and nitrous oxide (N₂O) emissions. This inventory has covered all four sectors: Energy, IPPU (Industrial Processes and Product Use), AFOLU (Agriculture, Forestry & Other Land Use) & Waste, and all relevant sub-sectors in the State that contribute to GHG emissions, as given in the methodology guidelines developed by the Intergovernmental Panel on Climate Change and prepared a comprehensive report. As per the assessment, the gross GHG emission of the State in the year 2021 was 21.86 million tonnes of carbon dioxide equivalent (MtCO₂ e) and Net emissions from the State, after accounting for the removals through sequestration, stood at 11.60 million tonnes of carbon dioxide equivalent (MtCO₂ e). The Energy sector (~78% of the State's Gross emissions) is identified as the lead emitting sector in the State followed by the Waste sector, the Agriculture sector, and the Industrial Process and Product Use sector. The Transport sub-sector primes the Energy Sector emissions, constituting ~62% of the total Energy sector emissions and ~49% of the gross emissions of the State. These outcomes have implications for specific policies and near- term strategies in climate change intervention in the State. A web portal has also been developed to host all these datasets. Building on this inventory, the DoECC has prepared draft Carbon Neutral Pathway for the State, aiming to achieve carbon neutrality by 2050. Currently, DoECC is in the process of finalization of this draft pathway.</p>	DoECC	In the stage of finalization of GHG Inventory report. Carbon Neutrality by 2050.	100% wherever applicable	NA	NA	NA

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12.	Policy to set up e-waste recycling unit in industrial areas in compliance with e-waste management rules	E-Waste Management Rules, 2016 is followed in the State. E-waste inventory has been prepared for the State through NIIST by the Kerala PCB. In Kerala, two dismantling units are in opeation. Consent to operate issued for recycling unit at Idukki by the independent private unit (M/s. Sahya Solutions Group) started functioning. Consent to operate and EPR registration issued. Govt. has taken initiatives to provide more units.	KSPCB, Industries department	Completed Ongoing	North and South Kerala	No	NA	NA
13.	Any other Policy / Rules/ Standards/ Guidelines pertaining to industrial emissions	Board issued guidelines for controlling emission from hot mix plants, rendering plants. Local Self Government in Kerala issued guidelines for rendering plants	KSPCB, Industries dept.	On going (in 2 years)	100%	NA	NA	NA
14.	Number of industries in the state complying emission standards	17 category industries and GPI are complying emission standards.	KSPCB	Ongoing	100%	NA	NA	NA

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S. No.	Activities	Status of activity (Completed/ Ongoing/ To be Started)	Implementing agency	Timeline for completion	Target (Coverage / Percentag	Financial implications (Yes/ No)	Funds Allocated (Rs crore)	Funds Utilized as on date (Rs
15.	Inventory of fuel consumed in the industries (type and quantity)	<p>Apr-Mar'23 consumption of various types of fuel & qty on industry basis is as below: (Data extracted from industry Y2 file).</p> <p>MS (Petrol): 1784.78 TMT HSD (Diesel): 2639.26 TMT SKO (Kerosene): 24.08 TMT LPG: 1135.37 TMT FO (Furnace Oil): 422.64 TMT Bitumen: 219.28 TMT Lubes/Greases: 41.31 TMT CNG: 29.03 TMT</p>	Industries dept, Oil companies	NA	NA	NA	NA	NA
	<p>KSRTC: Consumption of various types of fuels & quantity on the period of April 2023 to December 2023 is as below: HSD (qty in ltr) : 10,04,44,995 CNG (qty in ltr) : 53,388 HSD (qty in ltr- Jan '24 to Oct '24) : 10,64,60,459 CNG (qty in kg - Jan '24 to Oct '24) : 97,218</p>	NA		NA	Yes	NA	Diesel - Rs.9,63,71,01,055 CNG-Rs. 44,44,419 Diesel - Rs 10,00,62,18,541 (Apprx. Value) CNG-Rs 85,55,184 (Apprx. Value)	

Indicative Template for STATE ACTION PLAN of KERALA on AIR QUALITY

1. Industrial Emissions

S. No.	Activities	Status of activity (Completed/ Ongoing/ To be Started)	Implementing agency	Timeline for completion	Target (Coverage / Percentag	Financial implications (Yes/ No)	Funds Allocated (Rs crore)	Funds Utilized as on date (Rs
16.	Shifting of industries/ commercial units to gaseous fuels (CNG/ PNG/ CBG)	<p>Pipeline network of natural gas is available at / near all the major industrial hubs in the districts of Ernakulam, Thrissur, Palakkad, Malappuram, Kozhikode, Kannur and Kasaragod.</p> <p>However there is no policy / Guideline for shifting of industries from using pollutant fuels to PNG. Policy is to be issued by the industries department.</p> <p>Major industries are extensively using solid fuels and FO especially those located in Ernakulum city.</p> <p>Pipeline network is being laid to provide Natural Gas from LCNG located in DIC Kochuveli, which will cater to major industries in Trivandrum, further network is being developed in Alappuzha & Kollam for CNG & PNG</p> <p>Industries and entities are still using briquettes, and need to shift to PNG as pipeline network is available in DIC Kochuveli, Trivandrum Dist. Kollam & Alappuzha</p>	oil companies , Industries dept	2026	100%	NA	NA	NA
		<p>As a part of Eco friendly initiative, KSRTC has decided to run a pilot project prior to the mass conversion of HSD buses to CNG.</p> <p>6 HSD Buses have been successfully converted to CNG.</p> <p>KSRTC has also purchased 2 new CNG engine and conversion kits from M/s. Ashok Leyland.</p> <p>The newly purchased CNG retro - fitment kits are fitted in 2 fast passenger buses of KSRTC.</p> <p>The above mentioned converted buses are now in regular service operation</p>	KSRTC	Completed	Ongoing	Yes	No	Details mentioned in vehicular emission SI.No.12

2. Vehicular Emissions

S. No.	Activities/ Action plan	Status of activity (Completed/ Ongoing/ To be Started)	Implementing agency	Timeline for completion	Target (Coverage/ Percentage)	Financial implications (Yes/ No)	Funds Allocated (Rs crore)	Funds Utilized as on date (Rs crore)
1.	Notification for phasing out old vehicles	Notification of the Ministry is followed. All the 15 year old vehicle registered under Central Govt, State Govt, LSGD,public sector has been phased out. The Registration of those vehicles remain cancelled in VAHAN software.	Transport, MVD etc.	Ongoing	100%	No	Nil	Nil
2.	Policy for scrapping old vehicles -	<p>Kerala State Road Transport Corporation own 5520 buses as on 01.12.2024 including 165 electric buses. 446 buses below 5 years; 2005 buses of age 5 -10 years; 1889 buses of 10-15 years and 1180 buses of 15 years and above. As per the Government order no GO (P No 11/2023/FIN Dated 31.01.2023, Stage Carrage and other category type vehicles having age more than 15 years has to be removed from the existing fleet. As per State Government orderNo.389/2024/TRANS dtd:28/09/2024 ,the validity of scrapping of KSRTC vehicles which completed 15 years of age has been extended up to 30.09.2026. Govt has entrusted KSRTC to set up one Scrapping Centre (RVSF) in KSRTC as joint venture between KSRTC& M/s.Braithwaite&Co. Ltd, a Public Sector Undertaking under The Ministry of Railways through GO (P) No: 322/2024/TRANS dated 21/08/2024. The process of the implementation of Registered Vehicle Scrapping Facility is under process.</p> <p>Govt. have issued orders vide G.O.(Rt)No.322/2024/TRANS Dated,Thiruvananthapuram, 21-08-2024 to establish 3 RVSF centres , 1 with joint venture between KSRTC and M/s Brathwaite & Co. Ltd., and 2 on tender basis by MVD. Draft tender is submitted to Govt. for approval.</p>	Transport, MVD etc.,	Ongoing	100%	<p>Yes (The estimated cost for procuring new vehicles in place of vehicles to be scrapped is Rs.440.5 crore approximately)</p> <p>Yes (For RVSF)</p>	Nil	Nil
3.	Policy/ Plan for Li-battery waste management from scrapped vehicles	MoEF &CC notified Battery waste Management Rules 2022 including the plan for Li Battery waste management from scrapped vehicles.This rule is followed.	KSPCB	On going	100%	No	Nil	Nil

2. Vehicular Emissions

S. No.	Activities/ Action plan	Status of activity (Completed/ Ongoing/ To be Started)	Implementing agency	Timeline for completion	Target (Coverage/ Percentage)	Financial implications (Yes/ No)	Funds Allocated (Rs crore)	Funds Utilized as on date (Rs crore)
4.	Policy / Scheme for Eco- Friendly Mass Rapid Transport Systems	<p>Kochi Metro Rail Limited (KMRL) is a centre-state joint venture company entrusted with the implementation of Kochi Metro Rail Project and Kochi Water Metro Project. The Phase I of Kochi Metro Rail Project extending from Aluva to Petta over a length of 25.20 km with 22 stations is fully operational currently. The Phase I extension of Kochi Metro Rail Project extending from Petta to Thripunithura over a length of 3 km and 3 stations is fully commissioned (2 stations and 1.8km).</p> <p>The Union govt. had approved the Phase II corridor of Kochi Metro Rail Project, extending from JLN Stadium to Infopark via Kakkanad over a length of 11.2 km with 11 stations, in September 2022, and the project implementation has commenced currently. According to the funding plan, the Centre government and State government will give Rs. 274.90 Crore each as equity share in the project.</p> <p>The Kochi Water Metro Project which is a first of its kind water transport project in India using electric boats is also in the implementation stage. It is a 76 km long integrated transport system connecting 10 islands with mainland Ernakulam city through a network of 16 routes comprising 38 stations. For enhancing first and last mile connectivity electric vehicles have been exempted from availing permits (STA/RTA) separately.</p> <p>For promoting green mobility, KMRL has procured 75 e-autos and 15 nos of e-buses to operate as feeder services to ensure first and last mile connectivity.</p> <p>As a part of promoting green energy KSRTC has introduced 165 electric buses to augment city circular service.</p>	KMRL, Transport, MVD etc.,	Implemented	Presently at Kochi	Yes	KMRL-50, Nil	<p>KMRL- 18.36 M/s. PMI Electro Mobility Solutions Pvt Ltd. Amount - Rs.92,43,986/- per bus. (purchased 50 buses)</p> <p>M/s. PMI Electro Mobility Solutions Pvt Ltd. Amount - Rs.91,88,984/- per bus. (purchased 33 buses)</p> <p>M/s. VE Commercial Vehicle Pvt Ltd. Amount - Rs.93,49,725/- per bus(purchased 60 buses)</p> <p>M/s. VE Commercial Vehicle Pvt Ltd. Amount - Rs.89,02,950/- per bus(purchased 20 buses)</p> <p>M/s. Switch Mobility Automotive Ltd. Amount - Rs.2,15,77,500/- per bus (purchased 02 buses)</p>

2. Vehicular Emissions

S. No.	Activities/ Action plan	Status of activity (Completed/ Ongoing/ To be Started)	Implementing agency	Timeline for completion	Target (Coverage/ Percentage)	Financial implications (Yes/ No)	Funds Allocated (Rs crore)	Funds Utilized as on date (Rs crore)
5.	Policy for augment e-vehicles	<p>An Electric Vehicle Policy (GO No:24/2019/TRANS- EV Policy of the State) is in place for the State of Kerala. The policy aims at enhancing e mobility activities such as promotion of Electric Vehilces, development of resilient charging infrastructures etc. Registration fee for electric vehicle has been exempted in the State. As per GO (P) No: 12/2021/TRANS dated 23/2/2021, 50% (fifty percentage) tax reduction for a period of five years with effect from the 1st day of April, 2021 has been provided on the rate of tax levied for Electric Transport Vehicles. Also tax has been exempted for first five years in the case of electric 3 Wheelers. For the Non Transport Vehicle Category a consolidated tax percentage of 5% of the invoice price is levied in the place of 10 to 20 % of invoice price.</p> <p>As part of Electric Vehicle Policy, subsidy @ Rs 30,000/- per vehicle is being disbursed by MVD for purchase of new e-autorickshaws. As of now, subsidy disbursed to 4587 applicants for an amount of Rs 13.76 crores.</p>	Industries, Transport, MVD, EMC, ANERT etc.,	On going	100% wherever applicable	Yes.	Expenditure from E Mobility Awareness plan Fund (Govt. of Kerala) : Rs. 4728.05 Lakhs	
		<p>The Energy Management Centre serves as the State Nodal Agency for the Go Electric campaign. Through a variety of programs and initiatives, EMC actively promotes awareness about electric vehicles (EVs) among the public, encouraging the adoption of sustainable and energy-efficient transportation solutions.</p> <p>As part of E Mobility awareness and E Mobility promotion the following schemes were implemented. The year wise components and the expenditures for those are given below.</p> <p>E Mobility promotion fund has started from the year 2019. And till now the total expenditure under the E Mobility awareness plan fund is Rs 4728.05 lakhs. The detailed programs and its expenditures are given below.</p> <p>We are conducting E Mobility conference and Expo named EVOLVE since 2021. Two versions of the event were already conducted one at Eranakulam and the other at Trivandrum.</p> <p>The program intended to have a state of art knowledge of recent developments and opportunities in E Mobility. It also helps in enhancing the awareness on E Mobility area.</p> <p>E Subsidy is being given to electric three wheelers at a rate of Rs 30000 per vehicle. More than 4587 subsidies have been distributed till now.</p> <p>The financial details are consolidated in a separete table.</p>		On going and developing each year	100% wherever applicable			

2. Vehicular Emissions

S. No.	Activities/ Action plan	Status of activity (Completed/ Ongoing/ To be Started)	Implementing agency	Timeline for completion	Target (Coverage/ Percentage)	Financial implications (Yes/ No)	Funds Allocated (Rs crore)	Funds Utilized as on date (Rs crore)
6.	Notification and enforcement of PUC norms	Notified and the updated pollution norms are in place. Vehicles complying BS6 pollution norms only can be registered in the State from 1/04/2020. Pollution testing centres are now directly linked to Parivahan system. The pollution testing centres, testing of vehicles and pollution under control certificate issued by the centre are now being monitored centrally by the Motor Vehicles Department.	Transport, Motor Vehicles department	on going	100%	No.		
7.	Online monitoring of PUC implementation	Pollution testing centres are now directly linked to Parivahan system. The pollution testing centres, testing of vehicles and pollution under control certificate issued by pollution testing centres are now being monitored centrally by the Motor Vehicles Department. Each enforcement can digitally monitor the status of pollution certificate for a particular vehicle in field itself. Geofencing on photo capture has been implemented in vahan web portal in Kerala state from March 2024 to ensure that the vehicle has been physically tested at the pollution testing centres.	Transport, MVD	on going	100%	No.		
8.	Mechanism for centralized record maintenance of PUC checks, certification and cross check by the concerned transport authorities to be incorporated	Notified and the updated pollution norms are in place. Pollution testing centres are now directly linked to Parivahan system. The pollution testing centres, testing of vehicles and pollution under control certificate issued by the centre are now being monitored centrally by the Motor Vehicles Department. Department is ensuring the calibration of testing equipments through the provisions of parivahan system in every six months.	Transport, Motor Vehicles department etc.	on going	100%	No.		
9.	Construction of bypass / ring roads	Kollam- alappuzha bypass		ongoing				
		Under the scheme Development of Urban links NH fund allocation is Rs. 226.53 Lakhs, expenditure is Rs.31.66 Lakhs		ongoing	100%	Yes	2.26	0.31
		Traffic safety measures at NH urban links Fund allocation is 1647.45 Lakhs, Expenditure is 532.59		ongoing	100%	Yes	16.47	5.33
		CRF Roads (Ordinary Allocation) Fund allocation is 5094.72 Lakhs, Expenditure is 2421.57 Lakhs		ongoing	100%	Yes	50.95	24.22

2. Vehicular Emissions

S. No.	Activities/ Action plan	Status of activity (Completed/ Ongoing/ To be Started)	Implementing agency	Timeline for completion	Target (Coverage/ Percentage)	Financial implications (Yes/ No)	Funds Allocated (Rs crore)	Funds Utilized as on date (Rs crore)
		CRF Bridges ,Fund allocation is 6.52 Lkajs,Expenditure is 6.52 Lakhs	Highways, PWD, NATPAC	ongoing	100%	Yes	0.065	0.065
		Construction of Bypass in NH		Ongoing	100%	Yes	0.0083	0
		Construction of bylanes in selected town along NH Fund allocation is 101.03Lakhs,Expenditure is 80.44 Lakhs		on going	100%	Yes	1.01	0.8
		Roads of economic importance (CSS) having 50%,Fund Allocation is 0.83 Lakhs,Expenditure is 0		Ongoing	100%	Yes	0.0083	0
		Elevated Highway in Wayanad-bandipur of NH 212 (Cost sharing with NHAI)		Ongoing	100%	Yes	0.0083	0
		Investigation and planning		Ongoing	100%	Yes	0.5	0
		Land Acquisition C,Fund Allocation is 1000Lakhs,Expenditure is 121.6Lakhs		Ongoing	100%	Yes	10	1.22
		Land Acquisition V, Fund Allocation is 100 Lakhs, Expenditure is 0		Ongoing	100%	Yes	1	0
10.	Re-filling Stations retrofitted with Vapor Recovery System	Direction of Central Pollution Control Board are followed. 31 vapour recovery system already provided		Oil companies, Industries dept.	On going	100% wherever applicable	No	
11.	Incentive of setting up R&D facilities related to EVs	MVD 1. Rs 95 lakhs transferred to Sree Chithirathirunal College of Engineering for setting up a Centre of Excellence for Electric Vehicles for giving training and research purpose. 2. Rs 23 lakhs sanctioned by Govt. to College of Engineering, Trivandrum for setting up a pilot plant for green hydrogen generation.	Industries, MVD	On going	100%	Yes	0.95	0.95

2. Vehicular Emissions

S. No.	Activities/ Action plan	Status of activity (Completed/ Ongoing/ To be Started)	Implementing agency	Timeline for completion	Target (Coverage/ Percentage)	Financial implications (Yes/ No)	Funds Allocated (Rs crore)	Funds Utilized as on date (Rs crore)
12.	Any other Policy / Rules/ Standards/ Guidelines pertaining to vehicular emissions	<p>With more than 100 CNG Stations operational in the State, Govt. may consider policy to</p> <ol style="list-style-type: none"> 1. Convert all govt. vehicles to CNG. 2. All public transport to be converted on CNG - KSRTC buses, School buses, Autos, Taxis, City buses, Contract buses, etc 3. All LCVs also should be converted to CNG 4. IOAGPL / AGP City Gas is converting a Govt Boat on CNG as a pilot project. Govt may consider policy to ban liquid fuels to be in vessels used for inland navigation to control the marine and air pollution. <p>Kerala State Road Transport Corporation has initiated the following steps :</p> <ol style="list-style-type: none"> 1. KSRTC purchased and introduced 163 nos of fully built 9 metre non AC electric buses and 02 double decker electric buses for operating city services in Thiruvananthapuram City. 2. As a part of eco-friendly initiatives and reduction in fuel cost KSRTC envisages conversion of its existing 6 diesel buses to CNG. Now the trial conversion has completed and put in regular service operation for performance evaluation. KSRTC procured one CNG bus and converted 2 HSD fast passenger uses in to CNG using OEM supplied new CNG engine and conversion kit. The price difference between diesel and CNG is almost same. Hence including more CNG buses in fleet is not profitable to KSRTC. 3. KSRTC has purchased 152 new BSVI diesel buses under latest pollution norms. <p>The Financial implications of electric buses are mentioned in Sl. No. 04</p>	Transport, MVD etc.	Ongoing	100% wherever possible	Yes	Rs.103.74 Crore from Smart City Trivandrum Ltd.	<ol style="list-style-type: none"> a) 151 fully built Non AC air suspension diesel propelled buses. Amount - Rs.38,29,301.6/- (per bus) b) 12 meter AC diesel propelled Bharat Benz BSVI Amount - Rs. 1,05,19,839/- (for 01 bus only) c). Rs.24,75,602/- Utilized for purchasing new CNG engines. d) Rs.6,27,200/- utilized from plan fund for converting one CNG bus. e) Rs.25,08,800/- utilized for converting 4 CNG buses using KSRTC's own fund.
				Completed	100%			

2. Vehicular Emissions

S. No.	Activities/ Action plan	Status of activity (Completed/ Ongoing/ To be Started)	Implementing agency	Timeline for completion	Target (Coverage/ Percentage)	Financial implications (Yes/ No)	Funds Allocated (Rs crore)	Funds Utilized as on date (Rs crore)
Additional points incorporated by NATPAC:								
13	Promotion of Smart and Sustainable Technologies in Road Construction	Adoption of new technologies in the transportation infrastructure such as Full Depth Reclamation, Reclaimed Asphalt Pavement, Warm Mix Asphalt, Surface Dressing, Thin/Thick White Topping etc. Periodic maintenance of roads through scientific road asset management strategies	PWD, LSGD, KRFB, KSTP	Implemented	100%	Yes	fund allotted for total work	11 (Alappuzha-completed)
14	Planning and Development of Transport Infrastructure	<ul style="list-style-type: none"> · Development of Urban Mobility Plans · Road Network Development Plan/Development of Mobility Corridors - Outer Ring Road, Inner Ring Road, Elevated Road, Flyovers, Widening of roads · Preparation of Non-Motorized Transport Development Plans - Footpaths, Pedestrian grade-separated facilities, Bi-cycle lanes, Pedestrian only zones etc. · Freight Management Plan 	Transport Dept., PWD, LSGD, SMART CITY, NHAI, KSTP	Smart city - 2025	31.15Km	Yes	290.9 Crore	227.06 Crore
15	Promote Cleaner Transportation Technologies, Fuel Innovation and Cleaner Fuel Usage	<p>Increase the availability of EV charging infrastructure in public and private spaces, focusing on urban centres and highways.</p> <ul style="list-style-type: none"> · Promotion of hydrogen and biofuel adoption through investments in hydrogen fuel infrastructure and incentivize biofuel production and use in heavy-duty trucks and buses. Encourage the use of biofuels (Compressed biogas, bioethanol blended gasoline, biodiesel etc.), hydrogen, and compressed natural gas (CNG) through incentives and investment in infrastructure. · Transitioning public buses and trains to electric modes to reduce emissions and improve air quality in cities. <p>MVD: 1.Rs.5crores transferred to KSEB for setting up 32 EVCS. 2. Rs.64 Lakhs sanctioned to ANERT for setting up EVCS through private agencies. 3. 315 lakhs sanctioned to ANERT for setting up EVCS at 35MVD Offices.</p> <p>As a part of promoting Green Energy and to reduce Carbon emission, KSRTC is now implementing e-vehicles and converting diesel buses into CNG in its fleet. As a pilot project, procured 165 electric buses to operate in city services and converted 8 diesel buses to CNG.</p>	MVD, Transport Dept., KSEB, KSRTC, ANERT	KSEB - completed ANERT - on going	100%	Yes	8.79	5.4995

2. Vehicular Emissions

S. No.	Activities/ Action plan	Status of activity (Completed/ Ongoing/ To be Started)	Implementing agency	Timeline for completion	Target (Coverage/ Percentage)	Financial implications (Yes/ No)	Funds Allocated (Rs crore)	Funds Utilized as on date (Rs crore)
16	Promotion of Public Transportation Systems	<ul style="list-style-type: none"> · Enhance public transportation systems such as bus, metro, and rail systems to increase service frequency and coverage, particularly in high-density urban areas and increase ridership through sustainability policies discouraging use of private vehicles · Application of Geospatial technology for real-time access to nearby public transport facilities and fleet. · Route management system: An intelligent and integrated transport system can enhance efficiency and reliability of the entire public transport system. This system envisages a comprehensive online application, capturing vehicle timing, seat reservation, cashless journey, variable pay approach etc. 	MVD, SMART CITY, Transport Dept., KSRTC, KMRL	Smart city-Completed procurement of Electric buses	ongoing	Yes	103.74 Crore	103.74 Crore
17	Traffic Management Measures	<ul style="list-style-type: none"> • Intelligent Traffic Management Systems (ITS) applications such as sensors, cameras etc. to optimize traffic flow, reduce congestion, and lower emissions from idling. • Establishment of advanced Traffic Management Centre (TMC), Traffic incidence management system and development of Cordon zones • Installation of real-time adaptive traffic signal systems that adjust based on traffic patterns, reducing congestion and emissions. • Traffic management measures such as improvement & redesign of junctions, parking management system, one-way operations etc. • Implementation of congestion/emissions zones where drivers must pay a fee to enter high-traffic areas during peak hours, encouraging use of public transport. 	MVD, Transport Dept., SMART CITY, Traffic police	Smart city-Development of Traffic Signal Command and Control Center and Integrated Command and Control Centre 15.01.2025	90%	Yes	22.81	15.49
18	Multi-modal Integration & Intermodal Integration of Transport Modes	<ul style="list-style-type: none"> · Construction and commissioning of private vehicle parking (MLCPs or parking spaces) adjacent to the public transport hubs for ease of accessing multi-modal public transport. · Develop carpool lanes, incentivize carpooling through tax breaks or parking privileges, and support the growth of ride-sharing services and create intermodal transportation hubs that integrate buses, trains, metro and intermediate public transport with these services to improve the efficiency of the entire transport network. 	NATPAC, MVD, Transport Dept., LSGD, SMART CITY	Smart city- 2 nos MLCPs (Palayam & Thampanoor) completed and commissioned. 2 nos of MLCPs in progress (Medical College & Putharikandom)	(302 cars & 200 two wheelers - Palayam) (22 Cars & 400 two wheelers- Thampanoor) (202 cars - Medical College) (210 Cars - Putharikadom)	yes	53 Cr (Completed) 40 Cr (On going)	42 Cr (Completed Project Utilizatin) 6 cr (On going projects)

2. Vehicular Emissions

S. No.	Activities/ Action plan	Status of activity (Completed/ Ongoing/ To be Started)	Implementing agency	Timeline for completion	Target (Coverage/ Percentage)	Financial implications (Yes/ No)	Funds Allocated (Rs crore)	Funds Utilized as on date (Rs crore)
19	Public Awareness and Education	<ul style="list-style-type: none"> · Launching educational campaigns on sustainable transport on the health and environmental benefits of using public transport, alternative fuels, cycling, and walking. · Educate drivers on eco-driving techniques like reducing idling, smooth acceleration, and regular vehicle maintenance and pollution check to minimize emissions. · Promote awareness on periodic maintenance of vehicles including cleaning of fuel filters, air filters etc. and maintain recommended tyre pressure. 	MVD, Transport Dept., NATPAC	NATPAC activities 1. Completed workshop on Full Depth Reclamation 2. Completed workshop on Sustainable Transportation 3. Training for Drivers on Safe Transportation of Hazardous Goods	100%	Nil	-	-
20	Developing Green Corridors to Improve Air Quality	Plant indigenous trees and vegetation along road network to absorb pollutants and particulate matter, enhancing air quality.	Kerala Forest Dept (social forestry), PWD, NHAI, LSGD	5 years	5.50 lakh trees to be planted in lieu of 55000 trees felled for development purpose.	To be ascertained	Funds yet to be allocated	NA
		<p>REMARKS:</p> <p>KFD proposes to develop small microforest/miniature forest patches named Nagaravanam/ Vidyavanam/ Theme based gardens. This initiative will create small microforest in the heart of the city, which will act as green lungs to improve air quality and urban biodiversity. By offering green spaces for relaxation and education, such small Nagaravanam/ Vidyavanam/ Theme based gardens foster a deeper connection between urban residents and nature. This will be a vital step towards combating urban pollution and promoting sustainable living in rapidly growing cities. This will go a long way in combating climate change and global warming. The NHAI and the Kerala Road Fund Board are partners and shall fund the required projects.</p> <p>KSBB propose to start a new project named, "Air Pollution and Absorbing Trees". KSBB identified 50 high potential tree species for Avenue plantation which are capable of absorbing air pollutants. Trees include minor fruit trees, RET trees. We plan to make available seedlings of these trees from TBPGR, KFRI. After ensuring the availability of plants, Biodiversity Management Committees and Bio Diversity clubs will be entrusted to plant these plants under their respective areas.</p>						
Assessment of the number of vehicles which are more than 15 year old has been taken								

E-MOBILITY PROMOTION FUND: 2019-20

2. Vehicular Emissions

S. No.	Activities/ Action plan	Status of activity (Completed/ Ongoing/ To be Started)	Implementing agency	Timeline for completion	Target (Coverage/ Percentage)	Financial implications (Yes/ No)	Funds Allocated (Rs crore)	Funds Utilized as on date (Rs crore)
		Components	Timeline	Expenditure (in lakhs)				
		Kerala EV Expo 2019		189.45				
		UK visit of delegates		18.13				
		E-Mobility symposium organized jointly by Transport Department and Sree Chitra Thirunal College of Engineering		5				
		Installation of charging stations by KSEB		Nil				
		E-auto subsidy		1.2				
		Total		213.79				
		E-MOBILITY PROMOTION FUND: 2020-21						
		Components		Expenditure (in lakhs)				
		E-auto subsidy		33.9				
		Installation of charging stations by KSEB		500				
		Project on Establishment of Hydrogen Generator and Dispensing unit by Sree Chitra Thirunal College of Engineering		966				
		Total		1499.9				
		E-MOBILITY PROMOTION FUND: 2021-22						
		Components		Expenditure (in lakhs)				
		Charging stations in public places through ANERT		In progress				
		Conversion of diesel mini buses and auto rickshaw into electric vehicles by SCT College of engineering		30				
		E-auto subsidy		366.6				
		KTDFC –for purchasing 30 numbers of e-auto rickshaws		85				
		Paymment towards KSEB Nilayakal EV charging station for KSRTC		12.32				
		Total		493.92				
		E-MOBILITY PROMOTION FUND: 2022-23						
		Components		Expenditure (in lakhs)				
		E-mobility awareness and Expo		65.22				
		Charging stations in public places through ANERT		500				
		E-auto subsidy		269.7				
		EV charging stations at 20 MVD offices		In progress				

2. Vehicular Emissions

S. No.	Activities/ Action plan	Status of activity (Completed/ Ongoing/ To be Started)	Implementing agency	Timeline for completion	Target (Coverage/ Percentage)	Financial implications (Yes/ No)	Funds Allocated (Rs crore)	Funds Utilized as on date (Rs crore)
		EV charging stations at 15 MVD offices		In progress				
		Subsidy through ANERT for 2w/3w EV charging stations		nil				
		Installation and commissioning of EV charging stations at KSRTC Trivandrum city depot		200				
		Setting up of Centre of Excellence for EV at SCT College		In progress				
		Financial assistance to CET for developing electric 4w driven All-Terrain Vehicle		In progress				
		Financial assistance to Govt. Engineering College, Barton Hill		In progress				
		Balance						
		Total		1039 (67%)				
E-MOBILITY PROMOTION FUND: 2023-24								
		Components						Expenditure (in lakhs)
		ELAMS proposals 2022-23						
		e-auto subsidy						110.4
		e- mobility awareness and Expo						65.47
		EVCS at 15 MVD offices						135
		Subsidy for 2/w/3w charging stations						Nil
		Financial assistance to Barton College of Engineering						23.4
		Financial assistance to College of Engineering						2.99
		ELAMS Total						337.26 (21.69%)
		Plan 2023-24						
		e-auto subsidy						196.8
		EVCS at 20 MVD offices						Nil
		Centre for Excellence for EV						Nil
		E-mobility awareness and expo						0.2
		Conversion of peat gas to hydrogen						Nil
		EV performing testing						Nil
		EVS 36 expo – travel expenses						13.32
		Plan 2023-24 total						210.32
		Total						547.58
E-MOBILITY PROMOTION FUND: 2024-25								
		Fund released						in lakhs
		e-auto subsidy to 1000 new e-autorickshaws						300
		Centre for Excellence for EV at SCET College						95

2. Vehicular Emissions

S. No.	Activities/ Action plan	Status of activity (Completed/ Ongoing/ To be Started)	Implementing agency	Timeline for completion	Target (Coverage/ Percentage)	Financial implications (Yes/ No)	Funds Allocated (Rs crore)	Funds Utilized as on date (Rs crore)
		Payment to KSRTC for setting up EVCS		178				
		Payment for e-mobility expo 2023		28.11				
		In progress						
		EVCS at 20 MVD offices		180				
		EVCS at 15 MVD offices		128				
		Subsidy to ANERT for setting up EV charging stations		21.75				
		R&D assistance to College of Engineering, Trivandrum to set up a pilot plant on green hydrogen generation.		3				
		TOTAL		933.86				
		GRAND TOTAL		4728.05				

3. Emissions from burning of waste

S. No.	Activities/ Action plan	Status of activity (Completed/ Ongoing/ To be Started)	Implementing Agency	Timeline for completion	Target (Coverage / Percentage)	Financial implications (Yes/ No)	Funds Allocated (Rs crore)	Funds Utilized as on date (Rs crore)
1.	Notification and Enforcement of municipal solid waste (MSW) management rules	Notification Done. Enforcement of SWM Rules Ongoing. Vide G.O.(Rt)No. 673/2023/LSGD Dated 21.03.2023 Enforcement squad has been formed for monitoring and penalizing the violators against implementation of SWM rules, 2016.	Urban directorate, Directorate of Panchayat, Suchitwa mission, KSPCB	Completed	100%	No	NIL	NIL
2.	Policy for MSW management	Kerala Solid Waste Management Policy notified in 2018. GO(P) No: 65/2018/LSGD dated 13.09.2018		Completed	100%	No	NIL	NIL
3.	Policy for legacy waste management at dumpsites	Policy approved for remediation of legacy sites. Process of Biomining completed at 19 sites and process ongoing at 10 locations. Not yet started sites - 19 sites. Newly identified sites after 2018 - 15 sites (5 completed) Vide G.O.(Rt)No.2629/2022/LSGD Dated 29/10/2022, Government has approved guidelines for Remediation of Legacy Waste Dumpsites through Bioremediation.		19 - completed 10 - ongoing	100%	No	-	-

3. Emissions from burning of waste

S. No.	Activities/ Action plan	Status of activity (Completed/ Ongoing/ To be Started)	Implementing Agency	Timeline for completion	Target (Coverage / Percentage)	Financial implications (Yes/ No)	Funds Allocated (Rs crore)	Funds Utilized as on date (Rs crore)
4.	Policy for implementation of ban on single use plastics	<p>Ban on Single Use Plastics notified by Government of Kerala.</p> <p>1. G.O.(Rt) No.06/2020/ENV.T. dated 11.05.2020 2. G.O.(Rt) No.04/2020/ENV.T. dated 16.02.2020 3. G.O.(Ms)No.2/2020/Env.t. dated 27.01.2020 4. G.O.(Ms)No.8/2019/Env.t. dated 19.12.2019</p> <p>Two Enforcement teams formed; (a) LSGD (23 teams) and (b) Vigilance squad (14 teams) Enforcement team formed for monitoring open dumping, open burning, open littering. Training for Haritha Karma Sena and Enforcement team conducted. Swap shops, Eco alternative products expos have been conducted by Kudumbasree mission and other SHGs in the state. IEC activities are being carried out through Print-dailies in state. G.O.(Ms)No.4/2020/ENV.T dated 16.02.2020 - Ban on single use plastic ban items prepared.</p>		Ongoing	100%	No		
		<p>Assessment of alternatives to plastic in the state of Kerala. DATA REPOSITORY</p>		Completed	100%	No		
5.	Policy for development and Construction of Waste to Energy Plants (a) Bio- methanation / Bio CNG (b) Composting plant etc.	Draft guidelines for engaging private agencies for implementation of waste management projects is being prepared and submitted to government.				Yes		
		Bio CNG plant (150 TPD) in Brahmapuram is planned.		2026	80%			
		Waste to Energy plant in Palakkad proposed.		2027	ongoing			

3. Emissions from burning of waste

S. No.	Activities/ Action plan	Status of activity (Completed/ Ongoing/ To be Started)	Implementing Agency	Timeline for completion	Target (Coverage / Percentage)	Financial implications (Yes/ No)	Funds Allocated (Rs crore)	Funds Utilized as on date (Rs crore)
6.	Any other Policy / Rules/ Standards/ Guidelines pertaining to MSW Management	Policy for Domestic Hazardous Waste approved and is being implemented. Policy for management of Construction and Demolition waste approved and the process to be started. Draft SOP on Domestic Hazardous Waste prepared. G.O.(M/s)No. 1227/2022/LSGD dated 16.05.2022 - Guidelines for Household Biomedical Waste collection, storage and disposal prepared. Strategy Framework for Waste to Energy project is being prepared.		2026	100%	No		
		Policy for EPR (Extended Producer Responsibility)		2026	100%	No		

4. Municipal Solid Waste Management

S. No.	Activities/ Action plan	Status of activity (Completed/ ongoing/ To be Started)	Implementing Agency	Target Number (No.)/ (%)	Total Capacity (TPD) / Coverage (Acres)	Funds Allocated (Rs. crore)	Timeline for completion	Target Completed as on date	Funds Utilized as on date (Rs crore)	
1.	Waste collection status in the city (%)	Data of each ULB consolidated in a separate sheet. Waste Generated = 3011.23 TPD Waste Processed = 3870.35 TPD	Urban directorate, Directorate of Panchayat, Suchitwa mission, KSPCB	100%	Coverage: 19,505 wards	-	12 months	84.83%	Total SBM Expenditure : Rs. 54.90 Cr	
2.	Waste segregation status in the city (%)	Data of each ULB consolidated in a separate sheet. Waste Generated = 3011.23 TPD Waste Processed = 3870.35 TPD		100%	Coverage: 19,505 wards					
3.	Material Recovery Facility	MCF functional in all ULBs. 223 proposed projects of MRF under SBM (U) having Rs 37.1 crore fund. Already 1272 MCF and 167 RRF existing in Kerala.		223	228.5	Total cost Rs 37.1 crore under SBM (U). Rs 8.26 crore central share.	2027	1209 Functional MCFs and 144 Functional RRFs as on 28/12/2024		To be implemented through KSWMP
4.	Waste to Energy plants	Bio CNG plant (150 TPD) in Brahmapuram is planned. Waste to Energy plant in Palakkad proposed.			150		2026 2027	-		-
5.	Waste to compost plants	There are Decentralised Aerobic Thumboormuzhi in ULBs. Projects yet to be started under SBM(U) 2.0			533.85		2027	nil		-
6.	Remediation of dumpsites in the city	Completed sites - 19 sites. Process ongoing at 10 sites. Not yet started - 15 sites. Newly identified sites after 2018 - 15 (5 completed)			59	1891358.33 T		2027		19 + 5

4. Municipal Solid Waste Management

S. No.	Activities/ Action plan	Status of activity (Completed/ ongoing/ To be Started)	Implementing Agency	Target Number (No.)/ (%)	Total Capacity (TPD) / Coverage (Acres)	Funds Allocated (Rs. crore)	Timeline for completion	Target Completed as on date	Funds Utilized as on date (Rs crore)
7.	Control open burning of MSW	<p>Executive Directive No. 9/2016 instructing the Special drive for take penal actions against the waste dumping and burying has been issued from the DGP& State Police Chief.</p> <p>Notification No. G.O.(Rt)No. 673/2023/LSGD dated 21.03.2023 has been issued on formation of Enforcement squad. Enforcement Squads and Night Squads are conducting frequent inspections. IEC activities and campaigns ongoing.</p>		100%	NA	NIL	2026		
8.	Any other activity/ project pertaining to MSW Management	5 Mechanized road sweepers are proposed under SBM(U) 2.0 projects		5	-	3.2	2026	-	-

5. Construction and Demolition Waste Management

S. No.	Activities/ Action plan	Status of activity (Completed/ Ongoing/ To be Started)	Implementing agency	Timeline for completion	Target (Coverage/ Percentage)	Financial implications (Yes/ No)	Funds Allocated (Rs crore)	Funds Utilized as on date (Rs crore)
1.	Policy for development of projects/ plants for C&D waste management	Construction and Demolition Waste Management Rules 2016 is followed in the State. Kerala Government vide GO(Ms) No. 168/2022/LSGD dated 30-7-2022 published "Guidelines for managing construction and demolition waste in Kerala" and vide GO (Rt) No. 811/2020/LSGD dated 1-5-2020 published integrated waste management -strategy document.The CPCB has already published 'Guidlines on Environmental Management of Construction & Demolition Wastes' and "Guidlines on dust mitigation measures in handling construction material and C & D wastes"	LSGD, KSPCB	Ongoing	100%	No	NA	NA
2.	Policy for use of C&D waste in laying and construction of State highways. -	Construction and Demolition Waste Management Rules 2016 is followed in the State. vide GO(Ms)No. 168/2022/LSGD dated 30-7-2022 published "Guidelines for managing construction and demolition waste in Kerala".The Building Materials and Technology Promotion Council (BMTPC) IN 2016 released infrastructure in housing schemes of the Government ".The construction & demolition (C&D) waste guidelines pertain to building industry.The Central Public Works Department (CPWD),the PART IV:Guidlines on reuse and recycling of construction and demolition (C&D)waste is available in CPWD's Guidlines for Sustainable Habitat (March 2014)-also address the building sector	PWD	Ongoing	100% wherever applicable	No		

5. Construction and Demolition Waste Management

S. No.	Activities/ Action plan	Status of activity (Completed/ Ongoing/ To be Started)	Implementing agency	Timeline for completion	Target (Coverage/ Percentage)	Financial implications (Yes/ No)	Funds Allocated (Rs crore)	Funds Utilized as on date (Rs crore)
3.	Demand creation for C& D waste and alternative use of C& D waste material	Usage of C&D waste and demand creation for the material is incorporated in the "Guidelines for managing construction and demolition waste in Kerala" . IS: 383(2016) Indian Standard COARSE AND FINE AGGREGATE FOR CONCRETE – SPECIFICATION. Utilisation of C&D waste permitted in various concrete works by IS: 383(2016).National Building Code (NBC-CED 46) of India 2005 : Part 11 of NBC 2005 on ‘Approach to Sustainability’ states the reuse of recycled construction materials. Building Materials and Technology Promotion Council (BMTPC) in 2016 released “Guidelines for utilization of C & D waste in construction of dwelling units and related infrastructure in housing schemes of the Government”. d. The PART IV of Central Public Works Division (CPWD): The “Guidelines for Sustainable Habitat (March 2014)” discusses ‘Guidelines on reuse and recycling of Construction and Demolition (C & D) waste’. e. Indian Road Congress has permitted the use of produce of C&D waste processing and has issued IRC: 121-2017 “Guidelines for use of construction and demolition waste in road sector”.	LSGD, PWD	2026	100% wherever applicable	No		
4.	Schemes for development of green belt/ open spaces and street sides greening on State highways		LSGD, PWD	2030				
5.	Penalty provisions for non-compliance of C&D waste management rules at construction sites	Report of the CPCB in-house Committee on Methodology for assessing environmental compensation and action plan to utilize the fund by CPCB for evaluating Environmental compensation associated with Construction and demolition rules.	KSPCB, LSGD	To be implemented continuously	100% wherever applicable	No	Nil	

5. Construction and Demolition Waste Management

S. No.	Activities/ Action plan	Status of activity (Completed/ Ongoing/ To be Started)	Implementing agency	Timeline for completion	Target (Coverage/ Percentage)	Financial implications (Yes/ No)	Funds Allocated (Rs crore)	Funds Utilized as on date (Rs crore)
6.	Maintenance, repair and paving of State highways -	<p>Roads are being maintained by various agencies in Kerala, like Local Governments, Public Works Department (PWD) (Roads and Bridges) and National Highways, Municipalities, Corporations, Irrigation, Forests, Railways etc.</p> <p>Total road length in Kerala is 2,38,773.02 km.</p> <p>This includes classified and non-classified roads as stipulated by Indian Road Congress. Road density in Kerala is 548km per 100 sq. km, which is roughly three times the national average.</p> <p>The length of road per lakh population is 993.54km and almost 90 per cent of the road network is single lane.</p> <p>The National Highways, considered to be the primary network, carries 40 percent of the total traffic, and the State Highways and Major District Roads (MDRs) - the secondary road network – carries another 40 percent of the road traffic. Thus around 12 per cent of the road network handles almost 80 per cent of the traffic in the State.</p>	PWD	Ongoing	100%	CE roads : Normally, maintenance are done as per the budget provisions and it is a continuous process. Hence utilisation on maintenance only could not be separated.		
		Maintenance, repair and paving of roads: Completed and ongoing		6 months to 18 months	100%	Yes	61.77	61.68
7.	Monitoring of road dust especially in and around hotspot areas and in the vicinity of State highways	Action plan for setting up Mechanical Road Sweepers got approval under SBM(U)2.0 for Thiruvananthapuram and Kochi corporations	LSGD, Urban directorate	ongoing	100% wherever applicable	No		

5. Construction and Demolition Waste Management

S. No.	Activities/ Action plan	Status of activity (Completed/ Ongoing/ To be Started)	Implementing agency	Timeline for completion	Target (Coverage/ Percentage)	Financial implications (Yes/ No)	Funds Allocated (Rs crore)	Funds Utilized as on date (Rs crore)
8.	Mechanism for development and maintenance of road infrastructures for industrial states and clusters	NA						
9.	Any other Policy / Rules/ Standards/ Guidelines pertaining to C&D waste and Road dust management	Construction and Demolition Waste Management Rules 2016 is followed in the State. Kerala Government vide GO(Ms)No. 168/2022/LSGD dated 30-7-2022 published "Guidelines for managing construction and demolition waste in Kerala" and vide GO (Rt) No. 811/2020/LSGD dated 1-5-2020 published integrated waste management -strategy document. The CPCB has already published 'Guidlines on Environmental Management of Construction & Demolition Wastes' and "Guidlines on dust mitigation measures in handling construction material and C & D wastes"	KSPCB, LSGD	Continuously monitored	100%	No		
10.	C&D waste processing plants	- Consent to Establish certificate issued to two private companies for setting up C&D waste plants - C&D waste processing plant of capacity 100-150 TPD is proposed to be constructed in a total area of 2 acres of land under PPP mode in Edayar Industrial Area, Ernakulam.	LSGD, KSPCB	2028	133 TPD		7.98	
11.	Any other activity/ project pertaining to C&D waste and Road dust management	Kerala PCB published the standard operating procedure of siting requirements and pollution control measures CPCB published "Guidelines on dust mitigation measures in handling construction materials and C&D wastes and Guidelines for environment management of C&D waste. Action plan for setting up Mechanical Road Sweepers got approval under SBM(U)2.0 for Thiruvananthapuram and Kochi corporations	KSPCB, LSGD	completed	Trivandrum Corporation-1 Vehicle Kochi Corporation- 4 Vehicles		3.2	

6. Household Emissions

S. No.	Activities/ Action plan	Status of activity (Completed/ Ongoing/ To be Started)	Implementing agency	Timeline for Completion	Target (Coverage/ Percentage)	Financial implications (Yes/ No)	Funds Allocated (Rs crore)	Funds Utilized as on date
1.	Schemes for use of LPG/ PNG for cooking fuels	<p>PMUY Phase 1 and PMUY Phase 2</p> <p>The status of gas distribution pipelines in Kerala:</p> <p>1) GAIL: KKBMPL (Kochi-Koottanad-Bangalore-Mangalore Pipeline) is the only gas distribution pipeline project handled in Kerala by GAIL. This pipeline of 30”/24” is passing through the districts of Ernakulam, Thrissur, Palakkad, Malappuram, Kozhikode, Kannur and Kasargod for distribution of natural gas received from LNG terminal of M/s. Petronet LNG Ltd., Puthuvypeen to Industrial customers and CGD entities (City Gas Distribution) located at various places in the above 7 districts in the state of Kerala. Ph-I of this pipeline was completed in 2013 and Ph-II was completed in year 2020. The entire network was dedicated to nation in January 2021.</p> <p>2) IOAGPL: IOAGPL has laid pipelines in the districts of Ernakulam, Kozhikode – Wayanad, Thrissur – Palakkad, Malappuram, Kannur – Kasaragod. Details consolidated below.</p> <p>3) AG & P Pratham AG & P Pratham has provided 46,528 PNG Connections across the districts of Thiruvananthapuram, Kollam and Alappuzha. Details consolidated below.</p>	GAIL IOAGPL AG & P Pratham	Continuously implemented	100%	1600/- Per connection	NA	NA
2.	Amendments to the building by-laws for “Indoor air quality	National rule will be followed	LSGD		100%	No		
3.	Any other Policy / Rules/ Standards/ Guidelines pertaining to Household							

IOAGPL Kerala Geographical Areas (GAs) pipeline infrastructure as on November, 2024

GA Name	DoA	Steel pipeline infra(inch-km)			MDPE pipeline infra(Inch-Km)		
		Laid	Under Construction	Expected Commissioning timelines	Laid	Under construction	Expected Commissioning timelines
Ernakulam	14.10.2015	559	8.1	June-25	866	31	June-25
Kozhikode-Wayanad	14.09.2018	500	100	June-25	819	0	June-25
Thrissur-Palakkad	26.09.2018	926	46	June-25	548	91	June-25
Malappuram	27.09.2018	450	60	June-25	401	233	June-25
Kannur- Kasargod	14.09.2018	503	206	June-25	817	157	June-25

Note:

- 1) Underconstruction pipelines would be commissioned subject to receipt of permissions from concerned authorities.
- 2) The above data is as on 30th November, 2024. However, we shall continue to add new pipelines as per assigned target, techno commercial feasibility and receipt of permissions.

AG & P Pratham

SI No	Geographical Area	CGD Company	PNG Connection (Nos)			Pipeline laid (Kms) (Steel + MIDPE)
			Domestic	Commercial	Industrial	
1	Thiruvananthapuram/Kollam/Alappuzha	Ag & P	46,509	18	1	1965

7. Burning of agro residues

S. No.	Activities/ Action plan	Status of activity (Completed/ Ongoing/ To be Started)	Implementi ng Agency	Timeline for completion	Target (Coverage/ Percentage)	Financial implication s (Yes/ No)	Funds Allocated (Rs crore)	Funds Utilized as on date (Rs crore)
1.	In-situ treatment of biomass residues for management of stubble burning							
	<p>Management of crop residues post harvest in Kerala: Burning of crop residues /stubble burning in large scale is not practised in Kerala. The hay is used as cattle feed and the stubble is usually ploughed back to the soil before the start of the next crop. In fields, the crop residues are used as cattle feed or for insitu composting in fields or incorporated to soil for the next crop. The crop residue is also used for making composts or organic manure, Used for biogas generation as domestic fuel, used as soil mulching material. Hay is used for mushroom cultivation, hay is used as thatching material. In general, burning of crop residues is not posing an issue to the air quality in Kerala</p>							
a)	Schemes for procurement of agriculture machinery	To be started under CSS Scheme Sub Mission on Agricultural Mechanization	Agriculture Dept.	ongoing	Funds to be received		Funds to be received	
b)	Assistance for establishment of farm machinery banks/ custom hiring centres	To be started under CSS Scheme Sub Mission on Agricultural Mechanization		ongoing	Funds to be received		Funds to be received	

7. Burning of agro residues

S. No.	Activities/ Action plan	Status of activity (Completed/ Ongoing/ To be Started)	Implementi ng Agency	Timeline for completion	Target (Coverage/ Percentage)	Financial implication s (Yes/ No)	Funds Allocated (Rs crore)	Funds Utilized as on date (Rs crore)
c)	Use of decomposer for in-situ Crop residue management.	Not applicable						
2.	Ex-situ treatment of biomass residues for management of stubble burning							
a)	Schemes for balers/ pellet/ briquette machines, etc.	Not applicable	Agriculture Dept.					
3.	Biomass projects with respect to the hotspots of crop residue burning	Not applicable						
4.	Use of biomass / crop residue based pellets mass blending with coal and its co-firing in thermal power plants with blending ratio which needs no modification in boilers	Not applicable						
5.	Policy for supply chain mechanism for in-situ and ex-situ management of stubble							
6.	Supply chain for crop residues to cow shelters							

7. Burning of agro residues

S. No.	Activities/ Action plan	Status of activity (Completed/ Ongoing/ To be Started)	Implementi ng Agency	Timeline for completion	Target (Coverage/ Percentage)	Financial implication s (Yes/ No)	Funds Allocated (Rs crore)	Funds Utilized as on date (Rs crore)
7.	Development of effective protocol for monitoring of fire incidents including crop area consideration and crop fire area data	Not applicable						
8.	Collaboration with ISRO and preparation of Satellite based maps for monitoring of fire incidence	Not applicable						
9.	Any other scheme/ program that may help in reducing air pollution							

Additional Information:**• Topography and Geography of the state:**

For Kerala is concerned, on the eastern side, Western ghats exist and on the western side, there is Arabian sea. Hence there is restriction on the flow of air from neighbouring states namely Tamil Nadu and Karnataka.

In Kerala, the extent of paddy fields is very less and is located only on a few parts of Kerala. In those areas, hay will be used as feed for cattle and stubble is burnt. In order to avoid illegal waste burning, door to door collection by authorised agencies like Haritha Karma Sena has been provided and efforts are being taken to collect non biodegradable waste from source itself and this will in turn reduce the illegal waste burning operations. Regarding forest fires, localised action plan will be collected from the Forest department.

• Identification of prominent air polluting sources:

Inventory of air pollution sources in State/UT including hotspots or areas of concern pertaining to air pollution should be carried out.

As per the Hon'ble NGT Order dated 14.07.2021 in OA 76/2017, 259/2017 & 260/2017, it was directed to conduct Source Apportionment Studies in Kochi & Thiruvananthapuram cities in Kerala. The Environment Department, Govt. of Kerala was directed to conduct the study and the Committee appointed by the Hon'ble Tribunal to provide necessary guidance for the study. As per the direction from Government of Kerala, proposals are invited from institutions approved by the project steering committee of CPCB. Actions are being taken to evaluate the proposals submitted by the institutions for conducting Source Apportionment Study.

• Hotspots of air pollution:

Hotspots with respect to air pollution (such as stubble burning, illegal waste burning, un-authorised operations, cluster activities, forest fires etc.) should be identified and localised action plan for mitigation of the same should be prepared.

<ul style="list-style-type: none"> • Categorization of industrial zones into red, orange, and green sectors has already been implemented so states may choose to permit or ban an industry depending on the state of the environment in their state or zones, for example- in TTZ some industries are banned. A similar strategy could be adopted by other states. 	<p>In Kerala, there are only a few industrial units having emission potential. Control measures are insisted in these units through conditional consent issued.</p>
<ul style="list-style-type: none"> • Augmentation and Strengthening of Air Quality Monitoring Network: Plan to get access to available air quality monitoring stations in the State/UT operated by both public and private agencies. Quantification of improvement in existing air quality. 	<p>In Kerala there are nine continuous ambient air quality stations and the same with air quality index is available in the website of the KSPCB. The quality is being assessed. There are 34 no.s of NAMP stations and 6 no.s of SAMP stations.</p>
<ul style="list-style-type: none"> • Awareness on Air Quality: 	<p>Awareness programs are arranged with the stakeholders for assessing the progress of implementation of action points in pollution control. - Training programme on Climate change and decarbonisation was organised by KSPCB on 18.11.2023, to Stakeholders of Dept. of Environment and Climate change, Directorate of Industries and commerce and various industries.</p>

<p>• Public grievance redressal mechanism at State Level:</p>	<p>1. CMO Portal: Government has composed the CMO portal by consolidating then existed grievance redressal systems. The portal mainly considers either the petitions which remain unresolved for a long term before the concerned officers of hierarchically lower offices or the applications in which those offices can't make a decision. The Primary concern of the CMO portal is to hand over the received petition to the concerned officer in no time. It is assured that proper expedition has been made on the matters mentioned in the petition and the petitioner gets informed accordingly. The Office of the Chief Minister can make a full length scrutiny from beginning to the conclusion stage of the petition. When the petition gets disposed it is ensured that the petitioner gets a detailed reply. Tenure of 2 weeks is allowed to dispose the petition. If it needs more time for disposal, petitioner will get a comprehensive interim reply. The Department Secretaries and Directors are entrusted to ensure the disposal of petitions in a time bound manner. It is also ensured that the petitions are scrutinized at the appropriate levels. Thus the CMO portal ensures a transparent scrutiny and appropriate decision in each and every petition received, by which we are advancing to a more people centric and efficient Civil Service.</p>
	<p>2. KSPCB Complaint Cell: The Board is also maintaining a dedicated complaint cell for addressing the complaints and grievance of the public. The complaints can be submitted via email or through telephonic communications. Actions will be initiated upon the receipt of the complaint.</p>

<p>• Air Quality Data and Information System: To develop Mobile App / Online portal for dissemination of air quality as well as to take complaints on local air pollution.</p>	<p>National programme (NAMP Stations) - 34 established State programme (SAMP Stations) - 6 Continuous Ambient Air Quality Monitoring (CAAQM Stations) – 9</p> <p>Integrated web portal (online web portal) for the dissemination of air quality to the public is available. Ambient air quality data from continuous and manual air quality monitoring stations are available in the website of the Board for the public. Air Quality directory published in website and articles related to Air Pollution are also shared.</p>
<p>• Review and approval mechanism:</p>	<p>As per the common guideline of CPCB for the preparation of State Action Plan, an Air Quality Monitoring Committee (AQMC) under the chair of the Secretary, Environment Department is constituted for the preparation of the SAP and the SAP shall be approved by the Steering Committee under the Chair of Chief Secretary. AQMC shall periodically monitor the progress of implementation of the State Action Plan and report to the Steering Committee which shall review the progress and give necessary guidance in the matter.</p>

<p>Implementation of GRAP in State in case of air pollution emergencies: GRAP (Graded Response Action Plan) is a set of emergency action plan implemented in four stages depending on the severity of the air pollution - which is determined by the air quality index (AQI).</p>	<p>In Kerala the air quality varies from Good to Satisfactory.</p> <ul style="list-style-type: none"> - The first stage of GRAP is imposed when the overall air quality is in the ‘poor’ category. Under this stage, the government imposes a heavy fine on garbage burning and sweeping without sprinkling water, ensuring proper implementation of guidelines on dust mitigation measures, ensuring regular lifting of municipal solid waste, construction and demolition waste, and hazardous wastes from dedicated dumping sites, and enforcing guidelines for use of anti-smog guns at construction sites. - The second stage of GRAP is imposed when the air quality enters the ‘very poor’ category. This necessitates a ban on diesel generators, use of coal or firewood in hotels, restaurants, and open eateries, increased parking fees, and increased bus and metro frequency. The government also issues an advisory for children, the elderly, and those with respiratory problems under this stage. - The third stage is imposed when the air quality breaches the 'severe' category. Under this stage, the government imposes a strict ban on construction and demolition activities, hot mix plants, brick kilns, and stone crushers. - The fourth and final stage of the GRAP is enforced when the air quality is in the ‘severe plus’ category. This stage entails stopping entry of trucks except for LNG/CNG trucks and those involved in essential services, imposing a ban on diesel-operated Medium Goods Vehicles (MGVs) and Heavy Goods Vehicles (HGVs)
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SBM U 2.0 SWM PROJECT REVIEW- Composting plant

SI No.	District	ULB Name	As per Approved Action Plan		
			No. of units	Capacity (TPD)	Cost (Cr)
1	Trivandrum	Trivandrum corporation	179	112.8	28.9
2	Trivandrum	Attingal	0	0	0
3	Trivandrum	Varkala	31	7	1.17
4	Trivandrum	Nedumangad	45	4.5	0.925
5	Trivandrum	Neyyatinkara	23	2.8	0.46
6	Kollam	Kollam Corporation	0	0	0
7	Kollam	Punalur	8	1.2	0.56
8	Kollam	Karunagappally	3	0.15	0.066
9	Kollam	Kottarakara	10	0.2	0.088
10	Kollam	Paravur	3	0.15	0.063
11	Pathanamthitta	Thiruvalla	1	6	1.08
12	Pathanamthitta	Adoor	1	5	0.675
13	Pathanamthitta	Pathanamthitta	1	6	1.08

SI No.	District	ULB Name	As per Approved Action Plan		
			No. of units	Capacity (TPD)	Cost (Cr)
14	Pathanamthitta	Pandalam	2	4	0.74
15	Alappuzha	Alappuzha	18	9	1.26
16	Alappuzha	Kayamkulam	12	2	0.4
17	Alappuzha	Mavelikkara	2	4	0.6
18	Alappuzha	Cherthala	1	6	0.9
19	Alappuzha	Chenganoor	2	4	0.68
20	Alappuzha	Haripad	5	1	0.256
21	Kottayam	Kottayam	6	23	2.645
22	Kottayam	Changanacherry	9 locations-120 aerobic bins	3	0.8362
23	Kottayam	Pala	5	2	0.5596
24	Kottayam	Vaikom	16	1	0.3802
25	Kottayam	Erattupetta	8	5	1.7736
26	Kottayam	Ettumanoor	1	1	0.35
27	Idukki	Kattappana	2	4.5	0.7015
28	Idukki	Thodupuzha	1	6	0.9

SI No.	District	ULB Name	As per Approved Action Plan		
			No. of units	Capacity (TPD)	Cost (Cr)
29	Ernakulam	Kochi Corporation	1	225	45
30	Ernakulam	Perumbavur	10	1	0.2
31	Ernakulam	North Paravoor	1	6	0.7
32	Ernakulam	Aluva	1	0.5	0.12
33	Ernakulam	Kothamangalam	1	5.5	0.6325
34	Ernakulam	koothatukulam	1	0.5	0.2
35	Ernakulam	Kalamassery	0	0	0
36	Ernakulam	Maradu	0	0	0
37	Ernakulam	Thrikkakara	1	9.5	1.0925
38	Ernakulam	Eloor	0	0	0
39	Ernakulam	Muvatupuzha	3	3.6	0.87
40	Ernakulam	Piravom	21	6	1.15
41	Ernakulam	Angamaly	0	0	0
42	Ernakulam	Tripunithura	20	4	3
43	Thrissur	Thrissur Corporation	68	11.3	5.085

SI No.	District	ULB Name	As per Approved Action Plan		
			No. of units	Capacity (TPD)	Cost (Cr)
44	Thrissur	Kodungallur	2	2.5	0.29
45	Thrissur	Chalakkudy	1	5	0.75
46	Thrissur	Chavakkad	0	0	-
47	Thrissur	Irinjalakkuda	14	1.4	0.32
48	Thrissur	Kunnamkulam	1	1	0.25
49	Thrissur	Wadakkancherry	1	4	0.46
50	Thrissur	Guruvayur	0	0	-
51	Palakkad	Palakkad	1	3	0.555
52	Palakkad	Chittur Tathamangalam	1	1.5	0.2775
53	Palakkad	Cherpulassery	1	8	1.48
54	Palakkad	Pattambi	10	1.5	0.39
55	Palakkad	Shornur	6	1	0.26
56	Palakkad	Mannarkkad	1	8	1.48
57	Palakkad	Ottappalam	1	5	0.925
58	MALAPPURAM	MALAPPURAM	1	16.5	1.8975

SI No.	District	ULB Name	As per Approved Action Plan		
			No. of units	Capacity (TPD)	Cost (Cr)
59	MALAPPURAM	MANJERI	19	10	1.15
60	MALAPPURAM	THIRURANGADI	3	6	0.69
61	MALAPPURAM	PONNANI	5	10	1.15
62	MALAPPURAM	KONDOTTY	1	7	0.805
63	MALAPPURAM	KOTTAKKAL	6	4	0.46
64	MALAPPURAM	NILAMBUR	1	9	1.035
65	MALAPPURAM	PARAPPANAGADI	3	5	0.575
66	MALAPPURAM	TIRUR	3	7	0.805
67	MALAPPURAM	PERINTHALMANNA	2	3	0.345
68	MALAPPURAM	TANUR	3	7	0.805
69	MALAPPURAM	VALANCHERI	2	4	0.46
70	Kozhikode	Kozhikode Corporation	24	1.2	0.6
71	Kozhikode	Koduvally	23	1.15	0.575
72	Kozhikode	Payyoli	34	1.7	0.85
73	Kozhikode	Mukkam	19	0.95	0.4751

SI No.	District	ULB Name	As per Approved Action Plan		
			No. of units	Capacity (TPD)	Cost (Cr)
74	Kozhikode	Ramanattukara	16	0.8	0.4
75	Kozhikode	Vatakara	8	0.6	0.36
76	Kozhikode	Feroke	22	1.1	0.55
77	Kozhikode	Koyilandy	18	0.9	0.45
78	Wayanad	Kalpetta	1	4.5	0.6783
79	Wayanad	Mananthavady	5	10.7	1.7249
80	Wayanad	Sulthan Bathery	4	6.2	0.97394
81	Kannur	Kannur Corporation	1	20	3
82	Kannur	Anthoor	1	2	0.3
83	Kannur	Kuthuparamba	1	3	0.45
84	Kannur	Mattannur	1	6	0.9
85	Kannur	Payyannur	1	4	0.6
86	Kannur	Sreekandapuram	2	6	0.9
87	Kannur	Taliparamba	1	3	0.45
88	Kannur	Iritty	1	3	0.45

SI No.	District	ULB Name	As per Approved Action Plan		
			No. of units	Capacity (TPD)	Cost (Cr)
89	Kannur	Panoor	1	8	1.2
90	Kannur	Thalassery	1	5	0.75
91	Kasaragod	Kanhangad	0	0	0
92	Kasaragod	Kasaragod	20	2	0.508
93	Kasaragod	Nileshwaram	1	1	0.115
			809	717.4	140.97434

SBM U 2.0 SWM PROJECT REVIEW- DUMPSITE

			As per SLTC Approved Action Plan	
SI No.	District	ULB Name	Legacy waste quantity proposed in action plan (MT)	Proposed Cost (Cr.)
			As per SLTC Approved Action Plan	
SI No.	District	ULB Name	Legacy waste quantity proposed in action plan (MT)	Proposed Cost (Cr.)
1	Trivandrum	Trivandrum corporation	1,600	0.152
2	Kollam	Kollam Corporation	104,907	11.8545
3	Alappuzha	Alappuzha	30,102	3.7025
4	Kottayam	Kottayam	80,000	7.6
5	Kottayam	Changanacherry	7300	0.6935
6	Kottayam	Erattupetta	8000	0.76
7	Idukki	Kattappana	8,000	0.76
8	Idukki	Thodupuzha	28000	2.66
9	Ernakulam	Kochi Corporation	496713	27.3192
10	Ernakulam	North Paravoor	18565	1.0211
11	Ernakulam	Kothamangalam	4000	0.44
12	Ernakulam	koothatukulam	2500	0.2625
13	Ernakulam	Muvatupuzha	76000	7.98

SI No.	District	ULB Name	As per SLTC Approved Action Plan	
			Legacy waste quantity proposed in action plan (MT)	Proposed Cost (Cr.)
14	Thrissur	Thrissur Corporation	54,000	5.13
15	Thrissur	Kodungallur	1,600	0.088
16	Thrissur	Chalakkudy	4,918	0.2705
17	Thrissur	Chavakkad	5,040	0.2772
18	Thrissur	Irinjalakkuda	24,000	1.32
19	Thrissur	Kunnamkulam	24,660	1.3563
20	Thrissur	Wadakkancherry	60960	3.3528
21	Palakkad	Palakkad	57,960	5.4098
22	Palakkad	Ottappalam	20000	1.866
23	MALAPPURAM	MANJERI	15433	1.7594
24	MALAPPURAM	TIRUR	1010	0.1
25	Kozhikode	Kozhikode Corporation	24,720	1.3596
26	Kannur	Thalassery	56783	5.3944
27	Kasaragod	Kanhangad	5,600	0.45
28	Kasaragod	Kasaragod	11000	0.605
			1,233,371	93.9443

Sl. No.	(i) Name of Districts	Name of Local Body	(ii) Legacy waste site (district wise)	(iii) Area covered by the legacy waste (district wise) (Acre)	(iv) Quantity of waste (in MT) in each site	QTY of processed waste (MT)	QTY of Unprocessed waste (MT)	Project Amount
1	Thiruvananthapuram	Thiruvananthapuram Corporation	Palayam market	0.1	4804	4804	0	-
2	Thiruvananthapuram	Thiruvananthapuram Corporation	Erumakuzhi, near chala market	0.6	900	900	0	-
3	Kollam	Kollam Corporation	Kureepuzha	5.58	83926	83926	0	-
4	Pathanamthitta	Pathanamthitta Municipality	Near Mini stadium, PTA	0.24	800	800	0	-
5	Pathanamthitta	Adoor Municipality	Kaimalapara, Ward no. 2, Adoor	0.05	500	500	0	-
6	Pathanamthitta	Pandalam Municipality	Near RRF Unit, pandalam	0.1	400	400	0	-
7	Ernakulam	Kalamassery Municipality	Kalamasseri	2.7	35000	35000	0	-
8	Thrissur	Kodungalloor Municipality	Pullut, Chappara, Kodungalloor	1.7	26000	26000	0	-
9	Thrissur	Guruvayur Municipality	Choolpuram, Guruvayoor	3.37	20000	20000	0	-
10	Thrissur	Kodungalloor Municipality	T.K.S. Puram, Kodungalloor	1.6	607	607	0	-
11	Palakkad	Pattambi Municipality	Pattambi, Sankara mangalam	0.54	1041.15	1041.15	0	-
12	Malappuram	Malappuram ulb	Puliyettummal, Near Inkel city, Malappuram	3.2	5079	5079	0	-
13	Malappuram	Tirur ulb	Trenching ground, Ottilathara	1	3079	3079	0	-
14	Malappuram	Perinthalmanna Municipality	Perinthalmanna, Kunnappalli	10	200	200	0	-
15	Malappuram	Manjeri Municipality	Vettekkode, Manjeri	0.44	13902	13,902	0	-
16	Kozhikkode	Kozhikkode Municipal Corporation	Kalliyi, ward-56, beside the river	0.0098	15	15	0	-
17	Kozhikkode	Koyilandy Municipality	Koyilandi	0.012	40	40	0	-
18	Kozhikkode	Kozhikkode Municipal Corporation	Njaliyan parambu	6.4997	130,000	130000	0	-
19	Thrissur	Thrissur Corporation	Laloor	0.25	19500	19500	0	-
20	Thiruvananthapuram	Attingal Municipality	Attingal, Chudukad	0.5	11365	7800	3565	0.75
21	Kottayam	kottayam municipality	Vadavathoor, Kottayam	1.48	80943.2	8000	72943.2	16.94
22	Ernakulam	Kothamangalam Municipality	Kumbalathumuri, Kothamangalam	0.85	19146	0	19146	28.61
23	Idukki	Thodupuzha Municipality	Parakadavu, Thodupuzha	1.26	28000	6000	22000	2.83
24	Ernakulam	Kochi Corporation	Brahmapuram, Kochi	39	843000	379350	463650	118
25	Thrissur	Chavakkad Municipality	Chavakkad	0.2	5000	3600	1400	0.42
26	Thrissur	Wadakkanchery Municipality	Kumbalangad	0.81	21063	1053	20010	11.51
27	Palakkad	ottapalam municipality	Panamanna, Ottappalam	2.42	37600	28100	9500	1.45

28	Kannur	Kannur Corporation	Chelora	6.67	43727.32	21864	21863.32	9.19
29	Kannur	Mattannur Municipality	Mattannur, Karithurparamba	0.446	15680	5600	10080	1.6
30	Alappuzha	Kayamkulam Municipality	Murikkumoodu, Kayamkulam	0.26	6567.04	0	6567.04	2.51
31	Alappuzha	Alappuzha Municipality	sarvodhayapuram	12.09	57200	0	57200	7.4
32	Kottayam	Changanassery Municipality	Fathimapuram, Changanassery	0.8	7300	0	7300	0.8463
33	Kottayam	Erattupetta Municipality	Erattupettah, Thevarrupara	0.6	8000	0	8000	0.76
34	Idukki	Kattappana Municipality	Kattappana, Puliyanmala	0.89	12000	0	12000	1.5
35	Ernakulam	Muvattupuzha Municipality	Kurianmala, Muvattupuzha	1.28	44589	0	44589	28.61
36	Thrissur	Irinjalakuda Municipality	Iringalakkuda, Mangadikunnu, Porathissery	1.5	14000	0	14000	0.5
37	Palakkad	Palakkad Municipality	Koottupatha, Kodumba	2.42	73827	0	73827	15.45
38	Wayanad	Kalpetta Municipality	Vellaramkunnu, Kalpetta	1.12	9485.375	0	9485.375	2.1
39	Kannur	Thalassery Municipality	Thalassery, Punnoolpetty palam	5.5	45430.4	0	45430.4	6.47
40	Kannur	Iritty Municipality	Iritty, Athithattu	0.04	1618.49	0	1618.49	2.93
41	Kannur	Payyannur Municipality	Payyannur, Moorikkovval	0.75	2100	0	2100	0.7028
42	Kannur	Kuthuparamba Municipality	Palapparamba, Kuthuparambu	0.39	12081.6	0	12081.6	2.93
43	Kasaragod	Kasaragod Municipality	Kelugudde, Kasaragod	1.1	12873.6	0	12873.6	3.44
44	Kasaragod	Kanhangad Municipality	Kanjhangad, Trenching Ground Chemmattamvayal	0.69	3481.69	0	3481.69	0.56
45	Thiruvananthapuram	Thiruvananthapuram Corporation	Vizhijam	0.26	3177.1	0	3177.1	0.4
46	Kollam	Kottarakara Municipality	Ugrankunnu, Kottarakara	0.366	6596	0	6596	1.41
47	Alappuzha	Mavelikkara Municipality	Puthiyakavu, Mavelikkara	0.32	2880	0	2880	2.51
48	Kottayam	Mundakkayam Grama Panchayat	Mundakkayam	0.49	4000	4000	0	0.32
49	Kottayam	Erumeli Grama Panchayat	Erumeli	0.19	1500	1500	0	0.12
50	Idukki	Munnar Grama Panchayath	Munnar	NA	18163	0	18163	3
51	Ernakulam	Koothattukulam Municipality	Town-Ward 15, Koothattukulam	0.12	1346	0	1346	28.61
52	Ernakulam	North Paravoor Municipality	Vedimara, North Paravoor	0.5	18666	0	18666	28.61
53	Thrissur	Chalakydy Municipality	Near Cosmos Club, Chalakydy	0.26	6769	0	6769	11.51
54	Thrissur	Wadakkanchery Municipality	Wadakkanchery, Kumblangad	1.35	16152	0	16152	11.51
55	Palakkad	Alathur Gram Panchayat	Alathur	0.15	1824	1824	0	0.1027
56	Palakkad	Vadakkancheri Gram Panchayat	Vadakkanchery	0.15	1520	1520	0	0.02
57	Palakkad	Nemmara Grama Panchayat	Nemmara	0.49	3641.4	3641	0.4	0.1
58	Kozhikode	Vatakara Municipality	Puthiyappu, Vadakara	1.25	30693.6	0	30693.6	6.57

59	Kasaragod	Mangalpady Grama Panchayat	Kubanoor	1.77	12557.6	0	12557.6	2
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Districts	SUMMARY - Completed Projects					SUMMARY - Ongoing Projects					SBM-(U) Total Expenditure
	Completed Projects	SM share	ULB Share	SM share	ULB Share	Ongoing Projects	SM share	ULB Share	SM share	ULB Share	
		Cost of Projects		Expenditure			Cost of Projects		Expenditure		
TVM	18	27710155.96	17005709.04	26722026.96	7916007.044	28	370966679	251860917	83912553	41463477	110634580
KLM	11	14357804	14830186	7474219	6139020	23	57918571	39300692	19985061	7759471	27459280
PTA	5	6418785	4591137	3826260.27	2913409.43	8	13671916	9777881	929097.95	664552.05	4755358.22
KTM	20	15664554	11024322	14422425	7423098	17	48260773	30302763	10488805	5992903	24911230
ALP	28	30557776	21723948	25120245	16091835	14	52606305	34592612	11729447	13391559	36849692
IDK	12	15732347	8857302	7421115	4,057,403	4	9903009	3395873	0	0	7421115
EKM	25	17802540	11770673	10794240	4525852	19	43411013	31050417	19737379	10054137	30531619
TSR	53	86352594	61358725	76762873.2	49599729.8	19	44585676	31965476.5	14892604	10725581	91655477.2
PKD	44	32252274	22526819	23541314	16161227	4	4362889	3120626	2498951	2524702	26040265
KNR	56	36408499.88	28386158.83	27703230	18083106.5	9	27500238	20659981.5	11523414	3704920	39226644
WYD	4	2793561.68	1998139.32	5380096	3848200	8	11576023	8160477	0	0	5380096
KSD	8	4110879	2940371	2832803	2326732	5	22863833	16353720	8480581	5868006	11313384
MLP	57	129001977.72	86426917.29	82333031	53593965.09	19	64343268	44775149	162000	425250	82495031
KKD	49	84113499	50608509.92	40451001	27230486	9	47096139	34974614	9913363	5136034	50364364
	390	503277246.9	344048917.4	354784879.4	219910070.9	186	819066331	560291199	194253256	107710592.1	549038135

District	Name of ULB	Total No. of Projects			Completed Projects							
		DPC Approved	Completed	Ongoing	Cost of Project		Total Cost of Project	Expenditure		Total Expenditure	SBM Expenditure Status	Percentage
					SBM Share	ULB Share		SBM Share	ULB Share			
THIRUVANANTHAPURAM	ATTINGAL (M)	12	7	5	7075960	2246773	9322733	6026560	831138	6857698	0.735588802	73.56%
THIRUVANANTHAPURAM	NEDUMANGAD (M)	7	3	4	1335070	954930	2290000	1529353	52863	1582216	0.690924017	69.09%
THIRUVANANTHAPURAM	NEYATTINKARA (M)	7	1	6	1888920	1351080	3240000	1755908	1251080	3006988	0.928082716	92.81%
THIRUVANANTHAPURAM	THIRUVANANTHAPURAM	11	4	7	9328000	6672000	16000000	17023600	5504400	22528000	1.408	140.80%
THIRUVANANTHAPURAM	VARKALA (M)	9	3	6	2915000	2085000	5000000	386605.956	276526.044	663132	0.1326264	13.26%
TOTAL		46	18	28	22542950	13309783	35852733	26722026.96	7916007.044	34638034	0.966119766	96.61%
KOLLAM	KARUNAGAPALLY	3	0	3	0	0		0	0	0		
KOLLAM	KOLLAM	15	5	10	9441688	11157252	20598940	4012334	5162237	9174571	0.445390442	44.54%
KOLLAM	KOTTARAKKARA	9	4	5	1770831	1423219	3194050	1132200	976783	2108983	0.660284905	66.03%
KOLLAM	PARAVOOR (M)	6	1	5	1865600	1334400	3200000	1050000	0	1050000	0.328125	32.81%
KOLLAM	PUNALUR (M)	1	1	0	1279685	915315	2195000	1279685	0	1279685	0.583	58.30%
TOTAL		34	11	23	14357804	14830186	29187990	7474219	6139020	13613239	0.466398645	46.64%
PATHANAMTHITTA	ADOOR (M)	6	2	4	2232189	1596607	3828796	879867	488774.7	1368641.7	0.357460074	35.75%
PATHANAMTHITTA	PANDALAM											
PATHANAMTHITTA	PATHANAMTHITTA (M)											
PATHANAMTHITTA	THIRUVALLA (M)	7	3	4	4186596	2994530	7181126	2946393.27	2424634.73	5371028	0.747936744	74.79%
TOTAL		13	5	8	6418785	4591137	11009922	3826260.27	2913409.43	6739669.7	0.612145091	61.21%
ALAPPUZHA	ALAPPUZHA (M)	9	3	6	12842000	9185444	22027444	9831294	6472064	16303358	0.740138438	83.75%
ALAPPUZHA	CHENGANNUR (M)	3	2	1	1591590	1138050	2729640	1517438	1085372	2602810	0.953535997	95.35%
ALAPPUZHA	CHERTHALA (M)	10	3	7	6546896	4664647	11211543	4579349	2082707	6662056	0.594214017	85.40%
ALAPPUZHA	HARIPAD	10	7	3	5481335	3821497	9302832	4717535	3582127	8299662	0.892165096	89.22%
ALAPPUZHA	KAYAMKULAM (M)	7	3	4	2236680	1599821	3836501	2615354	1555076	4170430	1.087039988	82.41%
ALAPPUZHA	MAVELIKKARA (M)	5	2	3	1859275	1314489	3173764	1859275	1314489	3173764	1	100.00%
TOTAL		44	20	24	30557776	21723948	52281724	25120245	16091835	41212080	0.788269339	87.35%
KOTTAYAM	CHANGANASSERY (M)	5	1	4	979323	700477	1679800	979323	700477	1679800	1	100.00%
KOTTAYAM	ERATTUPETTA	7	5	2	5331418	3813382	9144800	5117301	1198792	6316093	0.690675903	69.07%
KOTTAYAM	ETTUMANOOR	13	7	6	6593016	4535759	11128775	5827704	3622259	9449963	0.849146739	84.91%
KOTTAYAM	KOTTAYAM (M)	2	0	2	0	0	0	0	0	0		
KOTTAYAM	PALAI (M)	5	3	2	1184656	847344	2032000	1082340	774160	1856500	0.91363189	91.36%
KOTTAYAM	VAIKOM (M)	4	3	1	1576141	1127360	2703501	1415757	1127410	2543167	0.940693937	84.90%
TOTAL		36	19	17	15664554	11024322	26688876	14422425	7423098	21845523	0.818525404	80.92%
IDUKKI	KATTAPPANA	6	3	3	4518250	3231750	7750000	2875525	2056765	4932290	0.636424516	63.64%
IDUKKI	THODUPUZHA (M)	10	9	1	11214097	5625552	16839649	4545590	2,000,638	6546228	0.388738981	124.91%

TOTAL		16	12	4	15732347	8857302	24589649	7421115	4057403	11478518	0.46680284	88.36%
ERNAKULAM	ALUVA	2	1	1	78705	56295	135000	78705	56295	135000	1	100.00%
ERNAKULAM	ANGAMALY (M)	4	1	3	734371	525269	1259640	565265	413082	978347	0.776687784	77.67%
ERNAKULAM	ELOOR	7	4	3	5091277	2641619	7732896	2711865	625117	3336982	0.431530697	43.15%
ERNAKULAM	KALAMASSERY (M)											
ERNAKULAM	KOCHI											
ERNAKULAM	KOOTHATTUKULAM	2	2	0	1393079	996422	2389501	278616	199284	477900	0.199999916	20.00%
ERNAKULAM	KOTHAMANGALAM (M)	4	1	3	836780	598520	1435300	836254	594000	1430254	0.996484359	99.65%
ERNAKULAM	MARADU(M)	5	4	1	2463292	1761908	4225200	2190137	258540	2448677	0.579541087	57.95%
ERNAKULAM	MUVATTUPUZHA (M)	3	2	1	1339443	958057	2297500	891261	637489	1528750	0.665397171	66.54%
ERNAKULAM	PARAVUR (M)	5	1	4	437290	312779	750069	427689	305911	733600	0.978043353	97.80%
ERNAKULAM	PERUMBAVOOR (M)	4	4	0	2922870	2127755	5050625	459766	293734	753500	0.149189457	14.92%
ERNAKULAM	PIRAVOM											
ERNAKULAM	THRIKKAKARA(M)	2	0	2	728750	521250	1250000	500000	0	500000	0.4	40.00%
ERNAKULAM	THRIPPUNITHURA (M)	6	4	2	1776683	1270799	3047482	1854682	1142400	2997082	0.983461756	98.35%
TOTAL		44	24	20	17802540	11770673	29573213	10794240	4525852	15320092	0.518039484	51.80%
THRISSUR	CHALAKUDY (M)	6	4	2	14659295	10309308	24968603	10170771	4361857	14532628	0.582036096	58.20%
THRISSUR	CHAVAKKAD (M)	5	1	4	937149	670311	1607460	0	582000	582000	0.362061886	36.21%
THRISSUR	GURUVAYOOR (M)	7	5	2	13546629	9844161	23390790	13520502	8816181	22336683	0.954934955	95.49%
THRISSUR	IRINJALAKUDA (M)	10	8	2	4957371	4176223	9133594	4158694	3126310	7285004	0.797605411	79.76%
THRISSUR	KODUNGALLUR (M)	25	21	4	24195595	16392992	40588587	23057712	14886157	37943869	0.934840846	93.48%
THRISSUR	KUNNAMKULAM (M)	5	5	0	16105165	11519477	27624642	16006466.4	11514972.6	27521439	0.996264096	99.63%
THRISSUR	THRISSUR											
THRISSUR	WADAKKANChERI	14	9	5	11951389	8446254	20397643	9848727.8	6312252.2	16160980	0.792296443	79.23%
TOTAL		72	53	19	86352594	61358725	147711319	76762873.2	49599729.8	126362603	0.855470008	85.55%
PALAKKAD	CHERPULASSERY	7	7	0	3925339	2807661	6733000	2704562	2348601	5053163	0.750506906	75.05%
PALAKKAD	CHITTUR-THATHAMANGALAM (M)	6	3	3	9167222	6557002	15724224	8288075	5762929	14051004	0.893589661	89.36%
PALAKKAD	MANNARKKAD	7	6	1	2377008	1700191	4077199	2151387	1413508	3564895	0.874349032	87.43%
PALAKKAD	OTTAPPALAM (M)	5	5	0	4759303	3404166	8163469	1826983	489529	2316512	0.283765639	28.38%
PALAKKAD	PALAKKAD (M)											
PALAKKAD	PATTAMBI	6	6	0	4890533	2955903	7846436	4064826	2586880	6651706	0.847735966	84.77%
PALAKKAD	SHORANUR (M)	17	17	0	7132869	5101896	12234765	4505481	3559780	8065261	0.659208493	65.92%
TOTAL		48	44	4	32252274	22526819	54779093	23541314	16161227	39702541	0.724775436	72.48%
MALAPPURAM	KONDOTTY	9	6	3	#####	9831116.32	23575818.00	11457919	8059803	19517722	0.827870405	82.79%
MALAPPURAM	KOTTAKKAL	9	5	4	12076015	8696575	20772590	7515776	7711252	15227028	0.733034638	73.30%
MALAPPURAM	MALAPPURAM (M)	5	3	2	16702950	11947050	28650000	473859	4285629	4759488	0.166125236	16.61%
MALAPPURAM	MANJERI (M)	5	4	1	#####	#####	27208013.00	14480998.00	9725517.00	24206515.00	0.889683308	88.97%
MALAPPURAM	NILAMBUR	8	6	2	3904078.83	789710.18	4693789.01	7247264	2783367.09	10030631.09	2.137000849	213.70%
MALAPPURAM	PARAPPANANANGADI	8	8	0	6391934	2988564	9380498	9831455	3211223	13042678	1.39040358	139.04%
MALAPPURAM	PERINTHALMANNA (M)	6	6	0	16553666.1	11840270.9	28393937	10851520	10009969	20861489	0.734716323	73.47%
MALAPPURAM	PONNANI (M)	5	3	2	19684995	14073750	33758745	1611195	738744	2349939	0.069609786	6.96%

MALAPPURAM	TANUR	7	5	2	8314230.05	5477759.96	13791990	5242950	2340944	7583894	0.549876704	54.99%
MALAPPURAM	TIRUR (M)	6	5	1	10547518.5	6419348.46	16966867	8830475	2414822	11245297	0.662779817	66.28%
MALAPPURAM	TIRURANGADI	7	6	1	5219616	3017032	8236648	4789620	2312695	7102315	0.862282205	86.23%
MALAPPURAM	VALANCHERRY											
TOTAL		75	57	18	#####	#####	#####	82333031	53593965.09	135926996.1	0.630959909	63.10%
KOZIKODE	FEROKE	11	8	3	5348529	3825617.1	9174146.1	4405688	3654042	8059730	0.878526449	87.85%
KOZIKODE	KODUVALLY	7	7	0	12742434	5516707.32	18259141.3	7201406	4900160	12101566	0.66276753	66.28%
KOZIKODE	KOYILANDY (M)	6	3	3	14953688	10695863	25649551	4983582	3311065	8294647	0.323383711	32.34%
KOZIKODE	KOZHICODE											
KOZIKODE	MUKKAM	13	12	1	20182757	9250315	29433072	8021548	3138503	11160051	0.379167047	37.92%
KOZIKODE	PAYYOLI	6	6	0	9714033	6948116	16662149	9714033	6948116	16662149	1	100.00%
KOZIKODE	RAMANATTUKARA	5	4	1	3088989	1818789	4907778	2125470	1404727	3530197	0.719306578	71.93%
KOZIKODE	VADAKARA (M)	10	9	1	#####	#####	30636171.50	3999274	3873873	7873147	0.256988606	25.70%
TOTAL		58	49	9	84113499	50608509.9	134722009	40451001	27230486	67681487	0.502378843	50.24%
WAYANAD	KALPETTA (M)	6	3	3	2793561.68	1998139.32	4791701	4318796	3089088	7407884	1.545982105	154.60%
WAYANAD	MANANTHAVADI	6	1	5	0	0		1061300	759112	1820412		
WAYANAD	SULTAN BATHERY											
TOTAL		12	4	8	2793561.68	1998139.32	4791701	5380096	3848200	9228296	1.925891453	192.59%
KANNUR	ANTHOOR	13	13	0	6059785.4	4345618	10405403.4	6059319	4269180	10328499	0.992609186	99.26%
KANNUR	IRITTY	10	9	1	4777285.2	3417029.8	8194315	3687668	2237026.5	5924694.5	0.723024987	72.30%
KANNUR	KANNUR (M)											
KANNUR	KANNUR CANTT.											
KANNUR	KOOTHUPARAMBA (M)	6	6	0	7322299.78	7571532.53	14893832.3	6558307	4492458	11050765	0.74196921	74.20%
KANNUR	MATTANNUR (M)	6	5	1	1690754	1209338	2900092	1118725	827665	1946390	0.671147674	67.11%
KANNUR	PANOOOR	6	5	1	5276150	3772850	9049000	3331925	2146174	5478099	0.6053817	60.54%
KANNUR	PAYYANNUR (M)	8	4	4	0	0	0	0	0	0		
KANNUR	SREEKANDAPURAM	7	7	0	4256191.5	3044308.5	7300500	3158377	1648160	4806537	0.658384631	65.84%
KANNUR	TALIPARAMBA (M)	4	3	1	1629203	1165313	2794516	1154060	631608	1785668	0.638990079	63.90%
KANNUR	THALASSERY (M)	5	4	1	5396831	3860169	9257000	2634849	1830835	4465684	0.48241158	48.24%
TOTAL		65	56	9	36408499.9	28386158.8	64794658.7	27703230	18083106.5	45786336.5	0.706637513	70.66%
KASARAGOD	KANHANGAD (M)	6	4	2	862694.5	617055.5	1479750	825194	617056	1442250	0.974657881	100.00%
KASARAGOD	KASARAGOD	3	1	2	1083505.5	774994.5	1858500	650986	739329	1390315	0.748084477	74.81%
KASARAGOD	NEELESWARAM	4	3	1	2164679	1548321	3713000	1356623	970347	2326970	0.626708861	72.85%
TOTAL		13	8	5	4110879	2940371	7051250	2832803	2326732	5159535	0.731719199	79.06%
GRAND TOTAL		576	380	196	498110041	340352991	838463032	354784879.4	219910070.9	574694950.3	0.685414775	69.73%
TOTAL SBM EXPENDITURE					549038135.4		TOTAL SBM (U) ALLOCATIO					
PERCENTAGE							TOTAL SBM(U) DPR COST		1317176372			

TOTAL EXPENDITURE	301963848.7				TOTAL SBM(U) EXPENDITURE	549038135						
*DPR not Submitted	12											
	2. PATHANAMTHITTA (M)											
	3. KALAMASSERY (M)											
	4. KOCHI											
	5. PIRAVOM											
	6. THRISSUR											
	7. PALAKKAD (M)											
	8. VALANCHERRY											
	9. KOZHIKODE											
	10. SULTAN BATHERY											

District	Name of ULB	Ongoing Projects						
		Cost of Project		Cost of Project Total	Expenditure		Total Expenditure	Percentage
		SBM Share	ULB Share		SBM Share	ULB Share		
THIRUVANANTHAPURAM	ATTINGAL (M)	7750935	8810600	16561535	2500000	0	2500000	15.10%
THIRUVANANTHAPURAM	NEDUMANGAD (M)	20923994	14999549	35923543	9170056	9182842	18352898	51.09%
THIRUVANANTHAPURAM	NEYATTINKARA (M)	24023681	16243319	40267000	5397000	5053760	10450760	25.95%
THIRUVANANTHAPURAM	THIRUVANANTHAPURAM	305838936	202917314	508756250	62673185	24224475	86897660	17.08%
THIRUVANANTHAPURAM	VARKALA (M)	12429133	8890135	21319268	4172312	3002400	7174712	33.65%
TOTAL		370966679	251860917	622827596	83912553	41463477	125376030	20.13%
KOLLAM	KARUNAGAPALLY	12771465	9113535	21885000	11382729	709715	12092444	55.25%
KOLLAM	KOLLAM	25828735	16283425	42112160	5964892	4216458	10181350	24.18%
KOLLAM	KOTTARAKKARA	2936071	2186032	5122103	1881440	875754	2757194	53.83%
KOLLAM	PARAVOOR (M)	16382300	11717700	28100000	756000	1957544	2713544	9.66%
KOLLAM	PUNALUR (M)	0	0	0	0	0	0	
TOTAL		57918571	39300692	97219263	19985061	7759471	27744532	28.54%
PATHANAMTHITTA	ADOOR (M)	4064851	2907446	6972297	112839.65	80710.35	193550	2.78%
PATHANAMTHITTA	PANDALAM						0	
PATHANAMTHITTA	PATHANAMTHITTA (M)						0	
PATHANAMTHITTA	THIRUVALLA (M)	9607065	6870435	16477500	816258.3	583841.7	1400100	8.50%
TOTAL		13671916	9777881	23449797	929097.95	664552.05	1593650	6.80%
ALAPPUZHA	ALAPPUZHA (M)	29060775	18260099	47320874	8848555	9336791	18185346	38.43%
ALAPPUZHA	CHENGANNUR (M)	6296400	4503600	10800000	1641900	2160000	3801900	35.20%
ALAPPUZHA	CHERTHALA (M)	5676088	4059912	9736000	0	0	0	0.00%
ALAPPUZHA	HARIPAD	2232864	1360845	3593709	1238992	886208	2125200	59.14%
ALAPPUZHA	KAYAMKULAM (M)	5817874	4161327	9979201	0	738560	738560	7.40%

ALAPPUZHA	MAVELIKKARA (M)	3,522,304	2,246,829	5,769,133	0	270000	270000	4.68%
TOTAL		52606305	34592612	87198917	11729447	13391559	25121006	28.81%
KOTTAYAM	CHANGANASSERY (M)	16684191	11933632	28617823	3706838	1707270	5414108	18.92%
KOTTAYAM	ERATTUPETTA	381165	272634	653799	0	0	0	0.00%
KOTTAYAM	ETTUMANOOR	4354776	3114823	7469599	1250000	1000000	2250000	30.12%
KOTTAYAM	KOTTAYAM (M)	22730801	12042045	34772846	3199967	1617633	4817600	13.85%
KOTTAYAM	PALAI (M)	1777840	1271629	3049469	0	0	0	0.00%
KOTTAYAM	VAIKOM (M)	2332000	1668000	4000000	2332000	1668000	4000000	100.00%
TOTAL		48260773	30302763	78563536	10488805	5992903	16481708	20.98%
IDUKKI	KATTAPPANA	6647632	1067500	7715132	0	0	0	0.00%
IDUKKI	THODUPUZHA (M)	3255377	2328373	5583750	0	0	0	0.00%
TOTAL		9903009	3395873	13298882	0	0	0	0.00%
ERNAKULAM	ALUVA	8430180	6029820	14460000	1809632	585968	2395600	16.57%
ERNAKULAM	ANGAMALY (M)	7158324	5120106	12278430	9208725	3550893	12759618	103.92%
ERNAKULAM	ELOOR	787050	562950	1350000	391500	0	391500	29.00%
ERNAKULAM	KALAMASSERY (M)						0	
ERNAKULAM	KOCHI						0	
ERNAKULAM	KOOTHATTUKULAM	0	0	0	0	0	0	
ERNAKULAM	KOTHAMANGALAM (M)	9038482	6464918	15503400	2741760	3545640	6287400	40.55%
ERNAKULAM	MARADU(M)	2098800	1501200	3600000	600000	1200000	1800000	50.00%
ERNAKULAM	MUVATTUPUZHA (M)	489720	350280	840000	371450	121867	493317	58.73%
ERNAKULAM	PARAVUR (M)	3258387	2330613	5589000	1732237	1012209	2744446	49.10%
ERNAKULAM	PERUMBAVOOR (M)	0	0	0	0	0	0	
ERNAKULAM	PIRAVOM						0	
ERNAKULAM	THRIKKAKARA(M)	11222750	8027250	19250000	2500000	0	2500000	12.99%
ERNAKULAM	THRIPPUNITHURA (M)	927320	663280	1590600	382075	37560	419635	26.38%
TOTAL		43411013	31050417	74461430	19737379	10054137	29791516	40.01%
THRISSUR	CHALAKUDY (M)	7341810	5372550	12714360	1069969	0	1069969	8.42%
THRISSUR	CHAVAKKAD (M)	9560417	6838240	16398657	3329848	2328820	5658668	34.51%
THRISSUR	GURUVAYOOR (M)	13287853	9504347	22792200	5802073	6464327	12266400	53.82%
THRISSUR	IRINJALAKUDA (M)	4815049	3444041	8259090	2640953	0	2640953	31.98%
THRISSUR	KODUNGALLUR (M)	3436785	2458215	5895000	950116	0	950116	16.12%

THRISSUR	KUNNAMKULAM (M)	0	0	0	0	0	0	
THRISSUR	THRISSUR						0	
THRISSUR	WADAKKANCHERI	6143761	4348084	10491845	1099645	1932434	3032079	28.90%
TOTAL		44585676	31965476	76551152	14892604	10725581	25618185	33.47%
PALAKKAD	CHERPULASSERY	0	0	0	0	0	0	
PALAKKAD	CHITTUR- THATHAMANGALAM (M)	3187430	2279860	5467290	2298452	1862671	4161123	76.11%
PALAKKAD	MANNARKKAD	1175459	840766	2016225	200499	662031	862530	42.78%
PALAKKAD	OTTAPPALAM (M)	0	0	0	0	0	0	
PALAKKAD	PALAKKAD (M)						0	
PALAKKAD	PATTAMBI	0	0	0	0	0	0	
PALAKKAD	SHORANUR (M)	0	0	0	0	0	0	
TOTAL		4362889	3120626	7483515	2498951	2524702	5023653	67.13%
MALAPPURAM	KONDOTTY	3721694	2446187	6167881	0	0	0	0.00%
MALAPPURAM	KOTTAKKAL	5727385	4096603	9823988	0	0	0	0.00%
MALAPPURAM	MALAPPURAM (M)	19295546	13801446	33096992	0	0	0	0.00%
MALAPPURAM	MANJERI (M)	0	0	0	0	0	0	
MALAPPURAM	NILAMBUR	9233212	6604202	15837414	0	0	0	0.00%
MALAPPURAM	PARAPPANANANGADI	1091521	780727	1872248	0	0	0	0.00%
MALAPPURAM	PERINTHALMANNA (M)	0	0	0	0	0	0	
MALAPPURAM	PONNANI (M)	10937080	7822920	18760000	0	0	0	0.00%
MALAPPURAM	TANUR	3201528	2290372	5491900	0	0	0	0.00%
MALAPPURAM	TIRUR (M)	0	0	0	0	0	0	
MALAPPURAM	TIRURANGADI	11135302	6932692	18067994	162000	425250	587250	3.25%
MALAPPURAM	VALANCHERRY						0	
TOTAL		64343268	44775149	109118417	162000	425250	587250	0.54%
KOZIKODE	FEROKE	5075950	3630653	8706603	1928420	1586750	3515170	40.37%
KOZIKODE	KODUVALLY	0	0	0	0	0	0	
KOZIKODE	KOYILANDY (M)	21781194	19850357	41631551	3658193	22984	3681177	8.84%
KOZIKODE	KOZHIKODE						0	
KOZIKODE	MUKKAM	5000000	2085000	7085000	100000	526300	626300	8.84%
KOZIKODE	PAYYOLI	0	0	0	0	0	0	

KOZIKODE	RAMANATTUKARA	5000000	2085000	7085000	4226750	3000000	7226750	102.00%
KOZIKODE	VADAKARA (M)	10238995	7323604	17562599	0	0	0	0.00%
TOTAL		47096139	34974614	82070753	9913363	5136034	15049397	18.34%
WAYANAD	KALPETTA (M)	4751060	3497740	8248800	0	0	0	0.00%
WAYANAD	MANANTHAVADI	6824963	4662737	11487700	0	0	0	0.00%
WAYANAD	SULTAN BATHERY			0			0	
TOTAL		11576023	8160477	19736500	0	0	0	0.00%
KANNUR	ANTHOOR	0	0	0	0	0	0	
KANNUR	IRITTY	2098800	1501200	3600000	1727530	100000	1827530	50.76%
KANNUR	KANNUR (M)						0	
KANNUR	KANNUR CANTT.						0	
KANNUR	KOOTHUPARAMBA (M)	0	0	0	0	0	0	
KANNUR	MATTANNUR (M)	1749000	1251000	3000000	1009250	312750	1322000	44.07%
KANNUR	PANOR	1649890	1180110	2830000	0	0	0	0.00%
KANNUR	PAYYANNUR (M)	11850069.5	8475950.5	20326020	4132099	1918142	6050241	29.77%
KANNUR	SREEKANDAPURAM	0	0	0	0	0	0	
KANNUR	TALIPARAMBA (M)	8745000	7245000	15990000	4098664	974028	5072692	31.72%
KANNUR	THALASSERY (M)	1407478	1006721	2414199	555871	400000	955871	39.59%
TOTAL		27500237.5	20659981.5	48160219	11523414	3704920	15228334	31.62%
KASARAGOD	KANHANGAD (M)	9176420	6563580	15740000	5518095	3946905	9465000	60.13%
KASARAGOD	KASARAGOD	10161721	7268332	17430053	1636043	1170207	2806250	16.10%
KASARAGOD	NEELESWARAM	3525692	2521808	6047500	1326443	750894	2077337	34.35%
TOTAL		22863833	16353720	39217553	8480581	5868006	14348587	36.59%
GRAND TOTAL		819066331	560291199	1379357530	194253256	107710592	301963848	21.89%
TOTAL SBM EXPENDITURE	#REF!							
PERCENTAGE								

TOTAL EXPENDITURE	#REF!							
*DPR not Submitted	#REF!							
	2. PATHANAMTHITTA (M) 3. KALAMASSERY (M) 4. KOCHI 5. PIRAVOM 6. THRISSUR 7. PALAKKAD (M) 8. VALANCHERRY 9. KOZHIKODE 10. SULTAN BATHERY							

	Name of the Urban Local Body	Thiruvananthapuram	Attingal	Nedumangadu	Neyyattinkara	Varkala
ENFORCEMENT						
Health and Night Squads						
1	No. of inspections done by Health Squad in current FY	11522	78	25	144	89
2	Total amount of fine imposed against Single Use Plastic in current FY (in Rs)	892720	170000	45680	70000	51750
3	No. inspections done by Night Squads in current FY	2302	3	10	60	18
4	Total amount of fine imposed against illegal dumping in public places and water bodies in current FY (in Rs)	2201008	29000	9810	23190	41950
SOLID WASTE MANAGEMENT						
Basic data						
5	% of Door to door collection coverage of HKS	54.4	65	81	80	75
6	% of waste segregation					
7	No. of functional Mini MCFs in the ULB	75	0	6	7	15
8	No. of functional MCFs in the ULB	56	1	1	4	2
9	No. of functional RRFs in the ULB	2	1	1	1	1
10	No. of Centralised Bio degradable waste management plants in the ULB	0	1	0	0	1
11	tones per day) for bio degradable waste management (<i>give zero value if</i>	0	15	0	0	5
12	No. of Decentralised thumboormuzhi units existing in the ULB as on date	256	0	4	23	2
13	No. of total bins in the thumboormuzhi units as on date	513	0	47	46	25
Dumpsites						
14	No of dumpsites cleared in the current financial year	1	0	2	1	1
15	No. of dumpsites remaining to be cleared as on date	1	1	0	0	0
Bio mining						
16	No. of of legacy sites in the ULB where Biomining is required	1	1	0	0	0
17	Amount allocated for biomining projects (in Rs.)	10000000	14500000	0	0	0
18	Scheme/ fund in which the bio mining projects (KSWMP/SBM/Plan fund etc) are taken up	Urban agglomeration	SBM	0	0	0
19	% of biomining completed as on date	0	40	0	0	0

	Name of the Urban Local Body	Kollam	Karunagapal	Kottarakkara	Punalur	South Paravoor
ENFORCEMENT						
Health and Night Squads						
1	No. of inspections done by Health Squad in current FY	794	40	20	14	39
2	Total amount of fine imposed against Single Use Plastic in current FY (in Rs)	####	0	104600	77640	3100
3	No. inspections done by Night Squads in current FY	90	5	8	5	0
4	Total amount of fine imposed against illegal dumping in public places and water bodies in current FY (in Rs)	####	5250	16560	77640	15500
SOLID WASTE MANAGEMENT						
Basic data						
5	% of Door to door collection coverage of HKS	82	51	65	98	72
6	% of waste segregation					
7	No. of functional Mini MCFs in the ULB	200	35	11	200	32
8	No. of functional MCFs in the ULB	8	2	1	1	2
9	No. of functional RRFs in the ULB	2	1	1	1	0
10	No. of Centralised Bio degradable waste management plants in the ULB	0	0	0	0	0
11	tones per day) for bio degradable waste management (<i>give zero value if</i>	0	0	0	0	0
12	No. of Decentralised thumboormuzhi units existing in the ULB as on date	27	0	8	3	5
13	No. of total bins in the thumboormuzhi units as on date	130	0	24	32	17
Dumpsites						
14	No of dumpsites cleared in the current financial year	56	5	6	0	0
15	No. of dumpsites remaining to be cleared as on date	10	0	1	0	0
Bio mining						
16	No. of legacy sites in the ULB where Biomining is required	1	0	1	0	0
17	Amount allocated for biomining projects (in Rs.)	####	0	9520250	0	0
18	Scheme/ fund in which the bio mining projects (KSWMP/SBM/Plan fund etc) are taken up	Plan	0	KSWMP	0	0
19	% of biomining completed as on date	100	0	0	0	0

	Name of the Urban Local Body	Adoor	Pandalam	Pathanamthitta	Thiruvalla	Alappuzha
ENFORCEMENT						
Health and Night Squads						
1	No. of inspections done by Health Squad in current FY	1	27	18	80	176
2	Total amount of fine imposed against Single Use Plastic in current FY (in Rs)	0	5000	60000	12500	50,000
3	No. inspections done by Night Squads in current FY	0	5	5	88	168
4	Total amount of fine imposed against illegal dumping in public places and water bodies in current FY (in Rs)	0	35500	167500	65000	1,65,400
SOLID WASTE MANAGEMENT						
Basic data						
5	% of Door to door collection coverage of HKS	64	75	50	80.6	94
6	% of waste segregation					
7	No. of functional Mini MCFs in the ULB	0	16	6	20	12
8	No. of functional MCFs in the ULB	2	1	2	1	3
9	No. of functional RRFs in the ULB	1	0	1	1	0
10	No. of Centralised Bio degradable waste management plants in the ULB	1	0	12	0	0
11	tones per day) for bio degradable waste management (<i>give zero value if</i>	1.5	0	2.5	0	0
12	No. of Decentralised thumboormuzhi units existing in the ULB as on date	11	2	10	7	33
13	No. of total bins in the thumboormuzhi units as on date	21	4	21	14	342
Dumpsites						
14	No of dumpsites cleared in the current financial year	1	0	4	0	0
15	No. of dumpsites remaining to be cleared as on date	0	2	0	0	1
Bio mining						
16	No. of of legacy sites in the ULB where Biomining is required	0	2	0	0	1
17	Amount allocated for biomining projects (in Rs.)	0	0	0	0	3,70,00,000
18	Scheme/ fund in which the bio mining projects (KSWMP/SBM/Plan fund etc) are taken up	0	KSWMP	0	0	SBM
19	% of biomining completed as on date	0	0	0	0	0

	Name of the Urban Local Body	Chengannur	Cherthala	Harippad	Kayamkulam	Mavelikkara
ENFORCEMENT						
Health and Night Squads						
1	No. of inspections done by Health Squad in current FY	5	129	42	24	29
2	Total amount of fine imposed against Single Use Plastic in current FY (in Rs)	190000	25,000	2500	41000	10000
3	No. inspections done by Night Squads in current FY	8	55	13	13	15
4	Total amount of fine imposed against illegal dumping in public places and water bodies in current FY (in Rs)	0	5,000	11500	106000	260250
SOLID WASTE MANAGEMENT						
Basic data						
5	% of Door to door collection coverage of HKS	100	100	95	65	45
6	% of waste segregation					
7	No. of functional Mini MCFs in the ULB	0	14	29	0	0
8	No. of functional MCFs in the ULB	1	2	1	1	2
9	No. of functional RRFs in the ULB	1	1	1	1	1
10	No. of Centralised Bio degradable waste management plants in the ULB	0	0	0	0	0
11	tones per day) for bio degradable waste management (<i>give zero value if</i>	0	0	0	0	0
12	No. of Decentralised thumboormuzhi units existing in the ULB as on date	1	13	5	12	13
13	No. of total bins in the thumboormuzhi units as on date	6	26	26	28	27
Dumpsites						
14	No of dumpsites cleared in the current financial year	4	0	0	0	0
15	No. of dumpsites remaining to be cleared as on date	0	0	0	1	1
Bio mining						
16	No. of of legacy sites in the ULB where Biomining is required	0	0	0	1	1
17	Amount allocated for biomining projects (in Rs.)	0	0	0	15000000	0
18	Scheme/ fund in which the bio mining projects (KSWMP/SBM/Plan fund etc) are taken up	0	0	0	KSWMP	0
19	% of biomining completed as on date	0	0	0	0	0

	Name of the Urban Local Body	Changanassery	Erattupetta	Ettumanoor	Kottayam	Pala
ENFORCEMENT						
Health and Night Squads						
1	No. of inspections done by Health Squad in current FY	52	14	14	12	20
2	Total amount of fine imposed against Single Use Plastic in current FY (in Rs)	39800	160000	31,500	15000	6000
3	No. inspections done by Night Squads in current FY	10	9	0	48	9
4	Total amount of fine imposed against illegal dumping in public places and water bodies in current FY (in Rs)	41380	115000	0	167080	3000
SOLID WASTE MANAGEMENT						
Basic data						
5	% of Door to door collection coverage of HKS	68	75	70	45	52
6	% of waste segregation					
7	No. of functional Mini MCFs in the ULB	0	17	28	17	5
8	No. of functional MCFs in the ULB	1	1	1	1	1
9	No. of functional RRFs in the ULB	1	1	1	1	0
10	No. of Centralised Bio degradable waste management plants in the ULB	0	1	1	0	0
11	tones per day) for bio degradable waste management (<i>give zero value if</i>	0	4	0	0	0
12	No. of Decentralised thumboormuzhi units existing in the ULB as on date	7	0	4	20	4
13	No. of total bins in the thumboormuzhi units as on date	45	40	8	114	16
Dumpsites						
14	No of dumpsites cleared in the current financial year	37	8	0	0	2
15	No. of dumpsites remaining to be cleared as on date	0	3	0	1	0
Bio mining						
16	No. of of legacy sites in the ULB where Biomining is required	1	1	0	1	0
17	Amount allocated for biomining projects (in Rs.)	8663000	7600000	0	8100000	0
18	Scheme/ fund in which the bio minining projects (KSWMP/SBM/Plan fund etc) are taken up	SBM , PLAN FUND	ULB/SM/SE	0	CFC TIED	0
19	% of biomining completed as on date	TENDER OPEN	0	0	2	0

	Name of the Urban Local Body	Vaikom	Kattappa na	Thodupu zha	Kochi	Aluva
ENFORCEMENT						
Health and Night Squads						
1	No. of inspections done by Health Squad in current FY	80	2	84	399	14
2	Total amount of fine imposed against Single Use Plastic in current FY (in Rs)	40000	9000	8000	#####	30000
3	No. inspections done by Night Squads in current FY	3	2	24	200	0
4	Total amount of fine imposed against illegal dumping in public places and water bodies in current FY (in Rs)	8000	22000	18080	#####	26,000
SOLID WASTE MANAGEMENT						
Basic data						
5	% of Door to door collection coverage of HKS	80	80	70	96	91
6	% of waste segregation					
7	No. of functional Mini MCFs in the ULB	26	0	21	0	0
8	No. of functional MCFs in the ULB	1	1	1	2	2
9	No. of functional RRFs in the ULB	1	1	1	0	0
10	No. of Centralised Bio degradable waste management plants in the ULB	0	0	1	1	0
11	tones per day) for bio degradable waste management (<i>give zero value if</i>	0	0	0.05	250	0
12	No. of Decentralised thumboormuzhi units existing in the ULB as on date	3	0	8	0	5
13	No. of total bins in the thumboormuzhi units as on date	24	0	16	0	10
Dumpsites						
14	No of dumpsites cleared in the current financial year	11	0	9	1	0
15	No. of dumpsites remaining to be cleared as on date	6	0	2	1	0
Bio mining						
16	No. of of legacy sites in the ULB where Biomining is required	0	0	1	1	0
17	Amount allocated for biomining projects (in Rs.)	0	0	9934000	#####	0
18	Scheme/ fund in which the bio mining projects (KSWMP/SBM/Plan fund etc) are taken up	0	0	FC Tied Grant	PLan Fund etc +CFC	0
19	% of biomining completed as on date	0	0	0	28	0

	Name of the Urban Local Body	Angamali	Elloor	Kalamassery	Koothattukulam	Kothamangalam
ENFORCEMENT						
Health and Night Squads						
1	No. of inspections done by Health Squad in current FY	4	14	38	18	71
2	Total amount of fine imposed against Single Use Plastic in current FY (in Rs)	40040	10000	24000	8000	44630
3	No. inspections done by Night Squads in current FY	8	2	27	12	10
4	Total amount of fine imposed against illegal dumping in public places and water bodies in current FY (in Rs)	59580	65740	244910	3500	24250
SOLID WASTE MANAGEMENT						
Basic data						
5	% of Door to door collection coverage of HKS	90	85	70	70	89
6	% of waste segregation					
7	No. of functional Mini MCFs in the ULB	22	52	0	20	0
8	No. of functional MCFs in the ULB	1	4	2	1	1
9	No. of functional RRFs in the ULB	1	1	1	0	0
10	No. of Centralised Bio degradable waste management plants in the ULB	0	0	0	2	1
11	tones per day) for bio degradable waste management (<i>give zero value if</i>	0	0	0	0.04	3
12	No. of Decentralised thumboormuzhi units existing in the ULB as on date	3	29	0	0	0
13	No. of total bins in the thumboormuzhi units as on date	9	58	0	0	0
Dumpsites						
14	No of dumpsites cleared in the current financial year	0	0	0	1	0
15	No. of dumpsites remaining to be cleared as on date	0	0	0	0	1
Bio mining						
16	No. of of legacy sites in the ULB where Biomining is required	0	0	1	1	1
17	Amount allocated for biomining projects (in Rs.)	0	0	0	0	6896051
18	Scheme/ fund in which the bio mining projects (KSWMP/SBM/Plan fund etc) are taken up	0	0	KSWMP	KSWMP	SBM, Plan fund & KSWMP
19	% of biomining completed as on date	0	0	0	0	0

	Name of the Urban Local Body	Mara d	Muvattup uzha	North Paravoo	Perumb avoor	Pirav am
ENFORCEMENT						
Health and Night Squads						
1	No. of inspections done by Health Squad in current FY	59	40	32	21	0
2	Total amount of fine imposed against Single Use Plastic in current FY (in Rs)	43,000	90000	4000	165000	0
3	No. inspections done by Night Squads in current FY	28	48	13	2	12
4	Total amount of fine imposed against illegal dumping in public places and water bodies in current FY (in Rs)	72,500	82730	77000	48680	16500
SOLID WASTE MANAGEMENT						
Basic data						
5	% of Door to door collection coverage of HKS	48	80	78.2	70	95
6	% of waste segregation					
7	No. of functional Mini MCFs in the ULB	33	0	0	0	0
8	No. of functional MCFs in the ULB	1	2	1	1	1
9	No. of functional RRFs in the ULB	1	1	0	1	1
10	No. of Centralised Bio degradable waste management plants in the ULB	0	0	1	0	0
11	tones per day) for bio degradable waste management (<i>give zero value if</i>	0	0	1	0	0
12	No. of Decentralised thumboormuzhi units existing in the ULB as on date	2	0	0	2	0
13	No. of total bins in the thumboormuzhi units as on date	6	0	0	16	0
Dumpsites						
14	No of dumpsites cleared in the current financial year	0	0	0	3	0
15	No. of dumpsites remaining to be cleared as on date	0	1	1	1	0
Bio mining						
16	No. of of legacy sites in the ULB where Biomining is required	0	1	1	0	0
17	Amount allocated for biomining projects (in Rs.)	0	41800000	1160000	0	0
18	Scheme/ fund in which the bio mining projects (KSWMP/SBM/Plan fund etc) are taken up	0	SBM,KSW MP	CFC Tied	0	0
19	% of biomining completed as on date	0	0	0	0	0

	Name of the Urban Local Body	Thrikkakkara	Thrippunithura	Thrisur	Chalakkudy	Chavakkadu	Guruvayoor
ENFORCEMENT							
Health and Night Squads							
1	No. of inspections done by Health Squad in current FY	109	76	325	25	16	282
2	Total amount of fine imposed against Single Use Plastic in current FY (in Rs)	52000	68000	30210	102620	10000	40000
3	No. inspections done by Night Squads in current FY	40	112	300	10	9	298
4	Total amount of fine imposed against illegal dumping in public places and water bodies in current FY (in Rs)	59000	504000	5E+05	14000	38700	360750
SOLID WASTE MANAGEMENT							
Basic data							
5	% of Door to door collection coverage of HKS	80	85.5	62	80	100	100
6	% of waste segregation						
7	No. of functional Mini MCFs in the ULB	0	5	4	0	0	1
8	No. of functional MCFs in the ULB	1	1	13	1	1	2
9	No. of functional RRFs in the ULB	0	0	3	0	1	1
10	No. of Centralised Bio degradable waste management plants in the ULB	0	0	3	1	1	1
11	tones per day) for bio degradable waste management (<i>give zero value if</i>	0	0	16	2.1	2	5
12	No. of Decentralised thumboormuzhi units existing in the ULB as on date	0	2	0	1	1	2
13	No. of total bins in the thumboormuzhi units as on date	0	11	0	4	4	14
Dumpsites							
14	No of dumpsites cleared in the current financial year	0	2	0	5	0	0
15	No. of dumpsites remaining to be cleared as on date	1	0	1	0	1	0
Bio mining							
16	No. of of legacy sites in the ULB where Biomining is required	0	0	1	1	1	0
17	Amount allocated for biomining projects (in Rs.)	0	0	5E+07	1000000	4625000	0
18	Scheme/ fund in which the bio mining projects (KSWMP/SBM/Plan fund etc) are taken up	0	0	SBM Plan Fund	KSWMP	Urban Agglomeration	0
19	% of biomining completed as on date	0	0	60	0	0	0

	Name of the Urban Local Body	Irinjalak kuda	Kodun gallur	Kunn amkul	Wadak kanche	C.T.Ma ngalam	Cherp pulass
ENFORCEMENT							
Health and Night Squads							
1	No. of inspections done by Health Squad in current FY	40	32	253	170	39	49
2	Total amount of fine imposed against Single Use Plastic in current FY (in Rs)	60500	15000	50660	0	10000	15000
3	No. inspections done by Night Squads in current FY	45	15	210	15	14	3
4	Total amount of fine imposed against illegal dumping in public places and water bodies in current FY (in Rs)	8500	105500	45000	127720	25000	12000
SOLID WASTE MANAGEMENT							
Basic data							
5	% of Door to door collection coverage of HKS	98	90	92	100	80	86
6	% of waste segregation						
7	No. of functional Mini MCFs in the ULB	4	22	0	41	7	7
8	No. of functional MCFs in the ULB	3	5	2	2	7	1
9	No. of functional RRFs in the ULB	1	2	1	1	1	1
10	No. of Centralised Bio degradable waste management plants in the ULB	1	1	1	1	1	0
11	tones per day) for bio degradable waste management (<i>give zero value if</i>	4	4	8	10	0.5	0
12	No. of Decentralised thumboormuzhi units existing in the ULB as on date	0	11	2	0	1	2
13	No. of total bins in the thumboormuzhi units as on date	0	72	4	0	8	4
Dumpsites							
14	No of dumpsites cleared in the current financial year	6	0	6	0	4	1
15	No. of dumpsites remaining to be cleared as on date	0	1	0	1	0	0
Bio mining							
16	No. of of legacy sites in the ULB where Biomining is required	1	1	1	1	0	0
17	Amount allocated for biomining projects (in Rs.)	4000000	2E+06	0	0	0	0
18	Scheme/ fund in which the bio minining projects (KSWMP/SBM/Plan fund etc) are taken up	Urban agglomeration	SM,SB M,CFC Tied	KSWM P	KSWMP	0	0
19	% of biomining completed as on date	0	0	0	0	0	0

	Name of the Urban Local Body	Mannarkka	Ottapalam	Palakkad	Pattambi	Shornur	Kondotty	Kottakkal
ENFORCEMENT								
Health and Night Squads								
1	No. of inspections done by Health Squad in current FY	16	25	612	114	248	11	36
2	Total amount of fine imposed against Single Use Plastic in current FY (in Rs)	0	21500	70000	37500	#####	30040	91150
3	No. inspections done by Night Squads in current FY	10	48	288	45	116	2	10
4	Total amount of fine imposed against illegal dumping in public places and water bodies in current FY (in Rs)	13250	66590	409940	65000	11000	0	1E+05
SOLID WASTE MANAGEMENT								
Basic data								
5	% of Door to door collection coverage of HKS	90	62.4	85	82	97	100	85
6	% of waste segregation							
7	No. of functional Mini MCFs in the ULB	0	12	37	0	6	0	0
8	No. of functional MCFs in the ULB	1	1	1	1	1	1	1
9	No. of functional RRFs in the ULB	1	1	1	1	1	0	1
10	No. of Centralised Bio degradable waste management plants in the ULB	0	0	1	1	1	0	0
11	tones per day) for bio degradable waste management (<i>give zero value if</i>	0	0	10	6	5	0	0
12	No. of Decentralised thumboormuzhi units existing in the ULB as on date	0	3	9	0	5	0	0
13	No. of total bins in the thumboormuzhi units as on date	0	0	18	0	6	0	0
Dumpsites								
14	No of dumpsites cleared in the current financial year	0	10	32	16	0	0	7
15	No. of dumpsites remaining to be cleared as on date	0	5	0	13	0	0	0
Bio mining								
16	No. of of legacy sites in the ULB where Biomining is required	0	1	1	0	0	0	0
17	Amount allocated for biomining projects (in Rs.)	0	3E+07	0	0	0	0	0
18	Scheme/ fund in which the bio mining projects (KSWMP/SBM/Plan fund etc) are taken up	0	TIDE FUND, KSWMP	KSWMP	0	0	0	0
19	% of biomining completed as on date	0	30	0	0	0	0	0

	Name of the Urban Local Body	Malapuram	Manjeri	Nilambur	Parappanangadi	Perinthalmann	Ponnani
ENFORCEMENT							
Health and Night Squads							
1	No. of inspections done by Health Squad in current FY	70	35	33	21	186	8
2	Total amount of fine imposed against Single Use Plastic in current FY (in Rs)	3500	36500	13000	72000	0	5500
3	No. inspections done by Night Squads in current FY	18	22	18	8	52	31
4	Total amount of fine imposed against illegal dumping in public places and water bodies in current FY (in Rs)	0	44500	60250	52070	455180	12500
SOLID WASTE MANAGEMENT							
Basic data							
5	% of Door to door collection coverage of HKS	76	65	85	98	85	100
6	% of waste segregation						
7	No. of functional Mini MCFs in the ULB	0	1	0	45	0	0
8	No. of functional MCFs in the ULB	3	4	1	3	1	2
9	No. of functional RRFs in the ULB	1	0	0	0	1	1
10	No. of Centralised Bio degradable waste management plants in the ULB	0	1	0	16	3	0
11	tones per day) for bio degradable waste management (<i>give zero value if</i>	0	2	0	0	9	0
12	No. of Decentralised thumboormuzhi units existing in the ULB as on date	0	0	1	0	0	14
13	No. of total bins in the thumboormuzhi units as on date	0	0	4	0	0	28
Dumpsites							
14	No of dumpsites cleared in the current financial year	2	5	0	0	0	0
15	No. of dumpsites remaining to be cleared as on date	0	1	0	0	0	0
Bio mining							
16	No. of of legacy sites in the ULB where Biomining is required	1	1	0	0	0	0
17	Amount allocated for biomining projects (in Rs.)	0	3E+07	0	0	0	0
18	Scheme/ fund in which the bio minining projects (KSWMP/SBM/Plan fund etc) are taken up	KSWMP	SBM/PLAN FUND	0	0	0	0
19	% of biomining completed as on date	0	0	0	0	0	0

	Name of the Urban Local Body	Thanur	Thirur	Thirurangadi	valanchery	Kozhikode	Ferok
ENFORCEMENT							
Health and Night Squads							
1	No. of inspections done by Health Squad in current FY	11	42	42	32	841	7
2	Total amount of fine imposed against Single Use Plastic in current FY (in Rs)	0	50500	55000	55070	#####	0
3	No. inspections done by Night Squads in current FY	0	12	1	10	360	0
4	Total amount of fine imposed against illegal dumping in public places and water bodies in current FY (in Rs)	0	6500	750	0	#####	17000
SOLID WASTE MANAGEMENT							
Basic data							
5	% of Door to door collection coverage of HKS	41	87	80	70	92	70
6	% of waste segregation						
7	No. of functional Mini MCFs in the ULB	10	0	1	4	1	16
8	No. of functional MCFs in the ULB	1	1	1	1	5	1
9	No. of functional RRFs in the ULB	1	1	0	0	3	1
10	No. of Centralised Bio degradable waste management plants in the ULB	0	1	0	0	1	0
11	tones per day) for bio degradable waste management (<i>give zero value if</i>	0	90	0	0	100	0
12	No. of Decentralised thumboormuzhi units existing in the ULB as on date	0	0	1	2	6	2
13	No. of total bins in the thumboormuzhi units as on date	0	45	12	6	26	0
Dumpsites							
14	No of dumpsites cleared in the current financial year	4	0	2	2	5	1
15	No. of dumpsites remaining to be cleared as on date	0	1	0	0	0	0
Bio mining							
16	No. of of legacy sites in the ULB where Biomining is required	0	1	0	0	2	0
17	Amount allocated for biomining projects (in Rs.)	0	1E+06	0	0	#####	0
18	Scheme/ fund in which the bio mining projects (KSWMP/SBM/Plan fund etc) are taken up	0	SBM	0	0	SBM	0
19	% of biomining completed as on date	0	0	0	0	60	0

	Name of the Urban Local Body	Koduvally	Koyilandy	Mukkam	Payyoli	Ramanattukara	Vadakkara
ENFORCEMENT							
Health and Night Squads							
1	No. of inspections done by Health Squad in current FY	53	28	45	79	10	23
2	Total amount of fine imposed against Single Use Plastic in current FY (in Rs)	1007	10070	0	50000	5000	90000
3	No. inspections done by Night Squads in current FY	22	16	13	0	2	26
4	Total amount of fine imposed against illegal dumping in public places and water bodies in current FY (in Rs)	0	8060	10000	13500	10000	222250
SOLID WASTE MANAGEMENT							
Basic data							
5	% of Door to door collection coverage of HKS	92	85	85	90	85	80
6	% of waste segregation						
7	No. of functional Mini MCFs in the ULB	0	176	1	17	7	12
8	No. of functional MCFs in the ULB	1	1	1	1	1	1
9	No. of functional RRFs in the ULB	0	1	0	0	0	1
10	No. of Centralised Bio degradable waste management plants in the ULB	0	1	0	0	0	0
11	tones per day) for bio degradable waste management (<i>give zero value if</i>	0	0.25	0	0	0	0
12	No. of Decentralised thumboormuzhi units existing in the ULB as on date	0	9	4	0	0	17
13	No. of total bins in the thumboormuzhi units as on date	0	50	12	0	0	34
Dumpsites							
14	No of dumpsites cleared in the current financial year	1	1	4	12	0	9
15	No. of dumpsites remaining to be cleared as on date	0	1	0	1	0	1
Bio mining							
16	No. of legacy sites in the ULB where Biomining is required	0	0	0	0	0	1
17	Amount allocated for biomining projects (in Rs.)	0	0	0	0	0	35650432
18	Scheme/ fund in which the bio mining projects (KSWMP/SBM/Plan fund etc) are taken up	0	0	0	0	0	KSWMP
19	% of biomining completed as on date	0	0	0	0	0	0

	Name of the Urban Local Body	Kalpetta	Manant havady	Sulthanb athery	Kann ur	Antho or	Iritt y
ENFORCEMENT							
Health and Night Squads							
1	No. of inspections done by Health Squad in current FY	22	33	20	770	26	17
2	Total amount of fine imposed against Single Use Plastic in current FY (in Rs)	80000	0	11510	930000	110000	####
3	No. inspections done by Night Squads in current FY	3	32	6	102	0	0
4	Total amount of fine imposed against illegal dumping in public places and water bodies in current FY (in Rs)	34150	4050	33600	186930	15050	5000
SOLID WASTE MANAGEMENT							
Basic data							
5	% of Door to door collection coverage of HKS	70	75	75	65	100	60
6	% of waste segregation						
7	No. of functional Mini MCFs in the ULB	1	36	0	0	18	33
8	No. of functional MCFs in the ULB	1	1	1	1	1	1
9	No. of functional RRFs in the ULB	1	0	0	1	1	1
10	No. of Centralised Bio degradable waste management plants in the ULB	1	0	0	1	0	1
11	tones per day) for bio degradable waste management (<i>give zero value if</i>	4	0	0	0.05	0	2
12	No. of Decentralised thumboormuzhi units existing in the ULB as on date	4	0	4	1	8	5
13	No. of total bins in the thumboormuzhi units as on date	8	0	8	4	20	10
Dumpsites							
14	No of dumpsites cleared in the current financial year	1	0	0	0	0	5
15	No. of dumpsites remaining to be cleared as on date	0	0	0	1	0	0
Bio mining							
16	No. of of legacy sites in the ULB where Biomining is required	1	0	0	1	0	1
17	Amount allocated for biomining projects (in Rs.)	0	0	0	1E+08	0	0
18	Scheme/ fund in which the bio mining projects (KSWMP/SBM/Plan fund etc) are taken up	KSWMP	0	0	TIED	0	KSWMP
19	% of biomining completed as on date	0	0	0	60	0	0

	Name of the Urban Local Body	Koothupara	Mattannur	Panur	Payyannur	Sreekanthapuram	Thalassery
ENFORCEMENT							
Health and Night Squads							
1	No. of inspections done by Health Squad in current FY	15	70	11	50	31	21
2	Total amount of fine imposed against Single Use Plastic in current FY (in Rs)	51500	50000	51000	200000	180000	120000
3	No. inspections done by Night Squads in current FY	7	24	4	22	4	6
4	Total amount of fine imposed against illegal dumping in public places and water bodies in current FY (in Rs)	35000	36722	14150	247000	7000	98740
SOLID WASTE MANAGEMENT							
Basic data							
5	% of Door to door collection coverage of HKS	98	90	92	100	96	90
6	% of waste segregation						
7	No. of functional Mini MCFs in the ULB	5	70	40	44	30	0
8	No. of functional MCFs in the ULB	1	2	1	1	1	1
9	No. of functional RRFs in the ULB	1	1	0	1	1	1
10	No. of Centralised Bio degradable waste management plants in the	2	1	0	1	0	1
11	tones per day) for bio degradable waste management (<i>give zero value</i>)	5	2	0	1	0	0.05
12	No. of Decentralised thumboormuzhi units existing in	0	0	0	0	0	1
13	No. of total bins in the thumboormuzhi units as on date	0	0	0	2	0	6
Dumpsites							
14	No of dumpsites cleared in the current financial year	1	0	0	0	6	0
15	No. of dumpsites remaining to be cleared as on date	0	0	0	0	0	1
Bio mining							
16	No. of legacy sites in the ULB where Biomining is required	1	1	0	1	0	1
17	Amount allocated for biomining projects (in Rs.)	0	2E+07	0	6E+06	0	49234572
18	Scheme/ fund in which the bio minining projects (KSWMP/SBM/Plan fund etc) are taken up	KSWMP	URBAN	0	CFC	0	SBM 2.0
19	% of biomining completed as on date	0	0	0	0	0	0

	Name of the Urban Local Body	Thaliparamba	Kanhangadu	Kasargod	Nileshwar	TOTAL
ENFORCEMENT						
Health and Night Squads						
1	No. of inspections done by Health Squad in current FY	17	124	67	20	228
2	Total amount of fine imposed against Single Use Plastic in current FY (in Rs)	30000	180930	68770	35000	314700
3	No. inspections done by Night Squads in current FY	2	0	25	2	29
4	Total amount of fine imposed against illegal dumping in public places and water bodies in current FY (in Rs)	3500	152000	0	0	155500
SOLID WASTE MANAGEMENT						
Basic data						
5	% of Door to door collection coverage of HKS	99	80	98	95	
6	% of waste segregation			100% segregation against collection		
7	No. of functional Mini MCFs in the ULB	1	0	38	3	42
8	No. of functional MCFs in the ULB	1	2	1	6	10
9	No. of functional RRFs in the ULB	1	1	1	1	4
10	No. of Centralised Bio degradable waste management plants in the	3	0	0	0	77
11	tones per day) for bio degradable waste management (<i>give zero value</i>)	0.9	0	0	0	0.9
12	No. of Decentralised thumboormuzhi units existing in	0	2	7	0	9
13	No. of total bins in the thumboormuzhi units as on date	0	5	14	0	19
Dumpsites						
14	No of dumpsites cleared in the current financial year	0	5	0	0	5
15	No. of dumpsites remaining to be cleared as on date	0	4	0	0	4
Bio mining						
16	No. of of legacy sites in the ULB where Biomining is required	0	1	1	0	2
17	Amount allocated for biomining projects (in Rs.)	0	5000000	6050000	0	11050000
18	Scheme/ fund in which the bio minining projects (KSWMP/SBM/Plan fund etc) are taken up	0	CFC FUND	0	0	
19	% of biomining completed as on date	0	0	0	0	0

SBM(U) 2.0 COMPOSTING PROJECTS				
			ACTION PLAN approved	
Sl.No	District	ULB name	Capacity	SBM Central + State share (Lakhs)
1	Trivandrum	Trivandrum(C)	112.8	713.46
2	Trivandrum	Attingal	0	0
3	Trivandrum	Varkala	7	66.82
4	Trivandrum	Nedumangad	9.5	90.68
5	Trivandrum	Neyyatinkara	3.8	36.27
TOTAL			133.1	907.23
6	Kollam	Kollam(C)	0	0
7	Kollam	Punalur	1.2	11.45
8	Kollam	Karunagappally	0.15	1.43
9	Kollam	Kottarakara	0.2	1.91
10	Kollam	Paravur	1.25	11.93
TOTAL			2.8	26.72
11	Pathanamthitta	Thiruvalla	6	57.27
12	Pathanamthitta	Adoor	2	19.09
13	Pathanamthitta	Pathanamthitta	6	57.27
14	Pathanamthitta	Pandalam	4	38.18
TOTAL			18	171.81
15	Alappuzha	Alappuzha	2.8	17.71
16	Alappuzha	Kayamkulam	0.75	7.16
17	Alappuzha	Mavelikkara	4.7	44.87
18	Alappuzha	Cherthala	7	66.82
19	Alappuzha	Chenganoor	3	28.64
20	Alappuzha	Haripad	2	19.09
TOTAL			20.25	184.29
21	Kottayam	Kottayam(M)	1	6.33
22	Kottayam	Changanacherry	0	0
23	Kottayam	Pala	1	9.55
24	Kottayam	Vaikom	1	9.55
25	Kottayam	Erattupetta	8.5	81.14
26	Kottayam	Ettumanoor	1	9.55
TOTAL			12.5	116.12
27	Idukki	Kattappana	4.5	42.96
28	Idukki	Thodupuzha	10	95.45
TOTAL			14.5	138.41
29	Ernakulam	Kochi	50	316.25
30	Ernakulam	Perumbavur	3	28.64

31	Ernakulam	North Paravoor	5	47.73
32	Ernakulam	Aluva	1.3	12.41
33	Ernakulam	Kothamangalam	5.7	54.41
34	Ernakulam	koothatukulam	2	19.09
35	Ernakulam	Kalamassery	8	76.36
36	Ernakulam	Maradu	5	47.73
37	Ernakulam	Thrikkakara	15	143.18
38	Ernakulam	Eloor	2	19.09
39	Ernakulam	Muvatupuzha	3.6	34.36
40	Ernakulam	Piravom	6	57.27
41	Ernakulam	Angamaly	2	19.09
42	Ernakulam	Tripunithura	4	38.18
TOTAL			112.6	913.79
43	Thrissur	Thrissur(C)	11.3	71.47
44	Thrissur	Kodungallur	3.5	33.41
45	Thrissur	Chalakkudy	5	47.73
46	Thrissur	Chavakkad	1	9.55
47	Thrissur	Irinjalakkuda	2.5	23.87
48	Thrissur	Kunnamkulam	2	19.09
49	Thrissur	Wadakkancherry	5	47.73
50	Thrissur	Guruvayur	1	9.55
TOTAL			31.3	262.4
51	Palakkad	Palakkad(M)	9	56.93
52	Palakkad	Chittur Tathamangalam	0	0
53	Palakkad	Cherpulassery	8	76.36
54	Palakkad	Pattambi	1.05	10.02
55	Palakkad	Shornur	1	9.55
56	Palakkad	Mannarkkad	8	76.36
57	Palakkad	Ottappalam	0	0
TOTAL			27.05	229.22
58	Malappuram	MALAPPURAM	2.5	23.87
59	Malappuram	MANJERI	10	95.45
60	Malappuram	THIRURANGADI	4.5	42.96
61	Malappuram	PONNANI	11.5	109.77
62	Malappuram	KONDOTTY	7	66.82
63	Malappuram	KOTTAKKAL	4	38.18
64	Malappuram	NILAMBUR	4	38.18
65	Malappuram	PARAPPANAGADI	5	47.73
66	Malappuram	TIRUR	5	47.73
67	Malappuram	PERINTHALMANNA	4.6	43.91
68	Malappuram	TANUR	7.35	70.15

69	Malappuram	VALANCHERI	2.2	21
TOTAL			67.65	645.75
70	Kozhikode	Kozhikode(C)	1.2	7.59
71	Kozhikode	Koduvally	0.3	2.87
72	Kozhikode	Payyoli	0.9	8.6
73	Kozhikode	Mukkam	0.95	9.07
74	Kozhikode	Ramanattukara	0.8	7.64
75	Kozhikode	Vatakara	0.1	0.96
76	Kozhikode	Feroke	0.35	3.34
77	Kozhikode	Koyilandy	0	0
TOTAL			4.6	40.07
78	Wayanad	Kalpetta	4.6	43.91
79	Wayanad	Mananthavady	10.7	102.14
80	Wayanad	Sulthan Bathery	6.2	59.18
TOTAL			21.5	205.23
81	Kannur	Kannur(C)	20	126.5
82	Kannur	Anthoor	2	19.09
83	Kannur	Kuthuparamba	3	28.64
84	Kannur	Mattannur	6	57.27
85	Kannur	Payyannur	6	57.27
86	Kannur	Sreekandapuram	6	57.27
87	Kannur	Taliparamba	3	28.64
88	Kannur	Iritty	6	57.27
89	Kannur	Panoor	8	76.36
90	Kannur	Thalassery	5	47.73
TOTAL			65	556.04
91	Kasargod	Kanhangad	0	0
92	Kasargod	Kasaragod	2	19.09
93	Kasargod	Nileshwaram	1	9.55
TOTAL			3	28.64
GRAND TOTAL			533.85	4425.72