BEFORE THE NATIONAL GREEN TRIBUNAL
PRINCIPAL BENCH, NEW DELHI

Original Application No. 606/2018

IN THE MATTER OF:

Compliance of Municipal Solid Waste Management Rules, 2016 and other environmental issues.

INDEX

Date of hearing: 13.01.2025

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Place: New Delhi
Date: 10.01.2025

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SIX-MONTHLY PROGRESS REPORT ON COMPLIANCE OF DIRECTIONS OF THE HON'BLE NATIONAL GREEN TRIBUNAL (P.B) IN OA No. 606/2018 IN RE: COMPLIANCE TO MUNICIPAL SOLID WASTE MANAGEMENT RULES, 2016 AND OTHER ENVIRONMENTAL ISSUES

LIST OF ANNEXURES

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1. BACKGROUND

In compliance of the directions of the Hon'ble National Green Tribunal vide Order dated 18.03.2024 in OA No. 606/2018, the Government of Mizoram has taken several steps to improve the solid and liquid waste management in the State. A meeting is held every month under the Chairmanship of the Chief Secretary and the stakeholder departments along with all District Magistrates to review the status and progress of solid and liquid waste management in the State.

With regard to improvement in the progress of Solid Waste Management in the State, the State has set up a Convergence Committee with all concerned departments involved to ensure the compliance of directions of the Hon'ble NGT. For this, waste quantification and waste characterization were meticulously done in selected villages in both urban and rural areas so as to devise an effective action plan to address the prevailing issues. Home Composting and Community Composting have been widely taken up, especially in rural areas. Majority of households utilize thermocol boxes for composting wet wastes. The compost produced by these home composting is primarily used for cultivation of crops and this drastically reduced the amount of wet waste collected. In order to promote a larger populace to take up home composting, it is introduced in the State Flagship Programme, 'Bana Kaih', where beneficiaries would be given technical training to yield better results and also given assistance in marketing their products so as to provide a fillip to the circular economy.

In the liquid waste management sector, the State Government has mandated all households to have septic tank with soak pits for black water treatment. The Urban Local Bodies went beyond and above to inspect defaulters and rectify it. Faecal Sludge Treatment Plants are proposed to be set up in all urban towns with a capacity designed to cater the nearby towns and villages. Due to peculiar topography of the hilly regions, treatment of Grey Water remains a huge challenge. The State has decided to seek technical support from CPHEEO under SBM (U) 2.0 and is in the process of setting up decentralized Sewage Treatment Plant in the urban towns, for which pilot projects have been initiated.

Apart from these, the State has also taken up several projects and interventions to address the gap in waste management and also undertaken various steps to bring about behavioral change by organizing awareness and capacity building programs.

2. HON'BLE NGT ORDER DATED 18.03.2024.AND ITS COMPLIANCE REPORT

The Hon'ble NGT, in its judgment and order dated 18.03.2024 in OA No. 606/2018, made several observations and issued directions regarding the State of Mizoram, to which the Government of Mizoram has submitted a compliance report. The directions with compliance report are mentioned in below

Table 1 directions from NGT dated 18.03.24 and its submitted compliance report

<table>
<tr><th>Sl. No.</th><th>Directions of Hon'ble NGT dt. 18.03.2024</th><th>Status as reported in the last 6 Monthly Progress Report</th><th>Remarks</th></tr>
<tr><td>A.</td><td><u>Solid Waste Management</u></td><td></td><td></td></tr>
<tr><td>(i)</td><td>There appears to be no clarity in the present compliance status in setting up and operation of Waste Processing and disposal in accordance with MSW Rules, 2016.</td><td></td><td>Report prepared in the prescribed format at Annexures.</td></tr>
<tr><td>(ii)</td><td>Out of 400 TPD of waste generation, 343.65 TPD is being processed and 217.42 TPD of waste processing is done at household level and 126.23 TPD of waste in processed Solid Waste Management Centres (SWMC), Centralized Composting and the Incineration. But, it is not disclosed as to what are the</td><td>Majority of households in Mizoram are engaged in the practice of home composting, utilizing thermocol boxes /compost pits and other suitable materials within their premises. This practice is prevalent especially in rural areas. The compost produced by these home composting initiatives is primarily used for cultivation of fruits and crops as well as animal feed. This sustainable approach has significantly reduced the necessity for collection of wet waste and simultaneously contributes to nurturing the soil quality thereby fostering environmental conservation and promoting self-</td><td>Features of SWMC<table><tr><th>Facility</th><th>Installed Capacity</th></tr><tr><td>Mechanical Compost</td><td>50 TPD</td></tr><tr><td>Vermicompost</td><td>22 TPD</td></tr><tr><td>Secondary Storage Centre for Dry Waste</td><td>74 TPD</td></tr></table>MRF with a 75 TPD capacity is being constructed at Luangmual.
• <u>10 TPD incineration</u>:
Schedule II(C) of SWM Rules, 2016 provides standards and guidelines for incinerators.

Material Recovery Facility (MRF) – 75 TPD at Luangmual
As per CPCB direction, Online Emission & Effluent</td></tr>
</table>

<table>
<tr><th>Sl. No.</th><th>Directions of Hon'ble NGT dt. 18.03.2024</th><th>Status as reported in the last 6 Monthly Progress Report</th><th>Remarks</th></tr>
<tr><td></td><td>features of SWMCs and the details of 10 TPD waste incineration.</td><td>sufficiency.</td><td>Monitoring System (OCEMS) is required for Common waste treatment facilities.
AMC is required to apply for expansion of the SWMC in Form I given in Schedule of EIA Notification, 2006 along with Consent & Authorisation.

The machine is in the testing phase and has not been commissioned to date as the supplying company still needs to take measures to ensure that all the technical specifications are met. Furthermore, the payment for the procurement of the incinerator has not been fully paid.

Necessary NOC and clearance will be obtained before commissioning the machine.</td></tr>
<tr><td></td><td>On interaction it was not clarified where the 0.35 TPD of material like Refuse Derived Fuel (RDF) goes to and to which Cement Plant, how much regular quantity is being supplied. Further, fraction of waste 6.98 TPD is being channelized through scrap dealers for recycling but, its organization in accordance with the Rules has not been explained.</td><td>Quantity of waste sold to scrap buyers and dealers at the point of generation is roughly 6.98 TPD.

Material Recovery Facility 74 TPD has been already installed at SWMC, Tuirial. Dry wastes are baled and sent to cement kiln free of cost.

Material Recovery Facility 50 TPD is to be installed at Luangmual SWMC.</td><td>Details of scrap dealer to which 6.98 TPD is channelized:
<table>
<tr><th>Material</th><th>Recipient</th><th>Location</th><th>Valid Consent</th><th>Details</th></tr>
<tr><td>Steel Scraps</td><td>Mizoram ISPAT</td><td>EPIP, Lengte</td><td>MPCB valid till 01.10.2026</td><td></td></tr>
<tr><td>Plastic Components</td><td>M/s Indian Pollution Control Association</td><td>Recycled at M/s Jashraj Industries</td><td></td><td>43.045 MT collected in Sept 2023</td></tr>
</table></td></tr>
</table>

<table>
<tr><th>Sl. No.</th><th>Directions of Hon'ble NGT dt. 18.03.2024</th><th>Status as reported in the last 6 Monthly Progress Report</th><th>Remarks</th></tr>
<tr><td></td><td></td><td></td><td>
<table>
<tr><td></td><td>M/s Infinite Cercle Pvt. Ltd</td><td>Recycled at Mishra Traders, Kanpur, UP</td><td></td><td>107.455 MT collected during Dec 2023 – Jan 2024 (Source: MPCB)</td></tr>
</table>
❖ RDF are sent to Dalmia Cement Factory
</td></tr>
<tr><td></td><td>Further, 50 TPD compost plant has been set up at Tuirial but quality and quantity of compost utilized, has not been disclosed.</td><td>Mechanical compost plant of 50 TPD has also been set up in Tuirial SWMC. Since vermin-composting is sensitive to climatic conditions, it is not considered a feasible treatment of wet wastes in the State. Instead windrow composting has been proposed in the SWMCs to be set up in all District Headquarter towns.
With regard to quality of compost, Authorization was granted to KNOW WASTE agency.</td><td>
Quality of Compost Generated:

The samples of the compost generated from the Mechanical Compost Plant of SWMC, Tuirial have been sent to Mizoram University and the Indian Council of Agricultural Research (ICAR), Kolasib, Mizoram, for testing. The results are as follows.
<table>
<tr><th>Sl.No</th><th>Manure name</th><th>Nitrogen (%)</th><th>Phosphorus (%)</th><th>Potassium (%)</th></tr>
<tr><td>1</td><td>White</td><td>1.01</td><td>0.51</td><td>1.52</td></tr>
<tr><td>2</td><td>Black</td><td>1.88</td><td>0.72</td><td>2.21</td></tr>
<tr><td></td><td></td><td></td><td></td><td></td></tr>
</table>
<table>
<tr><th colspan="2">Production</th></tr>
<tr><th>Month</th><th>Quantity (In Tonnes)</th></tr>
<tr><td>Mar-24</td><td>45.156</td></tr>
<tr><td>Apr-24</td><td>81.487</td></tr>
<tr><td>May-24</td><td>85.459</td></tr>
<tr><td>Jun-24</td><td>82.451</td></tr>
<tr><td>Jul-24</td><td>40.458</td></tr>
<tr><td>Aug-24</td><td>45.780</td></tr>
</table>
</td></tr>
</table>

<table>
<tr><th>Sl. No.</th><th>Directions of Hon'ble NGT dt. 18.03.2024</th><th>Status as reported in the last 6 Monthly Progress Report</th><th>Remarks</th></tr>
<tr><td></td><td></td><td></td><td>
<table>
<tr><td>Sep-24</td><td>43.500</td></tr>
<tr><td>Oct-24</td><td>48.800</td></tr>
<tr><td>Nov-24</td><td>49.090</td></tr>
<tr><td>Dec-24</td><td>22.600</td></tr>
</table>
</td></tr>
<tr><td>(iii)</td><td>With regard to legacy waste, remediation at Tuirial site has been shown as a closure and covering of landfill, which is not as per the Rules. Remediation at Aizawl is reported to be completed in May 2021 but, gap of 16 TPD is resulting into adding up of legacy waste and therefore correct data on this aspect has not been clarified.</td><td>Remediation of Legacy Waste in the old dumping ground at Tuirial has been completed and the landfill has been covered and reclaimed by vegetation and trees, transforming it into a green space (1598.6 sq. meter had been bio-mined and the rest is covered in landfill). Remediation at Aizawl completed on 5th May 2021 in accordance with Solid Waste Management Rules, 2016. There are no further legacy wastes in Aizawl.
Planting of trees have been complied and the site is covered in vegetation. Mitigation of Foul smell has been complied. Legacy Dumpsite at Rengtetlangsang was closed and remediation of 60,000 MT of Legacy Waste at Kolasib by way of landfill method has been completed on 31st May 2023 as per guidelines prescribed by CPCB with funds from SBM(U).</td><td>Provisions of SWM Rules, 2016 Regarding Legacy Waste
Rule 15(zk):
"In absence of the potential of bio-mining and bio- remediation of dumpsite, it shall be scientifically capped as per landfill capping norms to prevent further damage to the environment."
NGT Order (28.02.2020, Para 32):
"The option of capping legacy wastes, which has huge environmental and health consequences, in practical terms is no option at all, except for inert waste, which again is to be disposed in a scientific secured landfill."

NGT Order (08.12.2022, Para 29):
"Technical assistance of CPHEEO of MoHUA and CPCB may be sought about the way forward to remediate the sites in question."
Legacy Waste Data
<table>
<tr><th>Waste Type</th><th>Quantity</th><th>Mode of Disposal</th></tr>
<tr><td>Recyclable Waste</td><td>92 tons</td><td>Transferred to Material Recovery Facility (WRC) for Reuse/Resell</td></tr>
<tr><td>Combustible Waste</td><td>169 tons</td><td>Compacted and baled in MRF, then transported to Dalmia Cement Factory, Meghalaya</td></tr>
<tr><td>Inert/Reject Waste</td><td>27 tons</td><td>Landfilled in New Sanitary Landfill site at SWM Centre, Tuirial</td></tr>
</table>
• Total Area Sanitized: 1596.8 Sq. m</td></tr>
<tr><td>B</td><td><u>Sewage Management</u></td><td></td><td></td></tr>
<tr><td>(i)</td><td>Particulars of sewage generation has not been properly disclosed. The data mostly covers proposals contemplated</td><td></td><td>Report prepared in the prescribed format. (Annexure 3)</td></tr>
</table>

<table>
<tr><th>Sl. No.</th><th>Directions of Hon'ble NGT dt. 18.03.2024</th><th>Status as reported in the last 6 Monthly Progress Report</th><th>Remarks</th></tr>
<tr><td></td><td>under different schemes for funding</td><td></td><td></td></tr>
<tr><td>(ii)</td><td>Sewage Treatment Plant (STP) of 10 MLD is set up at Aizawl with 5207 household connections but, actual quantity of sewage being received with treated quality of effluents at its final disposal, has not been disclosed.</td><td>Currently there is only one Sewerage Treatment plant in Aizawl with a capacity of 10 MLD, connecting around 5207 households. This is to remove Individual Septic Tank and Open/Pit Latrine system mostly Used. Roughly 10% of the total capacity is being utilized and the discharge is monitored Using online monitoring system and manual testing is done in the laboratory as per CPCB norms</td><td>• As per inspection of the STP conducted on 26.11.2024 with UD&PA Officials, treated waste water monitoring was done. Quality of effluents from STP, Bethlehem Vengthlang, Aizawl is given below: -
It was also reported that from an effluent of 10.97 MLD treated effluent of 10 MLD was discharged into Chite Lui.
Monitoring Results:
<table>
<tr><th>pH</th><th>BOD (mg/l)</th><th>COD (mg/l)</th><th>TSS (mg/l)</th><th>D.O (mg/l)</th></tr>
<tr><td>7.21</td><td>7 mg/l</td><td>28</td><td>7</td><td>6.5</td></tr>
</table></td></tr>
<tr><td>(iii)</td><td>The status report also indicates that 908 Bio digesters with conversions of 1664 septic tanks have been completed. The State is relying on further setting up of DRDO based bio 3 digesters as it suits the terrain and topography. Further, we direct that next report should disclose the performance details of bio digesters, their scale of operation and mechanism set up to execute their performance audit.</td><td>Decentralized and Centralized Wastewater Management in Mizoram
Due to space constraints for soak pits and challenges posed by landslides in the hilly terrain of Mizoram, DRDO technology-based bio-digesters (decentralized systems) are extensively used, and small bore sewers (centralized systems) are being developed to address these issues effectively.
• Bio-Digester Technology for Sewerage and Septage Management
Under the Atal Mission for Rejuvenation and Urban Transformation (AMRUT) program, sewerage and Septage management is executed using DRDO bio-digesters, which replace conventional septic tanks. This approach promotes water reuse and recycling while being economical and eco-friendly:
• Space Efficiency: Bio-digesters require less space and eliminate the need for soak pits.
• Effluent Quality: 90% of waste is treated</td><td>1. Space Constraints and Terrain Challenges:
➢ The adoption of DRDO bio-digester technology is a practical solution to address space constraints and landslip issues in Mizoram's hilly terrain. This decentralized system eliminates the need for soak pits, making it both space-efficient and eco-friendly.
➢ Justification: Mizoram's topography poses significant challenges for traditional sewerage systems. A bio-digester system requires minimal infrastructure, making it highly suitable for difficult terrains.
2. Water Reuse and Recycling Promotion:
➢ The bio-digester technology under AMRUT not only replaces conventional septic tanks but also facilitates water recycling, reducing water wastage. The treated effluent is pathogen-free and suitable for horticulture, further promoting environmental sustainability.
➢ Justification: Encouraging water reuse aligns with sustainable development goals (SDGs) and addresses water scarcity issues effectively.</td></tr>
</table>

Sl. No.	Directions of Hon'ble NGT dt. 18.03.2024	Status as reported in the last 6 Monthly Progress Report	Remarks
		inside the tank, producing effluent free from pathogens and solid waste, suitable for horticulture or arboriculture without further treatment. • **Maintenance-Free**: The system is self-sustaining and requires minimal maintenance. An **Anaerobic Microbial Inoculum (AMI) manufacturing facility** has been established to culture and reproduce bacteria essential for bio-digester operation. This ensures widespread access for households, although replacing all septic tanks citywide may not be feasible. • **Achievements under AMRUT** 1. **Production and Conversion**: ➢ 908 bio-digester tanks produced. ➢ 1664 conventional septic tanks converted to bio-digesters. 2. **Project Costs**: ➢ **Rs. 13.28 crore**: Total project tender cost. ➢ **Rs. 3.61 crore**: Completed setup of Septage Management Unit, including AMI and bio-digester manufacturing. ➢ **Rs. 3.67 crore**: Phase II of the facility in Aizawl completed. ➢ **Rs. 6.0 crore**: Phase III construction in progress. • **Proposed Initiatives under AMRUT 2.0** • **Small Bore Sewer System with STP Facility**: ➢ For densely populated areas draining into	3. **Economic and Eco-Friendly Solution**: ➢ Bio-digesters offer a maintenance-free, cost-effective alternative to traditional septic tanks. The technology ensures 90% waste treatment within the tank and reduces dependence on external treatment facilities. ➢ Justification: This approach significantly reduces operational costs and environmental hazards, ensuring a cleaner urban environment with minimal financial burden. 4. **Anaerobic Microbial Inoculum (AMI) Facility**: ➢ Establishing an AMI facility enhances local capacity for microbial production, supporting the large-scale adoption of bio-digesters. This ensures sustainability and accessibility for households. ➢ Justification: Local manufacturing of microbial inoculum reduces dependence on external suppliers and ensures timely availability of resources for operational efficiency. 5. **Small Bore Sewer System under AMRUT 2.0**: ➢ The proposal for a small-bore sewer system with STP facility in densely populated areas (Rs. 39.22 Cr project) addresses the challenges of urban wastewater management efficiently. ➢ Justification: This decentralized system reduces the financial and infrastructural challenges associated with traditional sewer networks in hilly terrains. 6. **Constructed Wetlands for Grey Water Treatment**: ➢ The constructed wetland method for grey water treatment ensures that natural streams remain unpolluted while

Sl. No.	Directions of Hon'ble NGT dt. 18.03.2024	Status as reported in the last 6 Monthly Progress Report	Remarks
		the **Tuikual Lui watershed**, with an estimated cost of **Rs. 39.22 crore**. • **Greywater Treatment through Constructed Wetlands**: ➢ Proposed for hilly urban towns where sewerage network construction is challenging and costly. ➢ Ensures natural streams are not polluted by sewage discharge. • **Used Water Management under SBM (U) 2.0** The approved action plan for used water management includes: ➢ **Construction of Faecal Sludge Treatment Plants (FSTP)** in all district headquarters. ➢ **Greywater Treatment Using Constructed Wetlands**: A cost-effective, eco-friendly solution for small towns and villages. ➢ **Technical Guidance**: Inputs from CPHEEO sought for implementing the used water component of SBM (U) 2.0. ➢ **Achievements in Rural Sanitation** ➢ All villages in Mizoram have been declared **Open Defecation Free (ODF)**. ➢ Soak pits are utilized to prevent sewage from polluting natural streams.	leveraging a low-cost and eco-friendly approach. ➢ Justification: Constructed wetlands are effective in treating wastewater naturally, making them ideal for areas with topographical constraints like Mizoram. 7. **Action Plan for Used Water Management**: ➢ The Faecal Sludge Treatment Plant (FSTP) construction across district headquarters and greywater treatment using wetlands under SBM(U) 2.0 is a comprehensive approach to ensuring effective wastewater management in urban and rural areas. ➢ Justification: This aligns with SBM(U) 2.0 objectives, ensuring hygienic conditions and preserving water bodies in Mizoram. 8. **Open Defecation Free (ODF) Villages**: ➢ Declaring villages as ODF and ensuring proper soak pits demonstrates proactive measures to prevent sewage discharge into natural streams. ➢ Justification: This achievement reflects a commitment to maintaining sanitation standards and protecting water bodies from pollution.
(iv)	We direct that next report need to cover data of solid and sewage management with respect to each local		Enclosed in ***Annexure-1 & Annexure-3***

Sl. No.	Directions of Hon'ble NGT dt. 18.03.2024	Status as reported in the last 6 Monthly Progress Report	Remarks
	body		

3. SOLID WASTE MANAGEMENT

With reference to the physical progress in the Solid Waste Management sector, the State has increased its collection, transportation, and processing of solid waste, in terms of volume, thereby reducing the gap correspondingly. Progress in relation to Solid Waste Management as per the prescribed format by the Hon'ble NGT is enclosed herewith as Annexure I, and the summary of the Progress report is depicted in table no-3 & 4.

Apart from the existing SWMC at Aizawl, another waste processing facility for C&D waste is being developed at Hualngohmun. To further promote decentralized processing centres of waste, Material Recovery Facility of capacity 50 TPD is to be set up at Luangmual under the Smart City Mission and to aid segregation of waste at source, initiatives are being made. under the Smart City Mission to procure smaller dump trucks with separate compartments to be used by each of the locality

Table 2 Summary of current status of solid waste management in Mizoram with reference to the status at the time of last hearing i.e., 18th March 2024

Particular		Mar-2024		Dec-2024	
a	Quantity of MSW generated (TPD)	379.76	100%	389.29	100%
b	Quantity of MSW processed (TPD)	308.68	81.28%	319.25	82.01%
	Final Destination of generated waste				
	Compost			98.15	
	RDF			31.84	
	Scraps (by the informal sector registered with the ULBs)			17.98	
c	Quantity of Inert disposed in Secured Landfill Site				
d	Gap in Solid Waste Management (TPD)	58.942		70.04	

Table 3 Summary of District Wise current status of solid waste management in Mizoram with reference to the status at the time of last hearing i.e., 18th March 2024

No	Particulars	Total estimated waste generation TPD upto March,2024	Total wastes treated upto March,2024 in TPD				Gap upto March,24 in TPD	Total waste generation TPD upto December,24	Total wastes treated upto December,24 in TPD		Gap upto December,24 in TPD
			At SWM centre	At the point of generation	Total treated	% Treated			Total treated	% Treated	
1	Aizawl	152.46	106.78	17.23	124.01	81.34%	28.45	154.62	125.03	80.86%	**29.59**
2	Lunglei	22.5	0	17.32	17.32	76.98%	5.18	21.5	17.2	80.00%	**4.3**
3	Kolasib	12.9	0	10.27	10.27	79.61%	2.63	14.39	12.04	83.67%	**2.35**
4	Champhai	9.6	5.4	3.29	8.69	90.52%	0.91	11.03	9.67	87.67%	**1.36**
5	Serchhip	8.3	0	5.66	5.66	68.19%	2.64	9.83	5.6	56.97%	**4.23**
6	Mamit	4.6	0	3.06	3.06	66.52%	1.54	6.08	4.08	67.11%	**2**
7	Saitual	4.6	0	2.84	2.84	61.74%	1.76	6.03	4.09	67.83%	**1.94**
8	Khawzawl	4.3	0	3.96	2.96	68.84%	1.34	4.82	4.2	87.14%	**0.62**
9	Hnahthial	2.8	0	1.78	1.78	63.57%	1.02	2.21	1.78	80.54%	**0.43**
10	Lawngtlai	8.2	0	7.68	7.68	93.66%	0.52	6.39	5.17	80.91%	**1.22**
11	Siaha	9.9	0	8.68	8.68	87.68%	1.22	7.71	4.89	63.42%	**2.82**
12	Other Urban Towns	32	0	17	17	53.13%	15	35	23.5	67.14%	**11.5**
13	Rural	107.6	0	98.73	98.73	91.76%	8.87	109.68	102	93.00%	**7.68**
GRAND TOTAL		**379.76**	**112.18**	**197.5**	**308.68**	**81.28%**	**71.08**	**389.29**	**319.25**	**82.01%**	**70.04**

The current status includes 10 district Councils, Urban Town Areas 1 Municipal Corporation, Rural to indicate the comprehensive solid waste management scenario in the State.

4. LEGACY WASTE MANAGEMENT

Legacy waste remediation for ULBs of Mizoram- Preliminary activities are being initiated. The Detailed Project Reports with action plan are being prepared by the respective Urban Local Bodies. Remediation of Legacy Waste in the old dumping ground at Tuirial has been completed and the landfill has been covered and reclaimed by vegetation and trees, transforming it into a green space (1598.6 sq. meter had been bio-mined and the rest is covered in landfill). Remediation at Aizawl completed on 5th May 2021 in accordance with Solid Waste Management Rules, 2016. There are no further legacy wastes in Aizawl. Planting of trees have been complied and the site is covered in vegetation. Mitigation of Foul smell has been complied. Legacy Dumpsite at Rengtetlangsang was closed and remediation of 60,000 MT of Legacy Waste at Kolasib by way of landfill method has been completed on 31st May 2023 as per guidelines prescribed by CPCB with funds from SBM(U). Progress in relation to Legacy Waste Management as per the prescribed format by the Hon'ble NGT is enclosed herewith as Annexure II, and the summary of the Progress report is depicted in Table 5.

Table 4 Summary of the current status: legacy waste management in Mizoram (urban towns)

Location	Total Estimated Area of Legacy Waste to be cleared (Sq.m)	Status on March,24	Present Status on December,24
Tuirial, Aizawl	150000	1598.6 Sq.m had been bio mined	Dumpsite closed and covered by vegetation
Rengtetlangsang, Kolasib	35000	34000 Sq.m had been landfilled.	Dumpsite close and covered by vegetations.

5. LIQUID WASTE MANAGEMENT

The state is at its very initial stage of setting up liquid waste management for used water. However, the state has made notable progress in setting up and operation of treatment plants Apart from the conventional septic tanks and soak pits, Faecal Sludge Treatment Plant are proposed to be set up in all urban towns with a capacity designed to cater the nearby towns and villages. Due to peculiar topography of the hilly regions, treatment of Grey Water remains a huge challenge. The state has taken up advise from CPHEEO under SBM-U and started a pilot project for on-site grey water treatment using Constructed Wetland Method, and work has commenced.

Progress in relation to Liquid Waste Management as per the prescribed format by the Hon'ble NGT is enclosed herewith as Annexure III, and the summary of the Progress report is enclosed in Table 6.

Table 5 Summary of the current status of liquid waste management in Mizoram

Sl.No.	Particulars	Status Upto March,24	Status on December 2024
1	Sewage Generation (in MLD)	7.00	10.97 (1st – 31st December, 2024)
2	Existing Treatment Facilities capable of treating the sewage presently (in MLD) only for Aizwal city	10	10
3	Details of Treatment of Sewage		
	a. By STPs (in MLD)	-	0.448
	b. Type of STPs (in MLD)	-	SBR
	c. FSTP (in MLD)	-	-
	d. Nullah In - situ Remediation (in MLD)	-	-
	Final Destination	Recycled/ discharge in drain storm	
4	Details of disposal of untreated Sewage (in MLD)		

Sl.No.	Particulars	Status Upto March,24	Status on December 2024	
	a. Final destination of Discharge of untreated sewage (in MLD)	-	-	Black Water (Septic Tank)
		-	-	Grey Water (drains/streams/rivers)

5.1 STRATEGY IN REDUCING THE GAP IN LIQUID WASTE MANAGEMENT:

i. At present the State Government has mandated all the households to construct septic tanks & soak pits for black water treatment. All commercial establishments along with the septic tanks & soak pits are also mandated to install Faecal Sludge Treatment Plants.

ii. Faecal Sludge Treatment Plants will be established in 10 Nos Urban Towns for black water treatment and preparation of Action plan is in process.

iii. Construction of STP is not considered the most viable option for other urban towns due to the difficulty in laying sewerage network in hilly terrain such as Mizoram and the resultant huge financial implication. Technical input is sought from CPHEEO for Used Water component of SBM (U) 2.0 where grey water is proposed to be treated by constructed wetland method.

iv. In consideration of the various factors like topography, site conditions, accessibility and social acceptance, the State Government has decided to setup decentralized Sewage Treatment Plants (STPs) across all cities and towns. Teams of Government & ULB officials have visited sites in the region where functional decentralized treatment plants have been put in place. Based on the findings and recommendations of the teams, pilot projects have been initiated. To achieve this objective of treatment of 100% of Wastewater generated, the Government is in the process of engaging Technical Support Consultant for preparation of Designs & DPRs.

6. SPECIAL DRIVES & AWARENESS

The Government of Mizoram has also undertaken measures to inculcate behavioral changes through awareness programmes, community participation programmes and capacity building programmes of the Urban Local Bodies. The details of the recent and ongoing interventions are mentioned in ***Annexure-6***

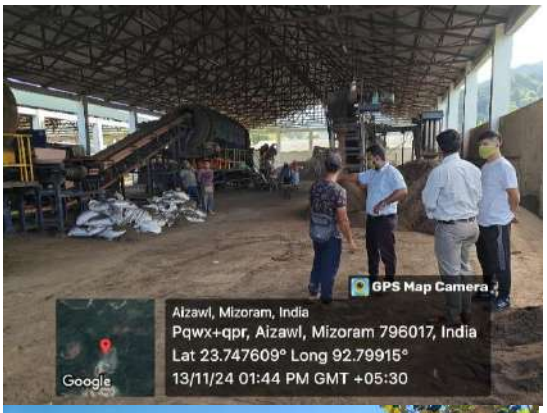
Table 6 Awareness Campaigns conducted during April – December, 2024

Sl. No.	Name of Awareness Campaigns conducted during April- December, 2024	Date of Event	Venue	No. of Participants	Target Group
1	Training/Awareness Programme on Bio- medical Waste	15.03.2024	Kawlhkulh PHC		Health Care workers
2	Training/Awareness Programme on Bio- medical Waste	08.05.2024	Kawnpui PHC		Health Care workers
3	Cleanliness and Plantation Drive in observance of International Day for Biological Diversity Day, 2024	22.05.2024	Reiek Tlang	86	Students from Govt. Reiek Higher Secondary School and Ailawng High School.
4	Awareness Programme on the theme - "Our land, our future. We are #Generation Restoration" in observation of World Environment Day, 2024	30.05.2024	Helen Lowry School Auditorium	323	Students from Helen Lowry Higher Secondary School.
5	Plantation Drive at Hermon Children's Home in observance of World Environment Day, 2024	03.06.2024	Hermon Children's Home	80	Orphanage at Hermon Children's Home
6	Cleanliness Drive in collaboration with SAY, I.T.I Corps	22.06.2024	Aizawl By pass Road, I.T.I Veng	30	Youths
7	River Cleanliness Drive at Chite river	27.06.2024	Chite River	6	Local citizens
8	House to House Awareness Campaign on Solid Waste Management	28.06.2024	BSUP Housing Complex, Lawipu	100	Public
9	Training and Guidance on Assessment and Characterization of Plastic Waste	24.07.2024	Solid Waste Management Centre, Tuirial	20	Workers and Officials of ULBs and PHED
10	Single Use Plastics Cleanup Drive	05.08.2024	MINECO Complex	4	Citizens
11	River Cleanliness Drive	10.08.2024	Lawibual River	71	Citizens
12	Single Use Plastic Awareness	10.08.2024	Aizawl Central Seventh Day Adventist Church, Electric Veng	110	Youths
13	Stakeholder Awareness Campaign in E-Waste	14.08.2024	Shemford Higher Secondary School, Zotlang	130	Students from Shemford Higher Secondary School, Zotlang
14	Documentary for Awareness on Common Bio Medical Wastes Treatment Facility in collaboration with ZONET	28.08.2024 Published on 30.08.2024	Common Bio Medical Wastes Treatment Facility		Hospitals & public

15	House to House Awareness Campaign on Solid Waste Management	23.08.2024	Nursery Veng	50	Citizens
16	Mission Life Awareness Lecture (waste reduction, SUP reduction etc.)	11. 09.2024	Forest Training School, Bethlehem Vengthlang, Aizawl	45	Frontline Workers of Forest Training School, Bethlehem Vengthlang, Aizawl
17	E-Waste Management Summit	23.09.2024	Taxation Department Auditorium	110	Heads of Deptt from concerned stakeholder, NGOs, Entrepreneurs & PROs
18	Awareness Campaign on E-Waste Management cum Discussion on Setting up of E-Waste Corner at Schools	08.10.2024	Serchhip Kawnpui VC Hall	405	Students of eco-club schools within Serchhip Town
19	Awareness Campaign on E-Waste Management cum Discussion on Setting up of E-Waste Corner at Schools	11.10.2024	Chhimveng YMA Hall, Mamit	555	Students of Mamit Town
20	River Cleanliness in collaboration with Chite Local Council.	18.10. 2024	Chite River	50	Citizens
21	Awareness Campaign on E-Waste Management cum Discussion on Setting up of E-Waste Corner at Schools	25.10.2024	Saitual Auditorium, Saitual, Mizoram	555	Students of eco-club schools within Saitual locality
22	Sensitization and Hands-on Training Programme on Composting	13.11.2024	Melriat VC House	70	Local Citizens of Melriat
23	Cleanliness Drive	24.11.2024	Seling	250	Citizens of Seling
24	Awareness Campaign on Single Use Plastics	24.11.2024	Adventist Church, Seling	300	Children at Aizawl East Children's Ministries Assembly at Seling.
25	Awareness campaign on Waste Management cum Educational Trip at Solid Waste Management Centre, Tuirial and 10 MLD Sewage Treatment Plant, Bethlehem Vengthlang, Aizawl	29.11.2024	SWM Centre, Tuirial & 10 MLD STP, Bethlehem Vengthlang, Aizawl	191	Students
26	Awareness campaign on Waste Management cum Educational Trip at Solid Waste Management Centre, Tuirial and 10 MLD Sewage Treatment Plant, Bethlehem Vengthlang, Aizawl	06.12.2024	SWM Centre, Tuirial & 10 MLD STP, Bethlehem Vengthlang, Aizawl	161	Students
27	Collection of Plastic Wastes littering around Sakawrhmuituai Tlang' in observance of International Mountain Day, 2024	11.12.2024	Sakawr-hmuituai Tlang	40	Students from Govt. Johnson College & visitors.

7. INSPECTIONS AND MONITORING

To prevent the defaulters from indiscriminate littering and discharge of Solid, Liquid Waste, regular inspections and monitoring is being conducted by the ULBs and Department Officials. Apart from the above Special Drive, the State Government is also conducting various programmes of building the capacity of the Urban Town officials of Mizoram seeking cooperation. In an effort to generate awareness amongst the citizens & stakeholders, various IEC activities are being conducted in all the Urban Towns of Mizoram. The details of the conducted & ongoing programmes are enclosed as ***Annexure-4***



Annexure 1 Special Drive and Interventions

IEC & Behavioral changes:

Under IEC Component, workshop, awareness campaigns at state, city and town level in all urban areas in Mizoram covering topics on waste handling, segregation of waste, prohibition of littering, ODF+, Garbage Free City, Ban on Single Use Plastics, environmental conservation etc.

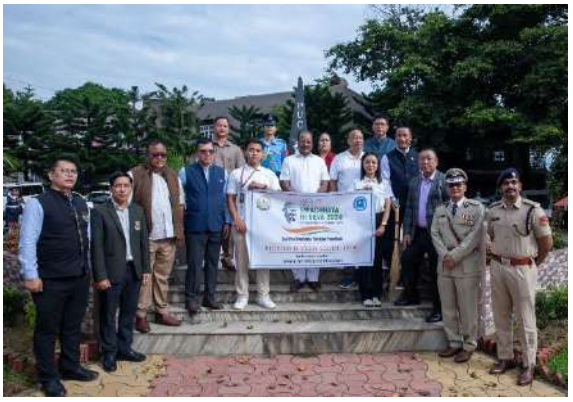
Following activities have been undertaken during FY 2024-2025: -

1. In order to conduct an intensive IEC and BCC campaign in all of Mizoram's urban towns during FY 2024–2025, Swachh Bharat Mission (Urban) 2.0 has teamed up with Save the Riparian, a group of environmental activists. Citizens of all ages participated in a "Jan Andolan" to clean up water bodies as a result of this effort. Prominent individuals, including the Mizoram Chief Minister, the UD&PA Minister, the Sports Minister, and other politicians, also volunteered and joined the cause. All of Mizoram's district headquarters as well as Aizawl's places of worship have seen intense IEC campaigns.

2. ***Safai Apnao, Bimari Bhagao (SABB)–*** An intensive Swachhata Drive for Monsoon Preparedness, in alignment with the Stop Diarrhoea Campaign during *15th July to 31st August, 2024* has been carried out in all urban towns of Mizoram focusing on (i) cleanliness drives (ii) advocacy and (iii) inter-departmental convergence as detailed out below: -

- No. of Cleanliness Drives- 234
- No. of Drives on Rainwater Harvesting – 158
- No. of Post Monsoon Awareness Drives – 146
- No. of NGOs/ Organizations involved – 280
- No. of People Mobilized – 24509
- Area Cleaned – 1277.35 sq km
- No. of views and impressions on social media – 19144

3. Swachh Bharat Mission (Urban) UD&PA Department and Swachh Bharat Mission (Grameen) PHE Department jointly organized the State Level Launching of Swachhata Hi Seva 2024 on 17.09.2024 at MYC Auditorium, MINECO. For the successful implementation of the campaign, State Steering Committee was constituted under the chairmanship of Chief Secretary in the State capital and District Steering Committee chaired by the respective Deputy Commissioners in all district headquarters. During SHS24 Campaign, over 520 activities were carried out in all urban areas and 270 cleanliness target unit (CTU) were identified and cleaned up. Health camps for Sanitation Workers were conducted in all 28 urban towns of Mizoram in coordination with Health Department. More than 200 Swachhata Activities such as Waste to Art Competition, Swachhata Rally, Drawing/ Painting Competition, Essay Writing Competition, College Level Swachhata Competition, Swachh Food Stalls etc. were carried out. Swachhata Hi Seva culminated on 2nd October, 2024 with the celebration of Swachhata Diwas at State Level and District/ Town level.



4. Mizoram Cleanliness Week 2024 was observed from 17th September to 2nd October, 2024 in all urban towns and all government establishments. Day wise Swachata activities were carried out during the Week. No Tolerance Day for Open dumping and spitting were also observed during Cleanliness Week.

5. Urban Development & Poverty Alleviation Department and its umbrella Departments - Aizawl Municipal Corporation and Aizawl Smart City Limited have prepared a 'Comprehensive Plan for Municipal Waste Management in Aizawl' which aims to make Aizawl, the cleanest city in India and beyond through whole of Department approach and partnerships with private entities and citizens. For smooth execution of the integrated Plan, Aizawl Faina Hmathlir (A vision for Clean Aizawl) programme was organized in Aizawl inviting representatives from all Local Councils within Aizawl Municipal area.

6. In line with the Comprehensive Plan on Solid Waste Management in Aizawl, a meeting with all Local Councils to chalk out a plan for House-to-House Campaign was organised during October 21 & 22, 2024 in all Local Councils in the presence of LC members and representatives of various NGOs and

prominent citizens. A new Three-bin system for source segregation was introduced and distributed which is to be followed in Aizawl city from 1st January, 2025.

7. Mizoram Cleanliness Competition 2024 was kick started from 2nd October, 2024 in all urban towns of Mizoram which serves as a preparatory stage for Swachh Survekshan. This competition has been organized since 2017 to foster a healthy competition amongst the urban towns. It assessed the towns on various yardsticks on solid waste management, used water management, IEC activities, general cleanliness, Sanitation and environmental conservation. On-field assessment is now ongoing and the result is expected to be announced on January, 2025.

8. RING FENCED ACCOUNT

The State Government in compliance to the Hon'ble NGT direction vide order dated 18th March,2024, has put in all efforts and has been able to collect the requisite committed fund to meet the expenditure bridging the gap in solid waste management. The details are as follows: - i) Funds collected and placed in the Ring-fenced account and operated by the Chief Secretary, Govt. of Mizoram, (ii) Sum utilized from the Ring-fenced Account for the aforesaid purpose are enclosed as ***Annexure-7***.

Annexure 2 Progress in Solid Waste Management

Names of Districts	Waste Generation (TPD) District Wise	Break up of waste generated District Wise (in TPD)		Method of Treatment in the District (in TPD)				Final destination of each of the components of (iv)	Break up details of waste processing District wise					Action Plan to Process 100% Waste		
				a)	b)	c)	d)									
		Urban Areas (ULB)	Rural Areas	Organic material (Wet Waste)	Inerts	RDF	Other		Energy Plants (Waste to Energy Plants)	Bio compost Units	Used in cement Units	Landfill sites	Other uses of inerts	Timelines	Budget outlay	Proposal
(i)	(ii)	(iii)		(iv)				(v)	(vi)					(vii)		
Aizawl	161.24	154.62	6.62	98.15 TPD of wet waste is treated by mechanical composting, home composting and used as animal feeds. Community composting is also practised widely in rural		31.84 TPD of dry wastes baled for RDF	17.98 TPD Shredded, baled and sold to scrap dealers	a) Compost, for resale b) SLF c) For resale d) Recycling through PRO and for co processing at cement plants.	NIL	Mechanical Compost with a capacity of 50 TPD at SWMC Tuirial, Vermicomposting with a capacity of 22 TPD.	31.84 TPD sent outside the state for use in cement factory.	Existing capacity of 44 TPD	17.98 TPD of recyclable wastes sold to scrap dealers	4 months	4.42 cr allocated for improvement of SWMC at Tuirial	1. Improvement of sanitary Landfill 2. Enhancement of capacity of wet waste processing. 3. Setting up of plastic waste management centre 4. Comprehensive Plan for Municipal Waste Management in Aizawl formulated by UD&PA, AMC and ASCL with a target to

Names of Districts	Waste Generation (TPD) District Wise	Break up of waste generated District Wise (in TPD)		Method of Treatment in the District (in TPD)				Final destination of each of the components of (iv)	Break up details of waste processing District wise					Action Plan to Process 100% Waste		
				areas.												achieve the outcome by pooling resources, expertise, experience and funds. *(Comprehensive Plan attached at Annexure 8)*
Lunglei	38.97	21.5	17.47	Individual and Community level Composting	Plan is to be proposed	Baled, shredded and sold to scrap dealers	Recyclables retrieved and sold to scrap dealers	a) Compost, for resale b) SLF c) For resale d) Recycling through PRO and for co incineration at cement plants.	NIL	NA	NA	SLF to be set up under SBM(U) 2.0 (cluster approach)	Recyclable waste sold to scrap dealers	6 months	1. 3.25 cr for Urban areas 2. 45 rupees per capita for SWMC in rural areas.	Setting up of MRF, mechanical composting and sanitary land fill
Kolasib	22.13	14.39	7.74	Mechanical composting, individual and home composting	Plan is to be proposed	Baled, shredded and sold to scrap dealers	Recyclables retrieved and sold to scrap dealers	a) Compost, for resale b) SLF c) For resale d) Recycling through PRO and for co processing at cement plants.	NIL	NA	NA	SLF to be set up under SBM(U) 2.0 (cluster approach)	Recyclable waste sold to scrap dealers	2 months	1. 2.31 cr for Urban areas 2. 45 rupees per capita for SWMC in rural areas.	Setting up of MRF, mechanical composting and sanitary land fill

Names of Districts	Waste Generation (TPD) District Wise	Break up of waste generated District Wise (in TPD)		Method of Treatment in the District (in TPD)				Final destination of each of the components of (iv)	Break up details of waste processing District wise					Action Plan to Process 100% Waste		
Champhai	17.48	11.03	6.45	Composting centre under construction	Plan is to be proposed	Baled, shredded and sold to scrap dealers	Recyclables retrieved and sold to scrap dealers	a) Compost, for resale b) SLF c) For resale d) Recycling through PRO for co processing at cement plants.	NIL	NA	NA	SLF to be set up under SBM(U) 2.0 (cluster approach)	Recyclable waste sold to scrap dealers	2 months	1. 4.66 cr for Urban areas 2. 45 rupees per capita for SWMC in rural areas.	Setting up of MRF, mechanical composting and sanitary land fill
Serchhip	14.9	9.83	5.07	Mechanical composting, individual and home composting	Plan is to be proposed	Baled, shredded and sold to scrap dealers	Recyclables retrieved and sold to scrap dealers	a) Compost, for resale b) SLF c) For resale d) Recycling through PRO and for co processing at cement plants.	NIL	NA	NA	SLF to be set up under SBM(U) 2.0 (cluster approach)	Recyclable waste sold to scrap dealers	8 months	1. 3.88 cr for Urban areas 2. 45 rupees per capita for SWMC in rural areas.	Setting up of MRF, mechanical composting and sanitary land fill
Mamit	15.75	6.08	9.67	Mechanical composting, individual and home composting	Plan is to be proposed	Baled, shredded and sold to scrap dealers	Recyclables retrieved and sold to scrap dealers	a) Compost, for resale b) SLF c) For resale d) Recycling through PRO for co processing at cement plants.	NIL	NA	NA	SLF to be set up under SBM(U) 2.0 (cluster approach)	Recyclable waste sold to scrap dealers	8 months	1. 3.15 cr in urban areas. 2. 45 rupees per capita for SWMC in rural areas.	Setting up of MRF, mechanical composting and sanitary land fill
Saitual	12.06	6.03	6.03	Mechanical composting, individual and home composting	Plan is to be proposed	Baled, shredded and sold to scrap dealer	Recyclables retrieved and sold to scrap dealers	a) Compost, for resale b) SLF c) For resale d) Recycling through PRO and for co processing at	NIL	NA	NA	SLF to be set up under SBM(U) 2.0 (cluster	Recyclable waste sold to scrap dealers	6 months	1. 5.4 cr in urban areas. 2. 45 rupees per capita for SWMC	Setting up of MRF, mechanical composting and sanitary land fill

Names of Districts	Waste Generation (TPD) District Wise	Break up of waste generated District Wise (in TPD)		Method of Treatment in the District (in TPD)				Final destination of each of the components of (iv)	Break up details of waste processing District wise					Action Plan to Process 100% Waste		
						s		cement plants.				approach)			in rural areas.	
Khawzawl	8.26	4.82	3.44	Mechanical composting, individual and home composting	Plan is to be proposed	Baled, shredded and sold to scrap dealers	Recyclables retrieved and sold to scrap dealers	a) Compost, for resale b) SLF c) For resale d) Recycling through PRO and for co processing at cement plants.	NIL	NA	NA	SLF to be set up under SBM(U) 2.0 (cluster approach)	Recyclable waste sold to scrap dealers	8 months	1. 4.3 cr in urban areas. 2. 45 rupees per capita for SWMC in rural areas.	Setting up of MRF, mechanical composting and sanitary land fill
Hnahthial	6.11	2.21	3.9	Mechanical composting, individual and home composting	Plan is to be proposed	Baled, shredded and sold to scrap dealers	Recyclables retrieved and sold to scrap dealers	a) Compost, for resale b) SLF c) For resale d) Recycling through PRO and for co processing at cement plants.	NIL	NA	NA	SLF to be set up under SBM(U) 2.0 (cluster approach)	Recyclable waste sold to scrap dealers	6 months	1. 2.76 cr in urban areas. 2. 45 rupees per capita for SWMC in rural areas.	Setting up of MRF, mechanical composting and sanitary land fill
Lawngtlai	28.6	6.39	22.21	Mechanical composting, individual and home composting	Plan is to be proposed	Baled, shredded and sold to scrap dealers	Recyclables retrieved and sold to scrap dealers	a) Compost, for resale b) SLF c) For resale d) Recycling through PRO for co processing at cement plants.	NIL	NA	NA	SLF to be set up under SBM(U) 2.0 (cluster approach)	Recyclable waste sold to scrap dealers	6 months	1. 4.24 cr in urban areas. 2. 45 rupees per capita for SWMC in rural areas.	Setting up of MRF, mechanical composting and sanitary land fill

Names of Districts	Waste Generation (TPD) District Wise	Break up of waste generated District Wise (in TPD)		Method of Treatment in the District (in TPD)				Final destination of each of the components of (iv)	Break up details of waste processing District wise					Action Plan to Process 100% Waste		
Siaha	17.19	7.71	9.48	Mechanical composting, individual and home composting	Plan is to be proposed	Baled, shredded and sold to scrap dealers	Recyclables retrieved and sold to scrap dealers	a) Compost, for resale b) SLF c) For resale d) Recycling through PRO and for co processing at cement plants.	NIL	NA	NA	SLF to be set up under SBM(U) 2.0 (cluster approach)	Recyclable waste sold to scrap dealers	6 months	1. 4.41 cr in urban areas. 2. 45 rupees per capita for SWMC in rural areas.	Setting up of MRF, mechanical composting and sanitary land fill

Annexure 3 Progress in Legacy Waste Management

(i)	(ii)	iii)	iv)	(v)	(vi) Composition of the waste				(vi)	(vii)	(viii)	(ix)
Names of Districts	**Legacy waste site (District wise)**	**Name of town**	**Area covered by the legacy waste (District wise in sqm)**	**Quantity of the Waste (in MT) in each site (Population x per capital waste generation in grams)/10^6)**	**a) Inerts (%) (Construct ion Waste, Wood, Glass, etc) (@10%)**	**b) Compost (%) organic (@20%)**	**c) (%) Plastic (@70%)**	**d) If any other material (%)**	**Process adopted to remediate at each site**	**Timelines to process at each site**	**Final destination of the components at (v)**	**Action plan to remediate and recover the sites at (iii) (in sq km) with earmarked Budget (District Wise)**
Aizawl	Tuirial	Aizawl	150000	NIL	NIL	NIL	NIL	NIL	NIL	NIL	Tuirial SWMC	Action Plan under preparation
	Sairang Vengthar	Sairang	4854	1.83	0.18	0.37	1.28	NIL	Bio mining/ Bioremediation	1 year		
	Lawngzawl Ram	Lengpui	20000	2.42	0.24	0.48	1.69	NIL				
	Thenmual	Darlawn	450	1.13	0.11	0.23	0.79	NIL				

(i)	(ii)	iii)	iv)	(v)	(vi) Composition of the waste				(vi)	(vii)	(viii)	(ix)
Names of Districts	**Legacy waste site (District wise)**	**Name of town**	**Area covered by the legacy waste (District wise in sqm)**	**Quantity of the Waste (in MT) in each site (Population x per capital waste generation in grams)/10^6)**	**a) Inerts (%) (Construct ion Waste, Wood, Glass, etc) (@10%)**	**b) Compost (%) organic (@20%)**	**c) (%) Plastic (@70%)**	**d) If any other material (%)**	**Process adopted to remediate at each site**	**Timelines to process at each site**	**Final destination of the components at (v)**	**Action plan to remediate and recover the sites at (iii) (in sq km) with earmarked Budget (District Wise)**
Lunglei	Riangvai Thlanmual	Lunglei	72888.57	17.5	1.75	3.50	12.25	NIL		6 months	Lunglei ongoing SWMC	Action Plan under preparation
	Kawrpui chhuah	Tlabung	3236	1.4	0.14	0.28	0.98	NIL				
Kolasib	Dihmun Tlang	Kolasib	35000	NIL	NIL	NIL	NIL	NIL	NIL	8 months	Kolasib SWMC	Action Plan under preparation
	Zotlang Ram	N. Kawnpui	900	2.37	0.24	0.47	1.66	NIL	Bio mining/ Bioremediation			
	Tuidai Phai Kawng	Vairengte	900	3.24	0.32	0.65	2.27	NIL				
	Zophai Road	Bairabi	200	1.33	0.13	0.27	0.93	NIL				
Champhai	Mualkawi Ram	Champhai	52696	10.05	1.01	2.01	7.04	NIL		6 months	Champhai ongoing SWMC	Action Plan under preparation
	Minte Ram	Farkawn	6245	0.98	0.10	0.20	0.69	NIL				
Serchhip	Tualthahmual, Chhiahtlang	Serchhip	19800	6.49	0.65	1.30	4.54	NIL		1 year	Serchhip SWMC	Action Plan under preparation
	Kikawt	N Vanlaiphai	1680.23	1.11	0.11	0.22	0.78	NIL				
	Thlawinem Ram	Thenzawl	25398	2.23	0.22	0.45	1.56	NIL				
Mamit	Vaiza Ram	Mamit	40000	3.57	0.36	0.71	2.50	NIL		1 year	Mamit SWMC	Action Plan under preparation
	Mauhak	W. Phaileng	4856	0.85	0.09	0.17	0.60	NIL				
		Kawrthah	8697	0.51	0.05	0.10	0.36	NIL				
	Mauhak	Zawlnua	22500	1.15	0.12	0.23	0.81	NIL				

(i)	(ii)	iii)	iv)	(v)	(vi) Composition of the waste				(vi)	(vii)	(viii)	(ix)
Names of Districts	**Legacy waste site (District wise)**	**Name of town**	**Area covered by the legacy waste (District wise in sqm)**	**Quantity of the Waste (in MT) in each site (Population x per capital waste generation in grams)/10^6)**	**a) Inerts (%) (Construct ion Waste, Wood, Glass, etc) (@10%)**	**b) Compost (%) organic (@20%)**	**c) (%) Plastic (@70%)**	**d) If any other material (%)**	**Process adopted to remediate at each site**	**Timelines to process at each site**	**Final destination of the components at (v)**	**Action plan to remediate and recover the sites at (iii) (in sq km) with earmarked Budget (District Wise)**
		m										
Saitual	Ramlaitui Mual	Saitual	39270	3.57	0.36	0.71	2.50	NIL		1 year	Saitual SWMC	Action Plan under preparation
	YMA Ram	Phullen	490	0.71	0.07	0.14	0.50	NIL				
	Sekah Mual	Ngopa	5000	1.75	0.18	0.35	1.23	NIL				
Khawzawl	Melkhat	Khawzawl	14235	3.38	0.34	0.68	2.37	NIL		1 year	Khawzawl SWMC	Action Plan under preparation
	Bualpui Zau	Biate	12700	0.7	0.07	0.14	0.49	NIL				
	Hmunsam	Khawhai	6000	0.74	0.07	0.15	0.52	NIL				
Hnahthial	Haulawng Road	Hnahthial	20000	2.21	0.22	0.44	1.55	NIL		1 year	Hnahthial SWMC	Action Plan under preparation
Lawngtlai	KMMTTP Road	Lawngtlai	40000	6.39	0.64	1.28	4.47	NIL		1 year	Lawngtlai SWMC	Action Plan under preparation
Siaha	Meisatla, T. Ferry Road	Siaha	1000	7.71	0.77	1.54	5.40	NIL		1 year	Siaha	Action Plan under preparation

Annexure 4 Progress in Liquid Waste Management

(i)	(ii)	(iii) Sewage Generation quality		(iv) Details of Treatment of Sewage (District Wise)					(v) Details of disposal of untreated Sewage (in MLD) (District Wise)						(vi) Action Plan to treat untreated sewage (District Wise)		(vii) Action taken against the defaulting authority			
Names of District	Sewage generation District wise with Population	Urban Areas	Rural Areas	By STP (MLD)	Type of STP	Disinfection method in STP	Discharge Water Quality from STP including Faecal & E-Coli	Other mode of Treatment (MLD)	(a) Final Destination of Discharge of untreated sewage	(b) If (a) above is let out in its quality					Time Lines	Budget Outlay (Cr)	EC imposed	Show cause notice issued	Closure notice issued	Other action taken
										Wet land	Pond	River	Sea	Other Water body						
Aizawl	36.94	34.08	2.86	0.448 MLD Currently there is one Sewage Treatment Plant in Aizawl with a capacity of 10 MLD	Sequencing batch reactors	Chlorination	Online Continuous Effluent Monitoring System and connected to CPCB server. Effluent samples are so sent to PHED Lab for Faecal and E-coli	1. Bio digesters introduced for communal usage under SIPMIU 2. Under AMRUT 2.0, small bore sewer system with STP facility is proposed for	NA	NIL	NIL	NIL	NIL	NIL	1 year	39.22 cr under sewerage and Septage management in AMRUT	NIL	27	5 (copy enclosed at annexure 9)	Consent revoked- 1 Consent Rejected- 1 Direction served -1 (copy enclosed)

(i)	(ii)	(iii) Sewage Generation quality		(iv) Details of Treatment of Sewage (District Wise)					(v) Details of disposal of untreated Sewage (in MLD) (District Wise)						(vi) Action Plan to treat untreated sewage (District Wise)		(vii) Action taken against the defaulting authority			
Names of District	Sewage generation District wise with Population	Urban Areas	Rural Areas	By STP (MLD)	Type of STP	Disinfection method in STP	Discharge Water Quality from STP including Faecal & E-Coli	Other mode of Treatment (MLD)	(a) Final Destination of Discharge of untreated sewage	(b) If (a) above is let out in its quality					Time Lines	Budget Outlay (Cr)	EC imposed	Show cause notice issued	Closure notice issued	Other action taken
							analysis.	densely populated area												
Lunglei	14.84	8.33	6.51	1. Community and individual level of soakpit for grey water management and for black water management, twinpit	Plan is to be finalized	NA	NA	Households equipped with septic tank with twin soakpit to ensure safely disposal of sewage	NA	NIL	NIL	NIL	NIL	NIL	2 years	1. 280 per capita in convergence with 15 FC (70:30) as per SBM(G) guideline in rural areas 2. In urban areas, 11	NA	NA	NA	NA
Kolasib	8.1	5.88	2.22						NA	NIL	NIL	NIL	NIL	NIL			NA	NA	NA	NA
Champhai	6.71	4.82	1.89						NA	NIL	NIL	NIL	NIL	NIL			NA	NA	NA	NA
Serchhip	5.81	4.33	1.48						NA	NIL	NIL	NIL	NIL	NIL			NA	NA	NA	NA

(i)	(ii)	(iii) Sewage Generation quality		(iv) Details of Treatment of Sewage (District Wise)					(v) Details of disposal of untreated Sewage (in MLD) (District Wise)						(vi) Action Plan to treat untreated sewage (District Wise)		(vii) Action taken against the defaulting authority			
Names of District	**Sewage generation District wise with Population**	**Urban Areas**	**Rural Areas**	**By STP (MLD)**	**Type of STP**	**Disinfection method in STP**	**Discharge Water Quality from STP including Faecal & E-Coli**	**Other mode of Treatment (MLD)**	**(a) Final Destination of Discharge of untreated sewage**	**(b) If (a) above is let out in its quality**					**Time Lines**	**Budget Outlay (Cr)**	**EC imposed**	**Show cause notice issued**	**Closure notice issued**	**Other action taken**
Mamit	6.41	3.58	2.83	for individual toilet has been proposed in rural areas. 2. In urban areas, FSTP will be constructed for treatment of black water and constructed wetland method will be used for treatment of grey water under SBM(U) 2.0.					NA	NIL	NIL	NIL	NIL	NIL		cr had been sanctioned under SBM(U) 2.0	NA	NA	NA	NA
Saitual	4.21	2.44	1.77						NA	NIL	NIL	NIL	NIL	NIL			NA	NA	NA	NA
Khawzawl	3.14	2.14	1						NA	NIL	NIL	NIL	NIL	NIL			NA	NA	NA	NA
Hnahthial	1.65	0.51	1.14						NA	NIL	NIL	NIL	NIL	NIL			NA	NA	NA	NA
Lawngtlai	9.33	2.82	6.51						NA	NIL	NIL	NIL	NIL	NIL			NA	NA	NA	NA
Siaha	6.18	3.4	2.78						NA	NIL	NIL	NIL	NIL	NIL			NA	NA	NA	NA

Annexure 5 Current Status of Construction of Solid Waste Management Centre in Mizoram

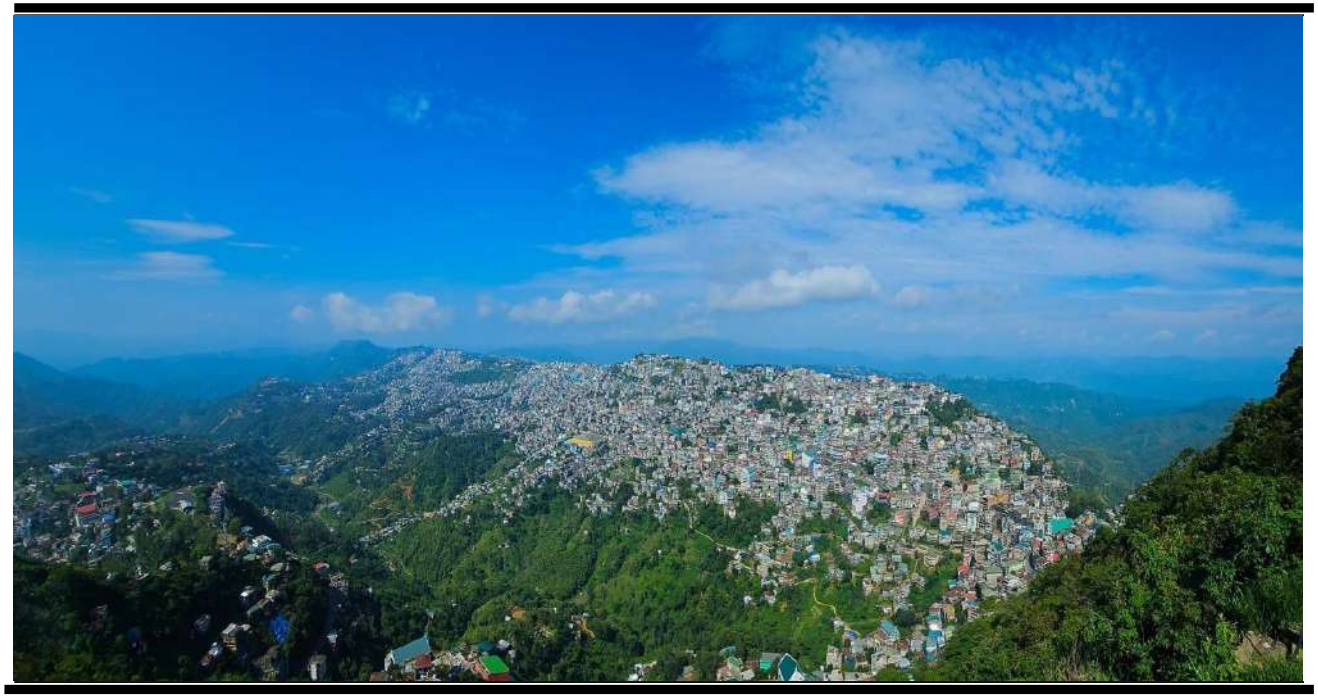
Sl. No	Name of District/Town	Proposed processing capacity (TPD)	Proposed MRF (TPD)	Area of Facility (Sq.m)	DPR Amount (in crore)	Status
1	Aizawl - Luangmual	-	75	11575.69	26.41	Tender Floated. Work Started
2	Kolasib	3	10	34400	7.08	Outsourcing started. (97% physical progress completed)
3	Champhai	3	7	52642	2.88	90% physical progress completed
4	Lunglei I & II	6	16	24270 13300	12.98	Lunglei I: (92% completed) Lunglei II: Work started
5	Saitual	3	7	20533	6.98	Work started
6	Lawngtlai	3	7	60000	6.97	
7	Siaha	3	7	177408	6.98	
8	West Phaileng	2	4	4856	0.56	Tender floated, Contract to be awarded soon
9	Thenzawl	2	6	25398	0.68	
10	Lengpui	2	6	20000	0.61	
11	Sairang	2	6	4854	0.64	
12	Phullen	2	4	490	0.54	
13	Hnahthial	3	7	50000	2.76	Tender to be floated tentatively by 31st December, 2024
14	Mamit	3	7	40000	2.03	
15	Serchhip	3	7	26000	3.33	
16	Khawzawl	3	7	40000	3.18	
17	Biate	2	4	12700	0.56	
18	Khawhai	2	4	6000	0.56	
19	Farkawn	2	4	6245	0.58	
20	Darlawn	2	6	450	0.66	
21	Zawlnuam	2	6	26500	0.56	
22	Bairabi	2	6	200	0.62	
23	Ngopa	2	6	5000	0.64	
24	Vairengte	2	6	900	0.64	
25	Tlabung	2	6	3236	0.67	
26	Kawrthah	2	4		0.48	Land acquisition under process
27	Kawnpui	2	6	900	0.61	
28	N Vanlaiphai	2	4	1680	0.55	

Annexure 6 Cluster Approach for Used Water Management under SBM(U) 2.0

Sl.No	Name of Target Location for setting up Treatment Plant	Clustered Urban Areas	Treatment System adopted
1	**Lunglei**	-	• 2 Co-Treatment System (STP)
2	**Kolasib**	Kolasib, N. Kawnpui, Vairengte & Bairabi	• 1 Co-Treatment System (STP) in Kolasib. • Grey Water Treatment System to be adopted in N. Kawnpui, Vairengte & Bairabi.
3	**Champhai**	-	• 1 Co-Treatment System (STP) in Champhai. • Convergence meeting with PHED be proposed for utilizing the existing plant constructed and upgrading into FSTP.
4	**Mamit**	-	• 1 Co-Treatment System (STP)
5	**Khawzawl**	Khawzawl, Khawhai & Biate	• 1 Co-Treatment System (STP) in Khawzawl. • Grey Water Treatment System to be adopted in Khawhai & Biate.
6	**Serchhip**	Serchhip & Thenzawl	• 1 Co-Treatment System in Sairang and Grey Water Treatment System to be adopt in Thenzawl.
7	**Saitual**	-	• 1 Co-Treatment System (STP)
8	**Hnahthial**	-	• 1 Co-Treatment System (STP)
9	**Lawngtlai**	-	• 1 Co-Treatment System (STP) • 1 FSTP set up under LADC. Convergence meeting be proposed with LADC for upgradation of the existing FSTP.
10	**Siaha**	-	• 1 Co-Treatment System (STP)
11	**Lengpui**	Sairang & Lengpui	• 1 Co-Treatment System (STP) in Sairang and Grey Water Treatment System to be adopt in Lengpui.
12	**Darlawn**	-	• 1 FSTP with Grey Water Treatment System
13	**Zawlnuam**	-	• 1 FSTP with Grey Water Treatment System
14	**N Vanlaiphai**	-	• 1 FSTP with Grey Water Treatment System
15	**Tlabung**	-	• 1 FSTP with Grey Water Treatment System

Annexure 7 Ring Fenced Amount Details

Sl. No.	Particulars	Amount (Rs.)
A	**Total Ring-Fenced amount**	**500000000**
1	Improvement of SWMC, Tuirial	49256900
2	Construction of SWMC, Lunglei	69801000
3	Construction of SWMC, Siaha	69829000
4	Construction of SWMC, Lawngtlai	69770000
5	Construction of SWMC, Saitual	69800000
6	Construction of Hopper at SWMC, Tuirial	4521000
7	Improvement & upgradation of Solid Waste Management Centres in Hnahthial, Khawzawl, Mamit, Serchhip, Lunglei, Kolasib, Saitual, Siaha, Lawngtlai & Lunglei-2	125978000
8	Construction of Municipal Solid Waste Management Centre at Mualkawi, Champhai (Phase - II) **ANNEXURE-8**	39769000
Total		**498724900**
Balance		**127510**



COMPREHENSIVE PLAN FOR MUNICIPAL WASTE MANAGEMENT IN AIZAWL

This comprehensive plan for municipal waste management aims to make Aizawl, the cleanest city in India and beyond through whole of Department approach and partnerships with private entities and citizens. It is a plan that has been duly agreed upon by the offices under UD&PA that the signatories represent.

PREAMBLE

Aizawl, the capital of Mizoram is also its economic and cultural hub. It is from this city that Mizoram will embark on a new and higher path of economic growth and inclusive development.

It is imperative that this new path is rooted in environmental sustainability. It is towards this end that this comprehensive plan for municipal waste management in Aizawl is hereby laid down.

This plan has been made after in-depth studies and detailed deliberations. Having agreed on this plan, we have set ourselves targets and outcomes to be achieved through whole of Department approach; by pooling our resources, expertise, experience, and funds. Also, by working with private entities and the citizens of Aizawl to make it the cleanest city in India and beyond within

SIGNATORIES

(Pu K. Sapdanga)
Minister,
Urban Development &
Poverty Alleviation Department,
Government of Mizoram

(Pu Lalrinenga Sailo)
Mayor,
Aizawl Municipal Corporation

(Pu Lalmalsawma Pachuau)
Secretary to Government of Mizoram
Urban Development &
Poverty Alleviation Department

(Er. Lalhriatpuia)
Municipal Commissioner,
Aizawl Municipal Corporation

(Dr. Andrew H Vanlaldika)
Director,
Urban Development &
Poverty Alleviation Department,
Government of Mizoram

(Pu C.C. Lalchhuangkima)
Chief Executive Officer,
Aizawl Smart City Limited

Date: 04.07.2024

Place: Aizawl

S.No	Approach & Targets	Interventions	Responsibility	Source of fund	Outcome
1	**Aizawl – Litter Free City** **Targets:** 1. To educate the public and enforce relevant rules to ensure that there is no littering of the roadside, public places and viewpoints and that there is no dumping of waste at the drains. 2. To ensure that the rivers and streams in and around Aizawl are clean.	1. Widespread publicity on the problem faced, the benefits of a clean city and the steps that each citizen can take to make Aizawl a clean city. Towards this end there would be partnerships with youths and influencers, NGOs, Churches, Schools, Colleges, and other institutions such that there is a strong and sustained movement with wide public participation. 2. Extension of garbage fencing and proper maintenance. 3. Construction and maintenance of garbage trap at important drains. 4. Cleanliness competitions wherein competition would be held in each ward- wise among the Local Councils in each Ward. 5. Sponsor voluntary cleanliness drives and ensure widespread publicity. 6. Install dustbins (for wet & dry waste) at high footfall areas, viewpoints and tourist centres and ensure that waste collected therein are disposed periodically and that they are well maintained.	1. AMC & UD&PA (Dte) 2. AMC 3. AMC 4. UD&PA (Dte) & AMC 5. UD&PA (Dte) & AMC 6. UD&PA (Dte-Sanitation Office)	1. ULB Grant / AMC fund, SBM(U) 2.0 & State fund 2. ULB Grant / AMC own fund 3. AMRUT 2.0 4. SBM(U) 2.0 / AMC own fund 5. SBM(U) 2.0, AMC fund 6. SBM(U) 2.0 / State fund	✓ Aizawl is already known as a silent city due to its no – honking practice. If it can become a litter free city, it will further boost its appeal as a tourist city and further enhance its image; a living example of "Cleanliness is next to Godliness". ✓ The cheapest way to have the characteristic of a developed country is to become a clean city. If a litter – free city can be achieved in Aizawl, it will boost the morale of the people of Mizoram and will serve as another example of their discipline and the regard they have for others and the environment.

		7. CCTV may be provided at locations prone to dumping of waste and monitored from Integrated Command and Control Centre (ICCC). 8. Effective implementation of AMC Solid Waste Management Bylaws, 2019 to stop littering including imposition of fines to offenders. 9. Workable system of Extended Producer Responsibility (ERP) must be devised to partner producers of packaged water / drinks and other items in this effort. 10. Street sweeping must be made more effective and more areas should be covered while priority should be given to the main roads and important public places. If required community participation on a more permanent arrangement could be made. Further, procurement of waste vacuum truck to supplement the efforts of the sanitation workers would be explored.	7. AMC & ASCL 8. AMC 9. AMC 10. UD&PA (Dte-Sanitation Office)	7. Smartcity Mission (ICCC) 10. SBM / State fund	
2	**100% segregation of waste at source** **Target:** Segregation of waste at source is the prerequisite for the success of any intervention in Municipal	1. Capacity building through all media and most importantly, house – to – house campaigns on why it is important to segregate waste at source and how to do it. This campaign could even go along with the first intervention planned at S.No 1 above. The campaign should include widespread dissemination of information on how the segregated waste are being	1 & 2. UD&PA (Dte), AMC & ASCL {After arriving at an information brochure / SoP that must be	SBM(U) 2.0, AMC own fund, Smartcity Mission	✓ 100% segregation of waste at source will result in efficiency of all the municipal waste treatment facilities. ✓ It will lead to efficiency in the production of manure from the wet waste and also recyclables and Reduced

	waste management. Therefore, the target here is to ensure that all households segregate their waste by storing and disposing them separately.	processed, how inefficient segregation at source is leading to difficulty in management and how each household can help to alleviate the problem. 2. Capacity building of all the members of the Local Councils on the issue such that they completely understand their roles and responsibilities in ensuring segregation of waste at source and their collection within their respective jurisdictions. 3. Each household should segregate their waste into the following categories: (a) Wet (Biodegradable) waste (b) Sanitary & domestic hazardous waste (c) Dry waste (This categorisation can be updated as per requirement by AMC) 4. Slow decomposing waste such as husks of arecanaut, shells etc which cannot be processed in the compost plant may be categorised as dry waste for which a notification may be issued as required.	followed by each household, each of these three entities could divide the 83 local councils in Aizawl among themselves and carry out the house – to – house campaign in collaboration with NGOs and the Local Council} 3. AMC 4. AMC		Derived Fuel (RDF) from the dry waste; thereby providing a fillip to the circular economy.

3	**100% Management of:** **(a) Wet (biodegradable) waste,** **(b) Sanitary & domestic hazardous waste** **Targets:** 1. To ensure daily collection of wet waste and sanitary & domestic hazardous waste and that the same is treated. 2. This is a low – hanging fruit as we already have a functional centre having a capacity of 50 TPD to treat wet waste and 20 new trucks customised to carry wet waste have already been procured. Accordingly, this new system must be made operational at the earliest; within a month of signing this plan.	1. Collection and processing of wet waste would be the responsibility of AMC. To enhance the efficiency of this service, 20 trucks dedicated for wet-waste procured under Smartcity Mission would be inspected and handed over to AMC after trail. These trucks are designed such that wet waste can be thrown directly into the carriage without the need for any garbage bag to hold them 2. The trucks carrying wet waste may also be fitted with a separate container to collect Sanitary & domestic hazardous waste which can be treated separately. 3. Operation and maintenance of these 20 vehicles would be under the purview of AMC and it must be ensured that all of them are operated effectively. One truck can be assigned for each of the 19 wards and 1 truck can be dedicated to cater to bulk generators such as sabzi bazar, malls etc. Each truck must be manned by a driver and one enforcer whose duty would be to ensure that only wet waste without the cover of a garbage bag is dumped directly into the truck. 4. The route of these trucks must be designed in the most effective manner to ensure that collection of wet waste from each household happens regularly; preferably daily. If required multiple trips in a day may be undertaken. Ward committee in collaboration with the Local Councils within	1. AMC & ASCL 2. AMC & ASCL 3. AMC 4. AMC	1, 2 & 5: Smartcity Mission Others: ULB Grants, Own funds of AMC and public contribution.	✓ At present, AMC has achieved production of 9 tons of manure in a day from the SWMC at Tuirial, if the interventions set herein are implemented effectively, it would further enhance this production leading to higher revenue. ✓ Promotion of home composting would reduce the load on the system and enhance household income / savings. It would promote kitchen gardening and floriculture.

		the ward should play a proactive role in making the route plan. 5. These trucks must be fitted with GPS / tracking device and must be monitored through ICCC / app designed for the purpose. Monitoring of the operations of these vehicles must be ensured. 6. The plant to treat wet waste at SWMC, Tuirial is functional and has a capacity of 50TPD which is sufficient to process the biodegradable waste generated in Aizawl. Therefore, there is no requirement to provide for another processing plant / facility for wet waste in Aizawl for the time being. Accordingly, the plant must be operated and maintained effectively. 7. At present, AMC is packing the manure produced from the treatment plant at SWMC, Tuirial. Same must be branded with AMC logo etc and be made available in the market. Outlet/s for the same may be identified and publicised so that the public are aware of its availability in the market. The nutrient content of the manure may also be determined through lab testing etc. 8. The practice of home composting would be encouraged. AMC may provide for compost bin and inoculum at subsidised rate to promote this.	5. AMC & ASCL (for GPS). 6. AMC 7. AMC		

		9. There is a proposal from Oil India Limited (OIL) to set up a biogas plant using municipal (wet) waste. If this plant is set up it will be able to utilise all the wet waste generated in Aizawl. This will be completely funded (including land cost) and run by OIL for which Govt of Mizoram is to identify land for the plant. Suitable site for this purpose is to be identified and the project be taken up accordingly.	9. UD&PA (Dte)		
4	**100% Collection and treatment of dry waste.** **Targets:** 1. To ensure daily collection of dry waste and same is treated to boost the circular economy. To ensure efficiency in the management of the treatment facilities with a target of zero waste to landfill.	1. The collection of dry waste would be the responsibility of AMC and the entire plan on how the same would be collected would be made by them. 2. It must be ensured that dry waste from all households is collected. Special importance must be given to: (a) Bulk generators who may be registered and licensed to directly dispose their dry waste at the SWMC for which tipping fee may be charged. Households in the localities near drains, streams, rivers, and those that are not having direct access to motorable roads (step areas).	1. AMC AMC	1. ULB funds, public contribution 2. ULB funds, public contribution	✓ These interventions would free our rivers and streams and from pollution caused by plastics and other waste leading to overall improvement in the purity of our water sources and the health of the riverine ecosystem. Organised employment would be generated for the local youths at the MRF and other parts of value chain of municipal waste management.

		3. As there would be separate trucks to carry wet waste, it must be ensured that only dry waste is collected in the trucks assigned to carry them. Further it must be ensured that same is dumped only into the designated SWMC.	3. AMC	3. ULB funds, public contribution	
		4. Monitoring of the dump trucks could be made through GPS devices and software designed for the purpose.	4. AMC & ASCL	4. Smartcity Mission	
		5. A new Material Recovery Facility (MRF) having capacity of alteast 50TPD would be constructed at Luangmual in Engineering, Procurement & Construction (EPC) mode with Operations & Maintenance (O&M) by engaging a private entity having the capability, the experience, and the right technology through competitive bidding process. This new SWMC would be able to cater to the whole of Aizawl for the time being. Towards this end, there could be a tripartite agreement between AMC, ASCL and the selected private entity wherein ASCL will provide the capex for the MRF and execute the project, the private entity will construct the MRF in EPC mode with O&M for a defined period and AMC will be the Authority which would govern the MRF, support the running cost that may arise and take charge of the collection of dry waste to enable the MRF to run at full capacity. Further, AMC would be responsible for disposing the inert waste that	5. AMC & ASCL	5. Smartcity Mission for the Capex and ULB Grant, own funds of AMC / public contribution for the Opex	

		could not be processed in the MRF for which the landfill at SWMC, Tuirial would be used. 6. If there is a need to construct another MRF at another location, same could be explored at AMC land at Tuirial. 7. Entry of private entities to undertake door – to – door collection of waste and their transportation to the designated SWMC would be encouraged while ensuring that they follow the rules on Solid waste management. 8. Reverse vending machines that could shred plastic bottles have been placed at various locations; it must be ensured that they are utilised well.	6. AMC (with support by UD&PA) 7. AMC 8. ASCL in collaboration with the Local Councils / entities i/c of the O&M	6. As per availability.	

5	**100% Treatment of legacy waste at SWMC, Tuirial** **Target:** To ensure that all the legacy waste at the temporary holding area at SWMC, Tuirial and at the Old dumping ground at Tuirial are treated.	1. To meet the target, considering the volume of legacy waste at SWMC, Tuirial, it may be best to engage a private entity having the capability, the experience, and the right technology. This may be explored with a view to achieve the target within 12 months. 2. The equipments that are used to treat the legacy waste could later be used as MRF once the project is completed which would further enhance the capability to treat dry waste in Aizawl.	AMC / UD&PA (Dte) / ASCL	AMC funds / SBM(U) 2.0 / Smartcity Mission.	✓ Legacy waste is a big environmental concern because of the air and water pollution that it causes. Remediating the legacy waste will stop this pollution once and for all. ✓ The land reclaimed from the legacy waste can be used for other gainful purposes.

6	**100% Collection and treatment of Construction & Demolition (C&D) waste.** **Target:** At present, there is no facility to collect and treat C&D waste. The target would be to setup one facility that would cater to this.	1. Primary importance is to select the site for the C&D waste treatment facility. In this regard, the site at Hualngohmun where site development is almost completed would be utilised 2. Basic machineries and equipments required to process and make value addition to the C&D waste would be installed. 3. Necessary regulations and implementation mechanisms to ensure that all C&D waste generated at Aizawl are collected at the centre would have to be put in place by AMC. 4. Local entrepreneurs could be invited to operate and run the C&D processing plant.	UD&PA (Dte) & PWD (Construction of the Centre); AMC (Operation & Maintenance)	State fund, AMC fund	✓ There would be a designated site to dump all the C&D waste and when processed same could be sold and reused as building materials. ✓ C&D Waste Processing Facility is set up at Hualngohmun. Site Development has commenced.
7	**100% Collection and treatment of bio- medical waste** **Target:** To ensure the bio- medical waste from all the hospitals in Aizawl are collected at the treatment centre and same is treated effectively	1. AMC has made land available at Tuirial to setup Common Biomedical waste treatment plant. 2. ASCL has constructed the plant and would be completed by June, 2024. As this plant would cover 5 districts and as it concerns administration of hospitals, the plant is to be run by H&FW Department. ASCL would expedite the completion of the plant and hand over the facility to H&FW Dept who should ensure effective and efficient operation of the plant.	ASCL; H&FW Dept	Smartcity Mission	✓ The mandatory requirement as per law would be met and effective disposal of biomedical waste will prevent the spread of disease etc.

8	**Provision of soil dumpsites** **Target:** To ensure that there are sufficient soil dumpsites to cater to the entire city resulting in the creation of flat lands which in turn could be utilised later for other purposes.	1. There are 11 soil dumpsites under AMC which are in operation and one is under construction by ASCL. These facilities are to be managed effectively and monitored. 2. As the current facilities are not sufficient to cater to the requirement of Aizawl city, more sites should be identified and developed. 3. There are certain locations where soil is dumped without permission. Such vulnerable locations should be monitored and if required CCTVs may be installed and linked to ICCC such that offenders could be identified and penalised.	1. AMC & ASCL 2. AMC 3. AMC & ASCL (for installation of CCTVs)	1. Smartcity Mission, AMC 2. AMC fund 3. AMC fund	✓ The increasing turbidity of R. Tlawng has become a big cause of concern. Provision of soil dumpsites and their effective management will go a long way in reducing this turbidity.

9. MONITORING MECHANISM:

1. Each of the offices in the Department are responsible to execute their respective roles and responsibilities under this plan under the overall supervision of the Municipal Commissioner for AMC, CEO for ASCL and Director for UD&PA (Dte).

2. To ensure effective and efficient implementation of this Plan, there would be an intra – departmental Municipal Waste Management Coordination Committee for Aizawl which would have the following composition:

S.No	Post	Designation
1	Secretary, UD&PA	Chairman
2	Municipal Commissioner, AMC	Co-Chairman
3	Joint Secretary, UD&PA	Member
4	Director, UD&PA	Member
5	CEO, ASCL	Member
6	Joint. CEO, ASCL	Member
7	Joint Municipal Commissioner, AMC	Member
8	Deputy Secretary, UD&PA	Member Secretary
9	Joint. Director (Plan), UD&PA	Member

Terms of reference:

1. To coordinate and ensure that the Comprehensive Plan is implemented effectively and efficiently in a time – bound manner such that the targets laid down in this plan are achieved within 12 - 14 months from the date of signing this Plan.
2. To report to Minister, UD&PA and Mayor, AMC on the progress on quarterly basis.
3. To make a more detailed action points to implement this Plan as required.
4. To invite experts for partnership, advice etc
5. To explore funds that may be required for the implementation of the Plan
6. The committee would meet on the first Monday of every month to deliberate over its Terms of Reference.
7. Any other actions required for the betterment of this Plan and its implementation.

MIZORAM STATE POLLUTION CONTROL BOARD

No. H. 88088/Polln/32(3)/18-MPCB/233-236 (251-261)

Dated Aizawl, the 17[th] June 2019

To,

1. The Engineer –in-Chief,
   Public Health Engineering Department
   Govt. of Mizoram
2. The Engineer –in-Chief,
   Power & Electricity Department
   Govt. of Mizoram

Subject. Order of the Hon'ble Supreme Court on WP (C) No. 375 of 2012 in the matter of Paryavaran Suraksha Samiti and Anr Vs Union of India & Ors – Disconnecting of electricity/water supplies

Sir,

With reference to the subject cited above, may I inform you that The Hon'ble National Green Tribunal in the matter referred above vide its order dated 06.03.2017 has directed that no industry shall be allowed to operate unless Effluent Treatment Plants (ETPs) is made functional.

The Board, in compliance with the Tribunal's order, has inspected all liquid wastes discharging units after due public notice and samples were collected and analysed from ETPs. Compliance from most of the units are pretty good while 5 industrial Units namely;

1) K.K. Dairy, Bawngkawn
2) Bethesda Hospital, Bawngkawn
3) Hmingliani Ice Cream, Mission Vengthlang
4) Zothan Flavour Drinks, Electric Veng
5) Zonuam Food Processing, [illegible]

are still operating without ETPs inspite of show cause notices served twice against them.

O/C

LiFE Lifestyle for Environment

MIZORAM

Azadi Ka Amrit Mahotsav

MIZORAM POLLUTION CONTROL BOARD

No.H.88088/Poltn/9(314)/2020-MPCB/195-196 : Dated Aizawl, the 7th December 2023.

To,

The Project Manager,
M/s GVV Construction (P) Ltd.,
Seling, Mizoram.

Subject: Closure Notice under Section 32 of the Water (Prevention & Control of Pollution) Act,1974.

Whereas it has come to the notice of Mizoram Pollution Control Board and as per the observations of the inspection conducted by the officials of Mizoram Pollution Control Board, Aizawl on 6th & 7th December 2023, improperly managed Light Diesel Oil generated from Hot Mix Plant of 120 TPH at Hmawngkawn Lui, Seling, Aizawl District, Mizoram currently operated by your company which is mixed with other wastes generated within your premises is causing excessive pollution of the Hmawngkawn Lui and down the Tuirini River at Thingsulthliah village area likely to cause environmental damages due to the aforesaid discharges from the Plant.

And whereas polluting water body due to discharge of polluting matters intentionally or due to any accident or other unforeseen act or event is strictly prohibited under the Water (Prevention & Control of Pollution) Act,1974.

And whereas you are required to properly manage and dispose off all wastes in environmental safety manner in line with the waste management rules, as per the conditions laid out in the 'Consent to Operate' issued by the Board vide letter No. No.H.88088/Poltn/9(314)/2020-MPCB/175-177 dated 30.10.2023.

And whereas the aforesaid Act and conditions of the Consent have been violated by the operation of your Plant.

Now, therefore, in exercise of the power conferred under Section 32 of the Water (Prevention & Control of Pollution) Act,1974, you are directed to **stop and close down the operation of the Hot Mix Plant,** owned by your company at Thingsulthliah village area with immediate effect and until further order in the matter is issued by the Board.

You are further directed to take immediate remedial actions so as to stop pollution of the nearby water bodies of your plant and to remove the polluting matters from the stream and disposed off as per the provisions provided in the relevant waste management rules.

Your compliance report should be submitted to the undersigned within one week from the date of issue of this order.

(C. LALDUHAWMA)
Member Secretary
Mizoram State Pollution Control Board

Consent revoked

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Azadi Ka Amrit Mahotsav

MIZORAM POLLUTION CONTROL BOARD

No. H.88088/Poltn/9(132)/16-MPCB/ 476 : Dated Aizawl, the 15th April 2024

To,

M/s HOTEL RANSAM
Thuampui Vengthar
Aizawl, Mizoram

Subj.: **Consent To Operate – compliance monitoring reg.**

Reference: **Your letter dated 27.02.2024**

Madam,

With reference to the subject and letter cited above, this is to acknowledge receipt of your test report for wastewater quality monitoring dated 27.02.2024, as mandated by Sl. No. 18 under Specific Conditions of the CTO dated 12.01.2024.

Upon observation of the said report, the BOD level for treated wastewater was found higher than the untreated wastewater. Since higher BOD level suggests a higher level of pollution, it was required to cross-monitor the test report you submitted to the Board.

Consequently, the first attempt to collect effluent sample from your hotel's ETP for cross-monitoring was made on 21.03.2024. However, no liquid waste (treated nor untreated) was found. A second attempt to collect sample was made on 28.03.2024, wherein the ETP was found non-functional and the person at the site was incapable of operating the ETP.

It therefore appears that false information has been provided, which is punishable under **section 42, sub-section (1), no. (f)** of the Water (Prevention and Control of Pollution) Act, 1974.

Therefore, you are hereby directed to install a full-fledged and fully functional Effluent Treatment Plant (ETP) and **re-submit wastewater quality analysis report** on or before 30.05.2024, failing which the Board shall initiate action against you as per relevant acts, which inter-alia includes cancellation of the issued CTO dated 12.01.2024.

Yours faithfully,

(C. LALDUHAWMA)
Member Secretary
Mizoram Pollution Control Board

direction

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LiFE Lifestyle for Environment

Azadi Ka Amrit Mahotsav

MIZORAM POLLUTION CONTROL BOARD

No.H.88088/Poltn/9(132)/16-MPCB : Dated Aizawl, the 23rd January, 2024

To,

The Managing Director
Royale Lalawi Hotel
Khatla 'N', Aizawl, Mizoram.

Subject: **Cancellation of Consent to Operate (CTO) issued on 31.10.2023 to M/s Royale Lalawi Hotel, Khatla 'N', Aizawl, Mizoram.**

Reference: **This office letter dated 31.10.2023**

Sir,

With reference to the subject cited above, please refer sub no I (18) of serial No. B of Consent to Operate (CTO) granted to you vide letter No. H.88088/Poltn/9(132)/16-MPCB/450-454 dated 31.10.2023 which states that, "*The industry shall construct Effluent Treatment Plant (ETP) within 1 month from the date of issue of this certificate and should analyse quality of treated waste water and submit report with photo of ETP to the Member Secretary, MPCB, within 45 days from the date of issue of CTO, failing which this certificate shall be revoked without any further notice.*"

It may be noted that the Hon'ble Supreme Court order dated 22.02.2017, stated that *all industrial units requiring Consent To Operate from the concerned State Pollution Control Board are directed to make primary effluent treatment plants fully functional, failing to comply with will be restrained from all industrial activity. Such units which has been disabled from carrying on its industrial activities, shall have to seek a fresh "consent to operate" from the concerned pollution control board after making a functional primary effluent treatment plant to the required capacity.*

In this regard, you were given one month time to install the required Effluent Treatment Plant (ETP) as mentioned above. However, no compliance report or request for extension of time to install ETP is received by the Board till date.

Therefore, the Consent to Operate (CTO) issued vide the aforesaid letter is hereby revoked with immediate effect. Fresh CTO may be applied after the ETP is constructed and functional as per the Supreme Court order above.

Yours faithfully,

(C. LALDUHAWMA)
Member Secretary
Dated Aizawl, the 23rd January, 2024

Memo. No.H.88088/Poltn/9(132)/16-MPCB

Copy for information & necessary action to:

1. The Principal Secretary, Environment, Forest & Climate Change Department, Govt. of Mizoram
2. The Director, Commerce & Industries Department, Govt. of Mizoram
3. The Director, Tourism Department, Govt. of Mizoram

(C. LALDUHAWMA)
Member Secretary
Mizoram Pollution Control Board

Government of Mizoram