BEFORE THE HON'BLE NATIONAL GREEN TRIBUNAL

PRINCIPAL BENCH, NEW DELHI

Original Application No. 606 of 2018

(In respect of State of Manipur)

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

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	Copy of the waste processing modules of the ULBs wise is enclosed	
12.	**ANNEXURE A-11** Details of the waste processing modules in ULB wise of Solid Waste Management	59-61
13.	**ANNEXURE A-12** Status of used water management in Urban areas of the state	62-63

Date:01.07.2025

Filed By
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File No. CSFE-101/14/2020-FE-Dept (For & Envt)
GOVERNMENT OF MANIPUR
OFFICE OF THE CHIEF SECRETARY

Imphal, the 30th June, 2025

To,

The Registrar General
National Green Tribunal
Faridkot House, Copernicus Marg
New Delhi-110001
Email : judicial-ngt@gov.in

Subject: AFFIDAVIT in respect of the State of Manipur for submission of the 5th Six Monthly Progress Report as on June 2025-cum-Fresh Action Taken Report in compliance of directives of the Hon'ble NGT in O.A. No. 606 of 2018.

Sir/Madam,

With reference to the directives made by the Hon'ble NGT in O.A No. 606/2018 vide its Orders dated 01-12-2022 and 13-09-2024, 5th Six Monthly Progress Report-cum-Fresh Action Taken Report in respect of liquid & solid waste management for the State of Manipur is hereby submitted for necessary consideration.

Encl.: As above

Yours Sincerely,

(Prashant Kumar Singh)
Chief Secretary,
Government of Manipur

Copy to:

1. Secretary, Ministry of Jal Shakti, Government of India, 1st Floor, Major Dhyan Chand National Stadium, India Gate, New Delhi-110002
2. Secretary, Ministry of Urban Development, 118 Cwing Nirman Bhawan, Delhi 110001
3. Member Secretary, Central Pollution Control Board, Parivesh Bhawan, East Arjun Nagar, Delhi-110032
4. Executive Director-Technical, National Mission for Clean Ganga, Department of Water Resources, river Development & Ganga Rejuvenation, Ministry of Jal Shakti. Email: ed-technical@nmcg.nic.in
5. Shri Pukhrambam RameshKumar, Standing Counsel for the State of Manipur, Chamber No. 324, 3rd Floor, Block "D" (Lawyers Chambers Block), Additional Building Complex, Supreme Court of India, New Delhi-110001

BEFORE THE HON'BLE NATIONAL GREEN TRIBUNAL

PRINCIPAL BENCH, NEW DELHI

Original Application No. 606 of 2018
(In respect of State of Manipur)

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

(Arising out of directions of the Hon'ble Supreme Court in W.P No.888/1996 and W.P No. 375/2012)

NOTARY
CH. DORENDRO SINGH
IMPHAL WEST
Regd No. 22707
Exp. Date 14/09/2028
GOVT. OF INDIA

IN THE MATTER OF :

5th Six Monthly Progress Report as on June 2025-cum-Fresh Taken Action Report on behalf of the State of Manipur by the Chief Secretary, Government of Manipur in compliance of the directives of the Hon'ble NGT vide its Order dated 01-12-2022 and 13-09-2024 respectively in OA No. 606 of 2018.

5th Six Monthly Progress Report-cum-Fresh Report on behalf of the State of Manipur in compliance of the directives of the Hon'ble National Green Tribunal

I, Prashant Kumar Singh aged about 55 years, Chief Secretary, Government of Manipur do hereby take oath and solemnly affirm as under:

1. That, I am presently serving as the Chief Secretary, Government of Manipur, I am acquainted with the facts and circumstances of the case and as such I am competent to swear this affidavit for the State of Manipur.

2. That, the Hon'ble Tribunal vide its Order dated 01-12-2022 had directed the Chief Secretary, Manipur to file Six Monthly Progress Reports with verifiable progress on solid waste and liquid waste management of the State of Manipur. Accordingly, till date 4 Six

30/06/25

CH. DORENDRO SINGH
Advocate & Notary, Govt. of India
Regn. No. 22707
Imphal West, Manipur-795113

Monthly Progress Report have been filed in respect of the State of Manipur; with the 5th Report due on June 2025.

3. That, the Hon'ble Tribunal has further passed an order dated 13/09/2024 thereby directing to file the "Fresh Action Taken Report" in respect of the State of Manipur in the Tabulated Chart prescribed therein furnishing the information in respect of liquid and solid waste management. The operative portion of the same is reproduced hereunder:

"5. The information is required to be provided under all the heads in terms of the earlier orders of the Tribunal, therefore, we require the State of Manipur to furnish the information in respect of liquid and solid waste management in the following tabulated chart:

.....

6. Let the fresh action taken report be filed by the State of Manipur covering the aspects noted above at least one week before the next date of hearing by way of an affidavit through e-filing.

7. List the matter on 07.07.2025 for consideration of report in respect of State of Manipur."

4. That, it is respectfully submitted that the directives of the Hon'ble Tribunal are being complied with keeping in view the spirit of the orders passed in O.A No. 606 of 2018; and accordingly, submitted herewith the required information marked as ANNEXURE also incorporating therein clarification/reply to the observations on the compliance status made by the Hon'ble Tribunal in para no. 4 of the Order dated 13/09/2024 in O.A. No. 606 of 2018.

In view of the submissions made above, the 5th Six Monthly Progress Report as on June 2025-cum-Fresh Action Taken Report in respect of the State of Manipur enclosed herewith may kindly be taken on record for necessary consideration, in the interest of justice.

30/06/25.

VERIFICATION

Verified on this 30th day of June, 2025 that the statements made in the foregoing paragraphs of the present Affidavit are true to the best of my knowledge, record, information and nothing relevant material has been concealed thereof.

Signature of Deponent

(Prashant Kumar Singh)
Chief Secretary, Government of Manipur

(Prashant Kumar Singh, IAS)
Chief Secretary
Government of Manipur

NOTARY
CH. DORENDRO SINGH
IMPHAL WEST
Regd No. 22707
Exp. Date 14/09/2028
GOVT. OF INDIA

Solemnly affirm before me on 30/06/25
at 02:00 P.m. at the Court Premises by the Deponent/Deponents who is identified by ..... The Deponent seems to understand the contents fully well on he/she/their being read over and explained to him/her/them

30/06/25
CH. DORENDRO SINGH
Advocate & Notary, Govt. of India
Regn. No. 22707
Imphal West, Manipur-795113

5TH SIX MONTHLY PROGRESS REPORT (as on June 2025)-CUM-FRESH ACTION TAKEN REPORT SUBMITTED ON BEHALF OF THE STATE OF MANIPUR BY THE CHIEF SECRETARY, GOVERNMENT OF MANIPUR IN COMPLIANCE OF THE DIRECTIVES OF THE HON'BLE NGT VIDE ITS ORDER DATED 01-12-2022 AND 13-09-2024 RESPECTIVELY IN OA NO. 606 OF 2018.

1. Solid Waste Management

	Total Waste Gene-ration (TPD)*	**Composition of Waste**			**Waste collected**	**Waste Trans-ported**	**Final destination of transported waste**
		Bio - degradable	Dry / Recyclable	Inert			
Urban by MAHUD	309	181 i.e. 59%	97 i.e. 48%	31 i.e. 10%	201	201	Lamdeng, Thoubal Khunou, Kakching Cluster **Enclosed as at Annexure – A/1**
Rural by RD & PR	29.20	73%	20%	7%	0.93	0.93	NGOs- KWAMS, RUDA, CRED etc. Collected solid wastes from 3 model GPs and transported at Lamdeng Solid Waste Management Plant Action plan for proper solid waste management is under preparation. **Enclosed as at Annexure – A/1**
Hills by TA & Hills							Action plan for proper solid waste management is under preparation. Currently there is no report of proper scientific management of solid waste. **Enclosed as at Annexure – A/1**

* Based on per capita and details of area coverage is placed at **Annexure - A/1**.

Note :

MAHUD = Municipal Administration, Housing and Urban Development Department,

RD & PR = Rural Development and Panchayati Raj Department,

TA & Hills = Tribal Affairs and Hills Department

1.1 Waste Processing

4.2.1 Composting						
	Intake quantity	**Method adopted**	**Output quantity as Compost**	**Quality**	**Residue and Rejects and Management**	**Utilization of compost**
Urban by MAHUD	54.98	Aerobic, Pit & Window composting	7.66	N - 2.5%, P - 0.4%, K - 2.1%	Used as landfill and raw material/catalyst for further composting	Home gardening & Farming
Rural by RD & PR	Yet to be started, action plan for Scientific Management of Solid Waste in Rural area in Manipur is under preparation and completing by 30th September 2025					
Hills by TA & Hills	Yet to be started, action plan for Scientific Management of Solid Waste in Hill area in Manipur is under preparation and completing by 30th September 2025					

ANNEXURE A/2: Chart indicating the waste processing: Composting of solid waste in Manipur

1.2 Refused Derived Fuel

	Capacity of Plant	**Sources of waste for making RDF**	**RDF produced**	**Residue / Reject Management**	**Utilization of RDF**
Urban by MAHUD	• Installed one plant but due to non-availability and limited market, the plant has ceased the production of RDF. • The nearest market for RDF (cement factory etc.) is located at Assam, whereas, the cost for transportation is very expensive, not financially viable	Nil	Nil	Nil	Nil
Rural by RD & PR	Yet to be started, action plan for Scientific Management of Solid Waste in Rural area in Manipur is under preparation and completing by 30th September 2025				
Hills by TA & Hills	Yet to be started, action plan for Scientific Management of Solid Waste in Hill area in Manipur is under preparation and completing by 30th September 2025				

ANNEXURE A/3: Chart indicating the waste processing: Refused Derived Fuel of solid waste in Manipur

1.3 Waste to Energy (Thermal / Methanation route)

	Plant capacity	Daily inputs of feed	Sources of waste	Output (Energy)	Residue / Rejects management	Fly ash and Bottom Ash management
Urban by MAHUD	Nil	Nil	Nil	Nil	Nil	Nil
Rural by RD & PR	Nil	Nil	Nil	Nil	Nil	Nil
Hills by TA & Hills	Nil	Nil	Nil	Nil	Nil	Nil

ANNEXURE A/4: Chart indicating waste processing: Waste to Energy of solid waste in Manipur

1.4 Other Processing

	Quantity of inputs	Quality of inputs	Products and it's utilization	Residue / Reject management
Urban by MAHUD	5.22	Good	Plastics & cardboards used for recycling	Nil
Rural by RD & PR	Nil	Nil	Nil	Nil
Hills by TA & Hills	Nil	Nil	Nil	Nil

ANNEXURE A/5: Chart indicating the waste processing: Other processing of solid waste in Manipur

1.5 Gap

	Gap in Waste generation and Processing	Time bound plan to fill up gap
Urban by MAHUD	34.89 TPD	31.03.2026
Rural by RD & PR	Yet to be processed the solid wastes	Action plan by 30.09.2025
Hills by TA & Hills	Yet to be processed the solid wastes	Action plan by 30.09.2025

ANNEXURE A/6: Gap in solid waste processing in Manipur

ANNEXURE A/7: Summary of Action plan for fulfilment of Gap in solid waste processing in Manipur

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1.6 (i) Legacy Waste

	Number of legacy waste dump sites	Quantity of legacy waste reported on 31.05.2025	Present quantity of legacy waste	Daily legacy waste being added as unprocessed waste
Urban by MAHUD	3	**3,10,793 MT**	**3,36,934 MT**	**114 MT**
Rural by RD & PR	Nil	Nil	Nil	Nil
Hills by TA & Hills				

ANNEXURE A/8: Chart indicating Legacy Waste in Manipur

1.7 (ii) Legacy Waste

	Quantification and utilization of out of Bioremediation and bio mining				Gap in legacy waste remediation and time bound plan
	Digested material MT	Plastics	Rubber	Inerts and other	
Urban by MAHUD	1,08,518 MT	1,04,443 MT	5,731 MT	44,191 MT	**(As reported in the fresh second six monthly report dated 2.4.2024)**
Rural by RD & PR	NIL	NIL	NIL	NIL	NIL
Hills by TA & Hills	NIL	NIL	NIL	NIL	NIL

ANNEXURE A/9: Chart indicating Legacy Waste in Manipur

1.8 Ring Fence Account

	Amount to be ring fenced	Whether single dedicated account has been opened	Date of opening account	Amount utilized	Plan of utilization
MAHUD	21.50 Cr	Yes	2020-21 FY	21.50 Cr	Utilized in Solid Waste & Water Management
TC & I	10 Cr	Yes	21.04.2023	10 Cr	NA
PHED	81.59 Cr	Yes	27.03.2023	81.59 Cr	Liquid Waste Management in Imphal IMC areas.
TA & HILLS	7.00 Cr	No		Nil	
ENVT. & C C	97.72 Cr	Yes	18.12.2021	89.42 Cr	Rejuvenation of polluted river namely Nambul River

RD & PR	16.36 Cr	No		4.60 Cr	218 compost pit constructed and 471 under construction

Note :
TC & I = Trade Commerce and Industries
Envt & CC = Environment and Climate Change

2. Sewage Management in the State

(A) Sewage Status Estimation and Measurement		(B) Sewage Conveyance/sewers			
	Total Sewage Generation per day (in MLD)	**Intervention with Agency / line department**	**Targeted Household to be connected to sewers**	**House holds connected**	**Time targets to complete connectivity (gap in connectivity)**
Urban	70	STP by PHED	51,754	8,600	2027
		FSTP by Envt & CC	2,28,601	Nil	2027
		I & D (Interception & Diversion) and STP by Envt & CC	No specific household connected directly to the sewers since the intervention is Interception & Diversion (I & D) of drains falling into the Nambul River		completed
		FSTP by MAHUD	No specific household connected directly to the sewers since the intervention is FSTP		
Rural	48		Under Planning	Under Planning	
Hills	66		Under Planning	Under Planning	
Total	**184**		**2,80,355**	**8,600**	

*Basis of estimation (based on 80% of lpcd water supply)

Note :

PHED = Public Health Engineering Department
STP = Sewerage Treatment Plant
FSTP = Fecal Sludge Treatment Plant

2.1 Drains

		Sewage and Sullage flowing in open (No. of drains)	**Flow in each drain (MLD)	Quality / Charac-teristics of effluent	Quantity of industrial effluent discharged in drain (MLD)	Final point of discharge of drain	Time bound action plan to prevent sewage discharge into drain
Urban	STP by PHED	Only sewage household connection	Only sewage household connection	Only sewage household connection	Only sewage household connection	Only sewage household connection	
	I & D (Interception & Diversion) and STP by Envt & CC	72	17	BOD = 42.45 to 52.34 mgL COD =78.56 to 97.23 mgL	Nil	Nambul River at Heirangoithong & Iroishemba	
Rural	Under inventory						
Hills	Under inventory						
	Total	**72**	**17**				

2.2 (i) Sewage treatment and Utilization

		Installed Treatment capacities of existing STPs (MLD)	Utilisation capacity of existing STPs (MLD)	Gap in sewage generation and treatment (MLD)	Time bound plan to set up and operationalise STPs
Urban	STP by PHED	27	21.59	36.11	2027
	FSTP by Envt & CC	Nil	Nil		Nil
	I & D (Interception & Diversion) and STP by Envt & CC	17	12.30		Operational
Rural		No STP under PHED	No STP under PHED	48	
Hills		No STP under PFED	No STP under PFED	66	
	Total	**44**	**33.89**	**150.11**	

2.2 (ii) Sewage treatment and Utilization

		Performance of STPs with reference to Standards	Final point of discharge of treated effluent	Level of Utilisation of Treated sewage	Sludge generation and its management
Urban	STP by PHED	Good	Lamphelpat Waterbody	Lamphelpat Waterbody	In planning stage
	FSTP by Envt & CC	Nil	Nil	Nil	Nil
	I & D (Interception & Diversion) and STP by Envt & CC	Good	Nambul River	Agriculture	In planning stage
	FSTP by MAHUD	Good	Nambul River	Agriculture	In planning stage
Rural	Under inventory				
Hills	Under inventory				

3. In above to the information afore given, clarification/reply to the observations on compliance status made by the Hon'ble Tribunal in para no.4 of the Order dated 13/09/2024 in O. A No. 606 of 2018 is given as follows for necessary consideration:

	Analysis/ observation of the Hon'ble NGT	**Necessary clarification/reply**
A	**Solid Waste Management**	
i	It is reported that 27 ULBs (Urban areas) generate 293 TPD of solid waste out of which 146 TPD is being processed and 53 TPD is disposed at controlled site. However, the meaning of "controlled disposal" has not been disclosed.	ULBs have designated sites for disposing waste. The site are properly fenced/restricted to general public to maintain the ecosystem. Wet waste is used for composting and recyclable waste are segregated. The remaining portion is transferred to the lone treatment plant at Lamdeng, Solid Waste Management Plant.
ii	Details of processing either through MRF or waste getting composted at the household level and utilised as animal feed have not been given. Therefore, the gap reported can not be accepted. The next report should give details in a quantified manner about waste getting transported to the processing centres and waste getting processed at the household level.	The following are the waste processing modules: **Wet Waste:** • Home Composting • Composting through Compost pit. • Production of Compost by segregation using machine (example trommel, conveyor belt, etc) • Composting through Windrow method, etc. • Animal feed: Segregated wet waste used as edible biomass for animal feed. **Dry Waste:** • Sales to recyclers. • Segregation. Copy of the waste processing modules of the ULBs wise is enclosed **as <u>Annexure-A/10</u>**
iii	For rural areas, from 18 Model Gram Panchayats, 9.77 TPD of waste is generated and no processing is done. Instead, the entire waste is	From 18 model GP, total of 29.20 TPD of solid waste is generated calculating at 300 gm/capita

	Analysis/ observation of the Hon'ble NGT	**Necessary clarification/reply**
	disposed of at a controlled site	
iv	Figures disclosed in Annexure 1/B indicate that except Imphal, the rest of the ULBs generate waste between 1 to 10 TPD and accordingly, waste processing modules should be adopted.	Details of the waste processing modules in ULB wise of Solid Waste Management is enclosed as **Annexure-A/11**
v	We also find that no disclosure has been made for legacy waste, particularly for Imphal and remediation of such waste.	• Capping' is being planned for Legacy Waste at Lamdeng, Imphal: The untreated waste piled up at the landfill of the Lamdeng, Solid Waste Management Plant, Imphal is estimated to be around 30000 tones. The state government has prepared a DPR for upgradation of the said plant by injecting a sum of Rs. 65.00 Crore from SASCI fund. The waste currently piled up at the plant will be 'capped' as a part of the upgradation plan (1 lakh ton of legacy waste at Lamdeng, Solid Waste management Plant was bioremediated by March 2024).

<table>
<tr><td></td><td>Analysis/ observation of the Hon’ble NGT</td><td>Necessary clarification/reply</td></tr>
<tr><td></td><td></td><td>DUMPSITE REMEDIATION (LEGACY WASTE) (SOLID WASTE MANAGEMENT) under SBM (Urban) 2.0
<table>
<tr><th rowspan="2">SN</th><th rowspan="2">ULB Name</th><th rowspan="2">Quantity of Waste at Dumpsite (Tonnes)</th><th colspan="2">Cost per Tonne for Dumpsite Remediation (INR Lakhs)</th></tr>
<tr><th>Central assistance under SBM 2.0 (90%)</th><th>State Assistance (10%)</th></tr>
<tr><td>1</td><td>Thoubal MC</td><td>29,911</td><td>148.06</td><td>16.45</td></tr>
<tr><td>2</td><td>Kakching MC</td><td>18,000</td><td>89.1</td><td>9.9</td></tr>
<tr><td>3</td><td>Bishnupur MC</td><td>4,083</td><td>20.21</td><td>2.25</td></tr>
<tr><td>4</td><td>Nambol MC</td><td>8,383</td><td>41.5</td><td>4.61</td></tr>
<tr><td colspan="2">Grand Total</td><td>60,377</td><td>298.87</td><td>33.21</td></tr>
</table>
Searching suitable land for alternate Treatment Plant.</td></tr>
<tr><td>B</td><td>Sewage Management</td><td></td></tr>
<tr><td>i</td><td>Sewage generation in urban areas is 70 MLD and existing treatment facilities are for 44 MLD (27 MLD for Imphal Phase I and II and 17 MLD under Nambul rejuvenation).</td><td>27 MLD: Operational</td></tr>
<tr><td>ii</td><td>There is no disclosure about utilisation of treatment capacities and performance of two STPs and the final mode of disposal of treated effluents.</td><td>For 27 MLD: Utilisation capacity is 21.59 MLD
Final mode of disposal: Lamphelpat waterbody
For 16 MLD : Utilization capacity is 11.50 MLD
Final mode of disposal : Nambul River</td></tr>
<tr><td>iii</td><td>We find that no details are provided about treatment and utilization by</td><td>The central ministry has approved FSTPs to ensure that all used water is safely contained, transported</td></tr>
</table>

	Analysis/ observation of the Hon'ble NGT	**Necessary clarification/reply**
	other ULBs like Thoubal, Kakching, Jiri, Bishnupur and others. The next report should cover the details of these ULBs.	and treated, along with maximum reuse of treated water in all cities with less than 1 lakh population. **Annexure A 12** is the status of used water management in Urban areas of the state.
iv	Much reliance is placed on septic tanks and twin soak pits. The next report should clarify adopting modular decentralized treatment systems to protect natural water courses and rivers, particularly in hilly terrain	The existing reliance on septic tanks and twin soak pits in the hilly regions of Manipur is contextually appropriate, given the following considerations: **Low Population Density and Water Consumption:** The hilly areas of Manipur have sparsely settled populations with low water consumption levels. This significantly reduces the quantum of wastewater generated, making household-level sanitation systems feasible and effective. **Geographic Constraints on Centralized Treatment:** Due to the difficult terrain and scattered settlements, centralized sewage treatment systems are not viable. Modular, household-level sanitation systems like septic tanks and twin pits are more suitable and are being effectively managed at the local level. **Lack of Conventional Drainage Systems:** There is minimal presence of underground drainage infrastructure in these areas. **Compliance with SBM-G Guidelines:** The twin pits and septic tanks are constructed following the SBM-G manual, specifically in locations

	Analysis/ observation of the Hon'ble NGT	Necessary clarification/reply
		where the water table is more than 10 ft deep. **Support from Jal Jeevan Mission (JJM):** The JJM ensures the provision of safe and adequate drinking water to all households, thereby further supporting public health and minimizing risks associated with waterborne diseases. The current sanitation systems are contextually appropriate and sustainable for the region. However, for long-term water resource protection, it is being planned for taking up nature based decentralized treatment systems like DEWATS and Inline treatment systems for ten rural villages on pilot scale especially where settlements are dense or near water bodies. The DPR has been prepared and will seek for project funding.
C	**Ring fence Account**	
i	We find that more than 90% of physical progress is shown against the expenditure incurred but, it is not matching with the data on sewage and solid waste management to cover up the gap. In rural and hilly locations, financial and physical progress is not satisfactory	• Considering the gap in the financial and physical progress, against the expenditure incurred, and to improve the physical progress of effective handling of Solid Waste and Sewage management in urban areas, the amount of 21.50 Cr. has been fully utilized. • The physical progress mentioned is against the quantum of work for which the expenditure incurred is claimed from the Ring-fenced amount. Individual Household Latrines with twin pit system have been constructed under SBM (G) for rural and hill areas. 8600 households out of a total target of 51754 households have been provided with sewage

	Analysis/ observation of the Hon'ble NGT	Necessary clarification/reply
		household connection and the remaining are targeted to be completed by 2027. • For Solid Waste management in urban areas and for the Integrated Sewerage system for the city of Imphal Phase-II which is a project for managing liquid waste in Imphal Municipal areas, there are also dedicated heads of account for MAHUD and PHED respectively.

ANNEXURE – A/1

SOLID WASTE MANAGEMENT IN MANIPUR STATE

ULBs		Waste Gener-ation in TPD	Composition of Waste			Waste collected TPD	Waste Transp-orted TPD	Final destination of transported waste
			Bio - degradable	Dry / Recyclable	Inerts			
A	**URBAN**							
1	Imphal MC	166.00	91.00	58.00	17.00	130.00	130.00	Lamdeng Solid waste Mangement Plant, Lamdeng as cluster
2	Lamshang MC	2.92	1.72	0.90	0.30	1.30	1.30	
3	Samurou MC	5.98	3.58	1.50	0.90	3.47	3.47	
4	Thongkhong Laxmi MC	6.14	4.10	1.84	0.20	1.40	1.40	
5	Sekmai MC	2.14	1.38	0.20	0.56	1.20	1.20	
6	Lilong IW MC	5.13	3.90	1.03	0.20	1.10	1.10	
7	Wangoi MC	4.07	2.26	1.47	0.34	1.45	1.45	
8	Thoubal MC	18.95	10.99	6.44	1.52	9.30	9.30	Toubal Waste Management Plant Site as Cluster
9	Yairipok MC	3.85	2.55	0.30	1.00	1.60	1.60	
10	Mayang Imphal MC	10.31	6.19	3.09	1.03	6.00	6.00	Transported all the collected solid wastes to their individual Solid Waste Management Plant Sites of all the ULBs
11	Lamlai MC	1.90	1.14	0.63	0.13	0.81	0.81	
12	Andro MC	3.61	2.16	1.10	0.35	0.90	0.90	
13	Sikhong Sekmai MC	1.95	1.39	0.45	0.11	0.56	0.56	
14	Lilong TBL MC	9.44	6.20	2.40	0.84	2.74	2.74	
15	Heirok MC	1.23	0.98	0.14	0.11	0.50	0.50	
16	Wangjing Lamding MC	3.32	2.79	0.33	0.20	1.10	1.10	
17	Kakching MC	13.26	8.84	3.09	1.33	8.58	8.58	
18	Kakching Khunou MC	4.69	2.81	1.41	0.47	1.30	1.30	
19	Sugnu MC	2.12	1.27	0.64	0.21	0.88	0.88	
20	Kumbi MC	3.93	2.44	1.45	0.04	2.15	2.15	
21	Kwakta MC	3.54	2.00	1.36	0.18	2.14	2.14	
22	Moirang MC	8.19	5.65	1.49	1.05	5.40	5.40	
23	Ningthoukhong MC	7.51	5.48	1.50	0.53	5.00	5.00	
24	Bishnupur MC	5.00	3.00	1.50	0.50	3.50	3.50	
25	Oinam MC	2.70	1.55	1.00	0.15	2.00	2.00	
26	Nambol MC	8.49	4.25	2.97	1.27	4.30	4.30	
27	Jiribam MC	2.55	1.48	0.77	0.30	2.55	2.55	
	Sub Total Urban	**308.92**	**181.10**	**97.00**	**30.82**	**201.23**	**201.23**	

ULBs		Waste Gener-ation in TPD	Composition of Waste			Waste collected TPD	Waste Transp-orted TPD	Final destination of transported waste
			Bio - degradable	Dry / Recyclable	Inerts			
B	**RURAL (18 Model Village)**							
1	Luwangsangbam	2.13	73%	20%	7%	0.00	0.00	Lamdeng Solid Waste Management Plant site
2	Top Dusara	1.36	73%	20%	7%	0.43	0.43	
3	Thongju Pt-I	1.51	73%	20%	7%	0.34	0.34	
4	Langjing	1.18						
5	Bijoygovinda	1.45						
6	Sagolband Sapam Leikai	1.59						
7	Charangpat	1.60						
8	Khangabok Pt-I	2.34						
9	Tentha	1.36						
10	Hiyanglam	1.18						
11	Mayeng Lamjao,	2.34						
12	Waikhong	1.65						
13	Hilghat	1.47						
14	Dibong	1.50						
15	Sonapur	1.51						
16	Keinou	1.18						
17	ThangaPt-II	2.34						
18	Saiton	1.45						
	Sub Total Rural	**29.20**	**73%**	**20%**	**7%**	**0.93**	**0.93**	
C	**HILL (30 Model Village)**							
1	Rengkai							
2	Hiangtam Lamka							
3	Tuibong							
4	Pherzawl							
5	Parbung							
6	Thanlon							
7	Chandel							
8	Chakpikarong							
9	Sugnu Tribal Area							
10	Tengnoupal							
11	Moreh							
12	Machi							
13	Kangpokpi							

ULBs		Waste Gener-ation in TPD	Composition of Waste			Waste collected TPD	Waste Transp-orted TPD	Final destination of transported waste
			Bio - degradable	Dry / Recyclable	Inerts			
14	Saikul							
15	Motbung							
16	Katomei Village							
17	Oinam Hill							
18	Song Song Village							
19	Tamenglong							
20	Tamei							
21	Tousem							
22	Longmai							
23	Nungba / Rongdai							
24	Khoupum							
25	Ukhrul							
26	Hungoung							
27	Halang							
28	Kamjong							
29	Phungyar							
30	Khamlang							
	Sub Total Hills							

ANNEXURE – A/2

WASTE PROCESSING : COMPOSTING OF SOLID WASTE IN URBAN AREA, MANIPUR STATE

ULBs		Intake quantity (TPD)	Method adopted	Output quantity as Compost (TPD)	Quality	Residue and Rejects and Management	Utilization of compost
1	Imphal MC	30.00	Aerobic Composting	3.00	Average	All in the central landfill (now)	Self utilized by ULB for beautification of the city & some are sold at Rs. 4 to 6 kg
2	Thoubal MC	3.50	Aerobic Composting	1.00	Good (Tested in ICAR, Imphal & to test third time shortly		Self Utilised & Sales started to local famers Rs. 4 to 6 / kg
3	Kakching MC	6.00	Aerobic Composting	0.07	Good (Tested at ICAR, Manipur)	Used as raw material/ catalyst for further composting	Gardening & farming
4	Lilong (Tbl) MC	0.10	Aerobic Composting		Submitted for testing	Used as raw material/ catalyst for further composting	Gardening & farming
5	Mayang Imphal MC	0.84	Aerobic	0.12	For quality certification, it is in progress	SWM Plant	General public, Local Farmers
6	Nambol MC	0.50	Aerobic	0.10	Sent for testing	Dumpsite	Local Farmers
7	Moirang MC	4.00	Pit composting	1.50	Send for testing, result awaiting	Nil	Utilised by the Council
8	Samurou MC		Nil		Nil	Nil	Utilized by the Council
9	Thongkhong Laxmi MC	0.10	Aerobic Composting		Submitted for testing	Used as raw material/ catalyst for further composting	Gardening & farming
10	Ningthoukhong MC	0.10	Aerobic	0.24	Sent for testing	Dumpsite	Local Farmers

ULBs		Intake quantity (TPD)	Method adopted	Output quantity as Compost (TPD)	Quality	Residue and Rejects and Management	Utilization of compost
11	Lilong (IW) MC	0.50	Aerobic Composting		Submitted for testing	All the end products are utilised for agricultural purposes	As fertilizer
12	Bishnupur MC	1.20	Aerobic	0.24	Sent for testing	Dumpsite	Local Farmers
13	Kakching Khunou MC	0.10	Aerobic Composting		Not Yet Tested	Used as raw material/ catalyst for further composting	Gardening & farming
14	Yairipok MC		Nil		Nil	Nil	Nil
15	Kumbi MC	3.00	Pit Method	0.50	Send for testing, result awaiting	Nil	Home gardening
16	Wangoi MC		Nil		Nil	Nil	Nil
17	Andro MC	0.10	Aerobic Composting		Not Yet Tested	Used as raw material/ catalyst for further composting	Gardening & farming
18	Kwakta MC	0.03	Aerobic Composting		Sent for testing	Mini Dumpsite	Home gardening
19	Lamshang MC	0.10	Aerobic Composting	0.35	Not Yet Tested	Reidue reused for recomposting. Inerts if found is segregated and taken to Lamdeng Waste Plant.	Gardening & farming
20	Wangjing Lamding MC	0.20	Aerobic Composting		Not Yet Tested	Used as raw material/ catalyst for further composting	Gardening & farming
21	Shikhong Sekmai MC	0.56	Aerobic Composting		Nil	Nil	Not Yet Done
22	Jiribam MC	1.48	Aerobic Composting and Windrow composting	0.09	N - 2.5%, P - 0.4%, K - 2.1% as per Test Report ICAR, Imphal, dated 18-12-2020. Due to	Sanitary landfill	Selling to farmers, general publics, utilised at banana farms, Gardens and

ULBs		Intake quantity (TPD)	Method adopted	Output quantity as Compost (TPD)	Quality	Residue and Rejects and Management	Utilization of compost
					social unrest in Manipur and distance, unable to test timely. But test will be done soon.		plants grown by the Council
23	Oinam MC	0.02	Aerobic Composting		Sent for testing	Mini-Dumpsite	Home gardening
24	Sugnu MC	0.10	Aerobic Composting		Not Yet Tested	Used as raw material/ catalyst for further composting	Gardening & farming
25	Sekmai MC	0.20	Aerobic Composting	0.37	Not Yet Tested	Reidue reused for composting. Inerts if found is segregated and taken to Lamdeng Waste Plant.	Gardening & farming
26	Lamlai MC	2.15	Aerobic Composting	0.08	Good	NIl	Use by Staff
27	Heirok MC	0.10	Aerobic Composting		Not Yet Tested	Used as raw material/ catalyst for further composting	Gardening & farming
	Sub Total Urban	**54.98**	Aerobic, Pit & Window composting	**7.66**	N - 2.5%, P - 0.4%, K - 2.1%	Landfill and used as raw material/ catalyst for further composting at some ULBs	Home Gardening & farming
B	**RURAL (18 Model Village)**						
1	Luwangsangbam						
2	Top Dusara						
3	Thongju Pt-I						
4	Langjing						
5	Bijoygovinda						

ULBs		Intake quantity (TPD)	Method adopted	Output quantity as Compost (TPD)	Quality	Residue and Rejects and Management	Utilization of compost
6	Sagolband Sapam Leikai						
7	Charangpat						
8	Khangabok Pt-I						
9	Tentha						
10	Hiyanglam						
11	Mayeng Lamjao,						
12	Waikhong						
13	Hilghat						
14	Dibong						
15	Sonapur						
16	Keinou						
17	ThangaPt-II						
18	Saiton						
	Sub Total Rural						
C	**HILL (30 Model Village)**						
1	Rengkai						
2	Hiangtam Lamka						
3	Tuibong						
4	Pherzawl						
5	Parbung						
6	Thanlon						
7	Chandel						
8	Chakpikarong						
9	Sugnu Tribal Area						
10	Tengnoupal						
11	Moreh						
12	Machi						
13	Kangpokpi						
14	Saikul						

ULBs		Intake quantity (TPD)	Method adopted	Output quantity as Compost (TPD)	Quality	Residue and Rejects and Management	Utilization of compost
15	Motbung						
16	Katomei Village						
17	Oinam Hill						
18	Song Song Village						
19	Tamenglong						
20	Tamei						
21	Tousem						
22	Longmai						
23	Nungba / Rongdai						
24	Khoupum						
25	Ukhrul						
26	Hungoung						
27	Halang						
28	Kamjong						
29	Phungyar						
30	Khamlang						
	Sub Total Hills						

ANNEXURE – A/3

WASTE PROCESSING : REFUSED DERIVED FUEL OF SOLID WASTE IN URBAN AREA, MANIPUR

ULBs		Capacity of Plant	Sources of waste for making RDF	RDF produced	Residue / Reject Management	Utilization of RDF
1	Imphal MC	• Installed one plant for Due to non-availability and limited market, the plant has ceased the production of RDF. • The nearest market for RDF (cement factory etc.) is located at Assam, whereas, the cost for transportation is very expensive, not financially viable	Under Inventory	Nil	Not now	Not now
2	Lamshang MC	No plant	Under Inventory	Nil	Not now	Not now
3	Samurou MC	No plant	Under Inventory	Nil	Not now	Not now
4	Thongkhong Laxmi MC	No plant	Under Inventory	Nil	Not now	Not now
5	Sekmai MC	No plant	Under Inventory	Nil	Not now	Not now
6	Lilong IW MC	No plant	Under Inventory	Nil	Not now	Not now
7	Mayang Imphal MC	No plant	Under Inventory	Nil	Not now	Not now
8	Wangoi MC	No plant	Under Inventory	Nil	Not now	Not now
9	Lamlai MC	No plant	Under Inventory	Nil	Not now	Not now
10	Andro MC	No plant	Under Inventory	Nil	Not now	Not now
11	Thoubal MC	No plant	Under Inventory	Nil	Not now	Not now
12	Yairipok MC	No plant	Under Inventory	Nil	Not now	Not now

ULBs		Capacity of Plant	Sources of waste for making RDF	RDF produced	Residue / Reject Management	Utilization of RDF
13	Sikhong Sekmai MC	No plant	Under Inventory	Nil	Not now	Not now
14	Lilong TBL MC	No plant	Under Inventory	Nil	Not now	Not now
15	Heirok MC	No plant	Under Inventory	Nil	Not now	Not now
16	Wangjing Lamding MC	No plant	Under Inventory	Nil	Not now	Not now
17	Kakching MC	No plant	Under Inventory	Nil	Not now	Not now
18	Kakching Khunou MC	No plant	Under Inventory	Nil	Not now	Not now
19	Sugnu MC	No plant	Under Inventory	Nil	Not now	Not now
20	Kumbi MC	No plant	Under Inventory	Nil	Not now	Not now
21	Kwakta MC	No plant	Under Inventory	Nil	Not now	Not now
22	Moirang MC	No plant	Under Inventory	Nil	Not now	Not now
23	Ningthoukhong MC	No plant	Under Inventory	Nil	Not now	Not now
24	Bishnupur MC	No plant	Under Inventory	Nil	Not now	Not now
25	Oinam MC	No plant	Under Inventory	Nil	Not now	Not now
26	Nambol MC	No plant	Under Inventory	Nil	Not now	Not now
27	Jiribam MC	No plant	Under Inventory	Nil	Not now	Not now
	Sub Total Urban	No plant	Under Inventory	Nil	Not now	Not now
		No plant				
B	**RURAL (18 Model Village)**	No plant	Under Inventory	Nil	Not now	Not now
1	Luwangsangbam	No plant	Under Inventory	Nil	Not now	Not now
2	Top Dusara	No plant	Under Inventory	Nil	Not now	Not now
3	Thongju Pt-I	No plant	Under Inventory	Nil	Not now	Not now
4	Langjing	No plant	Under Inventory	Nil	Not now	Not now
5	Bijoygovinda	No plant	Under Inventory	Nil	Not now	Not now
6	Sagolband Sapam Leikai	No plant	Under Inventory	Nil	Not now	Not now

ULBs		Capacity of Plant	Sources of waste for making RDF	RDF produced	Residue / Reject Management	Utilization of RDF
7	Charangpat	No plant	Under Inventory	Nil	Not now	Not now
8	Khangabok Pt-I	No plant	Under Inventory	Nil	Not now	Not now
9	Tentha	No plant	Under Inventory	Nil	Not now	Not now
10	Hiyanglam	No plant	Under Inventory	Nil	Not now	Not now
11	Mayeng Lamjao,	No plant	Under Inventory	Nil	Not now	Not now
12	Waikhong	No plant	Under Inventory	Nil	Not now	Not now
13	Hilghat	No plant	Under Inventory	Nil	Not now	Not now
14	Dibong	No plant	Under Inventory	Nil	Not now	Not now
15	Sonapur	No plant	Under Inventory	Nil	Not now	Not now
16	Keinou	No plant	Under Inventory	Nil	Not now	Not now
17	ThangaPt-II	No plant	Under Inventory	Nil	Not now	Not now
18	Saiton	No plant	Under Inventory	Nil	Not now	Not now
	Sub Total Rural	No plant	Under Inventory	Nil	Not now	Not now
		No plant	Under Inventory	Nil	Not now	Not now
C	**HILL (30 Model Village)**	No plant	Under Inventory	Nil	Not now	Not now
1	Rengkai	No plant	Under Inventory	Nil	Not now	Not now
2	Hiangtam Lamka	No plant	Under Inventory	Nil	Not now	Not now
3	Tuibong	No plant	Under Inventory	Nil	Not now	Not now
4	Pherzawl	No plant	Under Inventory	Nil	Not now	Not now
5	Parbung	No plant	Under Inventory	Nil	Not now	Not now
6	Thanlon	No plant	Under Inventory	Nil	Not now	Not now
7	Chandel	No plant	Under Inventory	Nil	Not now	Not now
8	Chakpikarong	No plant	Under Inventory	Nil	Not now	Not now
9	Sugnu Tribal Area	No plant	Under Inventory	Nil	Not now	Not now
10	Tengnoupal	No plant	Under Inventory	Nil	Not now	Not now
11	Moreh	No plant	Under Inventory	Nil	Not now	Not now

ULBs		Capacity of Plant	Sources of waste for making RDF	RDF produced	Residue / Reject Management	Utilization of RDF
12	Machi	No plant	Under Inventory	Nil	Not now	Not now
13	Kangpokpi	No plant	Under Inventory	Nil	Not now	Not now
14	Saikul	No plant	Under Inventory	Nil	Not now	Not now
15	Motbung	No plant	Under Inventory	Nil	Not now	Not now
16	Katomei Village	No plant	Under Inventory	Nil	Not now	Not now
17	Oinam Hill	No plant	Under Inventory	Nil	Not now	Not now
18	Song Song Village	No plant	Under Inventory	Nil	Not now	Not now
19	Tamenglong	No plant	Under Inventory	Nil	Not now	Not now
20	Tamei	No plant	Under Inventory	Nil	Not now	Not now
21	Tousem	No plant	Under Inventory	Nil	Not now	Not now
22	Longmai	No plant	Under Inventory	Nil	Not now	Not now
23	Nungba / Rongdai	No plant	Under Inventory	Nil	Not now	Not now
24	Khoupum	No plant	Under Inventory	Nil	Not now	Not now
25	Ukhrul	No plant	Under Inventory	Nil	Not now	Not now
26	Hungoung	No plant	Under Inventory	Nil	Not now	Not now
27	Halang	No plant	Under Inventory	Nil	Not now	Not now
28	Kamjong	No plant	Under Inventory	Nil	Not now	Not now
29	Phungyar	No plant	Under Inventory	Nil	Not now	Not now
30	Khamlang	No plant	Under Inventory	Nil	Not now	Not now
	Sub Total Hills	No plant	Under Inventory	Nil	Not now	Not now

ANNEXURE – A/4

WASTE PROCESSING : WASTE TO ENERGY OF SOLID WASTE IN URBAN AREA, MANIPUR

SN	ULBs	Plant capacity	Daily inputs of feed	Sources of waste	Output (Energy)	Residue / Rejects management	Fly ash and Bottom Ash management
1	Imphal MC	Nil	Nil	Nil	Nil	Nil	Nil
2	Lamshang MC	Nil	Nil	Nil	Nil	Nil	Nil
3	Samurou MC	Nil	Nil	Nil	Nil	Nil	Nil
4	Thongkhong Laxmi MC	Nil	Nil	Nil	Nil	Nil	Nil
5	Sekmai MC	Nil	Nil	Nil	Nil	Nil	Nil
6	Lilong IW MC	Nil	Nil	Nil	Nil	Nil	Nil
7	Mayang Imphal MC	Nil	Nil	Nil	Nil	Nil	Nil
8	Wangoi MC	Nil	Nil	Nil	Nil	Nil	Nil
9	Lamlai MC	Nil	Nil	Nil	Nil	Nil	Nil
10	Andro MC	Nil	Nil	Nil	Nil	Nil	Nil
11	Thoubal MC	Nil	Nil	Nil	Nil	Nil	Nil
12	Yairipok MC	Nil	Nil	Nil	Nil	Nil	Nil
13	Sikhong Sekmai MC	Nil	Nil	Nil	Nil	Nil	Nil
14	Lilong TBL MC	Nil	Nil	Nil	Nil	Nil	Nil
15	Heirok MC	Nil	Nil	Nil	Nil	Nil	Nil
16	Wangjing Lamding MC	Nil	Nil	Nil	Nil	Nil	Nil
17	Kakching MC	Nil	Nil	Nil	Nil	Nil	Nil
18	Kakching Khunou MC	Nil	Nil	Nil	Nil	Nil	Nil
19	Sugnu MC	Nil	Nil	Nil	Nil	Nil	Nil
20	Kumbi MC	Nil	Nil	Nil	Nil	Nil	Nil
21	Kwakta MC	Nil	Nil	Nil	Nil	Nil	Nil
22	Moirang MC	Nil	Nil	Nil	Nil	Nil	Nil
23	Ningthoukhong MC	Nil	Nil	Nil	Nil	Nil	Nil
24	Bishnupur MC	Nil	Nil	Nil	Nil	Nil	Nil
25	Oinam MC	Nil	Nil	Nil	Nil	Nil	Nil
26	Nambol MC	Nil	Nil	Nil	Nil	Nil	Nil
27	Jiribam MC	Nil	Nil	Nil	Nil	Nil	Nil
	Sub Total Urban	Nil	Nil	Nil	Nil	Nil	Nil

SN	ULBs	Plant capacity	Daily inputs of feed	Sources of waste	Output (Energy)	Residue / Rejects management	Fly ash and Bottom Ash management
B	**RURAL (18 Model Village)**						
1	Luwangsangbam	Nil	Nil	Nil	Nil	Nil	Nil
2	Top Dusara	Nil	Nil	Nil	Nil	Nil	Nil
3	Thongju Pt-I	Nil	Nil	Nil	Nil	Nil	Nil
4	Langjing	Nil	Nil	Nil	Nil	Nil	Nil
5	Bijoygovinda	Nil	Nil	Nil	Nil	Nil	Nil
6	Sagolband Sapam Leikai	Nil	Nil	Nil	Nil	Nil	Nil
7	Charangpat	Nil	Nil	Nil	Nil	Nil	Nil
8	Khangabok Pt-I	Nil	Nil	Nil	Nil	Nil	Nil
9	Tentha	Nil	Nil	Nil	Nil	Nil	Nil
10	Hiyanglam	Nil	Nil	Nil	Nil	Nil	Nil
11	Mayeng Lamjao,	Nil	Nil	Nil	Nil	Nil	Nil
12	Waikhong	Nil	Nil	Nil	Nil	Nil	Nil
13	Hilghat	Nil	Nil	Nil	Nil	Nil	Nil
14	Dibong	Nil	Nil	Nil	Nil	Nil	Nil
15	Sonapur	Nil	Nil	Nil	Nil	Nil	Nil
16	Keinou	Nil	Nil	Nil	Nil	Nil	Nil
17	ThangaPt-II	Nil	Nil	Nil	Nil	Nil	Nil
18	Saiton	Nil	Nil	Nil	Nil	Nil	Nil
	Sub Total Rural	Nil	Nil	Nil	Nil	Nil	Nil
C	**HILL (30 Model Village)**						
1	Rengkai	Nil	Nil	Nil	Nil	Nil	Nil
2	Hiangtam Lamka	Nil	Nil	Nil	Nil	Nil	Nil
3	Tuibong	Nil	Nil	Nil	Nil	Nil	Nil
4	Pherzawl	Nil	Nil	Nil	Nil	Nil	Nil
5	Parbung	Nil	Nil	Nil	Nil	Nil	Nil
6	Thanlon	Nil	Nil	Nil	Nil	Nil	Nil
7	Chandel	Nil	Nil	Nil	Nil	Nil	Nil
8	Chakpikarong	Nil	Nil	Nil	Nil	Nil	Nil
9	Sugnu Tribal Area	Nil	Nil	Nil	Nil	Nil	Nil
10	Tengnoupal	Nil	Nil	Nil	Nil	Nil	Nil
11	Moreh	Nil	Nil	Nil	Nil	Nil	Nil
12	Machi	Nil	Nil	Nil	Nil	Nil	Nil

SN	ULBs	Plant capacity	Daily inputs of feed	Sources of waste	Output (Energy)	Residue / Rejects management	Fly ash and Bottom Ash management
13	Kangpokpi	Nil	Nil	Nil	Nil	Nil	Nil
14	Saikul	Nil	Nil	Nil	Nil	Nil	Nil
15	Motbung	Nil	Nil	Nil	Nil	Nil	Nil
16	Katomei Village	Nil	Nil	Nil	Nil	Nil	Nil
17	Oinam Hill	Nil	Nil	Nil	Nil	Nil	Nil
18	Song Song Village	Nil	Nil	Nil	Nil	Nil	Nil
19	Tamenglong	Nil	Nil	Nil	Nil	Nil	Nil
20	Tamei	Nil	Nil	Nil	Nil	Nil	Nil
21	Tousem	Nil	Nil	Nil	Nil	Nil	Nil
22	Longmai	Nil	Nil	Nil	Nil	Nil	Nil
23	Nungba / Rongdai	Nil	Nil	Nil	Nil	Nil	Nil
24	Khoupum	Nil	Nil	Nil	Nil	Nil	Nil
25	Ukhrul	Nil	Nil	Nil	Nil	Nil	Nil
26	Hungoung	Nil	Nil	Nil	Nil	Nil	Nil
27	Halang	Nil	Nil	Nil	Nil	Nil	Nil
28	Kamjong	Nil	Nil	Nil	Nil	Nil	Nil
29	Phungyar	Nil	Nil	Nil	Nil	Nil	Nil
30	Khamlang	Nil	Nil	Nil	Nil	Nil	Nil
	Sub Total Hills	Nil	Nil	Nil	Nil	Nil	Nil

ANNEXURE – A/5

WASTE PROCESSING : OTHER PROCESSING OF SOLID WASTE IN URBAN AREA, MANIPUR

ULBs		Quantity of inputs	Quality of inputs	Products and it's utilization	Residue / Reject management
1	Imphal MC	Nil	Nil	Nil	Nil
2	Thoubal MC	Nil	Nil	Nil	Nil
3	Kakching MC	0.39	Good	Plastics & Cardboards for Recycling	Nil
4	Lilong (Thoubal) MC	0.4	Good	Plastics & Cardboards for Recycling	Nil
5	Mayang Imphal MC	Nil	Nil	Nil	Nil
6	Nambol MC	0.5	Direct sale of segregated plastic bottles and cardboards to recyclers	Recycled products of recyclers such as buckets, plastic water tanks, etc.	Nil
7	Moirang MC	0.07	Plastic bottles, alluminuam cans, cardboard	Resale plastic bottles, cardboard, all can	Nil
8	Samurou MC	0.04	Cardboard and plastic bottles	Resale of cardboard and plastics bottle	Nil
9	Thongkhong Laxmi MC	0.7	Nil	Plastics and Cardboards and given for to recyclers	Nil
10	Ningthoukhong MC	0.15	Direct sale of segregated plastic bottles and cardboards to recyclers	Recycled products of recyclers such as buckets, plastic water tanks, etc.	Nil
11	Lilong (IW) MC	0.4	Good	Plastics & Cardboards, iron metals etc. for Recycling	Nil

ULBs		Quantity of inputs	Quality of inputs	Products and it's utilization	Residue / Reject management
12	Bishnupur MC	0.5	Direct sale of segregated plastic bottles and cardboards to recyclers	Recycled products of recyclers such as buckets, plastic water tanks, etc.	Nil
13	Kakching Khunou MC	0.6	Good	Plastics & Cardboards for Recycling	Nil
14	Yairipok MC	Nil	Nil	Nil	Nil
15	Kumbi MC	0.05	Plastic bottles, alluminuam cans, cardboard	Resale plastic bottles, cardboard, all can	Nil
16	Wangoi MC	0.02	Cardboard and plastic bottles	Resale of cardboard and plastics bottle	Nil
17	Andro MC	0.3	Nil	Plastics & Cardboards for Recycling	Nil
18	Kwakta MC	0.08	Cardboard and plastic bottles	Plastics & Cardboards for Recycling	Nil
19	Lamshang MC	0.05	Nil	Plastics Bottle, metal & Cardboards	Nil
20	Wangjing Lamding MC	0.3	Good	Plastics & Cardboards for Recycling	Nil
21	Shikhong Sekmai MC	Sent to Recycler	Not yet quantified	Plastics, metals and Cardboards for Recycling	Nil
22	Jiribam MC	Nil	Nil	Nil	Nil
23	Oinam MC	0.07	Cardboard and plastic bottles	Plastics & Cardboards for Recycling	Nil
24	Sugnu MC	0.3	Good	Plastics & Cardboards for recycling	Nil
25	Sekmai MC	0.1	Nil	Recyclable plastics bottles and Cardboards	Nil

ULBs		Quantity of inputs	Quality of inputs	Products and it's utilization	Residue / Reject management
26	Lamlai MC	Nil	Nil	Nil	Nil
27	Heirok MC	0.2	Good	Plastics & Cardboards for recycling	Nil
	Sub Total Urban	**5.22**	**Good**	Plastics, metal & Cardboards for recycling	**Nil**
B	**RURAL (18 Model Village)**				
1	Luwangsangbam				
2	Top Dusara				
3	Thongju Pt-I				
4	Langjing				
5	Bijoygovinda				
6	Sagolband Sapam Leikai				
7	Charangpat				
8	Khangabok Pt-I				
9	Tentha				
10	Hiyanglam				
11	Mayeng Lamjao,				
12	Waikhong				
13	Hilghat				
14	Dibong				
15	Sonapur				
16	Keinou				
17	ThangaPt-II				
18	Saiton				
	Sub Total Rural				
C	**HILL (30 Model Village)**				
1	Rengkai				
2	Hiangtam Lamka				
3	Tuibong				
4	Pherzawl				
5	Parbung				
6	Thanlon				

ULBs		Quantity of inputs	Quality of inputs	Products and it's utilization	Residue / Reject management
7	Chandel				
8	Chakpikarong				
9	Sugnu Tribal Area				
10	Tengnoupal				
11	Moreh				
12	Machi				
13	Kangpokpi				
14	Saikul				
15	Motbung				
16	Katomei Village				
17	Oinam Hill				
18	Song Song Village				
19	Tamenglong				
20	Tamei				
21	Tousem				
22	Longmai				
23	Nungba / Rongdai				
24	Khoupum				
25	Ukhrul				
26	Hungoung				
27	Halang				
28	Kamjong				
29	Phungyar				
30	Khamlang				
	Sub Total Hills				

ANNEXURE – A/6

GAP IN SOLID WASTE MANAGEMENT IN URBAN AREA, MANIPUR

ULBs		Gap in Waste generation and Processing (TPD)	Time bound plan to fill up gap
1	Imphal MC	10.00	New machinery and capacity of the existing plant are being added and planning is underway for setting up a new plant at the state level by **01.03.2030**
2	Thoubal MC	0.52	Installed Conveyor belt, Glass crusher machine, fatka machnine, and it will be functional by 30th June 2025, Electricity arrangement is under process. Starts home composting, source segregation, reuse of PET bottles with IEC activities Door-to-Door Collection, senitization program for SHGs conducted at regular intervals and others.
3	Kakching MC	1.30	Construction of more composting units by **31.12.2025** Construction of other processing facilities & Remediation of Sanitary landfill by 30.06.2026
4	Lilong (Thoubal) MC	2.00	Plant to fill up the gap by 31.03.2026 through: Increasing IEC on Door to Door waste collection & Source segregation, Increase in manpower, Engagement of recyclers, Encouraging home composting, Capacity building in terms of man & machinery.
5	Mayang Imphal MC	1.02	Treatment Plant Composting pits and segregation sheds/ MRF are operational. Remaining collected waste sent to treatment plant at lamdeng,Imphal. Segregated recyclable waste sent to recycler. The ULB shall manage to mitigate the gap with intensified IEC on D2D collection, source segregation, mandatory payment of fees for D2D collection etc.
6	Nambol MC	3.50	Plant to fill up the gap by 31.03.2030 through: -Increase Machines, Manpower and Resources are required to make a time bound plan to fill the gap
7	Moirang MC	0.70	Trying to setting up own scientific management plant and man power. Planning to filling up the the gaps on 2027.
8	Samurou MC	1.00	Increase of manpower and machinery by june 2026 Increase in collection and transportation of waste to Lamdeng Solid Waste Management
9	Thongkhong Laxmi MC	1.14	Setting up of Council's own waste processing plant by next financial year, 31st March 2026.
10	Ningkthoukhong MC	3.20	Machines, Manpower and Resources are required to make a time bound plan to fill the gap.

ULBs		Gap in Waste generation and Processing (TPD)	Time bound plan to fill up gap
			Ningthoukhong Municipal Council will be utilising most of the available fund on SWM.Plant to fill up the gap by 31.03.2026 through.
11	Lilong (IW) MC	0.63	Construction of composting units, processing facilities etc. by 31.03.2026
12	Bishnupur MC	1.80	Plant to fill up the gap by 31.03.2030 through: Increase Machines, Manpower and Resources are required to make a time bound plan to fill the gap
13	Kakching Khunou MC	0.79	Plant to fill up the gap by 31.03.2026 through: -Increasing IEC on Door to Door waste collection & Source segregation, -Increase in manpower, -Engagement of recyclers, -Encouraging home composting, -Capacity building in terms of man & machinery.
14	Yairipok MC	0.35	Setting up of Council's own processing plant, 2027: Increased of men power, 2026: 90% of waste managed at source goes to Piggery and poultary farms and remaining goes to home composting.
15	Kumbi MC	0.47	Need to increase manpower and scientifically setting up equipments. Planning to fill up the gaps on 2027
16	Wangoi MC	0.53	• More awareness and behavioral change campaign required at State level • Increase of manpower and machinery by 30.06.2026 • Allotment of SWM land by 30.06.2026 • Setting up of a Solid Waste Management & Processing Facility of its own.
17	Andro MC	0.61	Plant to fill up the gap by 31.03.2026 through: -Increasing IEC on Door to Door waste collection & Source segregation, -Increase in manpower, -Engagement of recyclers, -Encouraging home composting, -Capacity building in terms of man & machinery.
18	Kwakta MC	1.40	Planning to fill up the gap by March, 2026 through: a) increasing IEC on D2D Waste Collection b) Engagement of Recycler c) Encouraging home composting d) Capacity Building in terms of Man and Machinery
19	Lamshang MC	0.22	Construction of more compost pits, capacity building in terms of men and machinery by 31.12.2026
20	Wangjing Lamding MC	0.53	Plant to fill up the gap by 31.03.2026 through: Increasing IEC on Door to Door waste collection &

ULBs		Gap in Waste generation and Processing (TPD)	Time bound plan to fill up gap
			Source segregation, Increase in manpower, Engagement of recyclers, Encouraging home composting, Capacity building in terms of man & machinery.
21	Shikhong Sekmai MC	Nil	Currently, there is hardly any gap between waste generation and peocessing. however, the ULB shall focus on the following: Increasing IEC on D2D waste collection & source segregation, Increase in manpower, Engagement of recyclers, Encouraging home composting, Capacity building in terms of man & machinery.
22	Jiribam MC	0.27	0.21 TPD is managed at source by feeding the kitchen leftover foods, vegetables, etc. to animals like cows, pigs, poultry, ducks, etc. and by selling of recyclable items like books, metals, plastics, etc. to Kabari waalas
23	Oinam MC	0.70	Planning to fill up the gap by March, 2026 through: a) increasing IEC on D2D Waste Collection b) Engagement of Recycler c) Encouraging home composting d) Capacity Building in terms of Man and Machinery
24	Sugnu MC	0.34	Plant to fill up the gap by 31.03.2026 through: Increasing IEC on Door to Door waste collection & Source segregation, Increase in manpower, Engagement of recyclers, Encouraging home composting, Capacity building in terms of man & machinery.
25	Sekmai MC	0.49	Construction of more compost pits, capacity building in terms of men and machinery by 31.12.2026
26	Lamlai MC	0.93	1. Solid Waste management site in Amuthenga under construction fo Lamlai Municipal Council 2. Intensive IEC activities. 3. Treatment facilities at lamdeng waste to energy palnt (Cluster Aprroach)
27	Heirok MC	0.45	Plant to fill up the gap by 31.03.2026 through: Increasing IEC on Door to Door waste collection &Source segregation, Increase in manpower, Engagement of recyclers, Encouraging home composting, Capacity building in terms of man & machinery.
	Sub Total Urban	**34.89**	

ULBs		Gap in Waste generation and Processing (TPD)	Time bound plan to fill up gap
B	**RURAL (18 Model Village)**		
1	Luwangsangbam		
2	Top Dusara		
3	Thongju Pt-I		
4	Langjing		
5	Bijoygovinda		
6	Sagolband Sapam Leikai		
7	Charangpat		
8	Khangabok Pt-I		
9	Tentha		
10	Hiyanglam		
11	Mayeng Lamjao,		
12	Waikhong		
13	Hilghat		
14	Dibong		
15	Sonapur		
16	Keinou		
17	ThangaPt-II		
18	Saiton		
	Sub Total Rural		
C	**HILL (30 Model Village)**		
1	Rengkai		
2	Hiangtam Lamka		
3	Tuibong		
4	Pherzawl		
5	Parbung		
6	Thanlon		
7	Chandel		
8	Chakpikarong		
9	Sugnu Tribal Area		

ULBs		Gap in Waste generation and Processing (TPD)	Time bound plan to fill up gap
10	Tengnoupal		
11	Moreh		
12	Machi		
13	Kangpokpi		
14	Saikul		
15	Motbung		
16	Katomei Village		
17	Oinam Hill		
18	Song Song Village		
19	Tamenglong		
20	Tamei		
21	Tousem		
22	Longmai		
23	Nungba / Rongdai		
24	Khoupum		
25	Ukhrul		
26	Hungoung		
27	Halang		
28	Kamjong		
29	Phungyar		
30	Khamlang		
	Sub Total Hills		

ANNEXURE – A/7

SUMMARY OF ACTION PLAN FOR FULFILMENT OF GAP (GENERATED VS PROCESS)

1. UP-GRADATION OF SOLID WASTE MANAGEMENT PLANT AT LAMDENG, MANIPUR

The Solid Waste Management (SWM) Plant at Lamdeng, Imphal West, originally established under the JnNURM scheme, is in urgent need of upgradation after over a decade of operation. Among the most critical components of this project is the **capping and closure of old landfill**, which has long exceeded its designed capacity.

In addition to capping, several other major works are proposed under the upgradation plan to transform the Lamdeng SWM facility into a modern, efficient, and compliant waste processing center. These include the **construction of a new sanitary landfill**, to accommodate current and future waste volumes. A **waste receiving platform and compost pad** will be developed to efficiently segregate and process organic and inorganic waste. The plan also involves installation of new **municipal solid waste processing machinery with a capacity of 300 TPD** significantly expanding processing capabilities. To address liquid waste and runoff, a **leachate holding pond** and a dedicated **Effluent Treatment Plant (ETP)** will be constructed to prevent groundwater contamination. Additional infrastructure such as internal concrete roads, drainage networks, a 6-ft high brick boundary wall, water supply systems, and a vehicle washing station are also planned to ensure hygiene, safety, and smooth plant operations.

The total estimated cost of the upgradation project is **Rs. 65.18 crore**, and the entire work is proposed to be completed within **24 months from the start of construction**. DPR submitted to administrative department for onward submission to Planning Department. The project will be executed under the Engineering, Procurement and Construction (EPC) model. Once completed, this project will ensure

scientific management of waste at Lamdeng, safeguard public health and the environment, and align with the Solid Waste Management Rules, 2016, and National Urban Development Missions. The general abstract of cost is given below.

GENERAL ABSTRACT OF COST

Name of work: Up-Gradation of Solid Waste Management Plant at Lamdeng, Manipur

(Rs. in lakhs)

Sl.	***Components***	***Qty.***	***Amount***	***Remarks***
1	Construction of Sanitary Landfill	1	791.17	*
2	Waste receiving Platform and Compost Pad	1	1822.43	*
3	MSW Processing Machinery 300TPD	1	242.13	Market Rate
	Add for Civil works, unloading and transit insurance @ 25% of Sl. No.3		60.53	
4	Leachate Holding Pond/ Evaporation Tank	1	89.04	*
5	Capping & Closure of Old Landfill	1	468	
6	Installation of Effluent Treatment plant	1	125	
7	External Water Supply/ Tubewell i/c distribution	1	14.68	*
8	Overhead Tank	1	15.78	*
9	Vehicle Washing Station	1	10.00	
10	FSTP Treatment Plant (50 KLD)	1	40.00	3,376.10
11	Procurement of vehicles/machineries for plant:	1		
(i)	Excavator 220	1	70.00	
(ii)	Frontend Loader & Backhoe (JCB 3DX)	2	76.00	
(iii)	Tractor 4x4 MF254	3	75.45	Market Rate
(iv)	Hydrualic Trailer complete steel body	3	15.81	Market Rate
(v)	Skid Loader JCB 155	1	35.00	
(vi)	Mini Truck TATA ACE GOLD (for HSD ferrying)	1	7.00	
(vii)	Onsite Safety PPE Kits	1	5.00	
(viii)	Glass Shredder machine	1	10.00	
(ix)	Waste Plastic Baling machine	1	3.00	

Sl.	*Components*	*Qty.*	*Amount*	*Remarks*
12	Internal Roads (Rigid Pavement)	1	191.94	MSR 2024
13	Drains	1	171.65	MSR 2024
14	Boundary Walls (brick wall)	1	246.52	MSR 2024
15	Electrical Works (@5% of sl. 2 & 3)	1	93.62	
16	Repair of Waste Receiving Platform	1	10.00	
17	Repair of Processing Plant machineries	1	15.00	
18	Repairing & Overhauling of existing vehicle fleet	1	10.00	
19	Site development	1	20.00	
	Sub-Total: Rs.		**4789.32**	"A"
	Add 2.5% Consultancy charges (DPR, PMC, QC etc.) on "A"		119.73	
	Add 18% GST on "A"		862.08	
	Add 1% Cess on construction items		40.42	
	Add 3% contingency charges on "A"		143.68	
	Add 11.75% agency charges on "A"		562.75	
	Total: Rs		**6517.98**	**lakh**

(Rupees sixty-five crore and eighteen lakh) only

2. REMEDIATION OF LEGACY WASTE UNDER SBM 2.0

Under the Swachh Bharat Mission (Urban) 2.0, a total of 60,377 tonnes of legacy waste across four Urban Local Bodies (ULBs) in Manipur is targeted for remediation. The total project cost is Rs. 332.07 lakhs, comprising a central share of Rs. 298.87 lakhs and a state share of Rs. 33.21 lakhs. The waste quantities and corresponding project costs are shown in below table. The project has been **approved by the Ministry of Housing and Urban Affairs**, Government of India, and aims to ensure scientific remediation of dumpsites in compliance with Solid Waste Management Rules.

DUMPSITE REMEDIATION (LEGACY WASTE) (SOLID WASTE MANAGEMENT) under SBM (Urban) 2.0					
Sl.	**ULB NAME**	**Quantity of Waste at Dumpsite (Tones)**	**Central Share (INR Lakhs)**	**State Share (INR Lakhs)**	**Total project cost (INR Lakhs)**

1	Thoubal MC	29,911	148.06	16.45	164.51
2	Kakching MC	18,000	89.10	9.90	99.00
3	Bishnupur MC	4,083	20.21	2.25	22.46
4	Nambol MC	8,383	41.50	4.61	46.11
Grand Total		**60,377**	**298.87**	**33.21**	**332.07**

3. CLEAN IMPHAL CITY CAMPAIGN/ SOURCE SEGREGATION

The Segregation Plan for Clean Imphal City aims to achieve 100% source segregation of Municipal Solid Waste (MSW) across households, commercial, institutional, and bulk generator levels. The policy mandates the segregation of waste into three main categories: Wet (biodegradable), Dry (recyclable), and Domestic Hazardous Waste.

To support the campaign, twin-bin systems (green for wet waste and blue for dry waste) have been distributed to a total of 9,090 households across targeted wards through local partner organizations, ensuring door-to-door coverage and facilitating user-friendly segregation at source. In addition, a robust infrastructure and operational mechanism is being established, which includes the use of these twin bins, deployment of separate collection vehicles, and designated processing routes for each waste category. To ensure compliance, strict enforcement measures such as fines and public disclosure of repeated violators will be implemented.

Awareness and capacity-building initiatives—like IEC campaigns, workshops, and public participation drives—will foster behavioural change. Incentive-based approaches will reward well-performing wards and communities.

Monitoring will be conducted via IMC teams and CCTV surveillance at Garbage Vulnerable Points (GVPs), with quarterly reviews to track progress. The plan is integrated with existing and upcoming waste processing facilities, particularly the upgraded Lamdeng SWM Plant.

Overall, the plan promotes a community-driven and systematic approach to make Imphal a cleaner and more sustainable city through responsible waste segregation at source.

4. SUCCESS STORIES

i. GVPS transformation within the jurisdiction of Imphal Municipal Corporation

Under the initiative "Our City, Our Responsibilities", led by the MAHUD Department and Imphal Municipal Corporation with public support, several Garbage Vulnerable Points (GVPs) have been cleaned, beautified, and repurposed. Some have been converted into photobooths, while others now feature police booths and solar lamps to enhance safety. VDF personnel have also been deployed at key locations for ongoing monitoring.

ii. Swachh Survekshan Award

Jiribam Municipal Council has achieved the Swachhta Award for four consecutive years, showcasing its unwavering commitment to cleanliness and sanitation.

a. Cleanest City award in Swachh Survekshan 2020 in NE Zone, Population below 25,000
b. Cleanest City award in Swachh Survekshan 2021 in NE Zone, Population below 25,000
c. Cleanest City award in Swachh Survekshan 2022 in NE Zone, Population below 15,000
d. Cleanest City award in Swachh Survekshan 2023 in NE Zone, Population below 15,000

Kakching Municipal Council has achieved the Swachhta Award for two consecutive years.

a. Cleanest City award in Swachh Survekshan 2017 in NE Zone
b. Cleanest City award in Swachh Survekshan 2018 in NE Zone
c. Best City in Citizen Feedback award in Swachh Survekshan 2021 in NE Zone (25,000 - 50,000 population category)

Lamlai Municipal Council, was awarded the "**Fast Moving City**" award in Swachh Survekshan 2021 for its innovative on waste management practices (Population below 15,000)

iii. **Garbage free City (Certification by the Ministry of Housing and Urban Affairs, Government of India), validity 1year.**

a. Jiribam Municipal Council was certified as 'Garbage Free City (GFC) 1 Star' by the Ministry.

Now since the validity has expired the Council has applied for 'GFC 3 Star'.

b. All the remaining ULBs (Imphal Municipal Corporation, Lamlai, Samurou, Thongkhong Laxmi, WangoiMC, Mayang Imphal, Moirang, Kumbi, Ningthoukhong, Bishnupur, Lilong (Thoubal), Lilong (IW), Thoubal, Kakching, Kakching Khunou, Sugnu, Nambol, Yairipok, Andro, Sikhong Sekmai, Heirok MC) have applied for 'GFC 1 Star' for the year 2024.

5. USING OF FRESH BIOMASS (BY-PRODUCT OF SOURCE SEGREGATION) AS POULTRY/ANIMAL FEED

Using fresh, edible wet waste such as vegetable scraps (e.g., cabbage leaves, peels) and leftover rice as same-day livestock feed is both practical and commonly practiced in small-scale farming, particularly in piggery and backyard poultry systems.

Using fresh, edible wet waste—such as vegetable scraps (e.g., cabbage leaves, spinach stalks, carrot peels) and leftover cooked rice—as same-day feed for pigs and poultry is a practical and widely adopted practice in small-scale farming systems. This approach is especially common in piggery and backyard poultry operations, where farmers often rely on readily available kitchen or market waste to reduce feed costs and improve resource efficiency. Pigs, being omnivorous, can digest a wide range of cooked and uncooked organic waste, while poultry, though more selective, can benefit from small amounts of chopped vegetables and soft, cooked rice mixed with traditional feed. However, the success of this feeding method depends heavily on proper handling and hygiene. The waste must be fresh, free from contaminants (such as plastics, chemicals, and spoiled food), and ideally fed within a few hours of collection to prevent fermentation or the growth of harmful microbes. In some cases, lightly cooking the waste—particularly rice and soft vegetables—can improve digestibility and eliminate pathogens. While this method contributes to circular agriculture and waste reduction,

it must be balanced with adequate protein, vitamins, and minerals, especially in poultry diets, to maintain animal health and productivity.

6. RING FENCED ACCOUNT

- Considering the gap in the financial and physical progress, against the expenditure incurred, and to improve the physical progress of effective handling of Solid Waste and Sewage management in urban areas. An amount of Rs. 21.50 Cr. has been fully utilised.
- Apart from this, MAHUD Department has earmarked a budgetary provision of Rs. 6.00 crores in BE-2025-26 this fund will be used solely for waste management. The said fund is available in the following dedicated Head of Account:

Major Head	:	2217	-	Urban Development
Sub-Major	:	01	-	State Capital Development
Minor	:	800	-	Other Expenditure
Sub-Head	:	16	-	Cleanliness of ULBs
Detailed	:	01	-	Urban Local Bodies
Object	:	31	-	Grants-in-Aid-General

7. 'USED WATER MANAGEMENT' IN THE URBAN AREAS OF THE STATE

The objective of the project (Used Water Management) is to ensure that no untreated faecal sludge or used water is discharged into the environment, and all used water is safely contained, transported and treated, along with maximum reuse of treated used water, in all cities with less than 1 lakh population.

The following FSTP (Table 1) has been approved by the Ministry. The facility is designed to safely process and treat faecal sludge and septage, which are byproducts of toilets, especially in areas without access to centralized sewer systems. The faecal will be collected from the toilet using Desludging vehicle / Cesspool and transferred to the FSTP for processing and Treatment. There won't be dedicated household connection.

TABLE 1: FAECAL SLUDGE TREATMENT PLANT (FSTP)			
Sl.	**Name of the ULB**	**Approved Capacity (in KLD)**	**Remark**
1	Andro Municipal Council Sikhong Sekmai Municipal Council Yairipok Municipal Council	10	Yairipok Cluster
2	Heirok Municipal Council Wangjing Municipal Council	5	Wangjing Cluster
3	Kakching Khunou Municipal Council	5	Standalone
4	Kumbi Municipal Council	5	Standalone
5	Kwakta Municipal Council	5	Standalone
6	Lamshang Municipal Council	5	Standalone
7	Sekmai Municipal Council	5	Standalone
8	Lamlai Municipal Council	5	Standalone
9	Sugnu Municipal Council	5	Standalone
	Total	**50**	

Interception and diversion (I&D) of drains, combined with co-treatment of FSTP, is a strategy to improve wastewater management and water quality. I&D involves collecting wastewater from drains and diverting it to a treatment facility, while co-treatment will process the faecal sludge alongside in the treatment facility. There won't be dedicated household connection.

Details of the project as approved by the Ministry is mentioned in Table 2.

TABLE 2: **INTERCEPTION OF DRAIN (I&D) & CO-TREATMENT OF FAECAL SLUDGE TREATMENT PLANT (FSTP)**			
Sl.	**Name of the ULB**	**Approved Capacity (in MLD)**	**Remarks**
1	Thoubal Municipal Council	4.9	Standalone
2	Kakching Municipal Council	3.5	Standalone
3	Lilong (Imphal West) Municipal Council	2.7	Lilong Cluster
	Lilong (Thoubal) Municipal Council		
4	Mayang Imphal Municipal Council	2.6	Standalone
5	Nambol Municipal Council	2.4	Nambol Cluster
	Oinam Municipal Council		
6	Moirang Municipal Council	2.2	Standalone
7	Samurou Municipal Council	1.8	Samurou Cluster
	Thongkhong Laxmi Municipal Council		
	Wangoi Municipal Council		
8	Bishnupur Municipal Council	1.3	Bishnupur Cluster
	Ningthoukhong Municipal Council		
9	Jiribam Municipal Council	0.8	Standalone
	Total	**22.2**	

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ANNEXURE – A/8

LEGACY WASTE IN URBAN AREA, MANIPUR

ULBs		Number of legacy waste dump sites	Quantity of legacy waste reported in MT on 30.06.2025	Present quantity of legacy waste in MT	Daily legacy waste being added as unprocessed waste in MT
1	Imphal MC	1 No	2,62,882	3,00,000	110
2	Thoubal MC	1 No	29,911	29,911	Nil
3	Kakching MC	1 No	18,000	7,023	4
4	Lilong (Thoubal) MC	Nil	Nil	Nil	Nil
5	Mayang Imphal MC	Nil	Nil	Nil	Nil
6	Nambol MC	Nil	Nil	Nil	Nil
7	Moirang MC	Nil	Nil	Nil	Nil
8	Samurou MC	Nil	Nil	Nil	Nil
9	Thongkhong Laxmi MC	Nil	Nil	Nil	Nil
10	Ningkthoukhong MC	Nil	Nil	Nil	Nil
11	Lilong (IW) MC	Nil	Nil	Nil	Nil
12	Bishnupur MC	Na	Na	Na	Na
13	Kakching Khunou MC	Nil	Nil	Nil	Nil
14	Yairipok MC	Nil	Nil	Nil	Nil
15	Kumbi MC	Nil	Nil	Nil	Nil
16	Wangoi MC	Nil	Nil	Nil	Nil
17	Andro MC	Nil	Nil	Nil	Nil
18	Kwakta MC	Nil	Nil	Nil	Nil
19	Lamshang MC	Nil	Nil	Nil	Nil
20	Wangjing Lamding MC	Nil	Nil	Nil	Nil
21	Shikhong Sekmai MC	Nil	Nil	Nil	Nil
22	Jiribam MC	Nil	Nil	Nil	Nil
23	Oinam MC	Nil	Nil	Nil	Nil
24	Sugnu MC	Nil	Nil	Nil	Nil
25	Sekmai MC	Nil	Nil	Nil	Nil
26	Lamlai MC	Nil	Nil	Nil	Nil
27	Heirok MC	Nil	Nil	Nil	Nil
	Sub Total Urban	**3**	**3,10,793**	**3,36,934**	**114**

ULBs		Number of legacy waste dump sites	Quantity of legacy waste reported in MT on 30.06.2025	Present quantity of legacy waste in MT	Daily legacy waste being added as unprocessed waste in MT
B	**RURAL (18 Model Village)**				
1	Luwangsangbam				
2	Top Dusara				
3	Thongju Pt-I				
4	Langjing				
5	Bijoygovinda				
6	Sagolband Sapam Leikai				
7	Charangpat				
8	Khangabok Pt-I				
9	Tentha				
10	Hiyanglam				
11	Mayeng Lamjao,				
12	Waikhong				
13	Hilghat				
14	Dibong				
15	Sonapur				
16	Keinou				
17	ThangaPt-II				
18	Saiton				
	Sub Total Rural				
C	**HILL (30 Model Village)**				
1	Rengkai				
2	Hiangtam Lamka				
3	Tuibong				
4	Pherzawl				
5	Parbung				
6	Thanlon				
7	Chandel				
8	Chakpikarong				
9	Sugnu Tribal Area				
10	Tengnoupal				

ULBs		Number of legacy waste dump sites	Quantity of legacy waste reported in MT on 30.06.2025	Present quantity of legacy waste in MT	Daily legacy waste being added as unprocessed waste in MT
11	Moreh				
12	Machi				
13	Kangpokpi				
14	Saikul				
15	Motbung				
16	Katomei Village				
17	Oinam Hill				
18	Song Song Village				
19	Tamenglong				
20	Tamei				
21	Tousem				
22	Longmai				
23	Nungba / Rongdai				
24	Khoupum				
25	Ukhrul				
26	Hungoung				
27	Halang				
28	Kamjong				
29	Phungyar				
30	Khamlang				
	Sub Total Hills				

ANNEXURE – A/9

LEGACY WASTE IN URBAN AREA, MANIPUR

ULBs		Quantification and utilization of out of Bioremediation and bio mining				Gap in legacy waste remediation and time bound plan
		Digested material	**Plastics**	**Rubber**	**Inerts and other**	
1	Imphal MC	1,08,518 MT	1,04,443 MT	5,731 MT	44,191 MT	Nil
2	Lamshang MC					
3	Samurou MC					
4	Thongkhong Laxmi MC					
5	Sekmai MC					
6	Lilong IW MC					
7	Mayang Imphal MC					
8	Wangoi MC					
9	Lamlai MC					
10	Andro MC					
11	Thoubal MC					
12	Yairipok MC					
13	Sikhong Sekmai MC					
14	Lilong TBL MC					
15	Heirok MC					
16	Wangjing Lamding MC					
17	Kakching MC					
18	Kakching Khunou MC					
19	Sugnu MC					
20	Kumbi MC					
21	Kwakta MC					
22	Moirang MC					
23	Ningthoukhong MC					
24	Bishnupur MC					
25	Oinam MC					
26	Nambol MC					
27	Jiribam MC					
	Sub Total Urban					
B	**RURAL (18 Model Village)**					
1	Luwangsangbam					
2	Top Dusara					
3	Thongju Pt-I					

ULBs		Quantification and utilization of out of Bioremediation and bio mining				Gap in legacy waste remediation and time bound plan
		Digested material	Plastics	Rubber	Inerts and other	
4	Langjing					
5	Bijoygovinda					
6	Sagolband Sapam Leikai					
7	Charangpat					
8	Khangabok Pt-I					
9	Tentha					
10	Hiyanglam					
11	Mayeng Lamjao,					
12	Waikhong					
13	Hilghat					
14	Dibong					
15	Sonapur					
16	Keinou					
17	ThangaPt-II					
18	Saiton					
	Sub Total Rural					
C	**HILL (30 Model Village)**					
1	Rengkai					
2	Hiangtam Lamka					
3	Tuibong					
4	Pherzawl					
5	Parbung					
6	Thanlon					
7	Chandel					
8	Chakpikarong					
9	Sugnu Tribal Area					
10	Tengnoupal					
11	Moreh					
12	Machi					
13	Kangpokpi					
14	Saikul					
15	Motbung					
16	Katomei Village					
17	Oinam Hill					
18	Song Song Village					
19	Tamenglong					

ULBs		Quantification and utilization of out of Bioremediation and bio mining				Gap in legacy waste remediation and time bound plan
		Digested material	Plastics	Rubber	Inerts and other	
20	Tamei					
21	Tousem					
22	Longmai					
23	Nungba / Rongdai					
24	Khoupum					
25	Ukhrul					
26	Hungoung					
27	Halang					
28	Kamjong					
29	Phungyar					
30	Khamlang					
	Sub Total Hills					

ANNEXURE – A/10

Sl	Name of ULBs	Total Waste generated (TPD)	Total Waste collected (TPD)	Amount of Waste processed at source household (e.g. Home-composting, etc) (TPD)	(e.g. Piggery, Poultry)
1	Imphal Municipal Corporation	166	130	15	11
2	Thoubal Municipal Council	18.95	9.3	8.5	0.63
3	Kakching Municipal Council	13.26	8.58	0.94	2.44
4	Lilong (Thoubal) Municipal Council	9.44	2.74	4	0.7
5	Mayang Imphal Municipal Council	10.31	6	1	2.31
6	Nambol Municipal Council	8.49	4.3	0.84	0.46
7	Moirang Municipal Council	8.19	5.4	2	0.09
8	Samurou Municipal Council	5.98	3.47	0	1.5
9	Thongkhong Laxmi Municipal Council	6.14	1.4	1.2	2.4
10	Ningthoukhong Municipal Council	7.51	5	1.2	0.7
11	Lilong (IW) Municipal Council	5.13	1.1	2	1.4
12	Bishnupur Municipal Council	5	3.5	0.11	0.99
13	Kakching Khunou Municipal Council	4.69	1.3	0.8	1.8

Sl	Name of ULBs	Total Waste generated (TPD)	Total Waste collected (TPD)	Amount of Waste processed at source household (e.g. Home-composting, etc) (TPD)	(e.g. Piggery, Poultry)
14	Yairipok Municipal Council	3.85	1.6	0	2
15	Kumbi Municipal Council	3.93	2.15	1.51	0.75
16	Wangoi Municipal Council	4.07	1.45	0	1.78
17	Andro Municipal Council	3.61	0.9	0.7	1.4
18	Kwakta Municipal Council	3.54	2.14	0.9	0
19	Lamshang Municipal Council	2.92	1.3	1.35	0.05
20	Wangjing Lamding Municipal Council	3.32	1.1	0.98	0.71
21	Shikhong Sekmai Municipal Council	1.95	0.56	0.22	0.892
22	Jiribam Municipal Council	2.55	2.55	0.084	0.126
23	Oinam Municipal Council	2.7	2	1.1	0
24	Sugnu Municipal Council	2.12	0.88	0.3	0.6
25	Sekmai Municipal Council	2.14	1.2	0.4	0.05
26	Lamlai Municipal Council	1.9	0.81	0.08	0
27	Heirok Municipal Council	1.23	0.5	0.3	0.02
Total		**308.92**	**201.23**	**46**	**34.798**

Note:

Waste generation reduction has occurred by segregation of edible biomass for animal feed at source.

ANNEXURE – A/11

Sl. No.		Quantity of MSW generated (TPD)	Quantity of MSW collected (TPD)	% of segregated wastes	% of Door-to -Door collection	Quantity of MSW processed (TPD)	Quantity of MSW disposed at controlled site (TPD)	Gap in SWM (TPD)	Remark /Status of Land for Solid Waste Management	Type of processing Unit
A	**Urban (by MAHUD)**									
1	Imphal MC	157.5	130	80	100	90	40	40	Yes	Waste to energy and composting
2	Lamshang MC	2.92	1.23	75	100	1.23	0	0	Nil	Aerobic-Composting
3	Samurou MC	5.58	3.54	70	100	3.54	0	0	Nil	Segregation shed cum Transfer station
4	Thongkhong Laxmi MC	5.6	3.43	70	100	3.43	0	0	Nil	Manual Segregation shed cum Transfer station only
5	Sekmai MC	1.9	1.2	77	100	1.2	0	0	Nil	Home composting is pre-dominate in all wards Central composting at segregation shed Dry waste after segregation dispose at Lamdeng SWM Plant
6	Lilong IW MC	4.6	1	80	100	1	0	0	Nil	Segregation for MRF & vermi-composting
7	Mayang Imphal MC	10.33	6	85	85	6	0	0	Yes	Treatment plant Composting pit and segregation/ MRF are operational, remaining collected waste sent to treatment plant at Lamdeng SWM Plant, segregated recyclable waste sent to recycler
8	Wangoi MC	3.42	1.45	71	100	1.25	0.2	0.2	Nil	

Sl. No.		Quantity of MSW generated (TPD)	Quantity of MSW collected (TPD)	% of segregated wastes	% of Door-to -Door collection	Quantity of MSW processed (TPD)	Quantity of MSW disposed at controlled site (TPD)	Gap in SWM (TPD)	Remark /Status of Land for Solid Waste Management	Type of processing Unit
9	Lamlai MC	1.73	1	78	100	0.9	0.1	0.1	Yes	Composting, (home+ centralised), source segregation and centralised segregation, composting at segregation shed
10	Andro MC	3.29	0.9	80	100	0.83	0.07	0.1	Yes	Composting, segregation & recycling
11	Thoubal MC	17.3	6.5	80	100	6	0.5	0.5	Yes	Segregation & composting
12	Yairipok MC	3.6	1.6	100	100	1.6	0	0	Yes	Wet waste get process at source itself, segregated recycler waste sent to recycler
13	Sikhong Sekmai MC	2.78	0.56	67	100	0.56	0	0	Yes	Wet waste get process at source itself, segregated recycler waste sent to recycler
14	Lilong TBL MC	9.37	2	70	100	1	1	1	Yes	Composting shed composting unit
15	Heirok MC	1.12	0.47	100	100	0.4	0.07	0.1	Yes	Transfer segregation & composting
16	Wangjing Lamding MC	3.03	1	100	100	0.81	0.19	0.2	Yes	Segregation and transfer station
17	Kakching MC	12.1	8.64	95	100	6.83	1.81	1.8	Yes	Composting, segregation & recycling
18	Kakching Khunou MC	4.28	2.6	90	100	1.91	0.69	0.7	Yes	Composting, segregation & recycling

Sl. No.		Quantity of MSW generated (TPD)	Quantity of MSW collected (TPD)	% of segregated wastes	% of Door-to -Door collection	Quantity of MSW processed (TPD)	Quantity of MSW disposed at controlled site (TPD)	Gap in SWM (TPD)	Remark /Status of Land for Solid Waste Management	Type of processing Unit
19	Sugnu MC	1.93	1.18	80	100	0.7	0.48	0.5	Yes	Composting pit, segregation & recycling
20	Kumbi MC	3.59	2	80	100	1.29	0.71	0.7	Yes	Composting
21	Kwakta MC	3.23	1.13	65	100	0.55	0.58	0.6	Yes	Composting
22	Moirang MC	7.49	5.4	85	100	2.99	2.41	2.4	Yes	Composting
23	Ningthoukhong MC	4.92	2.2	85	100	1.7	0.5	0.5	Yes	Composting and send back for recycling
24	Bishnupur MC	4.58	3.48	85	100	2.8	0.68	0.7	Yes	Sanitary landfill
25	Oinam MC	2.69	1.6	70	100	0.9	0.7	0.7	Nil	Composting
26	Nambol MC	8.47	4.3	88	100	1.9	2.4	2.4	Yes	Composting pit, manual segregation and other recyclable waste
27	Jiribam MC	5.23	4.72	85	100	4.27	0	0	Yes	Composting, send back for recycling and MRF

ANNEXURE – A/12

"USED WATER MANAGEMENT" IN THE URBAN AREAS OF THE STATE

The objective of the project (Used Water Management) is to ensure that no untreated faecal sludge or used water is discharged into the environment, and all used water is safely contained, transported and treated, along with maximum reuse of treated used water, in all cities with less than 1 lakh population.

The following FSTP (Table 1) has been approved by the Ministry. The facility is designed to safely process and treat faecal sludge and septage, which are byproducts of toilets, especially in areas without access to centralized sewer systems. The faecal will be collected from the toilet using Desludging vehicle / Cesspool and transferred to the FSTP for processing and Treatment. There won't be dedicated household connection.

TABLE 1: FAECAL SLUDGE TREATMENT PLANT (FSTP)

Sl.	Name of the ULB	Approved Capacity (in KLD)	Remark
1	Andro Municipal Council	10	Yairipok Cluster
	Sikhong Sekmai Municipal Council		
	Yairipok Municipal Council		
2	Heirok Municipal Council	5	Wangjing Cluster
	Wangjing Municipal Council		
3	Kakching Khunou Municipal Council	5	Standalone
4	Kumbi Municipal Council	5	Standalone
5	Kwakta Municipal Council	5	Standalone
6	Lamshang Municipal Council	5	Standalone
7	Sekmai Municipal Council	5	Standalone
8	Lamlai Municipal Council	5	Standalone
9	Sugnu Municipal Council	5	Standalone
	Total	**50**	

Interception and diversion (I&D) of drains, combined with co-treatment of FSTP, is a strategy to improve wastewater management and water quality. I&D involves collecting wastewater from drains and diverting it to a treatment facility, while co-treatment will process the faecal sludge alongside in the treatment facility. There won't be dedicated household connection.

Details of the project as approved by the Ministry is mentioned in Table 2.

TABLE 2:
INTERCEPTION OF DRAIN (I&D) & CO-TREATMENT OF FAECAL SLUDGE TREATMENT PLANT (FSTP)

Sl.	Name of the ULB	Approved Capacity (MLD)	Remarks
1	Thoubal Municipal Council	4.9	Standalone
2	Kakching Municipal Council	3.5	Standalone
3	Lilong (Imphal West) Municipal Council	2.7	Lilong Cluster
	Lilong (Thoubal) Municipal Council		
4	Mayang Imphal Municipal Council	2.6	Standalone
5	Nambol Municipal Council	2.4	Nambol Cluster
	Oinam Municipal Council		
6	Moirang Municipal Council	2.2	Standalone
7	Samurou Municipal Council	1.8	Samurou Cluster
	Thongkhong Laxmi Municipal Council		
	Wangoi Municipal Council		
8	Bishnupur Municipal Council	1.3	Bishnupur Cluster
	Ningthoukhong Municipal Council		
9	Jiribam Municipal Council	0.8	Standalone
	Total	**22.2**	