



**COMPLIANCE STATUS
OF
THE DIRECTIONS OF HON'BLE NATIONAL GREEN TRIBUNAL
IN
O.A. NO. 606/2018
IN THE MATTER OF
SOLID WASTE & SEWAGE MANAGEMENT OF THE STATE**

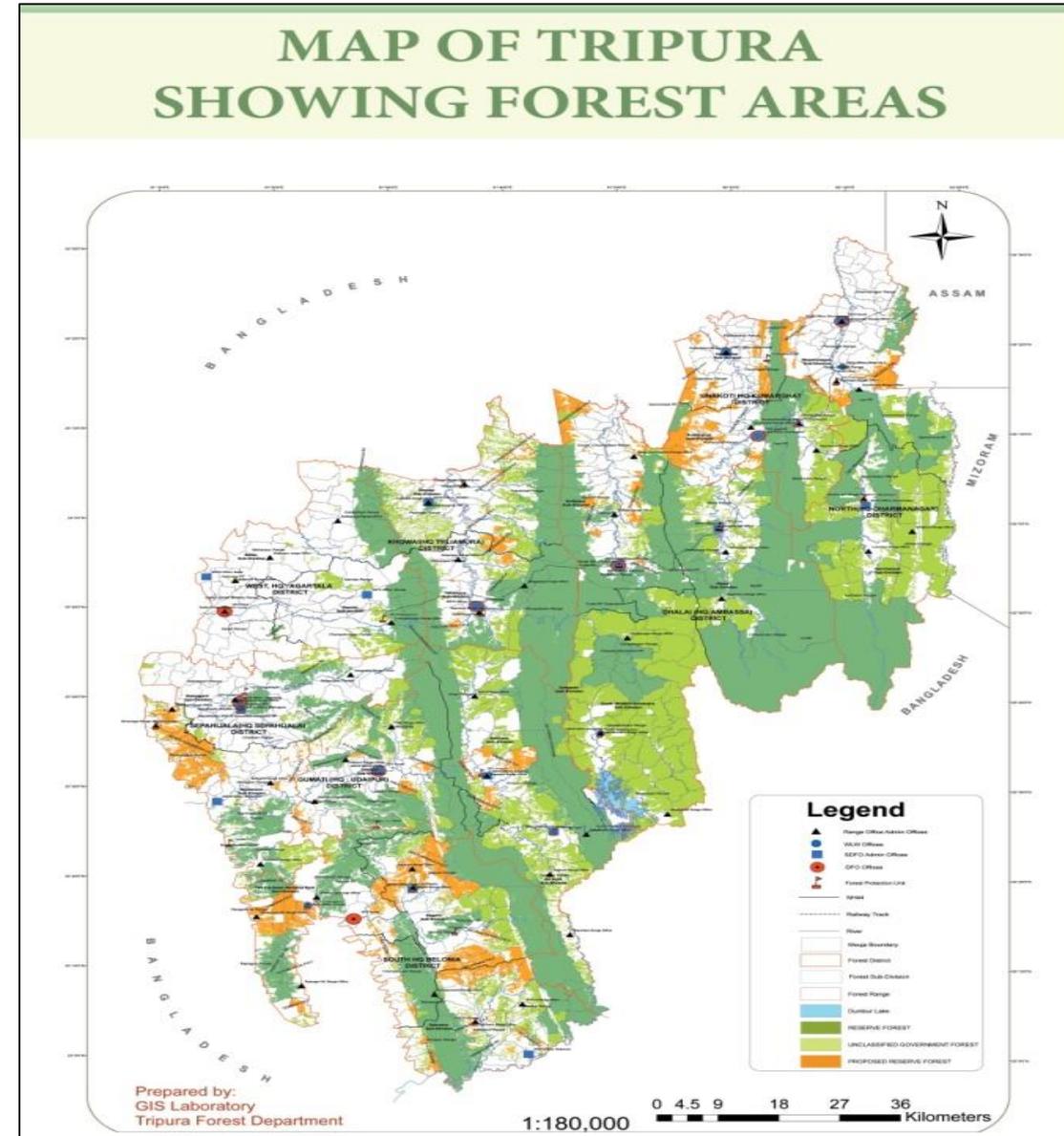
GOVERNMENT OF TRIPURA

TRIPURA STATE PROFILE

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- Tripura- one of the *eight NE States*, is third smallest state in the country (in terms of Area).
- The geographical area of the state is 10,491 km² which is approx. 0.32% of the total geographical area of the country.
- The State is bordered by Bangladesh to the North, South & West and the Indian states of Assam and Mizoram to the East.
- Tripura has 7,722 sq km of recorded forest cover which is 73.6% (*ISFR,2021*) of the total Geographical Area of the State.
- Despite having only 0.32% of the total geographical area of the country, the State has a higher contribution of 1.08% to the total forest cover of the country.
- Population – 36,73,917 (2011 census) constituting 0.28% of the country's population.
- There are 8 Districts, 23 Sub-divisions, 58 Blocks, 1176 GP/VCs, 1 Municipal Corporation, 13 Municipal Councils and 6 Nagar Panchayats.

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DEMOGRAPHY OF URBAN LOCAL BODIES

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Sl.No	Name of Urban Local body	Area (in Sq.Km)	Projected population as on 1 st January'23
1	Agartala Municipal Corporation	90.214	580126
2	Dharmanagar Municipal Council	10.69	48822
3	Kailashahar Municipal Council	6.19	24926
4	Kumarghat Municipal Council	3.5	15223
5	Ambassa Municipal Council	14.772	16073
6	Khowai Municipal Council	6.819	21823
7	Teliamura Municipal Council	4.45	25134
8	Ranirbazar Municipal Council	3.595	17331
9	Mohanpur Municipal Council	19.775	20041
10	Bishalgarh Municipal Council	9.331	22152
11	Melaghar Municipal Council	17.9907	20064
12	Udaipur Municipal Council	6.1	39071
13	Santirbazar Municipal Council	9.78	15285
14	Belonia Municipal Council	5.74	21433
15	Panisagar Nagar Panchayat	3	11371
16	Kamalpur Nagar Panchayat	10.1	12120
17	Jirania Nagar Panchayat	4.45	13698
18	Sonamura Nagar Panchayat.	4.13	13166
19	Amarpur Nagar Panchayat.	3.57	12294
20	Sabroom Nagar Panchayat.	5.0996	6954
	TOTAL	239.2963	957107

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➤ HE Smt. Droupadi Murmu, President of India, conferred the glorious award of **Most Clean State in India** (states with less than 100 ULBs category) to Tripura, under Swachh Survekshan 2022.

➤ Agartala Municipal Corporation was awarded under “**Special Mentions (3 lakhs- 10 lakhs category)**” by MoHUA under Indian Swachhata League, 2022.



- A Team of Officials from UDD, AMC, TUDA and TSPCB visited Indore, from 22.02.2023 to 25.02.2023 to have more exposure on Solid Waste Management and Sewage Management. The experience will help in improvement of waste management in the State.
- The State is working on the lines of Indore's waste management mechanism.



**SOLID WASTE MANAGEMENT
IN
URBAN AREAS**



- ❖ In compliance with Rule 11 of SWM Rules, 2016, Solid Waste Management Policy has been prepared and notified on 09.10.2018 by the Urban Development Department, Government of Tripura.
- ❖ Government of Tripura has framed the Tripura Municipal Solid Waste (Management & Handling) Cleanliness and Sanitation Rules, 2019 under Section 274 of the Tripura Municipal Act, 1994 to provide effective legal framework for compliance of the SWM Rules, 2016.
- ❖ State Level Committee has been constituted under the Chairmanship of the Chief Secretary and the Chief Secretary, Tripura is reviewing the progress of all Issues Pertaining to the Order of Hon'ble NGT in O.A 606/2018 on regular basis.
- ❖ In compliance with Rule 23 of SWM Rules, 2016, the State Government has also formed State Level Advisory Body under chairmanship of the Secretary, Urban Development Department, Government of Tripura for proper implementation of Solid Waste Management Rules, 2016.

STEPS TAKEN FOR WASTE MANAGEMENT

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- ❖ Urban Development Department has notified District Level and ULB Level Monitoring Committee to oversee the progress.
- ❖ State has notified and appointed Padmashree Miss Dipa Karmakar, Gymnast as Brand Ambassador of Swachh Bharat Mission- Urban, Tripura.
- ❖ The State has set up State Project Monitoring Unit (SPMU) at Urban Directorate and Project Implementation Unit (PIU) at ULB level under Tripura Solid Waste Management Project.
- ❖ Tripura Solid Waste Management Project consists of
 - Setting up ULB level decentralized waste management projects for both wet and dry waste.
 - Secondary Waste Sorting and Segregation centres for recycling of Dry Waste.
 - Tertiary Waste Treatment Plants for processing of Organic Waste
 - Remediation of legacy dumpsites.
- ❖ Action plans based on gap analysis have been prepared for all ULBs.

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MUNICIPAL SOLID WASTE (MSW) MANAGEMENT

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Status	As on 1 st April,2023.
1. Quantity of MSW generated (TPD) in 20 ULBs	333.1
2. Quantity of MSW Collected (TPD)	333.1
3. Quantity of MSW segregated & transported (TPD)	333.1
4. Quantity of MSW processed (TPD)	333.1
5. Total Solid waste Processing Facility operational as on date (TPD)	336.0
6. Additional Solid waste Processing Facility to be made functional (TPD)	80 (50 TPD- by April 2023 & 30 TPD- by August 2023).

▷ As per pervious Hon’ble NGT Order Dated 28.02.2020 MSW generation was shown as 405.6 TPD.

▷ Waste quantification & characterization was done in 2022 by involving Third Party agency where the **total MSW generation of 20 ULBs was found as 333.1 TPD.**

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ASSESSMENT OF SWM FACILITIES (ULB WISE) AS PER PREVIOUS HEARING

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Component	Required	Existing	Gap	Proposed/ Action Taken	Time frame	Status
1. Waste Segregation Facility	20	20	0	0	-	
2. Biodegradable waste (composting)	20	14	6	6*	March,2022	Completed
3. Non-biodegradable waste management facilities (Recycling/Secondary Centres)	20	9	11	11**	March,2022	Completed
4. Waste Disposal (Inert- Landfill)	[3(three) tier zero landfill approach of solid waste processing is adopted by state.]					

* Tertiary Treatment Plants have been operationalised in Sabroom NP, Khowai MC, Ambassa MC, Dharmanagar MC, Mohanpur MC & Udaipur MC.

** Secondary Centers have been operationalised in Teliamura MC, Amarpur NP, Khowai MC, Ambassa MC, Panisagar NP, Sabroom NP, Santirbazar MC, Udaipur MC, Kumarpur MC, Melaghar MC & Sonamura NP.

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DOOR TO DOOR WASTE COLLECTION

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Collection of segregated waste by women SHG from Doorstep of Households of Udaipur MC.



Transportation of segregated waste by women SHG from Doorstep in covered vehicle of Agartala Municipal Corp.

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SECONDARY WASTE SEGREGATION CENTRE (FOR PROCESSING OF DRY WASTE)

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Sabroom NP

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Sabroom NP

FEW TERTIARY WASTE TREATMENT PLANTS OF TRIPURA

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Khowai Tertiary Plant



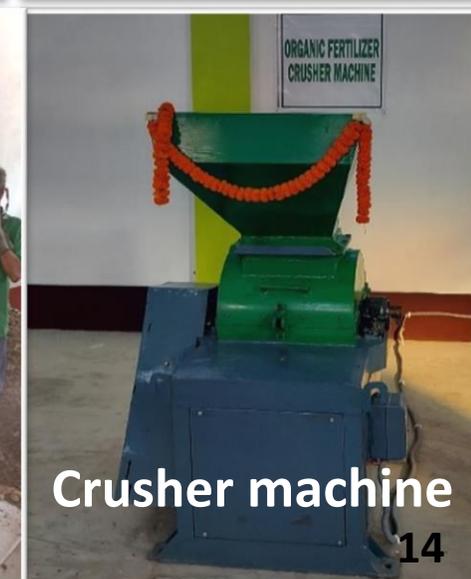
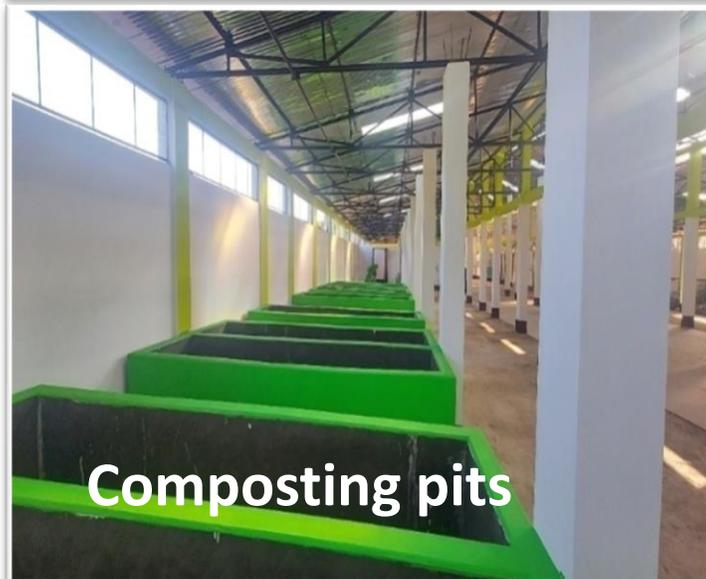
Sabroom Tertiary Plant



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FACILITIES & MACHINERIES IN TERTIARY WASTE TREATMENT PLANT OF KHOWAI MC

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MATERIAL RECOVERY FACILITY (MRF) AT AGARTALA

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Visit of the Chief Secretary and Principal Secretary at MRF center

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STATUS OF LEGACY WASTE AS PER PREVIOUS HEARING

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Sl No	Details	Previous Status	Progress made	Gap
1	Number of dumpsite	1	1	NIL
2	Quantity of Waste dumped at dumpsites	5000 MT	Already Remediated	
3	Progress made Number of dumpsite cleared	0	1 no. (Hapania Dumpsite at AMC is already remediated before Oct, 2022)	
4	Number of dumpsites in which bio-mining has commenced	0	0	
5	Time frame for clearing all dumpsites	Nov, 2022	-	

778

COMPLETION REPORT OF HAPANIA DUMPSITE


 AGARTALA MUNICIPAL CORPORATION
 Mechanical Division
 Ramnagar Road No. -9, Agartala
 Email- mechdivision.amc@gmail.com
 F. 169/Mech. Div./AMC/2014/...196
 Dt.06/04/2023

CERTIFICATE OF COMPLETION

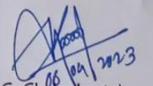
Name of Work: Scientific Closure of abandoned open Dumping Yard located at Hapania.

Ref. DNIT and e-tender ID: 42/RFP/Mech. Division/AMC/2019, 19/10/2019 (2nd Call) and e-tender ID – 2019_SAMC_7255_1

Work Order Ref: F. 169/Mech. Div/AMC/2014/2545(A)-2545(B), 07/08/2020

Name of Agency: Media Net, Colonel Chowmuhani, Agartala, Pin- 799001

Based upon the inspection and report submitted by National Environmental Engineering Research Institute , Nagpur it is certified that the aforesaid work has been completed satisfactorily in the year August -2022 observing all the terms and condition of the contract agreement signed on 1st Day Aug, 2020 (Certificate No - IN-TR03011943110889S).


 (Er. C. Chakraborty)
 Executive Engineer (Mech.)
 Agartala Municipal Corporation

REMEDIATION OF LEGACY WASTE OF HAPANIA DUMPSITE, AGARTALA

779

Before Remediation of Hapania, Agartala MC



During Remediation



After Remediation



LEGACY WASTE BIO-MINING OF HAPANIA DUMP SITE
Name of the Contractor : Media Mat, Agartala
Project Cost : Rs 1420/- Per Sq. Mtr.
Work Awarded on : 01/08/2020
Date of Commencement : 01/03/2021
Consultant : NEERI, Nagpur
Date of Completion : August, 2022

Being developed as a Park

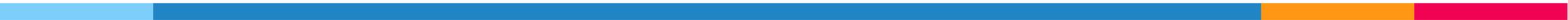


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SEWAGE MANAGEMENT IN URBAN AREAS



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GAP ANALYSIS OF SEWAGE AND THE PROPOSED ACTION PLAN

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Details	Sewage Generation	Existing Capacity	Gap as per previous hearing	Proposed Timelines as per previous hearing	Progress made after previous hearing	Proposed Treatment Facilities
Sewage Management	82.4 MLD	8.72 MLD	74.4 MLD	Max. 3 Years	<p>A. Under construction 8 MLD STP at Akhaura, AMC-60% physical progress. Target for completion - 2023.</p> <p>B. Under construction 1 MLD In-Situ Nalla treatment (Pilot basis) - Target for completion - 2023.</p>	<p><u>66 MLD</u> <u>(New STP & In Situ Nalla)</u></p> <p>(49 MLD – STP, 17 MLD In-Situ Nalla treatment/ Oxidation stabilisation ponds*)</p>

* In- Situ Nalla treatment (Bio-remediation)/ Oxidation stabilisation ponds - at Kanta Khal & Kalapania Khal Agartala MC, Sabroom NP, Panisagar NP, Sonamura NP, Jirania NP, Kamalpur NP, Amarpur NP, Bishalgarh MC & Santirbazar MC.

STP AT CHANDINAMURA, AGARTALA MUNICIPAL CORPORATION

782



Inlet from Pump



Sequential Batch Reactor Technology



Visit of the Chief Secretary and Principal Secretary at STP



Treated Water for Road sprinkling

782



Compost

PROGRESS OF 8 MLD STP AT AKHAURA ICP, AGARTALA

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PROGRESS OF 8 MLD STP AT AKHAURA ICP, AGARTALA

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- An amount of Rs.282.58 Cr has been ring-fenced by the State to take up activities as per the Action Plan in the sewage management in urban areas.

SEWERAGE NETWORK AS PER PREVIOUS HEARING

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Existing Sewerage Length	Required	GAP	Proposed	Time Frame as per previous hearing
104.5 KM	154.5 KM	50 KM	Total ring-fenced amount of Rs.282.58 Cr has been provisioned and of which Rs. 80 Cr is earmarked for construction of 50 km sewerage network. Possibility of setting up of decentralized Mobile/ micro STPs are also being explored to reduce the length of sewerage line required.	Year-2024

RE-USE OF TREATED SEWAGE AS PER PREVIOUS ORDER

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Sl No	Present Utilisation	Proposed	Type of use	Progress made	Gap	Timeline
1	30%	30%	Road watering, Agri field, Municipal Garden, etc.	<p>Tripura has high ground water table. Therefore, demand for treated water is less. However, Sprinkling of treated water from STP is used to subside dust across identified roads of Agartala, watering road side gardens LHP work site, vehicle washing & fire hydrants.</p>	0	Nil

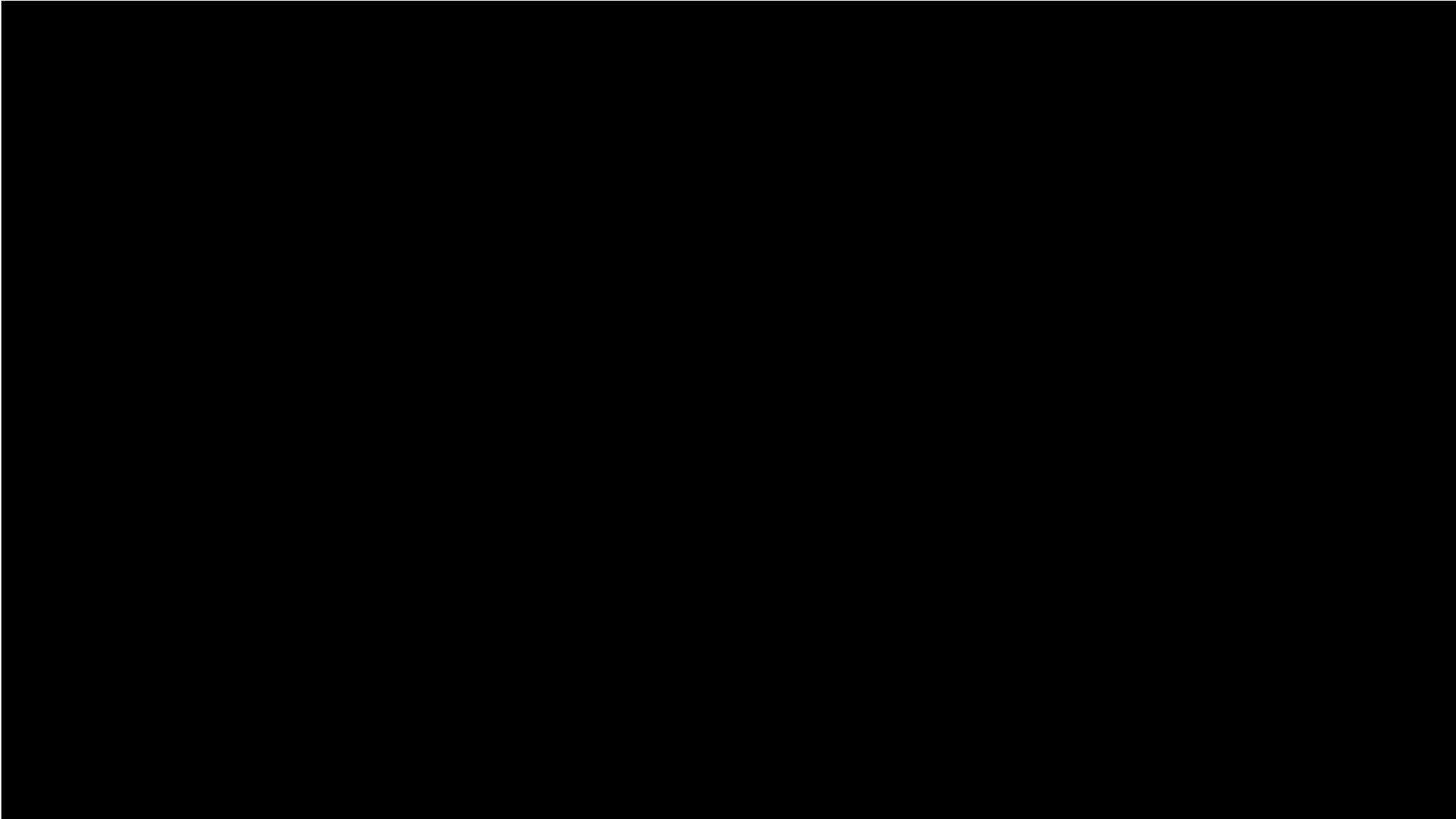
RE-USE OF TREATED WASTE WATER

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**SOLID WASTE AND SEWAGE MANAGEMENT
IN
RURAL AREAS**



- ✓ **Total GPs/VCs - 1176 Nos**
- ✓ **Total Rural Population as per 2011 Census - 27,12,464**
- ✓ **Projected Rural Population as on 31st March, 2025 - 32,96,193.**
- ✓ **Total estimated Solid Waste in year 2025 - 263.70 Tons per Day (TPD)**
- ✓ **Out of Total Solid Waste, Biodegradable Waste -73%,**
- ✓ **Non Biodegradable Waste - 27% (7% inert and 20% recyclables)**
- ✓ **Total estimated Biodegradable Waste in year 2025 - 192.50 TPD**
- ✓ **Total estimated Non-Biodegradable Waste in year 2025 - 71.2 TPD**

BIODEGRADABLE WASTE IN RURAL TRIPURA

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Sl. No.	Subject	Quantity in TPD	Remarks
1	Total Biodegradable Waste Generation	192.50	All 1176 GP/VC
2	Present treatment Capacity	28.91	<ul style="list-style-type: none"> ▪ Individual Compost Pit- 46991 (12.17 TPD) ▪ Community Compost Pit- 640 (16.58 TPD) ▪ Individual Bio Gas Plant- 640 (0.16 TPD)
3	Gap	163.59	Action Plan to mitigate Gap in FY 2023-24 and 2024-25
			<ul style="list-style-type: none"> ▪ FY 2023-24- 140.61 TPD ✓ Individual Compost Pit- 186900 (48.41 TPD), ✓ Community Compost Pit- 3560 (92.20 TPD)
			<ul style="list-style-type: none"> ▪ FY 2024-25 – 22.98 TPD ✓ Individual Compost Pit-89000 (22.98 TPD)

792

NON-BIODEGRADABLE WASTE IN RURAL TRIPURA

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Sl. No.	Subject	Quantity in TPD	Remarks
1	Total Non-Biodegradable Waste Generation	71.20	All 1176 GPs/VCs
2	Waste Segregation Facility & Management	7.08	<ul style="list-style-type: none"> ▪ 117 segregation, storage and compost premises in village level
3	Gap	64.12	<p>Action Plan to mitigate Gap in FY 2023-24 and 2024-25:</p> <ul style="list-style-type: none"> ▪ FY 2023-24- 53.90 TPD ✓ Setting up of 898 segregation, storage and compost premises in village level ✓ Setting up of 40 Plastic Waste Management Unit at Block level <ul style="list-style-type: none"> ▪ FY 2024-25- 10.22 TPD ✓ Setting up of 161 segregation, storage and compost premises in village level ✓ Setting up of 8 Plastic Waste Management Unit at Block level

793

GREY WATER IN RURAL TRIPURA

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Sl. No.	Subject	Quantity in MLD	Remarks
1	Total Grey Water Generation	145.03	All 1176 GP/VC
2	Present treatment Capacity	25.83	<ul style="list-style-type: none"> ▪ Individual Soak Pit-6225 (1.22 MLD) ▪ Community Soak Pit- 911 (5.86 MLD) ▪ Kitchen Garden- 95769 (18.75 MLD)
3	Gap	119.20	Action Plan mitigate Gap in FY 2023-24 and 2024-25
			<ul style="list-style-type: none"> ▪ FY 2023-24- 95.29 MLD ✓ Individual Soak Pit-204200 (24.42 MLD) ✓ Community Soak Pit-10210 (50.03 MLD) ✓ Kitchen Garden-106221(20.84 MLD)
			<ul style="list-style-type: none"> ▪ FY 2024-25 - 23.91 MLD ✓ Individual Soak Pit-107738 (21.12 MLD) ✓ Community Soak Pit-570 (2.79 MLD)

794

- ✓ In rural areas, household rely on on-site sanitation and predominantly on twin pit system which do not generate faecal sludge.
- ✓ At present , 3,20,975 number of twin pit toilets, 3,81,404 number of single pit toilets and 39,116 number of Septic tanks are available
- ✓ 2,83,268 Single pit toilets will be converted into twin pits During 2023-24
- ✓ Balance 98136 single pit toilets will be converted into twin pits during 2024-25.
- ✓ 8(eight) Mobile Faecal Sludge Treatment Units (one for each District) will be purchased during 2023-24 for septage and sludge treatment of 39,116 septic tanks.

FUND COMMITTMENT

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Components	2023-24	2024-25	Total (Rs. in Cr)
SBM(G)	144.30	45.54	189.84
15th FC	48.76	44.00	92.76
MGNREGA	241.27	153.84	395.11
Total	434.33	243.38	677.71

796



Collection of waste from households in West Champachara of Tulashikhar RD Block of Khowai District



Collection of waste from households in Madhya ⁷⁹⁸ Brajapur of Charilam RD Block of Sepahijala District



GLIMPSES OF LIQUID WASTE MANAGEMENT (LWM) RELATED ACTIVITIES IN RURAL AREAS

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Community and Household level Soak pit at Khoawi RD block of Khowai District



Try-cycle for collection of waste from households in Gournagar RD Block



Community level Segregation Bin at Jampujala RD Block



Household level compost pit at Charilam RD Block



Community compost pit at Charilam RD Block



Try-cycle for collection of waste from households in Kumarghat RD Block



Dustbin distribution under Pecharthal RD Block



Dustbin installed in AWC under Gournagar RD Block



Construction of Community compost pit at South Tripura District

803



Household soak pit under Charilam block



Household level Soak pit for LWM under Pecharthal RD block

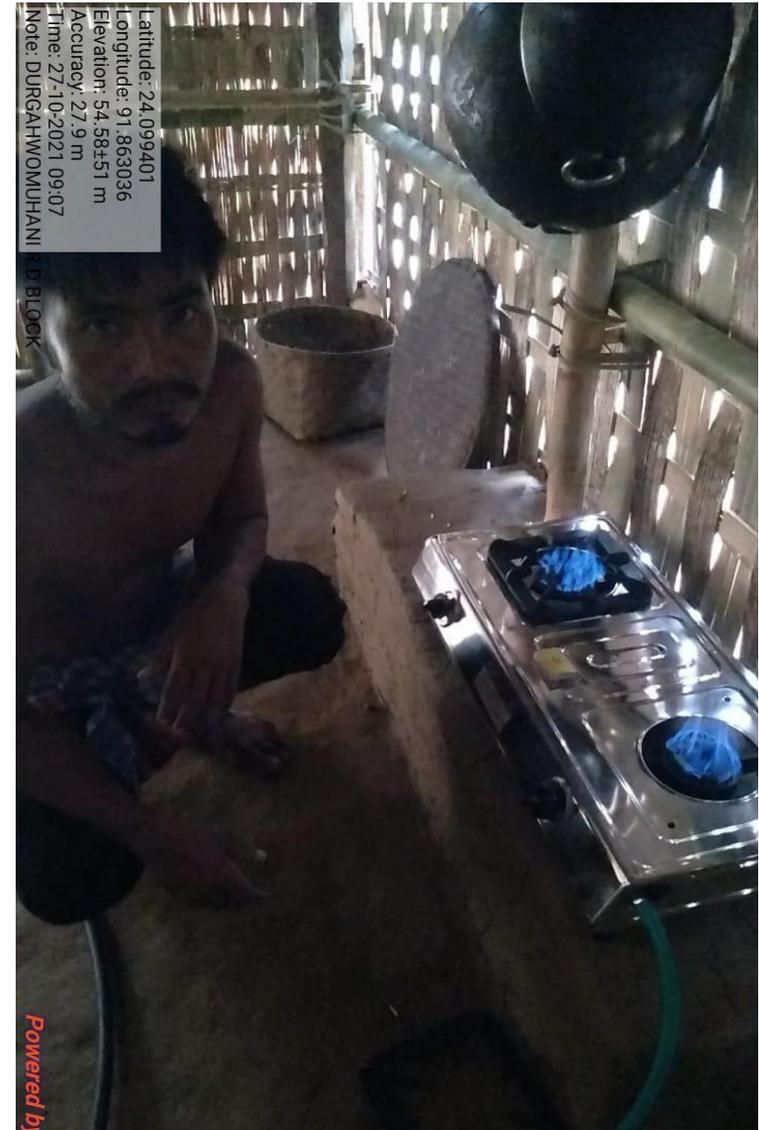


Segregation shed for SWM under Rajanagar Block

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GLIMPSES OF CLUSTER BASED GOBAR-DHAN PROJECT

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COMMUNITY SANITARY COMPLEX IN RURAL AREAS

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Community Sanitary Complex at Malaynagar Bazar of Dukli RD block of West Tripura

805 Community Sanitary Complex at Gayamani, Padmabil Rd block Khowai

GLIMPSES OF STATE, DISTRICT AND BLOCK LEVEL ORIENTATION PROGRAMME FOR DIFFERENT STAKEHOLDERS FOR SLWM ACTIVITIES

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GLIMPSES OF STATE, DISTRICT AND BLOCK LEVEL ORIENTATION PROGRAMME FOR DIFFERENT STAKEHOLDERS FOR SLWM ACTIVITIES

807



SLWM training at B.C. Nagar R.D block



SLWM training at Rajnagar R.D block



SLWM training at Poangbari R.D block



807

SLWM training at Tepania R.D block