

**Government of Manipur
Directorate of Environment and Climate Change
Porompat, Imphal – 05**

No. 4/124/2019 (RRC) / DoE&CC

Imphal, the 18th June, 2024

To,
**The Executive Director – Technical (NMCG)
National Mission for Clean Ganga
Ministry of Jal Shakti, Govt. of India**

Sub. : Submission of Monthly Progress Report(MPR) to the Central Monitoring Committee in the NGT Matter OA No. 673 of 2018;

Sir,

I have the honour to submit herewith the Monthly Progress Report (MPRs) in respect of Manipur State for the month of January to April 2024 for kind reference and doing the needful.

With regards,

Encl : As above

Yours Sincerely



(Dr. T. Brajakumar Singh)
Director

Copy to :

1. Staff Officer to the Chief Secretary, Government of Manipur
2. Special Chief Secretary (Forest, Environment and Climate Change, Govt. of Manipur
3. Scientist 'B', National River Conservation Division, Ministry of Jal Shakti, Govt. of India

National Mission for Clean Ganga
Format for submission of Monthly Progress Report in the NGT Matter OA
No. 673 of 2018
(in compliance to NGT order dated 24.09.2020)
For the State of Manipur submitted on 20th January, 2024

Overall status of the State:

I. Total Population:

	2011 Census	Projected as on 2020
Urban Population	8,34,154	10,47,135
Rural Population	17,36,236	21,79,541
Total	25,70,390	32,26,676

Estimated Sewage Generation (MLD) : 115.054 MLD

II. Details of Sewage Treatment Plant:

- Existing No. of STPs and Treatment Capacity : 1 (one) STP of 27 MLD operational
- Capacity Utilization of existing STPs : 21.59 MLD
- MLD of sewage being treated through alternate technology : NIL
- Gap in Treatment Capacity in MLD : 5.41 MLD
- No. of Operational STPs : 1 (one) Detail of STP is at **Annexure - 1**
- No. of Complying STPs : 1 (one)
- No. of Non-complying STPs : Nil

Details of each existing STP in the State

No.	Location	Existing STP Capacity	Capacity Being Utilized	Operational Status of STP	Compliance Status of STP
1	Lamphel, Imphal West	27 MLD	21.59 MLD	Operational (79.98%)	Complying

Details of under construction STPs in the State

No.	Location	Capacity of the plant in MLD	Physical Progress in %	Status of I&D or House sewer connections	Completion Timeline
1	Maibam Leikai, Imphal West	16 MLD	99 %	NIL	31.03. 2024
2	Iroisemba, Imphal West	1 MLD	95%	NIL	31.08. 2024

Details of proposed STPs in the State

No.	Location	Capacity of the STP proposed in MLD	Status of Project (at DPR Stage/ Under Tendering/ Work to be Awarded)	Likely Date of Completion
1	Imphal	49 MLD	Agreement Signed	---

III. Details of Industrial Pollution:

	No. of industries in the State	:	404 Nos.
			337 outside Industrial Estate
			67 inside Industrial Estate
	No. of water polluting industries in the State	:	Nil

	located along the 9 (nine) prioritized rivers of Manipur		
	Quantity of effluent generated from the industries in MLD	:	0.93 KLD (estimated) in case of the 3 units located within Nilakuthi Food Park, Imphal East
	Quantity of Hazardous Sludge generated from the Industries in TPD	:	Requested the Member Secretary, Manipur Pollution Control Board vide letter No. A-DTCI-109/4/2022-DTCI-DTC&I Dt.05/06/2024 to support with the data on Industrial Waste Generated (in TPD) inside the 3 (three) Industrial Estates of Manipur.
	Number of industrial units having ETPs	:	Nil
	Number of industrial units connected to CETP	:	3 (three)
	Number and total capacity of ETPs	:	Nil
	Details of existing	:	Nil
	Under construction	:	Nil
	Proposed	:	Nil
	Compliance status of the ETPs	:	Nil
	Number and total capacity of CETPs	:	1 (one) CETP
	Details of existing	:	1 unit of 400 KLD capacity
	Under construction	:	3
	Proposed	:	Nil

Town	Existing ETP Capacity	CETP Proposed, if any	Status (under construction etc.)
Imphal	400 KLD capacity	Nil	The 3(three) ETPs at Takyelpat, Tera Urak & Kuraopokpi Industrial Estates of Manipur has been constructed under PM Gatishakti "Scheme for Special Assistance to the States for Capital Investment for 2022-23". Overall, 75% of the civil works completed as per recent report.

- **Status of compliance and operation of the CETPs**

Town	No. of industries	Industrial discharge	Status of ETPs	Status of CETPs (Existing, under construction & proposed)
Imphal	5 (five)	Requested the Member Secretary, Manipur Pollution Control Board vide letter No. A-DTCI-109/4/2022-DTCI-DTC&I dt. 05/06/2024 to support with the data on the industrial waste generated (in TPD) inside the 3 (three) Industrial Estates of Manipur.	Nil	1 (one) CETP of 400 Kilo Liter / Day at Nilakuthi Industrial Estate, Imphal Status : Functional

IV. **Solid Waste Management:**

- Total Urban Local Bodies (ULBs) : 27 ULBs
- Population of ULBs : 6,15,344 (2011 Census)
: 7,92,734 (2021 projected population)
- Current Municipal Solid Waste Generation : 290 MTD
(as per SBM 2.0 guidelines, MSW generation is estimated @450gm per capita generation for Imphal Municipal Corporation (for more than one lakh population) and @300gm per capita generation for other ULBs (for less than one lakh population) based on 2020 projected population)
- Waste Collected : 199 TPD (Collected by ULBs)
- Existing Management / treatment facility : 193 TPD
- Utilization of MSW processing : 147 TPD
[Managed by ULBs = 147 TPD
Managed at Source = 84.6 TPD
Total Managed = 231.6 TPD]
- Number, installed capacity and utilization of existing MSW processing facilities in TPD bifurcated by type of processing.

SN	Name of MSW processing unit	Installed capacity	Utilization (in TPD)	Type of processing	Action plan to bridge Gap between utilization and installed facility
1	IMC / Municipal Solid waste Management Plant, Lamdeng, Imphal	100	90	Waste to Energy (WTE) and Composting	Intensive campaign through IEC
2	Lamshang MC	1	1.23	Aerobic composting	Capacity Building in collection, management, and processing
3	Samurou MC	5	3.52	Segregation cum transfer station	- Presently collected waste after segregation of recyclable plastic waste and cardboard is being transferred to Lamdeng Solid Waste Management Plant. - Increase in awareness. Increase in Manpower and vehicles. Allotment of Permanent land for

SN	Name of MSW processing unit	Installed capacity	Utilization (in TPD)	Type of processing	Action plan to bridge Gap between utilization and installed facility
					management of solid waste has been proposed to DC.
4	Thongkhong Laxmi MC	5	3.41	Segregation cum transfer station and composting pits	- In terms of ward wise, area wise leikai wise coverage of D2D collection. - There is 100% coverage of D2D. - More awareness and behavioral change campaign
5	Sekmai MC	1	1.2	- Home Composting is predominant in all wards - Central Composting at Segregation Shed, Parao - Dry Waste disposed at Lamdeng SWM Plant	- Engagement of local clubs/SHGs to achieve 100% segregation at source. - Capacity enhancement for management and processing
6	Lilong IW MC	1	1	- Segregation Shed for Material Recovery - Vermi composting	More composting pits, more vehicles and manpower and encouraging source segregation and home composting. Cluster basis facilities at Lamdeng SWM Plant.
7	Lamlai MC	3	0.9	- Composting (Home + Centralised) - Source segregation and Centralised segregation	Treatment facilities at Lamdeng Waste to energy Plant (Cluster Approach)
8	Thoubal MC / Thoubal SWM Plant	13	8.3	Segregation and composting	- Encouraging source segregation and home composting - Awareness generation to public. Compactor machine Segregation machine, compressor
9	Yairipok MC	1	1.6	- Wet waste gets processed at source itself as feed of poultry and piggery farms - Segregated recyclable waste is sent to recycler	Treatment Facility at Thoubal Cluster
10	Sikhong Sekmai MC	6	0.56	Wet waste gets processed at source itself as feed of poultry and piggery farms	Treatment Facility at Thoubal Cluster

SN	Name of MSW processing unit	Installed capacity	Utilization (in TPD)	Type of processing	Action plan to bridge Gap between utilization and installed facility
				Segregated recyclable waste is sent to recycler	
11	Lilong Thoubal MC	1	1	Segregation Shed Composting Unit	More composting pits, more vehicles and manpower and encouraging source segregation and home composting.
12	Heirol MC	1	0.4	Transfer and Segregation Station and Composting	- Treatment facilities at Thoubal Khunou (Cluster B) - Increase in manpower - Awareness drives & Engagement of Recyclers
13	Wangjing Lamding MC	1	0.81	Segregation and transfer station	- Treatment facilities at Thoubal Khunou (Cluster B) - Increase in manpower - Awareness drives & Engagement of Recyclers
14	Andro MC	1.07	0.83	- Bulk waste is processed or consumed at source a poultry and piggery feeds - Aerobic Composting, Segregation and Recycling	- Treatment facilities at Thoubal Khunou (Cluster B) - Increase in manpower - Awareness drives & Engagement of Recyclers
15	Kakching MC/ Kakching SWM Plant	7	6.8	Composting, Segregation & Recycling	- Intensified IEC on door-to-door waste collection and source segregation. - Mandatory submission of payment receipts of D2D waste collection at the time of availing any form of service from the council
16	Kakching Khunou MC	2.2	2.1	Composting, Segregation & Recycling	- Intensified IEC on Door-to-Door Waste Collection and Source Segregation. - Mandatory Submission of Payment Receipts of D2D waste collection at the time of availing any form of service from the Council.
17	Sugnu MC	1.2	0.7	Composting, Segregation & Recycling	- Intensified IEC on door-to-door waste collection and source segregation. - Mandatory submission of payment receipts of D2D waste

SN	Name of MSW processing unit	Installed capacity	Utilization (in TPD)	Type of processing	Action plan to bridge Gap between utilization and installed facility
					collection at the time of availing any form of service from the council. Transport of unrecyclable waste to Kakching Cluster.
18	Mayang Imphal MC	4	7.02	• 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	• Treatment Plant/Composting Pits and segregation Sheds/MRF are operational. • Remaining collected waste are sent to treatment plant at Lamdeng. • Segregated recyclable waste sent to recycler
19	Wangoi MC	1	1.25	• Home composting and manual segregation of waste	• Encouraging source segregation and home composting • Awareness drives and engagement of recyclers for dry waste
20	Kumbi MC	1	1.29	• Composting	• Now 100% D2D Collection • Land available 0.27 acre
21	Kwakta MC	1	0.55	• Composting	• Untreated waste is dumped at uncontrolled dumpsite as a short time measure. Once the cluster basis is completed, the untreated wastes shall be transferred at the cluster head for further processing
22	Moirang MC	4	2.99	• Composting	• Segregation shed has constructed. • Composting plants also been constructed and it has commissioned. • IEC Campaign has organised for proper 100% source segregation.
23	Ningthoukhong MC	5.5	1.7	• Composting & sent back for re-cycling	• Vigorous IEC campaign and implementation of stringent rules or bye-laws
24	Bishnupur MC	5	2.8	• Sanitary Landfill	• Vigorous IEC campaign and implementation of stringent rules or by-laws • By-Laws is published and shall be implemented for closing the gap
25	Oinam MC	1.5	0.9	• Composting • Composting	• Encouraging households to source segregate waste and practice home composting of wet waste.

SN	Name of MSW processing unit	Installed capacity	Utilization (in TPD)	Type of processing	Action plan to bridge Gap between utilization and installed facility
					Engaging recyclers for dry waste
26	Nambol MC	2	1.9	- Composting pit - Manual Segregation initiated at the segregation shed	- Increasing recovery of other recyclable materials apart from plastic bottles/waste - Encouraging source segregation and home composting.
27	Jiribam MC	22.005	2.21	Composting, send back for recycling, MRF	Nil
	Total	193	147		

Action plan to bridge gap between Installed Capacity and Current Utilization of processing facilities (if Gap > 20%)	Planning for upgrade the installed capacity as per required by 2029-30
No. and capacity of C&D waste processing plants in TPD (existing, proposed and under construction)	- Existing – Nil - Proposed – 5TPD
Total No. of wards	305 Wards
No. of wards having door to door collection service	305 Wards
No. of wards practicing segregation at source	305 Wards

- Details of MSW treatment facilities proposed and under construction:

Sl. No.	Name of ULB or Processing unit	Capacity	Technology	Proposed / under Construction
1	Annexed at Table-3			
	No. and area (in acres) of uncontrolled garbage dumpsites and Sanitary Landfills		5 (five) sanitary landfill and 7 controlled dumpsites - Annexure-Table 3	
	No. and area (in acres) of legacy waste within 1km buffer of both side of the rivers		Nil	
	No. of drains falling into rivers and no. of drains having floating racks/screens installed to prevent solid waste from falling into the rivers		1 at Jiribam MC [floating racks/screens installed]	
	Status of ULB wise Management of Solid waste		At Annexure – Table -1 and Table -2	

V. Bio-medical Waste Management January, 2024:

Total Bio-medical generation	:	0.83 TPD	• Deep burial practiced at remote rural areas • DPR submitted to ministry for up-gradation of the existing CBMWTF • Action Plan submitted to the State Pollution Control Board by the Directorate Health Service for BMW management
No. of Hospitals and Health Care Facilities	:	534 Nos. [i/c 420 PHSCs]	
Status of Treatment Facility CBMWTF	:	CBMWTF = 1 No. (capacity-100 Kg/hr.) Captive Facility = 2 Nos. (Capacities-100 Kg/hr. & 105 Kg/hr.) Deep Burial = 391 Nos.	
Status of Treatment Facility ETPs	:	54 Nos.	

VI. Hazardous Waste Management:

Total Hazardous Waste generation	:	0.99 TPD
No. of Industries generating Hazardous waste	:	334 (automobile service centres mainly micro-scale units)
Treatment Capacity of all TSDFs	:	Nil
Avg. Quantity of Hazardous waste reaching the TSDFs and Treated	:	Nil
Details of on-going or proposed TSDF	:	Under preparation of DPR, Final DPR by 2024 2024

VII. Plastic Waste Management:

Total Plastic Waste generation	:	
Treatment / Measures adopted for reduction or management of plastic waste	:	
Details of Alternate Treatment Technology being adopted by the State/UT	:	
Identification of including drains contributing to river pollution and action as per NGT order on in-situ treatment	:	
Details of Nodal Officer appointed by Chief Secretary in the State / UT	:	
VIII. Details of meetings carried under the in the State/UT	:	
IX Latest water quality of polluted river, its tributaries, drains with flow details and ground water quality in the catchment of polluted river	:	
IX. Ground water regulation	:	
X. Good irrigation practices being adopted by the State	:	
XI. Rainwater Harvesting	:	
XII. Demarcation of Floodplain and removal of illegal encroachments	:	

XIII.	Maintaining minimum e-flow of river	:	
XIV.	Plantation activities along the rivers	:	
XV.	Development of biodiversity park	:	
XVI.	Reuse of Treated Water	:	
XVII.	Model River being adopted by the State & Action Proposed for achieving the bathing quality standards	:	
XVIII.	Status of Preparation of Action Plan by the 13 Coastal States	:	
XIX.	Regulation of Mining Activities in the State / UT	:	The Mines and Mineral (Regulation and Development) Act, 1957 differentiates minerals into (a) major mineral and (b) minor mineral. The mineral administration of mining activities belonging to major minerals vests with the Central Government and are regulated under the Mines and Mineral (Regulation and Development) Act and Rules frame there under. The mineral administration of minor minerals vests with the respective State Governments and are regulated under their respective minor mineral concession Rules framed under section 15(1) of the Act and Rules framed their under. Similarly, in Manipur, the mining activities belonging to minor minerals are regulated under the Manipur Minor Mineral Concession Rules, 2012 and amendments thereon. In order to check illegal mining, to regulate transportation and storage of minor minerals, The Manipur Minerals (Prevention of Illegal Mining, Storage and Transportation) rules, 2018 has also been notified. In addition, The Manipur Mineral Policy, 2021 is being framed.
XX.	Action against identified polluters, law violators and officers responsible for failure for vigorous monitoring	:	

A. Total Status of STPs in Imphal (as on 20th January, 2024)

Particular	Unit	Phase I	Phase II	Ongoing NRCD Project	Total
Capacity of STP	MLD	27	49	17	93
Capacity of STP Utilized	MLD	21.59			21.59
Total Sewer Pipe	RM	69,429	2,77,289		3,46,718
Primary (Main Pipe)	RM	25,291			25,291
Secondary (Sub-main Pipe)	RM	44,138			44,138
Interception & Diversion Pipelines	RM			14,545	14,545
No. of urban drains to be collected	Drain			72	72
Targeted Connection septic tank	Unit	9,564	42,190		
Connected septic tank	Unit	8000			8000
Lift Station	Unit	5	21	14	40
Population (by 2054)	Lakh	1,86,534	3,49,759		5,36,293
Covered Municipal Ward	Wards	11	16	14	
Area covered	Sq. Km.	11	35		
Covered Polluted River				Nambul P-II	
Method of Treatment		ASP	SBR	MBBR	

Note : Targeted household for Phase I has been decreased from 12,000 Nos. to 9,564 because 2436 household shall be covered in Imphal Sewerage project – Phase II.

Status of utilization of the existing STP :

- 1 (one) unit of 27 MLD STP (ASP technology) is operational under PHED
- 69,429 rm sewer pipeline [25,291 rm primary lines, 44.14 rm secondary lines]
- Total target connection is 9,564 households

INCREMENTAL STATUS OF UTILIZATION FOR 27 MLD AT LAMPHELPAT, IMPHAL WEST

	Jan 2022	Feb 2022	Mar 2022	Apr 2022	May 2022	June 2022	July 2022	Aug 2022	Sep 2022	Oct 2022	Cumulative as on 20 th Jan. 2024	Gap
Household Connected	4000	250	250	60	10	30	0	50	280	356	8000	1564
Utilization in MLD	9 MLD	9.5 MLD	10 MLD	10.26 MLD	10.28 MLD	10.35 MLD	10.35 MLD	16.5 MLD	17.34 MLD	18.35 MLD	21.59 MLD	5.41 MLD
Utilization in %	33%	35%	38%	38%	38%	38%	38%	61.31 %	64.24 %	67.96 %	79.98 %	20.02 %
	Nov. 2022	Dec. 2022	Jan. 2024	Feb. 2024	Mar. 2024	May 2024	June 2024	July 2024	Aug 2024	Sept 2024		
Household Connected	800	50	14	150	20	50	0	0	0	0		
Utilization in MLD	20.60 MLD	20.74 MLD	20.78 MLD	21.17 MLD	21.22 MLD	21.59 MLD	21.59 MLD	21.59 MLD	21.59 MLD	21.59 MLD		
Utilization in %	76.32 %	76.85 %	76.99%	78.41 %	78.62 %	79.98 %	79.98 %	79.98 %	79.98 %	79.98 %		

	Oct. 2024	Nov 2024	Dec 2024	Jan 2024								
Household Connected	0	30	20	300								
Utilization in MLD	21.59 MLD	21.59 MLD	21.59 MLD	21.59 MLD								
Utilization in %	79.98 %	79.98 %	79.98 %	79.98 %								

B. In-situ Bio-remediation and others :

	Name of the Polluted River (P-V)	Total Length of the River	Length of Polluted stretches	BOD Range (mg/l)	Population at polluted zone	Status / Proposed for Treatment
1	Imphal	89.24 km	19.98 km	2.9 - 3.1	84,857	- Revised DPR for Imphal River along with Fecal Sludge and Septage Management (FSSM) for 315 KLD at 27 ULBs and in situ treatment through Bio-remediation of 16.75 MLD submitted to NRCD on 18th September 2021. - Revised DPR with full justification on the comments made by the Ministry will be submitted soon.
2	Iril	156.50 km	18.12 km	2.8 - 3.0	1,714	
3	Khuga	79.25 km	10.92 km	2.0 – 3.0	857	
4	Khujairok	10.06 km	4.21 km	3.2	4,286	
5	Lokchao/ Thongjarok	17.04 km	5.31 km	3.0	1,143	
6	Manipur	261.00 km	35.00 km	3.1	7,143	
7	Thoubal	142.80 km	24.61 km	2.8	30,286	
8	Wangjing	35.08 km	3.70 km	3.1 - 3.2	7,143	

Note :

ASP (Activated Sludge Process), EAP (Extended Aeration Process),
SBR (Sequencing Batch Reactor), MBBR (Moving Bed Biofilm Reactor)

FORMAT FOR SEWAGE TREATMENT PLANTS AND UTILIZATION OF SEWAGE (20 th JANUARY, 2024)																
Sl. No.	City / Town	No. of STP	Location of STP	Coordinates of STP	STP Commissioned year	Status (operational/ Non-Operational/ Under Construction)	STP Installed Capacity (In MLD)	Actual Utilization of installed capacity (In MLD)	Technology UASB / ASP / OP / SBR / MBBR / FAB etc.	Consent status	Compliance Status Source: Manipur Pollution Control Board					
											Oil & Grease	pH	TSS mg/l	COD mg/l	BOD mg/l	Faecal Coliform
1	Imphal	1	Lamphei	24°49'45"N 93°54'58'E	2020	Operational	27	21.59 MLD	ASP		2.4	7.4	26	36	10.4	125

LIST OF WATER POLLUTING FACTORIES LOCATED WITHIN INDUSTRIAL ESTATE/FOOD PARK

Takyel Industrial Estate, Imphal West Districts, Manipur.

Sl. No.	Name of unit	Nearest River	Proprietor	Name of Products
1	M/S Modern Foods	Nambul	T. Sanajaoba Singh	Noodles
2	M/S Hangle Industries	Nambul	H. Nabadeep Singh	Spices & Food Products
3	M/S Pera Fruit Products	Nambul	Kh. Sanayaima Singh	Fruit Processing
4	M/S Khudol	Nambul	K. Siddhanta Sharma	Food Processing
5	M/S Ratana Fruit	Nambul	L. Sarat Singh	Food items
6	M/S Universal Iodises Salt Industries	Nambul	P. Joychandra Singh	Food Items

Nilakuthi Food Park, Imphal East

Sl. No.	Name of unit	Nearest River	Proprietor	Name of Products
1	Shree Balaji Flour Mill	Imphal	Mrs. Rangnamei Martha	Flour
2	KMU	Imphal	Wangkheirakpam Gobin Singh	Bakery
3	Thangjam Agro Industries Pvt. Ltd.	Imphal	Thangjam Joykumar Singh	Bakery

TABLE 1 : SOLID WASTES GENERATION, COLLECTION AND MANAGEMENT - ULB WISE IN MANIPUR, JANUARY, 2024

No.	Name of ULB	Population		Solid Waste Generated (MTD)	Waste Collected (TPD)	Gap between Generated and (Collected + Managed at source)	Managed/Treated (in TPD)					Plan to mitigate the gap between generation of wastes vs collection, managed / treated and Remarks
		2011 Census	2021 Projected				Facilities (TPD)	Managed / Treated	Processed at source	Map Gap in TPD	Gen-Man Gap= [(Gen-Man)/ Gen] x 100	
1	Imphal MC	2,65,573	3,50,050	157.5	130.0	2	100	90	25.5	115.5	27%	• Intensive campaign through IEC
2	Lamshang MC	8,130	9739	2.92	1.23	0.19	1	1.23	1.5	2.73	6.51%	• Capacity Building in collection, management and processing.
3	Samurou MC	14818	18602	5.58	3.52	0.52	5	3.52	1.54	5.06	9.32%	• Presently collected waste after segregation of recyclable plastic waste and cardboard is being transferred to Lamdeng Solid Waste Management Plant. • Increase in awareness & increase in manpower and vehicles. • Allotment of Permanent land for management of solid waste has been proposed to DC
4	Thongkhong Laxmi MC	14,878	18,677	5.6	3.41	0.52	0.5	3.41	1.67	5.08	9.29%	• In terms of ward wise, area wise leikai wise coverage of D2D collection. There is 100% coverage of D2D More awareness and behavioral change campaign
5	Sekmai MC	5,065	6,358	1.9	1.20	0.2	1	1.2	0.50	1.7	11%	• Engagement of local clubs/SHGs to achieve 100% segregation at source. • Capacity enhancement for management and processing
6	Lilong IW MC	12,427	15,600	4.6	1	0.6	1	1	3	4	13%	• More composting pits, more vehicles and manpower and

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		2011 Census	2021 Projected				Facilities (TPD)	Managed / Treated	Processed at source	Map Gap in TPD	Gen-Man Gap= [(Gen-Man)/ Gen] x 100	
												encouraging source segregation and home composting. Cluster basis facilities at Lamdeng SWM Plant.
7	Lamlai MC	4,601	5,776	1.73	1	0	3	0.9	0.73	1.63	6%	• Treatment facilities at Lamdeng Waste to energy Plant (Cluster Approach)
8	Thoubal MC	45,947	57,678	17.3	8.3	0.5	13	8.3	8.5	16.8	2.89%	• Encouraging source segregation and home composting • Awareness generation to public. • Compactor machine Segregation machine, compressor
9	Yairipok MC	9,569	12,012	3.6	1.6	0	1	1.6	2	3.6	0%	• Treatment facilities at Thoubal cluster
10	Sikhong Sekmai MC	7,390	9,277	2.78	0.56	0	6	0.56	2.22	2.78	0%	• Treatment facilities at Thoubal cluster
11	Lilong TBL MC	24,900	31,258	9.3	2.00	0.8	1	1	6.5	7.5	19%	• More composting pits, more vehicles and manpower and encouraging source segregation and home composting.
12	Heiropok MC	2,974	3,733	1.12	0.47	0	1	0.4	0.65	1.05	6.3%	• Treatment facilities at Thoubal Khunou (Cluster B) • Increase in manpower. • Awareness drives & Engagement of recyclers
13	Wangjing Lamding MC	8,055	10,112	3.03	1	0	1	0.81	2.03	2.84	6.3%	• Treatment facilities at Thoubal Khunou (Cluster B) • Increase in manpower.

No.	Name of ULB	Population		Solid Waste Generated (MTD)	Waste Collected (TPD)	Gap between Generated and Collected + Managed at source)	Managed/Treated (in TPD)					Plan to mitigate the gap between generation of wastes vs collection, managed / treated and Remarks
		2011 Census	2021 Projected				Facilities (TPD)	Managed / Treated	Processed at source	Map Gap in TPD	Gen-Man Gap= [(Gen-Man)/ Gen] x 100	
												Awareness drives & Engagement of recyclers
14	Andro MC	8,744	10,977	3.29	0.9	0	1.07	0.83	2.39	3.22	2.13%	- Treatment facilities at Thoubal Khunou (Cluster B) - Increase in manpower. - Awareness drives & Engagement of recyclers
15	Kakching MC	32,138	40,344	12.1	8.63	0.07	7	6.8	3.4	10.2	16%	Intensified IEC on door-to-door waste collection and source segregation. Mandatory submission of payment receipts of D2D waste collection at the time of availing any form of service from the council
16	Kakching Khunou MC	11,379	14,284	4.28	2.60	0.07	2.2	2.1	1.61	3.71	13%	Transport of remaining segregated waste to Kakching cluster. Engagement of recyclers.
17	Sugnu MC	5,132	6,442	1.93	1.17	0.26	1.2	0.7	0.50	1.2	38%	- Intensified IEC on door-to-door waste collection and source segregation - Mandatory submission of payment receipts of D2D waste collection at the time of availing any form of service from the council - Transport of unrecyclable waste to Kakching Cluster
18	Mayang Imphal MC	24,239	34,428	10.33	7.02	0	4	7.02	3.31	10.33	0%	Treatment Plant/Composting Pits and segregation Sheds/MRF are

No.	Name of ULB	Population		Solid Waste Generated (MTD)	Waste Collected (TPD)	Gap between Generated and (Collected + Managed at source)	Managed/Treated (in TPD)					Plan to mitigate the gap between generation of wastes vs collection, managed / treated and Remarks
		2011 Census	2021 Projected				Facilities (TPD)	Managed / Treated	Processed at source	Map Gap in TPD	Gen-Man Gap= [(Gen-Man)/ Gen] x 100	
												operational. Remaining collected waste are sent to treatment plant at Lamdeng. • Segregated recyclable waste are sent to recycler
19	Wangoi MC	9,106	11,431	3.43	1.45	0	1	1.25	1.98	3.23	6%	• Encouraging source segregation and home composting • Awareness drives and engagement of recyclers for dry waste
20	Kumbi MC	9,546	11,983	3.59	2	0.08	1	1.29	1.51	2.8	22%	• Now 100% D2D collection· Land available 0.27 acre
21	Kwakta MC	8,579	10,769	3.23	1.13	0	1	0.55	2.1	2.65	17.96%	• Untreated waste is dumped at uncontrolled dumpsite as a short time measure. Once the cluster basis is completed, the untreated wastes shall be transferred at the cluster head for further processing
22	Moirang MC	19,893	24,972	7.49	5.4	0.09	4	2.99	2	4.99	33%	• Segregation shed has constructed. Composting plans also been constructed. It has commissioned. IEC Campaign has organised for proper 100% source segregation.
23	Ningthoukhong MC	13,078	16,417	5.00	2.2	0.3	5.5	1.7	2.5	4.2	16%	• Vigorous IEC campaign and implementation of stringent rules or by laws
24	Bishnupur MC	12,167	15,274	4.58	3.48	0	5	2.8	1.1	3.9	14.8%	• Vigorous IEC campaign and implementation of stringent rules

No.	Name of ULB	Population		Solid Waste Generated (MTD)	Waste Collected (TPD)	Gap between Generated and (Collected + Managed at source)	Managed/Treated (in TPD)					Plan to mitigate the gap between generation of wastes vs collection, managed / treated and Remarks
		2011 Census	2021 Projected				Facilities (TPD)	Managed / Treated	Processed at source	Map Gap in TPD	Gen-Man Gap= [(Gen-Man)/ Gen] x 100	
												or bye-laws, By-Laws is published and shall be implemented for closing the gap
25	Oinam MC	7,161	8,989	2.7	1.6	0	1.5	0.9	1.1	2	26%	- Encouraging households to source segregate waste and practice home composting of wet waste. - Engaging recyclers for dry waste.
26	Nambol MC	22,512	28,260	8.5	4.3	0	2	1.9	4.2	6.1	28%	- Increasing recovery of other recyclable materials apart from plastic bottles/waste. - Encouraging source segregation and home composting.
27	Jiribam MC	7,343	9,218	2.76	1.90	0	22.005	1.9	0.86	2.76	0%	NIL
Total		6,15,344	7,92,660	290	199	6.19	193.0	147	84.6	231.56		
PC to the generated wastes					69%	2%	67%	51%	29%	80%	20%	

Note : *1. Taking r=2.3 as annual Population growth rate [Ref.: MoUD, GoI] *2. Waste generated is estimated including floating population @10%
*3. As per SBM 2.0 guidelines, Waste generated is estimated in @450gm per capita generation (for more than 1 lakh population) for Imphal MC and @ 300gm per capita generation (for less than 1 lakh population)

TABLE 2 : SOLID WASTES GENERATION, COLLECTION AND MANAGEMENT – WARDWISE OF ULBs IN MANIPUR, JANUARY, 2024

Sl. No.	Name of ULB	Total Wards	Door to Door (D2D) Collection		Segregated at source		Land Available in Acre	Type of processing unit	Plan to mitigate the gap generation and Management
			No. of Wards	in %	No. of Wards	in %			
1	Imphal MC	27	27	100%	27	80%		Waste to Energy plant (WTE) and composting	Intensive campaign through IEC
2	Lamshang MC	9	9	100%	9	100%	0	Aerobic Composting	Continue IEC activities to emphasize Segregation at Source
3	Samurou MC	11	11	100%	11	70%	0	Segregation cum transfer station	- Presently collected waste after segregation of recyclable plastic waste and cardboard is being transferred to Lamdeng Solid Waste Management Plant. - Increase in awareness. - Increase in Manpower and vehicles. - Allotment of Permanent land for management of solid waste has been proposed to DC.
4	Thongkhong Laxmi MC	11	11	100%	11	70%	0	Segregation cum transfer station and composting pits.	- In terms of Ward-wise, Region-wise, Area-wise, Leikai-wise, Leirak-wise coverage of D2D collection, there is 100% coverage of D2D - More awareness and behavioural change campaign required. - Capacity building of manpower
5	Sekmai MC	9	9	100%	9	100%	0	- Home Composting is predominant in all wards - Central Composting at Segregation Shed , Parao - Mixed/ Dry Waste disposed at Lamdeng SWM Plant	On going IEC activities to emphasize segregation at Source

Sl. No.	Name of ULB	Total Wards	Door to Door (D2D) Collection		Segregated at source		Land Available in Acre	Type of processing unit	Plan to mitigate the gap generation and Management
			No. of Wards	in %	No. of Wards	in %			
6	Lilong IW MC	9	9	100%	9	80%	0	- Segregation Shed for Material Recovery - Vermi composting	More composting pits, more vehicles and manpower and encouraging source segregation and home composting. Cluster basis facilities at Lamdeng SWM Plant.
7	Lamlai MC	9	9	100%	9	100%	0.88	- Composting (Home +Centralised) - Source segregation and centralised segregation	- Treatment facilities at Lamdeng Waste to energy Plant (Cluster Approach) - Rigorous IEC activities
8	Thoubal MC	18	18	100%	18	88%	6.7	Segregation and composting	- Engaging more workers in the composting plant - Introduction of compactor machines - Introduction of trammel, compressor
9	Yairipok MC	9	9	100%	9	100%	2.2	- Wet waste get processed at source itself as feed of poultry and piggery farms - Segregated recyclable waste is sent to recycler	Treatment facility at Thoubal Cluster
10	Sikhong Sekmai MC	9	9	100%	9	100%	0.62	- Wet waste gets processed at source as feed of poultry and piggery. - Segregated recyclable waste is sent to recycler	Treatment facility at Thoubal Cluster
11	Lilong TBL MC	9	9	100%	9	70%	0.313	- Segregation Shed - Composting Unit	More composting pits, more vehicles and manpower and encouraging source segregation and home composting
12	Heirol MC	9	9	100%	9	100%	2.084	Transfer and Segregation Station and Composting	Treatment facility at Thoubal Khunou (Cluster B)
13	Wangjing Lamding MC	9	9	100%	9	100%	1.46	Segregation and transfer station	Treatment facility at Thoubal Khunou (Cluster B)

Sl. No.	Name of ULB	Total Wards	Door to Door (D2D) Collection		Segregated at source		Land Available in Acre	Type of processing unit	Plan to mitigate the gap generation and Management
			No. of Wards	in %	No. of Wards	in %			
14	Andro MC	12	12	100%	12	100%	0.96	• Bulk of wet waste is processed or consumed at source a poultry & piggery feeds • Aerobic Composting • Segregation & Recycling	• Treatment facility at Thoubal Khunou (Cluster B)
15	Kakching MC	12	12	100%	12	98%	2	• Composting, segregation & recycling	• Intensified awareness on source segregation. • Manual segregation • Mechanical segregation (to be started shortly) and aerobic composting to mitigate the gap of generation and management.
16	Kakching Khunou MC	9	9	100%	9	92%	2	• Composting, segregation & Recycling	• Intensified awareness on source segregation. • Manual segregation • Mechanical Segregation(to be started shortly) and • Aerobic composting to mitigate the gap of generation and management
17	Sugnu MC	9	9	100%	9	82%	1	• Composting, Segregation & Recycling	• Transport of remaining unrecyclable segregated waste to Kakching cluster - Engagement of recyclers • Intensified awareness on source segregation, manual segregation and composting to mitigate the gap of generation and management.

Sl. No.	Name of ULB	Total Wards	Door to Door (D2D) Collection		Segregated at source		Land Available in Acre	Type of processing unit	Plan to mitigate the gap generation and Management
			No. of Wards	in %	No. of Wards	in %			
18	Mayang Imphal MC	13	13	100%	13	100%	1.25	• Treatment plant/ composting pit and segregation sheds/MRF are operational. • Remaining collected waste sent to treatment plant at Lamdeng Imphal • Segregated recyclables sent to recycler	• Treatment Plant/Composting Pits and segregation Sheds/MRF are operational. • Remaining collected waste sent to treatment plant at Lamdeng Imphal • Segregated recyclables sent to recycler
19	Wangoi MC	9	9	100%	9	100%	0.70	• Home composting and manual segregation of waste	• Treatment facility at Lamdeng waste to energy plant
20	Kumbi MC	9	9	100%	9	80%	0.52	• Composting	
21	Kwakta MC	9	9	100%	9	65%	0.625	• Composting	• Untreated waste is dumped at uncontrolled dumpsite as a short time measure. • Once the cluster basis is completed, the untreated wastes shall be transferred at the cluster head for further processing
22	Moirang MC	12	12	100%	12	70%	5.1	• Composting	• Requested DC to allot land. • Rigorous IEC Campaign to be held for source segregation
23	Ningthoukhong MC	14	14	100%	14	85%	1.31	• Composting & sent back for re-cycling	• Composting and recycling
24	Bishnupur MC	12	12	100%	12	85%	5	• Sanitary Landfill	• Composting plant at 2.5 Acre
25	Oinam MC	9	9	100%	9	70%	0	• Composting	• Encouraging households to source segregate waste and practice home composting of wet waste. • Engaging recyclers for dry waste.

Sl. No.	Name of ULB	Total Wards	Door to Door (D2D) Collection		Segregated at source		Land Available in Acre	Type of processing unit	Plan to mitigate the gap generation and Management
			No. of Wards	in %	No. of Wards	in %			
26	Nambol MC	18	18	100%	18	88%	3.21	• Composting pit • Manual Segregation initiated at the segregation shed	• Capacity building of sanitary Workers • Increasing manpower, vehicles and machinery • Extensive awareness drive • Co-opting SHGs and CSOs in SWM
27	Jiribam MC	10	10	100%	10	82%	6.02	• Composting, Send back for recycling, MRF	• Nil
Total		305	305		305		45.009		
In Percentage-Ward coverage				100%		100%			
Average Household coverage				100%		87%			

Table-3 : SOLID WASTES PROCESSING AND MANAGEMENT – WARDWISE OF ULBS IN MANIPUR, JANUARY, 2024

Sl No.	Name of ULB or Name of Processing Unit	Processing unit Under Construction		Uncontrolled Dumpsite		Controlled Dumpsite		Sanitary Landfill		Area of Legacy waste within 1 km buffer of the river	Drains falling into river having floating racks/screen
		Capacity TPD	Technology	No.	Area (Acre)	No.	Area (Acre)	No.	Area (Acre)		
1	Imphal MC and Lamdeng SWM Plant	Nil	Waste to Energy Plant and composting	Nil		Nil	Nil	1	Nil	Nil	Nil
2	Lamshang MC	NA	Human composting and manual segregation of waste. Dry waste to Lamdeng SW plant	Nil		Nil	Nil	Nil	Nil	Nil	Nil
3	Samurou MC	NA	NA	Nil		Nil	Nil	Nil	Nil	Nil	Nil
4	Thongkhong Laxmi MC	NA	NA	Nil		Nil	Nil	Nil	Nil	Nil	Nil
5	Sekmai MC	0	Aerobic composting	Nil		0	0	Nil	Nil	Nil	Nil
6	Lilong IW MC	0	Manual Segregation of waste for material recovery Vermicomposting pits	Nil		Nil	Nil	Nil	Nil	Nil	Nil
7	Lamlai MC	0	NA	Nil		Nil	Nil	Nil	Nil	Nil	Nil
8	Thoubal MC	0	Manual Segregation and aerobic composting	Nil		Nil	Nil	1	2	Nil	Nil
9	Yairipok MC	0	Composting/aerobic	Nil		Nil	Nil	Nil	Nil	Nil	Nil
10	Sikhong Sekmai MC	0	Composting/aerobic	Nil		Nil	Nil	Nil	Nil	Nil	Nil

Sl No.	Name of ULB or Name of Processing Unit	Processing unit Under Construction		Uncontrolled Dumpsite		Controlled Dumpsite		Sanitary Landfill		Area of Legacy waste within 1 km buffer of the river	Drains falling into river having floating racks/screen
		Capacity TPD	Technology	No.	Area (Acre)	No.	Area (Acre)	No.	Area (Acre)		
11	Lilong TBL MC	0	Manual Segregation of waste for material recovery	Nil		Nil	Nil	Nil	Nil	Nil	Nil
12	Heirok MC	0	Manual Segregation and composting/aerobic	Nil		Nil	Nil	Nil	Nil	Nil	Nil
13	Wangjing Lamding MC	0.3	Manual Segregation and composting/aerobic	Nil		Nil	Nil	Nil	Nil	Nil	Nil
14	Andro MC	0	Manual segregation & aerobic composting	Nil		Nil	Nil	Nil	Nil	Nil	Nil
15	Kakching MC	0	Manual segregation	Nil		1	2	1	2.5	Nil	Nil
16	Kakching Khunou MC	0	NA	Nil		0	0	Nil	Nil	Nil	Nil
17	Sugnu MC	0	NA	Nil		Nil	Nil	Nil	Nil	Nil	Nil
18	Mayang Imphal MC	0	Manual segregation of waste & composting construction completed.	Nil		Nil	Nil	Nil	Nil	Nil	Nil
19	Wangoi MC	0	Nil	Nil		Nil	Nil	Nil	Nil	Nil	Nil
20	Kumbi MC	0	Composting pit	Nil		1	0.27	Nil	Nil	Nil	Nil
21	Kwakta MC	0	Composting unit	Nil		1	0.016	Nil	Nil	Nil	Nil
22	Moirang MC	0	Segregation, composting and recovery of reusable	Nil		1	2.5	Nil	Nil	Nil	Nil

Sl No.	Name of ULB or Name of Processing Unit	Processing unit Under Construction		Uncontrolled Dumpsite		Controlled Dumpsite		Sanitary Landfill		Area of Legacy waste within 1 km buffer of the river	Drains falling into river having floating racks/screen
		Capacity TPD	Technology	No.	Area (Acre)	No.	Area (Acre)	No.	Area (Acre)		
			wastes.								
23	Ningthoukhong MC	0	AnaerobicSegregation, Composting and recovery of reusable wastes.	Nil		1	1.31	Nil	Nil	Nil	Nil
24	Bishnupur MC, Multi-Segregation shed at Chothe Village, Ward No. 12	0	Manual segregation and aerobic composting	Nil		Nil	Nil	1	2.5	Nil	Nil
25	Oinam MC	0	Composting (operational)	Nil		1	0.4	Nil	Nil	Nil	Nil
26	Nambol MC	0	Manual segregation, Aerobic and vermi-composting	Nil		1	3.21	Nil	Nil	Nil	Nil
27	Jiribam MC	0	Manual segregation, Pit composting, Windrow composting and MRF, C&D waste processing unit	Nil		Nil	Nil	1	1.72	Nil	1
	Total	0.3				7	9.706	5	8.72		1

STATUS OF WATER QUALITY OF POLLUTED RIVERS**Remark :**

Manipur Pollution Control Board has been conducting monthly water quality analysis of the polluted rivers. The monthly water quality data of the polluted rivers will be reported during 1st week of the next month i. e. Report for December will get on 1st - 10th 2024. Therefore, Water Quality Report for December will be reproduced in the MPR of January 2024.

Water Quality of the Imphal, Iril, Manipur, Thoubal, Wangjing, Khuga, Khujairok, Lokchao, Nambul, Waisel Maril & Moirang Rivers and Effluent of Sewage Treatment Plant, Langol
for the month of December, 2024

1. Imphal River

Location	DO	pH	BOD mg/L	COD mg/L	Fecal Coliform (MPN/100ml)
Koirengei	7.3	7.2	3.1	6.3	56
Minutrhong	7.2	7.3	3.2	8.2	60
Mahabali	7.3	7.3	3.2	7.3	75

2. Iril River

Location	DO	pH	BOD mg/L	COD mg/L	Fecal Coliform (MPN/100ml)
Kangla Siphai	7.4	7.5	3.0	9.2	45
Porompat	7.4	7.4	3.1	8.1	55
Lilong	7.2	7.3	3.2	10.1	60

3. Manipur River

Location	DO	pH	BOD mg/L	COD mg/L	Fecal Coliform (MPN/100ml)
Yairipok	7.2	7.43	3.2	8.7	65
Sekmaiing	7.3	7.4	3.2	8.6	60
Ithai	7.2	7.3	3.3	8.3	70

4. Thoubal River

Location	DO	pH	BOD mg/L	COD mg/L	Fecal Coliform (MPN/100ml)
Litan	7.4	7.5	3.0	9.7	45

5. Wangjing River

Location	DO	pH	BOD mg/L	COD mg/L	Fecal Coliform (MPN/100ml)
Heirok	7.2	7.2	3.2	8.8	50
Wangjing	7.1	7.3	3.3	9.5	70

6. Khuga River

Location	DO	pH	BOD mg/L	COD mg/L	Fecal Coliform (MPN/100ml)
Churachandpur Bazar	7.1	7.3	3.3	8.7	70
Khuga Dam	7.3	7.4	3.1	9.1	35

7. Khujairok River

Location	DO	pH	BOD mg/L	COD mg/L	Fecal Coliform (MPN/100ml)
Khujairok	7.2	7.3	3.4	10.6	140

8. Lokchao River, Bishnupur

Location	DO	pH	BOD mg/L	COD mg/L	Fecal Coliform (MPN/100ml)
Lokchao Bridge near Bishnupur Bazar	7.3	7.2	3.2	8.3	55

9. Nambul River

Location	DO	pH	BOD mg/L	COD mg/L	Fecal Coliform (MPN/100ml)
Samushang	6.7	7.1	4.1	15.1	120
Naoremthong	6.3	7.0	4.1	14.8	115
Hump Bridge	5.7	6.8	4.3	15.7	240
Heirangoithong	6.0	6.7	4.5	14.7	250
Singda Dam	7.4	7.3	3.1	8.0	20

10. Kongba River

Location	DO	pH	BOD mg/L	COD mg/L	Fecal Coliform (MPN/100ml)
Kongba Eranpham	5.4	7.1	4.5	14.7	130
Kongba Erong	4.9	7.0	4.3	8.8	140

11. Waisel Maril

Location	DO	pH	BOD mg/L	COD mg/L	Fecal Coliform (MPN/100ml)
Meijrao Bridge, Hiyangthang	5.7	7.1	4.3	12.4	180
Kha Sangenbam Mayai Leikai	6.8	7.2	4.2	12.2	90

12. Moirang River

Location	DO	pH	BOD mg/L	COD mg/L	Fecal Coliform (MPN/100ml)
Laikhurembi, Moirang Bazar	7.0	7.1	3.6	9.1	65

13. Sewage Treatment Plant Effluent

Location	Oil & Grease (mg/L)	pH	TSS mg/L	BOD mg/L	COD Mg/l	Fecal Coliform (MPN/100ml)
Langol	2.3	7.3	25	9.5	37	120

Action Plan of the model river in Manipur

Action	Target Action	Priority – II : Nambul River		
		Target Quantity	Time Line	Status
Action 1	Solid Waste Management			
1.1	Identification of garbage vulnerable point	12 Municipal Wards	Oct 2019	Completed Action: MAHUD / IMC
1.2	Door to Door Collection, identify & register of missed out house hold, punitive action against litterer along the river	12 Municipal Wards	Oct 2019	Completed Action: MAHUD / IMC
1.3	Formation of Tasks Force for proper implementation of waste management		Oct 2019	Constituted
1.4	Providing of household waste bins	19,863 bins	Oct 2020	80% completed Action: Environment & CC
1.5	High rise fencing of grilling and netting at vulnerable zones of both the river banks to protect throwing of solid wastes into the river	5 km	Apr 2021	Completed Action: Environment & CC
1.6	Renovation of existing crematoria along the river stretch	56 Nos.	Apr 2021	Completed Action: Environment & CC
1.7	Installation of secondary waste collection bins / community bins / dumper placer containers / transfer bins / littering bins at suitable places	37 Nos.	Oct 2020	Completed Action: Environment & CC
1.8	Construction of Public toilets at vulnerable points	35 Nos. by IMC 20 Nos. under NRCD	Apr 2021	Completed Action: Environment & CC
1.9	IEC / Public Awareness Activities	14 No. (one each in every ward)	Every month	Conducted regularly Action: Environment & CC
Action 2	Channelization, treatment, utilization and disposal of treated domestic sewage			
2.1	Identification of location and estimation of liquid waste generation at Imphal town		Oct 2019	Completed Action: PHED
2.2	Interception and diversion of the urban drains / outfalls to the Nambul River by laying pipes of 14,545 meters at both the banks of River at 12 Municipal Wards viz. 6, 7, 8, 9, 11, 12, 13, 14,15, 16, 24 and 27		Apr 2022	30% Completed Action: Environment & CC
2.3	Treatment option and capacity : Installation of 2 (two) Sewage Treatment Plants (STPs) of 16 MLD and 1 MLD		Apr 2022	85% Completed Action: Environment & CC
2.4	Commissioning of the Imphal Sewerage Project Phase-I of 27 MLD		Dec 2019	Commissioned Action: PHED
2.5	Commissioning of the Imphal Sewerage Project Phase-II of 41 MLD		Apr 2022	DPR Submitted, waiting for approval of NIT from NDB Action: PHED

Action	Target Action	Priority – II : Nambul River		
		Target Quantity	Time Line	Status
Action 3	Protection of catchment area			
3.1	<i>In-situ</i> augmentation of medicinal plants and economic plantation at catchment			Completed Action: Forest
Action 4	Protection and prevention of Flood Plain Zone			
4.1	Protection and Improvement of River Bunds. 1,500 m for Nambul River 16,860 m in Imphal River 2,670 m in Kongba River 2,403 m in Thoubal River 317 m in Wangjing River 11,711 m in Manipur River		Before 2021	Status will be updated soon Action: WRD
4.2	Re-Sectioning of Rivers and Streams. 82,091 m in Imphal River. 15,480 m in Kongba River 89,100 m in Nambul and its tributaries. 1,900 m in Chakpi River		Before 2021	Status will be updated soon Action: WRD
4.3	CC/RCC Retaining Walls with and without piles to be provided at the most eroded and vulnerable river banks.		Before 2021	Status will be updated soon Action: WRD

B. 8 (eight) polluted stretches of Rivers viz. Imphal, Iril, Khuga, Khujairok, Lokchao, Manipur, Thoubal, Wangjing under Priority V in Manipur

Action	Target Action	Target Quantity	Timeline	Status & Actor
Action 1	Solid Waste Management			
1.1	Identification of garbage vulnerable point along the 8 (eight) identified polluted river stretches	59 Municipal Wards	6 months (2024 2019)	Status will be updated soon Action : MAHUD / ULBs
1.2	Door to Door Collection and transportation of Municipal solid wastes with source segregation through Cluster Approach	59 Municipal Wards 33.45 MT	1 year (June 2020)	
1.3	Installation of littering bins at suitable places	500 Nos. of Bins	1 year (June 2020)	
1.4	Setting up of waste processing site at Cluster Approach	5 Cluster Units	2 Year (June 2021)	
1.5	Construction of Public toilets at vulnerable points	59 Nos. (one each for every ward for 59 wards)	2 Year (June 2021)	
1.6	IEC / Public Awareness Activities	177 Nos. (3 times for every 59 Wards)	Ongoing	
1.7	Encouraging of home composting	10% of total household	Ongoing	
Action 2	Channelization, treatment, utilization and disposal of treated domestic sewage			
2.1	Identification of location and estimation of liquid waste generation	Under survey	Ongoing	Completed Action : PHED
2.2	Treatment option through phytoremediation technique in consultation with NEERI (National Environmental Engineering Research Institute), Nagpur	27.024 + 38.73 = 65.754 MLD	2 Years (June 2021)	DPR submitted to NRCD, Ministry of Jal Shakti, Govt. of India Action : Environment & CC
2.3	Commissioning of the Imphal Sewerage Project Phase-II: Installation of STPs of 3 (three) units SBR (Sequencing Batch Reactors) technology covering all the remaining wards of Imphal Municipal Corporation (Finalized DPR)	41 MLD	Funding awaited	DPR submitted, waiting for approval of NIT from NDB Action : PHED
Action 3	Protection of catchment Area of 1539 sq. km.			
3.1	In situ augmentation with economic plants	1539 sq. km.	2 Years (June 2021)	Status will be updated soon Action : Forest
3.2	Inventorisation and mapping of springs for protection and rejuvenation at catchment	8 rivers	1 Year (June 2020)	Status will be updated soon Action : Environment & CC
Action 4	Protection and prevention of Flood Plain Zone			
4.1	Protection and Improvement	1. 1500 m for Nambul	Before 2021	Status will be updated

	of River Bunds	River 2. 16860 m in Imphal River and its tributaries 3. 2670 m in Kongba River 4. 2403 m in Thoubal River 5. 317 m in Wangjing River 6. 11711 m in Manipur River		soon Action : WRD
4.2	Re-Sectioning of Rivers and Streams	1. 82091 m in Imphal River 2. 15480 m in Kongba River 3. 89100 m in Nambul and its tributaries 4. 1900 m in Chakpi River	Before 2021	
4.3	CC / RCC Retaining Walls with and without piles to be provided at the most eroded and vulnerable river banks	Along Nambul, Imphal, Thoubal, Kongba, Iril and other major rivers	Before 2021	

National Mission for Clean Ganga
Format for submission of Monthly Progress Report in the NGT Matter OA
No. 673 of 2018
(in compliance to NGT order dated 24.09.2020)
For the State of Manipur submitted on 20th February, 2024

Overall status of the State:

I. Total Population:

	2011 Census	Projected as on 2020
Urban Population	8,34,154	10,47,135
Rural Population	17,36,236	21,79,541
Total	25,70,390	32,26,676

Estimated Sewage Generation (MLD) : 115.054 MLD

II. Details of Sewage Treatment Plant:

- Existing No. of STPs and Treatment Capacity : 1 (one) STP of 27 MLD operational
- Capacity Utilization of existing STPs : 21.59 MLD
- MLD of sewage being treated through alternate technology : NIL
- Gap in Treatment Capacity in MLD : 5.41 MLD
- No. of Operational STPs : 1 (one) Detail of STP is at **Annexure - 1**
- No. of Complying STPs : 1 (one)
- No. of Non-complying STPs : Nil

Details of each existing STP in the State

No.	Location	Existing STP Capacity	Capacity Being Utilized	Operational Status of STP	Compliance Status of STP
1	Lamphel, Imphal West	27 MLD	21.59 MLD	Operational (79.98%)	Complying

Details of under construction STPs in the State

No.	Location	Capacity of the plant in MLD	Physical Progress in %	Status of I&D or House sewer connections	Completion Timeline
1	Maibam Leikai, Imphal West	16 MLD	98 %	NIL	31.03. 2024
2	Iroisemba, Imphal West	1 MLD	95%	NIL	31.08. 2024

Details of proposed STPs in the State

No.	Location	Capacity of the STP proposed in MLD	Status of Project (at DPR Stage/ Under Tendering/ Work to be Awarded)	Likely Date of Completion
1	Imphal	49 MLD	Agreement Signed	---

III. Details of Industrial Pollution:

	No. of industries in the State	:	404 Nos.
			337 outside Industrial Estate
			67 inside Industrial Estate
	No. of water polluting industries in the State located along the 9 (nine) prioritized rivers of Manipur	:	Nil
	Quantity of effluent generated from the industries in MLD	:	0.93 KLD (estimated) in case of the 3 units located within Nilakuthi Food Park, Imphal East
	Quantity of Hazardous Sludge generated from the Industries in TPD	:	Requested the Member Secretary, Manipur Pollution Control Board vide letter No. A-DTCI-109/4/2022-DTCI-DTC&I Dt.05/06/2024 to support with the data on Industrial Waste Generated (in TPD) inside the 3 (three) Industrial Estates of Manipur.
	Number of industrial units having ETPs	:	Nil
	Number of industrial units connected to CETP	:	3 (three)
	Number and total capacity of ETPs	:	Nil
	Details of existing	:	Nil
	Under construction	:	Nil
	Proposed	:	Nil
	Compliance status of the ETPs	:	Nil
	Number and total capacity of CETPs	:	1 (one) CETP
	Details of existing	:	1 unit of 400 KLD capacity
	Under construction	:	3
	Proposed	:	Nil

Town	Existing ETP Capacity	CETP Proposed, if any	Status (under construction etc.)
Imphal	400 KLD capacity	Nil	The 3(three) ETPs at Takyelpat, Tera Urak & Kuraopokpi Industrial Estates of Manipur has been constructed under PM Gatishakti "Scheme for Special Assistance to the States for Capital Investment for 2022-23". Overall, 75% of the civil works completed as per recent report.

• Status of compliance and operation of the CETPs

Town	No. of industries	Industrial discharge	Status of ETPs	Status of CETPs (Existing, under construction & proposed)
Imphal	5 (five)	Requested the Member Secretary, Manipur Pollution Control Board vide letter No. A-DTCI-109/4/2022-DTCI-DTC&I dt. 05/06/2024 to support with the data on the industrial waste generated (in TPD) inside the 3 (three) Industrial Estates of Manipur.	Nil	1 (one) CETP of 400 Kilo Liter / Day at Nilakuthi Industrial Estate, Imphal Status : Functional

IV. **Solid Waste Management:**

- Total Urban Local Bodies (ULBs) : 27 ULBs
- Population of ULBs : 6,15,344 (2011 Census)
: 7,92,734 (2021 projected population)
- Current Municipal Solid Waste Generation : 290 MTD
(as per SBM 2.0 guidelines, MSW generation is estimated @450gm per capita generation for Imphal Municipal Corporation (for more than one lakh population) and @300gm per capita generation for other ULBs (for less than one lakh population) based on 2020 projected population)
- Waste Collected : 198 TPD (Collected by ULBs)
- Existing Management / treatment facility : 197.5 TPD
- Utilization of MSW processing : 146 TPD
[Managed by ULBs = 146 TPD
Managed at Source = 86 TPD
Total Managed = 232 TPD]
- Number, installed capacity and utilization of existing MSW processing facilities in TPD bifurcated by type of processing.

SN	Name of MSW processing unit	Installed capacity	Utilization (in TPD)	Type of processing	Action plan to bridge Gap between utilization and installed facility
1	IMC / Municipal Solid waste Management Plant, Lamdeng, Imphal	100	90	• Waste to Energy (WTE) and Composting	• Intensive campaign through IEC
2	Lamshang MC	1	1.23	Aerobic composting	• Capacity building in collection, management, and processing
3	Samurou MC	5	3.53	• Segregation cum transfer station	• Presently collected waste after segregation of recyclable plastic waste and cardboard is being transferred to Lamdeng Solid Waste Management Plant. • Increase in awareness, Manpower and vehicles. • Allotment of Permanent land for

SN	Name of MSW processing unit	Installed capacity	Utilization (in TPD)	Type of processing	Action plan to bridge Gap between utilization and installed facility
					management of solid waste has been proposed to DC.
4	Thongkhong Laxmi MC	5	3.42	Segregation cum transfer station and composting pits	- In terms of ward wise, area wise Leikai wise coverage of D2D collection. - More awareness and behavioral change campaign with increase in manpower and SWM vehicles
5	Sekmai MC	1	1.2	- Home Composting is predominant in all wards - Central Composting at Segregation Shed, Parao - Dry Waste disposed at Lamdeng SWM Plant	- Engagement of local clubs/SHGs to achieve 100% segregation at source. - Capacity enhancement for management and processing
6	Lilong IW MC	1	1	- Segregation Shed for Material Recovery - Vermi composting	- More composting pits, more vehicles and manpower and encouraging source segregation and home composting. - Cluster basis facilities at Lamdeng SWM Plant.
7	Lamlai MC	3	0.9	- Composting (Home + Centralised) - Source segregation and Centralised segregation	Treatment facilities at Lamdeng Waste to energy Plant (Cluster Approach)
8	Thoubal MC / Thoubal SWM Plant	13	7	Segregation and composting	- Encouraging source segregation and home composting - Awareness generation to public. Compactor machine Segregation machine, compressor
9	Yairipok MC	1	1.6	- Wet waste gets processed at source itself as feed of poultry and piggery farms - Segregated recyclable waste is sent to recycler	Treatment facility at Thoubal Cluster
10	Sikhong Sekmai MC	6	0.56	- Wet waste gets processed at source itself as feed of poultry and piggery farms - Segregated recyclable waste is sent to	Treatment facility at Thoubal Cluster

SN	Name of MSW processing unit	Installed capacity	Utilization (in TPD)	Type of processing	Action plan to bridge Gap between utilization and installed facility
				recycler	
11	Lilong Thoubal MC	1	1	Segregation Shed Composting Unit	More composting pits, more vehicles and manpower and encouraging source segregation and home composting.
12	Heirok MC	1	0.4	Transfer and Segregation station and Composting	- Treatment facilities at Thoubal Khunou (Cluster B) - Increase in manpower, Awareness drives & Engagement of Recyclers
13	Wangjing Lamding MC	1	0.81	Segregation and transfer station	- Treatment facilities at Thoubal Khunou (Cluster B) - Increase in manpower, Awareness drives & Engagement of Recyclers
14	Andro MC	1.07	0.83	Bulk waste is processed or consumed at source as poultry and piggery feeds, Aerobic Composting, Segregation and Recyclable waste sent to recycler	- Treatment facilities at Thoubal Khunou (Cluster B) - Increase in manpower - Awareness drives & Engagement of Recyclers
15	Kakching MC/ Kakching SWM Plant	7	6.82	Composting, Segregation & Recycling	- Intensified IEC on door-to-door waste collection and source segregation. - Mandatory submission of payment receipts of D2D waste collection at the time of availing any form of service from the council
16	Kakching Khunou MC	2.2	2.1	Composting, Segregation & Recycling	- Intensified IEC on Door-to-Door Waste Collection and Source Segregation. - Mandatory Submission of Payment Receipts of D2D waste collection at the time of availing any form of service from the Council.
17	Sugnu MC	1.2	0.7	Composting, Segregation & Recycling	- Intensified IEC on door-to-door waste collection and source segregation. - Mandatory submission of payment receipts of D2D waste collection at the time of availing any form of service from the council. Transport of

SN	Name of MSW processing unit	Installed capacity	Utilization (in TPD)	Type of processing	Action plan to bridge Gap between utilization and installed facility
					unrecyclable waste to Kakching Cluster.
18	Mayang Imphal MC	4	7.02	• Treatment Plant/Composting Pits and segregation Sheds/MRF are operational. • Remaining collected waste sent to treatment plant at Lamdeng Imphal and Segregated recyclable waste sent to recycler	• Treatment Plant/Composting Pits and segregation Sheds/MRF are operational. • Remaining collected waste are sent to treatment plant at Lamdeng. • Segregated recyclable waste sent to recycler
19	Wangoi MC	1	1.25	• Home composting and manual segregation of waste	• Encouraging source segregation and home composting • Awareness drives and engagement of recyclers for dry waste
20	Kumbi MC	1	1.29	• Composting	• Now 100% D2D Collection • Land available 0.27 acre
21	Kwakta MC	1	0.55	• Composting	• Untreated waste is dumped at uncontrolled dumpsite as a short time measure. Once the cluster basis is completed, the untreated wastes shall be transferred at the cluster head for further processing
22	Moirang MC	4	2.99	• Composting	• Segregation shed has constructed. • Composting plants also been constructed and it has commissioned. • IEC Campaign has organised for proper 100% source segregation.
23	Ningthoukhong MC	5.5	1.7	• Composting & sent back for re-cycling	• Vigorous IEC campaign and implementation of stringent rules or bye-laws
24	Bishnupur MC	5	2.8	• Sanitary Landfill	• Vigorous IEC campaign and implementation of stringent rules or by-laws • By-Laws is published and shall be implemented for closing the gap
25	Oinam MC	1.5	0.9	• Composting	• Encouraging households to source segregate waste and practice home composting of wet waste. • Engaging recyclers for dry waste
26	Nambol MC	2	1.9	• Composting pit	• Increasing recovery of other

SN	Name of MSW processing unit	Installed capacity	Utilization (in TPD)	Type of processing	Action plan to bridge Gap between utilization and installed facility
				Manual Segregation initiated at the segregation shed	recyclable materials apart from plastic bottles/wate Encouraging source segregation and home composting.
27	Jiribam MC	22.005	2.21	Composting, send back for recycling, MRF	Nil
	Total	197	146		

Action plan to bridge gap between Installed Capacity and Current Utilization of processing facilities (if Gap > 20%)	Planning for upgrade the installed capacity as per required by 2029-30
No. and capacity of C&D waste processing plants in TPD (existing, proposed and under construction)	- Existing – Nil - Proposed – 5TPD
Total No. of wards	305 Wards
No. of wards having door to door collection service	305 Wards
No. of wards practicing segregation at source	305 Wards

- Details of MSW treatment facilities proposed and under construction:

Sl. No.	Name of ULB or Processing unit	Capacity	Technology	Proposed / under Construction
1	Annexed at Table-3			
	No. and area (in acres) of uncontrolled garbage dumpsites and Sanitary Landfills		5 (five) sanitary landfill and 7 controlled dumpsites - Annexure-Table 3	
	No. and area (in acres) of legacy waste within 1km buffer of both side of the rivers		Nil	
	No. of drains falling into rivers and no. of drains having floating racks/screens installed to prevent solid waste from falling into the rivers		1 at Jiribam MC [floating racks/screens installed]	
	Status of ULB wise Management of Solid waste		At Annexure – Table -1 and Table -2	

V. Bio-medical Waste Management February, 2024:

Total Bio-medical generation	:	0.83 TPD	- Deep burial practiced at remote rural areas - DPR submitted to ministry for up-gradation of the existing CBMWTF - Action Plan submitted to
No. of Hospitals and Health Care Facilities	:	534 Nos. [i/c 420 PHSCs]	
Status of Treatment Facility CBMWTF	:	CBMWTF = 1 No. (capacity-100 Kg/hr.)	

		Captive Facility = 2 Nos. (Capacities-100 Kg/hr. & 105 Kg/hr.) Deep Burial = 391 Nos.	the State Pollution Control Board by the Directorate Health Service for BMW management
Status of Treatment Facility ETPs	:	54 Nos.	

VI. Hazardous Waste Management:

Total Hazardous Waste generation	:	0.99 TPD
No. of Industries generating Hazardous waste	:	334 (automobile service centres mainly micro-scale units)
Treatment Capacity of all TSDFs	:	Nil
Avg. Quantity of Hazardous waste reaching the TSDFs and Treated	:	Nil
Details of on-going or proposed TSDF	:	Under preparation of DPR, Final DPR by 2024 2024

VII. Plastic Waste Management:

Total Plastic Waste generation	:	
Treatment / Measures adopted for reduction or management of plastic waste	:	
Details of Alternate Treatment Technology being adopted by the State/UT	:	
Identification of including drains contributing to river pollution and action as per NGT order on in-situ treatment	:	
Details of Nodal Officer appointed by Chief Secretary in the State / UT	:	
VIII. Details of meetings carried under the in the State/UT	:	
IX Latest water quality of polluted river, its tributaries, drains with flow details and ground water quality in the catchment of polluted river	:	
IX. Ground water regulation	:	
X. Good irrigation practices being adopted by the State	:	
XI. Rainwater Harvesting	:	
XII. Demarcation of Floodplain and removal of illegal encroachments	:	
XIII. Maintaining minimum e-flow of river	:	
XIV. Plantation activities along the rivers	:	
XV. Development of biodiversity park	:	
XVI. Reuse of Treated Water	:	
XVII. Model River being adopted by the State & Action Proposed for achieving the bathing quality standards	:	

XVIII.	Status of Preparation of Action Plan by the 13 Coastal States	:	
XIX.	Regulation of Mining Activities in the State / UT	:	The Mines and Mineral (Regulation and Development) Act, 1957 differentiates minerals into (a) major mineral and (b) minor mineral. The mineral administration of mining activities belonging to major minerals vests with the Central Government and are regulated under the Mines and Mineral (Regulation and Development) Act and Rules frame there under. The mineral administration of minor minerals vests with the respective State Governments and are regulated under their respective minor mineral concession Rules framed under section 15(1) of the Act and Rules framed their under. Similarly, in Manipur, the mining activities belonging to minor minerals are regulated under the Manipur Minor Mineral Concession Rules, 2012 and amendments thereon. In order to check illegal mining, to regulate transportation and storage of minor minerals, The Manipur Minerals (Prevention of Illegal Mining, Storage and Transportation) rules, 2018 has also been notified. In addition, The Manipur Mineral Policy, 2021 is being framed.
XX.	Action against identified polluters, law violators and officers responsible for failure for vigorous monitoring	:	

A. Total Status of STPs in Imphal (as on 20th February, 2024)

Particular	Unit	Phase I	Phase II	Ongoing NRCD Project	Total
Capacity of STP	MLD	27	49	17	93
Capacity of STP Utilized	MLD	21.59			21.59
Total Sewer Pipe	RM	69,429	2,77,289		3,46,718
Primary (Main Pipe)	RM	25,291			25,291
Secondary (Sub-main Pipe)	RM	44,138			44,138
Interception & Diversion Pipelines	RM			14,545	14,545
No. of urban drains to be collected	Drain			72	72
Targeted Connection septic tank	Unit	9,564	42,190		
Connected septic tank	Unit	8070			8070
Lift Station	Unit	5	21	14	40
Population (by 2054)	Lakh	1,86,534	3,49,759		5,36,293
Covered Municipal Ward	Wards	11	16	14	
Area covered	Sq. Km.	11	35		
Covered Polluted River				Nambul P-II	
Method of Treatment		ASP	SBR	MBBR	

Note : Targeted household for Phase I has been decreased from 12,000 Nos. to 9,564 because 2436 household shall be covered in Imphal Sewerage project – Phase II.

Status of utilization of the existing STP :

- 1 (one) unit of 27 MLD STP (ASP technology) is operational under PHED
- 69,429 rm sewer pipeline [25,291 rm primary lines, 44.14 rm secondary lines]
- Total target connection is 9,564 households

INCREMENTAL STATUS OF UTILIZATION FOR 27 MLD AT LAMPHELPAT, IMPHAL WEST

	Jan 2022	Feb 2022	Mar 2022	Apr 2022	May 2022	June 2022	July 2022	Aug 2022	Sep 2022	Oct 2022	Cumulative as on 20 th Feb. 2024	Gap
Household Connected	4000	250	250	60	10	30	0	50	280	356	8070	1494
Utilization in MLD	9 MLD	9.5 MLD	10 MLD	10.26 MLD	10.28 MLD	10.35 MLD	10.35 MLD	16.5 MLD	17.34 MLD	18.35 MLD	21.59 MLD	5.41 MLD
Utilization in %	33%	35%	38%	38%	38%	38%	38%	61.31 %	64.24 %	67.96 %	79.98 %	20.02 %
	Nov. 2022	Dec. 2022	Jan. 2024	Feb. 2024	Mar. 2024	May 2024	June 2024	July 2024	Aug 2024	Sept 2024		
Household Connected	800	50	14	150	20	50	0	0	0	0		
Utilization in MLD	20.60 MLD	20.74 MLD	20.78 MLD	21.17 MLD	21.22 MLD	21.59 MLD	21.59 MLD	21.59 MLD	21.59 MLD	21.59 MLD		
Utilization in %	76.32 %	76.85 %	76.99%	78.41 %	78.62 %	79.98 %	79.98 %	79.98 %	79.98 %	79.98 %		

	Oct. 2024	Nov 2024	Dec 2024	Jan 2024	Feb 2024							
Household Connected	0	30	20	300	70							
Utilization in MLD	21.59 MLD	21.59 MLD	21.59 MLD	21.59 MLD	21.59 MLD							
Utilization in %	79.98 %	79.98 %	79.98 %	79.98 %	79.98 %							

B. In-situ Bio-remediation and others :

	Name of the Polluted River (P-V)	Total Length of the River	Length of Polluted stretches	BOD Range (mg/l)	Population at polluted zone	Status / Proposed for Treatment
1	Imphal	89.24 km	19.98 km	2.9 - 3.1	84,857	- Revised DPR for Imphal River along with Fecal Sludge and Septage Management (FSSM) for 315 KLD at 27 ULBs and in situ treatment through Bio-remediation of 16.75 MLD submitted to NRCD on 18th September 2021. - Revised DPR with full justification on the comments made by the Ministry will be submitted soon.
2	Iril	156.50 km	18.12 km	2.8 - 3.0	1,714	
3	Khuga	79.25 km	10.92 km	2.0 – 3.0	857	
4	Khujairok	10.06 km	4.21 km	3.2	4,286	
5	Lokchao/ Thongjarok	17.04 km	5.31 km	3.0	1,143	
6	Manipur	261.00 km	35.00 km	3.1	7,143	
7	Thoubal	142.80 km	24.61 km	2.8	30,286	
8	Wangjing	35.08 km	3.70 km	3.1 - 3.2	7,143	

Note :

ASP (Activated Sludge Process), EAP (Extended Aeration Process),
SBR (Sequencing Batch Reactor), MBBR (Moving Bed Biofilm Reactor)

	FORMAT FOR SEWAGE TREATMENT PLANTS AND UTILIZATION OF SEWAGE (20 th FEBRUARY, 2024)															
Sl. No.	City / Town	No. of STP	Location of STP	Coordinates of STP	STP Commissioned year	Status (operational/ Non-Operational/ Under Construction)	STP Installed Capacity (In MLD)	Actual Utilization of installed capacity (In MLD)	Technology UASB / ASP / OP / SBR / MBBR / FAB etc.	Consent status	Compliance Status Source: Manipur Pollution Control Board					
											Oil & Grease	pH	TSS mg/l	COD mg/l	BOD mg/l	Faecal Coliform
1	Imphal	1	Lamphei	24°49''45''N 93°54''58''E	2020	Operational	27	21.59 MLD	ASP		2.5	7.3	28	32	9.8	130

LIST OF WATER POLLUTING FACTORIES LOCATED WITHIN INDUSTRIAL ESTATE/FOOD PARK**Takyel Industrial Estate, Imphal West Districts, Manipur.**

Sl. No.	Name of unit	Nearest River	Proprietor	Name of Products
1	M/S Modern Foods	Nambul	T. Sanajaoba Singh	Noodles
2	M/S Hangle Industries	Nambul	H. Nabadeep Singh	Spices & Food Products
3	M/S Pera Fruit Products	Nambul	Kh. Sanayaima Singh	Fruit Processing
4	M/S Khudol	Nambul	K. Siddhanta Sharma	Food Processing
5	M/S Ratana Fruit	Nambul	L. Sarat Singh	Food items
6	M/S Universal Iodises Salt Industries	Nambul	P. Joychandra Singh	Food Items

Nilakuthi Food Park, Imphal East

Sl. No.	Name of unit	Nearest River	Proprietor	Name of Products
1	Shree Balaji Flour Mill	Imphal	Mrs. Rangnamei Martha	Flour
2	KMU	Imphal	Wangkheirakpam Gobin Singh	Bakery
3	Thangjam Agro Industries Pvt. Ltd.	Imphal	Thangjam Joykumar Singh	Bakery

TABLE 1 : SOLID WASTES GENERATION, COLLECTION AND MANAGEMENT - ULB WISE IN MANIPUR, FEBRUARY, 2024

No.	Name of ULB	Population		Solid Waste Generated (MTD)	Waste Collected (TPD)	Gap between Generated and Collected + Managed at source)	Managed/Treated (in TPD)					Plan to mitigate the gap between generation of wastes vs collection, managed / treated and Remarks
		2011 Census	2021 Projected				Facilities (TPD)	Managed / Treated	Processed at source	Map Gap in TPD	Gen-Man Gap= [(Gen-Man)/ Gen] x 100	
1	Imphal MC	2,65,573	3,50,050	157.5	130.0	2	100	90	25.5	115.5	27%	• Intensive campaign through IEC
2	Lamshang MC	8,130	9,739	2.92	1.23	0.19	1	1.23	1.5	2.73	6.51%	• Capacity Building in collection, management and processing.
3	Samurou MC	14,818	18,602	5.58	3.53	0.51	5	3.53	1.54	5.07	9.14%	• Presently collected waste after segregation of recyclable plastic waste and cardboard is being transferred to Lamdeng Solid Waste Management Plant. • Increase in awareness & increase in manpower and vehicles. • Allotment of Permanent land for management of solid waste has been proposed to DC
4	Thongkhong Laxmi MC	14,878	18,677	5.6	3.42	0.51	5	3.42	1.67	5.09	9.11%	• In terms of ward wise, area wise laikai wise coverage of D2D collection. More awareness and behavioral change campaign with increase manpower and SWM vehicles
5	Sekmai MC	5,065	6,358	1.9	1.20	0.2	1	1.2	0.50	1.7	11%	• Engagement of local clubs/SHGs to achieve 100% segregation at source. • Capacity enhancement for management and processing
6	Lilong IW MC	12,427	15,600	4.6	1	0.6	1	1	3	4	13%	• More composting pits, more vehicles and manpower and encouraging

No.	Name of ULB	Population		Solid Waste Generated (MTD)	Waste Collected (TPD)	Gap between Generated and (Collected + Managed at source)	Managed/Treated (in TPD)					Plan to mitigate the gap between generation of wastes vs collection, managed / treated and Remarks
		2011 Census	2021 Projected				Facilities (TPD)	Managed / Treated	Processed at source	Map Gap in TPD	Gen-Man Gap= [(Gen-Man)/ Gen] x 100	
												source segregation and home composting. Cluster basis facilities at Lamdeng SWM Plant.
7	Lamlai MC	4,601	5,776	1.73	1	0	3	0.9	0.73	1.63	6%	• Treatment facilities at Lamdeng Waste to energy Plant (Cluster Approach)
8	Thoubal MC	45,947	57,678	17.3	7.2	0.4	13	7	9.7	16.7	3.47%	• Encouraging source segregation and home composting • Awareness generation to public. • Compactor machine Segregation machine, compressor
9	Yairipok MC	9,569	12,012	3.6	1.6	0	1	1.6	2	3.6	0%	• Treatment facilities at Thoubal cluster
10	Sikhong Sekmai MC	7,390	9,277	2.78	0.56	0	6	0.56	2.22	2.78	0%	• Treatment facilities at Thoubal cluster
11	Lilong TBL MC	24,900	31,258	9.3	2.00	0.8	1	1	6.5	7.5	19%	• More composting pits, more vehicles and manpower and encouraging source segregation and home composting.
12	Heirop MC	2,974	3,733	1.12	0.47	0	1	0.4	0.65	1.05	6.3%	• Treatment facilities at Thoubal Khunou (Cluster B) • Increase in manpower. • Awareness drives & Engagement of recyclers
13	Wangjing Lamding MC	8,055	10,112	3.03	1	0	1	0.81	2.03	2.84	6.3%	• Treatment facilities at Thoubal Khunou (Cluster B) • Increase in manpower. • Awareness drives & Engagement of

No.	Name of ULB	Population		Solid Waste Generated (MTD)	Waste Collected (TPD)	Gap between Generated and (Collected + Managed at source)	Managed/Treated (in TPD)					Plan to mitigate the gap between generation of wastes vs collection, managed / treated and Remarks
		2011 Census	2021 Projected				Facilities (TPD)	Managed / Treated	Processed at source	Map Gap in TPD	Gen-Man Gap= [(Gen-Man)/ Gen] x 100	
												recyclers
14	Andro MC	8,744	10,977	3.29	0.9	0	1.07	0.83	2.39	3.22	2.13%	• Treatment facilities at Thoubal Khunou (Cluster B) • Increase in manpower. • Awareness drives & Engagement of recyclers
15	Kakching MC	32,138	40,344	12.1	8.63	0.05	7	6.82	3.42	10.24	15%	• Intensified IEC on door-to-door waste collection and source segregation. Mandatory submission of payment receipts of D2D waste collection at the time of availing any form of service from the council
16	Kakching Khunou MC	11,379	14,284	4.28	2.62	0.05	2.2	2.1	1.61	3.71	13%	• Intensified IEC on door-to-door waste collection and source segregation. Mandatory submission of payment receipts of D2D waste collection at the time of availing any form of service from the council
17	Sugnu MC	5,132	6,442	1.93	1.18	0.24	1.2	0.7	0.51	1.21	37%	• Intensified IEC on door-to-door waste collection and source segregation • Mandatory submission of payment receipts of D2D waste collection at the time of availing any form of service from the council • Transport of unrecyclable waste to Kakching Cluster

No.	Name of ULB	Population		Solid Waste Generated (MTD)	Waste Collected (TPD)	Gap between Generated and (Collected + Managed at source)	Managed/Treated (in TPD)					Plan to mitigate the gap between generation of wastes vs collection, managed / treated and Remarks
		2011 Census	2021 Projected				Facilities (TPD)	Managed / Treated	Processed at source	Map Gap in TPD	Gen-Man Gap= [(Gen-Man)/ Gen] x 100	
18	Mayang Imphal MC	24,239	34,428	10.33	7.02	0	4	7.02	3.31	10.33	0%	• Treatment Plant/Composting Pits and segregation Sheds/MRF are operational. Remaining collected waste are sent to treatment plant at Lamdeng. • Segregated recyclable waste are sent to recycler
19	Wangoi MC	9,106	11,431	3.43	1.45	0	1	1.25	1.98	3.23	6%	• Encouraging source segregation and home composting • Awareness drives and engagement of recyclers for dry waste
20	Kumbi MC	9,546	11,983	3.59	2	0.08	1	1.29	1.51	2.8	22%	• Now 100% D2D collection • Land available 0.27 acre
21	Kwakta MC	8,579	10,769	3.23	1.13	0	1	0.55	2.1	2.65	17.96%	• Untreated waste is dumped at uncontrolled dumpsite as a short time measure. Once the cluster basis is completed, the untreated wastes shall be transferred at the cluster head for further processing
22	Moirang MC	19,893	24,972	7.49	5.4	0.09	4	2.99	2	4.99	33%	• Segregation shed has constructed. Composting plans also been constructed. It has commissioned. IEC Campaign has organised for proper 100% source segregation.
23	Ningthoukhong MC	13,078	16,417	5.00	2.2	0.3	5.5	1.7	2.5	4.2	16%	• Vigorous IEC campaign and implementation of stringent rules or by laws

No.	Name of ULB	Population		Solid Waste Generated (MTD)	Waste Collected (TPD)	Gap between Generated and (Collected + Managed at source)	Managed/Treated (in TPD)					Plan to mitigate the gap between generation of wastes vs collection, managed / treated and Remarks
		2011 Census	2021 Projected				Facilities (TPD)	Managed / Treated	Processed at source	Map Gap in TPD	Gen-Man Gap= [(Gen-Man)/ Gen] x 100	
24	Bishnupur MC	12,167	15,274	4.58	3.48	0	5	2.8	1.1	3.9	14.8%	Vigorous IEC campaign and implementation of stringent rules or bye-laws, By-Laws is published and shall be implemented for closing the gap
25	Oinam MC	7,161	8,989	2.7	1.6	0	1.5	0.9	1.1	2	26%	- Encouraging households to source segregate waste and practice home composting of wet waste. - Engaging recyclers for dry waste.
26	Nambol MC	22,512	28,260	8.5	4.3	0	2	1.9	4.2	6.1	28%	- Increasing recovery of other recyclable materials apart from plastic bottles/waste. - Encouraging source segregation and home composting.
27	Jiribam MC	7,343	9,218	2.76	2.03	0	22.005	2.03	0.73	2.76	0%	NIL
Total		6,15,344	7,92,660	290	198	6.02	197.5	146	86	231.53		
PC to the generated wastes					68%	2%	68%	50%	30%	80%	20%	

Note : *1. Taking r=2.3 as annual Population growth rate [Ref.: MoUD, GoI] *2. Waste generated is estimated including floating population @10%
*3. As per SBM 2.0 guidelines, Waste generated is estimated in @450gm per capita generation (for more than 1 lakh population) for Imphal MC and @ 300gm per capita generation (for less than 1 lakh population)

TABLE 2 : SOLID WASTES GENERATION, COLLECTION AND MANAGEMENT – WARDWISE OF ULBs IN MANIPUR, FEBRUARY, 2024

Sl. No.	Name of ULB	Total Wards	Door to Door (D2D) Collection		Segregated at source		Land Available in Acre	Type of processing unit	Plan to mitigate the gap generation and Management
			No. of Wards	in %	No. of Wards	in %			
1	Imphal MC	27	27	100%	27	80%		Waste to Energy plant (WTE) and composting	Intensive campaign through IEC
2	Lamshang MC	9	9	100%	9	100%	0	Aerobic Composting	Continue IEC activities to emphasize Segregation at Source
3	Samurou MC	11	11	100%	11	70%	0	Segregation cum transfer station	- Presently collected waste after segregation of recyclable plastic waste and cardboard is being transferred to Lamdeng Solid Waste Management Plant. - Increase in awareness. - Increase in Manpower and vehicles. - Allotment of Permanent land for management of solid waste has been proposed to DC.
4	Thongkhong Laxmi MC	11	11	100%	11	70%	2.5 (Allotment order issued, premium paid, process for issue of Jamabandi going on)	Segregation cum transfer station and composting pits.	- In terms of Ward-wise, Region-wise, Area-wise, Leikai-wise, Leirak-wise coverage of D2D collection, there is 100% coverage of D2D - More awareness and behavioural change campaign required. - Increase of manpower
5	Sekmai MC	9	9	100%	9	100%	0	- Home Composting is predominant in all wards - Central Composting at Segregation Shed , Parao	On going IEC activities to emphasize segregation at Source

Sl. No.	Name of ULB	Total Wards	Door to Door (D2D) Collection		Segregated at source		Land Available in Acre	Type of processing unit	Plan to mitigate the gap generation and Management
			No. of Wards	in %	No. of Wards	in %			
								• Dry Waste disposed at Lamdeng SWM Plant	
6	Lilong IW MC	9	9	100%	9	80%	0	• Segregation Shed for Material Recovery • Vermi composting	• More composting pits, more vehicles and manpower and encouraging source segregation and home composting. Cluster basis facilities at Lamdeng SWM Plant.
7	Lamlai MC	9	9	100%	9	100%	0.88	• Composting (Home +Centralised) Source segregation and centralised segregation	• Treatment facilities at Lamdeng Waste to energy Plant (Cluster Approach) • Rigorous IEC activities
8	Thoubal MC	18	18	100%	18	88%	6.7	• Segregation and composting	• Engaging more workers in the composting plant • Introduction of compactor machines • Introduction of trammel, compressor
9	Yairipok MC	9	9	100%	9	100%	2.2	• Wet waste gets processed at source itself as feed of poultry and piggery farms • Segregated recyclable waste is sent to recycler	• Treatment facility at Thoubal Cluster
10	Sikhong Sekmai MC	9	9	100%	9	100%	0.62	• Wet waste gets processed at source as feed of poultry and piggery. • Segregated recyclable waste is sent to recycler	• Treatment facility at Thoubal Cluster
11	Lilong TBL MC	9	9	100%	9	70%	0.313	• Segregation Shed • Composting Unit	• More composting pits, more vehicles and manpower and encouraging source segregation and home composting
12	Heirop MC	9	9	100%	9	100%	2.084	• Transfer and Segregation Station and Composting	• Treatment facility at Thoubal Khunou (Cluster B)

Sl. No.	Name of ULB	Total Wards	Door to Door (D2D) Collection		Segregated at source		Land Available in Acre	Type of processing unit	Plan to mitigate the gap generation and Management
			No. of Wards	in %	No. of Wards	in %			
13	Wangjing Lamding MC	9	9	100%	9	100%	1.46	• Segregation and transfer station	• Treatment facility at Thoubal Khunou (Cluster B)
14	Andro MC	12	12	100%	12	100%	0.96	• Bulk of wet waste is processed or consumed at source a poultry & piggery feeds • Aerobic Composting • Segregation & Recyclable waste sent to recycler	• Treatment facility at Thoubal Khunou (Cluster B)
15	Kakching MC	12	12	100%	12	98%	2	• Composting, segregation & recycling	• Intensified awareness on source segregation. • Manual segregation • Mechanical segregation (to be started shortly) and aerobic composting to mitigate the gap of generation and management.
16	Kakching Khunou MC	9	9	98%	9	92%	2	• Composting, segregation & Recycling	• Intensified awareness on source segregation. • Manual segregation • Mechanical Segregation(to be started shortly) and • Aerobic composting to mitigate the gap of generation and management
17	Sugnu MC	9	9	100%	9	82%	1	• Composting, Segregation & Recycling	• Transport of remaining unrecyclable segregated waste to Kakching cluster • Engagement of recyclers • Intensified awareness on source segregation, manual segregation and composting to mitigate the gap of generation and management.

Sl. No.	Name of ULB	Total Wards	Door to Door (D2D) Collection		Segregated at source		Land Available in Acre	Type of processing unit	Plan to mitigate the gap generation and Management
			No. of Wards	in %	No. of Wards	in %			
18	Mayang Imphal MC	13	13	100%	13	100%	1.25	• Treatment plant/ composting pit and segregation sheds/MRF are operational. • Remaining collected waste sent to treatment plant at Lamdeng Imphal • Segregated recyclables sent to recycler	• Treatment Plant/Composting Pits and segregation Sheds/MRF are operational. • Remaining collected waste sent to treatment plant at Lamdeng Imphal • Segregated recyclables sent to recycler
19	Wangoi MC	9	9	100%	9	100%	0.70	• Home composting and manual segregation of waste	• Treatment facility at Lamdeng waste to energy plant
20	Kumbi MC	9	9	100%	9	80%	0.52	• Composting	
21	Kwakta MC	9	9	100%	9	65%	0.625	• Composting	• Untreated waste is dumped at uncontrolled dumpsite as a short time measure. • Once the cluster basis is completed, the untreated wastes shall be transferred at the cluster head for further processing
22	Moirang MC	12	12	100%	12	85%	5.1	• Composting	• Requested DC to allot land. • Rigorous IEC Campaign to be held for source segregation
23	Ningthoukhong MC	14	14	100%	14	85%	1.31	• Composting & sent back for re-cycling	• Composting and recycling
24	Bishnupur MC	12	12	100%	12	85%	5	• Sanitary Landfill	• Composting plant at 2.5 Acre
25	Oinam MC	9	9	100%	9	70%	0	• Composting	• Encouraging households to source segregate waste and practice home composting of wet waste. • Engaging recyclers for dry waste.

Sl. No.	Name of ULB	Total Wards	Door to Door (D2D) Collection		Segregated at source		Land Available in Acre	Type of processing unit	Plan to mitigate the gap generation and Management
			No. of Wards	in %	No. of Wards	in %			
26	Nambol MC	18	18	100%	18	88%	3.21	- Composting pit - Manual Segregation initiated at the segregation shed	- Capacity building of sanitary Workers - Increasing manpower, vehicles and machinery - Extensive awareness drive - Co-opting SHGs and CSOs in SWM
27	Jiribam MC	10	10	100%	10	89%	6.02	Composting, Send back for recycling, MRF	Nil
Total		305	305		305		43.332		
In Percentage-Ward coverage				100%		100%			
Average Household coverage				100%		88%			

Table-3 : SOLID WASTES PROCESSING AND MANAGEMENT – WARDWISE OF ULBS IN MANIPUR, FEBRUARY, 2024

Sl No.	Name of ULB or Name of Processing Unit	Processing unit Under Construction		Uncontrolled Dumpsite		Controlled Dumpsite		Sanitary Landfill		Area of Legacy waste within 1 km buffer of the river	Drains falling into river having floating racks/screen
		Capacity TPD	Technology	No.	Area (Acre)	No.	Area (Acre)	No.	Area (Acre)		
1	Imphal MC and Lamdeng SWM Plant	Nil	Waste to Energy Plant and composting	Nil		Nil	Nil	1	Nil	Nil	Nil
2	Lamshang MC	NA	Human composting and manual segregation of waste. Dry waste to Lamdeng SW plant	Nil		Nil	Nil	Nil	Nil	Nil	Nil
3	Samurou MC	NA	NA	Nil		Nil	Nil	Nil	Nil	Nil	Nil
4	Thongkhong Laxmi MC	NA	NA	Nil		Nil	Nil	Nil	Nil	Nil	Nil
5	Sekmai MC	0	Aerobic composting	Nil		0	0	Nil	Nil	Nil	Nil
6	Lilong IW MC	0	Manual Segregation of waste for material recovery Vermicomposting pits	Nil		Nil	Nil	Nil	Nil	Nil	Nil
7	Lamlai MC	0	NA	Nil		Nil	Nil	Nil	Nil	Nil	Nil
8	Thoubal MC	0	Manual Segregation and aerobic composting	Nil		Nil	Nil	1	2	Nil	Nil
9	Yairipok MC	0	Composting/aerobic	Nil		Nil	Nil	Nil	Nil	Nil	Nil
10	Sikhong Sekmai MC	0	Composting/aerobic	Nil		Nil	Nil	Nil	Nil	Nil	Nil

Sl No.	Name of ULB or Name of Processing Unit	Processing unit Under Construction		Uncontrolled Dumpsite		Controlled Dumpsite		Sanitary Landfill		Area of Legacy waste within 1 km buffer of the river	Drains falling into river having floating racks/screen
		Capacity TPD	Technology	No.	Area (Acre)	No.	Area (Acre)	No.	Area (Acre)		
11	Lilong TBL MC	0	Manual Segregation of waste for material recovery	Nil		Nil	Nil	Nil	Nil	Nil	Nil
12	Heirok MC	0	Manual Segregation and composting/aerobic	Nil		Nil	Nil	Nil	Nil	Nil	Nil
13	Wangjing Lamding MC	0.3	Manual Segregation and composting/aerobic	Nil		Nil	Nil	Nil	Nil	Nil	Nil
14	Andro MC	0	Manual segregation & aerobic composting	Nil		Nil	Nil	Nil	Nil	Nil	Nil
15	Kakching MC	0	Manual segregation	Nil		1	2	1	2.5	Nil	Nil
16	Kakching Khunou MC	0	NA	Nil		0	0	Nil	Nil	Nil	Nil
17	Sugnu MC	0	NA	Nil		Nil	Nil	Nil	Nil	Nil	Nil
18	Mayang Imphal MC	0	Manual segregation of waste & composting construction completed.	Nil		Nil	Nil	Nil	Nil	Nil	Nil
19	Wangoi MC	0	Nil	Nil		Nil	Nil	Nil	Nil	Nil	Nil
20	Kumbi MC	0	Composting pit	Nil		1	0.27	Nil	Nil	Nil	Nil
21	Kwakta MC	0	Composting unit	Nil		1	0.016	Nil	Nil	Nil	Nil
22	Moirang MC	0	Segregation, composting and recovery of reusable	Nil		1	2.5	Nil	Nil	Nil	Nil

Sl No.	Name of ULB or Name of Processing Unit	Processing unit Under Construction		Uncontrolled Dumpsite		Controlled Dumpsite		Sanitary Landfill		Area of Legacy waste within 1 km buffer of the river	Drains falling into river having floating racks/screen
		Capacity TPD	Technology	No.	Area (Acre)	No.	Area (Acre)	No.	Area (Acre)		
			wastes.								
23	Ningthoukhong MC	0	Anaerobic ,Segregation, Composting and recovery of reusable wastes.	Nil		1	1.31	Nil	Nil	Nil	Nil
24	Bishnupur MC, Multi-Segregation shed at Chothe Village, Ward No. 12	0	Manual segregation and aerobic composting	Nil		Nil	Nil	1	2.5	Nil	Nil
25	Oinam MC	0	Composting (operational)	Nil		1	0.4	Nil	Nil	Nil	Nil
26	Nambol MC	0	Manual segregation, Aerobic and vermi-composting	Nil		1	3.21	Nil	Nil	Nil	Nil
27	Jiribam MC	0	Manual segregation, Pit composting, Windrow composting and MRF, C&D waste processing unit	Nil		Nil	Nil	1	1.72	Nil	1
	Total	0.3				7	9.706	5	8.72		1

STATUS OF WATER QUALITY OF POLLUTED RIVERS**Remark :**

Manipur Pollution Control Board has been conducting monthly water quality analysis of the polluted rivers. The monthly water quality data of the polluted rivers will be reported during 1st week of the next month i. e. Report for January will get on 1st - 10th February 2024. Therefore, Water Quality Report for January will be reproduced in the MPR of 2024.

Water Quality of the Imphal, Iril, Manipur, Thoubal, Wangjing, Khuga, Khujairok, Lokchao, Nambul, Waisel Maril & Moirang Rivers and Effluent of Sewage Treatment Plant, Langol
for the month of January, 2024

1. Imphal River

Location	DO	pH	BOD mg/L	COD mg/L	Fecal Coliform (MPN/100ml)
Koirengei	7.3	7.2	3.1	6.3	56
Minutrhong	7.2	7.3	3.2	8.2	60
Mahabali	7.3	7.3	3.2	7.3	75

2. Iril River

Location	DO	pH	BOD mg/L	COD mg/L	Fecal Coliform (MPN/100ml)
Kangla Siphai	7.4	7.5	3.0	9.2	45
Porompat	7.4	7.4	3.1	8.1	55
Lilong	7.2	7.3	3.2	10.1	60

3. Manipur River

Location	DO	pH	BOD mg/L	COD mg/L	Fecal Coliform (MPN/100ml)
Yairipok	7.2	7.43	3.2	8.7	65
Sekmaiing	7.3	7.4	3.2	8.6	60
Ithai	7.2	7.3	3.3	8.3	70

4. Thoubal River

Location	DO	pH	BOD mg/L	COD mg/L	Fecal Coliform (MPN/100ml)
Litan	7.4	7.5	3.0	9.7	45

5. Wangjing River

Location	DO	pH	BOD mg/L	COD mg/L	Fecal Coliform (MPN/100ml)
Heirok	7.2	7.2	3.2	8.8	50
Wangjing	7.1	7.3	3.3	9.5	70

6. Khuga River

Location	DO	pH	BOD mg/L	COD mg/L	Fecal Coliform (MPN/100ml)
Churachandpur Bazar	7.1	7.3	3.3	8.7	70
Khuga Dam	7.3	7.4	3.1	9.1	35

7. Khujairok River

Location	DO	pH	BOD mg/L	COD mg/L	Fecal Coliform (MPN/100ml)
Khujairok	7.2	7.3	3.4	10.6	140

8. Lokchao River, Bishnupur

Location	DO	pH	BOD mg/L	COD mg/L	Fecal Coliform (MPN/100ml)
Lokchao Bridge near Bishnupur Bazar	7.3	7.2	3.2	8.3	55

9. Nambul River

Location	DO	pH	BOD mg/L	COD mg/L	Fecal Coliform (MPN/100ml)
Samushang	6.7	7.1	4.1	15.1	120
Naoremthong	6.3	7.0	4.1	14.8	115
Hump Bridge	5.7	6.8	4.3	15.7	240
Heirangoithong	6.0	6.7	4.5	14.7	250
Singda Dam	7.4	7.3	3.1	8.0	20

10. Kongba River

Location	DO	pH	BOD mg/L	COD mg/L	Fecal Coliform (MPN/100ml)
Kongba Eranpham	5.4	7.1	4.5	14.7	130
Kongba Erong	4.9	7.0	4.3	8.8	140

11. Waisel Maril

Location	DO	pH	BOD mg/L	COD mg/L	Fecal Coliform (MPN/100ml)
Meijrao Bridge, Hiyangthang	5.7	7.1	4.3	12.4	180
Kha Sangenbam Mayai Leikai	6.8	7.2	4.2	12.2	90

12. Moirang River

Location	DO	pH	BOD mg/L	COD mg/L	Fecal Coliform (MPN/100ml)
Laikhurembi, Moirang Bazar	7.0	7.1	3.6	9.1	65

13. Sewage Treatment Plant Effluent

Location	Oil & Grease (mg/L)	pH	TSS mg/L	BOD mg/L	COD Mg/l	Fecal Coliform (MPN/100ml)
Langol	2.3	7.3	25	9.5	37	120

Action Plan of the model river in Manipur

Action	Target Action	Priority – II : Nambul River		
		Target Quantity	Time Line	Status
Action 1	Solid Waste Management			
1.1	Identification of garbage vulnerable point	12 Municipal Wards	Oct 2019	Completed Action: MAHUD / IMC
1.2	Door to Door Collection, identify & register of missed out household, punitive action against litterer along the river	12 Municipal Wards	Oct 2019	Completed Action: MAHUD / IMC
1.3	Formation of Tasks Force for proper implementation of waste management		Oct 2019	Constituted
1.4	Providing of household waste bins	19,863 bins	Oct 2020	80% completed Action: Environment & CC
1.5	High rise fencing of grilling and netting at vulnerable zones of both the river banks to protect throwing of solid wastes into the river	5 km	Apr 2021	Completed Action: Environment & CC
1.6	Renovation of existing crematoria along the river stretch	56 Nos.	Apr 2021	Completed Action: Environment & CC
1.7	Installation of secondary waste collection bins / community bins / dumper placer containers / transfer bins / littering bins at suitable places	37 Nos.	Oct 2020	Completed Action: Environment & CC
1.8	Construction of Public toilets at vulnerable points	35 Nos. by IMC 20 Nos. under NRCD	Apr 2021	Completed Action: Environment & CC
1.9	IEC / Public Awareness Activities	14 No. (one each in every ward)	Every month	Conducted regularly Action: Environment & CC
Action 2	Channelization, treatment, utilization and disposal of treated domestic sewage			
2.1	Identification of location and estimation of liquid waste generation at Imphal town		Oct 2019	Completed Action: PHED
2.2	Interception and diversion of the urban drains / outfalls to the Nambul River by laying pipes of 14,545 meters at both the banks of River at 12 Municipal Wards viz. 6, 7, 8, 9, 11, 12, 13, 14,15, 16, 24 and 27		Apr 2022	30% Completed Action: Environment & CC
2.3	Treatment option and capacity : Installation of 2 (two) Sewage Treatment Plants (STPs) of 16 MLD and 1 MLD		Apr 2022	85% Completed Action: Environment & CC
2.4	Commissioning of the Imphal Sewerage Project Phase-I of 27 MLD		Dec 2019	Commissioned Action: PHED
2.5	Commissioning of the Imphal Sewerage Project Phase-II of 41 MLD		Apr 2022	DPR Submitted, waiting for approval of NIT from NDB Action: PHED
Action 3	Protection of catchment area			

Action	Target Action	Priority – II : Nambul River		
		Target Quantity	Time Line	Status
3.1	<i>In-situ</i> augmentation of medicinal plants and economic plantation at catchment			Completed Action: Forest
Action 4	Protection and prevention of Flood Plain Zone			
4.1	Protection and Improvement of River Bunds. 1,500 m for Nambul River 16,860 m in Imphal River 2,670 m in Kongba River 2,403 m in Thoubal River 317 m in Wangjing River 11,711 m in Manipur River		Before 2021	Status will be updated soon Action: WRD
4.2	Re-Sectioning of Rivers and Streams. 82,091 m in Imphal River. 15,480 m in Kongba River 89,100 m in Nambul and its tributaries. 1,900 m in Chakpi River		Before 2021	Status will be updated soon Action: WRD
4.3	CC/RCC Retaining Walls with and without piles to be provided at the most eroded and vulnerable river banks.		Before 2021	Status will be updated soon Action: WRD

B. 8 (eight) polluted stretches of Rivers viz. Imphal, Iril, Khuga, Khujairok, Lokchao, Manipur, Thoubal, Wangjing under Priority V in Manipur

Action	Target Action	Target Quantity	Timeline	Status & Actor
Action 1	Solid Waste Management			
1.1	Identification of garbage vulnerable point along the 8 (eight) identified polluted river stretches	59 Municipal Wards	6 months (2024 2019)	Status will be updated soon Action : MAHUD / ULBs
1.2	Door to Door Collection and transportation of Municipal solid wastes with source segregation through Cluster Approach	59 Municipal Wards 33.45 MT	1 year (June 2020)	
1.3	Installation of littering bins at suitable places	500 Nos. of Bins	1 year (June 2020)	
1.4	Setting up of waste processing site at Cluster Approach	5 Cluster Units	2 Year (June 2021)	
1.5	Construction of Public toilets at vulnerable points	59 Nos. (one each for every ward for 59 wards)	2 Year (June 2021)	
1.6	IEC / Public Awareness Activities	177 Nos. (3 times for every 59 Wards)	Ongoing	
1.7	Encouraging of home composting	10% of total household	Ongoing	
Action 2	Channelization, treatment, utilization and disposal of treated domestic sewage			
2.1	Identification of location and estimation of liquid waste generation	Under survey	Ongoing	Completed Action : PHED
2.2	Treatment option through phytoremediation technique in consultation with NEERI (National Environmental Engineering Research Institute), Nagpur	27.024 + 38.73 = 65.754 MLD	2 Years (June 2021)	DPR submitted to NRCD, Ministry of Jal Shakti, Govt. of India Action : Environment & CC
2.3	Commissioning of the Imphal Sewerage Project Phase-II: Installation of STPs of 3 (three) units SBR (Sequencing Batch Reactors) technology covering all the remaining wards of Imphal Municipal Corporation (Finalized DPR)	41 MLD	Funding awaited	DPR submitted, waiting for approval of NIT from NDB Action : PHED
Action 3	Protection of catchment Area of 1539 sq. km.			
3.1	In situ augmentation with economic plants	1539 sq. km.	2 Years (June 2021)	Status will be updated soon Action : Forest
3.2	Inventorisation and mapping of springs for protection and rejuvenation at catchment	8 rivers	1 Year (June 2020)	Status will be updated soon Action : Environment & CC
Action 4	Protection and prevention of Flood Plain Zone			
4.1	Protection and Improvement	1. 1500 m for Nambul	Before 2021	Status will be updated

	of River Bunds	River 2. 16860 m in Imphal River and its tributaries 3. 2670 m in Kongba River 4. 2403 m in Thoubal River 5. 317 m in Wangjing River 6. 11711 m in Manipur River		soon Action : WRD
4.2	Re-Sectioning of Rivers and Streams	1. 82091 m in Imphal River 2. 15480 m in Kongba River 3. 89100 m in Nambul and its tributaries 4. 1900 m in Chakpi River	Before 2021	
4.3	CC / RCC Retaining Walls with and without piles to be provided at the most eroded and vulnerable river banks	Along Nambul, Imphal, Thoubal, Kongba, Iril and other major rivers	Before 2021	

National Mission for Clean Ganga
Format for submission of Monthly Progress Report in the NGT Matter OA
No. 673 of 2018
(in compliance to NGT order dated 24.09.2020)
For the State of Manipur submitted on 20th March, 2024

Overall status of the State:

I. Total Population:

	2011 Census	Projected as on 2020
Urban Population	8,34,154	10,47,135
Rural Population	17,36,236	21,79,541
Total	25,70,390	32,26,676

Estimated Sewage Generation (MLD) : 115.054 MLD

II. Details of Sewage Treatment Plant:

- Existing No. of STPs and Treatment Capacity : 1 (one) STP of 27 MLD operational
- Capacity Utilization of existing STPs : 21.59 MLD
- MLD of sewage being treated through alternate technology : NIL
- Gap in Treatment Capacity in MLD : 5.41 MLD
- No. of Operational STPs : 1 (one) Detail of STP is at **Annexure - 1**
- No. of Complying STPs : 1 (one)
- No. of Non-complying STPs : Nil

Details of each existing STP in the State

No.	Location	Existing STP Capacity	Capacity Being Utilized	Operational Status of STP	Compliance Status of STP
1	Lamphel, Imphal West	27 MLD	21.59 MLD	Operational (79.98%)	Complying

Details of under construction STPs in the State

No.	Location	Capacity of the plant in MLD	Physical Progress in %	Status of I&D or House sewer connections	Completion Timeline
1	Maibam Leikai, Imphal West	16 MLD	100 %	NIL	Commissioned
2	Iroisemba, Imphal West	1 MLD	95%	NIL	31.08. 2024

Details of proposed STPs in the State

No.	Location	Capacity of the STP proposed in MLD	Status of Project (at DPR Stage/ Under Tendering/ Work to be Awarded)	Likely Date of Completion
1	Imphal	49 MLD	Agreement Signed	---

III. Details of Industrial Pollution:

	No. of industries in the State	:	404 Nos.
			337 outside Industrial Estate
			67 inside Industrial Estate
	No. of water polluting industries in the State located along the 9 (nine) prioritized rivers of Manipur	:	Nil
	Quantity of effluent generated from the industries in MLD	:	0.93 KLD (estimated) in case of the 3 units located within Nilakuthi Food Park, Imphal East
	Quantity of Hazardous Sludge generated from the Industries in TPD	:	Requested the Member Secretary, Manipur Pollution Control Board vide letter No. A-DTCI-109/4/2022-DTCI-DTC&I Dt.05/06/2024 to support with the data on Industrial Waste Generated (in TPD) inside the 3 (three) Industrial Estates of Manipur.
	Number of industrial units having ETPs	:	Nil
	Number of industrial units connected to CETP	:	3 (three)
	Number and total capacity of ETPs	:	Nil
	Details of existing	:	Nil
	Under construction	:	Nil
	Proposed	:	Nil
	Compliance status of the ETPs	:	Nil
	Number and total capacity of CETPs	:	1 (one) CETP
	Details of existing	:	1 unit of 400 KLD capacity
	Under construction	:	3
	Proposed	:	Nil

Town	Existing ETP Capacity	CETP Proposed, if any	Status (under construction etc.)
Imphal	400 KLD capacity	Nil	The 3(three) ETPs at Takyelpat, Tera Urak & Kuraopokpi Industrial Estates of Manipur has been constructed under PM Gatishakti "Scheme for Special Assistance to the States for Capital Investment for 2022-23". Overall, 75% of the civil works completed as per recent report.

• Status of compliance and operation of the CETPs

Town	No. of industries	Industrial discharge	Status of ETPs	Status of CETPs (Existing, under construction & proposed)
Imphal	5 (five)	Requested the Member Secretary, Manipur Pollution Control Board vide letter No. A-DTCI-109/4/2022-DTCI-DTC&I dt. 05/06/2024 to	Nil	1 (one) CETP of 400 Kilo Liter / Day at Nilakuthi Industrial Estate, Imphal Status : Functional

		support with the data on the industrial waste generated (in TPD) inside the 3 (three) Industrial Estates of Manipur.		
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IV. **Solid Waste Management:**

- Total Urban Local Bodies (ULBs) : 27 ULBs
- Population of ULBs : 6,15,344 (2011 Census)
: 7,92,734 (2021 projected population)
- Current Municipal Solid Waste Generation : 290 MTD
(as per SBM 2.0 guidelines, MSW generation is estimated @450gm per capita generation for Imphal Municipal Corporation (for more than one lakh population) and @300gm per capita generation for other ULBs (for less than one lakh population) based on 2020 projected population)
- Waste Collected : 198 TPD (Collected by ULBs)
- Existing Management / treatment facility : 201 TPD
- Utilization of MSW processing : 145 TPD
[Managed by ULBs = 145 TPD
Managed at Source = 86.1 TPD
Total Managed = 230.81 TPD]
- Number, installed capacity and utilization of existing MSW processing facilities in TPD bifurcated by type of processing.

SN	Name of MSW processing unit	Installed capacity	Utilization (in TPD)	Type of processing	Action plan to bridge Gap between utilization and installed facility
1	IMC / Municipal Solid waste Management Plant, Lamdeng, Imphal	100	90	• Waste to Energy (WTE) and Composting	• Intensify the IEC on Door to Door waste collection and source segregation, Mandatory submission of payment receipts of D2D waste collection at the time of availing any form of service from the corporation

SN	Name of MSW processing unit	Installed capacity	Utilization (in TPD)	Type of processing	Action plan to bridge Gap between utilization and installed facility
2	Lamshang MC	1	1.23	• Aerobic composting	• Linking municipal service with waste collection subscription. • Increased public awareness on proper waste management. • Enforcement of waste management rules.
3	Samurou MC	5	3.53	• Segregation cum transfer station with some composting pits therein	• Presently collected waste after segregation of recyclable plastic waste and cardboard is being transferred to Lamdeng Solid Waste Management Plant. • Increase in awareness, Manpower and vehicles. • Allotment of Permanent land for management of solid waste has been proposed to DC.
4	Thongkhong Laxmi MC	5	3.42	• Segregation cum transfer station and composting pits	• In terms of ward wise, area wise Leikai wise coverage of D2D collection. • More awareness and behavioral change campaign with increase in manpower and SWM vehicles • Setting up of solid waste management and processing unit of its own
5	Sekmai MC	1	1.2	• Home Composting is predominant in all wards • Central Composting at Segregation Shed, Parao • Dry Waste disposed at Lamdeng SWM Plant	• Linking municipal services with D2D enrolment • Engagement of local clubs/SHGs to achieve 100% segregation at source. • Capacity enhancement for management and processing
6	Lilong IW MC	1	1	• Segregation Shed for Material Recovery • Vermi composting	• More composting pits, more vehicles and manpower and encouraging source segregation and home composting. • Cluster basis facilities at Lamdeng SWM Plant.
7	Lamlai MC	3	0.9	• Composting (Home + Centralised) • Source segregation and Centralised segregation	• Treatment facilities at Lamdeng Waste to energy Plant (Cluster Approach)
8	Thoubal MC / Thoubal SWM Plant	13	7	• Segregation and composting	• Encouraging source segregation and home composting • Awareness generation to public. Compactor machine Segregation

SN	Name of MSW processing unit	Installed capacity	Utilization (in TPD)	Type of processing	Action plan to bridge Gap between utilization and installed facility
					machine, compressor
9	Yairipok MC	1	1.6	- Wet waste get processed at source itself as feed of poultry and piggery farms - Segregated recyclable waste is sent to recycler	Treatment facility at Thoubal Cluster
10	Sikhong Sekmai MC	6	0.56	- Wet waste gets processed at source itself as feed of poultry and piggery farms - Segregated recyclable waste is sent to recycler	The ULB shall try to create more facilities to augment the existing installed capacity of the SWM and shall also try to procure machinery/equipment to effectively manage the segregation activities in a scientific way.
11	Lilong Thoubal MC	1	1	Segregation Shed Composting Unit	More composting pits, more vehicles and manpower and encouraging source segregation and home composting.
12	Heirok MC	1	0.4	Transfer and Segregation station and Composting	- Treatment facilities at Thoubal Khunou (Cluster B). - Increase in manpower, Awareness drives & Engagement of Recyclers.
13	Wangjing Lamding MC	1	0.81	Segregation and transfer station	- Treatment facilities at Thoubal Khunou (Cluster B) - Increase in manpower, Awareness drives & Engagement of Recyclers
14	Andro MC	1.07	0.83	Bulk waste is processed or consumed at source as poultry and piggery feeds, Aerobic Composting, Segregation and Recyclable waste sent to recycler	- Treatment facilities at Thoubal Khunou (Cluster B) - Increase in manpower - Awareness drives & Engagement of Recyclers
15	Kakching MC/ Kakching SWM Plant	7	6.82	Composting, Segregation & Recycling	- Intensified IEC on door-to-door waste collection and source segregation. - Mandatory submission of payment receipts of D2D waste collection at the time of availing any form of service from the council

SN	Name of MSW processing unit	Installed capacity	Utilization (in TPD)	Type of processing	Action plan to bridge Gap between utilization and installed facility
16	Kakching Khunou MC	2.2	2.1	Composting, Segregation & Recycling	- Intensified IEC on Door-to-Door Waste Collection and Source Segregation. - Mandatory Submission of Payment Receipts of D2D waste collection at the time of availing any form of service from the Council.
17	Sugnu MC	1.2	0.7	Composting, Segregation & Recycling	- Intensified IEC on door-to-door waste collection and source segregation. - Mandatory submission of payment receipts of D2D waste collection at the time of availing any form of service from the council. Transport of unrecyclable waste to Kakching Cluster.
18	Mayang Imphal MC	8	6	- Treatment Plant/Composting Pits and segregation Sheds/MRF are operational. - Remaining collected waste sent to treatment plant at Lamdeng Imphal and Segregated recyclable waste sent to recycler	- Treatment Plant/Composting Pits and segregation Sheds/MRF are operational. - Remaining collected waste are sent to treatment plant at Lamdeng. - Segregated recyclable waste sent to recycler - The ULB shall manage to fill up the gap when the prevailing situation of the state is improving.
19	Wangoi MC	1	1.25	Home composting and manual segregation of waste	- In terms of ward wise, area wise, leikai wise coverage of D2D collection, there is 100% coverage D2D. - Encouraging home composting and source segregation. - More awareness and behavioral change campaign with increase in manpower - Setting up of a solid waste management & processing facility of its own.
20	Kumbi MC	1	1.29	Composting	- Now 100% D2D Collection - Land available 0.27 acre
21	Kwakta MC	1	0.55	Composting	Untreated waste is dumped at uncontrolled dumpsite as a short time measure. Once the cluster basis is completed, the untreated wastes shall be transferred at the cluster head for further processing

SN	Name of MSW processing unit	Installed capacity	Utilization (in TPD)	Type of processing	Action plan to bridge Gap between utilization and installed facility
22	Moirang MC	4	2.99	• Composting	• Segregation shed has constructed. • Composting plants also been constructed and it has commissioned. • IEC Campaign has organised for proper 100% source segregation.
23	Ningthoukhong MC	5.5	1.7	• Composting & sent back for re-cycling	• Vigorous IEC campaign and implementation of stringent rules or bye-laws.
24	Bishnupur MC	5	2.8	• Sanitary Landfill	• Vigorous IEC campaign and implementation of stringent rules or by-laws • By-Laws is published and shall be implemented for closing the gap
25	Oinam MC	1.5	0.9	• Composting	• Encouraging households to source segregate waste and practice home composting of wet waste. • Engaging recyclers for dry waste
26	Nambol MC	2	1.9	• Composting pit • Manual Segregation initiated at the segregation shed	• Increasing recovery of other recyclable materials apart from plastic bottles/waste. • Encouraging source segregation and home composting.
27	Jiribam MC	22.005	2.21	• Composting, send back for recycling, MRF	Nil
	Total	201	145		

• Action plan to bridge gap between Installed Capacity and Current Utilization of processing facilities (if Gap > 20%)	• Planning for upgrade the installed capacity as per required by 2029-30
• No. and capacity of C&D waste processing plants in TPD (existing, proposed and under construction)	• Existing – Nil • Proposed – 5TPD
• Total No. of wards	• 305 Wards
• No. of wards having door to door collection service	• 305 Wards
• No. of wards practicing segregation at source	• 305 Wards

- Details of MSW treatment facilities proposed and under construction:

Sl. No.	Name of ULB or Processing unit	Capacity	Technology	Proposed / under Construction
1	Annexed at Table-3			
• No. and area (in acres) of uncontrolled garbage dumpsites and Sanitary Landfills			• 5 (five) sanitary landfill and 7 controlled dumpsites • Annexure-Table 3	
• No. and area (in acres) of legacy waste within 1km buffer of both side of the rivers			• Nil	
• No. of drains falling into rivers and no. of drains having floating racks/screens installed to prevent solid waste from falling into the rivers			• 1 at Jiribam MC [floating racks/screens installed]	
• Status of ULB wise Management of Solid waste			• At Annexure – Table -1 and Table -2	

V. Bio-medical Waste Management March, 2024:

Total Bio-medical generation	:	0.83 TPD	• Deep burial practiced at remote rural areas • DPR submitted to ministry for up-gradation of the existing CBMWTF • Action Plan submitted to the State Pollution Control Board by the Directorate Health Service for BMW management
No. of Hospitals and Health Care Facilities	:	534 Nos. [i/c 420 PHSCs]	
Status of Treatment Facility CBMWTF	:	CBMWTF = 1 No. (Capacity-100 Kg/hr.) Captive Facility = 2 Nos. (Capacities-100 Kg/hr. & 105 Kg/hr.) Deep Burial = 391 Nos.	
Status of Treatment Facility ETPs	:	81 Nos.	

VI. Hazardous Waste Management:

Total Hazardous Waste generation	:	0.99 TPD
No. of Industries generating Hazardous waste	:	334 (automobile service centres mainly micro-scale units)
Treatment Capacity of all TSDFs	:	Nil
Avg. Quantity of Hazardous waste reaching the TSDFs and Treated	:	Nil
Details of on-going or proposed TSDF	:	Under preparation of DPR, Final DPR by 2024 2024

VII. Plastic Waste Management:

Total Plastic Waste generation	:	
Treatment / Measures adopted for reduction or management of plastic waste	:	
Details of Alternate Treatment Technology being adopted by the State/UT	:	
Identification of including drains contributing to river pollution and action as per NGT order on in-situ treatment	:	
Details of Nodal Officer appointed by Chief Secretary in the State / UT	:	
VIII. Details of meetings carried under the in the State/UT	:	
IX Latest water quality of polluted river, its tributaries, drains with flow details and ground water quality in the catchment of polluted river	:	
IX. Ground water regulation	:	
X. Good irrigation practices being adopted by the State	:	
XI. Rainwater Harvesting	:	
XII. Demarcation of Floodplain and removal of illegal encroachments	:	
XIII. Maintaining minimum e-flow of river	:	
XIV. Plantation activities along the rivers	:	
XV. Development of biodiversity park	:	
XVI. Reuse of Treated Water	:	
XVII. Model River being adopted by the State & Action Proposed for achieving the bathing quality standards	:	
XVIII. Status of Preparation of Action Plan by the 13 Coastal States	:	
XIX. Regulation of Mining Activities in the State / UT	:	The Mines and Mineral (Regulation and Development) Act, 1957 differentiates minerals into (a) major mineral and (b) minor mineral. The mineral administration of mining activities belonging to major minerals vests with the Central Government and are regulated under the Mines and Mineral (Regulation and Development) Act and Rules frame there under. The mineral administration of minor minerals vests with the respective State Governments and are regulated under their respective minor mineral concession Rules framed under section 15(1) of the Act and Rules framed their under. Similarly, in Manipur, the mining activities

		belonging to minor minerals are regulated under the Manipur Minor Mineral Concession Rules, 2012 and amendments thereon. In order to check illegal mining, to regulate transportation and storage of minor minerals, The Manipur Minerals (Prevention of Illegal Mining, Storage and Transportation) rules, 2018 has also been notified. In addition, The Manipur Mineral Policy, 2021 is being framed.
XX.	Action against identified polluters, law violators and officers responsible for failure for vigorous monitoring	:

A. Total Status of STPs in Imphal (as on 20th March, 2024)

Particular	Unit	Phase I	Phase II	Ongoing NRCD Project	Total
Capacity of STP	MLD	27	49	17	93
Capacity of STP Utilized	MLD	21.59			21.59
Total Sewer Pipe	RM	69,429	2,77,289		3,46,718
Primary (Main Pipe)	RM	25,291			25,291
Secondary (Sub-main Pipe)	RM	44,138			44,138
Interception & Diversion Pipelines	RM			14,545	14,545
No. of urban drains to be collected	Drain			72	72
Targeted Connection septic tank	Unit	9,564	42,190		
Connected septic tank	Unit	8100			8100
Lift Station	Unit	5	21	14	40
Population (by 2054)	Lakh	1,86,534	3,49,759		5,36,293
Covered Municipal Ward	Wards	11	16	14	
Area covered	Sq. Km.	11	35		
Covered Polluted River				Nambul P-II	
Method of Treatment		ASP	SBR	MBBR	

Note : Targeted household for Phase I has been decreased from 12,000 Nos. to 9,564 because 2436 household shall be covered in Imphal Sewerage project – Phase II.

Status of utilization of the existing STP :

- 1 (one) unit of 27 MLD STP (ASP technology) is operational under PHED
- 69,429 rm sewer pipeline [25,291 rm primary lines, 44.14 rm secondary lines]
- Total target connection is 9,564 households

INCREMENTAL STATUS OF UTILIZATION FOR 27 MLD AT LAMPHEL PAT, IMPHAL WEST

	Jan 2022	Feb 2022	Mar 2022	Apr 2022	May 2022	June 2022	July 2022	Aug 2022	Sep 2022	Oct 2022	Cumulative as on 20 th March 2024	Gap
Household Connected	4000	250	250	60	10	30	0	50	280	356	8100	1464
Utilization in MLD	9 MLD	9.5 MLD	10 MLD	10.26 MLD	10.28 MLD	10.35 MLD	10.35 MLD	16.5 MLD	17.34 MLD	18.35 MLD	21.59 MLD	5.41 MLD
Utilization in %	33%	35%	38%	38%	38%	38%	38%	61.31 %	64.24 %	67.96 %	79.98 %	20.02 %
	Nov. 2022	Dec. 2022	Jan. 2024	Feb. 2024	Mar. 2024	May 2024	June 2024	July 2024	Aug 2024	Sept 2024		
Household Connected	800	50	14	150	20	50	0	0	0	0		
Utilization in MLD	20.60 MLD	20.74 MLD	20.78 MLD	21.17 MLD	21.22 MLD	21.59 MLD	21.59 MLD	21.59 MLD	21.59 MLD	21.59 MLD		
Utilization in %	76.32 %	76.85 %	76.99%	78.41 %	78.62 %	79.98 %	79.98 %	79.98 %	79.98 %	79.98 %		
	Oct. 2024	Nov 2024	Dec 2024	Jan 2024	Feb 2024	Mar 2024						
Household Connected	0	30	20	300	70	30						
Utilization in MLD	21.59 MLD	21.59 MLD	21.59 MLD	21.59 MLD	21.59 MLD	21.59 MLD						
Utilization in %	79.98 %	79.98 %	79.98 %	79.98 %	79.98 %	79.98 %						

B. In-situ Bio-remediation and others :

	Name of the Polluted River (P-V)	Total Length of the River	Length of Polluted stretches	BOD Range (mg/l)	Population at polluted zone	Status / Proposed for Treatment
1	Imphal	89.24 km	19.98 km	2.9 - 3.1	84,857	- Revised DPR for Imphal River along with Fecal Sludge and Septage Management (FSSM) for 315 KLD at 27 ULBs and in situ treatment through Bio-remediation of 16.75 MLD submitted to NRCD on 18th September 2021. - Revised DPR with full justification on the comments made by the Ministry will be submitted soon.
2	Iril	156.50 km	18.12 km	2.8 - 3.0	1,714	
3	Khuga	79.25 km	10.92 km	2.0 – 3.0	857	
4	Khujairok	10.06 km	4.21 km	3.2	4,286	
5	Lokchao/ Thongjarok	17.04 km	5.31 km	3.0	1,143	
6	Manipur	261.00 km	35.00 km	3.1	7,143	
7	Thoubal	142.80 km	24.61 km	2.8	30,286	
8	Wangjing	35.08 km	3.70 km	3.1 - 3.2	7,143	

Note :

ASP (Activated Sludge Process), EAP (Extended Aeration Process),
SBR (Sequencing Batch Reactor), MBBR (Moving Bed Biofilm Reactor)

	FORMAT FOR SEWAGE TREATMENT PLANTS AND UTILIZATION OF SEWAGE (20 th MARCH, 2024)															
Sl. No.	City / Town	No. of STP	Location of STP	Coordinates of STP	STP Commissioned year	Status (operational/ Non-Operational/ Under Construction)	STP Installed Capacity (In MLD)	Actual Utilization of installed capacity (In MLD)	Technology UASB / ASP / OP / SBR / MBBR / FAB etc.	Consent status	Compliance Status Source: Manipur Pollution Control Board					
											Oil & Grease	pH	TSS mg/l	COD mg/l	BOD mg/l	Faecal Coliform
1	Imphal	1	Lamphei	24°49''45''N 93°54''58''E	2020	Operational	27	21.59 MLD	ASP		2.5	7.1	31	38	11.6	120

LIST OF WATER POLLUTING FACTORIES LOCATED WITHIN INDUSTRIAL ESTATE/FOOD PARK**Takyel Industrial Estate, Imphal West Districts, Manipur.**

Sl. No.	Name of unit	Nearest River	Proprietor	Name of Products
1	M/S Modern Foods	Nambul	T. Sanajaoba Singh	Noodles
2	M/S Hangle Industries	Nambul	H. Nabadeep Singh	Spices & Food Products
3	M/S Pera Fruit Products	Nambul	Kh. Sanayaima Singh	Fruit Processing
4	M/S Khudol	Nambul	K. Siddhanta Sharma	Food Processing
5	M/S Ratana Fruit	Nambul	L. Sarat Singh	Food items
6	M/S Universal Iodises Salt Industries	Nambul	P. Joychandra Singh	Food Items

Nilakuthi Food Park, Imphal East

Sl. No.	Name of unit	Nearest River	Proprietor	Name of Products
1	Shree Balaji Flour Mill	Imphal	Mrs. Rangnamei Martha	Flour
2	KMU	Imphal	Wangkheirakpam Gobin Singh	Bakery
3	Thangjam Agro Industries Pvt. Ltd.	Imphal	Thangjam Joykumar Singh	Bakery

TABLE 1 : SOLID WASTES GENERATION, COLLECTION AND MANAGEMENT - ULB WISE IN MANIPUR, MARCH, 2024

No.	Name of ULB	Population		Solid Waste Generated (MTD)	Waste Collected (TPD)	Gap between Generated and (Collected + Managed at source)	Managed/Treated (in TPD)					Plan to mitigate the gap between generation of wastes vs collection, managed / treated and Remarks
		2011 Census	2021 Projected				Facilities (TPD)	Managed / Treated	Processed at source	Map Gap in TPD	Gen-Man Gap= [(Gen-Man)/ Gen] x 100	
1	Imphal MC	2,65,573	3,50,050	157.5	130.0	2	100	90	25.5	115.5	27%	• Intensify the IEC on Door to Door waste collection and source segregation. • Mandatory submission of payment receipts of D2D waste collection at the time of availing any form of service from the corporation.
2	Lamshang MC	8,130	9,739	2.92	1.23	0.19	1	1.23	1.5	2.73	6.51%	• Linking municipal service with waste collection subscription. • Increased public awareness on proper waste management. • Enforcement of waste management rules.
3	Samurou MC	14,818	18,602	5.58	3.53	0.51	5	3.53	1.54	5.07	9.14%	• Presently collected waste after segregation of recyclable plastic waste and cardboard is being transferred to Lamdeng Solid Waste Management Plant. • Increase in awareness & increase in manpower and vehicles. • Allotment of Permanent land for management of solid waste has been proposed to DC.

No.	Name of ULB	Population		Solid Waste Generated (MTD)	Waste Collected (TPD)	Gap between Generated and (Collected + Managed at source)	Managed/Treated (in TPD)					Plan to mitigate the gap between generation of wastes vs collection, managed / treated and Remarks	
		2011 Census	2021 Projected				Facilities (TPD)	Managed / Treated	Processed at source	Map Gap in TPD	Gen-Man Gap= [(Gen-Man)/ Gen] x 100		
4	Thongkhong Laxmi MC	14,878	18,677	5.6	3.42	0.51	5	3.42	1.67	5.09	9.11%	• In terms of ward wise, area wise leikai wise coverage of D2D collection. • More awareness and behavioral change campaign with increase manpower and SWM vehicles. • Setting up of solid waste management and processing facility of its own.	
5	Sekmai MC	5,065	6,358	1.9	1.20	0.2	1	1.2	0.50	1.7	11%	• Linking municipal services with D2D enrolment. • Engagement of local clubs/SHGs to achieve 100% segregation at source. • Capacity enhancement for management and processing.	
6	Lilong IW MC	12,427	15,600	4.6	1	0.6	1	1	3	4	13%	• More composting pits, more vehicles and manpower and encouraging source segregation and home composting. Cluster basis facilities at Lamdeng SWM Plant.	
7	Lamlai MC	4,601	5,776	1.73	1	0	3	0.9	0.73	1.63	6%	• Treatment facilities at Lamdeng Waste to energy Plant (Cluster Approach).	
8	Thoubal MC	45,947	57,678	17.3	6.9	0.4	13	7	10	17.00%	1.73%%	• Encouraging source segregation and home composting • Awareness generation to public. • Compactor machine Segregation machine, compressor	

No.	Name of ULB	Population		Solid Waste Generated (MTD)	Waste Collected (TPD)	Gap between Generated and (Collected + Managed at source)	Managed/Treated (in TPD)					Plan to mitigate the gap between generation of wastes vs collection, managed / treated and Remarks
		2011 Census	2021 Projected				Facilities (TPD)	Managed / Treated	Processed at source	Map Gap in TPD	Gen-Man Gap= [(Gen-Man)/ Gen] x 100	
9	Yairipok MC	9,569	12,012	3.6	1.6	0	1	1.6	2	3.6	0%	Treatment facilities at Thoubal cluster
10	Sikhong Sekmai MC	7,390	9,277	2.78	0.56	0	6	0.56	2.22	2.78	0%	The ULB shall try to create more facilities to augment the existing installed capacity of the SWM facility and also try to procure machinery/equipment to effectively manage the segregation activities in a scientific way.
11	Lilong TBL MC	24,900	31,258	9.3	2.00	0.8	1	1	6.5	7.5	19%	More composting pits, more vehicles and manpower and encouraging source segregation and home composting.
12	Heirop MC	2,974	3,733	1.12	0.47	0	1	0.4	0.65	1.05	6.3%	- Treatment facilities at Thoubal Khunou (Cluster B) - Increase in manpower. - Awareness drives & Engagement of recyclers
13	Wangjing Lamding MC	8,055	10,112	3.03	1	0	1	0.81	2.03	2.84	6.3%	- Treatment facilities at Thoubal Khunou (Cluster B) - Increase in manpower. - Awareness drives & Engagement of recyclers
14	Andro MC	8,744	10,977	3.29	0.9	0	1.07	0.83	2.39	3.22	2.13%	- Treatment facilities at Thoubal Khunou (Cluster B), Increase in manpower. - Awareness drives & Engagement of recyclers

No.	Name of ULB	Population		Solid Waste Generated (MTD)	Waste Collected (TPD)	Gap between Generated and (Collected + Managed at source)	Managed/Treated (in TPD)					Plan to mitigate the gap between generation of wastes vs collection, managed / treated and Remarks
		2011 Census	2021 Projected				Facilities (TPD)	Managed / Treated	Processed at source	Map Gap in TPD	Gen-Man Gap= [(Gen-Man)/ Gen] x 100	
15	Kakching MC	32,138	40,344	12.1	8.63	0.05	7	6.82	3.42	10.24	15%	Intensified IEC on door-to-door waste collection and source segregation. Mandatory submission of payment receipts of D2D waste collection at the time of availing any form of service from the council
16	Kakching Khunou MC	11,379	14,284	4.28	2.62	0.05	2.2	2.1	1.61	3.71	13%	- Intensified IEC on door-to-door waste collection and source segregation. - Mandatory submission of payment receipts of D2D waste collection at the time of availing any form of service from the council
17	Sugnu MC	5,132	6,442	1.93	1.18	0.24	1.2	0.7	0.51	1.21	37%	- Intensified IEC on door-to-door waste collection and source segregation - Mandatory submission of payment receipts of D2D waste collection at the time of availing any form of service from the council - Transport of unrecyclable waste to Kakching Cluster
18	Mayang Imphal MC	24,239	34,428	10.33	6.00	1.02	8	6	3.31	9.31	10%	- Treatment Plant/Composting Pits and segregation Sheds/MRF are operational. - Remaining collected waste are sent to treatment plant at Lamdeng. - Segregated recyclable waste are sent to

No.	Name of ULB	Population		Solid Waste Generated (MTD)	Waste Collected (TPD)	Gap between Generated and (Collected + Managed at source)	Managed/Treated (in TPD)					Plan to mitigate the gap between generation of wastes vs collection, managed / treated and Remarks
		2011 Census	2021 Projected				Facilities (TPD)	Managed / Treated	Processed at source	Map Gap in TPD	Gen-Man Gap= [(Gen-Man)/ Gen] x 100	
												recycler • The ULB shall manage to fill up the gap when the prevailing situation of the state is improving.
19	Wangoi MC	9,106	11,431	3.43	1.45	0	1	1.25	1.98	3.23	5.83%	• In terms of ward wise, area wise, leikai wise coverage of D2D collection, there is 100% coverage of D2D. • Encouraging source segregation and home composting. • More awareness and behavioral change campaign with increase in manpower. • Setting up of solid waste management and processing facility of its own.
20	Kumbi MC	9,546	11,983	3.59	2	0.08	1	1.29	1.51	2.8	22%	• Now 100% D2D collection • Land available 0.27 acre
21	Kwakta MC	8,579	10,769	3.23	1.13	0	1	0.55	2.1	2.65	17.96%	• Untreated waste is dumped at uncontrolled dumpsite as a short time measure. Once the cluster basis is completed, the untreated wastes shall be transferred at the cluster head for further processing
22	Moirang MC	19,893	24,972	7.49	5.4	0.09	4	2.99	2	4.99	33%	• Segregation shed has constructed. Composting plans also been constructed. It has commissioned.

No.	Name of ULB	Population		Solid Waste Generated (MTD)	Waste Collected (TPD)	Gap between Generated and (Collected + Managed at source)	Managed/Treated (in TPD)					Plan to mitigate the gap between generation of wastes vs collection, managed / treated and Remarks
		2011 Census	2021 Projected				Facilities (TPD)	Managed / Treated	Processed at source	Map Gap in TPD	Gen-Man Gap= [(Gen-Man)/ Gen] x 100	
												• IEC Campaign has organised for proper 100% source segregation.
23	Ningthoukhong MC	13,078	16,417	5.00	2.2	0.3	5.5	1.7	2.5	4.2	16%	• Vigorous IEC campaign and implementation of stringent rules or by laws.
24	Bishnupur MC	12,167	15,274	4.58	3.48	0	5	2.8	1.1	3.9	14.8%	• Vigorous IEC campaign and implementation of stringent rules or bye-laws, By-Laws is published and shall be implemented for closing the gap.
25	Oinam MC	7,161	8,989	2.7	1.6	0	1.5	0.9	1.1	2	26%	• Encouraging households to source segregate waste and practice home composting of wet waste. • Engaging recyclers for dry waste.
26	Nambol MC	22,512	28,260	8.5	4.3	0	2	1.9	4.2	6.1	28%	• Increasing recovery of other recyclable materials apart from plastic bottles/waste. • Encouraging source segregation and home composting.
27	Jiribam MC	7,343	9,218	2.76	2.21	0	22.005	2.21	0.55	2.76	0%	NIL
Total		6,15,344	7,92,660	290	197	7.04	201.5	145	86.1	230.81		
PC to the generated wastes					68%	2%	69 %	50%	30%	80%	20%	

Note : *1. Taking r=2.3 as annual Population growth rate [Ref.: MoUD, Gol] *2. Waste generated is estimated including floating population @10%
*3. As per SBM 2.0 guidelines, Waste generated is estimated in @450gm per capita generation (for more than 1 lakh population) for Imphal MC and @ 300gm per capita generation (for less than 1 lakh population)

TABLE 2 : SOLID WASTES GENERATION, COLLECTION AND MANAGEMENT – WARDWISE OF ULBs IN MANIPUR, MARCH, 2024

Sl. No.	Name of ULB	Total Wards	Door to Door (D2D) Collection		Segregated at source		Land Available in Acre	Type of processing unit	Plan to mitigate the gap generation and Management
			No. of Wards	in %	No. of Wards	in %			
1	Imphal MC	27	27	100%	27	80%		Waste to Energy plant (WTE) and composting	Intensive campaign on source segregation and home composting.
2	Lamshang MC	9	9	100%	9	100%	0	Aerobic Composting	Continue IEC activities to emphasize Segregation at Source.
3	Samrouh MC	11	11	100%	11	70%	0	Segregation cum transfer station with some composting pits therein.	- Presently collected waste after segregation of recyclable plastic waste and cardboard is being transferred to Lamdeng Solid Waste Management Plant. - Increase in awareness. - Increase in Manpower and vehicles. - Allotment of Permanent land for management of solid waste has been proposed to DC.
4	Thongkhong Laxmi MC	11	11	100%	11	70%	2.5 (Allotment order issued, premium paid, process for issue of Jamabandi going on)	Segregation cum transfer station and composting pits.	- In terms of Ward-wise, Region-wise, Area-wise, Leikai-wise, Leirak-wise coverage of D2D collection, there is 100% coverage of D2D - More awareness and behavioural change campaign required. - Increase of manpower and machinery. - Setting up of solid waste management and processing facility of its own.
5	Sekmai MC	9	9	100%	9	75%	0	- Home Composting is predominant in all wards. - Central Composting at Segregation Shed, Parao. - Dry Waste disposed at Lamdeng SWM Plant.	IEC activities to emphasize segregation at Source.

Sl. No.	Name of ULB	Total Wards	Door to Door (D2D) Collection		Segregated at source		Land Available in Acre	Type of processing unit	Plan to mitigate the gap generation and Management
			No. of Wards	in %	No. of Wards	in %			
6	Lilong IW MC	9	9	100%	9	80%	0	• Segregation Shed for Material Recovery • Vermi composting	• More composting pits, more vehicles and manpower and encouraging source segregation and home composting. • Cluster basis facilities at Lamdeng SWM Plant.
7	Lamlai MC	9	9	100%	9	78%	0.88	• Composting (Home +Centralised) Source segregation and centralised segregation	• Treatment facilities at Lamdeng Waste to energy Plant (Cluster Approach) • Rigorous IEC activities. • Payment of D2D collection when other municipal services are awaited.
8	Thoubal MC	18	18	100%	18	85%	6.7	• Segregation and composting	• Engaging more workers in the composting plant • Introduction of compactor and segregation machines
9	Yairipok MC	9	9	100%	9	100%	2.2	• Wet waste get processed at source itself as feed of poultry and piggery farms • Segregated recyclable waste is sent to recycler	• Treatment facility at Thoubal cluster.
10	Sikhong Sekmai MC	9	9	100%	9	67%	0.62	• Wet waste gets processed at source as feed of poultry and piggery. • Segregated recyclable waste is sent to recycler	• The ULB shall try to create more facilities to augment the existing installed capacity of the SWM facility and shall also try to procure machinery equipment to effectively manage the segregation activities
11	Lilong TBL MC	9	9	100%	9	70%	0.313	• Segregation Shed • Composting Unit	• More composting pits, more vehicles and manpower and encouraging source segregation and home composting.
12	Heiropk MC	9	9	100%	9	100%	2.084	• Transfer and Segregation Station and Composting	• Treatment facility at Thoubal Khunou (Cluster B)

Sl. No.	Name of ULB	Total Wards	Door to Door (D2D) Collection		Segregated at source		Land Available in Acre	Type of processing unit	Plan to mitigate the gap generation and Management
			No. of Wards	in %	No. of Wards	in %			
13	Wangjing Lamding MC	9	9	100%	9	100%	1.46	• Segregation and transfer station	• Treatment facility at Thoubal Khunou (Cluster B)
14	Andro MC	12	12	100%	12	100%	0.96	• Bulk of wet waste is processed or consumed at source a poultry & piggery feeds • Aerobic Composting • Segregation & Recyclable waste sent to recycler	• Treatment facility at Thoubal Khunou (Cluster B)
15	Kakching MC	12	12	100%	12	98%	4.5	• Composting, segregation & recycling	• Intensified awareness on source segregation. • Manual segregation • Mechanical segregation (to be started shortly) and aerobic composting to mitigate the gap of generation and management.
16	Kakching Khunou MC	9	9	98%	9	92%	2	• Composting, segregation & Recycling	• Intensified awareness on source segregation. • Manual segregation • Mechanical Segregation(to be started shortly) and • Aerobic composting to mitigate the gap of generation and management
17	Sugnu MC	9	9	100%	9	82%	1	• Composting, Segregation & Recycling	• Transport of remaining unrecyclable segregated waste to Kakching cluster - Engagement of recyclers • Intensified awareness on source segregation, manual segregation and composting to mitigate the gap of generation and management.

Sl. No.	Name of ULB	Total Wards	Door to Door (D2D) Collection		Segregated at source		Land Available in Acre	Type of processing unit	Plan to mitigate the gap generation and Management
			No. of Wards	in %	No. of Wards	in %			
18	Mayang Imphal MC	13	13	85%	13	85%	1.25	• Treatment plant/ composting pit and segregation sheds/ MRF are operational. • Remaining collected waste sent to treatment plant at Lamdeng Imphal • Segregated recyclables sent to recycler	• Treatment Plant/Composting Pits and segregation Sheds/MRF are operational. • Remaining collected waste sent to treatment plant at Lamdeng Imphal • Segregated recyclables sent to recycler. • The ULB shall manage to fill up the gap when the prevailing situation of the state is improving.
19	Wangoi MC	9	9	100%	9	100%	0.70	• Home composting and manual segregation of waste	• Treatment facility at Lamdeng waste to energy plant
20	Kumbi MC	9	9	100%	9	80%	0.52	• Composting	
21	Kwakta MC	9	9	100%	9	65%	0.625	• Composting	• Untreated waste is dumped at uncontrolled dumpsite as a short time measure. • Once the cluster basis is completed, the untreated wastes shall be transferred at the cluster head for further processing.
22	Moirang MC	12	12	100%	12	85%	5.1	• Composting	• Requested DC to allot land. • Rigorous IEC Campaign to be held for source segregation.
23	Ningthoukhong MC	14	14	100%	14	85%	1.31	• Composting & sent back for re-cycling	• Composting and recycling
24	Bishnupur MC	12	12	100%	12	85%	5	• Sanitary Landfill	• Composting plant at 2.5 Acre
25	Oinam MC	9	9	100%	9	70%	0	• Composting	• Encouraging households to source segregate waste and practice home composting of wet waste. • Engaging recyclers for dry waste.

Sl. No.	Name of ULB	Total Wards	Door to Door (D2D) Collection		Segregated at source		Land Available in Acre	Type of processing unit	Plan to mitigate the gap generation and Management
			No. of Wards	in %	No. of Wards	in %			
26	Nambol MC	18	18	100%	18	88%	3.21	• Composting pit • Manual Segregation initiated at the segregation shed	• Capacity building of sanitary Workers. • Increasing manpower, vehicles and machinery. • Extensive awareness drive. • Co-opting SHGs and CSOs in SWM.
27	Jiribam MC	10	10	100%	10	81%	6.02	• Composting, Send back for recycling, MRF	• Nil
Total		305	305		305		43.332		
In Percentage-Ward coverage				100%		100%			
Average Household coverage				99%		84%			

Table-3 : SOLID WASTES PROCESSING AND MANAGEMENT – WARDWISE OF ULBS IN MANIPUR, MARCH 2024

Sl No.	Name of ULB or Name of Processing Unit	Processing unit Under Construction		Uncontrolled Dumpsite		Controlled Dumpsite		Sanitary Landfill		Area of Legacy waste within 1 km buffer of the river	Drains falling into river having floating racks/screen
		Capacity TPD	Technology	No.	Area (Acre)	No.	Area (Acre)	No.	Area (Acre)		
1	Imphal MC and Lamdeng SWM Plant	Nil	Waste to Energy Plant and composting	Nil		Nil	Nil	1	Nil	Nil	Nil
2	Lamshang MC	NA	Human composting and manual segregation of waste. Dry waste to Lamdeng SW plant.	Nil		Nil	Nil	Nil	Nil	Nil	Nil
3	Samurou MC	NA	NA	Nil		Nil	Nil	Nil	Nil	Nil	Nil
4	Thongkhong Laxmi MC	NA	NA	Nil		Nil	Nil	Nil	Nil	Nil	Nil
5	Sekmai MC	0	Aerobic composting	Nil		0	0	Nil	Nil	Nil	Nil
6	Lilong IW MC	0	Manual Segregation of waste for material recovery Vermicomposting pits	Nil		Nil	Nil	Nil	Nil	Nil	Nil
7	Lamlai MC	0	NA	Nil		Nil	Nil	Nil	Nil	Nil	Nil
8	Thoubal MC	0	Manual Segregation and aerobic composting	Nil		Nil	Nil	1	2	Nil	Nil
9	Yairipok MC	0	Composting/aerobic	Nil		Nil	Nil	Nil	Nil	Nil	Nil
10	Sikhong Sekmai MC	0	Composting/aerobic	Nil		Nil	Nil	Nil	Nil	Nil	Nil

Sl No.	Name of ULB or Name of Processing Unit	Processing unit Under Construction		Uncontrolled Dumpsite		Controlled Dumpsite		Sanitary Landfill		Area of Legacy waste within 1 km buffer of the river	Drains falling into river having floating racks/screen
		Capacity TPD	Technology	No.	Area (Acre)	No.	Area (Acre)	No.	Area (Acre)		
11	Lilong TBL MC	0	Manual Segregation of waste for material recovery	Nil		Nil	Nil	Nil	Nil	Nil	Nil
12	Heirok MC	0	Manual Segregation and composting/aerobic	Nil		Nil	Nil	Nil	Nil	Nil	Nil
13	Wangjing Lamding MC	0.3	Manual Segregation and composting/aerobic	Nil		Nil	Nil	Nil	Nil	Nil	Nil
14	Andro MC	0	Manual segregation & aerobic composting	Nil		Nil	Nil	Nil	Nil	Nil	Nil
15	Kakching MC	0	Manual segregation	Nil		1	2	1	2.5	Nil	Nil
16	Kakching Khunou MC	0	NA	Nil		0	0	Nil	Nil	Nil	Nil
17	Sugnu MC	0	NA	Nil		Nil	Nil	Nil	Nil	Nil	Nil
18	Mayang Imphal MC	0	Manual segregation of waste & composting construction completed.	Nil		Nil	Nil	Nil	Nil	Nil	Nil
19	Wangoi MC	0	Nil	Nil		Nil	Nil	Nil	Nil	Nil	Nil
20	Kumbi MC	0	Composting pit	Nil		1	0.27	Nil	Nil	Nil	Nil
21	Kwakta MC	0	Composting unit	Nil		1	0.016	Nil	Nil	Nil	Nil
22	Moirang MC	0	Segregation, composting and recovery of reusable	Nil		1	2.5	Nil	Nil	Nil	Nil

Sl No.	Name of ULB or Name of Processing Unit	Processing unit Under Construction		Uncontrolled Dumpsite		Controlled Dumpsite		Sanitary Landfill		Area of Legacy waste within 1 km buffer of the river	Drains falling into river having floating racks/screen
		Capacity TPD	Technology	No.	Area (Acre)	No.	Area (Acre)	No.	Area (Acre)		
			wastes.								
23	Ningthoukhong MC	0	Anaerobic ,Segregation, Composting and recovery of reusable wastes.	Nil		1	1.31	Nil	Nil	Nil	Nil
24	Bishnupur MC, Multi-Segregation shed at Chothe Village, Ward No. 12	0	Manual segregation and aerobic composting	Nil		Nil	Nil	1	2.5	Nil	Nil
25	Oinam MC	0	Composting (operational)	Nil		1	0.4	Nil	Nil	Nil	Nil
26	Nambol MC	0	Manual segregation, Aerobic and vermi-composting	Nil		1	3.21	Nil	Nil	Nil	Nil
27	Jiribam MC	0	Manual segregation, Pit composting, Windrow composting and MRF, C&D waste processing unit	Nil		Nil	Nil	1	1.72	Nil	1
	Total	0.3				7	9.706	5	8.72		1

STATUS OF WATER QUALITY OF POLLUTED RIVERS**Remark :**

Manipur Pollution Control Board has been conducting monthly water quality analysis of the polluted rivers.

Water Quality of the Imphal, Iril, Manipur, Thoubal, Wangjing, Khuga, Khujairok, Lokchao, Nambul, Waisel Maril & Moirang Rivers and Effluent of Sewage Treatment Plant, Langol
for the month of March, 2024

1. Imphal River

Location	DO	pH	BOD mg/L	COD mg/L	Fecal Coliform (MPN/100ml)
Koirengei	7.2	7.3	3.1	7.4	55
Minutrhong	7.1	7.3	3.3	9.8	65
Mahabali	7.0	7.2	3.2	8.6	60

2. Iril River

Location	DO	pH	BOD mg/L	COD mg/L	Fecal Coliform (MPN/100ml)
Kangla Siphai	7.3	7.3	3.2	11.6	55
Porompat	7.3	7.4	3.2	8.7	60
Lilong	7.1	7.2	3.2	10.2	70

3. Manipur River

Location	DO	pH	BOD mg/L	COD mg/L	Fecal Coliform (MPN/100ml)
Yairipok	7.1	7.3	3.3	12.2	65
Sekmaijing	7.3	7.3	3.2	11.1	60
Ithai	7.2	7.2	3.1	11.4	70

4. Thoubal River

Location	DO	pH	BOD mg/L	COD mg/L	Fecal Coliform (MPN/100ml)
Litan	Nil	Nil	Nil	Nil	Nil

5. Wangjing River

Location	DO	pH	BOD mg/L	COD mg/L	Fecal Coliform (MPN/100ml)
Heirok	7.2	7.2	3.4	12.8	50
Wangjing	7.3	7.2	3.3	10.7	60

6. Khuga River

Location	DO	pH	BOD mg/L	COD mg/L	Fecal Coliform (MPN/100ml)
Churachandpur Bazar	Nil	Nil	Nil	Nil	Nil
Khuga Dam	Nil	Nil	Nil	Nil	Nil

7. Khujairok River

Location	DO	pH	BOD mg/L	COD mg/L	Fecal Coliform (MPN/100ml)
Khujairok	Nil	Nil	Nil	Nil	Nil

8. Lokchao River, Bishnupur

Location	DO	pH	BOD mg/L	COD mg/L	Fecal Coliform (MPN/100ml)
Lokchao Bridge near Bishnupur Bazar	7.1	7.2	3.3	10.5	40

9. Nambul River

Location	DO	pH	BOD mg/L	COD mg/L	Fecal Coliform (MPN/100ml)
Samushang	6.8	7.2	4.5	13.8	100
Naoremthong	6.6	7.1	4.1	15.1	95
Hump Bridge	5.7	7.2	4.6	16.6	225
Heirangoithong	5.8	7.0	4.3	15.8	220
Singda Dam	Nil	Nil	Nil	Nil	Nil

10. Kongba River

Location	DO	pH	BOD mg/L	COD mg/L	Fecal Coliform (MPN/100ml)
Kongba Eranpham	5.9	7.2	4.3	14.6	125
Kongba Erong	5.5	7.1	4.2	11.3	130

11. Waisel Maril

Location	DO	pH	BOD mg/L	COD mg/L	Fecal Coliform (MPN/100ml)
Meijrao Bridge, Hiyangthang	5.9	7.1	4.6	14.2	150
Kha Sangenbam Mayai Leikai	6.9	7.1	4.2	11.3	90

12. Moirang River

Location	DO	pH	BOD mg/L	COD mg/L	Fecal Coliform (MPN/100ml)
Laikhurembi, Moirang Bazar	7.1	7.2	3.6	10.5	65

13. Sewage Treatment Plant Effluent

Location	Oil & Grease (mg/L)	pH	TSS mg/L	BOD mg/L	COD Mg/l	Fecal Coliform (MPN/100ml)
Langol	2.5	7.1	3.1	11.6	38	120

Action Plan of the model river in Manipur

Action	Target Action	Priority – II : Nambul River		
		Target Quantity	Time Line	Status
Action 1	Solid Waste Management			
1.1	Identification of garbage vulnerable point	12 Municipal Wards	Oct 2019	Completed Action: MAHUD / IMC
1.2	Door to Door Collection, identify & register of missed out house hold, punitive action against litterer along the river	12 Municipal Wards	Oct 2019	Completed Action: MAHUD / IMC
1.3	Formation of Tasks Force for proper implementation of waste management		Oct 2019	Constituted
1.4	Providing of household waste bins	19,863 bins	Oct 2020	80% completed Action: Environment & CC
1.5	High rise fencing of grilling and netting at vulnerable zones of both the river banks to protect throwing of solid wastes into the river	5 km	Apr 2021	Completed Action: Environment & CC
1.6	Renovation of existing crematoria along the river stretch	56 Nos.	Apr 2021	Completed Action: Environment & CC
1.7	Installation of secondary waste collection bins / community bins / dumper placer containers / transfer bins / littering bins at suitable places	37 Nos.	Oct 2020	Completed Action: Environment & CC
1.8	Construction of Public toilets at vulnerable points	35 Nos. by IMC 20 Nos. under NRCD	Apr 2021	Completed Action: Environment & CC
1.9	IEC / Public Awareness Activities	14 No. (one each in every ward)	Every month	Conducted regularly Action: Environment & CC
Action 2	Channelization, treatment, utilization and disposal of treated domestic sewage			
2.1	Identification of location and estimation of liquid waste generation at Imphal town		Oct 2019	Completed Action: PHED
2.2	Interception and diversion of the urban drains / outfalls to the Nambul River by laying pipes of 14,545 meters at both the banks of River at 12 Municipal Wards viz. 6, 7, 8, 9, 11, 12, 13, 14,15, 16, 24 and 27		Apr 2022	30% Completed Action: Environment & CC
2.3	Treatment option and capacity : Installation of 2 (two) Sewage Treatment Plants (STPs) of 16 MLD and 1 MLD		Apr 2022	85% Completed Action: Environment & CC
2.4	Commissioning of the Imphal Sewerage Project Phase-I of 27 MLD		Dec 2019	Commissioned Action: PHED
2.5	Commissioning of the Imphal Sewerage Project Phase-II of 41 MLD		Apr 2022	DPR Submitted, waiting for approval of NIT from NDB Action: PHED

Action	Target Action	Priority – II : Nambul River		
		Target Quantity	Time Line	Status
Action 3	Protection of catchment area			
3.1	<i>In-situ</i> augmentation of medicinal plants and economic plantation at catchment			Completed Action: Forest
Action 4	Protection and prevention of Flood Plain Zone			
4.1	Protection and Improvement of River Bunds. 1,500 m for Nambul River 16,860 m in Imphal River 2,670 m in Kongba River 2,403 m in Thoubal River 317 m in Wangjing River 11,711 m in Manipur River		Before 2021	Status will be updated soon Action: WRD
4.2	Re-Sectioning of Rivers and Streams. 82,091 m in Imphal River. 15,480 m in Kongba River 89,100 m in Nambul and its tributaries. 1,900 m in Chakpi River		Before 2021	Status will be updated soon Action: WRD
4.3	CC/RCC Retaining Walls with and without piles to be provided at the most eroded and vulnerable river banks.		Before 2021	Status will be updated soon Action: WRD

B. 8 (eight) polluted stretches of Rivers viz. Imphal, Iril, Khuga, Khujairok, Lokchao, Manipur, Thoubal, Wangjing under Priority V in Manipur

Action	Target Action	Target Quantity	Timeline	Status & Actor
Action 1	Solid Waste Management			
1.1	Identification of garbage vulnerable point along the 8 (eight) identified polluted river stretches	59 Municipal Wards	6 months (2024 2019)	Status will be updated soon Action : MAHUD / ULBs
1.2	Door to Door Collection and transportation of Municipal solid wastes with source segregation through Cluster Approach	59 Municipal Wards 33.45 MT	1 year (June 2020)	
1.3	Installation of littering bins at suitable places	500 Nos. of Bins	1 year (June 2020)	
1.4	Setting up of waste processing site at Cluster Approach	5 Cluster Units	2 Year (June 2021)	
1.5	Construction of Public toilets at vulnerable points	59 Nos. (one each for every ward for 59 wards)	2 Year (June 2021)	
1.6	IEC / Public Awareness Activities	177 Nos. (3 times for every 59 Wards)	Ongoing	
1.7	Encouraging of home composting	10% of total household	Ongoing	
Action 2	Channelization, treatment, utilization and disposal of treated domestic sewage			
2.1	Identification of location and estimation of liquid waste generation	Under survey	Ongoing	Completed Action : PHED
2.2	Treatment option through phytoremediation technique in consultation with NEERI (National Environmental Engineering Research Institute), Nagpur	27.024 + 38.73 = 65.754 MLD	2 Years (June 2021)	DPR submitted to NRCDD, Ministry of Jal Shakti, Govt. of India Action : Environment & CC
2.3	Commissioning of the Imphal Sewerage Project Phase-II: Installation of STPs of 3 (three) units SBR (Sequencing Batch Reactors) technology covering all the remaining wards of Imphal Municipal Corporation (Finalized DPR)	41 MLD	Funding awaited	DPR submitted, waiting for approval of NIT from NDB Action : PHED
Action 3	Protection of catchment Area of 1539 sq. km.			
3.1	In situ augmentation with economic plants	1539 sq. km.	2 Years (June 2021)	Status will be updated soon Action : Forest
3.2	Inventorisation and mapping of springs for protection and rejuvenation at catchment	8 rivers	1 Year (June 2020)	Status will be updated soon Action : Environment & CC
Action 4	Protection and prevention of Flood Plain Zone			
4.1	Protection and Improvement	1. 1500 m for Nambul	Before 2021	Status will be updated

	of River Bunds	River 2. 16860 m in Imphal River and its tributaries 3. 2670 m in Kongba River 4. 2403 m in Thoubal River 5. 317 m in Wangjing River 6. 11711 m in Manipur River		soon Action : WRD
4.2	Re-Sectioning of Rivers and Streams	1. 82091 m in Imphal River 2. 15480 m in Kongba River 3. 89100 m in Nambul and its tributaries 4. 1900 m in Chakpi River	Before 2021	
4.3	CC / RCC Retaining Walls with and without piles to be provided at the most eroded and vulnerable river banks	Along Nambul, Imphal, Thoubal, Kongba, Iril and other major rivers	Before 2021	

National Mission for Clean Ganga
Format for submission of Monthly Progress Report in the NGT Matter OA
No. 673 of 2018
(In compliance to NGT order dated 24.09.2020)
For the State of Manipur submitted on 21st April, 2024

Overall status of the State:

I. Total Population:

	2011 Census	Projected as on 2020
Urban Population	8,34,154	10,47,135
Rural Population	17,36,236	21,79,541
Total	25,70,390	32,26,676

Estimated Sewage Generation (MLD) : 115.054 MLD

II. Details of Sewage Treatment Plant:

- Existing No. of STPs and Treatment Capacity : 1 (one) STP of 27 MLD operational
- Capacity Utilization of existing STPs : 21.59 MLD
- MLD of sewage being treated through alternate technology : NIL
- Gap in Treatment Capacity in MLD : 5.41 MLD
- No. of Operational STPs : 1 (one) Detail of STP is at **Annexure - 1**
- No. of Complying STPs : 1 (one)
- No. of Non-complying STPs : Nil

Details of each existing STP in the State

No.	Location	Existing STP Capacity	Capacity Being Utilized	Operational Status of STP	Compliance Status of STP
1	Lamphel, Imphal West	27 MLD	21.59 MLD	Operational (79.98%)	Complying

Details of under construction STPs in the State

No.	Location	Capacity of the plant in MLD	Physical Progress in %	Status of I&D or House sewer connections	Completion Timeline
1	Maibam Leikai, Imphal West	16 MLD	100 %	NIL	Commissioned
2	Iroisemba, Imphal West	1 MLD	95%	NIL	31.08. 2024

Details of proposed STPs in the State

No.	Location	Capacity of the STP proposed in MLD	Status of Project (at DPR Stage/ Under Tendering/ Work to be Awarded)	Likely Date of Completion
1	Imphal	49 MLD	Implementation started	2026

III. Details of Industrial Pollution:

	No. of industries in the State	:	404 Nos.
			337 outside Industrial Estate
			67 inside Industrial Estate
	No. of water polluting industries in the State located along the 9 (nine) prioritized rivers of Manipur	:	Nil
	Quantity of effluent generated from the industries in MLD	:	0.93 KLD (estimated) in case of the 3 units located within Nilakuthi Food Park, Imphal East
	Quantity of Hazardous Sludge generated from the Industries in TPD	:	Requested the Member Secretary, Manipur Pollution Control Board vide letter No. A-DTCI-109/4/2022-DTCI-DTC&I Dt.05/06/2024 to support with the data on Industrial Waste Generated (in TPD) inside the 3 (three) Industrial Estates of Manipur.
	Number of industrial units having ETPs	:	Nil
	Number of industrial units connected to CETP	:	3 (three)
	Number and total capacity of ETPs	:	Nil
	Details of existing	:	Nil
	Under construction	:	Nil
	Proposed	:	Nil
	Compliance status of the ETPs	:	Nil
	Number and total capacity of CETPs	:	1 (one) CETP
	Details of existing	:	1 unit of 400 KLD capacity
	Under construction	:	3
	Proposed	:	Nil

Town	Existing ETP Capacity	CETP Proposed, if any	Status (under construction etc.)
Imphal	400 KLD capacity	Nil	The 3(three) ETPs at Takyelpat, Tera Urak & Kuraopokpi Industrial Estates of Manipur has been constructed under PM Gatishakti "Scheme for Special Assistance to the States for Capital Investment for 2022-23". Overall, 75% of the civil works completed as per recent report.

• Status of compliance and operation of the CETPs

Town	No. of industries	Industrial discharge	Status of ETPs	Status of CETPs (Existing, under construction & proposed)
Imphal	5 (five)	Requested the Member Secretary, Manipur Pollution Control Board vide letter No. A-DTCI-109/4/2022-DTCI-DTC&I dt. 05/06/2024 to	Nil	1 (one) CETP of 400 Kilo Liter / Day at Nilakuthi Industrial Estate, Imphal Status : Functional

		support with the data on the industrial waste generated (in TPD) inside the 3 (three) Industrial Estates of Manipur.		
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IV. **Solid Waste Management:**

- Total Urban Local Bodies (ULBs) : 27 ULBs
- Population of ULBs : 6,15,344 (2011 Census)
: 7,92,734 (2021 projected population)
- Current Municipal Solid Waste Generation : 290 MTD
[As per SBM 2.0 guidelines, MSW generation is estimated @450gm per capita generation for Imphal Municipal Corporation (for more than one lakh population) and @300gm per capita generation for other ULBs (for less than one lakh population) based on 2020 projected population]
- Waste Collected : 198 TPD (Collected by ULBs)
- Existing Management / treatment facility : 201 TPD
- Utilization of MSW processing : 144 TPD
[Managed by ULBs = 144 TPD
Managed at Source = 86.4 TPD
Total Managed = 230.4 TPD]
- Number, installed capacity and utilization of existing MSW processing facilities in TPD bifurcated by type of processing.

SN	Name of MSW processing unit	Installed capacity	Utilization (in TPD)	Type of processing	Action plan to bridge Gap between utilization and installed facility
1	IMC / Municipal Solid waste Management Plant, Lamdeng, Imphal	100	90	• Waste to Energy (WTE) and Composting	• Intensify the IEC on Door to Door waste collection and source segregation, Mandatory submission of payment receipts of D2D waste collection at the time of availing any form of service from the corporation

SN	Name of MSW processing unit	Installed capacity	Utilization (in TPD)	Type of processing	Action plan to bridge Gap between utilization and installed facility
2	Lamshang MC	1	1.23	Home composting is predominant in all wards. Mixed/Dry waste disposed at Lamdeng SWM plant	- Linking municipal service with waste collection subscription. - Increased public awareness on proper waste management. - Enforcement of waste management rules.
3	Samurou MC	5	3.53	Segregation shed cum transfer station with some composting pits therein.	- Presently collected waste after segregation of recyclable plastic waste and cardboard is being transferred to Lamdeng Solid Waste Management Plant. - Increase in awareness. - Increase in manpower and vehicles. - Allotment of Permanent land for management of solid waste has been proposed to DC.
4	Thongkhong Laxmi MC	5	3.42	Segregation cum transfer station and composting pits	- In terms of ward wise, area wise, Leikai wise coverage of D2D collection. There is 100% coverage of D2D. - More awareness and behavioral change campaign with increase in manpower and SWM vehicles. - Setting up of a Solid waste Management & Processing Facilities of its own
5	Sekmai MC	1	1.2	- Home Composting is predominant in all wards. - Central Composting at Segregation Shed, Parao - Mixed/Dry Waste disposed at Lamdeng SWM Plant.	- Linking municipal services with D2D enrolment - Engagement of local clubs/SHGs to achieve 100% segregation at source. - Capacity enhancement for management and processing
6	Lilong IW MC	1	1	- Segregation Shed for Material Recovery - Vermi composting	- More composting pits, more vehicles and manpower and encouraging source segregation and home composting. - Cluster basis facilities at Lamdeng SWM Plant.
7	Lamlai MC	3	0.9	- Composting (Home + Centralised) - Source segregation and Centralised segregation	Treatment facilities at Lamdeng Waste to energy Plant (Cluster Approach)

SN	Name of MSW processing unit	Installed capacity	Utilization (in TPD)	Type of processing	Action plan to bridge Gap between utilization and installed facility
8	Thoubal MC / Thoubal SWM Plant	13	6.4	Segregation and composting	- Encouraging source segregation and home composting on the same public awareness is generated. - Compactor machine Segregation machine, compressor
9	Yairipok MC	1	1.6	- Wet waste gets processed at source itself as feed of poultry and piggery farms. - Segregated recyclable waste is sent to recycler	Treatment facilities at Thoubal Cluster
10	Sikhong Sekmai MC	6	0.56	- Wet waste gets processed at source itself as feed of poultry and piggery farms - Segregated recyclable waste is sent to recycler	The ULB shall try to create more facilities to augment the existing installed capacity of the SWM and shall also try to procure machinery/equipment to effectively manage the segregation activities in a scientific way.
11	Lilong Thoubal MC	1	1	Segregation Shed Composting Unit	More composting pits, more vehicles and manpower and encouraging source segregation and home composting.
12	Heirok MC	1	0.4	Transfer and Segregation station and Composting	- Treatment facilities at Thoubal Khunou (Cluster B) - Increase in manpower, Awareness drives & Engagement of Recyclers
13	Wangjing Lamding MC	1	0.81	Segregation and transfer station	- Treatment facilities at Thoubal Khunou (Cluster B) - Increase in manpower, Awareness drives & Engagement of Recyclers
14	Andro MC	1.07	0.83	- Bulk waste is processed or consumed at source as poultry and piggery feeds. - Aerobic Composting, Segregation and Recyclable waste sent	- Treatment facilities at Thoubal Khunou (Cluster B) - Increase in manpower - Awareness drives & Engagement of Recyclers

SN	Name of MSW processing unit	Installed capacity	Utilization (in TPD)	Type of processing	Action plan to bridge Gap between utilization and installed facility
				to recycler	
15	Kakching MC/ Kakching SWM Plant	17	6.82	Composting, Segregation & Recycling	- Intensified IEC on door-to-door waste collection and source segregation. - Mandatory submission of payment receipts of D2D waste collection at the time of availing any form of service from the council
16	Kakching Khunou MC	2.2	2.1	Composting, Segregation & Recycling	- Intensified IEC on Door-to-Door Waste Collection and Source Segregation. - Mandatory Submission of Payment Receipts of D2D waste collection at the time of availing any form of service from the Council.
17	Sugnu MC	1.2	0.5	Composting, Segregation & Recycling	- Intensified IEC on door-to-door waste collection and source segregation. - Mandatory submission of payment receipts of D2D waste collection at the time of availing any form of service from the council. Transport of unrecyclable waste to Kakching Cluster.
18	Mayang Imphal MC	8	6	- Composting Pits and segregation Sheds/MRF are operational. - Remaining collected waste sent to treatment plant at Lamdeng, Imphal and Segregated recyclable waste sent to recycler	- Treatment Plant/Composting Pits and segregation Sheds/MRF are operational. - Remaining collected waste is sent to treatment plant at Lamdeng. - Segregated recyclable waste sent to recycler - The ULB shall manage to fill up the gap when the prevailing situation of the state is improving.
19	Wangoi MC	1	1.25	NIL	- In terms of ward wise, area wise, leikai wise coverage of D2D collection, there is 100% coverage D2D. - Encouraging home composting and source segregation. - More awareness and behavioral change campaign with increase in manpower - Setting up of a solid waste management & processing facility of its own.

SN	Name of MSW processing unit	Installed capacity	Utilization (in TPD)	Type of processing	Action plan to bridge Gap between utilization and installed facility
20	Kumbi MC	1	1.29	• Composting	• Now 100% D2D Collection • Land available 0.27 acre
21	Kwakta MC	1	0.55	• Composting	• Untreated waste is dumped at uncontrolled dumpsite as a short time measure. Once the cluster basis is completed, the untreated wastes shall be transferred at the cluster head for further processing
22	Moirang MC	4	2.99	• Composting	• Segregation shed has constructed. • Composting plants also been constructed and it has commissioned. • IEC Campaign has organised for proper 100% source segregation.
23	Ningthoukhong MC	5.5	1.7	• Composting & sent back for re-cycling	• Vigorous IEC campaign and implementation of stringent rules or bye-laws
24	Bishnupur MC	5	2.8	• Sanitary Landfill	• Vigorous IEC campaign and implementation of stringent rules or by-laws
25	Oinam MC	1.5	0.9	• Composting	• Encouraging households to source segregate waste and practice home composting of wet waste. • Engaging recyclers for dry waste
26	Nambol MC	2	1.9	• Composting pit • Manual Segregation initiated at the segregation shed	• Increasing recovery of other recyclable materials apart from plastic bottles/waste. • Encouraging source segregation and home composting.
27	Jiribam MC	22.005	2.09	• Composting, send back for recycling, MRF	NIL
	Total	221	144		

• Action plan to bridge gap between Installed Capacity and Current Utilization of processing facilities (if Gap > 20%)	• Planning for upgrade the installed capacity as per required by 2029-30
• No. and capacity of C&D waste processing plants in TPD (existing, proposed and under construction)	• Existing – Nil • Proposed – 5TPD
• Total No. of wards	• 305 Wards
• No. of wards having door to door collection service	• 305 Wards
• No. of wards practicing segregation at source	• 305 Wards

• **Details of MSW treatment facilities proposed and under construction:**

Sl. No.	Name of ULB or Processing unit	Capacity	Technology	Proposed / under Construction
1	Annexed at Table-3			
	• No. and area (in acres) of uncontrolled garbage dumpsites and Sanitary Landfills		• 5 (five) sanitary landfill and 7 controlled dumpsites • Annexure-Table 3	
	• No. and area (in acres) of legacy waste within 1km buffer of both side of the rivers		• Nil	
	• No. of drains falling into rivers and no. of drains having floating racks/screens installed to prevent solid waste from falling into the rivers		• 1 at Jiribam MC [floating racks/screens installed]	
	• Status of ULB wise Management of Solid waste		• At Annexure – Table -1 and Table -2	

V. Bio-medical Waste Management April, 2024:

Total Bio-medical generation	:	0.83 TPD	• Deep burial practiced at remote rural areas. • DPR submitted to ministry for up-gradation of the existing CBMWTF. • Action Plan submitted to the State Pollution Control Board by the Directorate Health Service for BMW management
No. of Hospitals and Health Care Facilities	:	534 Nos. [i/c 420 PHSCs]	
Status of Treatment Facility CBMWTF	:	CBMWTF = 1 No. (capacity-100 Kg/hr.) Captive Facility = 2 Nos. (Capacities-100 Kg/hr. & 105 Kg/hr.) Deep Burial = 391 Nos.	
Status of Treatment Facility ETPs	:	81 Nos.	

VI. Hazardous Waste Management:

Total Hazardous Waste generation	:	0.99 TPD
No. of Industries generating Hazardous waste	:	334 (automobile service centres mainly micro-scale units)
Treatment Capacity of all TSDFs	:	Nil
Avg. Quantity of Hazardous waste reaching the TSDFs and Treated	:	Nil
Details of on-going or proposed TSDF	:	Under preparation of DPR, Final DPR by 2024 2024

VII. Plastic Waste Management:

Total Plastic Waste generation	:	
Treatment / Measures adopted for reduction or management of plastic waste	:	
Details of Alternate Treatment Technology being adopted by the State/UT	:	

Identification of including drains contributing to river pollution and action as per NGT order on in-situ treatment	:	
Details of Nodal Officer appointed by Chief Secretary in the State / UT	:	
VIII. Details of meetings carried under the in the State/UT	:	
IX Latest water quality of polluted river, its tributaries, drains with flow details and ground water quality in the catchment of polluted river	:	
IX. Ground water regulation	:	
X. Good irrigation practices being adopted by the State	:	
XI. Rainwater Harvesting	:	
XII. Demarcation of Floodplain and removal of illegal encroachments	:	
XIII. Maintaining minimum e-flow of river	:	
XIV. Plantation activities along the rivers	:	
XV. Development of biodiversity park	:	
XVI. Reuse of Treated Water	:	
XVII. Model River being adopted by the State & Action Proposed for achieving the bathing quality standards	:	
XVIII. Status of Preparation of Action Plan by the 13 Coastal States	:	
XIX. Regulation of Mining Activities in the State / UT	:	The Mines and Mineral (Regulation and Development) Act, 1957 differentiates minerals into (a) major mineral and (b) minor mineral. The mineral administration of mining activities belonging to major minerals vests with the Central Government and are regulated under the Mines and Mineral (Regulation and Development) Act and Rules frame there under. The mineral administration of minor minerals vests with the respective State Governments and are regulated under their respective minor mineral concession Rules framed under section 15(1) of the Act and Rules framed their under. Similarly, in Manipur, the mining activities belonging to minor minerals are regulated under the Manipur Minor Mineral Concession Rules, 2012 and amendments thereon. In order to check illegal mining, to regulate transportation and storage of minor minerals, The Manipur

		Minerals (Prevention of Illegal Mining, Storage and Transportation) rules, 2018 has also been notified. In addition, The Manipur Mineral Policy, 2021 is being framed.
XX.	Action against identified polluters, law violators and officers responsible for failure for vigorous monitoring	:

A. Total Status of STPs in Imphal (as on 20th APRIL, 2024)

Particular	Unit	Phase I	Phase II	Ongoing NRCD Project	Total
Capacity of STP	MLD	27	49	17	93
Capacity of STP Utilized	MLD	21.59			21.59
Total Sewer Pipe	RM	69,429	2,77,289		3,46,718
Primary (Main Pipe)	RM	25,291			25,291
Secondary (Sub-main Pipe)	RM	44,138			44,138
Interception & Diversion Pipelines	RM			14,545	14,545
No. of urban drains to be collected	Drain			72	72
Targeted Connection septic tank	Unit	9,564	42,190		
Connected septic tank	Unit	8130			8130
Lift Station	Unit	5	21	14	40
Population (by 2054)	Lakh	1,86,534	3,49,759		5,36,293
Covered Municipal Ward	Wards	11	16	14	
Area covered	Sq. Km.	11	35		
Covered Polluted River				Nambul P-II	
Method of Treatment		ASP	SBR	MBBR	

Note : Targeted household for Phase I has been decreased from 12,000 Nos. to 9,564 because 2436 household shall be covered in Imphal Sewerage project – Phase II.

Status of utilization of the existing STP :

- 1 (one) unit of 27 MLD STP (ASP technology) is operational under PHED
- 69,429 rm sewer pipeline [25,291 rm primary lines, 44.14 rm secondary lines]
- Total target connection is 9,564 households

INCREMENTAL STATUS OF UTILIZATION FOR 27 MLD AT LAMPHELPAT, IMPHAL WEST

	Jan 2022	Feb 2022	Mar 2022	Apr 2022	May 2022	June 2022	July 2022	Aug 2022	Sep 2022	Oct 2022	Cumulative as on 20 th April 2024	Gap
Household Connected	4000	250	250	60	10	30	0	50	280	356	8130	1434
Utilization in MLD	9 MLD	9.5 MLD	10 MLD	10.26 MLD	10.28 MLD	10.35 MLD	10.35 MLD	16.5 MLD	17.34 MLD	18.35 MLD	21.59 MLD	5.41 MLD
Utilization in %	33%	35%	38%	38%	38%	38%	38%	61.31 %	64.24 %	67.96 %	79.98 %	20.02 %
	Nov. 2022	Dec. 2022	Jan. 2024	Feb. 2024	Mar. 2024	May 2024	June 2024	July 2024	Aug 2024	Sept 2024		
Household Connected	800	50	14	150	20	50	0	0	0	0		
Utilization in MLD	20.60 MLD	20.74 MLD	20.78 MLD	21.17 MLD	21.22 MLD	21.59 MLD	21.59 MLD	21.59 MLD	21.59 MLD	21.59 MLD		
Utilization in %	76.32 %	76.85 %	76.99%	78.41 %	78.62 %	79.98 %	79.98 %	79.98 %	79.98 %	79.98 %		

	Oct. 2024	Nov 2024	Dec 2024	Jan 2024	Feb 2024	Mar 2024	Apr. 2024					
Household Connected	0	30	20	300	70	30	30					
Utilization in MLD	21.59 MLD	21.59 MLD	21.59 MLD	21.59 MLD	21.59 MLD	21.59 MLD	21.59 MLD					
Utilization in %	79.98 %	79.98 %	79.98 %	79.98 %	79.98 %	79.98 %	79.98 %					

B. In-situ Bio-remediation and others :

	Name of the Polluted River (P-V)	Total Length of the River	Length of Polluted stretches	BOD Range (mg/l)	Population at polluted zone	Status / Proposed for Treatment
1	Imphal	89.24 km	19.98 km	2.9 - 3.1	84,857	- Revised DPR for Imphal River along with Fecal Sludge and Septage Management (FSSM) for 315 KLD at 27 ULBs and in situ treatment through Bio-remediation of 16.75 MLD submitted to NRCD on 18th September 2021. - Revised DPR with full justification on the comments made by the Ministry will be submitted soon.
2	Iril	156.50 km	18.12 km	2.8 - 3.0	1,714	
3	Khuga	79.25 km	10.92 km	2.0 – 3.0	857	
4	Khujairok	10.06 km	4.21 km	3.2	4,286	
5	Lokchao/ Thongjarok	17.04 km	5.31 km	3.0	1,143	
6	Manipur	261.00 km	35.00 km	3.1	7,143	
7	Thoubal	142.80 km	24.61 km	2.8	30,286	
8	Wangjing	35.08 km	3.70 km	3.1 - 3.2	7,143	

Note :

ASP (Activated Sludge Process), EAP (Extended Aeration Process),
SBR (Sequencing Batch Reactor), MBBR (Moving Bed Biofilm Reactor)

	FORMAT FOR SEWAGE TREATMENT PLANTS AND UTILIZATION OF SEWAGE (20 th APRIL, 2024)															
Sl. No.	City / Town	No. of STP	Location of STP	Coordinates of STP	STP Commissioned year	Status (operational/ Non-Operational/ Under Construction)	STP Installed Capacity (In MLD)	Actual Utilization of installed capacity (In MLD)	Technology UASB / ASP / OP / SBR / MBBR / FAB etc.	Consent status	Compliance Status Source: Manipur Pollution Control Board					
											Oil & Grease	pH	TSS mg/l	COD mg/l	BOD mg/l	Faecal Coliform
1	Imphal	1	Lamphei	24°49'45"N 93°54'58'E	2020	Operational	27	21.59 MLD	ASP		2.6	7.2	30	42	11.7	130

LIST OF WATER POLLUTING FACTORIES LOCATED WITHIN INDUSTRIAL ESTATE/FOOD PARK**Takyel Industrial Estate, Imphal West Districts, Manipur.**

Sl. No.	Name of unit	Nearest River	Proprietor	Name of Products
1	M/S Modern Foods	Nambul	T. Sanajaoba Singh	Noodles
2	M/S Hangle Industries	Nambul	H. Nabadeep Singh	Spices & Food Products
3	M/S Pera Fruit Products	Nambul	Kh. Sanayaima Singh	Fruit Processing
4	M/S Khudol	Nambul	K. Siddhanta Sharma	Food Processing
5	M/S Ratana Fruit	Nambul	L. Sarat Singh	Food items
6	M/S Universal Iodises Salt Industries	Nambul	P. Joychandra Singh	Food Items

Nilakuthi Food Park, Imphal East

Sl. No.	Name of unit	Nearest River	Proprietor	Name of Products
1	Shree Balaji Flour Mill	Imphal	Mrs. Rangnamei Martha	Flour
2	KMU	Imphal	Wangkheirakpam Gobin Singh	Bakery
3	Thangjam Agro Industries Pvt. Ltd.	Imphal	Thangjam Joykumar Singh	Bakery

TABLE 1 : SOLID WASTES GENERATION, COLLECTION AND MANAGEMENT - ULB WISE IN MANIPUR, APRIL, 2024

No.	Name of ULB	Population		Solid Waste Generated (MTD)	Waste Collected (TPD)	Gap between Generated and Collected + Managed at source)	Managed/Treated (in TPD)					Plan to mitigate the gap between generation of wastes vs collection, managed / treated and Remarks
		2011 Census	2021 Projected				Facilities (TPD)	Managed / Treated	Processed at source	Map Gap in TPD	Gen-Man Gap= [(Gen-Man)/Gen] x 100	
1	Imphal MC	2,65,573	3,50,050	157.5	130.0	2	100	90	25.5	115.5	27%	• Intensify the IEC on Door to Door waste collection and source segregation. • Mandatory submission of payment receipts of D2D waste collection at the time of availing any form of service from the corporation.
2	Lamshang MC	8,130	9,739	2.92	1.23	0.19	1	1.23	1.5	2.73	6.51%	• Linking municipal service with waste collection subscription. • Increased public awareness on proper waste management. • Enforcement of waste management rules.
3	Samurou MC	14,818	18,602	5.58	3.53	0.51	5	3.53	1.54	5.07	9.14%	• Presently collected waste after segregation of recyclable plastic waste and cardboard is being transferred to Lamdeng Solid Waste Management Plant. • Increase in awareness & increase in manpower and vehicles. • Allotment of Permanent land for management of solid waste has been proposed to DC
4	Thongkhong Laxmi MC	14,878	18,677	5.6	3.42	0.51	5	3.42	1.67	5.09	9.11%	• In terms of ward wise, area wise laikai wise coverage of D2D collection, there

												- is 100% coverage of D2D. • More awareness and behavioral change campaign with increase manpower and SWM vehicles. • Setting up of a Solid Waste Management & Processing facility of its own.
5	Sekmai MC	5,065	6,358	1.9	1.20	0.2	1	1.2	0.50	1.7	11%	• Linking municipal services with D2D enrolment. • Engagement of local clubs/SHGs to achieve 100% segregation at source. • Capacity enhancement for management and processing.
6	Lilong IW MC	12,427	15,600	4.6	1	0.6	1	1	3	4	13%	• More composting pits, more vehicles and manpower and encouraging source segregation and home composting. • Cluster basis facilities at Lamdeng SWM Plant.
7	Lamlai MC	4,601	5,776	1.73	1	0	3	0.9	0.73	1.63	6%	• Treatment facilities at Lamdeng Waste to energy Plant (Cluster Approach)
8	Thoubal MC	45,947	57,678	17.3	6.7	0.4	13	6.4	10.2	16.6	4.05%	• Encouraging source segregation and home composting on the same public awareness is generated. • Compactor machine, Segregation machine, compressor
9	Yairipok MC	9,569	12,012	3.6	1.6	0	1	1.6	2	3.6	0%	• Treatment facilities at Thoubal cluster
10	Sikhong Sekmai MC	7,390	9,277	2.78	0.56	0	6	0.56	2.22	2.78	0%	• The ULB shall try to create more facilities to augment the existing installed capacity of the SWM facility and also try to procure machinery/equipment to effectively manage the segregation activities in a scientific way.
11	Lilong TBL MC	24,900	31,258	9.3	2.00	0.8	1	1	6.5	7.5	19%	• More composting pits, more vehicles and manpower and encouraging source segregation and home

												composting.
12	Heirol MC	2,974	3,733	1.12	0.47	0	1	0.4	0.65	1.05	6.3%	• Treatment facilities at Thoubal Khunou (Cluster B) • Increase in manpower. • Awareness drives & Engagement of recyclers
13	Wangjing Lamding MC	8,055	10,112	3.03	1	0	1	0.81	2.03	2.84	6.3%	• Treatment facilities at Thoubal Khunou (Cluster B) • Increase in manpower. • Awareness drives & Engagement of recyclers
14	Andro MC	8,744	10,977	3.29	0.9	0	1.07	0.83	2.39	3.22	2.13%	• Treatment facilities at Thoubal Khunou (Cluster B) • Increase in manpower. • Awareness drives & Engagement of recyclers
15	Kakching MC	32,138	40,344	12.1	8.63	0.05	17	6.82	3.42	10.24	15%	• Intensified IEC on door-to-door waste collection and source segregation. Mandatory submission of payment receipts of D2D waste collection at the time of availing any form of service from the council
16	Kakching Khunou MC	11,379	14,284	4.28	2.62	0.05	2.2	2.1	1.61	3.71	13%	• Intensified IEC on door-to-door waste collection and source segregation. • Mandatory submission of payment receipts of D2D waste collection at the time of availing any form of service from the council
17	Sugnu MC	5,132	6,442	1.93	1.16	0.26	1.2	0.5	0.51	1.01	48%	• Intensified IEC on door-to-door waste collection and source segregation • Mandatory submission of payment receipts of D2D waste collection at the time of availing any form of service from the council • Transport of unrecyclable waste to Kakching Cluster
18	Mayang Imphal	24,239	34,428	10.33	6.00	1.02	8	6	3.31	9.31	10%	• Treatment Plant/Composting Pits and

	MC											segregation Sheds/MRF are operational. • Remaining collected waste are sent to treatment plant at Lamdeng. • Segregated recyclable waste is sent to recycler. • The ULB shall manage to fill up the gap when the prevailing situation of the state is improving.
19	Wangoi MC	9,106	11,431	3.43	1.45	0	1	1.25	1.98	3.23	6%	• In terms of ward wise, area wise, leikai wise coverage of D2D collection, there is 100% coverage of D2D. • Encouraging source segregation and home composting. • More awareness and behavioral change campaign with increase in manpower. • Setting up of solid waste management and processing facility of its own.
20	Kumbi MC	9,546	11,983	3.59	2	0.08	1	1.29	1.51	2.8	22%	• Now 100% D2D collection • Land available 0.27 acre
21	Kwakta MC	8,579	10,769	3.23	1.13	0	1	0.55	2.1	2.65	17.96%	• Untreated waste is dumped at uncontrolled dumpsite as a short time measure. Once the cluster basis is completed, the untreated wastes shall be transferred at the cluster head for further processing
22	Moirang MC	19,893	24,972	7.49	5.4	0.09	4	2.99	2	4.99	33%	• Segregation shed has constructed. Composting plans also been constructed. It has commissioned. • IEC Campaign has organised for proper 100% source segregation.
23	Ningthoukhong MC	13,078	16,417	5.00	2.2	0.3	5.5	1.7	2.5	4.2	16%	• Vigorous IEC campaign and implementation of stringent rules or by laws.
24	Bishnupur MC	12,167	15,274	4.58	3.48	0	5	2.8	1.1	3.9	14.8%	• Vigorous IEC campaign and implementation of stringent rules or bye-laws, By-Laws is published and

												shall be implemented for closing the gap.
25	Oinam MC	7,161	8,989	2.7	1.6	0	1.5	0.9	1.1	2	26%	• Encouraging households to source segregate waste and practice home composting of wet waste. • Engaging recyclers for dry waste.
26	Nambol MC	22,512	28,260	8.5	4.3	0	2	1.9	4.2	6.1	28%	• Increasing recovery of other recyclable materials apart from plastic bottles/waste. • Encouraging source segregation and home composting.
27	Jiribam MC	7,343	9,218	2.76	2.09	0	22.005	2.09	0.67	2.76	0%	NIL
Total		6,15,344	7,92,660	290	198	6.02	197.5	146	86	231.53		
PC to the generated wastes					68%	2%	73%	50%	30%	79%	21%	

Note : *1. Taking r=2.3 as annual Population growth rate [Ref.: MoUD, GoI]

*2. Waste generated is estimated including floating population @10%

*3. As per SBM 2.0 guidelines, Waste generated is estimated in @450gm per capita generation (for more than 1 lakh population) for Imphal MC and @ 300gm per capita generation (for less than 1 lakh population)

TABLE 2 : SOLID WASTES GENERATION, COLLECTION AND MANAGEMENT – WARDWISE OF ULBs IN MANIPUR, APRIL, 2024

Sl. No.	Name of ULB	Total Wards	Door to Door (D2D) Collection		Segregated at source		Land Available in Acre	Type of processing unit	Plan to mitigate the gap generation and Management
			No. of Wards	in %	No. of Wards	in %			
1	Imphal MC	27	27	100%	27	80%		Waste to Energy plant (WTE) and composting	Intensive awareness on source segregation and home composting.
2	Lamshang MC	9	9	100%	9	100%	0	Home composting is predominant in all wards. Mixed/dry waste disposed at Lamdeng SWM plant.	IEC activities to emphasize Segregation at Source
3	Samurou MC	11	11	100%	11	70%	0	Segregation shed cum transfer station with some composting pits therein.	- Presently collected waste after segregation of recyclable plastic waste and cardboard is being transferred to Lamdeng Solid Waste Management Plant. - Increase in awareness. - Increase in Manpower and vehicles. - Allotment of Permanent land for management of solid waste has been proposed to DC.
4	Thongkhong Laxmi MC	11	11	100%	11	70%	2.5 (Allotment order issued, premium paid, process for issue of Jamabandi going on)	Segregation cum transfer station and composting pits.	- In terms of Ward-wise, Region-wise, Area-wise, Leikai-wise, Leirak-wise coverage of D2D collection, there is 100% coverage of D2D - More awareness and behavioural change campaign required. - Increase of manpower & machinery. - Setting up of a Solid Waste Management & Processing facility of its own.
5	Sekmai MC	9	9	100%	9	75%	0	- Home Composting is predominant in all wards - Central Composting at Segregation Shed , Parao - Mixed/Dry Waste disposed at Lamdeng SWM Plant	IEC activities to emphasize segregation at Source.

Sl. No.	Name of ULB	Total Wards	Door to Door (D2D) Collection		Segregated at source		Land Available in Acre	Type of processing unit	Plan to mitigate the gap generation and Management
			No. of Wards	in %	No. of Wards	in %			
6	Lilong IW MC	9	9	100%	9	80%	0	• Segregation Shed for Material Recovery • Vermi composting	• More composting pits, more vehicles and manpower and encouraging source segregation and home composting. • Cluster basis facilities at Lamdeng SWM Plant.
7	Lamlai MC	9	9	100%	9	78%	0.88	• Composting (Home +Centralised) • Source segregation and centralised segregation	• Treatment facilities at Lamdeng Waste to energy Plant (Cluster Approach) • Rigorous IEC activities. • Payment of D2D collection when other municipal services are availed.
8	Thoubal MC	18	18	100%	18	88%	6.7	• Segregation and composting	• Engaging more workers in the composting plant • Introduction of compactor machines
9	Yairipok MC	9	9	100%	9	100%	2.2	• Wet waste get processed at source itself as feed of poultry and piggery farms • Segregated recyclable waste is sent to recycler	• Treatment facility at Thoubal Cluster
10	Sikhong Sekmai MC	9	9	100%	9	100%	0.62	• Wet waste gets processed at source as feed of poultry and piggery. • Segregated recyclable waste is sent to recycler	• The ULB shall try to create more facilities to augment the existing installed capacity of the SWM facility and shall also try to procure machinery/equipment to effectively manage the segregation activities in a scientific way.
11	Lilong TBL MC	9	9	100%	9	70%	0.313	• Segregation Shed • Composting Unit	• More composting pits, more vehicles and manpower and encouraging source segregation and home composting.
12	Heirok MC	9	9	100%	9	100%	2.084	• Transfer and Segregation Station and Composting	• Treatment facility at Thoubal Khunou (Cluster B)
13	Wangjing Lamding MC	9	9	100%	9	100%	1.46	• Segregation and transfer station	• Treatment facility at Thoubal Khunou (Cluster B)

Sl. No.	Name of ULB	Total Wards	Door to Door (D2D) Collection		Segregated at source		Land Available in Acre	Type of processing unit	Plan to mitigate the gap generation and Management
			No. of Wards	in %	No. of Wards	in %			
14	Andro MC	12	12	100%	12	100%	0.96	• Bulk of wet waste is processed or consumed at source a poultry & piggery feeds • Aerobic Composting • Segregation & Recyclable waste sent to recycler	• Treatment facility at Thoubal Khunou (Cluster B)
15	Kakching MC	12	12	100%	12	98%	4.5	• Composting, segregation & recycling	• Intensified awareness on source segregation. • Manual segregation • Mechanical segregation (to be started shortly) and aerobic composting to mitigate the gap of generation and management.
16	Kakching Khunou MC	9	9	98%	9	92%	2	• Composting, segregation & Recycling	• Intensified awareness on source segregation. • Manual segregation • Mechanical Segregation(to be started shortly) and • Aerobic composting to mitigate the gap of generation and management
17	Sugnu MC	9	9	100%	9	80%	1	• Composting, Segregation & Recycling	• Transport of remaining unrecyclable segregated waste to Kakching cluster • Engagement of recyclers • Intensified awareness on source segregation, manual segregation and composting to mitigate the gap of generation and management.

Sl. No.	Name of ULB	Total Wards	Door to Door (D2D) Collection		Segregated at source		Land Available in Acre	Type of processing unit	Plan to mitigate the gap generation and Management
			No. of Wards	in %	No. of Wards	in %			
18	Mayang Imphal MC	13	13	85%	13	85%	1.25	- Composting pit and segregation sheds/MRF are operational. - Remaining collected waste sent to treatment plant at Lamdeng Imphal. - Segregated recyclables sent to recycler.	- Composting Pits and segregation Sheds/MRF are operational. - Remaining collected waste sent to treatment plant at Lamdeng Imphal - Segregated recyclables sent to recycler. - The ULB shall manage to fill up the gap when the prevailing situation of the state is improving.
19	Wangoi MC	9	9	100%	9	100%	0.70	NIL	- More awareness and behavioural change campaign required. - Increase manpower. - Allotment of SWM land. - Setting up of a Solid Waste Management & Processing facility of its own.
20	Kumbi MC	9	9	100%	9	80%	0.52	• Composting	
21	Kwakta MC	9	9	100%	9	65%	0.625	• Composting	- Untreated waste is dumped at uncontrolled dumpsite as a short time measure. - Once the cluster basis is completed, the untreated wastes shall be transferred at the cluster head for further processing.
22	Moirang MC	12	12	100%	12	85%	5.1	• Composting	- Requested DC to allot land. - Rigorous IEC Campaign to be held for source segregation.
23	Ningthoukhong MC	14	14	100%	14	85%	1.31	• Composting & sent back for re-cycling	• Composting and recycling
24	Bishnupur MC	12	12	100%	12	85%	5	• Sanitary Landfill	• Composting plant at 2.5 Acre
25	Oinam MC	9	9	100%	9	70%	0	• Composting	- Encouraging households to source segregate waste and practice home composting of wet waste. - Engaging recyclers for dry waste.

Sl. No.	Name of ULB	Total Wards	Door to Door (D2D) Collection		Segregated at source		Land Available in Acre	Type of processing unit	Plan to mitigate the gap generation and Management
			No. of Wards	in %	No. of Wards	in %			
26	Nambol MC	18	18	100%	18	88%	3.21	- Composting pit. - Manual Segregation initiated at the segregation shed.	- Capacity building of sanitary Workers. - Increasing manpower, vehicles and machinery. - Extensive awareness drive. - Co-opting SHGs and CSOs in SWM.
27	Jiribam MC	10	10	100%	10	89%	6.02	Composting, Send back for recycling, MRF.	Nil
Total		305	305		305		43.332		
In Percentage-Ward coverage				100%		100%			
Average Household coverage				99%		84%			

Table-3 : SOLID WASTES PROCESSING AND MANAGEMENT – WARDWISE OF ULBS IN MANIPUR, APRIL, 2024

Sl No.	Name of ULB or Name of Processing Unit	Processing unit Under Construction		Uncontrolled Dumpsite		Controlled Dumpsite		Sanitary Landfill		Area of Legacy waste within 1 km buffer of the river	Drains falling into river having floating racks/screen
		Capacity TPD	Technology	No.	Area (Acre)	No.	Area (Acre)	No.	Area (Acre)		
1	Imphal MC and Lamdeng SWM Plant	NIL	Waste to Energy Plant and composting	Nil		Nil	Nil	1	Nil	Nil	Nil
2	Lamshang MC	NA	Home composting and manual segregation of waste. Dry waste to Lamdeng SW plant	Nil		Nil	Nil	Nil	Nil	Nil	Nil
3	Samurou MC	NA	NA	Nil		Nil	Nil	Nil	Nil	Nil	Nil
4	Thongkhong Laxmi MC	NA	NA	Nil		Nil	Nil	Nil	Nil	Nil	Nil
5	Sekmai MC	0	Aerobic composting	Nil		0	0	Nil	Nil	Nil	Nil
6	Lilong IW MC	0	Manual Segregation of waste for material recovery Vermicomposting pits	Nil		Nil	Nil	Nil	Nil	Nil	Nil
7	Lamlai MC	0	NA	Nil		Nil	Nil	Nil	Nil	Nil	Nil
8	Thoubal MC	0	Manual Segregation and aerobic composting	Nil		Nil	Nil	1	2	Nil	Nil
9	Yairipok MC	0	Composting/aerobic	Nil		Nil	Nil	Nil	Nil	Nil	Nil
10	Sikhong Sekmai MC	0	Composting/aerobic	Nil		Nil	Nil	Nil	Nil	Nil	Nil

Sl No.	Name of ULB or Name of Processing Unit	Processing unit Under Construction		Uncontrolled Dumpsite		Controlled Dumpsite		Sanitary Landfill		Area of Legacy waste within 1 km buffer of the river	Drains falling into river having floating racks/screen
		Capacity TPD	Technology	No.	Area (Acre)	No.	Area (Acre)	No.	Area (Acre)		
11	Lilong TBL MC	0	Manual Segregation of waste for material recovery	Nil		Nil	Nil	Nil	Nil	Nil	Nil
12	Heirok MC	0	Manual Segregation and composting/aerobic	Nil		Nil	Nil	Nil	Nil	Nil	Nil
13	Wangjing Lamding MC	0.3	Manual Segregation and composting/aerobic	Nil		Nil	Nil	Nil	Nil	Nil	Nil
14	Andro MC	0	Manual segregation & aerobic composting	Nil		Nil	Nil	Nil	Nil	Nil	Nil
15	Kakching MC	0	Manual segregation	Nil		1	2	1	2.5	Nil	Nil
16	Kakching Khunou MC	0	NA	Nil		0	0	Nil	Nil	Nil	Nil
17	Sugnu MC	0	NA	Nil		Nil	Nil	Nil	Nil	Nil	Nil
18	Mayang Imphal MC	0	Manual segregation of waste & composting construction completed.	Nil		Nil	Nil	Nil	Nil	Nil	Nil
19	Wangoi MC	0	Nil	Nil		Nil	Nil	Nil	Nil	Nil	Nil
20	Kumbi MC	0	Composting pit	Nil		1	0.27	Nil	Nil	Nil	Nil
21	Kwakta MC	0	Composting unit	Nil		1	0.016	Nil	Nil	Nil	Nil
22	Moirang MC	0	Segregation, composting and recovery of reusable	Nil		1	2.5	Nil	Nil	Nil	Nil

Sl No.	Name of ULB or Name of Processing Unit	Processing unit Under Construction		Uncontrolled Dumpsite		Controlled Dumpsite		Sanitary Landfill		Area of Legacy waste within 1 km buffer of the river	Drains falling into river having floating racks/screen
		Capacity TPD	Technology	No.	Area (Acre)	No.	Area (Acre)	No.	Area (Acre)		
			wastes.								
23	Ningthoukhong MC	0	Anaerobic, Segregation, Composting and recovery of reusable wastes.	Nil		1	1.31	Nil	Nil	Nil	Nil
24	Bishnupur MC, Multi-Segregation shed at Chothe Village, Ward No. 12	0	Manual segregation and aerobic composting	Nil		Nil	Nil	1	2.5	Nil	Nil
25	Oinam MC	0	Composting (operational)	Nil		1	0.4	Nil	Nil	Nil	Nil
26	Nambol MC	0	Manual segregation, Aerobic and vermi-composting	Nil		1	3.21	Nil	Nil	Nil	Nil
27	Jiribam MC	0	Manual segregation, Pit composting, Windrow composting and MRF, C&D waste processing unit	Nil		Nil	Nil	1	1.72	Nil	1
	Total	0.3				7	9.706	5	8.72		1

STATUS OF WATER QUALITY OF POLLUTED RIVERS**Remark :**

Manipur Pollution Control Board has been conducting monthly water quality analysis of the polluted rivers.

Water Quality of the Imphal, Iril, Manipur, Thoubal, Wangjing, Khuga, Khujairok, Lokchao, Nambul, Waisel Maril & Moirang Rivers and Effluent of Sewage Treatment Plant, Langol

For the month of April, 2024

1. Imphal River

Location	DO	pH	BOD mg/L	COD mg/L	Fecal Coliform (MPN/100ml)
Koirengei	7.3	7.3	3.0	7.8	50
Minutrhong	7.2	7.3	3.2	9.7	60
Mahabali	7.1	7.4	3.2	8.5	65

2. Iril River

Location	DO	pH	BOD mg/L	COD mg/L	Fecal Coliform (MPN/100ml)
Kangla Siphai	7.4	7.4	3.2	11.8	55
Porompat	7.3	7.4	3.1	8.8	60
Lilong	7.2	7.3	3.3	10.4	55

3. Manipur River

Location	DO	pH	BOD mg/L	COD mg/L	Fecal Coliform (MPN/100ml)
Yairipok	7.3	7.3	3.2	12.4	60
Sekmaiing	7.4	7.4	3.2	11.0	65
Ithai	7.3	7.3	3.1	12.6	70

4. Thoubal River

Location	DO	pH	BOD mg/L	COD mg/L	Fecal Coliform (MPN/100ml)
Litan					

5. Wangjing River

Location	DO	pH	BOD mg/L	COD mg/L	Fecal Coliform (MPN/100ml)
Heirolk	7.3	7.3	3.3	13.0	50
Wangjing	7.3	7.3	3.2	10.8	55

6. Khuga River

Location	DO	pH	BOD mg/L	COD mg/L	Fecal Coliform (MPN/100ml)
Churachandpur Bazar					
Khuga Dam					

7. Khujaikok River

Location	DO	pH	BOD mg/L	COD mg/L	Fecal Coliform (MPN/100ml)
Khujaikok					

8. Lokchao River, Bishnupur

Location	DO	pH	BOD mg/L	COD mg/L	Fecal Coliform (MPN/100ml)
Lokchao Bridge near Bishnupur Bazar	7.2	7.3	3.2	10.4	45

9. Nambul River

Location	DO	pH	BOD mg/L	COD mg/L	Fecal Coliform (MPN/100ml)
Samushang	6.9	7.3	4.3	13.9	95
Naoremthong	6.8	7.2	4.2	15.0	90
Hump Bridge	5.8	7.2	4.4	15.8	220
Heirangoithong	6.0	7.2	4.3	15.4	210
Singda Dam					

10. Kongba River

Location	DO	pH	BOD mg/L	COD mg/L	Fecal Coliform (MPN/100ml)
Kongba Eranpham	6.1	7.2	4.1	14.7	120
Kongba Erong	5.8	7.2	4.1	9.6	125

11. Waisel Maril

Location	DO	pH	BOD mg/L	COD mg/L	Fecal Coliform (MPN/100ml)
Meijrao Bridge, Hiyangthang	6.0	7.2	4.5	14.3	140
Kha Sangenbam Mayai Leikai	7.1	7.2	4.1	11.1	85

12. Moirang River

Location	DO	pH	BOD mg/L	COD mg/L	Fecal Coliform (MPN/100ml)
Laikhurembi, Moirang Bazar	7.2	7.3	3.5	10.6	60

13. Sewage Treatment Plant Effluent

Location	Oil & Grease (mg/L)	pH	TSS mg/L	BOD mg/L	COD Mg/l	Fecal Coliform (MPN/100ml)
Langol	2.6	7.2	30	11.7	42	130

Action Plan of the model river in Manipur

Action	Target Action	Priority – II : Nambul River		
		Target Quantity	Time Line	Status
Action 1	Solid Waste Management			
1.1	Identification of garbage vulnerable point	12 Municipal Wards	Oct 2019	Completed Action: MAHUD / IMC
1.2	Door to Door Collection, identify & register of missed out house hold, punitive action against litterer along the river	12 Municipal Wards	Oct 2019	Completed Action: MAHUD / IMC
1.3	Formation of Tasks Force for proper implementation of waste management		Oct 2019	Constituted
1.4	Providing of household waste bins	19,863 bins	Oct 2020	80% completed Action: Environment & CC
1.5	High rise fencing of grilling and netting at vulnerable zones of both the river banks to protect throwing of solid wastes into the river	5 km	Apr 2021	Completed Action: Environment & CC
1.6	Renovation of existing crematoria along the river stretch	56 Nos.	Apr 2021	Completed Action: Environment & CC
1.7	Installation of secondary waste collection bins / community bins / dumper placer containers / transfer bins / littering bins at suitable places	37 Nos.	Oct 2020	Completed Action: Environment & CC
1.8	Construction of Public toilets at vulnerable points	35 Nos. by IMC 20 Nos. under NRCD	Apr 2021	Completed Action: Environment & CC
1.9	IEC / Public Awareness Activities	14 No. (one each in every ward)	Every month	Conducted regularly Action: Environment & CC
Action 2	Channelization, treatment, utilization and disposal of treated domestic sewage			
2.1	Identification of location and estimation of liquid waste generation at Imphal town		Oct 2019	Completed Action: PHED
2.2	Interception and diversion of the urban drains / outfalls to the Nambul River by laying pipes of 14,545 meters at both the banks of River at 12 Municipal Wards viz. 6, 7, 8, 9, 11, 12, 13, 14,15, 16, 24 and 27		Apr 2022	30% Completed Action: Environment & CC
2.3	Treatment option and capacity : Installation of 2 (two) Sewage Treatment Plants (STPs) of 16 MLD and 1 MLD		Apr 2022	85% Completed Action: Environment & CC
2.4	Commissioning of the Imphal Sewerage Project Phase-I of 27 MLD		Dec 2019	Commissioned Action: PHED
2.5	Commissioning of the Imphal Sewerage Project Phase-II of 41 MLD		Apr 2022	DPR Submitted, waiting for approval of NIT from NDB Action: PHED

Action	Target Action	Priority – II : Nambul River		
		Target Quantity	Time Line	Status
Action 3	Protection of catchment area			
3.1	<i>In-situ</i> augmentation of medicinal plants and economic plantation at catchment			Completed Action: Forest
Action 4	Protection and prevention of Flood Plain Zone			
4.1	Protection and Improvement of River Bunds. 1,500 m for Nambul River 16,860 m in Imphal River 2,670 m in Kongba River 2,403 m in Thoubal River 317 m in Wangjing River 11,711 m in Manipur River		Before 2021	Status will be updated soon Action: WRD
4.2	Re-Sectioning of Rivers and Streams. 82,091 m in Imphal River. 15,480 m in Kongba River 89,100 m in Nambul and its tributaries. 1,900 m in Chakpi River		Before 2021	Status will be updated soon Action: WRD
4.3	CC/RCC Retaining Walls with and without piles to be provided at the most eroded and vulnerable river banks.		Before 2021	Status will be updated soon Action: WRD

B. 8 (eight) polluted stretches of Rivers viz. Imphal, Iril, Khuga, Khujairok, Lokchao, Manipur, Thoubal, Wangjing under Priority V in Manipur

Action	Target Action	Target Quantity	Timeline	Status & Actor
Action 1	Solid Waste Management			
1.1	Identification of garbage vulnerable point along the 8 (eight) identified polluted river stretches	59 Municipal Wards	6 months (2024 2019)	Status will be updated soon Action : MAHUD / ULBs
1.2	Door to Door Collection and transportation of Municipal solid wastes with source segregation through Cluster Approach	59 Municipal Wards 33.45 MT	1 year (June 2020)	
1.3	Installation of littering bins at suitable places	500 Nos. of Bins	1 year (June 2020)	
1.4	Setting up of waste processing site at Cluster Approach	5 Cluster Units	2 Year (June 2021)	
1.5	Construction of Public toilets at vulnerable points	59 Nos. (one each for every ward for 59 wards)	2 Year (June 2021)	
1.6	IEC / Public Awareness Activities	177 Nos. (3 times for every 59 Wards)	Ongoing	
1.7	Encouraging of home composting	10% of total household	Ongoing	
Action 2	Channelization, treatment, utilization and disposal of treated domestic sewage			
2.1	Identification of location and estimation of liquid waste generation	Under survey	Ongoing	Completed Action : PHED
2.2	Treatment option through phytoremediation technique in consultation with NEERI (National Environmental Engineering Research Institute), Nagpur	27.024 + 38.73 = 65.754 MLD	2 Years (June 2021)	DPR submitted to NRCDD, Ministry of Jal Shakti, Govt. of India Action : Environment & CC
2.3	Commissioning of the Imphal Sewerage Project Phase-II: Installation of STPs of 3 (three) units SBR (Sequencing Batch Reactors) technology covering all the remaining wards of Imphal Municipal Corporation (Finalized DPR)	41 MLD	Funding awaited	DPR submitted, waiting for approval of NIT from NDB Action : PHED
Action 3	Protection of catchment Area of 1539 sq. km.			
3.1	<i>In situ</i> augmentation with economic plants	1539 sq. km.	2 Years (June 2021)	Status will be updated soon Action : Forest
3.2	Inventorisation and mapping of springs for protection and rejuvenation at catchment	8 rivers	1 Year (June 2020)	Status will be updated soon Action : Environment & CC
Action 4	Protection and prevention of Flood Plain Zone			
4.1	Protection and Improvement	1. 1500 m for Nambul	Before 2021	Status will be updated

	of River Bunds	River 2. 16860 m in Imphal River and its tributaries 3. 2670 m in Kongba River 4. 2403 m in Thoubal River 5. 317 m in Wangjing River 6. 11711 m in Manipur River		soon Action : WRD
4.2	Re-Sectioning of Rivers and Streams	1. 82091 m in Imphal River 2. 15480 m in Kongba River 3. 89100 m in Nambul and its tributaries 4. 1900 m in Chakpi River	Before 2021	
4.3	CC / RCC Retaining Walls with and without piles to be provided at the most eroded and vulnerable river banks	Along Nambul, Imphal, Thoubal, Kongba, Iril and other major rivers	Before 2021	