

**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 as on 20<sup>th</sup> February 2021**

**Overall status of the State:**

<b>I. <u>Total Population:</u></b>	<b>2011 Census</b>	<b>Projected as on 2020</b>
<b>Urban Population</b>	8,34,154	10,47,135
<b>Rural Population</b>	17,36,236	21,79,541
<b>Total</b>	28,55,794	35,84,951

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  
2 (two) STPs of 16 & 1 MLD under construction
- Capacity Utilization of existing STPs : 10 MLD
- MLD of sewage being treated through alternate technology : NIL
- Gap in Treatment Capacity in MLD : 18 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	10 MLD	Operational (37 %)	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	Maibal Leikai, Imphal West	16 MLD	24 %	NIL	31.03. 2022
2	Iroisemba, Imphal West	1 MLD	NIL	NIL	31.03. 2022

**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	Revised DPR, Cleared by DEA for External Aided Funding opportunities	---

### **III. Details of Industrial Pollution:**

- No. of industries in the State : 1004 Nos.  
941 outside Industrial Estate  
63 inside Industrial Estate
- No. of water polluting industries in the State : 34 Units (**Annexure - 2**)
- Quantity of effluent generated from the industries in MLD : Data not available
- Quantity of Hazardous Sludge generated from the Industries in TPD: Data not available
- Number of industrial units having ETPs : Nil
- Number of industrial units connected to CETP : 5 (five)
- 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 Kilo Liter / Day
- Under construction : Nil
- Proposed : Nil

<b>Town</b>	<b>Existing ETP Capacity</b>	<b>CETP Proposed, if any</b>	<b>Status (DPR/ tendering/ under construction etc.)</b>
Imphal	400 Kilo Liter / day	Nil	Nil

- Status of compliance and operation of the CETPs

<b>Town</b>	<b>No. of industries</b>	<b>Industrial discharge</b>	<b>Status of ETPs</b>	<b>Status of CETPs (existing, under construction &amp; proposed)</b>
Imphal	5 (five)	Nil	Nil	1 (one) CETP of 400 Kilo Liter / Day at Nilakuthi Industrial Estate, Imphal Status : Non-functional Cost for making it functional is estimated to be Rs. 1.77.08.668/= (Rupees One Crore Seventy Seven Lakhs Eight Thousand Six Hundred Sixty Eight) only

#### IV. Solid Waste Management:

- Total Urban Local Bodies (ULBs) : 27 ULBs
- Population of ULBs : 6,17,108 (2011 Census)  
: 7,88,734 (2020 projected population)
- Current Municipal Solid Waste Generation : 311.17 MT  
(as on 2020 projected population)
- Waste Collected : 185.48 TPD
- Existing Management / treatment facility : 269.5 TPD
- Utilization of MSW processing : 101.3 TPD
- Segregated Waste landfilled / dumped : 77 TPD
- Number, installed capacity and utilization of existing MSW processing facilities in TPD bifurcated by type of processing e.g. Waste to Energy (Tonnage and Power Output), Compost Plants (Windrow, Vermi, decentralized pit composting), bio-methanation, MRF, etc.

SN	Name of MSW processing unit	Installed capacity (in TPD)	Utilization (in TPD)	Type of processing	Action plan to bridge Gap between utilization and installed facility
1	Municipal Solid waste Management Plant, Lamdeng, Imphal	200 TPD	30 TPD	Waste to energy and Composting (5-8% of input, now 3T / day in average)	Installed infrastructure for Waste to energy, now under Trial run commercial operation <b>Targets :</b> • 30 TPD by Nov 2020 • 60 TPD by Feb 2021, • 120 TPD by May 2021, • 180 TPD by Dec 2021
2	Jiribam MC	10 TPD	2.8 TPD	Composting	Out of total generated waste 3.23 TPD, 0.4 TPD is processed at the source. Hence, no gap.
3	Lamshang NP	3 TPD	3 TPD	Composting	
4	SamurouMC	8 TPD	2 TPD	Composting	More unit by June 2021
5	Sekmai NP	5.5 TPD	0.5 TPD	Composting	100% by Dec 2021
6	Thongkhong Laxmi MC	6 TPD	2 TPD	Composting	100% by Dec 2021
7	Heirok NP	1 TPD		Composting	100% by Dec 2021
8	Kakching MC	8 TPD	2 TPD	Composting	100% by Mar 2021
9	Sikhong Sekmai MC	4 TPD	0.65 TPD	Composting	100% by Mar 2021

SN	Name of MSW processing unit	Installed capacity (in TPD)	Utilization (in TPD)	Type of processing	Action plan to bridge Gap between utilization and installed facility
10	Thoubal MC	25 TPD	4 TPD	Composting	100% by Mar 2021
13	Wangjing Laming MC	2 TPD	0.5 TPD	Composting	100% by Dec 2021
	Total	275.5 TPD	59.6 TPD		45.98 TPD at site 48.93 TPD at source

<ul style="list-style-type: none"> <li>Action plan to bridge gap between Installed Capacity and Current Utilization of processing facilities (if Gap &gt; 20%)</li> </ul>	Planning for upgrade the installed capacity as per required by 2021-22
<ul style="list-style-type: none"> <li>No. and capacity of C&amp;D waste processing plants in TPD (existing, proposed and under construction)</li> </ul>	No data
<ul style="list-style-type: none"> <li>Total No. of wards</li> </ul>	305 Wards
<ul style="list-style-type: none"> <li>No. of wards having door to door collection service</li> </ul>	59% (approx.) at 266 Wards
<ul style="list-style-type: none"> <li>No. of wards practicing segregation at source</li> </ul>	61% (approx.) at 187 Wards

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

SN	Name of ULB or Processing unit	Capacity	Technology	Proposed / under Construction
1	Multi Segregation Shed at Chothe Village, Ward No. 12, Bishnupur MC	630.75 cum	Anaerobic	Under construction
2	Annexure at Table - 3			

<ul style="list-style-type: none"> <li>No. and area (in acres) of uncontrolled garbage dumpsites and Sanitary Landfills</li> </ul>	<ul style="list-style-type: none"> <li>1 (one) uncontrolled dumpsite of 2.5 acres at Bishnupur MC</li> </ul>
<ul style="list-style-type: none"> <li>No. and area (in acres) of legacy waste within 1km buffer of both side of the rivers</li> </ul>	Nil
<ul style="list-style-type: none"> <li>No. of drains falling into rivers and no. of drains having floating racks/screens installed to prevent solid waste from falling into the rivers</li> </ul>	<ul style="list-style-type: none"> <li>3 (three) drains having floating racks / screen at Bishnupur MC</li> <li>Information yet to be submitted by the rest ULBs</li> </ul>
<ul style="list-style-type: none"> <li>Status of ULB wise Management of Solid waste</li> </ul>	At <b>Annexure - 3</b>

**V. Bio-medical Waste Management:**

Total Bio-medical generation	:	0.78 TPD	<b>Remarks :</b>  <ul style="list-style-type: none"> <li>• Deep burial practiced at remote rural areas.</li> <li>• DPR submitted to ministry for up-gradation of the existing CBMWTF</li> <li>• Action Plan submitted to the State Pollution Control Board by the Directorate Health Service for BMW management</li> </ul>
No. of Hospitals and Health Care Facilities	:	528 Nos. [i/c 251 PHSCs]	
Status of Treatment Facility CBMWTF	:	CBMWTF = 1 No Captive Facility = 2 No. Deep Burial = 391 Nos.	
Status of Treatment Facility RTPs	:	8 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 March 2021

**VII. Plastic Waste Management:**

Total Plastic Waste generation	:	22.7 TPD
Treatment / Measures adopted for reduction or management of plastic waste	:	Plastic waste utilized for waste to energy plant, road construction and for recycling

VIII. Details of Alternate Treatment Technology being adopted by the State/UT	:	Nil
IX. Identification of including drains contributing to river pollution and action as per NGT order on in-situ treatment	:	Municipal Wastes (Liquid and solid) are the major polluting sources.  <ul style="list-style-type: none"> <li>• 100% door to door collection of solid wastes by March 2021</li> <li>• Tapping , intercepting and</li> </ul>

		<p>diverting all the polluting drains to the STP by March 2022</p> <ul style="list-style-type: none"> <li>• In-situ treatment along the drain through Bio-remediation / Phyto-remediation by March 2022</li> </ul>
X.	Details of Nodal Officer appointed by Chief Secretary in the State / UT	<p>:</p> <ul style="list-style-type: none"> <li>i. Shri M.H. Khan Additional Chief Secretary Forest and Environment Govt. of Manipur as Chairman, State level Monitoring Mechanism</li> <li>ii. Dr. T. Brajakumar Singh Deputy Director, Directorate of Environment and Climate Change as Nodal Officer for appearing / VC / submission / compiling of reports before NGT/CPCB/CMC</li> <li>iii. Dr. W. Roshan Singh Asst. Environment Engineer Manipur Pollution Control Board</li> </ul>
XI.	Details of meetings carried under the in the State/UT	<p>:</p> <ul style="list-style-type: none"> <li>• Last meeting under Chairmanship Chief of Secretary, Govt. of Manipur was held on 20<sup>th</sup> Nov 2020</li> <li>• Once or twice in every month by Chief Secretary of Addl. Chief Secretary (Forest and Environment), Govt. of Manipur</li> </ul>
XII.	Latest water quality of polluted river, its tributaries, drains with flow details and ground water quality in the catchment of polluted river	<p>:</p> <p>At <b>Annexure – 4</b></p>
XIII.	Ground water regulation	<p>:</p> <p>Nil</p>
XIV.	Good irrigation practices being adopted by the State	<p>:</p> <ul style="list-style-type: none"> <li>i. Irrigation from Barrages and Dams through Canals</li> <li>ii. Loktak Lift Irrigation through</li> </ul>

		<p>open canals</p> <p>iii. River Lift Irrigation schemes through tube wells and dug wells by Minor Irrigation Deptt.</p> <p>iv. Surface Minor Irrigation through Canals</p>
XV. Rain Water Harvesting	:	Nil
XVI. Demarcation of Floodplain and removal of illegal encroachments	:	<p>i. The Manipur Flood Plain Zoning Act, 1987 has been enacted for zoning of flood plains of rivers in the State of Manipur</p> <p>ii. Boundaries and limits of the major rivers of the State were declared in 1988, by the irrigation and Flood Control Dept, Manipur (now Water Resources Dept.)</p> <p>iii. Eviction and removal of illegal encroachments is being carried out from time to time.</p> <p>iv. Survey and eviction of encroachers along Nambul River and Imphal River has been initiated with the help of the Flood Zoning Authority.</p> <p>v. Eviction along Iril and Imphal River is ongoing.</p>
XVII. Maintaining minimum e-flow of river	:	<p>i. Maohing village (24 ha), Konsakhul village (24 ha) under Kangpokpi Division and Shirui Village (35 ha), Langdang village (30 ha), Choithar village (35 ha) making the total plantation taken up by KfW to 148 ha.</p> <p>ii. Water is released from the Dams and reservoirs from time to time to</p>

		maintain e-flow of various rivers in the state.
XVIII. Plantation activities along the rivers	:	Continuing from time to time
XIX. Development of biodiversity park	:	No work taken up
XX. Reuse of Treated Water	:	Nil
XXI. Model River being adopted by the State & Action Proposed for achieving the bathing quality standards	:	Nambal River (Priority – II) Targeted Action for achieving the bathing quality standards as at <b>Annexure - 5</b>
XXII. Status of Preparation of Action Plan by the 13 Coastal States	:	NA
XXIII. Regulation of Mining Activities in the State / UT	:	<ul style="list-style-type: none"> <li>i. Preparation of District Survey Report has been entrusted to the consultant M/S Jagannath Engineering Services by Water Resources Department and investigation works were started in September 2020</li> <li>ii. Preliminary Survey Report of DSR has been submitted by the consultant</li> <li>iii. Site visit report of the DSR has been submitted.</li> </ul>
XXIV. Action against identified polluters, law violators and officers responsible for failure for vigorous monitoring	:	Nil



## Annexure - 1

### A. Total Status of STPs in Imphal (as on 20<sup>th</sup> December 2020)

Particular	Unit	Phase I	Phase II (To be proposed under EAP)	Ongoing NRCD Project	Total
Capacity of STP	MLD	27	49	17	93
Capacity of STP Utilized	MLD	10			
Total Sewer Pipe	RM	69,429	277,289		346,718
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	12,000			12,000
Connected septic tank	Unit	4,500			4,500
Lift Station	Unit	5	21	14	40
Population	Lakh	1.73	4.33		6.06
Covered Municipal Ward	Wards	11	16	14	
Area covered	Sq. Km.		35		
Covered Polluted River		Nambul P-II	Nambul P-II	Nambul P-II	
Method of Treatment		ASP	SBR	MBBR	

### B. In-situ Bio-remediation and others :

	Name of the Polluted River (P-V)	Total Length of the River	Length of the Polluted stretches	BOD Range (mg/l)	Population at polluted zone	Status / Proposed for Treatment
1	Imphal	89.24 km	19.98 km	3.4 – 6.4	84,857	DPR submitted to NRCD for in-situ treatment through Bio-remediation of 16.75 MLD, <u>Fecal Sludge and Septage Management (FSSM)</u> of 50 KLD
2	Iiril	156.50 km	18.12 km	3.2	1,714	
3	Khuga	79.25 km	10.92 km	3.1 – 3.6	857	
4	Khujairok	10.06 km	4.21 km	4.3	4,286	
5	Lokchao/ Thongjarok	17.04 km	5.31 km	4.5	1,143	
6	Manipur	261.00 km	35.00 km	3.6 – 4.3	7,143	
7	Thoubal	142.80 km	24.61 km	3.5	30,286	
8	Wangjing	35.08 km	3.70 km	4.1 – 4.3	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 (February 2021)**

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)			
											pH	TSS mg/l	COD mg/l	BOD mg/l
1	Imphal	1	Lamphel	24°49'45"N 93°54'58"E	2020	Operational	27	10	ASP		6.9	1.3		6.0

**LIST OF WATER POLLUTING INDUSTRIES REGISTERED UNDER THE FACTORIES ACT, 1948 LOCATED OUTSIDE OF INDUSTRIAL ESTATE/FOOD PARK**

Sl. No.	F/L	Name of unit	Location of factory	Factory area	Factory Type	NearestRiver	District	Occupier/Proprietor	SEC
1	257	Shiva Oil Mill	Singjamei Chingamakha Chongtham Leikai	Singjamei	OilMill	Imphal	Imphal West	Chongtham Manglem Singh	85
2	322	Elija's Resting Center	Singjamei Mayengbam Leikai	Singjamei	Soap/Detergent	Imphal	Imphal West	Smt Irom (O) Manju Devi	85
3	35	SiHou	Singjamei Makha Waikhom Leikai	Singjamei	Spices	Imphal	Imphal West	Sougaijam Homendro Singh	85
4	227	RKB Enterprises	Mayengbam Leikai, Singjamei	Singjamei	Spices	Imphal	Imphal West	Rajkumar Bishwajit Singh	85
5	136	MA Poultry Rearing & Feed Production	Takhel Mamang Leikai	Takhel	Poultry Feed	Iril	Imphal East	Khuraijam Mohendra Singh	2m(i)
6	236	Mnihara BesonMill	Wangoi Thounaojam Leikai	Wangoi	Beson	Manipur	Imphal West	Longjam Boss Meitei	85
7	264	Manihar Oil Mill	Wangoi Thounaojam Leikai	Wangoi	OilMill	Manipur	Imphal West	L. Manihar Singh	85
8	268	Dish & Detergent Making Industry	Thoubal Achouba (Mela Ground)	Thoubal	Soap/Detergent	Manipur	Thoubal	Thounaojam Premila Devi	85
9	59	Tet (Tyre, Engine, Gas Body)	Uripok Khoisnam Leikai	Uripok	Automobile Workshop	Nambul	Imphal West	A Satyaranjan Sharma	85
10	103	Mohon Motor Works	Naoremthong Khullen Leikai	Naoremthong	Automobile Workshop	Nambul	Imphal West	Maibam Dian Mohan	2m(i)
11	303	Surjit Motor Works	Uripok yambem Leikai	Uripok	Automobile Workshop	Nambul	Imphal West	Soubam Surjit Singh	85
12	141	Para Fruit Products Pvt Ltd	Sagolband Nepra Menjor Leikai	Sagolband	Fruit Processing	Nambul	Imphal West	Kh Sanayaima Singh	2m(i)
13	276	Ratana Fruit	Uripok Polem Leikai	Uripok	Fruit Processing	Nambul	Imphal West	Longjam Sharatchandra Singh	85
14	337	Deba Food Industries	Sagolband Tera Khuraijam Leirak	Sagolband	Fruit Processing	Nambul	Imphal West	Keithellakpam Rasheshwori Devi	85

Sl. No.	F/L	Name of unit	Location of factory	Factory area	Factory Type	NearestRiver	District	Occupier/Proprietor	SEC
15	36	Kissan Oil Mill	Sagolband Khamnam Leikai	Sagolband	OilMill	Nambul	Imphal West	Sagolsem Vikram Singh	85
16	48	Ahanthem Oil Mill	Pishumthong, Oinam Leikai	Pishum	OilMill	Nambul	Imphal West	Ahanthem Arunkumar Singh	85
17	75	Imocha Oil Mill	Keishampat Thokchom Leikai	Keishampat	OilMill	Nambul	Imphal West	Thangjam Imocha Singh	85
18	89	Sharma Oil Mill	Uripok Achom Leikai	Uripok	OilMill	Nambul	Imphal West	Sijagurumayum Brajamani Sharma	85
19	317	Natural Spices	Uripok Sinam Leikai	Uripok	Spices	Nambul	Imphal West	Thokchom Sheela Devi	85
20	342	Roma Spices	Sagolband Nepra Menjor Leikai	Sagolband	Spices	Nambul	Imphal West	Nepram (O) Roma Devi	85
21	321	Athokpam Oil Mill	Wangbal Lamboithong	Wangbal	OilMill	Thoubal	Thoubal	Athokpam Bolai Singh	85
22	242	Bimolchand Oil Mill	Yairipok Poiroukhongjin	Yairipok	OilMill	Wangjing	Imphal East	Konthoujam Bimolchand Singh	85
23	210	Oinam Motors Maruti Suzuki Workshop	Yairipok Bishnunaha Pukhri Mapal	Yairipok	Automobile Workshop	Wangjing	Thoubal	Oinam Ananta Singh	85
24	294	Ingocha Tractor Repairing Centre	Yairipok Bishnunaha	Yairipok	Automobile Workshop	Wangjing	Thoubal	Takhelambam Ingocha Singh	85
25	126	Miranda Oil Mill	Wangjing Sorokhaibam Leikai	Wangjing	OilMill	Wangjing	Thoubal	Khundrakpam Miranda Devi	85

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

**Takyel Industrial Estate, Imphal West Districts, Manipur.**

<b>Sl No.</b>	<b>Name of unit</b>	<b>NearestRiver</b>	<b>Proprietor</b>	<b>Name of Products</b>
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**

<b>Sl No.</b>	<b>Name of unit</b>	<b>NearestRiver</b>	<b>Proprietor</b>	<b>Name of Products</b>
1	Shree Balaji Flour Mill	Imphal	Mrs. Rangnamei Martha	Flour
2	Thangjam Agro Industries (PDW)	Imphal	Thangjam Joykumar Singh	Bakery
3	KMU	Imphal	Wangkheirakpam Gobin Singh	Bakery

TABLE A : MUNICIPAL SOLID WASTES GENERATION AND MANAGEMENT (AS ON FEBRUARY 2021)

No.	Name of ULB	Population		Solid Waste Generated (MTD)	Waste Collected (MTD)	Gap between Generated and (Collected + Managed at source)	Managed/Treated (in MTD)					Plan to mitigate the gap between generation of wastes Vs collection, managed / treated and Remarks
		2011 Census	2021 Projected				Facilities	Managed / Treated	processed at source	Total	Gap	
1	Bishnupur MC	12,167	15,274	5.35	3	1.5	0	3	0.8	3.8	29%	<ul style="list-style-type: none"> <li>• 80% D2D (present) and 100% D2D by March 2021</li> <li>• Exists 10 TPD capacity of sanitary landfill</li> </ul>
2	Kumbi MC	9,546	11,983	4.19	1.5	0.2	0	1.5	2.5	4.0	5%	<ul style="list-style-type: none"> <li>• Now 70% D2D and 100% D2D by June 2021</li> <li>• Land Available 0.27 Acre,</li> <li>• Composting Unit by Dec 2021</li> </ul>
3	Kwakta MC	8,579	10,769	3.77	0.75	1.67	0	0.75	1.35	2.10	44%	<ul style="list-style-type: none"> <li>• 100% D2D by Dec 2021</li> <li>• Composting unit, by July 2021</li> </ul>
4	Moirang MC	19,893	24,972	8.74	6.54	0	0		1.2	1.2	89%	<ul style="list-style-type: none"> <li>• Composting plant by Dec 2021</li> </ul>
5	Ningthoukhong MC	13,078	16,417	5.85	2.6	2.1	0	0.25	1.10	1.4	66%	<ul style="list-style-type: none"> <li>• 100% D2D by Dec 2021</li> <li>• Composting unit, by August 2021</li> </ul>
6	Oinam MC	7,161	8,989	3.15	2	0.8	0	0	0.3	0.3	90%	<ul style="list-style-type: none"> <li>• Composting plant by August 2021</li> <li>• 100% D2D by Dec 2021</li> </ul>
7	Andro NP	8,744	10,977	3.84	1	1.7	0	0	1.1	1.1	71%	<ul style="list-style-type: none"> <li>• 100% D2D by July 2021</li> <li>• Composting unit by July 2021</li> </ul>
8	Imphal MC*	265,573	350,050	157.52	125	16.8	200	30	15.8	45.8	71%	<ul style="list-style-type: none"> <li>• 100% D2D by Dec 2021</li> <li>• Waste to Energy by June 2021</li> </ul>
9	Lamlai MC	4,601	5,776	2.02	0.8	0.22	0	0.3	1.0	1.3	36%	<ul style="list-style-type: none"> <li>• 100% D2D by June 2021</li> <li>• Treatment facilities at Lamdeng Waste to energy Plant (Cluster Approach)</li> </ul>
10	Jiribam MC*	7,343	9,218	3.23	2.83	0.0	10	2.83	0.4	3.23	0%	<ul style="list-style-type: none"> <li>• 100% D2D collection covered and 100% managed</li> </ul>
11	Lamshang NP	8,130	9813	3.43	3	0.0	0	0	0.34	3.43	0%	<ul style="list-style-type: none"> <li>• 100% D2D collection covered and 100% managed</li> <li>• Collected from households and public places are disposed off at Lamdeng Solid Waste Management Plant on daily basis.</li> </ul>
12	Lilong IW NP	12,427	15,600	5.46	1.5	1.96	0	0	2	2	64%	<ul style="list-style-type: none"> <li>• Distribution home composting bins, more vehicles and manpower by 31st Dec 2021</li> <li>• Cluster basis facilities at Lamdeng SWM Plant</li> </ul>

No.	Name of ULB	Population		Solid Waste Generated (MTD)	Waste Collected (MTD)	Gap between Generated and (Collected + Managed at source)	Managed/Treated (in MTD)					Plan to mitigate the gap between generation of wastes Vs collection, managed / treated and Remarks
		2011 Census	2021 Projected				Facilities	Managed / Treated	processed at source	Total	Gap	
13	Mayang Imphal MC	24,239	30,428	10.65	4	5.65	0		1.0	1.0	91%	<ul style="list-style-type: none"> <li>100% D2D and composting unit under construction, completing by June 2021</li> </ul>
14	Nambol MC	22,512	28,260	9.89	4	4.9	0		1.0	1.0	90%	<ul style="list-style-type: none"> <li>100% D2D by Dec 2021</li> <li>Composting plant targeted by April 2021</li> <li>Segregation shed to be operational by March 2021.</li> </ul>
15	Samurou MC	14818	18602	6.51	1.5	4.31	8	1.5	0.7	2.2	66%	<ul style="list-style-type: none"> <li>100% D2D by Dec 2021</li> <li>New composting unit by June 2021</li> </ul>
16	Sekmai NP	5,065	6,358	2.23	1	0.6	5.5	0.5	0.6	1.1	51%	<ul style="list-style-type: none"> <li>100% D2D by December 2021</li> <li>Two more Vermicomposting units under construction</li> <li>Segregated dry waste to be transferred at Lamdeng</li> </ul>
17	Thongkhong Laxmi MC	14,878	18,677	6.54	1.5	4.44	6	1.5	0.6	2.1	68%	<ul style="list-style-type: none"> <li>100% D2D by Dec 2021</li> <li>More Awareness campaign &amp; capacity building of manpower</li> <li>By acquiring a permanent sanitary landfill/SWM site</li> </ul>
18	Wangoi MC	9,106	11,431	4.00	1.1	1.4	0		1.5	1.5	63%	<ul style="list-style-type: none"> <li></li> </ul>
19	Heirolk NP	2,974	3,733	1.31	0.5	0.5	1	0	0.26	0.3	80%	<ul style="list-style-type: none"> <li>100% D2D by Dec 2021</li> <li>Increasing composting unit by Dec 2021</li> </ul>
20	Kakching MC	32,138	40,344	14.12	6.21	6.1	8	2	1.8	3.8	73%	<ul style="list-style-type: none"> <li>100% D2D by Mar 2021</li> <li>Segregation machine at management unit</li> </ul>
21	Kakching Khunou MC	11,379	14,284	5.00	1.5	1.9	0	0	1.6	1.6	68%	<ul style="list-style-type: none"> <li>100% D2D by July 2021</li> <li>Composting Unit by July 2021</li> </ul>
22	Lilong TBL	24,900	31,258	10.94	1.5	6.25	0	0	3.2	3.2	71%	<ul style="list-style-type: none"> <li>100% D2D by Dec. 2021</li> <li>Composting Unit by Dec, 2021</li> <li>Treatment facilities at Thoubal cluster</li> </ul>
23	Sikhong Sekmai MC	7,390	9,277	3.25	0.65	0.32	4	0.65	2.28	2.93	10%	<ul style="list-style-type: none"> <li>100% D2D by Dec 2021</li> <li>Treatment facilities at Thoubal cluster</li> </ul>
24	Sugnu MC	5,132	6,442	2.25	0.5	0.75	0	0	1.0	1.0	56%	<ul style="list-style-type: none"> <li>100% D2D by July 2021</li> <li>Composting Unit by July 2021</li> </ul>
25	Thoubal MC	45,947	57,678	20.19	7.5	8.7	25	4	4.0	8.0	60%	<ul style="list-style-type: none"> <li>100% D2D by June 2021</li> </ul>
26	Wangjing Lamding MC	8,055	10,112	3.54	1.5	1.3	2	0.5	0.7	1.2	66%	<ul style="list-style-type: none"> <li>100% D2D and more composting unit by Dec 2021</li> <li>More Composting Unit by dec. 2021</li> </ul>

No.	Name of ULB	Population		Solid Waste Generated (MTD)	Waste Collected (MTD)	Gap between Generated and (Collected + Managed at source)	Managed/Treated (in MTD)					Plan to mitigate the gap between generation of wastes Vs collection, managed / treated and Remarks
		2011 Census	2021 Projected				Facilities	Managed / Treated	processed at source	Total	Gap	
27	Yairipok MC	9,569	12,012	4.20	2	1.4	0	0	0.80	0.8	81%	<ul style="list-style-type: none"> <li>• 100% D2D and by Dec 2021</li> <li>• Segregation shed &amp; composting unit by Dec 2021</li> <li>• Treatment Facility at Thoubal</li> </ul>
<b>Total</b>		615344	788734	311.17	185.48	75.47	269.5	45.98	48.93	101.39		
<b>PC to the generated wastes</b>					59.60%		86.6%	14.7%	15.7%	32.5%		

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

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



**TABLE B : SOLID WASTES GENERATION, COLLECTION AND MANAGEMENT – WARDWISE OF ULBs IN MANIPUR, FEBRUARY 2021**

SI. 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	Bishnupur MC	12	12	80%	12	25%	5	Sanitary Landfill	Composting plant at 2.5 Acre
2	Kumbi MC	9	7		7	35%	0.27	Composting	
3	Kwakta MC	9	9	15%	4	15%	0.625	Composting	Composting unit by July 2021
4	Moirang MC	12	12	84%	0		0	Composting	
5	Ningthoukhong MC	14	14	45%	6	42%	3	Composting & sent back for re-cycling	Composting unit by August 2021
6	Oinam MC	9	9	70%	1	5%	0	Composting	100% by Dec 2021
7	Andro NP	12	12	70%	12	60%	0	Composting	100% by July 2021
8	Imphal MC	27	27		27	10%		Waste to Energy and Composting	100% by Dec 2021
9	Lamlai MC	9	9	40%	9	30%	0	Composting (Home +Centralised)	Treatment facilities at Lamdeng Waste to energy Plant (Cluster Approach)
10	Jiribam MC	10	10	100%	10	100%	5	Composting Send back for recycling	Nil
11	Lamshang NP	9	9		9	100%		At Lamdeng	
12	Lilong IW NP	9	9	80%	7	80%	0	Composting	<ul style="list-style-type: none"> <li>• More composting unit by Dec 2021</li> <li>• Plastic Shredder machine, engagement of recycler by Dec 21</li> </ul>
13	Mayang Imphal MC	13	9	50%	9	50%	1.24	Composting	
14	Nambol MC	18	11	27%	Nil	Nil	3.5	<ul style="list-style-type: none"> <li>• Composting plant targeted by April 2021.</li> <li>• Segregation shed to be operational by March 2021.</li> </ul>	<ul style="list-style-type: none"> <li>• Capacity Building of Sanitary Workers</li> <li>• Increasing manpower, vehicles and machinery.</li> <li>• Awareness Drive</li> </ul> Involvement of SHGs and active participation of CSOs in SWM
15	Samurou MC	11	7	25%	3	10%	0	Composting	

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 %			
16	Sekmai NP	9	4	40%	2	15%	0	Composting	Capacity building of manpower
17	Thongkhong Laxmi MC	11	6	20%	2	10%	0	Aerobic composting pits constructed inside the concrete closed door segregation cum transfer shed/station	<ul style="list-style-type: none"> <li>• 100% D2D by Dec 2021</li> <li>• More Awareness campaign &amp; capacity building of manpower</li> <li>• By acquiring a permanent sanitary landfill/SWM site</li> </ul>
18	Wangoi MC	9	5	50%	5	50%		composting	More composting unit by Dec 2021
19	Heirolk NP	9	9	50%	0	0	0	Composting	More composting unit by Dec 2021
20	Kakching MC	12	12	85%	12	85%	2.5	Composting & manual segregation of waste	<ul style="list-style-type: none"> <li>• IEC Activities</li> <li>• Increasing manpower, vehicles/ machinery.</li> <li>• Involvement of SHGs in D2D collection</li> </ul>
21	Kakching Khunou MC	9	9	80%	9	80%	0	Composting	100% by July 2021
22	Lilong TBL	9	4	60%	5	40%	0	Composting	More composting unit by Dec, 2021 Plastic shredders machine, engagement of recyclers by Dec, 2021
23	Sikhong Sekmai MC	9	9	68.70%	9	68.70%	0.62	Home composting, Segregated plastic waste sent to recycler	<ul style="list-style-type: none"> <li>*Composting unit by Dec 2021</li> <li>*Treatment facilities at Thoubal cluster</li> </ul>
24	Sugnu MC	9	9	60%	9	60%		Composting	100% by July 2021
25	Thoubal MC	18	18	70%	9	20%	6.7	Composting	Collection to be done through NGO
26	Wangjing Lamding MC	9	9	80%	9	20%	0	Composting	More composting unit by Dec 2021
27	Yairipok MC	9	6	65%	3	20%	0	Composting	Segregation shed & composting unit by Dec 2021
<b>Total</b>		<b>305</b>	<b>266</b>		<b>187</b>		<b>22</b>		
<b>In Percentage</b>			<b>59%</b>				<b>46%</b>		

**TABLE C : SOLID WASTES PROCESSING AND MANAGEMENT – WARDWISE OF ULBs IN MANIPUR, FEBRUARY 2021**

SN	Name of ULB or Processing unit	Capacity	Technology	Proposed / under Construction	Uncontrolled Dumpsite/Sanitary landfill		Area of Legacy waste within 1 km buffer of the river	Drains falling into river having floating racks/screen
					No.	Area		
1	Biahnupur MC, Multi segregation shed at Chothe Village, Ward No. 12	630.75 cum	Anaerobic	Under construction	1	2.5 Acre	Nil	3 Drains
2	Kumbi MC, Composting Unit	2MT	Composting Pits	Under construction	1	0.27 Acre	Nil	Nil
3	Kwakta MC	750 Cum	Composting Pit	Under Construction	0	0.625	Nil	Nil
4	Moirang MC, Moirang wastes management project, ward no. 5	30 TPD	Segregation, Composting and recovery of reusable wastes.	DPR prepared.	1	2.5 acres	nil	nil
5	Ningthoukhong MC	6MT	Anaerobic, Segregation, Composting and recovery of reusable waste	Under construction	1	3Acres	Nil	Nil
6	Oinam MC	1 MT	Composting	Under construction	1	0.4 Acres	Nil	Nil
7	Andro MC Waste segregation Shed	4 Tons	Composting and manual segregation of waste	Under construction	Nil	Nil	Nil	Nil

SN	Name of ULB or Processing unit	Capacity	Technology	Proposed / under Construction	Uncontrolled Dumpsite/Sanitary landfill		Area of Legacy waste within 1 km buffer of the river	Drains falling into river having floating racks/screen
					No.	Area		
8	Imphal MC	200 TPD	Composting	Waste to Energy plant yet to be fully functional	Nil	Nil	Nil	Nil
9	Lamlai MC	3Tons	Composting and manual segregation of waste +Lamdeng Plant	Nil	Nil	Nil	Nil	Nil
10	Jiribam MC (SWM Processing site, Chingdong Leikai)	40 Tons	Anaerobic composting	Constructed	Nil	Nil	Nil	Nil
11	Lamshang NP							
12	Lilong IW NP Lilong (Imphal West) Municipal Council Solid Waste Segregation Shed	4 Tons	Composting and Manual Segregation of Waste`	Under Construction	Nil	Nil	Nil	Nil
13	Mayang Imphal MC	Nil	Nil	Nil	Nil	Nil	Nil	Nil
14	Nambol MC	8,100 cubic ft	Manual Segregn	by March 2021	1	3.21 Acre	Nil	Nil
		1,500 cubic ft	Aerobic & Vermi	By April 2021				
15	Samurou MC (6-Segregation cum Transfer Station at Ward No. 1,8,6,8,8,11)	8MT	Aerobic	Constructed	Nil	NA	Nil	Nil
16	Sekmai NP							
17	Thongkhong Laxmi MC (Composting pits constructed	6	Aerobic	Constructed	Nil	Nil	Nil	Nil

SN	Name of ULB or Processing unit	Capacity	Technology	Proposed / under Construction	Uncontrolled Dumpsite/Sanitary landfill		Area of Legacy waste within 1 km buffer of the river	Drains falling into river having floating racks/screen
					No.	Area		
	inside the concrete closed door segregation- 3 Nos at Ward No 6,3,7)							
18	Wangoi MC	Nil	Nil	Nil	Nil	Nil	Nil	Nil
19	Heirolk NP	1 MT	Composting Pit	Under construction	Nil	Nil	Nil	Nil
20	Kakching MC, SWaste Segregation Shed Composting Pit	2MT 4MT	Manual Anaerobic	Under construction	2	(2.5 +2=4.5) Acre	Nil	Nil
21	Kakching Khunou MC	5 Tons	Composting and Manual Segregation of waste	Under construction	Nil	Nil	Nil	Nil
22	Lilong Thbl MC Lilong (Thoubal) Municipal Council Solid Waste Segregation Shed	4 Tons	Composting and Manual Segregation of Waste`	Under construction	Nil	Nil	Nil	Nil
23	Sikhong Sekmai MC	4 MD 2 MTD	Segregation Shed/Manual Composting/Aerobic	Operational Under construction		Nil	Nil	Nil
24	Sugnu MC Waste Segregation Shed	4 Tons	Composting and Manual Segregation	Under Construction	Nil	Nil	Nil	Nil
25	Thoubal Municipal Council, Solid Waste Composting	25 Ton	Manual and through shredding machine	Under construction	1	2 Acre	Nil	Nil

SN	Name of ULB or Processing unit	Capacity	Technology	Proposed / under Construction	Uncontrolled Dumpsite/Sanitary landfill		Area of Legacy waste within 1 km buffer of the river	Drains falling into river having floating racks/screen
					No.	Area		
	Plant							
26	Wangjing Lamding MC	1 MT	Composting Pit	Under construction	Nil	Nil	Nil	Nil
27	Yairipok MC	3Tons	Composting and manual segregation of waste	Proposed	Nil	Nil	Nil	Nil

**STATUS OF WATER QUALITY OF IMPHAL RIVER, IRIL RIVER, MANIPUR RIVER, THOUBAL RIVER, WANGJING RIVER, KHUGA RIVER, KHUJAIROK RIVER, LOKCHAO RIVER AND NAMBUL RIVER FOR THE MONTH OF FEBRUARY, 2021**

1. Status of Water Quality of Imphal River

Location	DO	pH	BOD Mg/L	COD Mg/L	Fical Coliform (MPN/100ml)
Koirengei	7.3	7.4	2.6	8.4	45
Minutrhong	7.2	7.5	3.2	10.6	60
Mahabali	6.4	7.6	3.0	9.1	55

2. Status of Water Quality of Iril River

Location	DO	pH	BOD Mg/L	COD Mg/L	Fical Coliform (MPN/100ml)
Kangla Siphai	7.4	7.2	3.0	16.2	35
Porompat	7.6	7.5	2.9	9.3	40
Lilong	7.7	7.4	3.0	9.7	55

3. Status of Water Quality of Manipur River

Location	DO	pH	BOD Mg/L	COD Mg/L	Fical Coliform (MPN/100ml)
Yairipok	7.2	7.1	3.5	17.4	50
Sekmaijing	7.4	7.3	3.3	11.9	60
Ithai	7.5	7.1	3.0	15.2	55

4. Status of Water Quality of Thoubal River

Location	DO	pH	BOD Mg/L	COD Mg/L	Fical Coliform (MPN/100ml)
Litan	7.5	7.2	3.0	16.9	10

5. Status of Water Quality of Wangjing River

Location	DO	pH	BOD Mg/L	COD Mg/L	Fical Coliform (MPN/100ml)
Heirok	7.4	7.2	3.6	17.2	35
Wangjing	7.9	7.2	3.3	13.4	45

6. Status of Water Quality of Khuga River

Location	DO	pH	BOD Mg/L	COD Mg/L	Fical Coliform (MPN/100ml)
Khuga River Churachandpur Bazar	7.6	7.1	3.2	8.9	50
Khuga Dam	7.7	7.1	2.9	11.7	10

7. Status of Water Quality of Khujairok River

Location	DO	pH	BOD Mg/L	COD Mg/L	Fical Coliform (MPN/100ml)
Khujairok	7.7	7.3	3.2	17.1	130

8. Status of (Bishnupur) Water Quality of Lokchao River

Location	DO	pH	BOD Mg/L	COD Mg/L	Fical Coliform (MPN/100ml)
Near Bishnupur Bazar at Bishnupur Lokchao Bridge	6.7	7.3	3.3	12.2	35

9. Status of Water Quality of Nambul River

Location	DO	pH	BOD Mg/L	COD Mg/L	Fical Coliform (MPN/100ml)
Samushang	5.1	7.0	4.6	9.7	105
Naoremthong	5.5	7.4	3.7	12.2	85
Hump Bridge	5.3	7.2	3.8	20.8	155
Heirangoithong	5.4	7.2	3.8	20.8	155
Singda	5.4	7.3	3.9	21.2	165



## Action Plan of the model river in Manipur

Action	Target Action	Priority – II : Nambul River		
		Target Quantity	Time Line	Status
<b>Action 1</b>	<b>Solid Waste Management</b>			
1.1	Identification of garbage vulnerable point	12 Municipal Wards	Oct 2019	Completed
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
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	60% completed
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	Covered 1 km
1.6	Renovation of existing crematoria along the river stretch	56 No.	Apr 2021	Completed 10 units
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 10 Nos.
1.8	Construction of Public toilets at vulnerable points	35 Nos. by IMC 20 Nos. under NRCD	Apr 2021	2 No. Completed
1.9	IEC / Public Awareness Activities	14 No. (one each in every ward)	Every month	Conducted regularly
<b>Action 2</b>	<b>Channelization, treatment, utilization and disposal of treated domestic sewage</b>			
2.1	Identification of location and estimation of liquid waste generation at Imphal town		Oct 2019	Completed
2.2	<b>Interception and diversion</b> 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	
2.3	<b>Treatment option and capacity :</b> Installation of 2 (two) Sewage Treatment Plants (STPs) of 16 MLD and 1 MLD		Apr 2022	
2.4	Commissioning of the Imphal Sewerage Project Phase-I of 27 MLD		Dec 2019	Commissioned
2.5	Commissioning of the Imphal Sewerage Project Phase-II of 41 MLD		Apr 2022	
<b>Action 3</b>	<b>Protection of catchment area</b>			
3.1	In-situ augmentation of medicinal plants and economic plantation at catchment			Completed
<b>Action 4</b>	<b>Protection and prevention of Flood Plain Zone</b>			
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	

Action	Target Action	Priority – II : Nambul River		
		Target Quantity	Time Line	Status
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	
4.3	CC/RCC Retaining Walls with and without piles to be provided at the most eroded and vulnerable river banks.		Before 2021	