

National Mission for Clean Ganga
Format for submission of Monthly Progress Report for the month of July 2021
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 October 2021

Overall status of the State:

| I. <u>Total Population:</u> | 2011 Census | Projected as on 2020 |
|------------------------------------|--------------------|-----------------------------|
| Urban Population | 8,34,154 | 10,47,135 |
| Rural Population | 17,36,236 | 21,79,541 |
| Total | 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
- Capacity Utilization of existing STPs : 13.13 MLD
- MLD of sewage being treated through alternate technology : NIL
- Gap in Treatment Capacity in MLD : 13.87 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 | 13.13 MLD | Operational (48.63%) | 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 | 85 % | NIL | 31.03. 2022 |
| 2 | Iroisemba, Imphal West | 1 MLD | 45 % | 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 | DPR sent to NDB for external funding. | --- |

III. Details of Industrial Pollution:

- No. of industries in the State : 1042 Nos.
972 outside Industrial Estate
70 inside Industrial Estate
- No. of water polluting industries in the State : 35 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

| Town | Existing ETP Capacity | CETP Proposed, if any | Status (DPR/ tendering/ under construction etc.) |
|--------|-----------------------|-----------------------|--|
| Imphal | 400 Kilo Litre / Day | Nil | Nil |

- 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) | Data not available | Nil | 1 (one) CETP of 400 Kilo Litre / Day at Nilakuthi Industrial Estate, Imphal Status : Non-functional The State Government has been requested for an amount of Rs. 1.77 crore as proposed by M/s MANIDCO be made available through excess authorization as no funds are available for the said works in BE 2021-22. |

IV. **Solid Waste Management:**

- Total Urban Local Bodies (ULBs) : 27 ULBs
- Population of ULBs : 6,15,344 (2011 Census)
: 7,92,734 (2020 projected population)
- Current Municipal Solid Waste Generation : 309 MT
(as on 2020 projected population)
- Waste Collected : 181 TPD
- Existing Management / treatment facility : 113 TPD
- Utilization of MSW processing : 110 TPD
- Segregated Waste landfilled / dumped : 0 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 | IMC / Municipal Solid waste Management Plant, Lamdeng, Imphal | 100 | 90 | Waste to Energy and Composting | <ul style="list-style-type: none"> · 100% D2D by Dec 2021 Waste to energy by Dec. 2021 |
| 2 | Lamshang NP | | 2 | Home composting and waste to power and waste to manure at Lamdeng SWM Plant | <ul style="list-style-type: none"> · Vigorous IEC campaign and implementation of stringent rules or bye-laws. Gap is unusually high due to ongoing Covid containment and other Covid related hindrances. |
| 3 | Samurou MC | | 2.8 | Segregation cum transfer station | <ul style="list-style-type: none"> · 100% D2D by Dec 2021 presently collected after segregation of recyclable plastic waste is being transferred to lamdeng SWM plant. Increase in awareness. Increase in Manpower and vehicles. Allotment of permanent land for management of solid waste is proposed to DC |
| 4 | Thongkhong Laxmi MC | | 2.65 | Segregation cum transfer shed/station | <ul style="list-style-type: none"> · 100% D2D by Dec 2021 · More Awareness campaign · capacity building of manpower · By acquiring a permanent sanitary landfill/SWM site (ULB has requested vide letter of even No. dated 18.05.2019 & 02.08.2021 to allocate a suitable SWM site for the ULB but yet to be allocated till now) |

| 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 |
|----|---------------------------------|-----------------------------|----------------------|--|---|
| 5 | Sekmai NP | 1 | 1.3 | <ul style="list-style-type: none"> Home Composting is predominant in all wards Composting at Segregation Shed , Parao Dry Waste disposed off at Lamdeng SWM Plant | <ul style="list-style-type: none"> QR Code system to be installed at all registered household from Nov 2021 for better monitoring Segregated wet waste composted centrally at Segregation shed, Parao, Sekmai Wet waste managed at source in all residential areas Dry waste from household and public places disposed off at Lamdeng SWM Plant on daily basis. |
| 6 | Lilong IW MC | | 0 | Composting | <ul style="list-style-type: none"> Distribution of home composting bins, more vehicles and manpower by Dec 2021 Cluster basis facilities at Lamdeng SWM Plant |
| 7 | Lamlai MC | 0 | 0.8 | Composting (Home +Centralised) | <ul style="list-style-type: none"> Treatment facilities at Lamdeng Waste to energy Plant (Cluster Approach) |
| 8 | Thoubal MC / Thoubal SWM Plant | 2 | 0.5 | Segregation and composting | <ul style="list-style-type: none"> 100% D2D by August 2022 Hiring of Staffs for segregation and composting |
| 9 | Yairipok MC | | 0 | Composting | <ul style="list-style-type: none"> 67% D2D at present and 100% D2D by Dec 2021 Segregation shed & composting unit by Dec 2021 Treatment Facility at Thoubal Cluster |
| 10 | Sikhong Sekmai MC | | 0.8 | Home Composting, Segregated plastic waste sent to recycler | <ul style="list-style-type: none"> 100% D2D by Dec 2021 Treatment facilities at Thoubal cluster |
| 11 | Lilong Thoubal | | 0 | Composting | <ul style="list-style-type: none"> 100% D2D and Composting Unit by Dec. 2021 Treatment facilities at Thoubal cluster |
| 12 | Heirok NP | | 0.2 | Transfer and Segregation Station and Composting | <ul style="list-style-type: none"> 100% D2D by Dec 2021 More composting unit by Dec 2021 |
| 13 | Wangjing Landing MC | | 0.5 | Segregation and transfer station | <ul style="list-style-type: none"> 100% D2D and more composting unit by Dec 2021 |
| 14 | Andro MC | | 0.5 | Composting, Segregation and Recycling | <ul style="list-style-type: none"> 100% D2D by Dec 2021 and transport of remaining segregated waste to Thoubal Cluster engagement of Recyclers. |
| 15 | Kakching MC/ Kakching SWM Plant | | 6 | 2.3 | Composting & manual segregation of waste |
| 16 | Kakching Khunou MC | 0.5 | | Composting segregation & Recycling | <ul style="list-style-type: none"> 100% D2D by Dec 2021 and transport of remaining segregated waste to kakching cluster by Dec.2021. Engagement of recyclers |
| 17 | Sugnu MC | 0.5 | | Composting, Segregation & Recycling | <ul style="list-style-type: none"> 100% D2D by Dec 2021 and transport of remaining segregated waste to kakching cluster Engagement of recyclers |
| 18 | Mayang Imphal MC | 0 | 0 | Segregated plastic waste sent to recycler Home Composting | <ul style="list-style-type: none"> 100% D2D by Dec 2021 composting plant targeted by Dec 2021 Segregation shed to be operational by Dec 2021. |
| 19 | Wangoi MC | 0 | 0 | Composting | 0 |

| 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 |
|----|-----------------------------|-----------------------------|----------------------|--|--|
| 20 | Kumbi MC | 0 | 1.5 | Composting | <ul style="list-style-type: none"> · Now 70% D2D and 100% D2D by June 2021 · Land Available 0.27 Acre, · Composting Plant by Dec 2021 |
| 21 | Kwakta MC | 0 | 0 | Composting | <ul style="list-style-type: none"> · Composting unit, by Dec 2021 |
| 22 | Moirang MC | 0 | 0 | Composting | <ul style="list-style-type: none"> · Segregation at shed by Sept 2021 Composting plant by Oct 2021 -Competed. Ready for commissioning. -IEC Campaign to be organised for proper and 100% Source Segregation. |
| 23 | Ningthoukhong MC | 0 | 0.2 | Composting & sent back for re-cycling | <ul style="list-style-type: none"> · 100% D2D by Dec 2021 · Composting unit, by Dec 2021 |
| 24 | Bishnupur MC | 0 | 0 | Sanitary Landfill | <ul style="list-style-type: none"> · 80% D2D (present) and 100% D2D by Dec 2021 Exist 10 TPD capacity of landfill |
| 25 | Oinam MC | 0 | 0 | Composting | <ul style="list-style-type: none"> · Composting plant by December 2021 |
| 26 | Nambol MC | 0 | 0 | Composting pit delayed due to ongoing Covid 2nd wave. Manual Segregation initiated at the segregation shed | <ul style="list-style-type: none"> · 100% D2D by Dec 2021 · Manual Segregation initiated at the segregation shed. |
| 27 | Jiribam MC | 4 | 2.83 | Composting, Send back for recycling | Nil |
| | Total | 113 | 109 | | |

| | |
|---|--|
| <ul style="list-style-type: none"> • 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 |
| <ul style="list-style-type: none"> • No. and capacity of C&D waste processing plants in TPD (existing, proposed and under construction) | Existing – Nil Proposed – 5TPD |
| <ul style="list-style-type: none"> • Total No. of wards | 305 Wards |
| <ul style="list-style-type: none"> • No. of wards having door to door collection service | 288 Wards |
| <ul style="list-style-type: none"> • No. of wards practicing segregation at source | 223 Wards |

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

| SN | Name of ULB or Processing unit | Capacity | Technology | Proposed / under Construction |
|----|---|----------|--|-------------------------------|
| 1 | Annexed at Table-3 | | | |
| | <ul style="list-style-type: none"> • No. and area (in acres) of uncontrolled garbage dumpsites and Sanitary Landfills | | <ul style="list-style-type: none"> • 12 (twelve) uncontrolled dumpsite of 11 ULBs. / Annexure-table 3 | |
| | <ul style="list-style-type: none"> • No. and area (in acres) of legacy waste within 1km buffer of both side of the rivers | | Nil | |
| | <ul style="list-style-type: none"> • No. of drains falling into rivers and no. of drains having floating racks/screens installed to prevent solid waste from falling into the rivers | | <ul style="list-style-type: none"> • No data | |
| | <ul style="list-style-type: none"> • Status of ULB wise Management of Solid waste | | At Annexure – 3 [Table -1, 2 and 3] | |

V. Bio-medical Waste Management:

| | | | |
|---|---|---|---|
| Total Bio-medical generation | : | 0.67 TPD | Remarks : <ul style="list-style-type: none"> • Deep burial practiced at remote rural areas. • DPR submitted to the Ministry for up-gradation of the existing CBMWTF • Action Plan submitted to the State Pollution Control Board by the Directorate Health Services for BMW Management |
| No. of Hospitals and Health Care Facilities | : | 534 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 ETPs | : | 12 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 | : | <ul style="list-style-type: none"> • Joint survey was conducted and the report was submitted in January, 2020 • Completed |
| X. Details of Nodal Officer appointed by Chief Secretary in the State / UT | : | i. Shri M.H. Khan Additional Chief Secretary Forest and Environment |

| | | |
|-------|---|---|
| | | <p>Govt. of Manipur as Chairman, State level Monitoring Mechanism</p> <p>ii. Dr. T. Brajakumar Singh Joint Director, Directorate of Environment and Climate Change as Nodal Officer for appearing / VC / submission / compiling of reports before NGT/CPCB/CMC</p> <p>iii. Dr. W. Roshan Singh Executive Engineer Manipur Pollution Control Board</p> |
| XI. | Details of meetings carried under the in the State/UT | <p>: • Last meeting under Chairmanship Chief of Secretary, Govt. of Manipur was held on 15th July 2021</p> <p>• Once or twice in every month by Chief Secretary or Addl. Chief Secretary (Forest and Environment), Govt. of Manipur</p> |
| XII. | Latest water quality of polluted river, its tributaries, drains with flow details and ground water quality in the catchment of polluted river | : At Annexure – 4 |
| XIII. | Ground water regulation | : Nil |
| XIV. | Good irrigation practices being adopted by the State | <p>: i. Irrigation from Barrages and Dams through Canals</p> <p>ii. Loktak Lift Irrigation through open canals</p> <p>iii. River Lift Irrigation schemes by Minor Irrigation Deptt.</p> <p>iv. Ground water Irrigation schemes through tube wells and dug wells by Minor Irrigation Dept.</p> <p>v. Surface Minor Irrigation</p> |

| | | |
|---|---|--|
| | | through Canals |
| XV. Rain Water Harvesting | : | Nil |
| XVI. Demarcation of Floodplain and removal of illegal encroachments | : | <ul style="list-style-type: none"> i. The Manipur Flood Plain Zoning Act, 1987 has been enacted for zoning of flood plains of rivers in the State of Manipur 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.) iii. Eviction and removal of illegal encroachments is being carried out from time to time. iv. Eviction along rivers in Imphal East & West was initiated in January, 2021. It is kept on hold due to Covid 19 pandemic. |
| XVII. Maintaining minimum e-flow of river | : | <ul style="list-style-type: none"> i. Water is released from the Dams and reservoirs from time to time to maintain e-flow of various rivers in the state. ii. For other rivers without reservoir or dam, no activities are taken up in the upper catchment for maintenance of e-flow as it is beyond the scope of Flood Division, WRD iii. Planted trees at 2904.98 ha area in the catchment of 9 (nine) polluted river stretches |
| XVIII. Plantation activities along the rivers | : | No plantations taken up on the river banks of the 9 (nine) until |

| | | |
|---|---|---|
| | | the time reported upon |
| XXIX. Development of biodiversity park | : | No biodiversity parks have been developed so far. However, there are plans to develop such parks in the future as part of Forest Clearance proposals of different projects |
| XX. Reuse of Treated Water | : | Nil |
| XXI. Model River being adopted by the State & Action Proposed for achieving the bathing quality standards | : | Nambul River (Priority – II) Targeted Action for achieving the bathing quality standards as at Annexure - 5 |
| XXII. Status of Preparation of Action Plan by the 13 Coastal States | : | NA |
| XXIII. Regulation of Mining Activities in the State / UT | : | <p>i. Final DSR for 9 (nine) districts namely (i) Imphal West (ii) Imphal East (iii) Chandel (iv) Churachandpur (v) Thoubal (vi) Kangpokpi (vii) Bishnupur have been submitted to Trade, Commerce & Industries for onward submission to SEIAA (State Level Environment Impact Assessment Authority);</p> <p>ii. Details for preparation of DSR for the remaining 7 (seven) districts were sought from all the DC. Senapati & Ukhul DCs have submitted the details and draft DSR is being prepared</p> |
| 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 20th July 2021)

| Particular | Unit | Phase I | Phase II | Ongoing NRCD Project | Total |
|-------------------------------------|---------|----------|----------|----------------------|----------|
| Capacity of STP | MLD | 27 | 49 | 17 | 93 |
| Capacity of STP Utilized | MLD | 13.13 | | | 13.13 |
| 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 | 4,650 | | | 4,650 |
| 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 12000 Nos. to 9,564 because 2,436 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 km sewer pipeline [25,291 km primary lines, 44.14 km secondary lines]
- Total target connection is 9,564 house holds
- Incremental status of utilization for 27 MLD at Lamphel Pat, Imphal West

| | Dec 2020 | Jan 2021 | Feb 2021 | Mar 2021 | Apr 2021 | May 2021 | Jun 2021 | Jul 2021 | Aug 2021 | Sep 2021 | Oct 2021 | Cumulative as on 20 July 2021 | Gap |
|----------------------------|----------|----------|----------|-----------|-----------|-----------|-----------|-----------|-----------|-----------|-----------|-------------------------------|-----------|
| Household Connected | 4000 | 250 | 250 | 60 | 10 | 30 | 0 | 0 | 0 | 0 | 0 | 4600 | 7400 |
| Utilization in MLD | 9 MLD | 9.5 MLD | 10 MLD | 10.26 MLD | 10.28 MLD | 10.35 MLD | 10.35 MLD | 10.35 MLD | 10.35 MLD | 10.35 MLD | 13.13 MLD | 13.35 MLD | 13.87 MLD |
| Utilization in % | 33% | 35% | 38% | 38% | 38% | 38% | 38% | 38% | 38% | 38% | 49% | 48.63% | 61.7% |

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 | 3.4 – 6.4 | 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 18 th September 2021. |
| 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 (20th October 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 | 13.13 MLD | ASP | | 7.4 | 23 | 41 | 8 |

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.

| Sl No. | Name of unit | NearestRiver | 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 | NearestRiver | Proprietor | Name of Products |
|---------------|--|---------------------|----------------------------|-------------------------|
| 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 |
| 4 | Thangjam Agro Industries Private Limited | Imphal | Thangjam Joykumar Singh | Bakery |

| TABLE 1 : SOLID WASTES GENERATION, COLLECTION AND MANAGEMENT - ULB WISE IN MANIPUR, OCTOBER 2021 | | | | | | | | | | | | | |
|--|---------------------|-------------|----------------|-----------------------------|-----------------------|---|--------------------------|-------------------|---------------------|-------|-----|--|--|
| No. | Name of ULB | Population | | Solid Waste Generated (MTD) | Waste Collected (TPD) | Gap between Generated and Collected + Managed at source | Managed/Treated (in TPD) | | | | | Gen-Man Gap= [(Gen-Man)/ Gen] x100 | 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 | | | |
| 1 | Imphal MC* | 2,65,573 | 3,50,050 | 157.5 | 115 | 26.7 | 100 | 90 | 15.8 | 105.8 | 33% | <ul style="list-style-type: none"> 100% D2D by Dec 2021 Waste to energy by December 2021 | |
| 2 | Lamshang NP | 8,130 | 9813 | 3.43 | 2 | 1 | 0 | 2 | 0.43 | 2.43 | 29% | <ul style="list-style-type: none"> Vigorous IEC campaign and implementation of stringent rules or bye-laws Gap is unusually high due to ongoing Covid containment and other Covid related hindrances | |
| 3 | Samurou MC | 14818 | 18602 | 6.51 | 2.8 | 1.91 | 0 | 2.8 | 1.8 | 4.6 | 29% | <ul style="list-style-type: none"> 100% D2D by Dec 2021 presently collected after segregation of recyclable plastic waste is being transferred to lamdeng SWM plant. Increase in awareness. Increase in Manpower and vehicles. Allotment of permanent land for management of solid waste is proposed to DC | |
| 4 | Thongkhong Laxmi MC | 14,878 | 18,677 | 6.54 | 2.65 | 2.09 | 0 | 2.65 | 1.8 | 4.45 | 32% | <ul style="list-style-type: none"> 100% D2D by Dec 2021 More Awareness campaign capacity building of manpower By acquiring a permanent sanitary landfill/SWM site (ULB has requested vide letter of even No. dated 18.05.2019 & 02.08.2021 to allocate a suitable SWM site for the ULB but yet to be allocated till now) | |

| | | | | | | | | | | | | |
|----|---------------------|--------|--------|-------|------|------|---|-----|------|------|-----|---|
| 5 | Sekmai NP | 5,065 | 6,358 | 2.23 | 1.8 | 0.23 | 1 | 1.3 | 0.2 | 1.5 | 33% | <ul style="list-style-type: none"> · QR Code system to be installed at all registered household from Nov 2021 for better monitoring · Segregated wet waste composted centrally at Segregation shed, Parao, Sekmai · Wet waste managed at source in all residential areas · Dry waste from household and public places disposed off at Lamdeng SWM Plant on daily basis. |
| 6 | Lilong IW MC | 12,427 | 15,600 | 5.46 | 1.5 | 1.96 | 0 | 0 | 2 | 2 | 63% | <ul style="list-style-type: none"> · Distribution of home composting bins, more vehicles and manpower by Dec 2021 · Cluster basis facilities at Lamdeng SWM Plant |
| 7 | Lamlai MC | 4,601 | 5,776 | 2.02 | 1 | 0.02 | 0 | 0.8 | 1 | 1.8 | 11% | <ul style="list-style-type: none"> · Treatment facilities at Lamdeng Waste to energy Plant (Cluster Approach) |
| 8 | Thoubal MC | 45,947 | 57,678 | 20.19 | 9 | 7.19 | 2 | 0.5 | 4 | 4.5 | 78% | <ul style="list-style-type: none"> · 100% D2D by August 2022 · Hiring of Staffs for segregation and composting |
| 9 | Yairipok MC | 9,569 | 12,012 | 4.2 | 2 | 1.3 | 0 | 0 | 0.9 | 0.9 | 79% | <ul style="list-style-type: none"> · 67% D2D at present and 100% D2D by Dec 2021 · Segregation shed & composting unit by Dec 2021 · Treatment Facility at Thoubal Cluster |
| 10 | Sikhong Sekmai MC | 7,390 | 9,277 | 3.25 | 0.8 | 0.17 | 0 | 0.8 | 2.28 | 3.08 | 5% | <ul style="list-style-type: none"> · 100% D2D by Dec 2021 · Treatment facilities at Thoubal cluster |
| 11 | Lilong TBL | 24,900 | 31,258 | 10.94 | 2 | 5.74 | 0 | 0 | 3.2 | 3.2 | 71% | <ul style="list-style-type: none"> · 100% D2D and Composting Unit by Dec. 2021 · Treatment facilities at Thoubal cluster |
| 12 | Heirop NP | 2,974 | 3,733 | 1.31 | 0.6 | 0.41 | 0 | 0.2 | 0.3 | 0.5 | 62% | <ul style="list-style-type: none"> · 100% D2D by Dec 2021 · More composting unit by Dec 2021 |
| 13 | Wangjing Lamding MC | 8,055 | 10,112 | 3.54 | 1.5 | 1.34 | 0 | 0.5 | 0.7 | 1.2 | 66% | <ul style="list-style-type: none"> · 100% D2D and more composting unit by Dec 2021 |
| 14 | Andro NP | 8,744 | 10,977 | 3.84 | 1.2 | 0.44 | 0 | 0.5 | 2.2 | 2.7 | 30% | <ul style="list-style-type: none"> · 100% D2D by Dec 2021 and transport of remaining segregated waste to Thoubal Cluster · engagement of Recyclers. |
| 15 | Kakching MC | 32,138 | 40,344 | 14.1 | 6.21 | 5.29 | 6 | 2.3 | 2.6 | 4.9 | 65% | <ul style="list-style-type: none"> · Purchase of 4 TATA 407; · Engagement of recyclers · IEC activities and Behavioral changes |
| 16 | Kakching Khunou MC | 11,379 | 14,284 | 5 | 1.6 | 0.7 | 0 | 0.5 | 2.7 | 3.2 | 36% | <ul style="list-style-type: none"> · 100% D2D by Dec 2021 and transport of remaining segregated waste to kakching cluster by Dec.2021. · Engagement of recyclers |

| | | | | | | | | | | | | |
|---|------------------|-----------------|-----------------|------------|------------|--------------|------------|------------|-------------|---------------|------------|---|
| 17 | Sugnu MC | 5,132 | 6,442 | 2.25 | 1 | 0.15 | 0 | 0.5 | 1.1 | 1.6 | 29% | <ul style="list-style-type: none"> · 100% D2D by Dec 2021 and transport of remaining segregated waste to kakching cluster Engagement of recyclers |
| 18 | Mayang Imphal MC | 24,239 | 34,428 | 10.65 | 4 | 5.65 | 0 | 0 | 1 | 1 | 91% | <ul style="list-style-type: none"> · 100% D2D by Dec 2021 · composting plant targeted by Dec 2021 · Segregation shed to be operational by Dec 2021. |
| 19 | Wangoi MC | 9,106 | 11,431 | 4 | 1.1 | 1.4 | 0 | 0 | 1.5 | 1.5 | 63% | |
| 20 | Kumbi MC | 9,546 | 11,983 | 4.19 | 1.5 | 0.19 | 0 | 1.5 | 2.5 | 4 | 5% | <ul style="list-style-type: none"> · Now 70% D2D and 100% D2D by June 2021 · Land Available 0.27 Acre, · Composting Plant by Dec 2021 |
| 21 | Kwakta MC | 8,579 | 10,769 | 2.94 | 1.28 | 0.32 | 0 | 0 | 1.34 | 1.34 | 54% | <ul style="list-style-type: none"> · Composting unit, by Dec 2021 |
| 22 | Moirang MC | 19,893 | 24,972 | 8.74 | 6.54 | 1 | 0 | 0 | 1.2 | 1.2 | 86% | <ul style="list-style-type: none"> · Segregation at shed by Sept 2021 Composting plant by Oct 2021 -Completed. Ready for commissioning. -IEC Campaign to be organised for proper and 100% Source Segregation. |
| 23 | Ningthoukhong MC | 13,078 | 16,417 | 4.75 | 2 | 0.5 | 0 | 0.2 | 2.25 | 2.45 | 48% | <ul style="list-style-type: none"> · 100% D2D by Dec 2021 · Composting unit, by Dec 2021 |
| 24 | Bishnupur MC | 12,167 | 15,274 | 5.35 | 3 | 1.55 | 0 | 0 | 0.8 | 0.8 | 85% | <ul style="list-style-type: none"> · 80% D2D (present) and 100% D2D by Dec 2021 Exist 10 TPD capacity of landfill |
| 25 | Oinam MC | 7,161 | 8,989 | 3.15 | 2 | 0.85 | 0 | 0 | 0.3 | 0.3 | 90% | <ul style="list-style-type: none"> · Composting plant by December 2021 |
| 26 | Nambol MC | 22,512 | 28,260 | 9.89 | 4 | 4.89 | 0 | 0 | 1 | 1 | 90% | <ul style="list-style-type: none"> · 100% D2D by Dec 2021 · Manual Segregation initiated at the segregation shed. |
| 27 | Jiribam MC* | 7,343 | 9,218 | 3.23 | 2.83 | 0 | 4 | 2.83 | 0.4 | 3.23 | 0% | Nil |
| Total | | 6,15,344 | 7,92,734 | 309 | 181 | 72.99 | 113 | 110 | 55.3 | 165.18 | | |
| PC to the generated wastes | | | | | 59% | 24% | 37% | 36% | 18% | 53% | 47% | |
| <p>Note : *1. Taking r=2.3 as annual Population growth rate [Ref : MoUD, Gol] *2. Waste generated is estimated including floating population @10%</p> | | | | | | | | | | | | |

| TABLE 2 : SOLID WASTES GENERATION, COLLECTION AND MANAGEMENT – WARDWISE OF ULBs IN MANIPUR, OCTOBER 2021 | | | | | | | | | |
|--|------------------------|-------------|-------------------------------|------|----------------------|------|------------------------|---|--|
| 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 | 10% | | Waste to Energy and Composting | 100% by Dec 2021 |
| 2 | Lamshang NP | 9 | 9 | 80% | 9 | 70% | 0 | Home composting and waste to power and waste to manure at Lamdeng SWM Plant | <ul style="list-style-type: none"> Vigorous IEC campaign and implementation of stringent rules or bye-laws. D2D will be 100% implemented once Covid restriction is reduced and hindrance is solved |
| 3 | Samurou MC | 11 | 11 | 51% | 11 | 28% | 0 | Segregation cum transfer station | <ul style="list-style-type: none"> 100% D2D by Dec 2021 presently collected after segregation of recyclable plastic waste is being transferred to lamdeng SWM plant Increase in awareness. Increase in Manpower and vehicles. Allotment of permanent land for management of solid waste is proposed to DC |
| 4 | Thongkhong Laxmi MC | 11 | 11 | 65% | 11 | 25% | 0 | Segregation cum transfer shed/station | <ul style="list-style-type: none"> 100% D2D by Dec 2021 More Awareness campaign capacity building of manpower By acquiring a permanent sanitary landfill/SWM site (ULB has requested vide letter of even No. dated 18.05.2019 & 02.08.2021 to allocate a suitable SWM site for the ULB but yet to be allocated) |
| 5 | Sekmai Nagar Panchayat | 9 | 9 | 100% | 2 | N/A | 0 | <ul style="list-style-type: none"> Home Composting is predominant in all wards Composting at Segregation Shed , Parao Mixed/ Dry Waste disposed at Lamdeng SWM Plant | <ul style="list-style-type: none"> even though D2D collection coverage is 100% in all wards, household registering for the same needs improvement. Plan is to increase registration of households for D2D |

| | | | | | | | | | |
|----|---------------------|----|----|------|----|-------|------|--|---|
| 6 | Lilong IW NP | 9 | 9 | 80% | 8 | 80% | 0 | Composting | <ul style="list-style-type: none"> More composting unit by Dec 2021 Plastic shredders machine and engagement of recyclers by Dec 2021 |
| 7 | Lamlai MC | 9 | 9 | 100% | 9 | 75% | 0 | Composting (Home +Centralised) | Treatment facilities at Lamdeng Waste to energy Plant (Cluster Approach) |
| 8 | Thoubal MC | 18 | 18 | 71% | 18 | 20% | 6.7 | Segregation and composting | Collection to be done through NGOs AND SHGs |
| 9 | Yairipok MC | 9 | 6 | 67% | 3 | 20% | 0 | Composting | <ul style="list-style-type: none"> 100% D2D by Dec 2021 Segregation shed & composting unit by Dec 2021 Capacity building of manpower Awareness Drive |
| 10 | Sikhong Sekmai MC | 9 | 9 | 94% | 9 | 94.0% | 0.62 | Home Composting, Segregated plastic waste sent to recycler | Composting Unit by Dec. 2021. Treatment facilities at Thoubal Cluster |
| 11 | Lilong TBL | 9 | 6 | 60% | 6 | 66% | 0 | Composting | More composting Unit by Dec. 2021. Plastic Shreders machine, Engagement of recyclers by Dec. 2021 |
| 12 | Heiropk NP | 9 | 9 | 100% | 3 | 15% | 0 | Transfer and Segregation Station and Composting | More composting unit by December 2021 |
| 13 | Wangjing Lamding MC | 9 | 9 | 100% | 9 | 25% | 0 | Segregation and transfer station | More composting unit by Dec 2021 |
| 14 | Andro NP | 12 | 12 | 90% | 12 | 80% | 0 | Composting, Segregation and Recycling | <ul style="list-style-type: none"> 100% D2D by December 2021 and transport of remaining segregated waste to Thoubal Cluster. Engagement of Recyclers. |
| 15 | Kakching MC | 12 | 12 | 100% | 12 | 100% | 5 | Composting & manual segregation of waste | Engagement of SHGs Construction of another segregation shed and aerobic composting unit |
| 16 | Kakching Khunou MC | 9 | 9 | 90% | 9 | 80% | 0 | Composting segregation & Recycling | <ul style="list-style-type: none"> 100% D2D by Dec 2021 and trasport of remaining segregated wasted to kakching cluster. Engagement of recyclers |
| 17 | Sugnu MC | 9 | 9 | 90% | 9 | 80% | 0 | Composting, Segregation & Recycling | <ul style="list-style-type: none"> 100% D2D by October 2021 and transport of remaining segregated wasted to kakching cluster Engagement of recyclers |

| | | | | | | | | | |
|----------------------|------------------|-----|-----|------|-----|------|--------|--|---|
| 18 | Mayang Imphal MC | 13 | 13 | 50% | 7 | 40% | 1.25 | Segregated plastic waste sent to recycler Home Composting | Segregation shed & composting unit by Dec 2021 IEC Activities Increasing vehicles/ Machineries Involvement of SHGs in D2D collection |
| 19 | Wangoi MC | 9 | 5 | 50% | 5 | 50% | 0 | Composting | More composting unit by December 2021 |
| 20 | Kumbi MC | 9 | 9 | | 9 | 35% | 0.27 | Composting | |
| 21 | Kwakta MC | 9 | 9 | 100% | 9 | 44% | 0.625 | Composting | Composting unit by Dec 2021 |
| 22 | Moirang MC | 12 | 12 | 93% | 0 | 0% | 0 | Composting | Requested DC to allot land. Regorous IEC campaign to be held for source segregation |
| 23 | Ningthoukhong MC | 14 | 14 | 57% | 6 | 60% | 1.31 | Composting & sent back for re-cycling | Completion of composting Unit by Dec 2021 |
| 24 | Bishnupur MC | 12 | 12 | 81% | 12 | 26% | 5 | Sanitary Landfill | Composting plant at 2.5 Acre |
| 25 | Oinam MC | 9 | 9 | 100% | 1 | 5% | 0 | Composting | 100% by Dec 2021 |
| 26 | Nambol MC | 18 | 11 | 27% | 0 | 0% | 3.5 | Composting pit delayed due to ongoing Covid 2nd wave. Manual Segregation initiated at the segregation shed | Capacity building of sanitary Workers . Increasing manpower, vehicles and machinery. . Awareness drive . Involvement of SHGs and active participation of CSOs in SWM |
| 27 | Jiribam MC | 10 | 10 | 100% | 10 | 100% | 6.02 | Composting, Send back for recycling | Nil |
| Total | | 305 | 288 | | 223 | | 29.675 | | |
| In Percentage | | | | 94% | | 73% | | | |

| Table-3 : SOLID WASTES Processing AND MANAGEMENT – WARDWISE OF ULBs IN MANIPUR, OCTOBER 2021 | | | | | | | | | |
|--|--|------------------------------------|---|-----------------------|-------------|--|-------------|--|--|
| SI No. | Name of ULB or Name of Processing Unit | Processing unit Under Construction | | Uncontrolled Dumpsite | | Sanitary Landfill/ Controlled Dumpsite | | 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) | | |
| 1 | Imphal MC and Lamdeng SWM Plant | 100 | Composting & Waste to Energy plant | Nil | Nil | Nil | Nil | Nil | Nil |
| 2 | Lamshang NP | NA | Composting and manual segregation of waste. Waste to power and waste to manure at lamdeng SWM plant | Nil | Nil | Nil | Nil | Nil | Nil |
| 3 | Samurou MC | 0.5 | Segregation cum transfer station | Nil | Nil | Nil | Nil | Nil | Nil |
| 4 | Thongkhong Laxmi MC | 0.5 | Segregation cum transfer station | Nil | Nil | Nil | Nil | Nil | Nil |
| 5 | Sekmai NP | 5.1 | Aerobic, Composting and composting started at the Segregation shed. | 0 | 0 | Nil | Nil | Nil | Nil |
| 6 | Lilong IW NP | 0.5 | Manual segregation, composting | Nil | Nil | Nil | Nil | Nil | Nil |
| 7 | Lamlai MC | 0.15 | Composting and manual segregation of waste at the Lamlai Municipal Council Office (temporary plant) | Nil | Nil | Nil | Nil | Nil | Nil |
| 8 | Thoubal MC | 2 | Manual | 1 | 2 | Nil | Nil | Nil | Nil |
| 9 | Yairipok MC | 1 | Composting and manual segregation of waste | Nil | Nil | Nil | Nil | Nil | Nil |
| 10 | Sikhong Sekmai MC | 0.03 | Composting pit/ aerobic | Nil | Nil | Nil | Nil | Nil | Nil |
| 11 | Lilong TBL | 0.5 | Composting and manual segregation of waste | Nil | Nil | Nil | Nil | Nil | Nil |
| 12 | Heirok NP | 0.2 | composting pit | Nil | Nil | Nil | Nil | Nil | Nil |

| | | | | | | | | | |
|----|---|------|---|-----|------|-----|-----|-----|-----|
| 13 | Wangjing Lamding MC | 0.3 | composting pit | Nil | Nil | Nil | Nil | Nil | Nil |
| 14 | Andro NP | 0.07 | Manual segregation & composting | 1 | 0.96 | Nil | Nil | Nil | Nil |
| 15 | Kakching MC | 2 | Manual Segregation of waste & Aerobic composting | 2 | 4.5 | Nil | Nil | Nil | Nil |
| 16 | Kakching Khunou MC | 0.07 | Manual segregation, composting | 1 | 2 | Nil | Nil | Nil | Nil |
| 17 | Sugnu MC | 0.05 | Manual segregation, composting | 1 | 1 | Nil | Nil | Nil | Nil |
| 18 | Mayang Imphal MC | 4 | Manual segregation of waste & composting | Nil | Nil | Nil | Nil | Nil | Nil |
| 19 | Wangoi MC | 0 | Nil | Nil | Nil | Nil | Nil | Nil | Nil |
| 20 | Kumbi MC | 2 | composting pit | 1 | 0.27 | Nil | Nil | Nil | Nil |
| 21 | Kwakta MC | 0.25 | composting pit | Nil | Nil | Nil | Nil | Nil | Nil |
| 22 | Moirang MC | 6 | Segregation (5), Composting (1) and recovery of reusable wastes | 1 | 2.5 | Nil | Nil | Nil | Nil |
| 23 | Ningthoukhong MC | 0.6 | Aerobic, composting and Segregation and recovery of reusable wastes | 1 | 1.31 | Nil | Nil | Nil | Nil |
| 24 | Bishnupur MC, Multi-Segregation shed at Chothe Village, Ward No. 12 | 5 | Anaerobic | 1 | 2.5 | 1 | 2.5 | Nil | Nil |
| 25 | Oinam MC | 1 | composting | 1 | 0.4 | Nil | Nil | Nil | Nil |
| 26 | Nambol MC | 0.1 | Manual Segregation, Aerobic and vermi-composting | 1 | 3.21 | Nil | Nil | Nil | Nil |

| | | | | | | | | | |
|----|-------------|--------|---|-----|-------|---|------|-----|---|
| 27 | Jiribam MC* | 0 | Manual segregation, Pit composting & Windrow Composting & MRF | Nil | Nil | 1 | 1.72 | Nil | 1 |
| | Total | 131.92 | | 12 | 20.65 | 2 | 4.22 | | 1 |

STATUS OF WATER QUALITY OF POLLUTED RIVERS

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 September will get on 1-10th October. Therefore, Water Quality Report for August will be reproduced in the MPR of September.

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 AUGUST, 2021

1. Imphal River

| Location | DO | pH | BOD mg/L | COD mg/L | Fecal Coliform (MPN/100ml) |
|------------|-----|-----|----------|----------|----------------------------|
| Koirengei | 7.3 | 7.4 | 2.9 | 5.6 | 60 |
| Minutrhong | 7.5 | 7.5 | 3.0 | 7.9 | 65 |
| Mahabali | 7.3 | 7.6 | 3.1 | 6.8 | 60 |

2. Iril River

| Location | DO | pH | BOD mg/L | COD mg/L | Fecal Coliform (MPN/100ml) |
|---------------|-----|-----|----------|----------|----------------------------|
| Kangla Siphai | 7.5 | 7.7 | 2.9 | 7.9 | 45 |
| Porompat | 7.5 | 7.6 | 3.0 | 7.6 | 50 |
| Lilong | 7.3 | 7.5 | 3.1 | 8.8 | 65 |

3. Manipur River

| Location | DO | pH | BOD mg/L | COD mg/L | Fecal Coliform (MPN/100ml) |
|------------|-----|-----|----------|----------|----------------------------|
| Yairipok | 7.4 | 7.4 | 3.2 | 8.2 | 50 |
| Sekmaijing | 7.5 | 7.5 | 3.2 | 8.1 | 70 |
| lthai | 7.3 | 7.4 | 3.1 | 10.2 | 70 |

4. Thoubal River

| Location | DO | pH | BOD mg/L | COD mg/L | Fecal Coliform (MPN/100ml) |
|----------|-----|-----|----------|----------|----------------------------|
| Litan | 7.6 | 7.7 | 2.7 | 8.3 | 20 |

5. Wangjing River

| Location | DO | pH | BOD mg/L | COD mg/L | Fecal Coliform (MPN/100ml) |
|----------|-----|-----|----------|----------|----------------------------|
| Heirok | 7.4 | 7.4 | 3.1 | 8.4 | 45 |
| Wangjing | 7.3 | 7.3 | 3.2 | 9.7 | 70 |

6. Khuga River

| Location | DO | pH | BOD mg/L | COD mg/L | Fecal Coliform (MPN/100ml) |
|---------------------|-----|-----|----------|----------|----------------------------|
| Churachandpur Bazar | 7.4 | 7.3 | 3.1 | 8.7 | 75 |
| Khuga Dam | 7.3 | 7.5 | 3.0 | 8.4 | 20 |

7. Khujairok River

| Location | DO | pH | BOD mg/L | COD mg/L | Fecal Coliform (MPN/100ml) |
|-----------|-----|-----|----------|----------|----------------------------|
| Khujairok | 7.4 | 7.3 | 3.3 | 9.8 | 150 |

8. Lokchao River, Bishnupur

| Location | DO | pH | BOD mg/L | COD mg/L | Fecal Coliform (MPN/100ml) |
|-------------------------------------|-----|-----|----------|----------|----------------------------|
| Lokchao Bridge near Bishnupur Bazar | 7.5 | 7.4 | 2.9 | 8.3 | 65 |

9. Nambul River

| Location | DO | pH | BOD mg/L | COD mg/L | Fecal Coliform (MPN/100ml) |
|----------------|-----|-----|----------|----------|----------------------------|
| Samushang | 6.1 | 6.8 | 4.7 | 15.1 | 175 |
| Naoremthong | 6.2 | 7.2 | 3.5 | 14.5 | 80 |
| Hump Bridge | 4.5 | 6.9 | 4.5 | 12.6 | 235 |
| Heirangoithong | 4.7 | 7.0 | 4.7 | 14.2 | 250 |
| Singda Dam | 7.7 | 7.5 | 2.8 | 7.8 | 10 |

10. Kongba River

| Location | DO | pH | BOD mg/L | COD mg/L | Fecal Coliform (MPN/100ml) |
|-----------------|-----|-----|----------|----------|----------------------------|
| Kongba Eranpham | 5.3 | 7.0 | 4.2 | 13.1 | 130 |
| Kongba Erong | 4.5 | 7.3 | 4.3 | 4.7 | 165 |

11. Waisel Maril

| Location | DO | pH | BOD mg/L | COD mg/L | Fecal Coliform (MPN/100ml) |
|-----------------------------|-----|-----|----------|----------|----------------------------|
| Meijrao Bridge, Hiyangthang | 5.5 | 7.1 | 4.3 | 12.6 | 230 |
| Kha Sangenbam Mayai Leikai | 6.7 | 7.2 | 4.0 | 12.4 | 120 |

12. Moirang River

| Location | DO | pH | BOD mg/L | COD mg/L | Fecal Coliform (MPN/100ml) |
|----------------------------|-----|-----|----------|----------|----------------------------|
| Laikhurembi, Moirang Bazar | 7.3 | 7.1 | 3.5 | 8.4 | 60 |

13. Sewage Treatment Plant Effluent

| Location | Oil & Grease (mg/L) | pH | TSS mg/L | BOD mg/L | COD mg/L |
|----------|---------------------|-----|----------|----------|----------|
| Langol | 2.1 | 7.3 | 25 | 0 | 39 |

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 |
| 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 |
| 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 |
| 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 | |

| Action | Target Action | Priority – II : Nambul River | | |
|-----------------|---|------------------------------|-------------|--------------|
| | | Target Quantity | Time Line | Status |
| 2.3 | Treatment option and capacity : 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 | |
| Action 3 | Protection of catchment area | | | |
| 3.1 | In-situ augmentation of medicinal plants and economic plantation at catchment | | | Completed |
| 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 | |
| 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 | |