

**ACTION TAKEN REPORT ON NGT OA 606/2018 IN RESPECT OF MIZORAM**

SI No.	Directions of the Hon'ble National Green Tribunal	Compliance Report
1	60,000 MT of legacy waste at Kolasib and the remaining 1,44,000 MT of legacy waste at Aizawl to be remediated within four months. Technical assistance of CPHEEO of MoHUA and CPCB may be sought. Suitable service providers or other technical institutions may be consulted, thereafter, execution to be done departmentally.	<ul style="list-style-type: none"> <li>o Remediation of 60,000 MT of Legacy Waste at Kolasib was completed on 31<sup>st</sup> May 2023 as per guidelines prescribed by CPCB with funds from SBM(U).</li> <li>o The remaining Legacy Waste at Tuirial Aizawl was closed on 5<sup>th</sup> May 2019 and is now capped, fully covered by vegetation.</li> </ul>
2	Environmental compensation of Rs. 50 crores available with the State to be ringfenced for utilizing exclusively for sewage and solid waste management.	As per direction of the Hon'ble National Green Tribunal in the hearing on 08.12.2022, an amount of Rs. 50 crores have been ring-fenced by the State Government from its own fund to be utilized exclusively for Sewage and Solid Waste Management and has been included in the budgetary allocation for 2023-24. (Annexure 1)
3.	Solid waste management data presented shows gap of 58.24 TPD in solid waste processing in urban and rural areas. The State needs to strengthen and augment waste processing/ treatment facilities at SWM centres and at the point of waste generation.	<ul style="list-style-type: none"> <li>• To bridge the gap of 58.24 TPD in solid waste processing, the following proposals have been made:</li> <li>• Lunglei: Works for developing SWMC with a capacity of 15 TPD is in progress with funding of Rs 6 crore from NLCPR under Ministry of DONER. This is targeted to be completed by 30<sup>th</sup> September 2023.</li> <li>• Champhai: An amount of Rs 4 crore was allocated from the State Fund to develop SWMC at Champhai, out of which Rs 2.88 crore have been sanctioned for Phase I and 50% of the work has been completed.</li> </ul> <p style="text-align: center;">Projects amounting to a total of 79.3 Crore have been included in the list of projects to be funded in Mizoram under North East Special</p>

		<p>Infrastructure Development Scheme (NESIDS) under the Ministry of DoNER. The Project proposed is for 7 District Headquarter towns as follows:</p> <p>Serchhip with a capacity of 10 TPD amounting to Rs 12.86 crore, Mamit, Khawzawl, Saitual and Hnahthial with a capacity of 10 TPD amounting to Rs 10.58 crore, Lawngtlai and Siaha with a capacity of 10 TPD amounting to Rs 12.50 crore.</p> <p>Funds from the ring-fenced state budgetary allocation as well as from SBM are proposed to be used for the construction of solid waste management centres in 17 other urban towns. The 17 other towns are Thenzawl, Vairengte, North Kawnpui, Sairang, Bairabi, Tlabung, Lengpui, Kawrthah, Ngopa, West Phaileng, North Vanlaiphai, Zawlnuam, Farkawn, Darlawn, Khawhai, Phullen and Biate. With the above, there would be a SWMC at all the district HQs and urban towns of Mizoram.</p>
4.	<p>Considering climatic conditions, adequate composting/vermicomposting/bio-methanation centers may be set up for handling segregated wet wastes at source. Quality of compost so produced may be periodically verified.</p>	<ul style="list-style-type: none"> <li>• Upgradation of the existing SWMC at Kolasib with a capacity of 10 TPD constructed under SBM (U) and State Fund will enhance the wet waste processing capacity.</li> <li>• Since vermicomposting is sensitive to climatic conditions, it is not considered a feasible treatment of wet waste in the State. Instead, windrow composting has been proposed in the SWMCs to be set up in all District Headquarter towns.</li> </ul>
5.	<p>Setting up of Material Recovery Facility with sorting mechanism for dry wastes for further recycling or reuse</p>	<p>Material Recovery Facility has been included in the DPR for SWMCs in all District Headquarter towns.</p>

6.	Use of wet biodegradable waste as animal feed for Piggeries etc. be considered without causing environmental nuisance. De-centralized and centralized waste processing facilities be established.	<ul style="list-style-type: none"> <li>• Use of bio-degradable waste as animal feed suits the traditional practice of animal husbandry in the state and is being continued.</li> <li>• For treating wet waste, Community compost pits have been constructed in District Headquarter towns for practicing wet waste composting.</li> <li>• Home composting is planned to be promoted in all ULBs to promote decentralized waste treatment.</li> </ul>
7.	For Aizawl city, waste processing facility of at least 15 – 20 TPD, to bridge the gap preferably in next four months.	<ul style="list-style-type: none"> <li>• Apart from the existing SWMC at Aizawl, another waste processing facility is being developed for the southern areas of the city at Hualngohmun having a proposed capacity of 50 TPD with funding of Rs 16.64 crore from SASCI and construction work has started.</li> <li>• To further promote decentralised processing centres of waste another SWMC is to be set up at Luangmual under the Smart City Mission which would cater to the western part of the city.</li> <li>• Another site at Sihphir is being explored for the establishment of SWMC which would cater to the northern part of the city.</li> <li>• Considering the above three initiatives and the present SWMC at Tuirial which would cater to the eastern part of the city. Aizawl in the near future would have four SWMCs for all four parts of the city.</li> <li>• To aid segregation of waste at source, initiatives are being made under the Smart City Mission to procure smaller dump trucks with separate compartments to be used by each of the locality.</li> <li>• In view of the above initiatives, it is targeted that there is no gap in processing of waste in Aizawl city.</li> </ul>

8.	To ensure that necessary measures are taken for waste management by adequate monitoring in the interest of environment and public health. The State may interact with Defense organizations to share work experience.	Interactions and discussions have been held with Counter Insurgency and Jungle Warfare School, Vairengte by DC, Kolasib District. It was also observed that CIJWS have undertaken treatment of wet waste through home composting and segregation of waste.
9.	Appropriate awareness and strategies to encourage public participation and contribution to consider change in approach for administrative processes	<ul style="list-style-type: none"> <li>• Extensive campaigns covering all ULBs are taken up under SBM(U). Campaigns include awareness in schools and colleges</li> <li>• Mizoram Cleanliness Competition has been organized since 2017 to foster healthy competition among the towns and to prepare towns for All India Cleanliness Survey Swachh Survekshan</li> <li>• To curb out Single Use Plastics, District Level Enforcement Squads have been constituted in all District Headquarters and monthly Inspection is being conducted in all DHQs and numerous SUP items have been confiscated.</li> <li>• As part of an initiative to phase out SUPs and to create wider awareness, SBM(U) Mizoram has partnered with Shri. Vanlallawmzuala Varte, Cleanliness Trekker during his Cleanliness Trekking Expedition. He collected more than 6000 plastic bottles during his trekking in which he covered the full length of the state by foot.</li> <li>• International Plastic Bag Free Day was observed on 3<sup>rd</sup> July, 2023 as the Launching Day of SUP Drive in the presence of Hon'ble Deputy Chief Minister &amp; Chief Secretary. AMC area Inspection Team were flagged off by Deputy CM. More than 50 kgs of SUP items were confiscated on this day. (Annexure 2)</li> </ul>

10.	Brain storming sessions with available experts and other stake holders in the State at different levels, evolve models for both solid and sewage management which can be fast replicated to consider change in approach for administrative processes	<ul style="list-style-type: none"> <li>• Productive interactive sessions have been made through meetings with experts from Public Health Engineering Department, Public Works Department and subject specialists to address the current management for solid and sewage management.</li> <li>• Consultative Workshop on Human Resource Development for Effective Implementation of SBM(U)2.0 was organized for State &amp; District staff in collaboration with ASCI.</li> <li>• Interactive Session on SWM chaired by Deputy CM in the presence of Mayor, Aizawl Municipal Corporation and all Stakeholder Departments has been held. This illustrates that the issue of solid waste management is the priority of the top political leaders of the state.</li> </ul>
11.	For community involvement, the State education department may involve schools to create awareness and spreading messages at each household level particularly on waste segregation.	<ul style="list-style-type: none"> <li>• The ULBs have been actively engaged to create awareness on waste segregation by having interactions particularly at school levels.</li> <li>• Initiatives have also been taken up at church sessions to propagate the need for waste segregation.</li> </ul>
12.	To ensure scientific disposal of waste, landfill sites to be identified.	The State Level High Powered Steering Committee for Smart Cities Mission in Mizoram has approved to take up the project of Sustainable Landfill at various locations in Aizawl for disposal of Construction and Demolition Wastes. Further, landfill sites that would go along with the SWMCs are being identified.
13.	To study success stories in respect of other States particularly relating to low-cost sanitation management adopting Seechewal Model and fecal sludge treatment plant at some of the towns in Odisha	As per direction of the Hon'ble National Green Tribunal in the hearing on 08.12.2022, 5 officers from UD&PA department headed by Secretary, UD& PA Deptt. visited the state of Odisha during 10 <sup>th</sup> -13 <sup>th</sup> April 2023 to study FSTP and decentralized SWM. (Annexure 3)

14.	To undertake field visit and interact with Punjab Pollution Control Board to have more feedback	As per direction of the Hon'ble National Green Tribunal in the hearing on 08.12.2022, 4 officers from stakeholder departments headed by Secretary, Labour Administrative Department visited Punjab. (Annexure 4)
15.	Review progress at least once in a month and submission of six-monthly progress report.	Monthly review meetings of all the Deputy Commissioners of the Districts and concerned Departments, are held under the chairmanship of the Chief Secretary to monitor the progress in Solid Waste Management. Further, reports are submitted to Mizoram Pollution Control Board for onward submission to CPCB to ensure effective compliance.

SUMMARY OF STATUS ON SOLID WASTE MANAGEMENT

No	Name of District/Town	2023 Population Projection	Total estimated waste generation MTD	Status of segregation at source / SWMC	Total wastes treated MTD				Gap MTD
					At SWM Centers	At the point of generation	Total treated	% Treated	
1	Aizawl	3,96,555	186.38	100%	122.74	34.48	157.22	91.20	15.16
2	Lunglei	71,627	21.48	100%	1.44	15.88	17.32	80.64	4.16
3	Champhai	42,247	12.674	100%	1.36	8.91	10.27	81	2.41
4	Kolasib	32,547	9.764	100%	1.8	6.89	8.69	89	1.07
5	Serchhip	27,326	8.197	100%	1.64	4.02	5.66	69	2.54
6	Mamit	13266	3.979	100%	1.67	1.39	3.06	77	0.92
7	Saitual	12454	3.376	100%	1.54	1.30	2.84	84	0.54
8	Khawzawl	11104	3.331	100%	1.5	1.46	2.96	89	0.37
9	Hnahthial	7246	2.173	100%	1.64	0.14	1.78	81.77	0.40
10	Lawngtlai	31908	9.572	100%	1.38	6.30	7.68	80.24	1.89
11	Siaha	33341	10.002	100%	1.4	7.28	8.68	86.8	1.32
10	Other 17 Urban towns of Mizoram	78188	23.456	100%	0	12.69	12.69	52.39	10.76
	<b>TOTAL</b>	<b>7,57,809</b>	<b>294</b>	<b>100%</b>	<b>138</b>	<b>101</b>	<b>239</b>	<b>962</b>	<b>42</b>

**Notes:**

- Waste generated in Aizawl is estimated at 470 grams/person/day
- Waste generated in other district HQs and the other 17 urban towns is estimated at 300 grams/person/day
- As mentioned in the report, the Gap in the treatment of waste would be covered over the SWMCs at all these towns are established.



# LAUNCHING OF BAN ON SINGLE-USE-PLASTIC DRIVE & OBSERVANCE OF INTERNATIONAL PLASTIC BAG FREE DAY JULY 3, 2023 (Monday)



 <https://upda.mizoram.gov.in/>

 Udpa Directorate Mizoram

 udpa\_deptt

 [dirudpa.mz@gmail.com](mailto:dirudpa.mz@gmail.com)

 Directorate UD&PA

 UD&PA Mizoram



**UD&PA Department, Government of Mizoram**





ANNEXURE 3



# DECENTRALIZED Solid Waste Management & Faecal Sludge Treatment

*Report of study tour to Odisha*

## TOUR DETAILS

- Team of 4 officers from UD&PA headed by Secy, UD&PA visited Bhubaneswar, Odisha on 11<sup>th</sup> and 12<sup>th</sup> April, 2023 as directed by NGT
- Main purpose of the tour was to study Decentralized solid waste management and Decentralized faecal sludge management
- Team consisted of Secy, Jt Director (A), EE and AE of UD&PA Dept
- One decentralized SWM Centre and FSTP each in Bhubaneswar and Puri were visited, arranged by OWA
- Door to door collection of garbage was observed first hand
- The team also called on Principal Secy, Housing & Urban Development Department, Govt of Odisha.

## Decentralized solid waste management in Odisha

- Decentralized SWM centres are called **Wealth Centres**
- Around **35 functional Wealth Centres** within BMC which has 67 Wards (Roughly 1 Centre for 2 wards)
- Each Wealth Centre has **Micro Composting Centre (MCC)** for processing wet waste, and **Material Recovery Facility (MRF)** for dry waste.
- Wealth Centres are run by **SHGs**

## Door to door collection

- Garbage (Wet and dry wastes) is collected door to door **everyday (Households in the morning; commercial places in the evening)**
- **The collection is supervised.**
  - Group of women, 5-8 members called “Swachh Sathis” helps out at the time of collection. They are paid @ Rs.5000 per month per head and their duties also include awareness campaigns so as to ensure that defaulting households start segregation of waste at source.
  - One Sanitation expert is in charge of each ward.
- **Garbage bags are not used** to pack garbage; wastes are kept in bins and dumped directly to garbage vehicle. The transport system ensures proper segregation at source.
- Specially designed vehicles with separate compartments for dry and wet waste are used
- **QR code** installed in certain locations to confirm the location of collection team
- Smaller vehicles designed from auto rickshaws, Tata Ace, etc. used.

## Supervised collection of wastes to ensure segregation at source



Galaxy S23+

With Swaach Sathis and area in-charge

## Specially made garbage trucks





*Officials testing QR code placed on a particular household*

## MCC at Wealth Centre



## Micro Composting Centre with composting tubs and sieving machine



## Wet waste processing at Micro Composting Centres

- Wet waste processed using **normal composting method** (instead of mechanical composting plant or vermi composting)
- 2 rows of 7 composting tubs constructed. Wet waste is dumped in successive tub every day after it is shredded.
- 1 cycle of waste to decompose requires 42 days after which it is sun-dried
- **Mechanical sieving machine** installed for fine end product.
- Around 36 workers at Wealth Centre and 6 drivers, 6 collectors
- 1 in-charge/overall supervisor (Sanitary inspector)
- The waste processing centre is run by women SHGs





## Dry Waste Processing at Material Recovery Facility

- Dry waste is **segregated manually** by sanitation workers who are generally SHG members
- Sanitation workers are allotted minimum amount of wastes to be segregated. Monitored by sanitation Inspectors of the Centre.
- It is segregated into HDPE, LDPE, MCP, Tin, Can, MIP, Paper, etc and baled using automatic baling machines.
- Conveyor belt is in place to aid segregation (but not a mandatory requirement)
- The different baled components are then sold to recycling centres, cements factories, etc.
- Sanitary diapers are disposed off using small size incinerators.
- The whole system uses **minimum amount of technology**.

# MRF – manual segregation by women SHGs



Process followed at Material Recovery Facility (MRF)

1. Sorting

2. Storing

3. Compressing

4. Packaging for sale to authorized recyclers

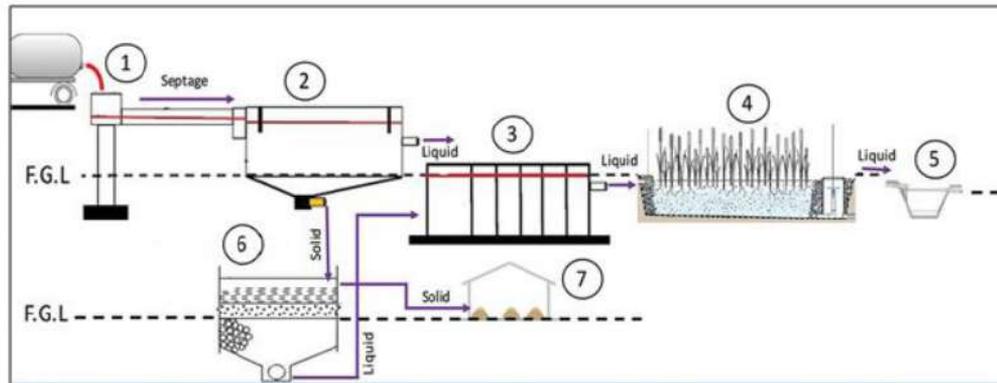
The complex block contains four distinct images illustrating the MRF process. The top-left image shows two women standing behind a long table with three sections labeled 'PLASTIC', 'GLASS', and 'METAL'. The top-right image shows a woman operating a large industrial machine that compresses waste into a dense block. The bottom-left image shows a worker in a green vest standing next to tall metal shelving units filled with numerous orange and blue plastic crates, each containing sorted waste. The bottom-right image shows several large, tied-up bags of compressed waste material, with a sign in the background that reads 'MRF'.

## Faecal Sludge Treatment Plant

- Also called **Septage Treatment Plant (SePT)**, it treats both solid and liquid part of septage
- The SePT is designed to treat liquid part of the septage using **DEWATS technology**
- It is a **gravity flow based system**, where septage from cesspool truck flows to different chambers and units by gravity.
- The technology requires very less mechanical and electrical interventions to run the process and is cost effective compared to other technologies

FSTP/SeTP





Component	Description
① Receiving chamber with screen	Receives septage from cesspool emptier vehicle and screens solid waste from the septage
② Settler-cum-thickener	Separates solid and liquid fraction from septage
③ Anaerobic Settler Anaerobic Baffle Reactor (ABR) Anaerobic Filter	Removes settleable solid and anaerobic digestion of organic fraction of septage
④ Planted Gravel Filter (PGF)	Removes BOD and nutrients through aerobic process
⑤ Polishing Pond	Collects effluent from PGF for further reduction of BOD and bacteria. Water from the pond is utilized for landscaping and plantation inside SeTP
⑥ Sludge Drying Bed	Used for dewatering and drying of sludge
⑦ Sludge Storage Yard	Collects and stores sludge from drying bed for composting/disposal

## Advantages of the system

- The FSTP/SeTP helps reduce indiscriminate disposal of untreated sludge and septage in the open as well as water bodies thus reducing pollution
- The low cost technology, operation and maintenance demonstrates a scalable and sustainable model for septage management in different parts of the country
- Landscaping, plantation and solar panning makes the SeTP environment friendly and appealing to local residents. Concept of Sanitation Park
- FSTPs are generally run by SHGs including transgender SHGs

Mizoram team with Transgender SHG  
who runs the FSTP/SeTP



## Important learning points

1. Each of the 35 Wealth Centres is **adopted by a Senior Officer** not below the rank of JS in the Government who ensures that it is function properly.
2. Established SoP is in place at all levels of waste management; from collection to its management at the Wealth Centres
3. Capacity building of all those engaged is stressed
4. Payment of wages on 7<sup>th</sup> of every month
5. Focus is on wealth creation and using the entire system from the point of view of employment generation especially for the weaker sections of the society.
6. Decentralised centres within the vicinity of the locality. Decentralisation is found to be more effective, with high sustainability and efficiency.
7. Operation and management – Community driven, not contractor driven

**These learning points would have to be adopted in Mizoram as per our local context**

## ANNEXURE 4

## TOUR REPORT RELATING TO SOLID WASTE MANAGEMENT PRACTICES IN PUNJAB

In pursuance of the direction of the Honorable NGT Order No. 1 dated 8.12.2003 in O.A No. 606/2018- Compliance of Municipal Solid Waste Management Rules 2016, the following team was constituted to study the success stories relating to solid waste management practices in the state of Punjab. The team visited various cities of Punjab from 10-12<sup>th</sup> May 2023. The following were the members of this team:-

1. Pu Lalhriatpuia, Aizawl Municipal Commissioner (Team Leader)
2. Smt. Nazuk Kumar, Deputy Commissioner Serchhip
3. Pu H Lalhmingthanga, CEO, Lunglei Municipal Corporation
4. Pu C Laldhawma, Member Secretary, MPCB

**10 May 2023- Visit to Ludhiana**

1. 0.5 MLD CETP At Ludhiana – PPCB

Since its Establishment in the year 1981, "J. B. R. Technologies Limited", has worked in the space of manufacturing, erection, construction of Pollution Control Equipment, Common Effluent Treatment Plants, Industrial RO Systems. They are also running Common Effluent Treatment plant (CETP) at Ludhiana.

This System Includes:

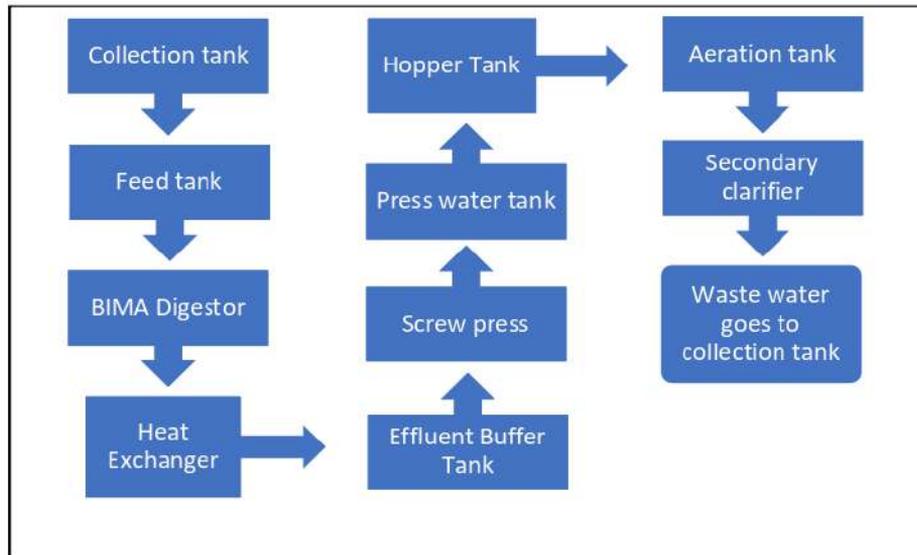
- Reaction + Precipitation
- Sludge Removal
- Classification
- Activated Carbon Filtration
- Ion Exchange System
- Reverse Osmosis
- Force Evaporation

These plants are best useful for Electroplating, Zinc plating, Chrome Plating, Nickel plating industries as well as for wire drawing industries. This plant caters to effluent produced by 1600 industries across Punjab. This effluent is transported to plant in insulated tanks. Sludge is taken to special disposal site and discharge water is purified.





2. Utilization of cow dung for producing Bio-gas at Haibowel (200 TPD) – PEDDA and MC
- High-Rate Bio-Methanation Power Generation and CBG Power Plant, Haibowal Dairy Complex, Ludhiana
  - Punjab Energy Development Authority in association with Punjab Government & Centre has come up with 1 MW cattle-dung based power project at Haibowal, Ludhiana. Plant financially supported by MNRE, GOI & PEDDA jointly
  - 1<sup>st</sup> project in the country where power generation will be done with the help of cattle-dung
  - Cost of this project 14 crore
  - Antac Technology of Austria has been used in it
  - Capacity of producing 13-14,000 units of electricity everyday
  - 47 tones approximately per day of bio manure, used for agricultural purposes
  - Calorific value of biogas is about 21-23.5 MJ/m<sup>3</sup>
  - Transmission line laid by PSEB is connected to Kitchlu Nagar Substation where power is fed
  - The biogas produced is compressed into cylinders and sold to Indian Oil.





### 3. Rejuvenation of Budhha Dariya Project– Municipal Corporation, Ludhiana

The goal of this project is to ensure that only treated or fresh / storm water may flow in the budhhadariya.

PARTICULAR	DETAILS
Name of Project	Construction of Sewage Treatment Plants (STPs), Pumping Stations, ETPs for Dairy Complexes, Rehabilitation of existing STPs & Main Pumping Stations for Abatement of Pollution in Buddha Nallah, Ludhiana including Operation & Maintenance for a period of 10 years (on DBOT basis) at Ludhiana town (Punjab) under AMRUT.
Amount as per DPR	650 Crore
Work Awarded Amount	839.79 Cr.
Capital Work Cost	519.00Cr.
O & M Cost for 21 Months	26.79 Cr. (For Construction Period)
O&M Cost for 10 Years	294.00 Cr. (After Construction Period)
Name of Contractor	M/s Khilari Infrastructure Pvt. Ltd. & GVPR Engineers Ltd.- J.V (Navi Mumbai,)
Project Date of Start	02 Dec 2020
Date of Completion of Capital Work	01 Dec 2022/31st Aug 2023
Operation & Maintenance Period	21 Months during construction Period & 10 year after completion of project.





### 11 May 2023 – Visit to Fatehgarh Saheb

#### 1. Seechewal model in various villages

The village of Seechewal, district Jalandhar in Punjab State, has established itself as a milestone in the country for being the unique model for community led drive for Rural Sanitation and Solid & Liquid waste management in the state of Punjab. This village and its voluntarily community led movement for the rejuvenation of local water bodies and treatment of liquid waste and other such eco-friendly activities under the leadership of Sant Balbir Singh Seechewal ji has garnered a commendable recognition from the world over. Seechewal model is a pipe-and-pump formula used to remove heavy solid particles, oil and other material from waste water.

The plant in the village aims to achieve the following objectives using the 'Seechewal Model' of wastewater management: Recycling and reusing the treated wastewater for irrigation. And preventing further contamination of groundwater. The project aims to implement a combination of processes through three-well system of wastewater treatment for reuse apart from human consumption.

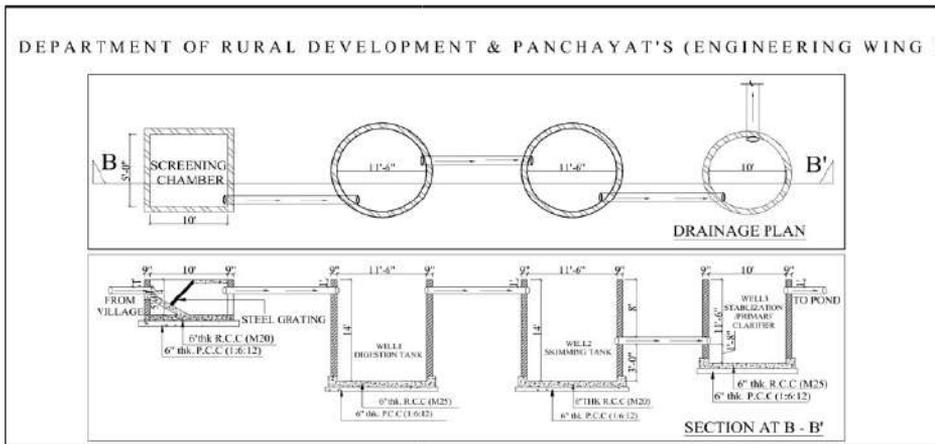
1. Screening chamber intakes the waste water and removes the floating objects by the filter screens.
2. The waste water is then taken into three separate wells installed in series.
3. First well is the digestion unit in which the silt from the sewage is removed by settling.
4. Second well is the skimming tank which removes fats, oil and ghee.
5. The third well is the primary clarifier which conveys the cleaned water in to the main pond.
6. The water collected in the pond is treated with sun rays;
7. On the bank of the pond, a motor pump is installed to lift the treated water to use it in fields for irrigation purpose.



#### Benefits of Seechewal Model

1. Seechewal model is easy to install and operate.
2. It is very effective in keeping environment and natural water resources neat and clean.
3. The method of treatment of polluted water is aerobic and eco-friendly.
4. The water thus treated is recycled for use in agriculture, which promotes organic farming.
5. It saves a lot of agricultural expenditure on fertilizers.
6. Underground pipelines laid for conveying treated waters to fields do away with open rains that nourish flies and mosquitoes.
8. It checks diseases.
9. It promotes water table recharge.



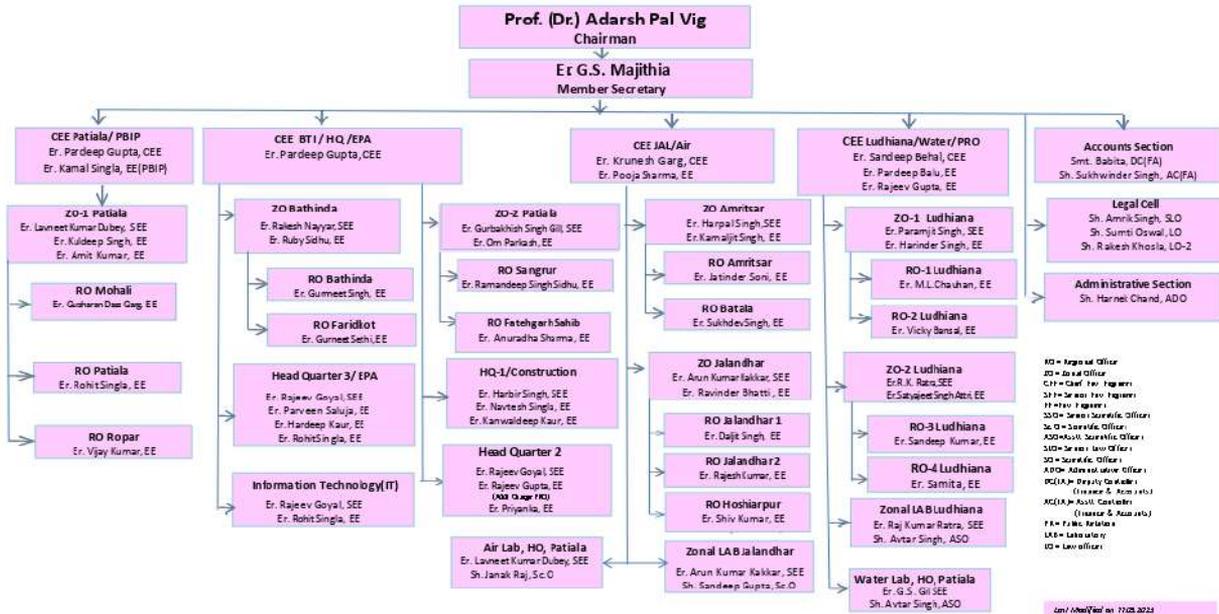


## 2. Visit to regional office PPCB, Mohali

Next we visited the PPCB Regional Office in Mohali. Here they told us about their organization structure. They explained to us the concept of vermiculture. After this they explained to us the process of giving permissions to industries relating to pollution control. It is a completely automated system with time limits set for each level of approval. They explained the procedure of application:

1. The user has to register itself on the single Window portal ([www.pbindustries.gov.in](http://www.pbindustries.gov.in)) & fill service form for registration.
2. Once the application is submitted (along with requisite documents and adequate fee) the application is received in the account of the receiving officer, i.e Environmental Engineer of the concerned Regional Office, in whose jurisdiction, the industry falls.
3. The application is then forwarded to the concerned Assistant Environmental Engineer (AEE)/JEE of the area for scrutiny.
4. The AEE/JEE scrutinizes the application and if found incomplete, the application is returned to the industry with reason and the industry has to apply again or remove the clarification as the case may be.
5. If the application is complete in all respects, the AEE completes the scrutiny and submits the application to Environmental Engineer, for further orders.
6. The Environmental Engineer may raise inspection to AEE for visiting the industry, according to the need, as the case may be.
7. The AEE/JEE of the office visit/ inspect the industry, as per the requirement and the inspection report is prepared for the visit.
8. The report is then uploaded on the portal within 48 hours, and the same is also visible to the industry and inspection is closed.
9. The concerned officer then forwards the application to EE with recommendations which is forwarded to SEE/ CEE / Member Secretary, Chairman as per the competency for deciding the application.
10. Any clarifications if required, are raised, and may be asked to the entrepreneur for reply of the same within stipulated time.
11. In case of violation, show cause notice, with or without the opportunity of personal hearing, may be issued to the entrepreneur for submitting the reply and/or attending the hearing.
12. After the decision of the competent authority for approval / refusal, the application is forwarded to the concerned officer for issuing the certificate.
13. The officer then prepares the certificate for approval / refusal (according to the decision of the competent authority) and closes the application.
14. Once the application is closed, the copy of the generated certificate is available in the account of the industry which can be downloaded.

## ORGANISATION CHART OF PUNJAB POLLUTION CONTROL BOARD



### 12 May 2023 – Visit to Kurali, Mohali

- Low cost Solid Waste Management at Municipal Council Kurali, Punjab
- Total Population- 31060 (as per 2011 census)
- Total Wards-17
- No. of Household- 8000
- Total Waste Generation- 9 TPD
- Wet waste processing (Aerobic Composting) - No. of Compost pits- 47
- Dry Waste Processing No. of MRFs (Material Recovery Facility)- 1
- Machine available- Baling Machine for plastic waste, Compost sieving Machine, Weight Machine and C&D waste grinder.
- Door to door collection is done using three wheeler:







Compost Unit



Material recovery facility



Sanitary landfill



### **Practices relevant for Mizoram**

- Seechewal model can be applied in villages of Mizoram to collect and treat grey water. A more de-centralized version of the model will need to be devised.
- Kurali model of low cost SWM is highly relevant for urban areas of Mizoram like Aizawl. Each Veng can have a low cost Material Recovery Facility with compost pits. The local community should be involved in this and people should take ownership for managing this facility. This will motivate the public to segregate their waste at source.
- PPCB gives automated permissions for industries and business houses. Same can be replicated in Mizoram
- Vermiculture and vermicomposting can be carried out in each veng in Mizoram
- Since Mizoram has limited industries so their limited relevance for effluent treatment plants