Comprehensive Operation and Maintenance Policy of SBM-G Assets

Swachh Bharat Mission-Grameen

Assam

1.Context

Swachh Bharat Mission-Grameen (SBM-G) Phase I, launched in 2014, marked a watershed moment in India's rural sanitation journey. The primary objective of this phase was to eliminate the practice of open defecation across rural India by ensuring access to safe and sanitary toilet facilities. This ambitious goal was pursued through the construction of Individual Household Latrines (IHHLs), Community Sanitary Complexes (CSCs), and the implementation of large-scale Information, Education, and Communication (IEC) campaigns. These campaigns focused on instilling behavioral change at the grassroots level, encouraging people to shift from open defecation to the regular use of toilets. By the end of SBM-G Phase I, the country witnessed a historic achievement, with all villages declaring themselves Open Defecation Free (ODF)—a status where no one in the community practices open defecation. Assam achieved this feat on 5th March 2019.

Building on this success, SBM-G Phase II has shifted the focus from merely achieving ODF status to sustaining and enhancing sanitation standards through the concept of "ODF Plus" villages. An ODF Plus village is one that not only maintains its ODF status but also ensures a higher level of environmental cleanliness and public hygiene. This includes the management of solid waste and liquid waste, the promotion of visually clean surroundings, and the continued, regular use of toilets by all residents.

An ODF Plus village goes beyond toilet construction—it ensures sustained toilet use, elimination of open defecation, and a clean, healthy environment through:

- Sustained Toilet Usage: Toilets are regularly used and well maintained, supported by behavior change campaigns and local monitoring.
- Solid Waste Management (SWM): Waste is segregated at source, collected door-to-door, and processed through composting, recycling, and safe disposal in community-level collection and recovery facilities
- Liquid Waste Management (LWM): Greywater is managed using soak pits, kitchen gardens, and end of drainage treatment systems to prevent stagnation and pollution.
- Faecal Sludge Management (FSM): Septic tanks and single pits are desludged periodically, ensuring safe treatment of faecal sludge.
- Visual Cleanliness & Community Participation: Public spaces are kept litter-free through community drives, SHG involvement, and IEC efforts.

The ODF Plus vision focuses on making sanitation efforts sustainable, led by the community, and inclusive for everyone while also caring for the environment. It ensures that the progress made in Phase I continues to grow, leading to better health, dignity, and quality of life for people in rural areas.

In a remarkable achievement, Assam has attained ODF Plus Model status in over 75% of its villages as of today (*An ODF Plus Model Village is one that sustains ODF status and ensures comprehensive management of solid and liquid waste, visual cleanliness, and community-led sanitation practices)*. This milestone reflects the state's strong and consistent commitment to improving rural sanitation, public health, and environmental cleanliness.

Achieving and sustaining an ODF Plus village involves a comprehensive, three-phase approach:

- Planning: Focuses on setting clear goals, identifying local needs, strategizing interventions, and allocating resources for sanitation and waste management.
- Execution: Involves implementing the planned activities, including the construction of sanitation facilities, conducting awareness drives, and mobilizing the community to adopt safe sanitation practices.
- Operation and Maintenance (O&M): Perhaps the most crucial aspect, O&M ensures the long-term functionality and cleanliness of all sanitation assets—such as Individual Household Latrines (IHHLs), Community Sanitary Complexes (CSCs), solid and liquid waste management systems, and drainage infrastructure. Regular upkeep, timely repairs, and effective waste handling are essential to preserve these investments and prevent regression to open defecation.

2. Convergence between SBM-G and 15th Finance Commission Tied Grants

The Department of Drinking Water and Sanitation (DDWS) and the Ministry of Panchayati Raj (MoPR) have jointly issued directions to all States and UTs to ensure that convergence between SBM-G and the 15th Finance Commission (15th FC) Tied Grants is institutionalized at the Gaon Panchayat level through joint planning and implementation. These grants can be effectively leveraged to co-finance Solid and Liquid Waste Management (SLWM) assets such as compost pits, waste collection and segregation sheds, soak pits, and community greywater management systems.

Convergence between SBM-G and the 15th FC Tied Grants offers a strategic approach to strengthen and sustain rural sanitation efforts. While SBM-G not only drives the creation of sanitation infrastructure but also promotes behavior change to achieve ODF Plus status, the 15th FC Tied Grants—60% of which are mandated for water and sanitation—play a complementary role by supporting both infrastructure development and its operation and maintenance.

To operationalize this convergence, Gaon Panchayats have prepared integrated Gaon Panchayat Development Plans (GPDPs) with technical inputs from District SBM-G teams and fund allocation from both SBM-G and the 15th FC Tied Grants. The construction of community-based sanitation assets and SLWM infrastructure is being undertaken directly by the Gaon Panchayats, ensuring ownership, transparency, and community participation. Each Gaon Panchayat has ensured utilization of 30% of the estimated allocation from the 60% Tied component of the 15th FC Grant, while the remaining 70% of the cost will be made available from SBM-G for infrastructure. To enable smooth implementation, fund transfers from SBM-G to the Gaon Panchayats are being ensured in a timely manner. Additionally, the operation and maintenance (O&M) costs of SLWM assets are mandated to be sustainably supported through the 15th FC Tied Grants and subsequent FC funds.

3. Need for O&M Policy of Sanitation Assets

The success of ODF Plus interventions under SBM-G critically depends on the establishment of robust Operation and Maintenance (O&M) systems. Without regular upkeep, even the best-constructed sanitation infrastructure can quickly deteriorate, putting at risk the hard-earned ODF Plus status of villages. Sustainable O&M practices are essential to ensure that sanitation facilities remain functional, accessible, and hygienic over time. Well-maintained infrastructure not only promotes continued usage but also reinforces community trust, upholds public health standards, and preserves the dignity of rural populations. By prioritizing O&M, communities can secure long-term sanitation outcomes and truly embed cleanliness and hygiene into their daily lives. The necessity of the policy can be underlined as:

a. **Effective Rural Sanitation Strategy**: Ensures sanitation infrastructure functions properly and serves its intended purpose in the long run.

b. **Community Ownership and Empowerment**: Encourages community involvement, fostering responsibility and ownership of SWM assets.

c. **Rural Empowerment:** Involves of Self-Help Groups (SHGs), Village Organizations (VOs), and Cluster Level Federations (CLFs) to manage SWM activities, promoting local livelihoods and entrepreneurship.

d. **Sustainability**: Ensures the technical, financial, and environmental viability of SWM assets for long-term use.

e. **Environmental Protection:** Proper O&M will reduce negative environmental impacts and promote initiatives like composting and processing plastic waste into value-added products.

4. Applicability and Scope of the O & M Policy

The Operation and Maintenance (O&M) Policy shall be applicable across all rural areas and peri-urban areas (transitional zones between urban and rural settings). The policy will remain in force for a period of 10 years from the date of its approval.

The scope of this policy extends beyond existing sanitation services and infrastructure. It also encompasses upcoming sanitation-related facilities to be developed in rural and peri-urban areas, ensuring future readiness.

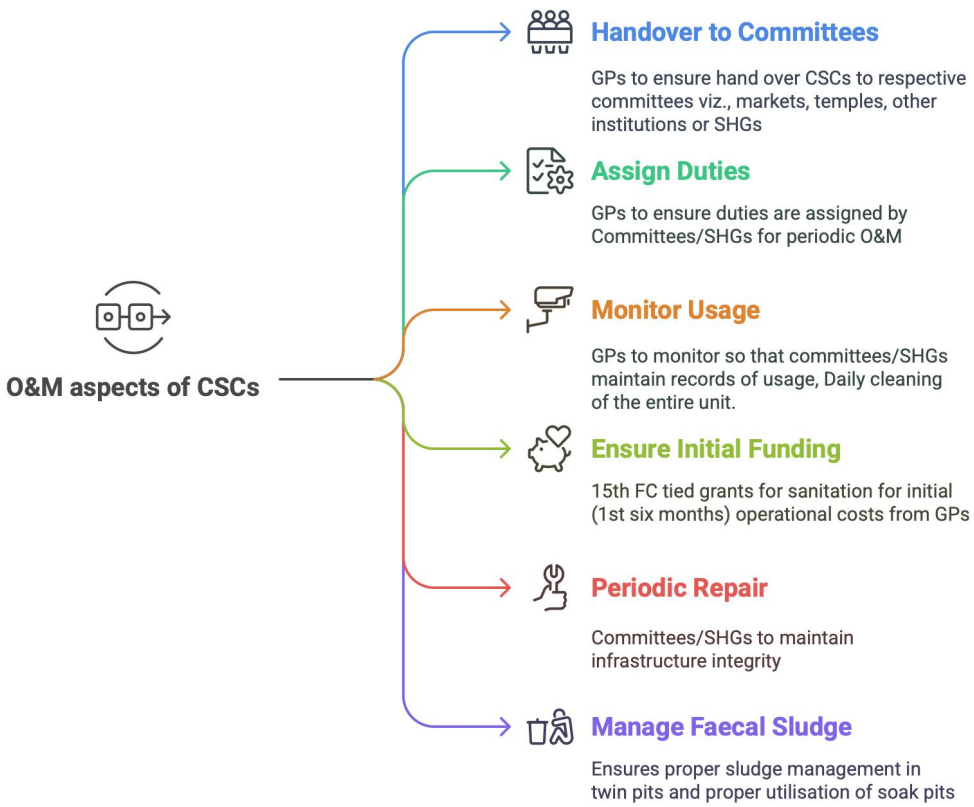
The policy will comprehensively address key components of O&M, including resource allocation, equipment management, institutional frameworks, capacity building, defined roles and responsibilities, repair and upkeep protocols, routine operations, Information, Education, and Communication (IEC) activities, financial systems, and cost recovery mechanisms. This integrated approach aims to ensure the long-term sustainability and efficiency of sanitation assets across Assam.

5.Sanitation Infrastructure under SBM-G

A. Assets related to ODF sustainability

Type of Assets	Funding Source	Nos. of Assets	Fund (Unit Cost)
IHHL (for households with no access to sanitary toilet facilities)	100% SBM-G	Based on the number of beneficiaries (online applications) and verified by P&RD	INR 12,000
CSC (in community places viz., markets, institutions like schools, health centers, places of religious importance, and tourist areas)	70% SBM-G, 30% 15th FC	Need-based	INR 3,00,000 • SBM-G: INR 2,10,000 • 15th FC: INR 90,000

Standard O&M overview of CSC



O&M Approach: All CSCs within a GP will be handed over by the Gaon Panchayat Water and Sanitation Committee (GPWSC- *details on GPWSC mentioned in section 6. Institutional Framework (4d)*) to a single involved entity (such as an SHG or NGO) for operation and maintenance. A single entity will manage all CSCs in the respective GP to ensure accountability and streamlined operations.

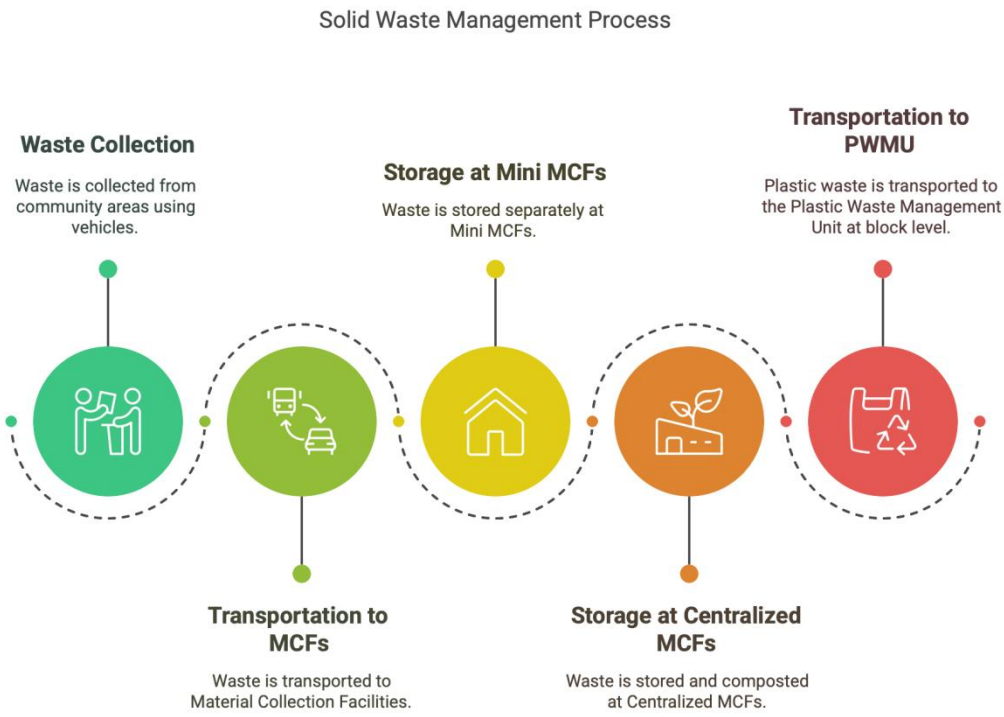
However, CSCs that are already being operated by a local committee through self-funding or their own mechanisms—particularly those located in holy places or market areas—will not fall under the purview of GPWSCs. In such cases, a Memorandum of Understanding (MoU) between the existing committee and the GPWSC must be executed to define roles and responsibilities.

B. Solid Waste Management Assets

Solid Waste Management (SWM) is a key pillar in sustaining the achievements of the ODF Plus mission, contributing to a cleaner, healthier, and more environmentally responsible rural Assam. For a Gaon Panchayat (GP), establishing a basic yet functional SWM infrastructure is essential to manage the daily waste generated from households, institutions, public spaces, and marketplaces.

I. **Minimum SWM Infrastructure Required in a GP**:

- Door-to-Door Waste Collection Vehicles
- Public Segregation Bins in Key Locations: Availability of green (biodegradable waste) and blue (non-biodegradable waste) bins in high-footfall public areas such as markets, schools, Anganwadi Centres, religious sites, and tourist locations.
- Material Collection Facilities (MCFs) at GP and Ward Level: Each GP should have a structured MCF setup for effective collection, sorting, and preliminary processing of waste:
  - Mini MCFs: One in each ward (typically 9), equipped with clearly marked segregated storage spaces for biodegradable and non-biodegradable waste. These serve as the first point of waste collection and temporary storage.
  - Centralized MCF: One centrally located facility at the GP level that:
    - Aggregates waste from all Mini MCFs and markets.
    - Houses a composting unit for processing organic waste (wet waste) into manure for local agricultural use.
    - Provides dedicated storage areas for dry waste, which can then be linked to Plastic Waste Management Unit (PWMU) at block level, or recyclers at the block or district level.
- Community Compost Pits (CCP): In addition to centralized MCFs, community compost pits, equipped with six compost units for the composting of biodegradable waste collected from markets, shops, etc., are also available. A GP is equipped with one community compost pit.

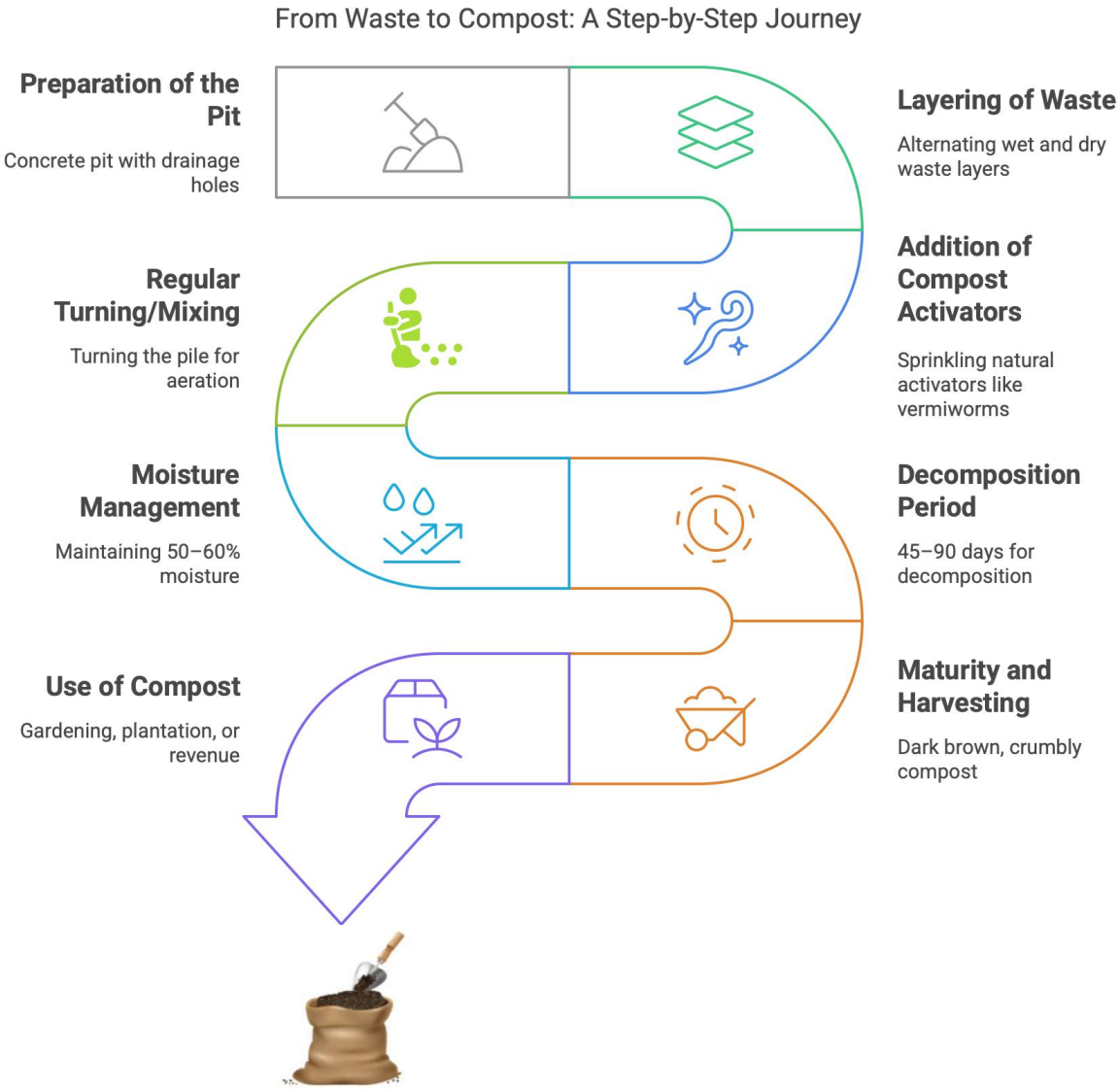


A standardized SWM process for a GP is as listed below:

- Collection efforts primarily target community-level waste generators such as daily and weekly markets, shops, religious sites, schools, government offices, and other public gathering places where biodegradable waste is generated in significant quantities.
- Dedicated vehicles (tricycles or e-rickshaws) are used to collect segregated waste from these community locations and transport it to the designated Material Collection Facilities (MCFs).
- Mini MCFs will have provisions for segregated storage of biodegradable and non-biodegradable waste only.
- Centralized MCFs will have community compost pits for biodegradable waste and segregated storage compartments for non-biodegradable waste.
- All waste collected from public spaces and Mini MCFs will be finally disposed of at Centralised MCFs.
- Plastic waste will be transported from the Centralised MCFs at the GP level to the Plastic Waste Management Unit (PWMU) at the block level.

❖ Waste to Compost

■ Basic Steps of Aerobic Composting in MCF/CCP



■ Vermicompost in MCFs/CCP

Composting using earthworms is called vermicompost. Vermicomposting process is generally used by farmers where earthworms are mixed with high amounts of organic waste (crop residues, vegetable waste, flower waste, dried leaves, etc.). This similar process can be adopted in the composting chambers of MCFs.

Steps of the vermicompost process are shown below.

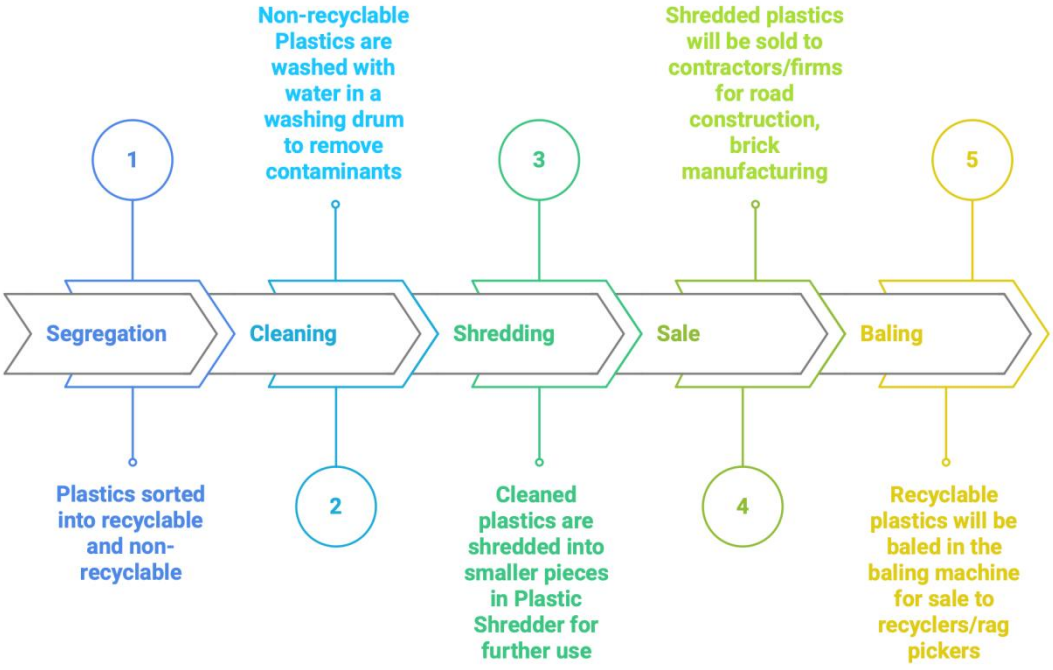
II. **SWM Asset at Block Level**: To ensure effective and sustainable management of plastic waste in rural areas, each block is planned to be equipped with a dedicated

Plastic Waste Management Unit (PWMU). These facilities are designed to serve as centralized hubs for processing plastic waste collected from all GPs within the block.

The PWMUs are/will be equipped with essential machinery such as plastic shredders and baling machines, enabling the systematic handling, volume reduction, and preparation of plastic waste for reuse. Once processed, the shredded and baled plastic can be channeled into productive end uses such as:

- Road construction using plastic-bitumen blends,
- Manufacturing of paver blocks and bricks, and
- Other recycling or upcycling applications in partnership with certified recyclers or industries.

Steps of Plastic Waste Management in PWMU



III. **Other SWM assets**

a) **Community Biogas Plants**: In alignment with the goals of sustainable biodegradable waste management, community biogas plants are being planned under the GOBARDHAN (Galvanizing Organic Bio-Agro Resources Dhan) initiative. These plants will be strategically established in Gaushalas, dairy farms, and other locations with high concentrations of organic waste, such as cattle dung and agro-residue. The objective is to convert waste into valuable resources like biogas for energy and bio-slurry for organic fertilizer, thereby promoting clean energy, rural sanitation, and circular economy principles while reducing environmental pollution.

b) **Pipe Composting**: In schools, pipe composting is being implemented as a practical and educational solution for managing the organic waste generated from mid-day meals. This simple yet effective method involves the installation of vertical PVC pipes with perforations directly into the ground within the school premises. Kitchen waste such as vegetable peels, leftover food, and other biodegradable material from mid-day meals is deposited into these pipes. Over time, the waste decomposes naturally with the help of soil microorganisms, producing nutrient-rich compost that can be used in the school garden or plantation areas. This initiative not only helps in reducing waste but also serves as a hands-on learning experience for students, introducing them to the principles of waste segregation, composting, and environmental sustainability. Through regular involvement, students develop a sense of responsibility towards waste management and become active participants in promoting cleanliness and green practices within their schools and communities.

SWM asset details are shown below:

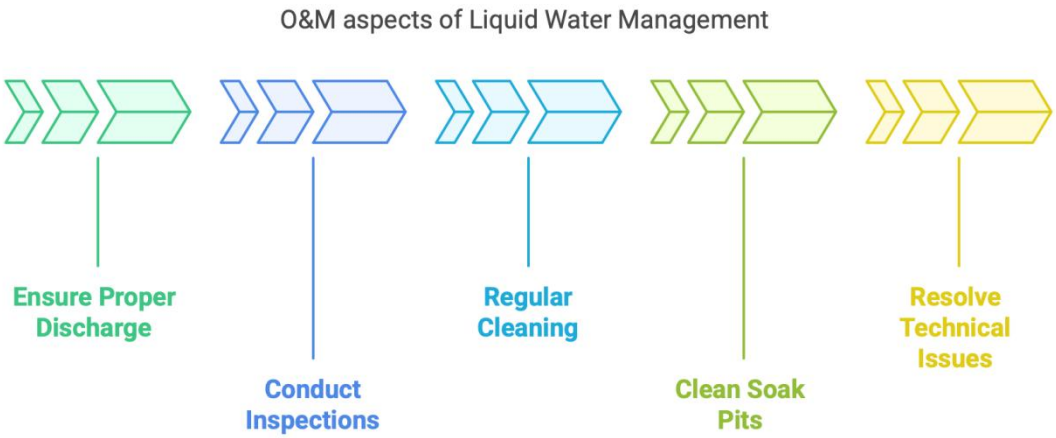
Category	Units	Construction / Supply	Fund
SWM at the household level (Segregation at household)	Dustbin at the household (availability of bins or bamboo bins at household) as per requirement	Self Fund	Household
SWM at the institution level a) Segregation bins b) Pipe Composting Units	a) As per requirement b) Three PVC pipes per 100 students in schools	a) Dustbins by GP/AP at GP offices or school committees at schools b) Pipe composting from SBM-G	a) 15th FC tied grants or school funds b) SBM-G
SWM at the community level (MCF and vehicle)	10 MCFs per GP (1 CMCF, 9 Mini MCFs)	1. Respective Gaon Panchayats in non-sixth schedule areas 2. Blocks/DRDA in Sixth Schedule areas	1. 70% (SBM-G), 30% (15th FC)
Dustbins at the community level	As per requirement	GP/AP at public places	15th FC tied grants
PWMU	One in each block	1. SBM-G to construct and supply machinery 2. Blocks to install external electrification	1. Fund from SBM-G for shed and machinery 2. Electrification from 15th FC tied grants of AP
GOBARDHAN	As per requirement, with at least one model biogas plant.	SBM-G	SBM-G

C. **Liquid Waste Management Assets**

Similar to SWM, Liquid Waste Management (LWM) in Assam is also one of the key pillars of the ODF Plus strategy under SBM-G Phase II. Various LWM approaches are required across villages to ensure proper treatment and disposal of household and community-generated greywater, thereby preventing environmental pollution and promoting health and hygiene.

Key LWM approaches in Assam include:

- Reuse through Kitchen Gardens: Promoting greywater reuse by diverting it to nutri-sensitive kitchen gardens, supporting household-level vegetable cultivation.
- Duckweed-based Treatment Ponds: Leveraging indigenous practices, duckweed ponds naturally treat greywater
- Household-level Soak Pits: Encouraging the construction of individual soak pits to manage greywater from kitchens and bathrooms, reducing surface runoff and promoting groundwater recharge.
- Community Soak Pits and Leach Pits: Developed in densely populated areas, schools, Anganwadis, and public institutions where individual systems are not feasible.
- Constructed Wetlands and Wastewater Channels: At the community level, these natural treatment systems are developed at the end of drainage lines to filter wastewater using vegetation and soil-based processes.



Gaon Panchayats to

- Ensure proper discharge of greywater into designated systems at the household level, such as kitchen gardens, duckweed ponds, or soak pits, avoiding stagnation and waterlogging in the community.
- Conduct regular inspections of greywater management structures, especially end-of-drainage treatment systems, to promptly identify and address any operational issues.
- Undertake routine cleaning of drains, with special focus on pre- and post-monsoon periods, to prevent blockages and ensure smooth flow of greywater.

- ❖ Clean and maintain community soak pits by removing accumulated solid waste, sludge, and scum, thereby preventing clogging and enhancing their capacity and lifespan.
- ❖ Coordinate with Block/District SBM-G teams to resolve any technical issues related to greywater infrastructure and ensure timely repairs or upgrades.

5. Institutional Framework

The O&M policy will be governed through a multi-level institutional framework with clear roles and responsibilities:

a) **State Level**:

1) State-level Committee: The State Level Committee will be the same committee as that of the State Water Sanitation Mission.

The committee may co-opt/induct any members based on requirements.

1. The State-Level Committee will play a strategic role in guiding and overseeing the effective implementation of the O&M Policy across Assam. Additionally, SBM-G, in collaboration with key line departments and missions such as P&RD, SIRD, and ASRLM, will ensure the following actions are undertaken:

1) Capacity building for districts and blocks on O&M procedures: Comprehensive training programs will be conducted for officials at the district and block levels to build their understanding of standardized O&M protocols. This includes:
   i. Developing and disseminating SOPs and manuals on asset operation, waste collection scheduling, vehicle management, and maintenance procedures.
   ii. Conducting regular workshops and refresher training for Panchayat-level staff, SHGs/CLFs, and sanitation workers to ensure uniform implementation.
   iii. Exposure visits and cross-learning platforms to replicate best practices from model districts.
2) Monitoring and evaluating policy implementation: A robust monitoring mechanism is necessary to ensure accountability and continuous improvement. This includes:
   i. Periodic reporting from GPs on asset functionality, vehicle usage, and SHG/CLF engagement.
   ii. Use of digital tools like GPS in vehicles for real-time data capture.
   iii. Evaluations and audits to assess the impact, identify gaps, and recommend actionable improvements.
   iv. Involving community members in coordination with District/Blocks in regular feedback to help monitor and improve the system.
3) Establishing partnerships/convergence: Effective convergence with allied missions, departments, and firms is vital to ensure resource optimization and sustainable operations:

i. SBM-U: Collaborate to align rural-urban waste management strategies, especially in peri-urban areas.

ii. ASRLM: Involve SHGs and CLFs in O&M roles for waste collection, segregation, and operation of MCFs, ensuring both livelihood generation and community ownership.

iii. PWRD: Leverage their engineering capacity for infrastructure support, viz., road construction using plastic waste under PMGSY, etc.

iv. Startups and Private Sector: Encourage innovative solutions and technologies through partnerships with waste management startups.

v. Cement & Brick Industries: Facilitate linkages for using non-recyclable plastic waste as fuel or raw material under extended producer responsibility (EPR) frameworks.

b) **District Level:** The District-level committee will be the same committee as the DIstrict Water and Sanitation Committee. The committee will play a pivotal role in ensuring that community SBM-G assets related to sanitation and SWM assets function effectively and sustainably at the grassroots.

The committee may co-opt/induct any members from the concerned departments/Missions viz., District Rural Livelihood Mission, etc., based on requirements.

In addition to the overall implementation of the O&M Policy in the district, DWSC in coordination with the Zilla Parishad and other line departments, will ensure the following:

1. Capacity building for local stakeholders for O&M: A key responsibility of the district is to empower and train local-level institutions and stakeholders involved in the operation and maintenance (O&M) of SWM assets. These include:

   i. Gaon Panchayat Water and Sanitation Committees (GPWSCs): Building their technical knowledge to oversee daily operations, minor repairs, and record-keeping related to SWM systems.

   ii. Self Help Groups (SHGs)/ Village Organizations (VOs): Training them in collection, segregation, composting, waste processing, and user fee management to ensure their effective role in service delivery and livelihoods.

   iii. Cluster Level Federations (CLFs): Enhancing their capacity to oversee operations, provide training in machinery handling for plastic waste processing at block-level PWMUs, and facilitate coordination with Gaon Panchayats and blocks.

   iv. Non-Governmental Organizations (NGOs): Involving NGOs with experience in community mobilization, O&M of assets in the absence of SHG/VOs to complement government efforts in sustaining SWM operations.

2. Regular monitoring of SWM assets: DWSC, PHED and Zilla Parishad, P&RD will ensure continuous monitoring of SWM systems to track their performance, ensure asset upkeep, and plan timely interventions. This includes:

   i. Technical Monitoring: Regular inspection of compost pits, collection vehicles, Material Collection Facilities (MCFs), and tools to ensure they are functional and used as intended.

ii. Financial Sustainability: Monitoring of user fee collection, expenditure on maintenance, and income from recyclables or compost to ensure O&M operations are not dependent solely on government funds.

iii. Reporting and Feedback: Enabling structured reporting formats from GPs, encouraging digital documentation, and establishing feedback mechanisms to promptly address issues.

c) **Block Level (Anchalik Panchayat):** At the Block level, the Anchalik Panchayat will serve as a vital link between the district and the Gaon Panchayats, playing a key role in the effective management of Plastic Waste Management Units (PWMUs) established under SBM-G.

The Block level committee will be composed of:

1) Block Development Officer, Chairperson

2) SDO, DWSC, Member

3) BPM, ASRLM

4) Representative from the Municipal Board nearest to the Block

5) Representative from 2-3 GPs

The committee may co-opt/induct any members from the concerned departments/Block.

In addition to the overall implementation of the O&M Policy, the block administration is responsible not only for overseeing the day-to-day operations of these facilities but also for facilitating convergence, capacity building, and sustainability through community-based institutions and formal linkages.

1. Management of Plastic Waste Management Units (PWMUs): Anchalik Panchayats will be directly responsible for:

i. Operational Oversight: Ensuring that PWMUs are functional, well-staffed, and follow standard protocols for plastic waste segregation, shredding, baling, and temporary storage.

ii. Maintenance and Repairs: Monitoring the condition of machinery and infrastructure, and facilitating timely maintenance through service providers or local arrangements.

iii. Record-Keeping: Maintaining data on daily collections, types and quantities of plastic waste processed, and income generated through sales or partnerships.

3. Involving Cluster Level Federations (CLFs) in O&M: CLFs are crucial community-based institutions capable of managing decentralized O&M responsibilities:

i. Operational Role: CLFs may be engaged in activities such as secondary segregation of plastic waste in PWMU, loading/unloading, and operation of shredders or balers.

ii. Livelihood Opportunities: Involving CLFs promotes local employment and livelihood enhancement, especially for women-led groups under ASRLM.

iii. Training and Monitoring: The block ensures regular training for CLFs in machine operation, safety measures, and financial record-keeping while also monitoring their performance.

iv. In the absence of relevant CLFs, the involved NGO or SHG in GPs of the Block may also be assigned for O&M of PWMU.

4. Ensuring Forward Linkages for Plastic Waste Processing

i. Linkages with Recycling Industries: The block will facilitate agreements with recycling units, contractors under PWD, and brick kilns for regular off-take of processed plastic waste, as guided by the SBM-G State HQ in collaboration with P&RD.

ii. Logistics Coordination: Ensuring that transportation, storage, and documentation are handled systematically to meet the compliance and financial viability of the unit.

iii. Compliance and Reporting: Submitting regular updates to district authorities and aligning operations with State HQ's directives and MoUs.

d) **Gaon Panchayat Level**: The GP will play a frontline role in the successful implementation and sustainability of Solid Waste Management (SWM) assets. At the core of this effort is the Gaon Panchayat Water and Sanitation Committee (GPWSC), which is responsible for planning, implementing, and overseeing all sanitation-related activities in the village. The GPWSC is a sub-committee of the GP formed, which may include elected panchayat members, Block representatives, DWSC officials, SHG representatives, and community leaders. Its primary responsibilities include:

a) Preparing and updating O&M plans and coordination with GP officials for uploading of GPDP in eGramSwaraj.

b) Overseeing the operation and maintenance (O&M) of SWM and sanitation assets.

c) Mobilizing community participation and awareness around hygiene practices.

d) Coordinating with Block, DWSC, and Zilla Parishads for resources and technical support.

e) Monitoring the functionality and performance of waste management systems.

At the GP level, tasks include:

1. Involving SHGs and Village Organisations (VOs) in Daily O&M Activities

i. The GP, under the guidance of the GPWSC, should engage Self-Help Groups (SHGs) and Village Organisations (VOs) in routine SWM tasks. This includes:

a) Door-to-door collection of household and commercial waste.

b) Segregation of waste at source and at Material Collection Points.

c) Composting of biodegradable waste through community compost pits or in MCFs.

d) User fee collection and basic record-keeping to support financial sustainability.

e) repair and maintenance of assets

ii. Involving Local Market Committees for O&M of Community Sanitary Complexes (CSCs): Markets are key areas generating significant footfall and waste. Local market committees will be:

a) Involved in managing CSCs, including cleanliness, water availability, and minor repairs.

b) Trained and supported to manage user fees for daily cleaning and upkeep of the complex.

iii. Collaboration with Local Recyclers and PWMUs: The GPWSC will actively facilitate partnerships with:

a) Local recyclers for the collection of dry, recyclable waste such as plastic, metal, and paper, helping reduce landfill burden and generate revenue.

b) Local entrepreneurs or traders who can buy recyclable materials directly from the GP or SHGs.

c) Block-level Plastic Waste Management Units (PWMUs) for forwarding segregated plastic waste for shredding and baling.

d) repair and maintenance of assets

iv. Repair and maintenance of GWM assets

6. Key Goals of the O&M Policy

The O&M Policy aims to ensure the long-term functionality, sustainability, and community ownership of sanitation assets across rural and peri-urban areas of Assam.

a) Community Ownership and Empowerment:

- The policy emphasizes the involvement of community members like VOs/SHGs at the village level and CLFs at the block level to take ownership of sanitation assets.
- In partnership with SBM-G and ASRLMS, selected VOs, SHGs, and CLFs will undergo structured training to build their capacity for handling O&M responsibilities.
- In locations lacking active community institutions, the policy also encourages the involvement of local NGOs at both the Gram Panchayat and Block levels to take on O&M roles.
- Awareness campaigns and behavior change communication (BCC) activities will be regularly conducted to promote waste segregation at source and the scientific disposal of waste, fostering a culture of cleanliness and accountability.

b) Financial Sustainability:

- A system of user fees from households, markets, and institutions is also proposed to fund ongoing SWM operations.
    - User fees from households at INR 20-30 per household per month may be levied for SWM operations.
    - Similarly, INR 50-100 per month per commercial establishment/institution may be levied.
    - (Details in Section 11)
- The policy encourages entrepreneurial models, supporting the production of compost and the sale of recyclable materials, with profits shared among GPs, SHGs/VOs, and CLFs to incentivize long-term engagement.
- 15th Finance Commission (FC) Tied Grants/Subsequent FC grants will be utilized to cover O&M expenses for the initial 12 months, with a framework for gap funding and sustainability measures outlined for subsequent periods.

c) Environmental Sustainability:

- The proposed policy promotes waste-to-wealth initiatives like composting and the conversion of plastic waste into commercial products.
- It mandates regular segregation, scientific treatment, and eco-friendly disposal of waste to protect natural ecosystems and minimize environmental hazards.
- The proper operation and maintenance of community sanitary complexes are also a key focus, as these directly contribute to improved public health, hygiene, and environmental cleanliness. Ensuring these facilities remain clean, functional, and accessible will help maintain the dignity and well-being of rural and peri-urban populations.

d) Capacity Building and Monitoring:

- Continuous training programs will be conducted for VOs/SHGs and CLFs to ensure effective management, regular maintenance, and prompt repair of sanitation infrastructure.
- Clearly defined roles and responsibilities will be assigned to stakeholders at both the GP and block levels, ensuring clarity and accountability.
- Periodic audits and performance reviews will be carried out by district-level authorities to assess the efficiency, transparency, and sustainability of O&M operations.

7. **O&M responsibilities related to SWM**

1. At Gaon Panchayat level (GP):

   a) Gaon Panchayat Water and Sanitation Committee (GPWSC): GPWSC will be responsible for the overall implementation of SWM in the GP. The GPWSC will be responsible for preparing the Annual O&M Budget, to be funded through the 15th Finance Commission tied grants and subsequently the 16th Finance Commission tied grants. It is essential to ensure that the O&M expenses are properly incorporated into the GPDP, approved through the appropriate processes, and uploaded on the eGramSwaraj portal.

   b) Overall, GPWSC will

      i. look into the overall operation and maintenance of SWM in the GP and will ensure the smooth conduction of waste collection, transportation, and disposal of solid waste

      ii. select and involve a SHG)/VO/Local NGO through an MoU for the daily operation and maintenance of assets under SWM in the GP

      iii. select the SHG/NGO for a period of one year, which may be further extended based on their performance

      iv. discontinue the services of the SHG/NGO based on non-performance

      v. undertake monthly monitoring of SWM works executed by the engaged SHG/NGO

      vi. ensure sustainable implementation of SWM in the GP

      vii. involve the SHG/NGO to mobilize communities in promoting awareness of household management of biodegradable waste via home composting or cattle feeding, as household biodegradable waste will not be collected by the manpower engaged for waste collection.

      viii. make sure everyone cooperates to maintain cleanliness.

      ix. promptly attend to community grievances so that their cooperation can be counted on

x. Arrange initial funding for meeting O&M expenses from 15th FC tied grant for sanitation/subsequent FC funds for 1st year, and subsequent gap funding thereafter.

c) SHGs/VOs or involved NGOs will be responsible for:

i. collection of segregated waste, transporting the segregated waste from households, public places, and Mini MCFs to Centralized MCFs, and composting of biodegradable waste

ii. Daily collection of solid waste from public places and Mini MCFs in villages.

iii. Monitoring compost prepared on a monthly basis in community compost pits/Centralized MCFs.

iv. Sale of recyclables to local recyclers (also known as rag pickers).

v. Transfer of non-recyclables to Block level Plastic Waste Management

vi. Recording and reporting daily waste collection, recyclable sales, and non-recyclables collected.

vii. Work closely with the GP to ensure proper O&M of SWM assets and ensure smooth coordination with recyclers and PWMUs.

d) Mode of Collection of Solid Waste: The GPWSC, in coordination with the designated implementing entity (e.g., SHG, NGO, or other service providers), may adopt suitable models for solid waste collection based on the local context. Two broad models are suggested below:

Model 1: Door-to-Door and Community Area Collection

a. Door-to-Door Collection (Households):

i. The implementing entity shall carry out door-to-door collection of only non-biodegradable solid waste from households.

ii. Households will be encouraged and trained to manage biodegradable waste through home composting practices to reduce waste at the source.

b. Collection from Community Areas:

i. Both biodegradable and non-biodegradable waste will be collected from public spaces such as markets and other community zones.

ii. Waste must be collected in a segregated manner and placed in separate compartments of the collection vehicle for appropriate disposal or processing.

Model 2: Only Community-Based Collection

a. Identification of Community Areas:

i. GPWSC, in consultation with the implementing entity, shall identify community areas within the GP. These locations will serve as designated waste collection points.

ii. Waste will be collected from these areas at a frequency determined by the GPWSC.

iii. No door-to-door collection will be undertaken in this model.

iv. The GP may place waste bins in these areas to facilitate segregation at the source and ease of collection.

b. Mini MCF Waste Collection: In addition to the community areas, the implementing entity will also be responsible for collecting waste from Mini Material Collection Facilities (Mini MCFs).

2. **At Block level**:

a) Anchalik Panchayat will act as the only committee responsible for the overall implementation of PWMU in the Block. Specifically, one Assistant BDO will be designated by the BDO, who will be the nodal person coordinating the overall implementation of the PWMU. Overall, the Anchalik Panchayat -

i. will be responsible for preparing the Annual O&M Budget, to be funded through the 15th Finance Commission tied grants and subsequently the 16th Finance Commission tied grants. It is essential to ensure that the O&M expenses are properly incorporated into the Block Development Plant, approved through the appropriate processes, and uploaded on the eGramSwaraj portal.

ii. will select and involve a relevant CLF/NGO related to SWM by having a formal MoU/agreement for the operation and maintenance of the PWMU for a period of one year, which may be further extended based on their performance.

iii. will discontinue the engaged CLF based on non-performance of PWM activities in the block.

iv. arrange initial funding for meeting O&M expenses from 15th FC tied grant for sanitation for 1st year, and subsequent gap funding from FC grants thereafter.

b) CLFs or involved NGOs will manage block-level SWM activities, particularly for:

i. overall operation and maintenance of the PWMU, viz., Operating plastic processing machinery and ensuring their effective usage.

ii. managing waste segregation and plastic recycling at block-level PWMUs.

iii. coordinating with contractors/firms for road construction, brick and paver block manufacturing, or any other vendors that deal in processed plastic waste, i.e., shredded and baled plastics.

iv. Reviewing monthly reports on plastic waste collection and processing, revenue generation, etc., as received from the appointed supervisor, and sharing details with the Assistant BDO.

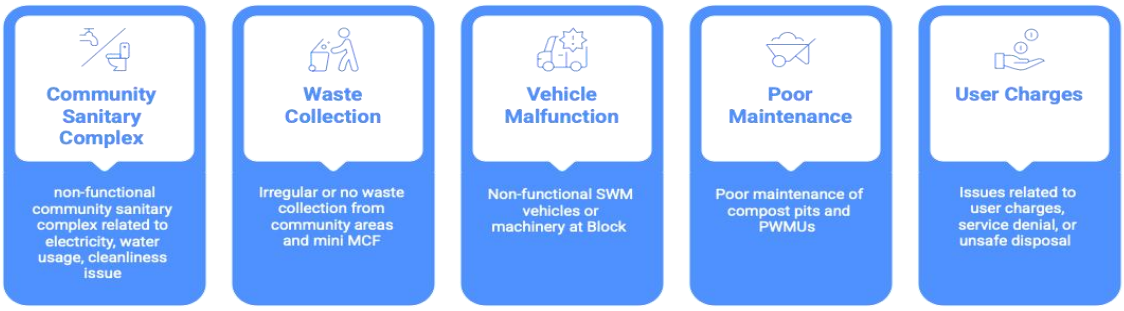
v. Overseeing records of waste processed and commercialized.

8. Grievance Redressal Mechanism

To ensure timely resolution, officers at the District and Mission HQ levels shall be nominated to oversee grievances, track redressal progress, and ensure accountability across all levels.

Grievances will be addressed in a three-tier system

Grievances under various categories of SBM-G assets are listed below.



Submission of grievances and their resolution will be approached in a similar way as mentioned in the JJM O&M Policy

9. Human Resources and Capacity Building

Capacity building across all levels—State, District, PHE Divisions, Gaon Panchayats, and villages—is essential for ensuring the sustainability of SBM-G assets. To institutionalize a structured approach, the State shall develop a competency-based capacity-building framework, including a competency dictionary outlining the required skills, knowledge, and functional expertise for different stakeholders. This framework shall guide structured training initiatives, ensuring targeted skill development aligned with the operational needs of the sector. Strengthening technical expertise, administrative efficiency, and financial management capabilities shall contribute to enhancing the overall O&M efficiency of SBM-G assets.

The State is currently training key functionaries in planning, execution, monitoring, and O&M of SBM-G assets. Moving forward, the focus shall be on the grassroots enablers—including women's groups/SHGs, SwaJal Mitras (or the Jal Sahayak), WSUC members,

schools, Anganwadi centers, and block- and district-level teams—equipping them with skills in water quality monitoring, scheme assessments, and overall scheme management for greater efficiency. Additionally, GP Secretaries and AE/JE of GPs shall be trained by local Key Resource Centers.

By equipping stakeholders with the necessary skills, knowledge, and resources, capacity building enhances their ability to manage, operate, and maintain systems more effectively. It shall ensure informed decision-making, improve service delivery, and foster long-term sustainability in water management.

This section addresses the following aspects of Human Resource and Capacity Building:

A. Capacity Building of Stakeholders for O&M Responsibilities.

The policy statements regarding the skilling of stakeholders for O&M responsibilities are:

a. Annual training plans shall be developed based on stakeholder roles, ensuring targeted capacity-building initiatives.

b. Training plans shall follow a bottom-up approach—developed at the GP level, consolidated at the District level, and submitted for final approval as the State Training Plan at the highest level.

c. Similar to grievance redressal, the JJM-BRAIN shall have a reporting placeholder on such training programs to be monitored at the state level and nudge the districts/GPs in case they fail to report on planning and implementation.

d. The state HQ may also create a framework defining the basic requirements of such plans at the GP and District levels.

e. Stakeholders across state, district, PHE divisions, GP, and village levels shall be identified, with clearly defined roles and responsibilities in the O&M ecosystem.

f. At the GP and village levels, PHED divisions and WSUC/WUCs may modify training content based on local needs and available financial resources.

g. The financial outlay for training shall be detailed in the Annual Training Plan, specifying funding sources and budget allocations.

h. A state-level WASH cell (with sub-centers at the district level) has been established at P&RD for enhancing the capacity and sustainability of WASH efforts. In this regard, the PHE department shall provide the necessary technical support.

i. Capacity-building initiatives shall be monitored by a state-level committee, with a district-level committee headed by a coordinator - capacity building overseeing implementation at district, GP, and village levels.

B. Skilling of manpower at the community level:

The policy statements regarding skilling of manpower at the community level for O&M responsibilities. Various Training initiatives shall be expanded to include WSUCs, SHGs, CLFs and other key stakeholders, strengthening their capacity to manage and sustain

SWM operations at GP and Block level (operation of Plastic waste processing machinery). Periodic refresher training for SwaJal Mitras (or the Jal Sahayak) will also be conducted to reinforce learning, introduce new advancements *(if any)*, and enhance service delivery in the field.

C. Community engagement:

Along with capacity-building measures, information, education, and communication (IEC) activities play a critical role in driving community engagement with SBM-G assets. The core focus of IEC initiatives shall be to create a convincing narrative directed towards effective management of solid waste at GP and Block level, the importance of user fees for the sustenance of SWM assets, and ensuring visual cleanliness. By raising awareness about the benefits of an effective SWM approach, IEC efforts will help build long-term behavioral shifts toward sustainable management of SBM-G assets.

To ensure this, the following measures shall be undertaken:

a. The GPs shall prepare an Annual IEC Plan based on O&M requirements, outlining message content, dissemination mediums, and budget for execution.

b. The GP-level IEC Plan shall be submitted to the Zilla Parishad for consolidation.

c. The Zilla Parishads shall further submit a consolidated plan to P&RD, which shall develop a State-level IEC Plan with an annual budget, subject to approval at the highest State level.

d. If a private agency or an NGO is engaged for IEC activities at the GP, District, or State level, it must be empaneled at the State level.

e. The rules and regulations for which shall be notified and amended by the concerned departments as per the requirements/changes.

f. The GP shall oversee the implementation of the IEC plans, including fund utilization, to ensure effective information dissemination.

g. At the GP level, IEC teams, on a monthly basis, shall keep a record of interventions undertaken, identify compelling storytelling narratives, document working experiences, and share the compilations for review and mass propagation at district and state level.

10. Financial Involvement at GP and Block Levels for SWM

I. Gaon Panchayats (GPs):

- SHGs/VOs or NGOs will manage operations with financial backing from the 15th Finance Commission-tied grants/subsequent FC grants during the first year.
- From the first year of operations, revenue will be generated through user fees, and the sale of compost and recyclables.

- GPs will utilize their portion as an independent revenue source for ongoing SWM operations.
- SHGs/VOs will reinvest their share to enhance local waste management activities and support community-based initiatives, promoting long-term sustainability.
- Profits, if earned, will be shared between GPs and SHGs/VOs as decided by GPWSC in coordination with the involved entity.

II. **Blocks:**

- CLFs or NGOs will operate PWMU with financial backing from the 15th Finance Commission tied grants for initial operations during the 1st year.
- Revenue from plastic waste processing and their sales is expected to sustain the operations post the first year
- Should any shortfall arise, it will be addressed using the 15th FC tied grants/subsequent FC funds.
- Any profits from plastic waste processing will be shared between GPs, Block and the involved entity. This will be decided in coordination with the CEO,ZP and Block.

11. Financial Sustainability Measures:

I. **15th Finance Commission (FC) Tied Grants:** 30% of Sanitation Funds allocated for Operation & Maintenance (O&M) of sanitation assets.

A. For SWM,

a. Waste collection, composting, disposal activity (GP level)

b. Repair/maintenance of waste collection vehicles and infrastructure (GP level)

c. Operation of plastic waste processing machinery at Block PWMUs (Block level)

d. Electricity expenses for charging battery vehicles for waste collection (GP level), machinery operation (Block level).

B. For operational and maintenance-related expenses of CSCs.

C. For maintenance of LWM systems, viz., cleaning of drains, soak pits, etc.

II. Full O&M Funding through 15th FC tied grants/Subsequent FC funds to establish operations through stakeholders (SHGs/NGOs/CLFs, etc) for the 1st year.

III. **Gap funding mechanism**: Post-Year 1, 15th FC-tied grants/Subsequent FC funds will supplement operational costs only if revenue falls short.

IV. Sources of revenue for SWM at GP level:

a. User fees: ₹20–30/month per household; ₹50–100/month per commercial entity.

b. Compost sales: Revenue from organic waste processed at CMCFs by SHGs/NGOs.

c. Recyclables & Processed Plastic: Sale of recyclable plastic waste by SHGs/NGOs to registered recyclers.

V. At block PWMUs, revenue from sale of processed plastic (e.g., shredded material) by CLFs to local contractors for road construction/brick manufacturing, or other related vendors.

12. Capping of O&M services

I. For SWM at GP level

Sl. No.	*Details*	*One month expenditure at GP for 1 household (INR)*	*one month expenditure at GP for 1000 household (INR)*
a)	1. Waste collection from houses, markets, Mini MCFs	5	5000
	2. Composting in Central MCF, segregation of waste in MCF	5	5000
	3. Transportation of collected plastic waste to PWMU	5	5000
b	Electricity expenses for charging the battery vehicles for waste collection (*40-45 Units consumption/month in a GP)*	2	2000
c	Monthly miscellaneous expenses bags for compost storage and packaging, spade, containers (if required), weighing balance (one time) earthworms for vermicomposting (one time) and ropes for packaging plastic waste for transportation to PWMU, repair and maintenance of vehicles)	3	3000
	Total (INR)	20	20000

User fees from commercial establishments/institutions etc., may be collected at a minimum of INR 50 per month per entity.
** The user fee herein for households, as reflected in the "Total," falls within a similar bracket as those notified in the O&M Policy of Jammu & Kashmir, the JJM O&M Policy, Assam*
NB: In the first year, O&M funding shall be provisioned at ₹20 per household per month, to be drawn from the 15th Finance Commission tied grants for sanitation. From the second year onwards, user charges may be gradually increased—up to ₹30 per household per month and up to ₹100 per commercial entity/institution per month, in line

in line with the user fee structure notified under the JJM, Assam, as approved in Cabinet.

II. For SWM at Block level

Sl. No.	Details of O & M	Per Block PWMU
Monthly fund allocation for PWMU		Up to Rs. 25,000 per month for blocks for operational expenses.
a	Operational expenses are to be transferred to the involved CLF/NGO for 1. Cleaning and sorting of plastics 2. Shredding of plastic waste in the plastic waste shredder 3. Baling of plastic waste	up to INR 10000 per month.
b	Electricity expenses are to be paid by the block to APDCL for machinery operation and additional electricity usage in PWMU	up to INR 13000 per month.
c	Operational expenses are to be borne by blocks or transferred to the involved CLF/NGO for Miscellaneous expenses (plastic packaging materials, containers, storage bags, washing drums for cleaning collected plastic waste, tarpaulin sheets for laying plastic waste, etc.)	up to INR 2000 per month
Details of component-wise expenditure are shown in Annexure 1		

III. For CSCs

For all CSCs in a GP currently not being run under any Committee of Holy Places, Markets, these will be handed over to an SHG, identified by the GPWSC. The identified SHG will be handed over the responsibility with O&M support (cleaning and maintenance) of ₹5,000 per unit from the 15th Finance Commission tied grants. The Pay and Use model is to be adopted by the managing entity to ensure sustainability at INR 5-10/usage. Additionally, one year operational expenses will be provided from the 15th FC tied grants allocated for sanitation.

13. Faecal Sludge Management (FSM)

FSM in rural areas focuses on promoting the construction of twin-pit toilets, which provide a safe, low-cost, and effective sanitation solution. Twin-pit toilets not only prevent open defecation but also allow for the safe on-site treatment of human waste, minimizing environmental contamination and promoting public health.

In addition, proper desludging of septic tanks is facilitated by linking villages to nearby urban Faecal Sludge Treatment Plants (FSTPs). This system ensures that faecal sludge collected from septic tanks is transported and treated in an environmentally safe manner, reducing risks of untreated waste discharge. In line with this, Urban-rural convergence for Faecal Sludge and Septage Management (FSSM) in Assam is an innovative approach aimed at creating a sustainable and efficient system for faecal sludge and septage treatment across the state. Instead of developing isolated infrastructure for urban and rural areas, this model promotes shared ownership and responsibilities between Urban Local Bodies (ULBs) and Rural Local Bodies (RLBs). The objective is to optimize resources, avoid duplication of investments and efforts, and ensure a continuous and reliable treatment system by creating strong linkages between urban and nearby rural areas within a 15–20 km radius.

Under this model, the Department of Housing and Urban Affairs (DoHUA), Assam, is implementing Urban Faecal Sludge Treatment Plants (FSTPs) across 32 Municipal Boards. These treatment plants are designed not only to serve urban populations but also to extend their services to nearby villages with septic tanks. As of now, 364 villages have been mapped and linked to 10 operational Urban FSTPs, receiving regular desludging services through a service fee jointly decided by the Municipal Board and Block administration. This ensures steady utilization of the treatment infrastructure while providing an affordable, safe sanitation solution to rural households.

Suggested service fees for households in GPs availing desludging services from Urban FSTP s proposed as:

i) For 3 KLD cesspool emptier vehicles						
Category	**One-way distance of GP from ULB boundary (in km)**	**Total distance (in km)**	**Approximate fuel requirement (@6 km per liter)**	**Fuel Charges (@Rs. 90 per liter)**	**Base Price for FSM Cesspool inside ULB (in Rs.)**	**Total Charge (in Rs.)**
A	10	20	3	270	X	270 + X
B	15	30	5	450	X	450 + X
C	20	40	7	630	X	630 + X
X= Fixed rate for desludging in ULB for Urban FSTP						

ii) For 1 KLD cesspool emptier vehicles						
Category	**One-way distance of GP from ULB boundary (in km)**	**Total Distance (in km)**	**Approx. fuel requirement (@6 km per liter)**	**Fuel charges (@Rs. 90 per liter)**	**Base Price for FSM Cesspool inside ULB (in Rs.)**	**Total Charge (In Rs.)**
A	10	20	2	180	Y	180 + Y
B	15	30	3	270	Y	270 + Y
C	20	40	5	450	Y	450 + Y

In parallel, the state is planning Rural FSTPs in around 20 districts to further strengthen rural sanitation coverage. These rural plants will serve villages directly and Municipal Boards that have septic tanks but lack their own FSTP facilities. By integrating urban and rural FSSM systems, Assam aims to maximize treatment capacity utilization, promote efficient service delivery, and improve public health outcomes. This convergence strategy ensures a holistic approach to sanitation management, fostering cooperation between urban and rural governance structures while moving toward comprehensive and environmentally sound sanitation coverage throughout the state.

Annexure I

Sl. No.	Details of O & M of SWM assets at GP	Remarks
a)	Costs related operational expenses to be transferred to involved SHG/NGO from GPs per month from 15th FC tied grants Operational expenses are listed out as 1. Waste collection and transportation a) Collection from houses, markets, Mini MCFs, and transportation to Central MCF b) Transportation of collected plastic waste to PWMU at block 2. Processing of collected waste in Central MCF a) Composting of biodegradable waste in Central MCF b) Secondary segregation of non-biodegradable waste in Central MCF	1. Usage of two vehicles for waste collection and transportation a) 1 battery vehicle for villages (3 or more villages) far from Central MCF b) 1 tricycle for nearby villages (1-2 nos. villages) from Central MCF c) 1 additional tricycle can be put in stand-by mode, may be used when required or as per the convenience of the involved SHG or NGO 2. Plastic waste transportation from Central MCF to PWMU should be done using Battery vehicle
b	Electricity expenses for charging Battery vehicle for waste collection	For overnight charging (6-8h) of electric vehicle of 60V
c	Monthly miscellaneous expenses (bags for compost storage and packaging, spade, containers (if required), earthworms for vermicomposting (one time) and ropes for packaging plastic waste for transportation to PWMU, repair and maintenance of vehicles, weighing balance (one time))	1. Jute bags for compost storage (50kg/bag) **@ INR 150 per bag** (will be required from 3rd month of operation of MCFs), weighing balance (up to INR 1000-1500) 2. **One time cost** of spade, earthworms, containers **(up to INR 1000)**, with recurring costs that may incur from the purchase of containers, as and when required) 3. Repair of vehicles (as per market rates and repair needed for vehicles (yearly 2-3 maintenance may be required)

Sl. No.	Details of O & M of PWMU at Block	Cost involvement	Remarks
a	Operational expenses to be transferred to involved CLF/NGO from Blocks per month from 15th FC tied grants 1. Cleaning and sorting of plastics 2. Shredding of plastic waste in plastic waste shredder 3. Baling of plastic waste	up to a maximum of INR 15000 per month	1. Cleaning of plastics: Washing with water in a drum and drying before shredding. 2. Shredding of plastics: Cleaned plastics to be shredded in the plastic shredder. 3. Baling of plastic waste: Recyclable plastic to be baled in the baling machine for sale to rag pickers/kabadiwallahs
b	Electricity expenses to be paid by Block to APDCL for machinery operation and additional electricity usage in PWMU	up to INR 13000 per month.	Based on a maximum 8h of operation of machinery in the PWMU.
c	Operational expenses to be borne by blocks or transferred to involved CLF/NGO for Miscellaneous expenses (plastic packaging materials, containers, storage bags, washing drums for cleaning collected plastic waste, tarpaulin sheets for laying plastic waste, etc.)	up to INR 2000 per month	1. One time purchase of a) drums (250-300l) for storage of water to wash plastics, b) tarpaulin sheets for drying cleaned plastics 2. Recurring costs for ropes for tying plastic waste in the baling machine, storage bags for shredded plastics meant for sale to contractors/vendors for road construction, brick manufacturing, etc.