



# INSIGHTS DOCUMENT

## Exposure Visit to Odisha



A Deep Dive into Odisha's  
Inclusive Sanitation Journey



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# Reflection Sessions

Over the course of the 4-day exposure visit to Odisha, there were several best practices that were identified with the potential for contextualization by participants. These learnings culminated into the reflection session on the final day of the visit, with participants identifying best practices that they would like to take back to their geographies and areas of support required to do the same, keeping in mind the overarching challenges faced in the region.

## Challenges:

While each ULB and state identified specific challenges that they anticipate facing in adapting best practices from Odisha, there were some overarching issues common for all participants. Given the context of the hilly terrain, the most prominent challenges that arose were with respect to land availability, especially given rising populations, and funding mechanisms.

### Land

There are significant challenges faced across the sanitation value chain due to land constraints in hilly areas.

#### Containment:

The properties of the land, its rocks, and mineralogical composition differ across the hilly terrain, making it essential to assess the geology of an area for the containment of faecal waste. For example, in some places, soak pits can lead to the formation of cavities or pockets within the ground, especially between soil and underlying boulders. Such disturbances can lead to landslides or other disasters. Given the vast differences in specific geological conditions, it is crucial that an area is assessed carefully before implementing sanitation solutions.

#### Treatment:

Land availability for treatment facilities is a significant challenge, as most land in hilly areas is forest land or privately owned. Further, treatment facilities - STPs or FSTPs - require flat land, which is limited in hilly terrains or would require additional resources for flattening the land. Keeping these challenges in mind,

innovative technologies and a participatory approach to initiatives can be adopted, enabling the usage of community-owned land.

### Financing

The second major challenge is finances. Given the complexities of constructing treatment facilities in hilly terrains - relating to land acquisition, flattening of land, and geologically contextualised solutions - the funds allocated may not suffice. Limited funds and low devolution of functions at the ULB level pose obstacles to decentralized decision-making. Further, hilly states face unique challenges that can be costly to solve, garnering the need for higher state budgets to adapt and implement successful solutions from other parts of the country.

### Climatic Conditions

The extreme and erratic weather of hilly terrains poses unique challenges. For instance, excessive rain and snow along with low temperatures create difficulties in maintaining sanitation service delivery. ULBs located near the river are affected by flash floods, resulting in the swelling of the river and infrastructure loss. Therefore, nature-based solutions such as solar drying that cater to other parts of the country may not function as well or as reliably in hilly terrains. This garners the need for hilly states to consider innovative technologies (such as multi-story STPs and on-site treatment) that can operate independent of changing weather or climate stress.



Reflection Sessions

ULB Officials

Opportunities Identified by ULB officials:

The state and ULB officials identified various opportunities to improve the sanitation landscape in their geographies. These initiatives range from community engagement to digitalisation, each of which have adopted an inclusive sanitation lens to service delivery.

1. SHG Model

- Expanded Engagement of SHGs**  
Self-Help Groups (SHGs) to be engaged in additional roles, including waste segregation and management, as well as operation and maintenance of existing sanitation infrastructure through formal MoUs.
- Capacity Building**  
Regular training and capacity building of SHG members to enhance efficiency and accountability.

2. Sanitation Workers Safety

- Establishment of Garima Grihas**  
Rest houses for sanitation workers equipped with toilets, washing facilities, lockers, and rest areas.
- Recognition of Skilled Sanitation Workers**  
As a learning from the Garima Scheme, classifying core sanitation workers as “Skilled” and “Highly Skilled” to ensure appropriate compensation and dignity of labour.
- Grievance Redressal System**  
A platform for sanitation workers to share obstacles and difficulties and a process to address these challenges.

3. Governance Mechanisms:

- Development of Adarsh Colonies**  
Utilizing community-owned land for habitat development and sanitation infrastructure through participatory planning, with active involvement of end-users in decision-making.
- Digital Monitoring via UMEED Dashboard**  
Digitalisation of sanitation-related data for real-time monitoring and performance tracking.
- Formation of Ward-Level Sanitation Committees**  
Committees comprising Head Councillors, Swachh Saathis, and supervisors to oversee sanitation efforts.
- Role Clarity**  
Defining clear roles and responsibilities across all stakeholders to avoid duplication and ensure accountability.
- Creating Accountability**  
Introducing a system of penalties and rewards to promote consistency and improve outcomes.
- Enhanced Interdepartmental Coordination**  
Strengthening coordination mechanisms among departments for streamlined implementation.
- Regulations and Bans on Single-Use Plastics**  
Enforcing restrictions on the use of single-use plastics to reduce environmental impact.

4. Financing:

- Mobilisation of Funds**  
Unlocking and leveraging funds from central and state schemes including AMRUT, NAMASTE, Ayushman Bharat, and 15th Finance Commission funds.
- Leveraging Taxes**  
Levying a household sanitation tax to fund sanitation service delivery.

5. Awareness Building:

- IEC and BCC Campaigns**  
Launch of Information, Education, and Communication (IEC) and Behaviour Change Communication (BCC) initiatives to raise public awareness and encourage responsible behaviour.

Support Required

ULBs require support from higher levels of government, and from the Parvat Manthan platform to enable this dialogue in the following areas:

1. Financing mechanisms

- Budget Allocation**  
Parvat Manthan will engage with government departments to support community-based sanitation initiatives and participatory planning for increased budgets.
- Devolution of Funds and Functions**  
Increased transfer of functions and funds from the state to ULBs to enable decentralized decision-making.
- Revenue Generation for SHGs**  
Mechanisms for income generation for SHG members, along with allocated budgets for their activities.
- Increased Financial Support for Hilly States**  
Higher budgetary provisions required from the national level to address the unique and cost-intensive challenges faced by hilly regions. Additionally, support in capturing funds from the private sector and CSR.

2. Policy

- Institutional Collaboration**  
Strengthened coordination between the State Government and ULBs for effective planning and implementation.
  - Contextualisation**  
Hilly-terrain specific guidelines are required for sanitation planning.
3. Capacity Building
- Technical Assistance**  
Support required for the development of Standard Operating Procedures (SOPs) and for training around desludging and effective containment.
  - Engagement with Knowledge Partners**  
Consultation with expert organisations to provide technical guidance.

- Digitalisation Support**  
Assistance required for implementing digital systems, including the creation of real-time monitoring dashboards.
- Standards and Guidelines**  
Formats and standards are required for property tax accounting.

Reflection Session

State Level Officials

In addition to the reflections above, each state shared state-specific priorities and key takeaways.

Meghalaya:

**Governance:**  
Meghalaya is looking forward to establishing a separate government institution focused on water and sewerage, along with learning from Uttarakhand's efforts to set up an STP.

Manipur:

**Community and SHG Engagement:**  
Manipur has strong community networks which it is now going to focus on leveraging for sanitation efforts. Specifically, the state aims to focus on creating and engaging women SHGs and transgender groups.

**Digitisation:**  
Digital governance of sanitation efforts emerged as a priority from the state, with appetite to engage with the Upyog platform.

**Financing:**  
For financing and governance support, Manipur will be exploring the Amrut Mitra Scheme and NULM.

Uttarakhand:

**Community:**  
Already leading technological and infrastructural innovations for sanitation in the hilly terrain, Uttarakhand now seeks to focus on community participation and welfare.

**Replication:**  
Specifically, the Uttarakhand government will explore the replication of Garima Grihas and Adarsh Colonies.

Sikkim:

**Policy:**  
Sikkim is currently focused on creating a holistic state policy to address various sanitation related challenges.

**Awareness building:**  
Considering the influence and respect retained by retired government officers, they - along with CSOs and teachers' associations - can be engaged in effective IEC and BCC activities.

**Segregation:**  
Sikkim seeks to replicate segregation at source to manage dry waste effectively.

Darjeeling:

**SHG Engagement:**  
While SHGs are currently engaged in small handicraft work, pick-making etc, Darjeeling now seeks to mobilise SHG groups in urban services.

**Inclusivity:**  
Exploring the possibility of enumerating transgender groups in Darjeeling and setting up a formal system for them to be onboarded by the ULBs for service delivery.

Nagaland:

**Policy:**  
The state identified the need for contextualised policies as well as implementation support from central government bodies such as CPHEEO, since generalised and national level policies are difficult to adapt to the local context.

**Capacity Building:**  
Nagaland also seeks capacity building support from knowledge partners to strengthen governance. With strengthened governance across levels, the state will be able to devolve increased functions to ULBs.

**Collaboration and partnerships:**  
Nagaland seeks to increase collaboration with other states and knowledge partners for capacity building opportunities in governance and implementation. Currently, Nagaland has signed an MoU with NIUA as a knowledge partner.

**Technology:**  
For sustainable management of waste, Nagaland seeks to adopt contextualised nature-based technological solutions.

**Enhanced Service Delivery:**  
For sustainable O&M of sanitation infrastructure, Nagaland seeks to adapt best practices from Odisha, including the Garima scheme and Sujog. The state can achieve this by adopting the national-level Namaste Scheme and Upyog Platform.



Insights from Exposure Visit Sites

Basuaghai FSTP and Weath Centre



**Location:**  
Basuaghai is a village situated in Khordha district of Odisha, India.

**Inception:**  
The Basuaghai FSTP was commissioned in 2018 under AMRUT by the Odisha Water Supply and Sewerage Board (OWSSB)<sup>1</sup>. It was the first-of-its-kind plant in India which treats both solid and liquid parts of septage in an integrated way.

**Technology:**  
The FSTP operates on nature-based Decentralised Wastewater Treatment Systems (DEWATS) technology.



A. General Specifications

|                    |                                                                       |
|--------------------|-----------------------------------------------------------------------|
| Capital Cost       | ₹3.54 crore                                                           |
| Monthly O&M Cost   | ₹1.5 lakh                                                             |
| Total Area         | 2.47 acres                                                            |
| Population Served  | 2.2 lakh (urban, peri-urban, and rural)                               |
| Treatment Capacity | 1.5 lakh litres/day (2 × 75 KLD tanks)                                |
| Solar Power        | 10 kW grid-connected solar panels                                     |
| Byproducts         | Treated water (landscaping)<br>Biosolids (soil conditioning/road use) |

B. Core Infrastructure Components

|                           |                                                                                                                                                                                                                                                              |
|---------------------------|--------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|
| Receiving System          | Elevated platform for truck/tanker unloading                                                                                                                                                                                                                 |
| Sludge Receiving Box      | 1.5 m × 1.5 m                                                                                                                                                                                                                                                |
| Inlet Channel             | 3 m long with 45° screen bar                                                                                                                                                                                                                                 |
| Settling-Thickening Tank  | 14.5 m × 2.5 m × 2.55 m; sludge removed every 10 days                                                                                                                                                                                                        |
| Sludge Drying Beds        | Open sun-drying; non-RCC (cement), gravel base with 0.2m slope                                                                                                                                                                                               |
| Anaerobic Baffled Reactor | 5 chambers, 2–3 day detention, with baffle walls & bacteria layers                                                                                                                                                                                           |
| Gravel Filter             | Horizontal planted/unplanted; even flow via overhead pipes                                                                                                                                                                                                   |
| Polishing Pond            | Final stage for treated water before reuse                                                                                                                                                                                                                   |
| Operational Flow          | 1. Faecal sludge emptied into receiving box → inlet channel with screen bar<br>2. Screened waste → Settling-Thickening tank<br>3. Thickened sludge → Drying beds; supernatant → ABR<br>4. Treated effluent → Gravel filters → Polishing pond → Reused onsite |

C. Operations

|                             |                                                                                                                                                                                                                                                                                   |
|-----------------------------|-----------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|
| Service Model               | On-demand desludging via <b>Sujog App</b> ₹800/trip                                                                                                                                                                                                                               |
| Ownership Models            | Desludging vehicles fall into one of the following categories: <ul style="list-style-type: none"><li>Government-owned and government-operated vehicles</li><li>Government-owned and privately-operated vehicles</li><li>Privately owned and privately-operated vehicles</li></ul> |
| Treatment Design Efficiency | Simple layout: Gravel beds, equal water distribution through pipes                                                                                                                                                                                                                |
| Reuse & Circularity         | Reuse of end products for road construction and for composting<br>Piloting use for thermal energy generation                                                                                                                                                                      |
| Limitations                 | No biosafety standards yet for agri-use<br>Hazardous sludge not reusable as-is                                                                                                                                                                                                    |

<sup>1</sup>NFSSM Alliance. (2024, August 2). The ABC of FSSM Operations | A Deep Dive into Bhubaneshwar's STP. YouTube. <https://www.youtube.com/watch?v=AtWO901-SEI>

D. Community Integration & Impact

Urban-Rural  
Convergence

29 Gram Panchayats mapped and connected to urban FSTP.  
1.5 lakh litres treated a day from urban, peri-urban, and rural areas.

Community  
Engagement

- FSTP management is anchored in community ownership, operated by SHGs including transgender communities and PWD members, demonstrating a scalable model for social inclusion and livelihoods.
- IEC and mobilisation activities undertaken to promote desludging practices.

Tagging of  
Households

Geo-tagging of all households to enable efficient on-demand desludging, along with raising and resolving complaints.

Key Insights from Basuaghai FSTP

Inclusive Operations through SHGs:

Not only does employing SHGs for ownership provide community members with livelihood opportunities, but it also enables workers to take up ownership and accountability since they are stakeholders in waste management.

Pathways to Circularity,  
Despite Limitations

- While bio-product reuse is limited due to the lack of national standards, the site explores options like road construction use, co-composting, and thermal partnerships.
- A “sale counter” model is being piloted to support future waste-to-wealth transitions, making this a promising template for others aiming to leverage the sanitation ecosystem towards circularity.

Central CWIS Outcomes:

- **Safety** ensured through the safe treatment of faecal sludge, protecting public and environmental health.
- **Sustainability** enabled through optimised service delivery, the safe disposal of faecal sludge, and reuse of end-products.
- **Equity** is promoted in employing SHGs for the O&M of the FSTP, encouraging ownership of services by local communities and providing livelihood opportunities for marginalised groups.



Insights from Exposure Visit Sites

Adarsh Colony

The Jaga Mission or Odisha Livable Habitat Mission was launched by the Odisha Government’s Housing and Urban Development Department (HUDD) in 2018 with the objective of transforming existing slums into livable habitats. The scheme aims to provide ownership and land rights to its citizens, through:

- ✓ land tenure security
- 📊 holistic habitat development
- 🏠 improved housing
- 🗣️ integrating the voices of the urban poor in policy planning and budgeting



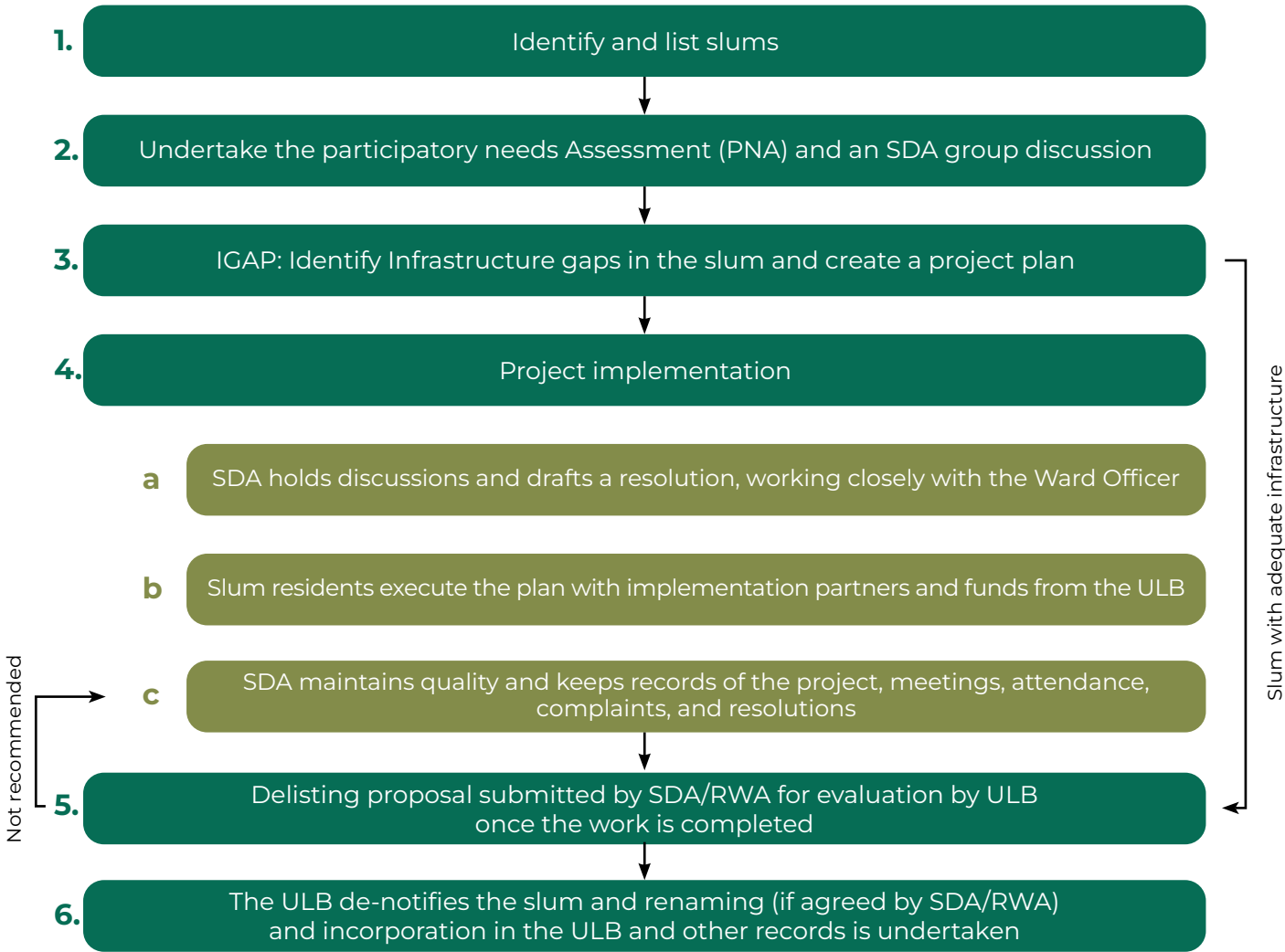
A. Core Components of Jaga Mission

|                    |                                                                                                                                                                                                             |
|--------------------|-------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|
| Land Rights        | Legal recognition and land rights provided to households                                                                                                                                                    |
| Adarsh Colonies    | “Model” colonies that are indistinguishable from the rest of city; 1,680 developed.                                                                                                                         |
| Key Amenities      | 9 Amenities: Water supply, electricity, roads, streetlights, household latrines, drainage, play area, open space, community center.                                                                         |
| SDA Formation      | Slum Dweller Associations (SDAs) represent slum dwellers’ in governance, acting as the <b>4th tier of governance</b> and working closely with the ULB to implement infrastructural development in the slum. |
| Delisting of Slums | Adarsh colonies are delisted as “slums” and slum-proofed for the future.                                                                                                                                    |

B. Slum Dwellers’ Association

|                          |                                                                                                                                                                                                                                                                                                                                           |
|--------------------------|-------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|
| Executive Committee      | 10 elected members from the community                                                                                                                                                                                                                                                                                                     |
| Gender Inclusion Mandate | 50% women members mandated (often exceeded in practice)                                                                                                                                                                                                                                                                                   |
| Funds Flow Mechanism     | 25% of ULB budget earmarked for slum development → credited to SDA accounts                                                                                                                                                                                                                                                               |
| SDA Responsibilities     | Identification of infrastructural gaps, creating project plans, drafting a resolution for projects, executing the plan with slum residents, monitoring quality and record-keeping, submitting delisting proposals.<br>Additional responsibilities: holding meetings, taking attendance, registering complaints, and creating resolutions. |
| Engagement Protocol      | Resolutions raised → submitted to Ward Officer → ULB support for execution                                                                                                                                                                                                                                                                |

PROCESS FLOW TOWARDS CREATING A BIJU ADARSH COLONY



| C. Technology & Monitoring Tools |                                                                                                                                         |
|----------------------------------|-----------------------------------------------------------------------------------------------------------------------------------------|
| BAC Portal                       | GIS-based platform displaying slum-wise data on status of the 9 amenities                                                               |
| GIS Survey                       | Mapped <b>2,919 slums</b> and <b>2,50,000 households</b> to identify roadblocks and progress and the specific status of the 9 services. |
| Monitoring Mechanism             | Weekly progress reports submitted to Jaga Mission Office and escalated to ULBs if required                                              |

| D. Impact (as of 2025)  |                                                                |
|-------------------------|----------------------------------------------------------------|
| Impact Area             | Achievement                                                    |
| Land Rights Granted     | 2.5 lakh families granted Land Rights/Entitlement Certificates |
| Slum Transformation     | 1,680 slums converted to Adarsh Colonies                       |
| Community Centres Built | 672 Parichaya Centres + 300 Open Spaces                        |
| SDA Leader Training     | 7,500+ leaders trained, supported by 400 trainers across ULBs  |

| Insights                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           |                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   |
|--------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|-------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|
| <div><div></div><div>Terrain-Based Adaptability</div></div> <ul style="list-style-type: none"><li>ULB officials from hilly regions recognised the value of <b>upgrading in-situ settlements</b> rather than relocating them - a model especially useful where <b>land is fragmented or limited</b>.</li><li>The idea of <b>decentralised service delivery</b> resonated with officials managing populations spread across steep or uneven terrain.</li><li><b>Modular infrastructure</b> design (e.g., decentralised drains, dispersed Parichay centres) was viewed as feasible for replication in low-access regions.</li></ul> | <ul style="list-style-type: none"><li>The model inspired conversations on <b>delegating budgets</b> and <b>transparency in fund use</b> by direct fund transfers to SDA accounts for specific projects.</li></ul>                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 |
| <div><div></div><div>Governance and Community Structures</div></div>                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             | <div><div></div><div>Holistic, People-Centred Planning</div></div> <ul style="list-style-type: none"><li>The <b>nine amenities framework</b> was applauded as a simple yet comprehensive checklist for inclusive settlement planning.</li><li>Officials noted the importance of <b>community spaces like Parichay centres</b> in fostering social cohesion, local governance, and service access in informal areas.</li><li>There was collective interest in adapting the <b>Adarsh principles</b> - integration of services, dignity of living, and community engagement - into ongoing or upcoming urban missions.</li></ul> |
| <ul style="list-style-type: none"><li>The <b>SDA</b> was seen as a powerful mechanism for <b>grassroots governance</b>, especially in areas where state-led implementation is slowed due to a lack of contextualisation.</li><li>Officials appreciated the emphasis on <b>women's leadership</b> and community-based O&amp;M, noting its relevance for building local ownership in remote settings.</li></ul>                                                                                                                                                                                                                                                                                                      |                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   |

| Central CWIS Outcomes:                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         |
|----------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|
| <ul style="list-style-type: none"><li><b>Equity:</b> Ensuring that decision-making is led by end-users, by bringing community members into the process of identifying and implementing development initiatives. Further, equity is promoted by prioritising gender equity and livelihood opportunities for urban poor.</li><li><b>Sustainability:</b> By empowering SDAs with decision-making capacities, funds, and capacity building puts communities at the helm, ensuring sustainable participatory governance.</li><li><b>Responsibility</b> is devolved to residents through participatory models of governance, ensuring timely and efficient implementation of infrastructural developments.</li></ul> |

| Questions for replication:                                                                       |                                                                                                                                                                                                                     |
|--------------------------------------------------------------------------------------------------|---------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|
| <div></div> | What steps can we take to advance participatory planning and community ownership of development initiatives?                                                                                                        |
| <div></div> | How can ULBs work closely with community platforms such as SDAs to devolve governance functions, identify key infrastructural issues, and plan projects? How can we empower SDAs with finances from the ULB budget? |



Insights from Exposure Visit Sites

# Garima Scheme: Safety and Dignity of Core Sanitation Workers

Aims:

- Ensuring occupational safety and dignity for sanitation workers.
- Improving the socio-economic conditions of core sanitation workers and their families through the provision of service-level benefits, social security and financial benefits.
- Classifying 5 categories of core sanitation workers as “skilled” or “highly skilled”: sewer line cleaners, septic tank emptiers, operators of community and public toilets, drain cleaners, and operators at STPs and FSTPs. This enables dignity and access to social security benefits.
- Providing dedicated rest houses; Garima Grihas.

Implementation:

- The scheme was launched in 2020, and has been implemented in all 115 ULBs of Odisha.
- The Government of Odisha set up a corpus fund with an initial amount of Rs 50 crore dedicated to enhancing safety and dignity of core sanitation workers, and committed to providing additional funds based on actual demand during implementation.



Key Components of the Garima Scheme:

Identification and Registration

Field surveys were conducted to identify and register core sanitation workers, along with the provision of government IDs to enable access to benefits.

Technical Support and Capacity Building

Periodic capacity building and skill development is undertaken to ensure safety and efficient service delivery.

Service and Occupational Benefits

Health and life insurance, assured minimum wage, retirement benefits, periodic health check-ups, disability support, issue of caste certificate, and reduced working hours are provided.

Social Security Benefits

Mobile phone and two-wheeler allowance, food security, health coverage, accidental and life insurance, linkages with microfinance for self-employment, land rights or housing support, and support for children’s education are provided to target the disadvantaged social positions of core sanitation workers.

<sup>2</sup> UMC (2024). Sanitation Work with Safety and Dignity: The Garima Story. <https://umcasia.org/wp-content/uploads/The-Garima-Story-Sanitation-Work-With-Safety-and-Dignity-2.pdf>

# Insights from Exposure Visit Sites

## Garima Grihas



Garima Grihas: dedicated rest houses where workers can maintain personal hygiene and store their belongings, helping combat stigma and professionalising sanitation work.

|                  |                                                                                                                                                                                                                                                                                                                                |
|------------------|--------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|
| Issues addressed | <ul style="list-style-type: none"><li>Lack of dedicated washrooms for sanitation workers.</li><li>Lack of space to change out of and store PPE kits despite extreme weather.</li><li>Lack of space to rest or eat between jobs.</li></ul>                                                                                      |
| Components       | <ul style="list-style-type: none"><li>Seating spaces</li><li>Facilities to wash, dry, and store PPE</li><li>Bathing rooms</li><li>Toilets</li><li>Air-conditioned rooms</li><li>Lockers for personal belongings</li></ul>                                                                                                      |
| Status           | <ul style="list-style-type: none"><li>The HUDD issued an advisory to establish Garima Grihas in all ULBs of Odisha</li><li>34 Garima Grihas have been constructed across 5 pilot cities</li><li>A Standard Operating Procedure (SOP) has been prepared to standardise the design and O&amp;M of these Garima Grihas.</li></ul> |

### Impact at Scale:

The impact of the Garima Scheme has inspired the National Action for Mechanised Sanitation Ecosystem (NAMASTE) scheme. The NAMASTE scheme was launched by the Ministry of Social Justice and Empowerment in convergence with the Ministry of Housing and Urban Affairs in July 2023, and is now being rolled out across the country.

### Central CWIS Outcomes:

- Equity** in ensuring dignified working conditions. The opportunity to change out of their work-clothes and maintain personal hygiene before returning to their communities and living spaces helps combat some of the stigma associated with sanitation work and workers.
- Safety** in the use of PPE and in maintaining hygiene to reduce exposure to pathogens.

### Insights:

#### Applicability in Hilly Terrains

The model was found to be highly relevant for hilly regions, where sanitation workers face long travel times, harsh conditions, and lack of basic resting points. Officials expressed interest in exploring compact, modular Garima Grihas that can be integrated into existing infrastructure like ward offices or public toilets. The dedicated space for rest, hygiene, and storage marks a shift from ad-hoc arrangements to institutionalised welfare infrastructure.

#### Professionalising Sanitation Work

By combining facilities with access to health services, PPE, and entitlements, the Garima scheme enables recognition and dignity of sanitation work. Officials saw value in using it to formalise and towns where workforce morale and continuity are challenges.

### Questions for replication:



How can we build partnerships with the health and education departments, labour departments, or private clinics to ensure regular health check-ups, insurance coverage, and the provision of social security?



What essential facilities-such as bathing units, lockers, first aid, or resting areas-are most needed by sanitation workers in our local climate and terrain, and how can we deliver them affordably?



What structures (community toilets, ULB storage units, ward offices) can be repurposed as micro Garima Grihas in dense or space-scarce areas?

Insights from Exposure Visit Sites

Mangala Ghat, Co-Treatment Plant, Puri



Co-treatment: the treatment of wastewater and faecal sludge in the same plant.

|                                                |                                 |
|------------------------------------------------|---------------------------------|
| Type:                                          | Scale of Service:               |
| Aerated Lagoons-Based STP                      | City level                      |
| Area of Installation:                          | Year of Commissioning:          |
| 1950 m <sup>2</sup>                            | 2016                            |
| Capital Investment:                            | Designed Capacity:              |
| ₹1.76 crore                                    | 25 KLD                          |
| O&M Cost:                                      | Impact:                         |
| ₹16.9 lakh/year                                | Catering to 8,40,834 population |
| Agency Responsible:                            |                                 |
| Odisha Water Supply and Sewerage Board (OWSSB) |                                 |

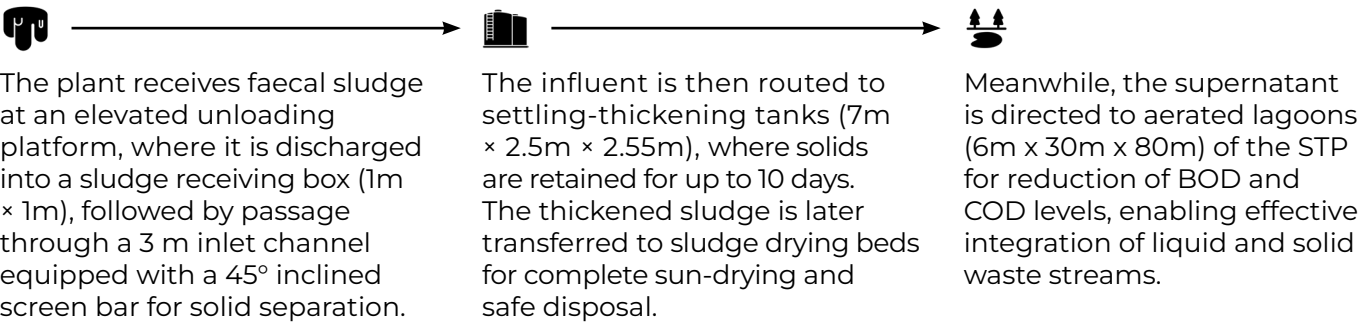
Location:

The co-treatment unit is housed within the existing 15 MLD STP at Mangala Ghat, strategically located along the banks of the Dhaudia River.

Use-case:

Due to small quantities of water, insufficient to set up a dedicated wastewater treatment plant, this plant uses existing infrastructure to treat wastewater and sludge together.

Process:



Central CWIS Outcome:

Resource Management and Planning

This model demonstrates how existing infrastructure can be optimised for dual treatment, minimising capital investment while advancing inclusive sanitation. The success of the Mangala Ghat co-treatment plant makes it a strong replicable case for medium and small cities across India<sup>3</sup>.

Questions for replication:



How can we integrate wastewater treatment with faecal sludge treatment?



How can we adapt co-treatment to be effective in our geography and topography?



<sup>3</sup>Co-treatment at aerated lagoons based STP at Mangala Ghat, Puri. Centre for Science and Environment. (n.d.). <https://www.cseindia.org/co-treatment-at-aerated-lagoons-based-stp-at-mangala-ghat-puri-9065#:~:text=FS%20goes%20into%20an%20inlet,of%20the%20co%2Dtreatment%20unit>

Insights from Exposure Visit Sites

# Solid Waste Management at Konark NAC



The world heritage site Konark NAC, Puri District, Odisha, is grappling with the problem of managing the solid waste generated by both residents and tourists.

**Area of Konark:**  
35 sq. kms in 13 wards

**Housing:**  
5,000 households, 1,500 commercial establishments, 50 institutions.

**Daily generation of waste:**  
Approximately 6 MT/day

Initiatives:

- A pilot Integrated Decentralised Solid Waste Management Model was developed in Konark NAC.
- A Micro Composting Centre (MCC) and Sanitation Park have been developed to meet the Solid Waste Management requirements of the city.
- Door-to-door collection of segregated waste is undertaken, which is then brought to the MCC.
- The segregated waste is categorised as wet, biodegradable, dry, recyclable (i.e. plastics, wood, metals, paper, paper board, glass, textiles etc.), domestic bio-medical or domestic hazardous waste. Secondary and tertiary segregation is done at the MCC.
- The wet/biodegradable waste is converted into compost through the composting units built at the MCC. The MCC has 14 composting pits.
- Dry waste/recyclables are segregated based on their economic value, washed and stored in classified sacks, and sold to identified vendors.
- Domestic bio-medical and domestic-hazardous waste is sent to a treatment plant for safe disposal.



Questions for replication:



How can we implement decentralised, small-scale MRFs and MCCs in our locality?



How can we design structures for effective collection of waste, treatment, and O&M of the facilities?

Insights from Exposure Visit Sites

Cuttack FSTP and Bahuchara Mata Transgender SHG



|                                                    |                                                                                            |
|----------------------------------------------------|--------------------------------------------------------------------------------------------|
| <b>Location:</b><br>Matagajpur, Cuttack, Odisha    | <b>Inception:</b><br>Commissioned in 2020 by the Cuttack Municipal Corporation under AMRUT |
| <b>Technology:</b><br>Co-treatment                 | <b>Treatment Capacity:</b><br>60 KLD                                                       |
| <b>Operator:</b><br>Bahuchara Mata Transgender SHG | <b>Partnership:</b><br>O&M through a formal MoU with the Cuttack Municipal Corporation     |

Description of the FSTP

The Cuttack FSTP was established to fill the gap in septage treatment and support decentralised waste management systems in the city. Designed to work in tandem with the city’s sewerage infrastructure, the plant integrates liquid-solid separation and co-treatment processes to manage faecal sludge efficiently.

Inclusive O&M by Bahuchara Mata Transgender SHG

The Cuttack Municipal Corporation partnered with the Bahuchara Mata Transgender SHG to manage the plant’s O&M. This group of 10 members became the first in the state to undertake such a role.

Impact and Achievements:

- Dignified livelihoods:** Each member earns ₹8,000 per month through their engagement with the Cuttack Municipal Corporation.
- Extensive training:** The SHG underwent two months of technical and leadership training, including plant operations, intake well management, and safety protocols.
- Social transformation:** The SHG undertaking this work has helped break deep-rooted gender stereotypes and enhanced their dignity in public life.
- Scale:** Following the success at the Cuttack FSTP, the SHG has also been entrusted with managing the 8 MLD Pratapnagari Water Treatment Plant operated by WATCO<sup>4</sup>.
- Awarded for excellence:** The group won the ISC-FICCI Sanitation Award 2021 for their pioneering work in FSM.

Progress and Next Steps

- To initiate the NFSSM Alliance’s engagement with the state of Sikkim in advancing inclusive and sustainable sanitation, the Alliance is undertaking a baseline study to provide evidence-based recommendations and identify priorities for the state.
- On the 5th of May, the NFSSM Alliance conducted an orientation on Performance Assessment System (PAS) tool-data entry as a pre-requisite for the landscape baseline study for the state.
- As next steps, the NFSSM Alliance is planning a 2-day workshop for (1) data-feeding officials and (2) consultations with department heads, state, and ULB officials towards creating a plan of action. The topics guiding these consultations have been identified basis priorities shared during the OUA exposure visit.

The workshop consists of two key components:

- PAS Tool Support and Data Feeding:**  
  
The PAS tool enables city-specific planning and has been disseminated to ULBs across Sikkim. This workshop for data-feeding officials aims to troubleshoot PAS data-collection, and enable data-feeding to create a state-specific profile.
- Stakeholder Consultation and Roadmap Development**  
  
Detailed consultation with different department stakeholders, including department heads, ULB officials, state officials, and heads of the Amrut and SBM wings. This consultation will lead to a rapid-assessment of the state’s current capacities, identify priorities, and develop a roadmap basis these priorities. The thematic priorities identified from the OUA exposure visit include: SHGs and sanitation worker safety; used-water management; and communication plans.

The NFSSM Alliance will leverage insights from this consultation meeting to create a state-specific action plan. Further, the Alliance will work closely with these stakeholders in a phased approach to implement best practices. The interventions involved include capacity-building sessions, exposure visits, and knowledge.

<sup>4</sup>Governance Now. (2022, May 11). How Odisha is paving the way for gender mainstreaming in urban governance. <https://www.governancenow.com/views/columns/how-odisha-is-paving-the-way-for-gender-mainstreaming-in-urban-governance>

# Sanitation Hall of Change

Read more about the stories of changemakers from government, civil society, communities, and sanitation workers at <https://sanitation-hall-of-change.nfssmalliance.org/>

The individual stories of champions from across India stand to inspire change towards inclusive and sustainable change.



# Learning Packet

For a virtual copy of the learning packet shared with the participants during the exposure visit, scan the qr code.

