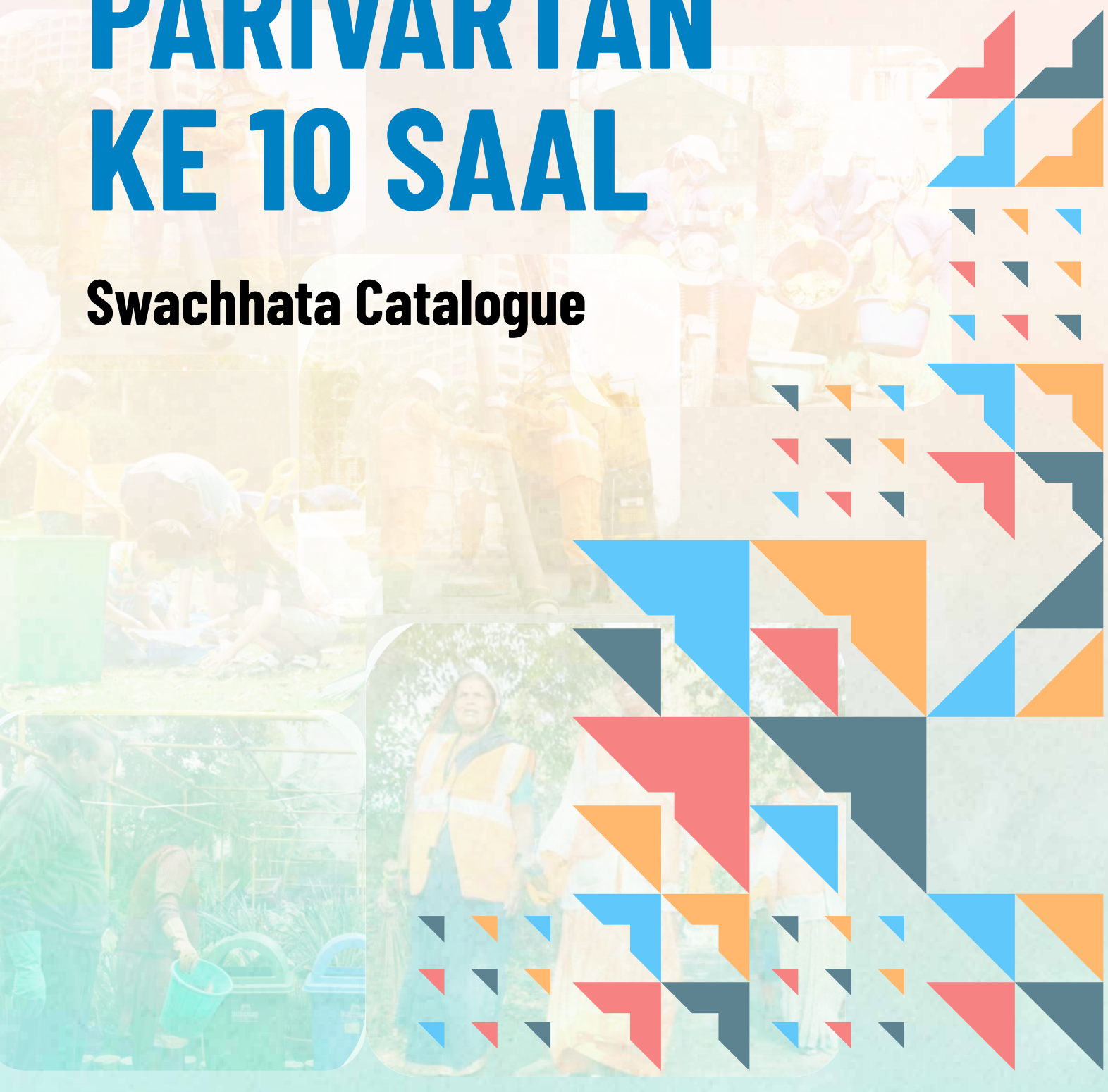
SWACHHATA HI SEVA 2024
17th September - 2nd October 2024
Swabhav Swachhata - Sanskaar Swachhata

सत्यमेव जयते
Ministry of Housing and Urban Affairs
Government of India

स्वच्छ भारत
एक कदम स्वच्छता की ओर

SWACHH PARIVARTAN KE 10 SAAL

Swachhata Catalogue



TITLE
SWACHH PARIVARTAN KE 10 SAAL: SWACHHATA CATALOGUE

PUBLISHER
NATIONAL INSTITUTE OF URBAN AFFAIRS, DELHI

YEAR OF PUBLISHING
2024

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Regional Centre for Urban and Environmental Studies (RCUES), Lucknow

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- Central Public Health and Environmental Engineering Organisation (CPHEEO), New Delhi
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Message

As we commemorate the 10th anniversary of the Swachh Bharat Mission (SBM), I extend my heartfelt gratitude to all those who have contributed to this remarkable journey towards a clean and healthy India. The SBM has not only transformed our approach to sanitation but also fostered a culture of cleanliness and responsibility among our citizens.

We at the National Institute of Urban Affairs have developed the Swachhata Catalogue, which stands as a testament to the unwavering dedication to sanitation and solid waste initiatives taken by the Government of India. The catalogue is a comprehensive compilation of guidelines, reports, toolkits, policies, action research, innovative technologies, and IEC material tailored for a diverse group of stakeholders across the country. Our aim is to equip the state and local governments, civil society organisations, non-governmental organisations and community-based organisations with the necessary tools and knowledge to enhance their sanitation strategies and ensure that every citizen enjoys the right to clean sanitation and solid waste management facilities.

This Swachhata Catalogue highlights collaborative approaches, encouraging local stakeholders to actively participate in the design and implementation of sanitation solutions, thereby fostering a sense of ownership and enhancing sustainability. Additionally, the technological advancements showcased in this document present innovative solutions tailored to the unique challenges faced across our regions. From decentralised waste management systems to smart sanitation technologies, these tools empower us to effectively address pressing sanitation issues and create a robust framework for future generations.

Let us pledge to move forward with renewed vigour and unwavering commitment to build a Swacch India involving partnership of every citizen through a strong Jan Bhagidari.

Dr. Debolina Kundu
Director
National Institute of Urban Affairs

Section 1

RESEARCH

TOTAL RESEARCH: 126

ORGANISATION TYPE

1
Government

11
NGO, CSO, Development partners

2
Institutions

Shit Flow Diagram for Leh, Ladakh

Bremen Overseas Research & Development Association (BORDA) South Asia

This report presents a comprehensive analysis of the sanitation situation in Leh, Ladakh, India, using the Shit Flow Diagram (SFD) methodology. The SFD visualizes the sanitation service chain, revealing that only 31% of wastewater receives safe treatment and disposal. The dominant onsite sanitation method, lined pits, poses a significant risk to groundwater. The centralized sewerage system remains non-operational due to an incomplete sewage treatment plant. Additionally, the FSTP faces operational challenges during winter. This report underscores the urgent need for improved sanitation infrastructure and management practices to protect public health and the environment in Leh.

Read More: *https://bordahq.sharepoint.com/sa/Shared%20Documents/Forms/AllItems.aspx?id=%2Fsa%2FShared%20Documents%2F1%2DProject%2F01%2E00%20BMZ%2FBMZ%202021%2D2023%2F2021%2F4%2DLEDeG%2F2%2DActivities%2F2%2E2%2E1%20Assessment%20and%20Application%20of%204%20WASH%20tools%20in%20the%20partner%20towns%2F03%2E00%20Final%20Deliverable%2F1%2E%20SFD%20Lite%20%2D%20Leh%2FR%2DSFDLiteLeh%2D210614%2Epdf&parent=%2Fsa%2F Shared%20Documents%2F1%2DProject%2F01%2E00%20BMZ%2FBMZ%202021%2D2023%2F2021%2F4% 2DLEDeG%2F2%2DActivities%2F2%2E2%2E1%20Assessment%20and%20Application%20of%204%20WASH%20tools%20in%20the%20partner%20towns%2F03%2E00%20Final%20Deliverable%2F1%2E%20SFD%20Lite%20%2D%20Leh&p=true&ga=1*

Shit Flow Diagram for Kargil, Ladakh

Bremen Overseas Research & Development Association (BORDA) South Asia

This study examines the sanitation practices in Kargil, India. A significant portion of the population (30%) utilizes traditional dry toilets, where human waste, bulking material, and water decompose within a sealed chamber. The decomposed material is later used as agricultural fertilizer. However, 65% of households rely on lined pits with semi-permeable walls and open bottoms, which allow fecal sludge to percolate into the ground. Due to limited accessibility and the risk of groundwater pollution, only 10% of these containment systems require emptying. These findings highlight the need for improved sanitation infrastructure and practices to address the challenges associated with both traditional dry toilets and lined pits.

Read More: *https://bordahq.sharepoint.com/sa/Shared%20Documents/Forms/AllItems.aspx?id=%2Fsa%2FShared%20Documents%2F1%2DProject%2F01%2E00%20BMZ%2FBMZ%202021%2D2023%2F2021%2F4%2DLEDeG%2F2%2DActivities%2F2%2E2%2E1%20Assessment%20and%20Application%20of%204%20WASH%20tools%20in%20the%20partner%20towns%2F03%2E00%20Final%20Deliverable%2F2%2E%20SFD%20Lite%20%2D%20Kargil%2FR%2DSFDLiteKargil%2D210819%2Epdf&parent=%2Fsa%2FShared%20Documents%2F1%2DProject%2F01% 2E00%20BMZ%2FBMZ%202021%2D2023%2F2021%2F4%2DLEDe G%2F2%2DActivities%2F2%2E2%2E1%20Assessment%20and%20Application%20of%204%20WASH%20tools%20in%20the%20partner%20towns%2F03%2E00%20Final%20Deliverable%2F2%2E%20SFD%20Lite%20%2D%20Kargil&p=true&ga=1*

Shit Flow Diagram for Chikkaballapur, Karnataka

Bremen Overseas Research & Development Association (BORDA) South Asia

Chikkaballapur city is a City Municipal Council (Population falling under 50,000 to 3 Lakh) and the administrative boundary is spread over an area of 18.25 sq km divided into 31 wards (Figure 1). The city has a population of 63,652 as per a report released by Census India 2011. The projected population in the year 2021 is estimated to be 73,709. The Local water resource present within the administrative boundary is Jakkalamadagu reservoir spread over an extent of 51.25 Sq.km and the other source of water is 164 borewells. The total water supply network is 120 km. The underground drainage network coverage of the city is 91% (13461 HHs) and the remaining 9% (1341) HH's of ward no 14 and 30 are unsewered (Figure 2). The water and wastewater scenario in the city is shown in Table 1. The city comprises of 10MLD capacity of waste stabilization pond, which is located at Gopalkrishna Amanikere, and it is spread over an area of 25acers. The technology used in this STP involves a nature-based Waste Stabilization Pond consisting of an anaerobic pond, facultative pond followed by maturation pond each of 2 units. There is no FSTP (Faecal Sludge Treatment Plant) in the city.

Read More: *https://bordahq.sharepoint.com/sa/Shared%20Documents/Forms/AllItems.aspx?id=%2Fsa%2FShared%20Documents%2F1%2DProject%2F01%2E00%20BMZ%2FBMZ%202021%2D2023%2F2021%2F5%2DTIDE%2F2%2DActivities%2F2%2E2%2E1%20Apply%20SFD%20tool%20in%20partner%20towns%2F03%2E00%20Final%20Deliverable%2FSFD%20Reports%2FCKB%2FR%2DSFDLITE%2DChikkaballapura%2D21-0901%2Epdf&parent=%2Fsa%2FShared%20Documents%2F1%2DProject%2F01%2E00%20BMZ%2FBMZ%202021%2D2023%2F2021%2F5%2DTIDE%2F2%2DActivities%2F2%2E2%2E1%20Apply%20SFD%20tool%20in%20partner%20towns%2F03%2E00%20Final%20Deliverable%2FSFD%20Reports%2FCKB&p=true&ga=1*

Shit Flow Diagram for Chintamani, Karnataka

Bremen Overseas Research & Development Association (BORDA) South Asia

The Shit Flow diagram for Chintamani was created using the SFD Lite Graphic Generator on the Susana website(https://sfd.susana.org/) through research and consultation (conducting baseline survey, consultation with STP/UGD operators, community engagement & discussion with CMC officials) by the Technology Informatics Design Endeavour (TIDE) in Karnataka, INDIA. The SFD Lite report developed is an SFD Graphic with a minimum amount of supporting data. This report may prove to be a valuable starting point from which to then develop a more detailed SFD Intermediate and Comprehensive versions at a later stage on availability of authenticate data. • Collaborating partner: City Municipal Council Chintamani, Guided by: BORDA .Chintamani is a city in Chintamani taluk of Chikkaballapur district, Karnataka, India. The city lies between 13.400°N and 78.066°E with an average elevation of 865 m (2,838 ft). It is located 38.3 km towards the east from district headquarter Chikkaballapur.

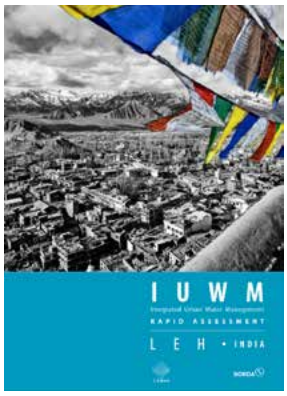
Read More: *https://bordahq.sharepoint.com/sa/Shared%20Documents/Forms/AllItems.aspx?id=%2Fsa%2FShared%20Documents%2F1%2DProject%2F01%2E00%20BMZ%2FBMZ%202021%2D2023%2F2021%2F5%2DTIDE%2F2%2DActivities%2F2%2E2%2E1%20Apply%20SFD%20tool%20in%20partner%20towns%2F03%2E00%20Final%20Deliverable%2FSFD%20Reports%2FCNY%2FR%2DSFDLITE%2DChintamani%2D210901%2Epdf&parent=%2Fsa%2FShared%20Documents%2F1%2DProject%2F01%2E00%20BMZ%2FBMZ%202021%2D2023%2F2021%2F5%2DTIDE%2F2%2DActivities%2F2%2E2%2E1%20Apply%20SFD%20tool%20in%20partner%20towns%2F03%2E00%20Final%20Deliverable%2FSFD%20Reports%2FCNY&p=true&ga=1*

Whitepaper on Grey Water Treatment & Reuse

Bremen Overseas Research & Development Association (BORDA) South Asia

Provides and overview for the need of greywater treatment and reuse for effective water resource management. This document focuses on the resuse and treatment of greywater for domestic purposes to achieve protection of groundwater, protection of surface water, protection of land & vegetation and reducing public health risks.

Read More: *https://bordahq.sharepoint.com/sa/Publications/Forms/AllItems.aspx?id=%2Fsa%2FPublications%2F03%2E00%20Major%20Publications%2F05%2E00%20Wastewater%2F05%2E01%2E%20Whitepaper%20on%20GreyWater%20Treatment%20%26%20Reuse%2D2020%2Epdf&parent=%2Fsa%2FPublications%2F03% 2E00%20Major%20Publications%2F05%2E00%20Wastewater&p=true&ga=1x*



Integrated Urban Water Management

Bremen Overseas Research & Development Association (BORDA) South Asia

This publication aims to encourage stakeholders to think of IUWM issues and possible solutions and also provides practical guidance to ULBs in developing a productive and sustainable city wide IUWM approach. It provides the results of City blueprint approach (CBA) and an Integration Assessment. The CBA consists of a "Trends & Pressure Framework" (TPF) assessment and City Blue Print Framework (CBF). The results of these three assessments are discussed and provide insight into the current IUWM situation in Leh.

Read More: *https://bordahq.sharepoint.com/sa/Publications/Forms/AllItems.aspx?id=%2Fsa%2FPublications%2F03%2E00%20Major%20Publications%2F06%2E00%20Water%2F06%2E07%20IUWM%20Rapid%20Assessment%2C%20Leh%2C%20India%2Epdf&parent=%2Fsa%2FPublications%2F03%2E00%20Major%20Publications%2F06%2E00%20Water&p=true&ga=1*

Findings from Co-Composting Operations at Fecal Sludge Treatment Plant (FSTP)

Consortium for DEWATS Dissemination India (CDD India), Bengaluru

The study on co-composting at a Fecal Sludge Treatment Plant in Devanahalli, India, explores optimal conditions for pathogen deactivation and nutrient enhancement in compost. Using a combination of municipal solid waste and fecal sludge, the process evaluates various bulking agents and composting conditions. Key findings include the necessity of maintaining specific moisture content and turning frequencies to maximize pathogen reduction. The study also highlights the potential policy implications for recognizing fecal sludge byproducts as organic manure, providing a basis for further refinement of co-composting practices.

Read More: *https://cddindia.org/wp-content/uploads/2023/08/co-composting-findings.pdf*

Preparation of Rejuvenation Plans for 5 Lakes in Bangalore

Consortium for DEWATS Dissemination India (CDD India), Bengaluru

This document outlines the rejuvenation plans for five lakes in Bengaluru, India, supported by the Karnataka Forest Department (KFD) and Bruhat Bangalore Mahanagara Palike (BBMP). The lakes studied include Hebbal, Nagavara, KR Puram, Kengeri, and the twin lakes Mylasandra and Sunkalpalya. Key challenges identified across these lakes include solid waste, eutrophication, and insufficient water inflows. The proposed solutions involve solid waste removal, de-weeding, bund strengthening, and construction of sedimentation basins and waste weirs. Specific interventions for each lake aim to restore ecological balance, improve water quality, and reconnect the community with these water bodies. The plans emphasize sustainable development, balancing recreational use with biodiversity conservation. Long-term success hinges on effective stormwater, sewage, and solid waste management, along with strict vigilance against encroachment. The document concludes that nature-based solutions and community engagement are crucial for the lakes' rejuvenation and sustainability.

Read More: *https://cddindia.org/wp-content/uploads/2023/10/preparation-of-rejuvenation-plans-for-5-Bengaluru-lakes.pdf*

Quality and Quantity of Faecal Sludge in Sircilla, Telangana

Consortium for DEWATS Dissemination India (CDD India), Bengaluru

Estimation of qualities and quantities (Q&Q) of faecal sludge (FS) plays a very crucial role in designing Faecal Sludge Management (FSM) solutions for a city or town. Assessing Q&Q helps to understand what quality and how much of faecal sludge will need to be managed; and this has a bearing on infrastructure design and financial resource requirement.However, FSM as a systemic intervention strategy for Indian conditions, has been recognized very recently, this data is not completely available. This research thus aims to fill this gap by understanding Sludge Accumulation Rate (SAR) in By providing insights on the Q&Q of faecal sludge in containment systems, this study - the first to be conducted specifically for the Indian context - will throw light on how treatment systems can be better designed; helping make better estimations for FSM interventions in India. Ultimately, this aids to frame better policies and programmes to improve activities along the sanitation value chain. different containment types in households, commercial and institutional establishments; and simultaneously field test the recently developed approach for determining FS i.e. the Q&Q approach developed by EAWAG.

Read More: *https://cddindia.org/wp-content/uploads/2023/08/Quality-and-Quantity-Study-for-Faecal-Sludge-Sircilla-India.pdf*

Anaerobic Stabilization of Faecal Sludge

Consortium for DEWATS Dissemination India (CDD India), Bengaluru

Anaerobic stabilization is a process for treating faecal sludge with high volatile solids, facilitating biogas production and sludge drying in Unplanted Drying Beds (UPDB) or Sludge Drying Beds (SDB). This method ensures the sludge is stabilized before agricultural use, preventing leaching of organic pollutants. The treatment system, operational in locations such as Sircilla, Dhenkanal, and Devanahalli, consists of six stages including screening, stabilization, sludge drying, and wastewater treatment. The process yields treated water for irrigation and bio-solids for use as a soil conditioner. Minimal operation and maintenance are required.

Read More: *https://cddindia.org/wp-content/uploads/2023/08/anaerobic-stabilization.pdf*

Optimization of Planted Drying Beds

Consortium for DEWATS Dissemination India (CDD India), Bengaluru

This study evaluates the optimization of Planted Drying Beds (PDBs) for faecal sludge treatment. The research aims to improve PDB efficiency by reducing the number of beds needed, determining percolate flow rates, and assessing sludge treatment performance. Data from a 3KL PDB was collected over two cropping seasons. The study found that PDBs effectively reduce Biochemical Oxygen Demand (BOD) and Chemical Oxygen Demand (COD) by 99%, with a high reduction in Total Suspended Solids (TSS) and Total Solids (TS). Further research is needed to analyze percolate flow variations and sludge characteristics.

Read More: *https://cddindia.org/wp-content/uploads/2023/08/optimisation-of-planted-drying-beds.pdf*

Approach to Waterbody Rejuvenation

Consortium for DEWATS Dissemination India (CDD India), Bengaluru

Healing ecosystems, particularly urban waterbodies, involves both art and science. Restoration requires empirical, context-specific interventions and ongoing observation to fine-tune results. Nature-based solutions exhibit delayed effects, particularly in microbial ecosystems. The compendium emphasizes continuous learning, community involvement in management, and integrating traditional bio-engineering techniques. Key steps include addressing solid waste, managing wet and dry season flows, maintaining biodiversity, and aligning goals like water security with ecological preservation. Sustainable management, livelihood integration, and community ownership are central to long-term rejuvenation efforts.

Read More: *https://cddindia.org/wp-content/uploads/2023/10/CDD-approach-to-WBR.pdf*

Co-treatment of Faecal Sludge with Sewage

Consortium for DEWATS Dissemination India (CDD India), Bengaluru

This knowledge document is an effort intended to capture some of the key aspects on Co-treatment design – treating domestic wastewater and faecal sludge (FS)/septage together, internationally and within India through literature review and elicitation of expert opinion. Some insights are drawn for assessing Co-treatment feasibility and design for Indian context.

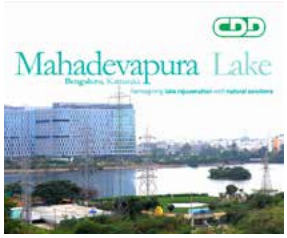
Read More: *https://cddindia.org/wp-content/uploads/2023/09/Co-treatment-of-faecal-sludge-with-sewage.pdf*

Eco-Restoration of Coimbatore's 8 Lakes

Consortium for DEWATS Dissemination India (CDD India), Bengaluru

The brochure focuses on the interconnected system of eight lakes in Coimbatore, which are vital for maintaining ecological balance and water management. These lakes—Narasampathy, Krishnampathi, Selvampathy, Kumaraswamy, Selvachintamani, Periyakulam, Valankulam, and Singanallur—are historically linked to the Noyyal River. Due to urbanization, the loss of interconnectivity and the diversion of water flow have impacted the lakes' health. The document highlights efforts to restore the lakes' connectivity with the Noyyal River, ensuring water conservation, biodiversity protection, and improved water quality in Coimbatore.

Read More: *https://cddindia.org/wp-content/uploads/2023/10/Coimbatore-8-Lakes-Brochure.pdf*

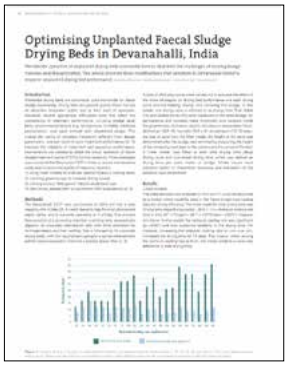


Rejuvenation of Mahadevpura Lake

Consortium for DEWATS Dissemination India (CDD India), Bengaluru

The Mahadevapura Lake rejuvenation project in Bengaluru focuses on treating 1 MLD of wastewater using nature-based solutions. Initiated by United Way Bengaluru and funded by CSR partners, the project aims to improve water quality, aid groundwater recharge, and enhance the local microclimate. Key interventions include a Decentralized Wastewater Treatment System (DEWATS), gabions for water flow, floating wetlands, and an 85-meter earthen drain. The project highlights successful collaboration between CSR, government, and citizens, with sustainability built into its design, and low-cost operations at ₹1 per KLD treated.

Read More: *https://cddindia.org/wp-content/uploads/2023/10/Mahadevapura-Lake-2021.pdf*

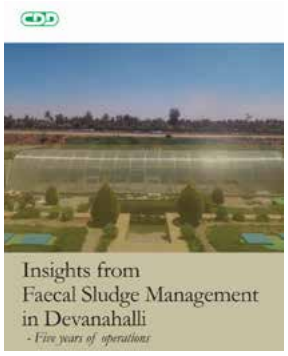


Optimization of Unplanted Drying Beds

Consortium for DEWATS Dissemination India (CDD India), Bengaluru

The study focuses on optimizing unplanted faecal sludge drying beds at the Devanahalli FSTP, India, by testing three strategies to improve performance. These include using linear models to optimize hydraulic loading rates, installing greenhouses to enhance drying speed, and applying porous Mangalore tiles to reduce sand loss. The results showed that greenhouses significantly improved drying time, while Mangalore tiles effectively minimized sand loss. Linear models proved useful for optimizing drying efficiency, offering a way to better manage faecal sludge treatment systems. Further cost-benefit analyses are recommended.

Read More: *https://cddindia.org/wp-content/uploads/2023/08/Optimising-Unplanted-Drying-Beds.pdf*



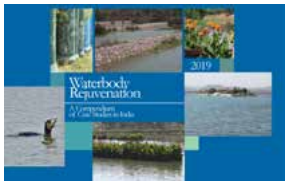
Insights from 5 years of Faecal Sludge Management (FSM) in Devanahalli

Consortium for DEWATS Dissemination India (CDD India), Bengaluru

This document presents key insights from the five years of operational experience of the Faecal Sludge Treatment Plant (FSTP) in Devanahalli, India. Built under the Bill and Melinda Gates Foundation project and implemented by CDD Society, the Devanahalli FSTP was the first town-scale FSTP in India. The document explores the technical, financial, and policy-related aspects of Faecal Sludge Management (FSM), highlighting the sustainable design of the plant, minimal operational needs, and a successful revenue generation model through co-composting. It also discusses how these insights can guide future FSM projects across India.

Read More: *https://cddindia.org/wp-content/uploads/Insights-from-Devanahalli-December-2020.pdf*

Waterbody Rejuvenation - A Compendium of Case Studies in India



Consortium for DEWATS Dissemination India (CDD India), Bengaluru

Waterbodies are integral to urban development, offering multiple functions such as domestic water use, wastewater dilution, ecological services, and biodiversity support. However, urbanization has led to their degradation, turning them into sinks for solid waste and wastewater, while encroachments and infrastructure neglect further jeopardize their health. The critical need to rejuvenate these waterbodies has become a primary concern, prompting efforts from the Indian government, notably through the Ministry of Jal Shakti's integrated approach. This compendium, Waterbody Rejuvenation – A Compendium of Case Studies, serves as a reference guide, exploring diverse waterbody rejuvenation efforts across India. It examines the technical and social dimensions of these projects, emphasizing the contextual nature of rejuvenation based on community values, economic benefits, and institutional intent. By visiting lakes and engaging with stakeholders, the compendium distills key learnings, offering insights into what works and what does not. Aimed at both experts and interested laypersons, it provides a comprehensive yet accessible introduction to the complex process of waterbody restoration, inviting readers to explore, ask questions, and reflect on future improvements.

Read More: *https://cddindia.org/wp-content/uploads/2023/10/WBR-compendium-by-CDD.pdf"*

Palam Drain Remediation Plan

Consortium for DEWATS Dissemination India (CDD India), Bengaluru

Dwarka, a sub-city in South West Delhi, faces significant wastewater and solid waste challenges due to untreated sewage flowing into its major storm drains, such as the Palam Drain. Originating from the Central Ridge in Delhi Cantonment, this drain eventually reaches the Najafgarh Drain, contributing to the pollution of the Yamuna River. To mitigate the health and environmental risks posed by this, the Delhi Development Authority (DDA) initiated the Palam Greenway Project. This urban rejuvenation plan aimed to transform the Palam Drain into a green, vibrant space with pedestrian and cycling paths. Supported by the Center for Green Mobility and the CDD Society, the project integrates innovative wastewater treatment solutions. This was not taken up for implementation.

Read More: *https://cddindia.org/wp-content/uploads/2023/10/Palam-Drain-Factsheet.pdf*

Moving Towards Climate Resilient WASH Services

Center for Water and Sanitation (CWAS), CRDF-CEPT University, Ahmedabad

This project, initiated by CWAS in three cities of Maharashtra, is supported by HSBC through a CSR grant. It aims to implement improvements across the WASH service chain to achieve "Climate Resilient WASH services". Key ideas for energy transition include use of solar energy for operating water/ wastewater networks, treatment plants and electrification of suction trucks. Further reduction in emissions is envisaged through carbon sequestration by urban forests through reuse of treated waste. The project also focuses on vulnerable and marginalized communities through a citywide inclusive sanitation approach which focus on equitable access to services, livelihood development and gender empowerment.

Read More: *https://cwas.org.in/cwas-resources/moving-towards-climate-resilient-wash-services*

Engaging SHGs in Sustaining Sanitation Improvement in Maharashtra

Center for Water and Sanitation (CWAS), CRDF-CEPT University, Ahmedabad

This landscape study focuses on involving Self Help Groups (SHGs) in urban sanitation in Maharashtra. This study includes broad status of DAY-NULM and ongoing efforts in Maharashtra, assessment visits to three cities and stakeholder consultation with NULM and SMMUA department of Maharashtra. The findings from this study will help develop a state strategy and action plan for strengthening SHG engagement in sanitation activities. The study was undertaken by CWAS in partnership with UMC.

Read More: *https://cwas.org.in/cwas-resources/engaging-shgs-in-sustaining-sanitation-improvement-in-maharashtra*

Sinnar :The Sanitation Journey of a City

Center for Water and Sanitation (CWAS), CRDF-CEPT University, Ahmedabad

This book captures the journey of Sinnar city to become a model city for sanitation. Sinnar was declared an ODF city in 2017. The city resolved to pioneer scheduled desludging and set up an FSTP using its own funds. Donor funds to CWAS-CEPT from BMGF and HSBC were used for improving the sanitation infrastructure and services in the city. This book captures some of these interventions taken by Sinnar Municipal Council with support of CWAS-CEPT.

Read More: *https://www.youtube.com/watch?v=_4H-DS7Tc0U&ab_channel=CWAS-CRDF-CEPTUniversity*

Digital Monitoring Systems for Faecal Sludge and Septage Management (FSSM)

Center for Water and Sanitation (CWAS), CRDF-CEPT University, Ahmedabad

Wai and Sinnar are the first cities in India to implement scheduled desludging of septic tanks for all properties. Both city governments have entered into "performance based" contracts with private service providers for FSSM operations - meaning that payments are subject to satisfactory performance. In order to monitor these services, the cities have deployed a range of digital technologies – SaniTab, SaniTrack – which help ensure that sludge is collected regularly and satisfactorily, delivered to correct location and treated to standards while following all safety protocols. Information is real-time and requires minimum human intervention. They also help collect valuable information on onsite sanitation systems in the city in order to build a unique database for future use.

Read More: *https://cwas.org.in/cwas-resources/sanitab-sanitrack-digital-monitoring-systems-for-fssm*

Reaching the Unserved-Access to Individual Household Toilets in Vulnerable Urban Areas

Center for Water and Sanitation (CWAS), CRDF-CEPT University, Ahmedabad

The Swachh Bharat Mission (SBM) focused on Individual Household Toilets. The COVID-19 pandemic has shown that the urban poor, who depend on shared toilets are at a greater risk. Public agencies often cite lack of space, finance and sewerage access as reasons for not being able to make individual household toilets available for the urban poor. This document is a compendium of cases which show how the perceived barriers to constructing individual household toilets have been successfully addressed. These cases also highlight the important role played by women who took the decision to have a toilet and lead its construction. These experiences suggest that it is possible to build individual household toilets in most vulnerable areas.

Read More: *https://cwas.org.in/cwas-resources/reaching-the-unserved-access-to-individual-household-toilets-in-vulnerable-urban-areas*

Financing and Business Models for FSSM: A Landscape Study of Four Indian States

Center for Water and Sanitation (CWAS), CRDF-CEPT University, Ahmedabad

These reports are based on a study of 'Financing of Faecal Sludge and Septage Management (FSSM) in Urban Areas' covering four states of Maharashtra, Andhra Pradesh, Odisha and Tamil Nadu. The study was funded by the Bill and Melinda Gates Foundation. The study has identified FSSM financing requirements and potential sources of financing for capital and operating expenditure. It also examined the important role of public finance in supporting and/or leveraging finance for provision of FSSM services. A number of innovative finance options to leverage additional resources are also discussed.n Business models study explores private sector engagement in FSSM in both conveyance and treatment and different business models are reviewed. It identifies a number of prototypes for FSSM services. Measures for their sustainable adoption and use are also discussed.

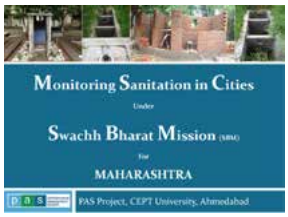
Read More: *https://cwas.org.in/cwas-resources/financing-and-business-models-for-fssm-a-landscape-study-of-four-indian-states*

Monitoring Swachh Maharashtra Mission - Experience from Urban Maharashtra

Center for Water and Sanitation (CWAS), CRDF-CEPT University, Ahmedabad

This slide deck summarizes the interventions and tools that were designed and implemented to successfully monitor the Swachh Maharashtra Mission. These interventions were taken at policy level through releasing government resolutions, guidelines, handbooks etc. The document also lists the tools developed and workshops conducted to monitor progress of cities, specifically of those cities that were lagging behind. It also highlights the interventions that were taken locally by the ULBs to monitor and implemented the mission.

Read More: *https://cwas.org.in/cwas-resources/monitoring-swachh-maharashtra-mission-experience-from-urban-maharashtra*

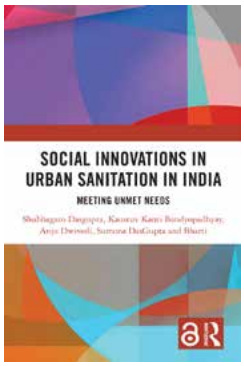


Monitoring Sanitation in Cities under Swachh Maharashtra Mission for Urban Areas (SMMUA) for Maharashtra

Center for Water and Sanitation (CWAS), CRDF-CEPT University, Ahmedabad

This compilation is an effort to bring together activities that the cities in Maharashtra have undertaken for monitoring sanitation in their cities. This presentation captures the entire process that the cities have followed for becoming open defecation free. It also highlights the key issues faced at each stage and how these were resolved.

Read More: *https://cwas.org.in/cwas-resources/monitoring-sanitation-in-cities-under-swachh-maharashtra-mission-for-urban-areas-smmua-for-maharashtra*



Social Innovations in Urban Sanitation in India: Meeting Unmet Needs

Centre for Policy Research (CPR), New Delhi

This book discusses effective social innovation strategies facilitated by civil society organisations (CSOs) to tackle India's significant urban sanitation challenge. It presents the contours of an ecosystem that includes citizen participation and strengthening community-managed systems for improved sanitation and public health. The book analyses case studies of effective sanitation programmes as well as experiments with innovative ideas in different regional contexts by CSOs to meet the contextual needs of the community and to ensure access to safe sanitation, especially among the urban poor. It highlights the challenges and the need for active participation of communities for change in behaviour, increasing institutional capacities of municipalities for standardising and scaling up strategies which work. The authors highlight the need for designing low-cost solutions, organising informal sanitation workers, serving marginalised communities and building effective alliances between communities and institutions to influence public policy. Rich in empirical data, this book will be useful for scholars and researchers of urban studies, public policy, governance, political science, development studies and sociology as well as for CSOs and non-governmental organisations (NGOs) working on urban sanitation, urban planning and public policy.

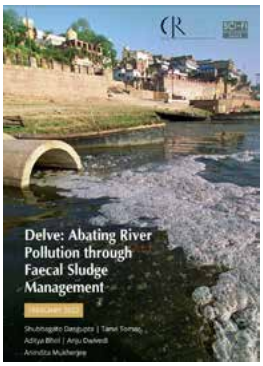
Read More: *https://www.taylorfrancis.com/books/oa-mono/10.4324/9781003197102/social-innovations-urban-sanitation-india-shubhagato-dasgupta-kaustuv-kanti-bandyopadhyay-anju-dwivedi-sumona-das-gupta-ms-bharti*

Private Sector Participation in Faecal Sludge and Septage Management

Centre for Policy Research (CPR), New Delhi

The Policy Brief Series is prepared under the research programme, Scaling City Institutions for India (SCI-FI) funded by the Bill and Melinda Gates Foundation (BMGF). As part of its research programme on urban sanitation, SCI-FI has been undertaking studies since the launch of the NFSSM Policy on the nature and scope of private sector participation in urban sanitation services. Based on SCI-FI's interventions and research, a series of five Policy Briefs have been prepared in an effort to summarise the sector characteristics and the gamut of private participation in the collection, conveyance and treatment part of the FSSM sector. Culminating the findings from the research, SCI-FI has designed a tool for ULBs to evaluate their 'Doing Business' score for small-scale FSSM businesses engaged in collection, conveyance and treatment of faecal sludge. The five policy briefs in the series on 1) Evaluating PPP experiences of key infrastructure sectors: Learnings for FSSM, 2) Designing a framework to facilitate private investments in FSSM, 3) Characteristics of the FSSM sector, 4) Business needs and good practices in the FSSM sector, and 5) Framework for finance flows in the FSSM value chain, have been developed under this partnership for documenting the learnings from the above endeavours. It further brings out the critical aspects of on-ground implementation, challenges, and opportunities.

Read More: *https://cprindia.org/briefsreports/private-sector-participation-in-faecal-sludge-septage-management/*



Abating River Pollution through Faecal Sludge Management

Centre for Policy Research (CPR), New Delhi

India's water bodies are rife with pollution from indiscriminate disposal of untreated sewage and septage, endangering the lives of millions of people depending directly or indirectly on these rivers. According to the estimates of the National Green Tribunal vide order no.673/2018, more than 60 per cent of sewerage generated by urban India is not treated. "Composite Water Management Index", a report released by NITI Aayog (2018), pronounced that India is suffering "the worst water crisis in history" – underscoring the importance of instituting measures to abate river water pollution. The urban population grew to 377.1 million in 2011 from 286.1 million in 2001, according to census data; however, the rapid pace of urbanisation in the country has far outpaced the provisioning of sanitation infrastructure and services in Indian cities. The sanitation policy ecosystem in India has evolved over the years with Faecal Sludge Management emerging as a viable solution and alternative to the conventional networked-based centralised sewer systems. Since there is an urgent need for sanitation-related interventions to abate river pollution, this requires a systematic and in-depth study of the issues at play. Therefore, the objectives of this study are threefold – a) it maps out the acts, policies, environmental norms, and water quality indicators pertaining to the river and groundwater pollution in India; b) it seeks to establish the relationship between pollution in river and groundwater with urbanisation levels and sanitation infrastructure, and c) it details out recommendations for river water pollution abatement.

Read More: *http://dx.doi.org/10.13140/RG.2.2.36595.81441*

Creating an Enabling Policy Environment for Implementing FSM in Small Towns

Centre for Policy Research (CPR), New Delhi

The overall vision of Project Nirmal is the demonstration of appropriate, low-cost, decentralized, inclusive and sustainable sanitation service delivery solutions for two small towns (Angul and Dhenkanal) in Odisha leading to improved sanitation access for all households and integration of FSM in the sanitation value chain, through enabling institutional and financial arrangements and increased private sector participation. The project is being implemented by Practical Action and Centre for Policy Research with support from Bill and Melinda Gates Foundation; Arghyam; Housing and Urban Development, Government of Odisha; and Municipalities of Angul and Dhenkanal.

Read More: *https://cprindia.org/briefsreports/creating-an-enabling-policy-environment-for-implementing-fsm-in-small-towns/*

Planning for Faecal Sludge Management in Small Towns – Experiences from Angul and Dhenkanal

Centre for Policy Research (CPR), New Delhi

Faecal Sludge Management (FSM) is the process of safe collection, transportation, treatment and disposal/reuse of faecal sludge from On-Site Sanitation (OSS) systems1 . A typical FSM system involves mechanized desludging of septic tanks/ pit latrines using a suction/vacuum emptier machine, transportation of the collected waste and its treatment at a facility. , which could either be a dedicated Faecal Sludge Treatment Plant (FSTP) or a Co-treatment facility at a Sewage Treatment Plant (STP). (Figure 1) The final residual product can either be reused or disposed safely into the environment. There can be many variations to the processes outlined above, along the FSM value chain, depending on the existing sanitation situation in a city/town, the techno-economic feasibility as well as capacities of local operators. Under Project Nirmal (PN), a detailed planning process was undertaken for designing FSM interventions in Angul and Dhenkanal Municipalities.

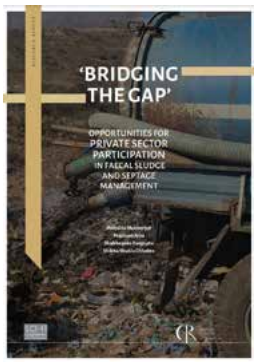
Read More: *https://cprindia.org/briefsreports/planning-for-faecal-sludge-management-in-small-towns-experiences-from-angul-and-dhenkanal/*

Operation and Maintenance (O&M) Aspects of Faecal Sludge Management in Small Towns

Centre for Policy Research (CPR), New Delhi

A large proportion of urban households (45 percent) in India are connected to OnSite Sanitation (OSS) systems (including septic tanks and pit latrines). The dependence on OSS systems is higher in small and medium sized urban centres2 (88 percent) as compared to Class – I3 (72 percent) and Million Plus cities4 (37 percent). Similartrends are observed in Odisha where 52 percent of urban households that had Individual Household Latrines (IHHLs)5 were connected to OSS systems. Further, field evidence suggests that most of the 6.1 million IHHL. constructed under SBM-U across the country's urban areas during 2014-19 are also connected to OSS systems. OSS systems are essentially underground containment structures that collect, contain and partially treat faecal waste and wastewater and the faecal sludge accumulated in these systems needs to be periodically removed and treated before it can be safely disposed into the environment. While the responsibility of providing faecal sludge emptying and transportation services rests with Urban Local Bodies (ULBs),in reality these services are mostly being provided by private cesspool operatorsor through a mix of pub1 Includes households with toilets based on septic tanks (38.2 percent) and pits (7.1 percent). The category defined as "pits" includes With Slab Improved Ventilated Pit (6.4 percent) and Without Slab / Open Pit (0.7 percent). In some cases, these services are also being provided manually. The facilities for treatment and reuse of faecal sludge are currently absent. Inadequate mechanisms and services for safe collection, transportation, treatment and disposal/reuse of faecal sludge,along with lack of regulation and monitoring, is leading to unsafe disposal of faecal sludge which is a health and environmental hazard. Unsafe disposal of faecal sludge is also undermining the benefits resulting from improved access to drinking water, sanitation, hygiene and health services.

Read More: *https://cprindia.org/briefsreports/operation-and-maintenance-om-aspects-of-faecal-sludge-management-in-small-towns/*

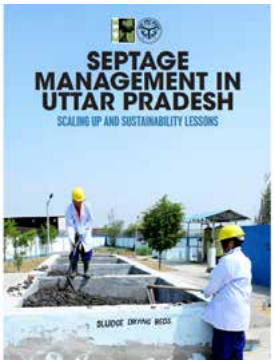


Bridging the Gap: Opportunities for Private Sector Participation in Faecal Sludge and Septage Management

Centre for Policy Research (CPR), New Delhi

Between FY 2006-07 and FY 2010- 11, allocations for the Ministry of Panchayati Raj (MoPR) more than doubled from 2,000 crore to 5,171 crore. In FY 2015-16, GOI discontinued key schemes run by the Ministry. Consequently, allocations have fallen to 95 crore BRGF has been discontinued in FY 2015-16. This brief reviews the performance of the scheme from its launch in FY 2006-07 to FY 2014-15. BRGF is made up of two components: a) district component covering 272 backward districts across 28 states administered by the MoPR, and b) state component which includes a special plan for Bihar, Odisha and West Bengal, administered by the erstwhile Planning Commission. Allocations for the state component have more than doubled from 2,130 crore in FY 2010-11 to 5,000 crore in FY 2013- 14. In contrast, allocations for the district component decreased by 45% during the same period. There are two types of grants released under the district component — a Development Fund (DF) grant and a Capacity Building (CB) grant. Release of funds has slowed down in the last three years. In FY 2014- 15, only 49% of total entitlements under DF and 21% under CB had been released. In fact, 32% districts got no DF releases in FY 2014-15 Utilisation of funds under BRGF is high. Between FY 2009-10 and FY 2013-14, on average, 85% of total funds released under the scheme were spent Eligible districts received more than 5 times the money through MGNREGS than through BRGF district component.

Read More: *https://cprindia.org/briefsreports/%CB%9Cbridging-the-gap-opportunities-for-private-sector-participation-in-faecal-sludge-and-septage-management/*

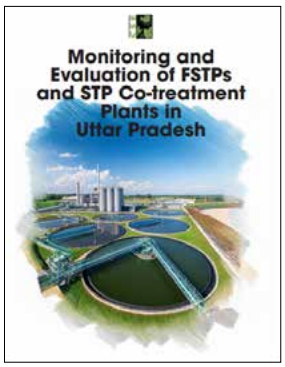


Septage Management in Uttar Pradesh: Scaling Up and Sustainability Lessons

Centre for Science and Environment (CSE), New Delhi

The report provides a comprehensive overview of the faecal sludge and septage management (FSSM) in Uttar Pradesh. It covers the interventions undertaken by the state, the progress made, and the challenges faced. The report highlights the shift in focus from construction to operationalization of 59 FSSM plants across 56 cities, emphasizing the importance of policy support, capacity building and community awareness. The document provides valuable insights and recommendations for sustaining and scaling FSSM services, ensuring they remain affordable and inclusive for households in Uttar Pradesh.

Read More: *https://www.cseindia.org/septage-management-in-up-12358*

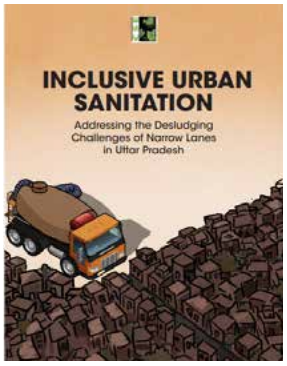


Monitoring and Evaluation of FSTPs and STP Co-treatment Plants in Uttar Pradesh

Centre for Science and Environment (CSE), New Delhi

This exhaustive study of 13 plants in the state by CSE's Environment Monitoring Laboratory is an effort towards strengthening this collaboration by evaluating the performance of the state's existing infrastructure, and deriving some guidelines on how UP can move forward.

Read More: *https://www.cseindia.org/monitoring-and-evaluation-of-fstps-and-stp-Co-treatment-plants-in-uttar-pradesh-12359*



Inclusive Urban Sanitation Addressing the Desludging Challenges of Narrow Lanes in Uttar Pradesh

Centre for Science and Environment (CSE), New Delhi

This report highlights the challenges of irregular and low frequency of desludging of septic tanks, especially unsafe practices involved in cleaning of septic tanks and difficulties in accessing septic tanks in narrow-lane settlements of small and medium towns in Uttar Pradesh. It presents multiple case examples and innovative technical options practised across India to promote safe emptying of septic tanks in narrow-lane settlements. Additionally, it offers recommendations for requirements of city-level desludging vehicles and highlights upcoming challenges. The report lays the pathway for safeguarding the safety and dignity of sanitation workers.

Read More: *https://www.cseindia.org/inclusive-urban-sanitation-addressing-the-desludging-challenges-of-narrow-lanes-in-uttar-pradesh-12063*

Septage Management in Jhansi Town

Centre for Science and Environment (CSE), New Delhi

The report covers the planning, implementation, sustainability, and inclusivity aspects of sanitation initiatives and lake rejuvenation work that have been undertaken by Jhansi over the last few years. It also addresses upcoming challenges, and provides recommendations for improvement. The report lays the pathway for many medium-sized towns of Uttar Pradesh and India that are starting their journey towards wastewater and septage management.

Read More:*https://www.cseindia.org/septage-management-in-jhansi-town-11677"*

Septage Management in Chunar Town

Centre for Science and Environment (CSE), New Delhi

This report presents the learnings from challenges faced during the construction of the FSTP, measures taken to overcome these challenges, and the way forward. It provides a valuable case study in the construction and operationalization of a sustainable FSTP and various aspects of implementing context-specific faecal sludge and septage management (FSSM) projects in small- and medium-sized cities of India.

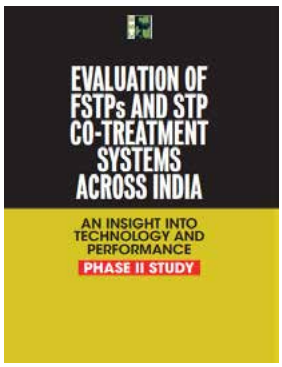
Read More: *https://www.cseindia.org/septage-management-in-chunar-town-11678*

Septage Management in Bijnor Town

Centre for Science and Environment (CSE), New Delhi

This report presents the learnings from challenges faced during the construction of the Co-treatment unit, measures taken to overcome these challenges, and the way forward. It provides a valuable case study in the construction and operationalization of a sustainable cotreatment unit at an existing STP and various aspects of implementing context-specific faecal sludge and septage management (FSSM) projects in small- and medium-sized cities of India.

Read More: *https://www.cseindia.org/septage-management-in-bijnor-town-11676*

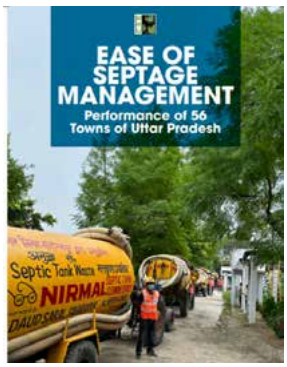


Evaluation of FSTPs and STP Co-treatment Systems across India

Centre for Science and Environment (CSE), New Delhi

The report presents the Evaluation of FSTPs and STP Co-treatment System Across India. FSTP technologies are being adopted in many states in India. It is important to understand the different aspects of effluent management in these plants, the efficacy of the technologies, and the variations in them. This study report by CSE's Environment Monitoring Laboratory is a step in that direction.

Read More: *https://www.cseindia.org/evaluation-of-fstps-and-stp-Co-treatment-system-across-india-11712*



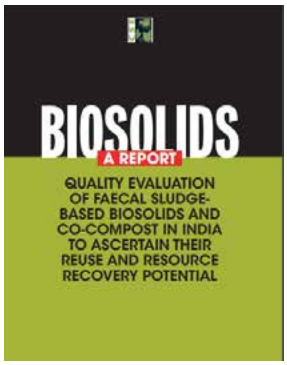
Ease of Septage Management- Performance of 56 cities of Uttar Pradesh

Centre for Science and Environment (CSE), New Delhi

The Ease of Septage Management (ESM) Tool ranks cities based on their performance in providing septage management services. This report captures a snapshot of the journey— from the creation of infrastructure to its operation and maintenance, and further to provision of inclusive sanitation services—of 56 cities of Uttar Pradesh where either faecal sludge treatment plants (FSTPs) or Co-treatment plants are planned and implemented for septage management.

The report is based on primary data gathered through the first-ever implementation of the ESM Tool. The status of the performance of the cities against various indicators shows how the cities are performing, what more needs to be done to provide affordable, equitable and inclusive sanitation services to citizens, and where are the cities positioned in their drive to ensure Citywide Inclusive Sanitation (CWIS) in its true sense.

Read More: *https://www.cseindia.org/ease-of-septage-management-11972*

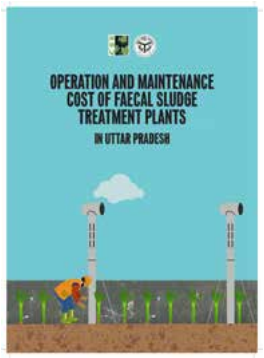


Biosolids: Quality Evaluation

Centre for Science and Environment (CSE), New Delhi

The report presents the quality evaluation of faecal sludgebased biosolids and co-compost in india to ascertain their reuse and resource recovery potential. India is in the midst of an urban sanitation evolution, where conventional systems of water-based sewerage, designed to transport faecal material from homes through pipes to sewage treatment plants, is being replaced. The paradigm shift is towards non-sewered sanitation, where household faecal material is transported to treatment facilities — where this human waste is treated in either designed faecal sludge treatment plants (FSTPs) or in the conventional sewage treatment plants, through Co-treatment.

Read More: *https://www.cseindia.org/biosolids-11713*



Operation Maintenance Cost of Faecal Sludge Treatment Plants in Uttar Pradesh

Centre for Science and Environment (CSE), New Delhi

Addressing the financial viability of Operation and Maintenance (O&M) of the upcoming FSTPs was a key priority for UP. The existing bid document of AMRUT built FSTPs does not clarify how FSTPs will be run by a contractor. The annual O&M cost under the AMRUT-built FSTPs of UP mentions the huge sum of Rs 1.25 crores, which includes the annual cost of plant operations and de-sludging services. This sum is to be recovered from households at the rate of Rs 2,500 per household, for 5,000 households per year, by private operators. This scheme was found to be unrealistic in terms of affordability and may not work at all, thereby risking the investments made in the development of FSTPs; hence this study was required.

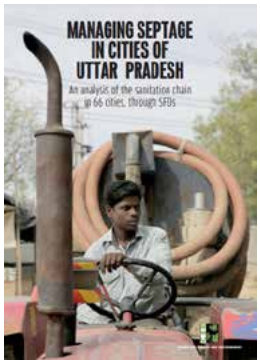
Read More: *https://www.cseindia.org/operation-maintenance-cost-of-faecal-sludge-treatment-plants-in-uttar-pradesh-11679*

Septage Management for City-Wide Inclusive Sanitation in Uttar Pradesh

Centre for Science and Environment (CSE), New Delhi

The report presents the implementation level challenges faced in UP and recommendation for streamlining FSSM

Read More: *https://www.cseindia.org/septage-management-for-city-wide-inclusive-sanitation-in-uttar-pradesh-11364"*

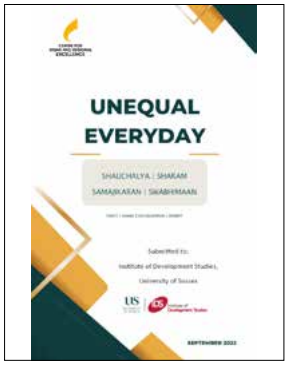


Managing Septage in Cities of Uttar Pradesh

Centre for Science and Environment (CSE), New Delhi

An analysis of the sanitation chain in 66 cities, through SFDs; briefly describes about each stage of sanitation chain, analysis through cluster SFDs and also proposes action plan

Read More: *https://www.cseindia.org/managing-septage-in-cities-of-uttar-pradesh-9268*

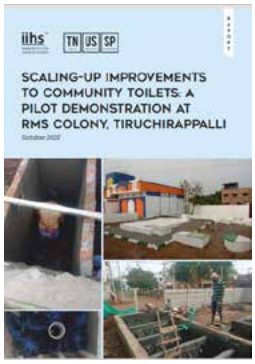


Gender Equality and Social Inclusion (GESI) Report

Centre for Urban and Regional Excellence (CURE), New Delhi

This research investigates the impact of inadequate sanitation on women and young girls in informal urban areas, particularly during menstruation, revealing significant long-term developmental consequences. It emphasizes the need to feminize the sanitation discourse by understanding the socio-cultural perspectives of women and mapping their experiences across ten low-income slum settlements in Delhi. Utilizing participatory methods, the study segments findings into four key themes: Shauchalaya (toilets), Sharam (shame), Samajikaran (socialization), and Swabhiman (dignity). The results highlight the pervasive shame and un-agency experienced by women in sanitation contexts, driven by gendered socialization and patriarchal norms. The study advocates for the feminization, individualization, and democratization of the sanitation ecosystem to ensure dignity for women, promoting their agency in decision-making. It concludes that while striving for individual sanitation solutions, the design of shared facilities must prioritize female safety and menstrual management, positioning the Swachh Bharat Mission as a crucial opportunity for creating inclusive and economically sustainable urban environments.

Read More: *https://cureindiaorg-my.sharepoint.com/:b:/g/personal/manasmita_cureindia_org/EZPp6lzBh7JFIISHXDwE3vEBv4DjfxRMY6rf9KjxFyKT7g?e=w2tLH8*

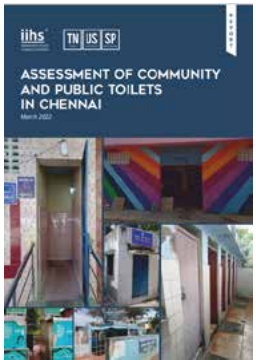


Scaling-Up Improvements to Community Toilets: A Pilot Demonstration at RMS Colony, Tiruchirappalli

Indian Institute for Human Settlements (IIHS), Bengaluru

This report examines the City-Wide Inclusive Sanitation (CWIS) initiative's efforts in Tiruchirappalli, India, specifically focusing on containment improvements at the RMS Colony community toilet. The project aims to enhance septic tank systems, decrease de-sludging frequency and costs, and establish inclusive facilities. By showcasing successful models, the report demonstrates how these improvements can minimize environmental impact, mitigate public health risks, and alleviate de-sludging expenses for Urban Local Bodies (ULBs).

Read More: *https://tnussp.co.in/wp-content/uploads/2023/04/Scaling-up-Improvements-to-CT-RMS-Colony-Tiruchirappalli_5-April-2023.pdf*



Assessment of Community and Public Toilets in Chennai

Indian Institute for Human Settlements (IIHS), Bengaluru

This report details a rapid assessment conducted by the Tamil Nadu Urban Sanitation Support Programme in collaboration with the Greater Chennai Corporation. Focusing on 62 public toilets in Chennai, the study aims to evaluate operational conditions, user perspectives, and revenue generation potential. Key findings underscore the demand for improved maintenance, facilities catering to vulnerable groups, and additional features. Challenges include nighttime closures and misuse concerns, with opportunities identified for the relocation of nearby shops. The report emphasizes the need for nuanced approaches to advertising revenue generation and offers insights into enhancing the sustainability of public toilet operations in Chennai.

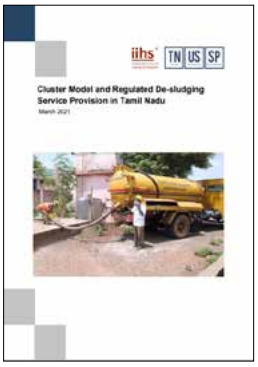
Read More: *https://tnussp.co.in/wp-content/uploads/2022/06/Assessment-of-Community-and-Public-Toilets-in-Chennai_20-June-2022.pdf*

Refurbished Community and Public Toilets in Chennai-New Initiative with Greater Chennai Corporation

Indian Institute for Human Settlements (IIHS), Bengaluru

Since the beginning of July 2022, the Greater Chennai Corporation (GCC) has handed over eleven Community Toilets and Public Toilets (CT/PTs) to IIHS-led TNUSSP. The two-year pilot demonstration aims to understand the service needs of users, provide service delivery using different methods and ascertain the costs of services for different service levels. This project will also explore various revenue generation avenues/models, which will help in the effective operations and maintenance of the CTs and PTs.

Read More: *https://youtu.be/mZJTzC8jp1g?feature=shared*

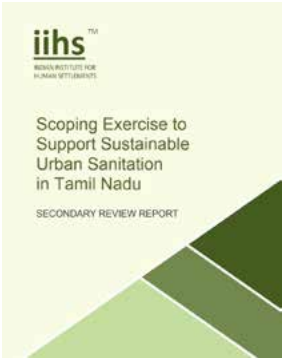


Cluster Model & Regulated Desludging Service Provision in Tamil Nadu

Indian Institute for Human Settlements (IIHS), Bengaluru

The report outlines the Tamil Nadu Urban Sanitation Support Programme's (TNUSSP) strategic measures to address unsafe fecal sludge disposal practices. By introducing a cluster approach, the government optimizes the placement of Urban Local Bodies (ULBs) around treatment plants, aiming to reduce travel distances for operators and enhance facility utilization. The State Investment Plan (SIP) emphasizes Co-treatment and phased implementation. A Memorandum of Understanding (MoU) formalizes the cluster approach, while a regulated de-sludging model and Standard License Agreement (SLA) focus on ensuring safe, accessible, and sustainable de-sludging services, aligning with national guidelines and promoting financial sustainability.

Read More: *https://tnussp.co.in/wp-content/uploads/2022/02/Cluster-Model-Regulated-Desludging-Service-Provision-in-Tamil-Nadu.pdf*



Scoping Exercise to Support Sustainable Urban Sanitation in Tamil Nadu – Secondary Review Report

Indian Institute for Human Settlements (IIHS), Bengaluru

This report provides a comprehensive secondary review of urban sanitation in Tamil Nadu, focusing on critical aspects such as physiography, water resources, and economic trends. It outlines challenges in water supply, sanitation, and wastewater management in urban areas, addressing issues like water stress, public health, and the need for behavioral change. The report emphasizes institutional arrangements and financing challenges, while also examining diverse urbanization patterns in the state.

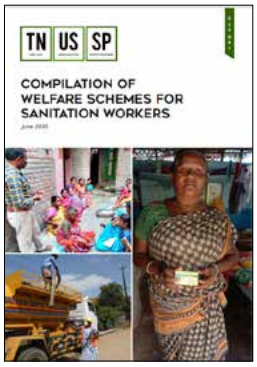
Read More: *https://drive.google.com/file/d/1oERJgQicWjsRe7CdViO3xwjfiuaYNt9T/view?usp=sharing*

Tamil Nadu Urban Sanitation Support Programme: Looking Back to Look Forward

Indian Institute for Human Settlements (IIHS), Bengaluru

This report outlines TNUSSP's achievements, lessons learned, and challenges. It provides insights into the program's ongoing impact and its planned exit strategy.

Read More: *https://tnussp.co.in/wp-content/uploads/2022/02/TNUSSP-Looking-Back-to-Look-Forward.pdf*



Compilation of Welfare Schemes for Sanitation Workers

Indian Institute for Human Settlements (IIHS), Bengaluru

This document outlines social security and welfare schemes for sanitation workers, often unrecognized despite their vital role. In collaboration with the Tamil Nadu Urban Sanitation Support Programme, the Tiruchirappalli City Corporation, as part of the Citywide Inclusive Sanitation program, is actively empowering sanitation workers in Trichy. The document delineates key schemes, spanning insurance, pension, women's welfare, and household improvement, aligning workers with both Central and State Government initiatives. Based on participatory methods, the study, encompassing 23 settlements and engaging 1,855 sanitation workers, offers valuable insights, creating a comprehensive guide to address livelihood gaps in the sanitation value chain within Trichy city.

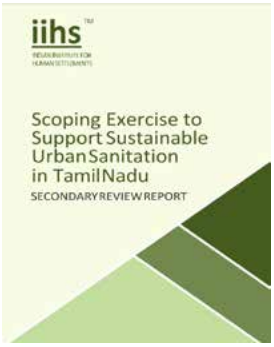
Read More: *https://tnussp.co.in/wp-content/uploads/2022/01/Compilation-of-welfare-schemes-for-sanitation-workers_12-nov-2021.pdf*

Fecal Sludge Treatment in Karunguzhi: The FSTP Story

Indian Institute for Human Settlements (IIHS), Bengaluru

This report highlights Tamil Nadu's pioneering approach to urban sanitation, prioritizing comprehensive coverage from containment to disposal. Focusing on septage management as a sustainable complement to traditional Underground Sewerage Schemes (UGSS), the state addresses challenges such as unsafe transport, environmental pollution, and the absence of UGSS in various areas. The report outlines the groundbreaking Operative Guidelines for Septage Management issued in 2014, covering design, pumping, transportation, treatment, fees, and communication. A case study in Karunguzhi exemplifies effective septage management through a pilot Fecal Sludge Treatment Plant (FSTP), providing insights for potential statewide implementation.

Read More: *https://tnussp.co.in/wp-content/uploads/2020/08/karunghuzhi-photo-story-min.pdf*



Launch Workshop on Sanitation in Urban Areas of Tamil Nadu: Chennai, Coimbatore & Tiruchirappalli

Indian Institute for Human Settlements (IIHS), Bengaluru

This report offers a comprehensive overview of urban sanitation in Tamil Nadu, analyzing water and sanitation dynamics within the context of economic growth, demographics, and natural resources. It covers physiography, climate, and rainfall patterns, emphasizing the state's water resources, economic landscape, and social development. With a focus on urbanization, household sanitation, and drinking water supply, the report addresses key issues such as access, water stress, and public health outcomes. Evaluating institutional arrangements and highlighting challenges, it provides essential insights for policymakers.

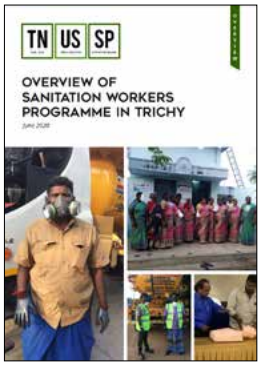
Read More: *https://tnussp.co.in/wp-content/uploads/2020/08/TNSS-Secondary-Review-Draft-Report-min.pdf*

Needs Assessment Study of Occupational and Health Hazards Faced by Desludging Workers in a City in India

Indian Institute for Human Settlements (IIHS), Bengaluru

This report focuses on the critical issue of safe fecal sludge management in India, particularly the neglected aspect of septic tank desludging. Operating within the informal sector, desludging trucks lack official data on their numbers, operations, and disposal practices. The study, conducted in an Indian city, unveils unsafe desludging practices, posing health risks to workers and environmental threats. Despite existing legislation like the Manual Scavenging Prohibition Act (2013), gaps persist, demanding attention to occupational safety, proper use of personal protective equipment, and comprehensive regulations for the informal desludging sector. Recommendations for improvement are proposed, emphasizing adherence to legal frameworks and enhancing worker well-being.

Read More: *https://tnussp.co.in/wp-content/uploads/2020/08/Draft-NAS-report-min.pdf*

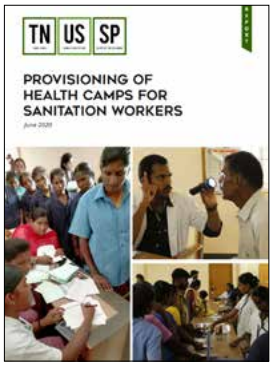


Overview of Sanitation Workers Programme in Tiruchirappalli

Indian Institute for Human Settlements (IIHS), Bengaluru

The report provides an overview of the collaborative efforts between the Indian Institute for Human Settlements (IIHS), Bengaluru, Trichy City Corporation (TCC), and partners to enhance the well-being of sanitation workers in Trichy. With a focus on Fecal Sludge Management (FSM) through the Tamil Nadu Urban Sanitation Support Programme (TNUSSP) and participation in the City Wide Inclusive Sanitation (CWIS) Programme, the project aims to transform urban sanitation practices, prioritize citizens' rights, ensure safe waste management, and foster partnerships. The report outlines key initiatives, including improving living conditions for sanitation workers and mainstreaming gender-inclusive sanitation, contributing to Trichy's development as a knowledge hub for inclusive sanitation.

Read More: *https://tnussp.co.in/wp-content/uploads/2022/01/Overview-of-Sanitation-Workers-Programme-in-Trichy_12-Novemmber-2021.pdf*

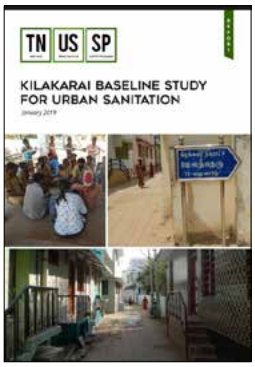


Provisioning of Health Camps for Sanitation Workers

Indian Institute for Human Settlements (IIHS), Bengaluru

This report highlights efforts to improve the occupational health and safety of sanitation workers. Despite existing regulations, healthcare access is inadequate, particularly in smaller towns and the informal sector. TNUSSP conducted 11 health camps in Coimbatore over three years, revealing prevalent health issues. The report suggests standardizing healthcare through MoUs between town panchayats and private hospitals, connecting workers with government health insurance, and enhancing policies for sustainable healthcare models.

Read More: *https://tnussp.co.in/wp-content/uploads/2022/01/Provisioning-of-Health-Camps-for-Sanitation-Workers_12-nov-2021.pdf*

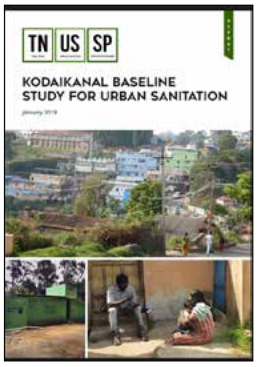


Kilakarai Baseline Study for Urban Sanitation

Indian Institute for Human Settlements (IIHS), Bengaluru

The Kilakarai municipality baseline study highlights sanitation challenges, including open defecation, water scarcity, and inadequate desludging infrastructure. With 86% household participation, the findings emphasize the need for integrated fecal sludge management in urban sanitation, exploring solutions for narrow areas, regulating desludging markets, and promoting awareness for regular desludging. The report provides vital insights for designing effective fecal sludge management plans and addressing structural discrepancies.

Read More: *https://drive.google.com/file/d/1SiVbHKk2mWI1Vi8C5ChSqreceILkTkKG/view*

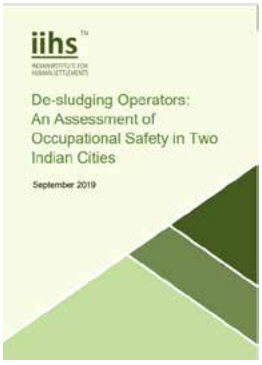


Kodaikanal Baseline Study for Urban Sanitation

Indian Institute for Human Settlements (IIHS), Bengaluru

The baseline study in Kodaikanal municipality evaluates sanitation challenges, emphasizing the importance of effective fecal sludge management. Surveying 6,978 households and 3,285 establishments, the report reveals issues like water scarcity and open defecation. Key recommendations include upgrading infrastructure, regulating desludging, and exploring Co-treatment options. This report offers crucial insights for comprehensive sanitation planning in Kodaikanal.

Read More: *https://drive.google.com/file/d/1mCJtz3AsrjhOlVdjmb54TQxdJj0Rm769/view*

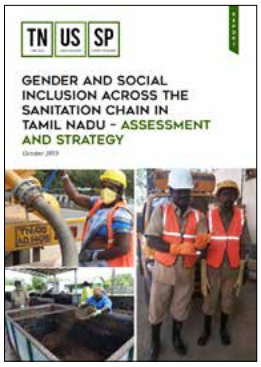


De-sludging Operators: An Assessment of Occupational Safety in Two Indian Cities

Indian Institute for Human Settlements (IIHS), Bengaluru

This report investigates occupational safety concerns among desludging operators in Indian cities, focusing on fecal sludge management. The study encompasses in-depth analysis, stakeholder interviews, and process observations to identify safety issues and proposes recommendations. Key findings reveal safety concerns such as harmful gas exposure, skin-related issues, and physical injuries. The report suggests interventions in mitigation, prevention, and protection, emphasizing behavioral change, safety gear design improvements, and design modifications in septic tanks. The study underscores the need for awareness campaigns, legal recognition, standard operating procedures, and engineering controls to enhance the safety of desludging operations.

Read More: *https://tnussp.co.in/wp-content/uploads/2022/01/De-sludging-Operators_Occupational-Safety-in-Two-Indian-Cities_29-June-2021.pdf*

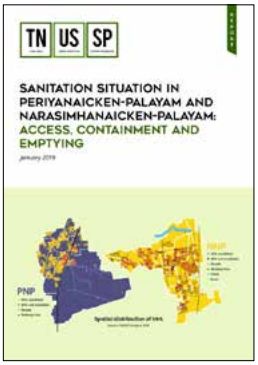


Gender and Social Inclusion across the Sanitation Chain in Tamil Nadu – Assessment and Strategy

Indian Institute for Human Settlements (IIHS), Bengaluru

This report delves into Tamil Nadu's sanitation initiatives, spotlighting the pivotal role of septage management as a cost-effective complement to sewerage systems, the Tamil Nadu Urban Sanitation Support Programme (TNUSSP) integrates gender and social inclusion perspectives in its second phase. The Gender Assessment and Strategy aim to identify disparities, develop strategies, and propose indicators for addressing gender issues in sanitation. Preliminary findings reveal challenges across decision-making, containment, emptying, transportation, treatment, and solid waste management. The report advocates for a comprehensive GSI strategy, highlighting key objectives, methodologies, policy analyses, and good practices, setting the stage for wider implementation.

Read More: *https://tnussp.co.in/wp-content/uploads/2022/01/Gender-and-Social-Inclusion-across-the-Sanitation-Chain-in-TN_-2-sep-2021.pdf*



Sanitation Situation in Periyanaicken-Palayam and Narasimhanaicken-Palayam

Indian Institute for Human Settlements (IIHS), Bengaluru

The Tamil Nadu Urban Sanitation Support Programme (TNUSSP) focuses on enhancing sanitation in select areas, including Periyanaicken-palayam (PNP) and Narasimhanaicken-palayam (NNP). A study was conducted using GIS mapping to assess sanitation facilities and desludging practices. Findings highlight deficiencies in containment safety and proximity to water sources. Recommendations include utilizing Swachh Bharat Mission funds for toilet construction support and addressing challenges related to RCC containment tops during desludging to improve sanitation standards effectively.

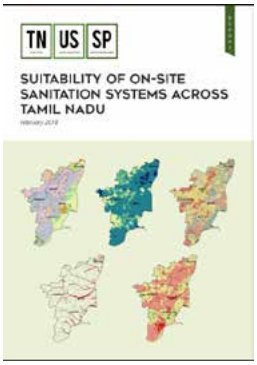
Read More: *https://drive.google.com/file/d/1-7BhWnvdB-WafII38_zySSZVJoSHUqXE/view*

Compendium of Innovative Technologies for Urban Sanitation

Indian Institute for Human Settlements (IIHS), Bengaluru

The document serves as a reference guide and decision support tool for urban local body professionals, sanitation practitioners, and urban planners, aiding in the selection of appropriate technological interventions. It addresses a significant gap between theoretical research and practical implementation. By enlisting innovations, particularly in technology, the Compendium aims to empower stakeholders, bridging the information divide and facilitating informed decision-making in fecal sludge management planning.

Read More: *https://drive.google.com/file/d/1gaYfknX1VDEwHG-u_gimsPZQF0hf5Lv6/view*



Suitability of On-site Sanitation Systems across Tamil Nadu

Indian Institute for Human Settlements (IIHS), Bengaluru

The TNUSSP's groundwater risk zone mapping study evaluates the suitability of on-site sanitation systems (OSS) across Tamil Nadu. Analyzing aquifer systems, soil drainage, groundwater levels, and flood hazard areas, the study categorizes regions into suitability conditions—very low, low, moderate, and high. This information assists the Government of Tamil Nadu in its commitment to improving urban sanitation. The resulting spatial map facilitates intervention planning and categorization of urban local bodies (ULBs) based on OSS suitability, supporting informed decision-making for sustainable sanitation solutions.

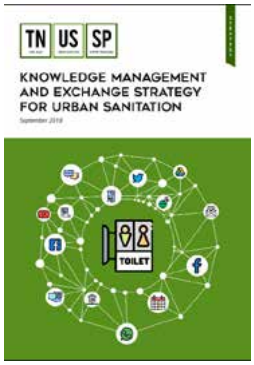
Read More: *https://drive.google.com/file/d/1KLfeWM57-kVtFT96-jT8aiUQdHXswGDm/view*

State Investment Plan for FSM

Indian Institute for Human Settlements (IIHS), Bengaluru

This report outlines the phased strategy, emphasizing efficient resource utilization for sustainable fecal sludge management across the state.

Read More: *https://tnussp.co.in/wp-content/uploads/2020/08/TN-State-Investment-Plan_website-V1-210720-am-edit-min.pdf*

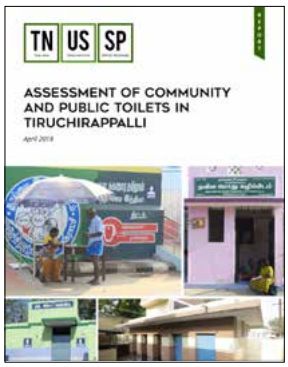


Knowledge Management and Exchange Strategy for Urban Sanitation

Indian Institute for Human Settlements (IIHS), Bengaluru

TNUSSP's Knowledge Management Strategy aims to bridge gaps in Fecal Sludge Management (FSM) knowledge in Tamil Nadu. By leveraging digital platforms, collaborating with forums, and engaging with stakeholders, the strategy focuses on disseminating evidence-based research and practical insights. Implementation involves presentations, knowledge products, conference participation, and media engagement, contributing to the FSM knowledge base and fostering collaborative learning in Tamil Nadu.

Read More: *https://drive.google.com/file/d/1SGSSs7i0gycqUB1ebwjgG1Xtjkrb1-Lu/view?usp=sharing*

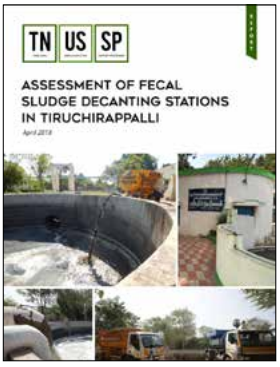


Assessment of Community and Public Toilets in Tiruchirappalli

Indian Institute for Human Settlements (IIHS), Bengaluru

This report examines the state of community and public toilets in Trichy, a city declared Open Defecation Free in 2016. Based on a 2018 rapid assessment, it outlines prevalent toilet types, functionality issues, water supply sources, waste management practices, and diverse management models. Two primary approaches, Community-led (42.7%) and ULB-led (53.8%), are detailed, shedding light on challenges and financial considerations. The city explores additional revenue avenues through ATMs and billboards. The ULB contemplates transferring certain toilet management responsibilities to community-led teams. This report offers insights into Trichy's sanitation infrastructure and suggests areas for improvement.

Read More: *https://drive.google.com/file/d/15ilne9931SymcL2TJ66F7OcPATMjazT6/view?usp=sharing*

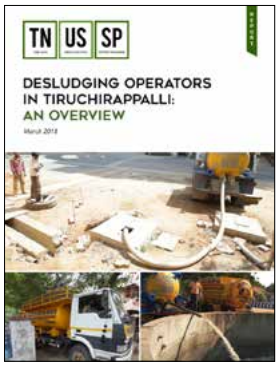


Assessment of Fecal Sludge Decanting Stations in Tiruchirappalli

Indian Institute for Human Settlements (IIHS), Bengaluru

This report assesses the Fecal Sludge Decanting Stations in Tiruchirappalli, focusing on access, layout, design, infrastructure, and operational details. Covering four designated facilities, the assessment identifies areas for improvement, emphasizing spatial enhancements, operational and maintenance (O&M) practices, and health and safety measures. Recommendations include constructing unloading ramps, upgrading grit removal facilities, regularizing O&M procedures, monitoring FS quality, ensuring PPE usage, and improving data standardization. The insights provided aim to optimize efficiency and safety in the city's Fecal Sludge Management system.

Read More: *https://drive.google.com/file/d/1I5EDT9PYDWIidGo6K8xhcEK0CoRs1wIU/view?usp=sharing*

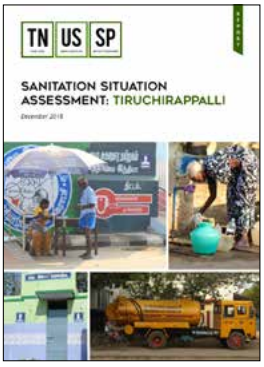


Desludging Operators in Tiruchirappalli: An Overview

Indian Institute for Human Settlements (IIHS), Bengaluru

This report offers a comprehensive overview of desludging operations in Tiruchirappalli, a city with partial sewerage coverage. Through interviews and observations, it examines operator profiles, practices, and challenges. The findings underscore the need for improved licensing processes, awareness campaigns, and health measures. With insights into tariff structures and disposal methods, the report provides a foundation for enhancing the desludging system in Tiruchirappalli, fostering better sanitation practices and service delivery.

Read More: *https://drive.google.com/file/d/1V-omobWIK6VYEXRrvvo_WvdfOnMXcWlH/view?usp=sharing*

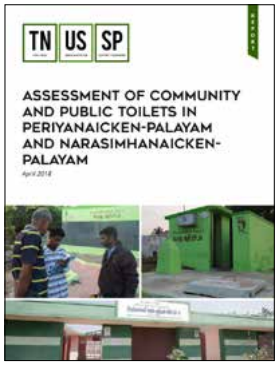


Sanitation Situation Assessment: Tiruchirappalli

Indian Institute for Human Settlements (IIHS), Bengaluru

This report provides a comprehensive assessment of sanitation in Tiruchirappalli, examining water supply, household sanitation, and wastewater management. It highlights challenges such as limited piped water coverage and reliance on individual toilets, alongside issues with wastewater disposal and stormwater drain pollution. The report proposes an action plan to address these challenges, including improvements in containment, conveyance, treatment, and disposal. It also outlines a phased investment plan over five years to implement the proposed solutions and improve the city's sanitation infrastructure.

Read More: *https://drive.google.com/file/d/1SFNoZefaqS8JmaMrDIOHDqUA8hu4Zyjq/view?usp=sharing*

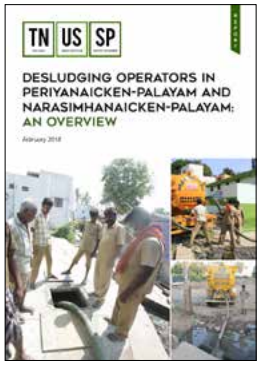


Assessment of Community and Public Toilets in Periyanaicken-Palayam and Narasimhanaicken-Palayam

Indian Institute for Human Settlements (IIHS), Bengaluru

This report evaluates the condition and functionality of community toilets (CTs) and public toilets (PTs) in Periyanaicken-Palayam (PNP) and Narasimhanaicken-Palayam (NNP) in Coimbatore, Tamil Nadu. It examines infrastructure, maintenance, user satisfaction, and socio-economic factors. Key findings highlight deficiencies in cleanliness, maintenance, and wastewater management. Recommendations include renovating facilities, improving maintenance protocols, increasing toilet capacity, implementing user fees for sustainability, upgrading containment structures, and providing construction and management guidelines. These measures aim to enhance sanitation access and address challenges in urban slum areas.

Read More: *https://drive.google.com/file/d/1WZB-WptPqyRon9ikBVTZPg1kiMaveNc3/view?usp=sharing*

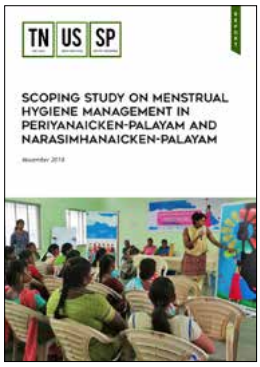


Desludging Operators in Periyanaicken-Palayam and Narasimhanaicken-Palayam: an Overview

Indian Institute for Human Settlements (IIHS), Bengaluru

This report summarizes a consultation with desludging operators in Periyanaicken-palayam and Narasimhanaicken-palayam, highlighting the challenges and practices in fecal waste management. Despite facing hurdles like restricted road access and cost escalation, operators employ innovative marketing strategies. Recommendations include streamlining registration processes and expanding decanting facilities for enhanced operational efficiency.

Read More: *https://drive.google.com/file/d/1I2FUfLLsoZxWMyEBJtSfVJIPnNRyByfg/view?usp=sharing*

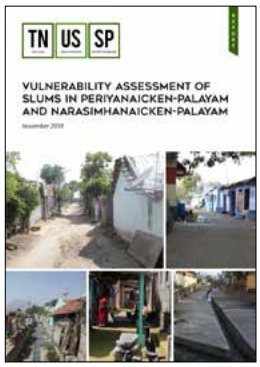


Scoping Study on Menstrual Hygiene Management in Periyanaicken-Palayam and Narasimhanaicken-Palayam

Indian Institute for Human Settlements (IIHS), Bengaluru

The report highlights the challenges faced by adolescent girls in India regarding menstrual hygiene management (MHM), including poor access to absorbents and societal taboos. A scoping study by the Tamil Nadu Urban Sanitation Support Programme (TNUSSP) investigated MHM practices in slum settlements. Findings underscored the critical role of communities in dispelling myths and promoting proper hygiene practices. Additionally, inadequate sanitary waste disposal systems were identified as a pressing issue. While government initiatives like the Pudhu Yugam scheme aim to address these challenges, gaps in awareness, accessibility, and infrastructure persist, necessitating urgent intervention for comprehensive MHM.

Read More: *https://drive.google.com/file/d/1Wijcy-VkPCAmK5zAwRndPuLqrzFDO3Zh/view?usp=sharing*



Vulnerability Assessment of Slums in Periyanaicken -Palayam and Narasimhanaicken-Palayam

Indian Institute for Human Settlements (IIHS), Bengaluru

A vulnerability study conducted by the Tamil Nadu Urban Sanitation Support Programme (TNUSSP) in Periyanaicken-palayam (PNP) and Narasimhanaicken-palayam (NNP) of Coimbatore district assesses the sanitation challenges faced by urban slums. Through 22 indicators, including access to services and demographic data, slums were categorized based on vulnerability levels. Findings reveal primary factors such as employment patterns and inadequate healthcare access contributing to vulnerability, guiding targeted interventions for optimal resource utilization.

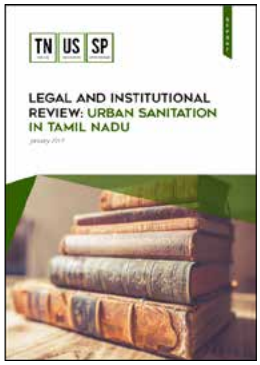
Read More: *https://drive.google.com/file/d/1B6rMQ7ZGn6G5aRSRMHXFtCAAX-AkFZsw/view?usp=sharing*

Tamil Nadu State Baseline Study: Technical Assessment of Sanitation Chain

Indian Institute for Human Settlements (IIHS), Bengaluru

The study across seven agro-climatic zones in Tamil Nadu, encompassing 21 Urban Local Bodies (ULBs), assessing sanitation infrastructure and practices, the study categorized regions based on suitability conditions and identified variations in arrangements. Covering water supply, wastewater disposal, toilets, containment, and desludging, the findings reveal diverse practices. The study emphasizes the need for tailored interventions based on local nuances. This report provides a condensed overview of the study, offering insights into the current state of sanitation across different regions in Tamil Nadu.

Read More: *https://drive.google.com/file/d/1nw1JDXsD83IZQenSlxiFfN7LNoSaAVj7/view*

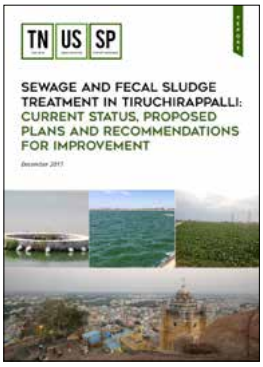


Legal and Institutional Review: Urban Sanitation in Tamil nadu

Indian Institute for Human Settlements (IIHS), Bengaluru

The report assesses the legal framework, policies, and institutional structures governing urban sanitation in Tamil Nadu. It highlights the Government's focus on on-site systems and septage management. Key laws include the Tamil Nadu Town and Country Planning Act, Municipal Corporations Act, and Public Health Act. Institutional bodies like the Commissionerate of Municipal Administration and Municipal Administration and Water Supply Department play crucial roles. Financial entities such as TNUIFSL and TWAD Board contribute to funding. Challenges include fragmented laws and insufficient treatment plants. The roadmap suggests phased approaches for comprehensive sanitation improvements. The report also delves into budget allocations, sanitation schemes, and a case study on Trichy Corporation.

Read More: *https://drive.google.com/file/d/1pwfX7TczlCDCt8C3ntcpd3GLI4MWUdN0/view*

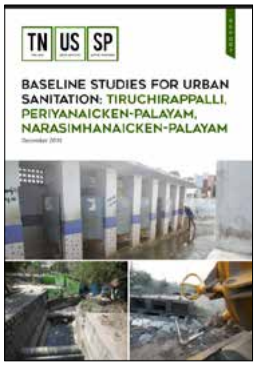


Sewage and Fecal Sludge Treatment in Tiruchirappalli: Current Status, Proposed Plans and Recommendations for Improvement

Indian Institute for Human Settlements (IIHS), Bengaluru

This report assesses the operational status and compliance of Tiruchirappalli's Sewage Treatment Plant (STP), along with proposed upgrades to address wastewater management challenges. It identifies equipment malfunctions, operational issues, and recommends repairs and preventative maintenance programs. Additionally, the report suggests improvements for septage management and institutional strengthening, including private sector involvement. Future plans for sewage treatment processes are also reviewed. Overall, it provides a comprehensive strategy to enhance STP performance and address wastewater management in Tiruchirappalli.

Read More: *https://drive.google.com/file/d/1vTm4KSsbN7EG8PdEc3YYZVjoWbAu6otq/view?usp=sharing*

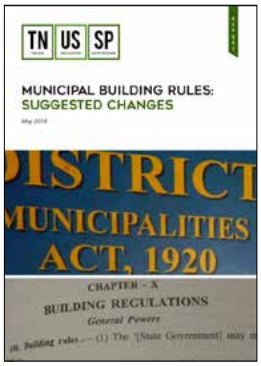


Baseline Studies: Tiruchirappalli, Periyanaicken-Palayam, Narasimhanaicken-Palayam

Indian Institute for Human Settlements (IIHS), Bengaluru

The report presents baseline studies on urban sanitation in Tiruchirappalli, PNP, and NNP, revealing deficits in access, containment, collection, conveyance, and disposal across the sanitation chain. Findings highlight challenges such as open defecation, inadequate community toilet maintenance, and non-compliance with construction norms. Recommendations include improving community toilet management, promoting individual toilet construction, addressing behavioral aspects of open defecation, and enhancing awareness on desludging importance. The report emphasizes the need for training stakeholders, developing treatment structures, and reviewing personal protection equipment for desludging workers. Overall, the study underscores the urgency to address gaps in urban sanitation.

Read More: *https://drive.google.com/file/d/1jBFjGxsNCOVrxsWWB8Ikwz2fOlisQl7n/view*

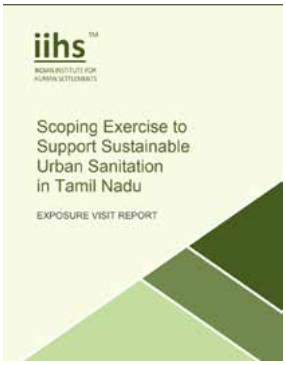


Municipal Building Rules: Suggested Changes

Indian Institute for Human Settlements (IIHS), Bengaluru

The comprehensive review of existing practices concerning on-site containment structures, aligning with the Government of Tamil Nadu's (GoTN) 2014 Septage Operative Guidelines. The assessment focuses on ensuring compliance with sanitary requirements for on-site structures, along with exploring enhancements to procedures for receiving and approving building proposals. Examining the Tamil Nadu District Municipalities Building Rules (MBR), 1972, and engaging with officials from Tiruchirappalli City Corporation and Town Panchayats, also the report provides valuable insights and recommendations.

Read More: *https://drive.google.com/file/d/1jLQIO8_DCzgBcgEp8j82SkowKazs_6SP/view?usp=sharing*

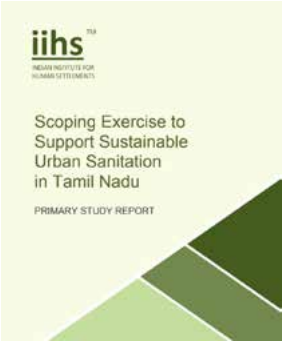


Scoping Exercise to Support Sustainable Urban Sanitation in Tamil Nadu – Exposure Visit Report

Indian Institute for Human Settlements (IIHS), Bengaluru

This report details the preliminary work undertaken for exposure visits as part of the Tamil Nadu Urban Sanitation Scoping Study conducted by IIHS for the Government of Tamil Nadu. Focused on fecal sludge management practices, the report explores the urban sanitation context in Tamil Nadu and highlights the significance of exposure to successful models. The objectives include providing participants with insights into urban sanitation management and septage management, fostering a practical understanding of key aspects, and formulating actionable plans for implementing septage management solutions in Tamil Nadu's urban areas. Proposed locations for exposure visits encompass Malaysia and Dakar, Senegal.

Read More: *https://drive.google.com/file/d/1Lti0mP_ZgSeIkKQ4UQl60Mv5eSbzvf-v/view?usp=sharing*

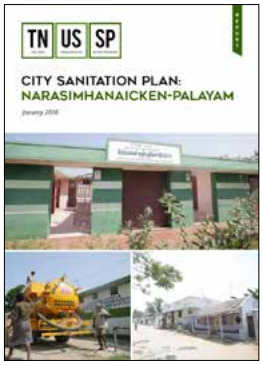


Scoping Exercise to Support Sustainable Urban Sanitation in Tamil Nadu – Primary Study Report

Indian Institute for Human Settlements (IIHS), Bengaluru

This report focuses on the primary study conducted in Pammal Municipality and two Town Panchayats in Coimbatore District, Tamil Nadu, as part of the Tamil Nadu Sanitation Mission. Commissioned by the Bill & Melinda Gates Foundation, the study aims to analyze the urban sanitation scenario, institutional capacities, and stakeholder landscapes. It includes a comprehensive situational analysis, legal assessments, stakeholder engagement, and exposure visits to successful fecal sludge management examples. The study explores sanitation arrangements, decision-making processes, and perceptions in various household typologies.

Read More: *https://drive.google.com/file/d/1Mr5vp_SHUIbtGlpNjHdhAnyNoBm_5AwO/view?usp=sharing*

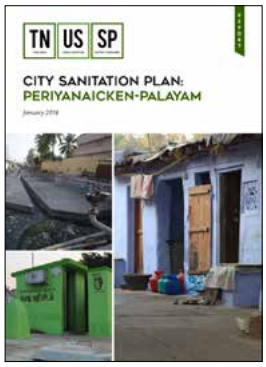


City Sanitation Plan for Narasimhanaicken-Palayam

Indian Institute for Human Settlements (IIHS), Bengaluru

This report summarizes the City Sanitation Plan (CSP) for Narasimhanaicken Palayam (NNP), Tamil Nadu, focusing on water supply, solid waste management, and sanitation challenges. Based on comprehensive surveys and consultations, the CSP outlines key findings and proposes targeted actions to address deficiencies. It emphasizes containment, conveyance, treatment, and disposal strategies, with estimated investment needs of Rs. 116 lakhs. Urgent measures include halting open defecation, enhancing public toilet operations, and improving wastewater treatment facilities.

Read More: *https://drive.google.com/file/d/1uxx1LtTTbjNwCbJAnd14s_tEdImfgJlc/view?usp=sharing*



City Sanitation Plan for Periyanaicken-Palayam

Indian Institute for Human Settlements (IIHS), Bengaluru

This report presents the City Sanitation Plan (CSP) for PNP, focusing on water supply, stormwater drainage, solid waste management, and sanitation challenges. Through thorough data collection and stakeholder consultations, the CSP identifies key areas for improvement and proposes targeted actions. These include strategies for containment, conveyance, treatment, and disposal. The estimated investment for the CSP amounts to Rs. 1,21,49,670. Urgent measures include halting open defecation, enhancing public toilet operations, and improving wastewater treatment facilities to ensure a cleaner and healthier environment for PNP residents.

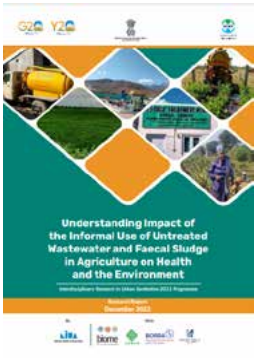
Read More: *https://drive.google.com/file/d/18WSQMmLWi0O_NhuHV8Adj7sLJL2bBDC4/view?usp=sharing*

Rapid Assessment of Water and Sanitation in Hill States

National Institute of Urban Affairs (NIUA), New Delhi

The report is prepared as a part of advocacy to address and develop inclusive, resilient, and sustainable urban ecosystems in the Indian Himalayan Region (IHR) of the country. The report deep dives into collating the data pertaining to geography and topography, climatic conditions, demography, administrative details, land use cover, access to water, sanitation and solid waste management and municipal finances. The geography and topography of the region are peculiar and pose various challenges to the technical feasibility of solutions for water, solid and liquid waste management. The states also have a large tracts of land under forest which acts as a carbon sink and plays an important role in mitigating the impact of climatic change.

Read More: *https://niua.in/intranet/sites/default/files/2929.pdf*



Understanding Impact of the Informal Use of Untreated Wastewater and Faecal Sludge in Agriculture on Health and the Environment

National Institute of Urban Affairs (NIUA), New Delhi

The importance of wastewater reuse is well established. However, the unregulated reuse of wastewater and faecal sludge (FS) particularly in agriculture is a cause of concern. The adverse impact on health and the environment has not been adequately studied /understood. The overall aim of the research is to help address knowledge gaps and inform practice in the urban sanitation sector with a focus on faecal sludge and wastewater management. Specific objectives are to document the informal use of untreated wastewater and faecal sludge in agriculture, Capture qualitative data on the health and environmental impact due to the use of untreated wastewater and faecal sludge, to capture quantitative data on the health and environmental impact due to the use of untreated wastewater and faecal sludge through tests of groundwater, wastewater, faecal sludge and soil samples and to provide recommendations on de-risking and mitigation measures based on the findings.

Read More: *https://scbp.niua.org/sites/all/themes/zap/knowledge/Biome%20Report_10.pdf*

Faecal Sludge and Septage Management in Uttarakhand: Strategy and Investment Plan

National Institute of Urban Affairs (NIUA), New Delhi

This report presents a comprehensive analysis of the Indian Himalayan Region (IHR), aiming to advocate for inclusive, resilient, and sustainable urban ecosystems. The study delves into various aspects of the region, including geography, topography, climate, demography, administration, land use, water access, sanitation, solid waste management, and municipal finances. The unique geographical and topographical characteristics of the IHR pose significant challenges to implementing effective solutions for water, solid, and liquid waste management. Moreover, the region's vast forested areas serve as crucial carbon sinks, mitigating the impacts of climate change. By understanding these factors, the report seeks to inform policy development and decision-making to promote sustainable urban development in the IHR.

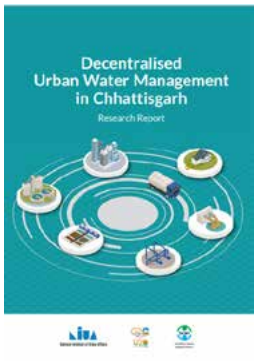
Read More: *https://scbp.niua.org/sites/all/themes/zap/knowledge/UTTARAKHAND%20SIP%202.0_8_0.pdf*

Characterisation of Faecal Sludge, Dewatered and Dried Sludge from Select Faecal Sludge and Sewage Treatment Plants

National Institute of Urban Affairs (NIUA), New Delhi

This study characterizes faecal sludge (FSS), dewatered, and dried sludge from sewage treatment plants (STPs) and faecal sludge treatment plants (FSTPs) in India. The objective is to assess their characteristics against existing standards and guidelines. The analysis includes parameters such as pH, COD, BOD, TS, TKN, FC, pathogens, and heavy metals. Results indicate that FSS characteristics vary significantly from existing design values, particularly in terms of BOD, COD, and VS. While heavy metals were within suggested limits, some exceeded effluent discharge standards. Dewatered sludge generally met Class B guidelines but failed in Salmonella and Helminth numbers. Naturally dried sludge satisfied US EPA Class B criteria. The study suggests revising design values for FSS and implementing co-composting for dewatered sludge. It emphasizes the need for scientific research on pathogen destruction during natural drying processes.

Read More: *https://scbp.niua.org/sites/all/themes/zap/knowledge/Biosolids%20Report_5.pdf*

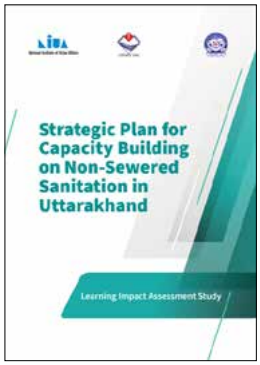


Decentralised Urban Water Management in Chhattisgarh

National Institute of Urban Affairs (NIUA), New Delhi

This study details out the prevailing situation in the urban water sector in the state of Chhattisgarh and also that in a few other cities across India, including the city of Indore which has been declared "water plus" in the treatment and reuse of used water, based on primary and secondary research involving literature review, interviews, water testing and site inspections. This review confirms based on data analysis that both in the cities and towns in Chhattisgarh and in other cities across the country, centralised urban water management is facing problems in providing good water services in an ecologically sustainable, financially viable and socio-economically equitable manner. An analysis of the finances of centralised water supply and sanitation shows that the costs of proper service delivery are unaffordable to over 90 percent of the urban population.

Read More: *https://scbp.niua.org/sites/all/themes/zap/knowledge/DUWM%20in%20Chhattisgarh_9.pdf*

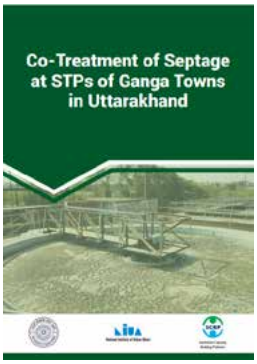


Strategic Plan for Capacity Building on Non-Sewered Sanitation in Uttarakhand

National Institute of Urban Affairs (NIUA), New Delhi

This report presents an overview of the National Institute of Urban Affairs (NIUA) engagement with the Government of Uttarakhand to promote effective septage management. NIUA's Sanitation Capacity Building Platform (SCBP) has been instrumental in developing a State Normative Framework, supporting policy development, and implementing capacity-building initiatives. Key achievements include the establishment of Septage Management Cells in ULBs, development of Septage Management Byelaws, and progress in Co-treatment of faecal sludge in STPs. The report highlights the challenges faced and recommends future strategies for scaling up septage management in the state.

Read More: *https://scbp.niua.org/sites/all/themes/zap/knowledge/Impact%20Assessment%20Study(Web).pdf*

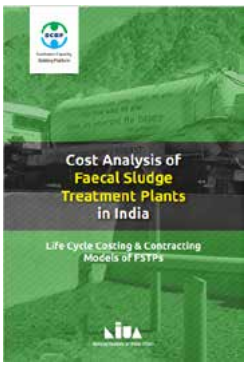


Co-treatment of Septage at STPs of Ganga Towns in Uttarakhand

National Institute of Urban Affairs (NIUA), New Delhi

The report investigated the feasibility of co-treating septage with wastewater in existing Sewage Treatment Plants (STPs) in Uttarakhand's Ganga towns. Septage samples from various locations were collected and analyzed to assess their quality, which was found to be highly concentrated due to infrequent desludging. The study evaluated the capacity and operational conditions of each STP to determine the optimal septage addition rates without compromising effluent quality. Based on the findings, specific strategies for septage Co-treatment were proposed for each STP, including septage addition timings, storage facilities, and potential pre-treatment requirements. The results of this study provide valuable insights for implementing effective septage management practices in the region.

Read More: *https://scbp.niua.org/sites/all/themes/zap/knowledge/Septage%20Co-treatment%20Report-2-web.pdf*



Cost Analysis of Faecal Sludge Treatment Plants in India

National Institute of Urban Affairs (NIUA), New Delhi

The study aims to establish a costing benchmark for faecal sludge treatment plants (FSTPs) in India. It compares FSTP costs to conventional sewage treatment plants (STPs) and explores suitable contracting models. FSTPs are generally more expensive due to higher organic loads and smaller scale. The study analyzes existing FSTPs, evaluates contracting models, and develops a costing framework. It recommends addressing cost-related challenges and promoting appropriate contracting models to facilitate wider FSTP adoption. By providing insights into the economic aspects of FSTP implementation, this research supports informed decision-making in the sanitation sector.

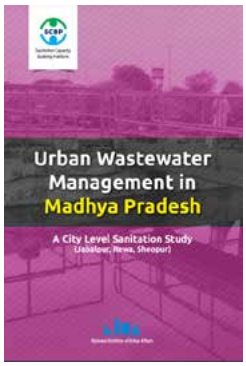
Read More: *https://scbp.niua.org/sites/all/themes/zap/knowledge/FSTP_Cost_Analysis_1.pdf*

Detailed Project Report Septage Treatment Plant (SeTP) for Rudrapur City, Uttarakhand

National Institute of Urban Affairs (NIUA), New Delhi

This report presents a detailed project report (DPR) for the establishment of a Septage Treatment Plant (SeTP) in Rudrapur City, Uttarakhand. The SeTP is designed to treat faecal sludge and septage, ensuring safe and environmentally sound disposal. The report outlines the treatment processes, including solid-liquid separation, dewatering, pathogen reduction, anaerobic treatment, aerobic treatment, and disinfection. It also provides detailed specifications for the plant's components, such as screens, settling thickening tanks, screw press, rotary dryer, anaerobic baffled reactor, anaerobic filter, horizontal constructed wetland, and chlorine disinfection system. It also includes financial estimates for the capital expenditure (CapEx) and operational expenditure (OpEx) associated with the SeTP. Additionally, recommendations are provided for the treatment and disposal of treated water and biosolids. Overall, this DPR serves as a comprehensive guide for the implementation and operation of the SeTP in Rudrapur City, contributing to improved sanitation and environmental management.

Read More: *https://scbp.niua.org/sites/all/themes/zap/knowledge/DPR_RUdrapur%20SeTP.pdf*



Urban Wastewater Management in Madhya Pradesh

National Institute of Urban Affairs (NIUA), New Delhi

The study gives an overall review of the sanitation, septage and wastewater management situation in Madhya Pradesh with special emphasis on three towns selected for detailed study namely Sheopur, Rewa and Jabalpur. The report also showcases impact of financial unsustainability highlighting the lack of trained human resources in Urban Local Bodies (ULBs) and comparative analysis of sewerage surcharge with average monthly household expenditure. In MP, most of the septic tanks are often oversized due to lack of technical competence and are not accompanied by soak trenches/pits, thus effluent is released untreated. Lack of private sector participation and limited cesspool vehicles with ULBs results into improper septage management in these towns.

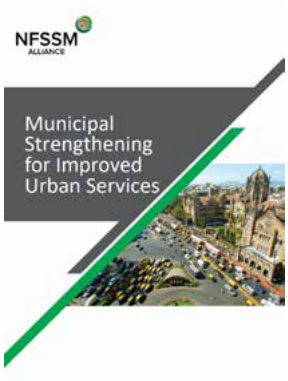
Read More: *https://scbp.niua.org/sites/all/themes/zap/knowledge/Madhyapradesh_1.pdf*

Handbook on Decentralised Wastewater Treatment Module, 2017

National Institute of Urban Affairs (NIUA), New Delhi

This handbook gives an overview for a decision-maker on the need for Decentralised Wastewater Treatment Module, its basic technical aspects, main sources of funding, necessary capacity and skills required for implementing and sustaining it stresses on the need for stakeholder engagement. Each of these aspects have detailed manuals, readings and reports. These have to be consulted in greater depth by the respective professionals in the team that will work for such an approach in a city.

Read More: *https://scbp.niua.org/sites/all/themes/zap/knowledge/Handbook%20on%20DEWATS.pdf*

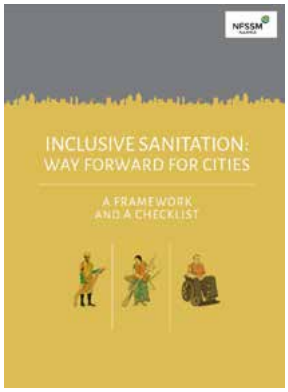


Municipal Strengthening for Improved Urban Services

National Faecal Sludge and Septage Management (NFSSM) Alliance

The "Municipal Strengthening Report," developed in collaboration with CWAS, emphasizes the critical importance of robust municipal governance in urban India, particularly in delivering essential services like sanitation and water supply. As urban populations continue to grow, the demand for effective service delivery intensifies, revealing significant gaps in infrastructure and management. This report analyzes current challenges faced by municipal governments, including resource constraints, governance issues, and inadequate service provision. It advocates for targeted strategies to strengthen local governance structures, enhance capacity building, and foster community engagement in the planning and execution of urban services. By prioritizing the development of strong municipal institutions, the report aims to facilitate sustainable improvements in service delivery, ultimately ensuring that all urban residents, especially marginalized communities, have access to reliable sanitation and clean water. Through a framework of best practices and actionable recommendations, this report serves as a guide for policymakers and stakeholders committed to enhancing urban governance in India.

Read More: *https://www.nfssmalliance.org/reports/municipal-strenthening-report*

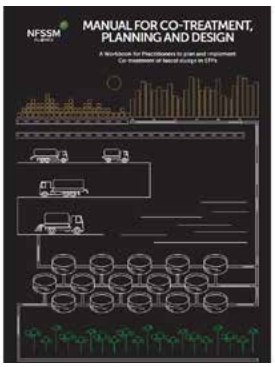


Inclusive Sanitation – Way Forward for Cities

National Faecal Sludge and Septage Management (NFSSM) Alliance

The report "Inclusive Sanitation – Way Forward for Cities: A Checklist and Framework" examines the critical disparities faced by urban poor in India regarding access to essential services, particularly water, sanitation, and hygiene. With around 70% of sewage untreated in slums, where one in six Indians reside, the situation has deteriorated, especially during the COVID-19 pandemic. This crisis is underscored by the stark contrast in sanitation facilities, with only 6% of the poorest households having access to improved sanitation compared to 93% of the wealthiest. In response, the government is implementing mandates for universal household toilet access, enhancing sanitation infrastructure, and establishing fair user charges. The Inclusive City Framework is introduced as a vital tool for urban planners and policymakers, providing a comprehensive checklist to promote accessible, affordable, and inclusive sanitation infrastructure in cities. This report underscores the urgent need for targeted strategies to improve sanitation outcomes for marginalized communities in urban India.

Read More: *https://www.nfssmalliance.org/reports/inclusive-sanitation-way-forward-for-cities-a-checklist-and-framework*



Manual for Co-treatment, Planning and Design

National Faecal Sludge and Septage Management (NFSSM) Alliance

It facilitates assessing feasibility of and planning for Co-treatment in a town with one or more STPs and allied infrastructure. A practical, step-by-step workbook-style booklet provides handholding support to users. Dasra anchored this in collaboration with Wash Institute and CDD Society.

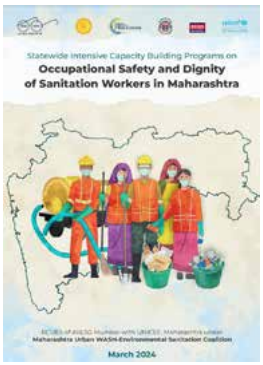
Read More: *https://www.nfssmalliance.org/reports/Co-treatment-manual*

ODF Sustainability and Waste Water Management in Villages on the bank of River Ganga in Uttar Pradesh

Regional Center for Urban and Environmental Studies (RCUES), Lucknow

The book “”ODF Sustainability and Waste Water Management in Villages on the Bank of River Ganga in Uttar Pradesh,”” authored by Dr. A.K. Singh and Dr. Nasruddin, offers a critical examination of the challenges and achievements related to sanitation and wastewater management in 4,480 villages declared open defecation free (ODF) under the “”Namami Gange”” campaign. These villages span across five Ganga basin states, including Uttar Pradesh, which holds a significant portion of the population. The book delves into the complexities of sustaining the ODF status and ensuring long-term environmental and public health benefits. It emphasizes the intricate link between sanitation, water quality, and health, highlighting the importance of maintaining the gains achieved through the Swachh Bharat Mission-Grameen (SBM-G). Through a focused study on select districts in Uttar Pradesh along the Ganga River, the book provides valuable insights into the practices, challenges, and solutions for sustaining sanitation and managing wastewater in rural settings. This work is essential for understanding the ongoing efforts to preserve the health and dignity of rural communities along the Ganga, offering a comprehensive resource for policymakers, researchers, and practitioners involved in rural sanitation and environmental management.

Read More: *https://drive.google.com/file/d/1wrUFidgpSQcrdoHWQc2Q43iWazN70EAf/view?usp=drive_link*



Statewide Intensive Capacity Building Programs on Occupational Safety and Dignity of Sanitation Workers in Maharashtra

Regional Centre for Urban and Environmental Studies (RCUES) of the All India Institute of Local Self-Government (AIILSG), Mumbai

Statewide Intensive Capacity Building Programs on Occupational Safety and Dignity of Sanitation Workers in Maharashtra - Aligned with UN's SDG 6: Water and Sanitation for all, RCUES of AIILSG, Mumbai forged a strategic partnership with Swachh Bharat Mission 2.0 (Urban) and SBM (Grameen) and other national missions to lead the 'Statewide Intensive Capacity Building Programs on Occupational Safety and Dignity of Sanitation Workers in Maharashtra'. This initiative empowered 280 Master Trainers (urban and rural) through extensive training sessions, enabling them to impart crucial knowledge to over 2100 sanitation workers across Maharashtra, ensuring safer and more dignified working conditions. In March of this year, the Maharashtra Urban WASH and Environmental Sanitation Coalition (Maha UWES-C) published the report on ""Statewide Intensive Training for Sanitation Workers on their Occupation Dignity and Safety."" This report is the result of tireless efforts, during which over 250 Master Trainers were prepared to train more than 2100 sanitation workers through 33 capacity-building workshops held across 12 districts over five months. These trainings were aligned with Sustainable Development Goal 6 and the Swachh Maharashtra Mission-Urban, and conducted with support from the Urban Development Department (UDD) and the State Water and Sanitation Mission (SWSM). The report details the challenges faced by sanitation workers and highlights the positive outcomes of the training sessions, which have empowered these workers. The trainings covered topics such as decoding conditions of sanitation workers, cleaning of CT/PT, cleaning of drains, rights and entitlements, uses of PPE, legal provisions, vaccination, health and hygiene etc. comprising to total 12 modules. This document stands as a testament to the collective effort to create a safer and more dignified work environment for sanitation workers, marking a crucial step towards achieving sanitation equity and ensuring the well-being of this vital workforce.

Read More: *https://www.mahawashcoalition.com/wp-content/uploads/2024/04/Statewide-Intensive-Capacity-Building-Programs-on-Occupational-Safety-and-Dignity-of-Sanitation-Workers-in-Maharashtra_MAHAUWESC_April-2024.pdf*

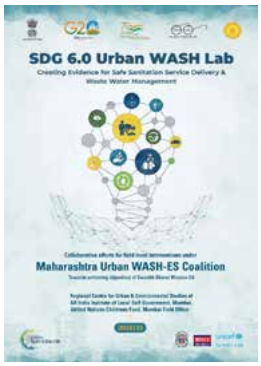
Compendium of Case Studies on Aspirational Public and Community Toilets: Exploring Self-Sustainable Aspirational Toilets

Regional Centre for Urban and Environmental Studies (RCUES) of the All India Institute of Local Self-Government (AIILSG), Mumbai

Compendium of Case Studies on Aspirational Public and Community Toilets: Exploring Self-Sustainable Aspirational Toilets is a collection of case studies showcasing diverse models for public and community toilets. The compendium serves as a resource for the Government of Maharashtra and Urban Local Bodies (ULBs) in their ongoing efforts to improve public sanitation infrastructure under the Swachh Maharashtra Mission (Urban).

The case studies featured in the compendium highlight innovative approaches, sustainable designs, and effective management practices in the operation and maintenance of public and community toilets. Each case study provides a detailed overview of the ownership model, capital and O&M funding mechanisms, key features, and potential for replicability in urban areas. These models offer practical insights that local governments can adapt to meet the unique needs of their urban and semi-urban areas, helping them achieve their sanitation goals under Swachh Maharashtra Mission 2.0. The compendium thus supports the broader mission of enhancing sanitation infrastructure and promoting sustainable, community-driven solutions across the state.

Read More: *https://www.mahawashcoalition.com/wp-content/uploads/2024/08/Compendium_Case-Studies_Aspirational-CT-PT_Maha-UWES-C_August-2023.pdf*



SDG 6.0 Urban WASH Lab: Creating Evidence for Safe Sanitation Service Delivery and Waste Water Management

Regional Centre for Urban and Environmental Studies (RCUES) of the All India Institute of Local Self-Government (AIILSG), Mumbai

SDG 6.0 Urban WASH Lab is a publication documenting field-level interventions led by the Secretariat of the Maharashtra Urban Water-Sanitation-Hygiene (WASH) & Environmental Sanitation Coalition (Maha-UWES-C). It captures innovative projects and partnerships aimed at contributing to Sustainable Development Goal (SDG) 6, with a focus on urban sanitation under SBM 2.0 (Urban). This report presents key urban WASH initiatives implemented and highlights five impactful projects in Maharashtra, categorized under two flagship themes: Sustaining FSSM Infrastructure and the Maha Urban INNO-WASH Challenge. The Sustaining FSSM Infrastructure initiative focuses on urban-rural linkages in faecal sludge and septage management (FSSM), refurbishment of Indapur's FSTP, and support for sustainable infrastructure. The Maha Urban INNO-WASH Challenge encourages local governments to pilot new technologies for infection control, leading to improved sanitation infrastructure and environmental outcomes. This report outlines the processes, outcomes, and impact of these projects, providing insights for future work in the sector. It aims to inspire local governments to adapt and replicate these innovative practices, further advancing WASH and environmental sustainability across Maharashtra.

Read More: *https://www.mahawashcoalition.com/wp-content/uploads/2024/02/SDG6.0-Urban-WASH-Lab_MahaUWESC_April-2023.pdf*

Achieving Environmental Sustainability by Involving Young Minds for a Circular Future

Regional Centre for Urban and Environmental Studies (RCUES) of the All India Institute of Local Self-Government (AIILSG), Mumbai

Achieving Environment Sustainability by Invovling Young Minds for a Circular Future - Plastic, since its invention in 1907, has become a crucial element in everyday life due to its versatile applications. However, its overuse and durability have resulted in significant accumulation in various ecosystems, leading to severe plastic pollution, one of the major environmental challenges of the 21st century. Addressing this issue requires effective recycling and waste management strategies. Improperly segregated plastic waste complicates recycling efforts and can harm soil fertility when mixed with organic waste. To combat this, the Maharashtra Urban WASH and Environmental Sanitation Coalition (Maha–UWES-C) has initiated efforts in collaboration with UNICEF Maharashtra and the Citizens Association for Child Rights (CACR) to promote plastic waste management in three urban local bodies in Mumbai. The project involved engaging schoolchildren and resident welfare associations to foster a collective responsibility towards maintaining a garbage-free city. In its initial phase, the CACR conducted awareness sessions across 126 schools, emphasizing the importance of plastic waste segregation. Over four months, the initiative successfully collected 11,700 kg of plastic, significantly raising awareness among 152,967 students and their families. The project not only showcased the potential for replicability and scalability in different contexts but also emphasized the necessity of sustained behavioral change for effective plastic waste management. Financially, the initiative aims to offset costs through the sale of collected plastics, enhancing its viability.

Read More: *https://www.mahawashcoalition.com/wp-content/uploads/2024/02/Achieving-Environment-Sustainability-by-involving-young-minds-for-a-circular-future_MahaUWESC_March-2023.pdf*

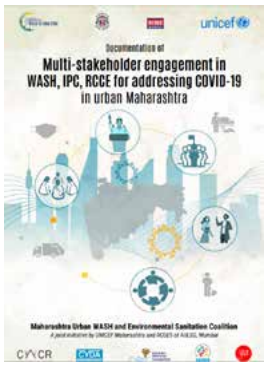
Climate Resilient Cities - Local Governance Perspective

Regional Centre for Urban and Environmental Studies (RCUES) of the All India Institute of Local Self-Government (AIILSG), Mumbai

Climate resilient Cities - Local Governance Perspective - Research Study - 2022-2023, the need for local governments to address climate change is increasingly urgent. Urban local bodies (ULBs) play a key role, as they can implement climate actions more effectively on a local scale, engaging communities and achieving tangible results. However, managing the data required for climate initiatives can be overwhelming for ULBs. A thorough understanding of climate change, risk assessments, and relevant frameworks is crucial. Therefore, ULBs need holistic analyses to guide informed decisions and effective climate action, helping to identify gaps, manage data, and improve reporting.

This project focused on evaluating existing climate initiatives, policies (NDC, NAPCC), and programs at local (CCAP), regional (SAPCC), national, and international levels. It identified barriers to implementation and aimed to assist ULBs by addressing critical challenges that hinder climate action or complicate reporting. The study involved primary and secondary research, with field visits to cities in Rajasthan (Jodhpur, Ajmer) and Maharashtra (Solapur, Sangli, Nanded). Challenges observed aligned with those in existing literature, with a key issue being the lack of understanding of how various schemes align with climate goals. The report offers guidance and best practices to help ULBs manage and integrate data, ultimately reducing their burden and enhancing climate action.

Read More: *https://aiilsg.org/pdf/2.%20RCUES_AIILSG_Mumbai_Research%20Study_Climate%20Resilient%20Cities-Local%20Governance%20Perspective%20_%20FY%202022-23.pdf*



Multi-Stakeholder Engagement in WASH, IPC, RCCE for Addressing COVID-19 in Urban Maharashtra

Regional Centre for Urban and Environmental Studies (RCUES) of the All India Institute of Local Self-Government (AIILSG), Mumbai

The initiative for Multi-Stakeholder Engagement in WASH, Infection Prevention and Control (IPC), and Risk Communication and Community Engagement (RCCE) aims to effectively address COVID-19 in nine urban slums across Maharashtra. This successful community outreach brought together a diverse array of local stakeholders deeply connected with their communities, including Urban Local Body (ULB) officials, NGOs, Community-Based Organizations (CBOs), Self-Help Groups (SHGs), ASHA workers, Anganwadi-sevikas, youth groups, and volunteers.

The report showcases various case studies that document the outcomes of numerous qualitative interactions with these stakeholders and the specific initiatives they implemented. The collaborative efforts of these groups were instrumental in tailoring outreach strategies to meet the unique needs of each slum, ensuring comprehensive engagement and support. By working together, these stakeholders created effective solutions to enhance community resilience against COVID-19, emphasizing the importance of local involvement.

Key stakeholders included State departments, Urban Local Bodies, elected representatives, local development organizations, and WASH enthusiasts. This multi-faceted approach highlights the vital role of collaboration in tackling public health challenges and reinforces the significance of community-driven solutions in improving health outcomes in urban settings.

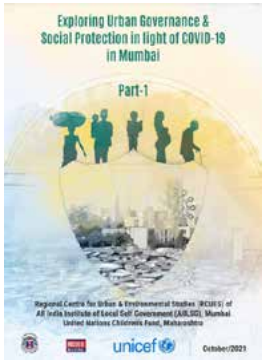
Read More: *https://www.mahawashcoalition.com/wp-content/uploads/2022/08/MultiStakeholder-Engagement-urban-CAB-WASH-IPC-RCCE_MahaUWES-C.pdf"*

Response and Preparedenss During COVID -19 Times

Regional Centre for Urban and Environmental Studies (RCUES) of the All India Institute of Local Self-Government (AIILSG), Mumbai

Response and Preparedness during COVID-19 Times: All India Institute of Local Self-Government, Mumbai, Maharashtra Pollution Control Board (MPCB) and UNICEF Maharashtra jointly developed this web-based training module is a Training of Trainers (TOT) program designed for Urban Local Bodies (ULBs) and Health Care Facilities operators. It helps participants identify risks and hazards in managing services during COVID-19 and provides expert guidance. The module targets policymakers, administrators, and service providers involved in sanitation and waste management, equipping them to further train frontline workers. Developed with support from organizations such as WHO, MoHUA, MoHFW, CPCB, and others, the module benefits from the extensive expertise of professionals in environmental sanitation, waste management, and public health, making it effective and valuable for its target audience.

Read More: *https://www.mahawashcoalition.com/wp-content/uploads/2022/12/Resource-Book_Response-to-COVID-19_Maharashtra_AIILSG-Mumbai-UNICEF.pdf*



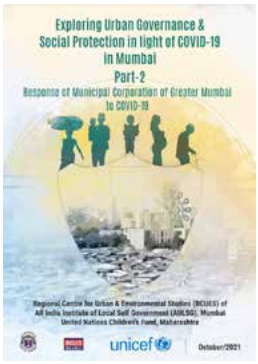
Exploring Urban Governance & Social Protection in light of COVID-19 in Mumbai (Part 1)

Regional Centre for Urban and Environmental Studies (RCUES) of the All India Institute of Local Self-Government (AIILSG), Mumbai

This report examines urban governance and social protection during the COVID-19 pandemic in Mumbai. The objective was to understand the role of municipal administration and elected representatives addressed the needs of service delivery in marginalized populations. The study focuses on two wards, reviewing existing Urban Social Protection Schemes (USPS) and identifying gaps, with some preliminary recommendations. This report also documents noteworthy initiatives of the Brihnamumbai Municipal Corporation. The study highlights Brihnamumbai Municipal Corporation's COVID-19 initiatives in four critical areas: food security, maternal and child health, education, and water and sanitation.

The data was collected through quantitative sources from state and ULB's departments, and qualitative information was gathered through Focus Group Discussions (FGDs) and Key Informant Interviews (KIIs) with state officials, NGOs, elected representatives, and beneficiaries. This mix of online consultations and field visits provided a comprehensive view. A final consultation with stakeholders, including UNICEF and government officials, was held to discuss findings, and their feedback was integrated into the report.

Read More: *https://www.mahawashcoalition.com/wp-content/uploads/2024/09/USPS-Report-Part-1_RCUESMumbai_UNICEFMumbai.pdf*

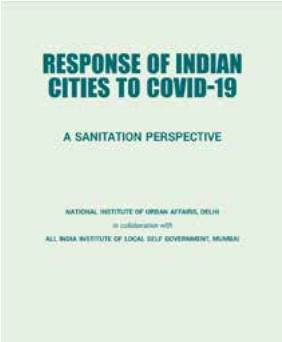


Exploring Urban Governance & Social Protection in light of COVID-19 in Mumbai (Part 2)
Response of Municipal Corporation of Greater Mumbai to COVID-19

Regional Centre for Urban and Environmental Studies (RCUES) of the All India Institute of Local Self-Government (AIILSG), Mumbai

This report examines urban governance and social protection during the COVID-19 pandemic in Mumbai. The objective was to understand the role of municipal administration and elected representatives addressed the needs of service delivery in marginalized populations. The study highlights MCGM's COVID-19 initiatives in four critical areas: food security, maternal and child health, education, and water and sanitation. The study focuses on two wards, reviewing existing Urban Social Protection Schemes (USPS) and identifying gaps, with some preliminary recommendations. This report also documents noteworthy initiatives of the ULB. The data was collected through quantitative sources from state and Municipal Corporation of Greater Mumbai (MCGM) departments, and qualitative information was gathered through Focus Group Discussions (FGDs) and Key Informant Interviews (KIIs) with state officials, NGOs, elected representatives, and beneficiaries. This mix of online consultations and field visits provided a comprehensive view.A final consultation with stakeholders, including UNICEF and government officials, was held to discuss findings, and their feedback was integrated into the report.

Read More: *https://www.mahawashcoalition.com/wp-content/uploads/2024/09/USPS-Report-Part-2_RCUESMumbai_UNICEFMumbai.pdf*

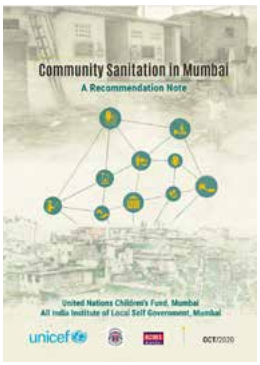


Response of Indian Cities to COVID 19: A Sanitation Perspective

Regional Centre for Urban and Environmental Studies (RCUES) of the All India Institute of Local Self-Government (AIILSG), Mumbai

Response of Indian Cities to COVID 19: Sanitation Perspective - The COVID-19 pandemic has raised critical questions for urban development and planning authorities regarding their preparedness for future risks. It prompts a reevaluation of infrastructure priorities in urban centers, highlighting the vulnerabilities of cities in an interconnected world. In India, despite numerous challenges, the pandemic has become a catalyst for transforming practices related to water, sanitation, and hygiene (WASH) and waste management in homes and communities. Investing in core public health infrastructure, including robust water and sanitation systems, is recognized as one of the most effective strategies for enhancing pandemic preparedness, especially in resource-constrained settings. To address urban sanitation challenges exacerbated by COVID-19, the National Institute of Urban Affairs (NIUA), i, in collaboration with the National Faecal Sludge and Septage Management (NFSSM) Alliance Partners, has created a repository of crucial government advisories and guidance materials for Urban Local Bodies (ULBs), state governments, and professionals from both public and private sectors. As part of this initiative, the All India Institute of Local Self Government (AIILSG) in Mumbai has developed a resource book focusing on “”Response and Preparedness during COVID-19”” in collaboration with the Urban Development Department (UDD), UNICEF, and the Maharashtra Pollution Control Board (MPCB). This document highlights proactive initiatives by ULBs to address the pandemic and outlines measures taken to recover urban service delivery, particularly in the sanitation sector.

Read More: *https://niua.in/intranet/sites/default/files/2217.pdf”*

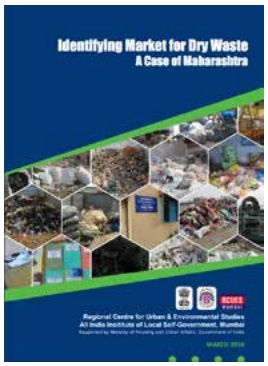


Community Sanitation in Mumbai - A Recommendation Note

Regional Centre for Urban and Environmental Studies (RCUES) of the All India Institute of Local Self-Government (AIILSG), Mumbai

Community Sanitation in Mumbai - A Recommendation Note - This report serves as a concise overview of an extensive study conducted to assess community sanitation in Mumbai. The primary aim was to create a ""Recommendation Note,"" which will lay the groundwork for a comprehensive Community Sanitation Policy for the city. Given the pandemic's restrictions on in-person interactions, data collection primarily relied on thorough desk research. An extensive framework encompassing the key aspects of the sanitation value chain was established to guide the analysis. The study included a review of community sanitation policies and programs from major cities like New Delhi, Kolkata, Bangalore, Ahmedabad, and Hyderabad to extract valuable insights. Additionally, virtual meetings were held with officials from the Municipal Corporation of Greater Mumbai (MCGM), subject experts, and NGO representatives, complemented by telephone discussions with staff from the aforementioned cities. A stakeholder consultation included representatives from UNICEF and senior government officials, allowing for collaborative input on the findings. The final "Recommendation Note" outlines short, mid, and long-term strategies for the MCGM to address identified gaps in sanitation. The report is organized into three parts: an analysis of Mumbai's community sanitation, key inferences and recommendations, and a comparative overview of sanitation in other Indian cities.

Read More: *https://www.mahawashcoalition.com/wp-content/uploads/2024/02/Community_Sanitation_in_Mumbai_A_Recommendation_Note_MahaUWESC_Octorber-2020.pdf*

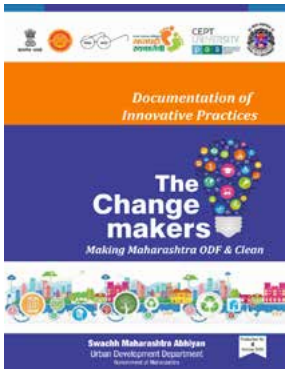


Identifying Market for Dry Waste: A Case of Maharashtra

Regional Centre for Urban and Environmental Studies (RCUES) of the All India Institute of Local Self-Government (AIILSG), Mumbai

Under the Swachh Bharat Mission, Urban and in accordance with the SWM Rule 2016, it is mandated that all the urban local bodies (ULBs) in India should achieve 100% segregation of waste, primarily into wet waste and dry waste. As a result of various Government initiatives and interventions, extensive awareness generation and ULB level actions, it is observed that the number of ULBs have begun with segregation of waste. Although 100% segregation isn't achieved, partially with the methods adopted for segregating waste, methods for treating and/or disposing the wet waste are proven and are well known to the ULBs. The dry waste which is being segregated further into various categories like paper, plastic, glass, metals etc., many a times does not find a proper destination. While every small ULB is making an effort to increase the percentage of segregation of waste, it is necessary that they are provided with expert guidance on how to manage the segregated waste. This report therefore, attempts to address the issues and challenges faced by the ULBs in recycling their dry waste by identifying the potential markets for the segregated and recyclable dry waste and suggesting a sustainable revenue generating model for the ULBs.

Read More: *https://aiilsg.org/pdf/Identifying_Market_for_Dry_Waste.pdf*



The Changemakers Making Maharashtra ODF and Clean

Regional Centre for Urban and Environmental Studies (RCUES) of the All India Institute of Local Self-Government (AIILSG), Mumbai

The Changemakers - Making Maharashtra ODF and Clean - October 2016 - Sanitation and waste management are fundamental aspects of urban development. According to Census 2011, nearly one in three urban households in Maharashtra lacked a toilet facility within their premises. The state generates approximately 27,000 metric tons of waste daily, more than any other state in India. These statistics underscore the significant challenges cities face today. Since the launch of the Swachh Maharashtra Mission (Urban) in 2015, cities across Maharashtra have demonstrated dedicated efforts to promote cleanliness and increase their capacities to achieve the mission's goals. As of now, 52 cities have been declared open defecation-free (ODF), with a target to make all urban areas in the state ODF by 2nd October 2017. This progress has been driven by innovative practices implemented by Urban Local Bodies (ULBs), supported by both the central and state governments. Cities are also adopting similar approaches to solid waste management, emerging as leaders in the field and setting examples for others to follow. This handbook captures and documents several of these innovative practices across the state, serving as a resource to replicate successful models. More cities and their innovations may be highlighted in future volumes as Maharashtra continues its journey towards a Swachh Maharashtra and, ultimately, a Swachh Bharat.

Read More: *https://cwas.org.in/cwas-resources/the-changemakers-making-maharashtra-odf-and-clean*

National Economic Impact Evaluation of the Swachh Bharat Mission

United Nations International Children's Emergency Fund (UNICEF), New Delhi

India faced seemingly insurmountable odds in the form of lack of usage of improved sanitation facilities. According to the UNICEF-WHO Joint Monitoring Programme (JMP) estimates, only 41 per cent of rural households and 67 per cent of urban households used improved sanitation facilities in 2013. With such large-scale investment in sanitation under SBM, UNICEF led the implementation of an evaluation of SBM to estimate the national economic impact resulting from a rapid rise in sanitation facilities and usage. UNICEF contracted PricewaterhouseCoopers Pvt. Ltd., India on 24 July 2019 to conduct an evaluation. The evaluation highlights potential gains from investing in improved sanitation and sustaining it.

Read More: *https://www.unicef.org/india/media/8801/file/UNICEF.pdf*

Sanitation Workers Deserve an Inclusive Ecosystem — Here are 5 Best Practices for their Safety and Dignity

Urban Management Centre (UMC), Ahmedabad

The sanitation workforce is essential for public health, yet they often face challenges such as inadequate recognition, financial instability, and poor working conditions. The Swachh Bharat Mission has improved sanitation infrastructure in India, but Safai Mitras are crucial for effective sanitation service delivery. With around 2 million sanitation workers in urban areas, enhancing their dignity and working conditions is imperative. Five best practices to support these workers include: enumerating the workforce to ensure access to welfare measures; integrating mechanized solutions and providing personal protective equipment (PPE) for safety; upskilling workers in machinery operation and safety protocols; leveraging Self-Help Groups to empower marginalized communities; and establishing Emergency Response Sanitation Units for critical interventions. These initiatives aim to improve the dignity, safety, and financial stability of sanitation workers while enhancing overall sanitation services.

Read More: *https://www.downtoearth.org.in/governance/sanitation-workers-deserve-an-inclusive-ecosystem-here-are-5-best-practices-for-their-safety-and-dignity-88540*

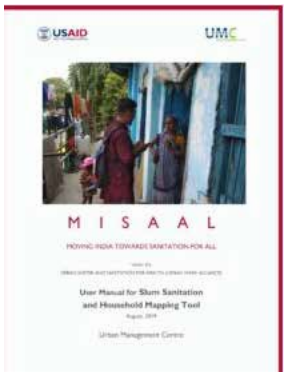
Scaling our Waste Mountains Fixing Solid Waste Management in India's cities

Urban Management Centre (UMC), Ahmedabad

Solid waste management (SWM) is a critical issue in India, where the per capita waste generation is estimated at 0.6 kg per day. With rapid urbanization, only 26% of urban areas are covered by effective waste management systems, leading to significant environmental and public health challenges. The consequences of inadequate SWM are evident in the form of open dumping, polluted water bodies, and deteriorating public health conditions.

This report examines the human dimension of SWM, focusing on the roles and challenges faced by key stakeholders: Urban Local Bodies, informal waste workers, and citizens. The ecosystem includes various actors such as government ministries, waste management companies, NGOs, and research institutions. Addressing these challenges requires a coordinated approach that enhances collaboration among all stakeholders to improve waste management practices and promote sustainable urban development in India.

Read More: *https://www.godrejcp.com/public/pdfs/sustainability/Scaling_Waste_Mountains.pdf*

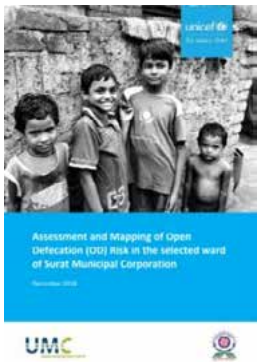


Water and Sanitation for Health in Urban Areas

Urban Management Centre (UMC), Ahmedabad

The assessment employs a comprehensive framework for mapping OD risks, including ground-level surveys and community engagement. Key findings reveal that inadequate toilet facilities, socio-economic factors, and behavioral tendencies contribute to the persistence of open defecation. The report also emphasizes the need for targeted interventions, such as improving access to public toilets and enhancing community awareness. By providing actionable insights and an action plan, this document serves as a vital resource for policymakers and urban planners aiming to improve sanitation conditions and promote public health in Surat. Ultimately, it underscores the importance of continuous monitoring and community involvement in sustaining sanitation improvements.

Read More: *https://umcasia.org/what-we-do/water-and-sanitation-for-health-in-urban-areas/*

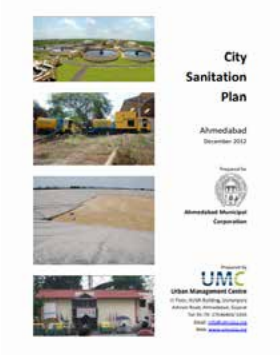


Assessment and Mapping of Open Defecation (OD) Risk in the Selected Ward of Surat Municipal Corporation

Urban Management Centre (UMC), Ahmedabad

The "Assessment and Mapping of Open Defecation (OD) Risk" report focuses on evaluating the prevalence and risks associated with open defecation in a selected ward of Surat Municipal Corporation. Conducted by the Urban Management Centre in December 2018, the study aims to identify critical gaps in sanitation infrastructure and practices, particularly in slum areas and densely populated regions. The report highlights that despite significant efforts under the Swachh Bharat Mission, challenges remain in achieving sustained open defecation-free status.

Read More: *https://umcasia.org/what-we-do/assessment-and-mapping-of-open-defecation-od-risk/*



City Sanitation Plan for Ahmedabad

Urban Management Centre (UMC), Ahmedabad

The City Sanitation Plan for Ahmedabad Municipal Corporation (AMC) provides a comprehensive analysis of the sanitation situation within the AMC jurisdiction. Prepared by the UMC, the report synthesizes data from extensive field visits, stakeholder consultations, and interactions with municipal officials and citizens. It highlights discrepancies between statistical data and ground realities, addressing various aspects such as waste management, public sanitation facilities, and environmental degradation. The report outlines proposals to bridge identified gaps, alongside a sector-wise assessment of existing services and a 25-year investment plan to enhance sanitation infrastructure and services in Ahmedabad.

Read More: *https://umcasia.org/wp-content/uploads/01_0086.-City-Sanitation-Plan_Ahmedabad-2012_UMC-1.pdf*

Municipal Solid Waste Management Master Plan 'Towards Zero Waste'

Urban Management Centre (UMC), Ahmedabad

The "Municipal Solid Waste Management Master Plan – Towards Zero Waste" report, prepared by the Urban Management Centre for the Ahmedabad Municipal Corporation, addresses the critical challenges of solid waste management (SWM) in Ahmedabad. With India's urbanization on the rise, the report highlights the urgent need for effective waste management systems, as only 26% of urban areas are currently covered. The document outlines a comprehensive strategy aimed at achieving zero waste through improved waste segregation, collection, transportation, processing, and disposal methods. Key components of the plan include detailed projections of waste generation, an analysis of existing SWM services, and recommendations for strengthening institutional frameworks. The report emphasizes the importance of community engagement and the roles of various stakeholders, including government agencies, NGOs, and informal waste workers. By proposing innovative solutions and best practices from around the world, this master plan aims to enhance public health, environmental sustainability, and overall urban quality of life in Ahmedabad. The ultimate goal is to create a cleaner, more resilient city that effectively manages its solid waste challenges while fostering community participation and awareness.

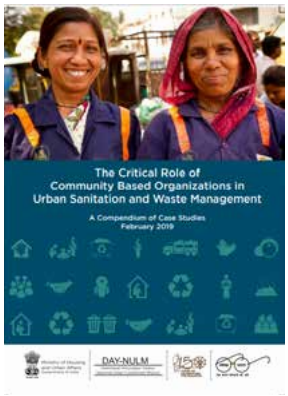
Read More: *https://umcasia.org/wp-content/uploads/01_0085.-Master-plan-for-municipal-Solid-Waste-Management_Ahmedabad-2012_UMC.pdf*

Sanitation Worker Compendiums

Urban Management Centre (UMC), Ahmedabad

These are a collection of compendiums highlighting best practices within the country in sanitation and solid waste management. The two compendiums narrate stories of cities and their interventions to improve sanitation worker safety and enhance their overall wellbeing along with creating a successful waste management system. One of the materials also include 'Garima Griha' which is a resting facility constructed for sanitation workers to change, wash and rejuvenate themselves.

Read More: *https://umcasia.org/what-we-do/sanitation-worker-compendiums/*



The Critical Role of Community-Based Organizations in Urban Sanitation and Waste Management- A Compendium of Case Studies

Urban Management Centre (UMC), Ahmedabad

This compendium, developed by UMC in collaboration with the Ministry of Housing and Urban Affairs (MoHUA), DAY-NULM, and Swachh Bharat Mission (Urban), highlights leading practices where community-based organizations have played a vital role in urban sanitation and waste management. It features case studies showcasing successful community engagement in sanitation efforts. The compendium provides actionable interventions, detailing implementation activities, resources, outcomes, and lessons learned to facilitate replication.

Read More: *https://umcasia.org/wp-content/uploads/02_0114.-NULM_compendium-of-case-studie_UMC-2019.pdf*

The Garima Story: Sanitation Work with Safety and Dignity

Urban Management Centre (UMC), Ahmedabad

This book delves into Odisha's journey in enhancing the dignity and well-being of sanitation workers through the Garima Scheme. Launched in 2020, the scheme has made significant strides in ensuring the safety, visibility, and socio-economic upliftment of sanitation workers. By integrating technology, providing personal protective equipment (PPE), and ensuring access to social benefits, the Garima Scheme offers a model for inclusive urban development. The book reflects on Government of Odisha's partnership which highlights successful approaches to fostering equity, humanity, and justice. It aims to provide valuable insights for policymakers and WASH practitioners, encouraging the adoption of similar strategies to create thriving environments for diverse communities.

Read More: *https://umcasia.org/what-we-do/the-garima-story-sanitation-work-with-safety-and-dignity/*

Turning Tides: A Journey Towards Safety and Dignity for Sanitation Workers in Urban India

Urban Management Centre (UMC), Ahmedabad

This publication serves as a consolidation of UMCs experiences, learnings, collaterals, and digital tools. It has been meticulously curated with the primary aim of equipping decision-makers and stakeholders with the knowledge and insights necessary to enhance the safety and well-being of sanitation workers within their respective jurisdictions. By offering valuable perspectives, best practices and practical recommendations, this publication aspires to support effective policy formulation and implementation, ensuring that sanitation workers operate in secure and dignified working conditions.

Read More: *https://umcasia.org/what-we-do/turning-tides-a-journey-towards-safety-and-dignity-for-sanitation-workers-in-urban-india/*

Case Study: Initiatives for Safety and Dignity of Sanitation Workers in Warangal during COVID-19

Urban Management Centre (UMC), Ahmedabad

During the COVID-19 pandemic, sanitation workers have continued to perform essential tasks such as waste collection, toilet cleaning, and disinfecting public spaces, often in high-risk environments like healthcare facilities and quarantine centers. Their work exposes them to significant health risks due to inadequate personal protective equipment (PPE) and safety measures, leading to fears of infection and stigma that can result in loss of livelihood and barriers to healthcare access. A case study from the Greater Warangal Municipal Corporation highlights various initiatives implemented to support sanitation workers, including providing PPE, regular health check-ups, and monetary incentives. These measures have fostered a positive relationship between administration and workers, reflected in high morale and no reported COVID-19 cases among sanitation staff as of August 10, 2020.

Read More: *https://umcasia.org/what-we-do/initiatives-for-safety-and-dignity-of-sanitation-workers-in-warangal-during-covid-19/*

PUSH Project

United States Agency for International Development (USAID), Washington DC

This document outlines a comprehensive approach to addressing urban sanitation challenges and open defecation through a set of targeted interventions and strategies designed for nationwide scalability. It delves into the underlying psychological and contextual factors that influence behavior, aiming to identify multiple layers that can be manipulated to facilitate effective behavioral change. By examining these aspects, the document provides insights and practical recommendations to improve sanitation practices and enhance public health outcomes in urban areas.

Read More: *https://cureindiaorg-my.sharepoint.com/:b:/g/personal/manasmita_cureindia_org/EWVLXH2KV-RElakkT32fowABRdY_YWAJdBoX0AHUI9wlTA?e=MR9vuZ*

Section 2

GUIDELINES

TOTAL GUIDELINES: 76

ORGANISATION TYPE

3
Government

10
NGO, CSO, Development partners

2
Institutions

Guidance Document for Design of FSTPs Based on Drying Bed Technologies

Consortium for DEWATS Dissemination India (CDD India), Bengaluru

This document focuses on Faecal Sludge Treatment Plant (FSTP) design, particularly those using drying bed technologies. With the rise of Faecal Sludge Management (FSM) following the Swachh Bharat Mission, the document addresses the need to safely treat waste from Onsite Sanitation Systems (OSS). It outlines designs for low-cost, energy-efficient FSTPs using Anaerobic Stabilization with Unplanted and Planted Drying Beds. Drawing from CDD's experience, it provides guidance on process flows, key modules, and design assumptions while encouraging contextualization by sanitation engineers for site-specific applications.

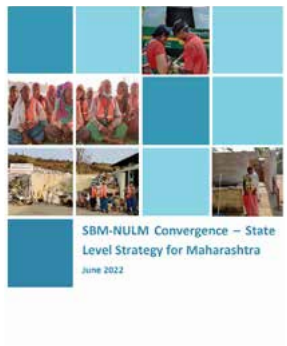
Read More: *https://cddindia.org/wp-content/uploads/FSTP-guidance-document-2021.pdf*

Digital Data Reporting for FSTPs in Maharashtra: A User Guide to Use SaniChatbot

Center for Water and Sanitation (CWAS), CRDF-CEPT University, Ahmedabad

A SaniChatbot (WhatsApp based chatbot) has been developed for the cities to report data of FSTPs on a daily basis.

Read More: *https://cwas.org.in/cwas-resources/sanichatbot-for-monitoring-fstps-in-maharashtra-user-guide*



SBM-NULM Convergence – Draft State Level Strategy for Maharashtra

Center for Water and Sanitation (CWAS), CRDF-CEPT University, Ahmedabad

Drawing from the principles of DAY-NULM and SBM-urban convergence guidelines, a draft Convergence Strategy for the State of Maharashtra is prepared to operationalize an SBM-NULM convergence plan. This strategy is intended to guide local governments, policy makers, implementers and all relevant stakeholders in planning and achieving an inclusive sanitation infrastructure promoting meaningful and safe livelihoods for the urban poor communities involved in shaping cleaner and safe cities.

Read More: *https://cwas.org.in/cwas-resources/sbm-nulm-convergence-draft-state-level-strategy-for-maharashtra*

Faecal Sludge and Septage Management in Maharashtra

Center for Water and Sanitation (CWAS), CRDF-CEPT University, Ahmedabad

Urban areas of Maharashtra were declared ODF in 2017. The Government of Maharashtra (GoM) issued an ODF Sustainability charter that focused on ODF-Sustainability and ensuring effective collection and treatment of human faecal waste in all cities. GoM's FSSM strategy had a two-pronged approach: a) Co-treatment of faecal sludge at own or nearby STPs, where feasible; and b) setting up faecal waste treatment plant (FSTP) at city level for faecal sludge treatment. Guidelines for FSTP operation and maintenance have been developed. SOP for desludging operations was prepared to ensure safe emptying.

Read More: *https://cwas.org.in/cwas-resources/faecal-sludge-and-septage-management-in-maharashtra*

Making Cities ODF++ Manual for Operation and Maintenance of FSTPs

Center for Water and Sanitation (CWAS), CRDF-CEPT University, Ahmedabad

The Government of Maharashtra, in its resolution (SMMUA – 2019 / Circular No. 124 / UD - 34, Dated 8th Nov, 2019) for making the State ODF++, planned for construction of FSTP's across 311 cities. Technical approval of "Type DPRs" of these FSTPs is given by MJP (Maharashtra Jeevan Pradhikaran). This manual is intended to guide the operators/ULB Engineers and maintenance staff of these FSTPs in carrying out the routine and periodical O&M activities which are specific to each component of the FSTP. The manual covers the operation and maintenance related tasks that are necessary in order to ensure efficient and effective performance of the FSTP facilities.

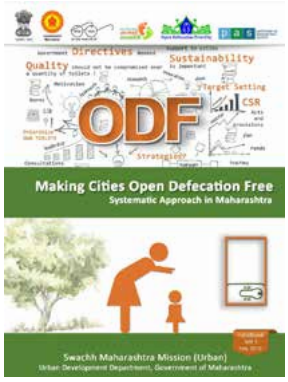
Read More: *https://cwas.org.in/cwas-resources/making-cities-odf-manual-for-operation-and-maintenance-of-fstps*

Standard Operating Procedures for Desludging of Septic Tanks

Center for Water and Sanitation (CWAS), CRDF-CEPT University, Ahmedabad

The National Faecal Sludge and Septage Management (FSSM) Policy mentions regular desludging of septic tanks through a systematic extraction and collection procedure. A Standard Operating Procedure note for desludging septic tank is developed to guide the Urban Local Bodies (ULBs), other engaged agencies, service providers – public or private about the procedures and practice required during the desludging operation with safety. Separate instructions are provided for demand-based desludging and scheduled based desludging for Pre-Desludging Operations, During Desludging Operations and Post-Desludging Operations.

Read More: *https://cwas.org.in/cwas-resources/standard-operating-procedures-for-desludging-of-septic-tanks*



Handbook on Making Cities Open Defecation Free (ODF) - Systematic Approach in Maharashtra

Center for Water and Sanitation (CWAS), CRDF-CEPT University, Ahmedabad

The handbook explicates objectives of SMMU and a roadmap for achieving Open Defecation Free (ODF) Cities envisaged under the mission. It also compiles various innovative initiatives and actions taken by ULBs in Maharashtra to facilitate the implementation of mission at the Urban Local Body (ULB) level. This handbook is intended to be a reference guide for all ULBs, state governments and other partners engaged in Swachh Bharat Mission.n It was launched by the Chief Minister of Maharashtra and can also be accessed on the Swachh Maharashtra Mission's website

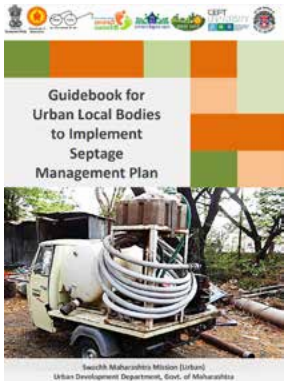
Read More: *https://cwas.org.in/cwas-resources/handbook-on-making-cities-odf-systematic-approach-in-maharashtra*

Guidelines for Septage Management in Maharashtra

Center for Water and Sanitation (CWAS), CRDF-CEPT University, Ahmedabad

Most urban local bodies (ULBs) in India do not effectively monitor the regular cleaning and maintenance of septic tanks. In this context PAS team has developed a set of comprehensive Septage management Guidelines It draws from the Ministry of Urban Development, Government of India's Advisory Note on Septage Management in Urban India-2013, manuals of Central Public Health Engineering and Environmental Organization, and Operative guidelines for septage management for urban and rural local bodies in Tamil Nadu. It is meant to be used as a reference guide by various stakeholders. It was launched by the Chief Minister of Maharashtra and can also be accessed on the Swachh Maharashtra website

Read More: *https://cwas.org.in/cwas-resources/guidelines-for-septage-management-in-maharashtra*

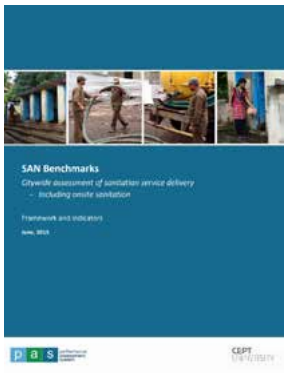


Guidelines for Urban Local Bodies to Implement Septage Management Plan

Center for Water and Sanitation (CWAS), CRDF-CEPT University, Ahmedabad

In Maharashtra, only 32 cities are partially covered with sewer systems. Majority of household toilets are connected to onsite systems like septic tanks or pits. The new toilets constructed since the launch of Swachh Maharashtra Mission, Urban (SMMU) in 2015 by are being connected to septic tanks. However it is observed that while toilets are constructed, there is no proper management of faecal waste / septage in terms of collection, emptying, treatment and disposal. The guidebook seeks to address this gap by focusing on how ULBs can plan and implement septage management in their cities. It is intended to be a reference guide for all ULBs, state governments and other partners engaged in planning and implementation of septage management plan under Swachh Bharat Mission and AMRUT Mission.

Read More: *https://cwas.org.in/cwas-resources/guidelines-for-urban-local-bodies-to-implement-septage-management-plan*



SAN Benchmarks: Citywide Assessment of Sanitation Service Delivery Including On-Site Sanitation

Center for Water and Sanitation (CWAS), CRDF-CEPT University, Ahmedabad

Sewage management in the current monitoring framework using the GoI's service level benchmarking (SLB) initiative includes only sewerage systems. A new framework has been developed for assessing performance of city-wide sanitation which also captures on-site sanitation systems, after incorporating feedback from resource persons within India and globally. This framework with new indicators covers the full sanitation service chain from access, collection/storage and conveyance to treatment and reuse/disposal. It has now been incorporated in the new round of performance assessment in the states of Maharashtra, Gujarat, Telangana and Chhattisgarh

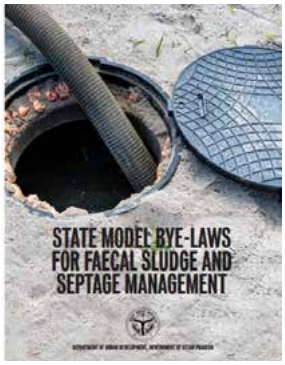
Read More: *https://cwas.org.in/cwas-resources/san-benchmarks-citywide-sanitation-assessment-including-on-site-sanitation*

Guidelines: For Planning, Designing and Implementation of Deep Row Entrenchment (DRE) in Towns with <20,000 Population in Uttar Pradesh

Centre for Science and Environment (CSE), New Delhi

The report presents guidelines for planning, designing and implementation of deep row entrenchment (dre) in towns with < 20,000 population in uttar Pradesh - an intermediate solution for managing faecal sludge and septage

Read More: *https://www.cseindia.org/implementation-of-deep-row-entrenchment-dre-in-towns-with-2020-000-population-in-uttar-pradesh-11698*

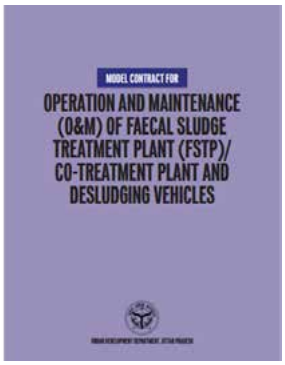


State Model Bye-Laws for Faecal Sludge and Septage Management (FSSM)

Centre for Science and Environment (CSE), New Delhi

The document presents the roles and responsibilities and regulatory framework required at the city-level for streamlining the FSSM services.

Read More: *https://www.cseindia.org/state-model-bye-laws-for-faecal-sludge-and-septage-management-fssm--11956*



Model Contract for Operation and Maintenance (O&M) of Faecal Sludge Treatment Plant (FSTP)/ Co-treatment Plant and Desludging Vehicles

Centre for Science and Environment (CSE), New Delhi

The document presents the roles and responsibilities and terms and conditions for on-boarding a contractor for FSSM plant O&M and desdluging services operations.

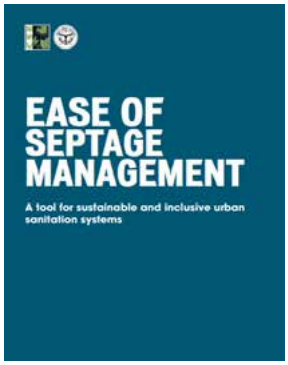
Read More: *https://www.cseindia.org/model-contract-for-operation-and-maintenance-o-m--11958*

Guidance note on Operation Maintenance (O&M) of Faecal Sludge Septage Management (FSSM) Projects and Economics of Desludging in Uttar Pradesh

Centre for Science and Environment (CSE), New Delhi

It becomes imperative for any ULB to receive guidance about Operations & Maintenance as well as desludging services from the state. This is needed to ensure optimal functioning of the FSTPs and Co-treatment facilities while safeguarding affordability to the household owner, profitability to the private operator and sustainability of the infrastructure. The state to issue a guidance note to the ULBs suggesting the following for better city level planning of: Indicative cost of O&M for the different types of treatment plants present in UP. Fixation of desludging cost/fees based on distance of the FSSM plant and number of trips.

Read More: *https://www.cseindia.org/guidance-note-on-operation-maintenance-o-m-of-faecal-sludge-septage-management-fssm-projects-and-economics-of-desludging-in-up-12002*

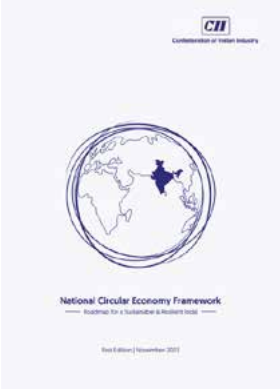


Ease of Septage Management Tool

Centre for Science and Environment (CSE), New Delhi

Faecal sludge and septage management is a priority for all states and cities of India. There is no city in India that is 100% sewered. Septage management is therefore an urgent priority. India has in the last five years, embarked on addressing septage management through the 2017 National Policy on FSSM. In the last five years, UP along with Odisha, Tamil Nadu, Telengana, Maharashtra and AP, have made big strides in addressing septage management. UP now has 59 towns with septage management infrastructure in place.

Read More: *https://www.cseindia.org/ease-of-septage-management-tool-11686*



National Circular Economy Framework Roadmap for a Sustainable & Resilient India

Confederation of Indian Industry (CII), New Delhi

India, with its resource-intensive economy and growing population, holds significant potential to lead the transition toward a Circular Economy, fostering sustainable development and social equity. The Circular Economy extends beyond recycling and resource efficiency, aiming to reduce waste, conserve resources, and mitigate climate change. Aligning with India's NDC targets, UNSDGs, and LiFE goals, it contributes to global efforts, as highlighted in the G20 declaration and the establishment of the Resource Efficiency and Circular Economy Industry Coalition (RECEIC). The proposed National Circular Economy Framework (NCEF) aims to develop innovative business models that increase the value, use, and lifespan of materials while minimizing waste. Part 1 of the NCEF establishes a comprehensive framework applicable across sectors, defining objectives, selection criteria for focus materials, enabling principles, and strategies for implementation, monitoring, and evaluation. Part 2 presents material-specific action plans, initially targeting plastics, construction materials, electronic goods, and mixed municipal waste, given their potential for resource conservation and environmental benefits. The key goals of the NCEF include promoting collaboration, circular solutions, sustainable financing, and progress tracking through robust policies.

Read More: *https://www.ciiwaste2worth.com/pdf/national-circular-economy-framework-compressed.pdf*

Battery Waste Management Rules

Central Pollution Control Board (CPCB), New Delhi

Battery Waste Management (BWM) Rules, 2022 have been notified by Ministry of Environment, Forest and Climate Change on 22 Aug., 2022. These rules are applicable to all types of batteries regardless of chemistry, shape, volume, weight, material composition and use. As per these Rules, Producer (manufacturers, importers) shall have the obligation of Extended Producer Responsibility for the battery they introduce in the market and the Producer shall meet the collection and recycling targets as given in Schedule II of the rules to ensure the attainment of EPR obligations. According to the Rules, Producers, Recyclers, and Refurbishers of Battery shall have to register through the online centralized portal developed by the Central Pollution Control Board (CPCB). Recyclers and Refurbishers shall also have to register with the concerned SPCB/PCC on this centralized portal developed by CPCB. The portal will help in improving accountability, traceability and transparency of fulfilment of EPR Obligations. This portal would act as the single point data repository with respect to orders and guidelines related to implementation of BWM Rules, 2022.

Read More: *https://www.eprbatterycpcb.in/upload/adminDoc/Battery-Waste-Management-(Amendment)-Rules-2023.pdf*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The Gazette of India

E-Waste Management Rules

Central Pollution Control Board (CPCB), New Delhi

The "E-Waste (Management) Rules, 2022" amended 2024, issued by the Ministry of Environment, Forest and Climate Change, India, aim to regulate the management of electronic waste (e-waste) to minimize environmental damage. Effective from April 1, 2023, the rules apply to manufacturers, producers, refurbishers, dismantlers, and recyclers of electrical and electronic equipment (EEE) as listed in Schedule I. Key provisions include mandatory registration of stakeholders on the government portal, extended producer responsibility (EPR), and targets for e-waste collection and recycling. Producers must ensure proper waste collection and processing while reducing the use of hazardous substances like lead and mercury in EEE production. The rules also emphasize transparency, requiring quarterly and annual reporting. Penalties are established for non-compliance, and provisions exist for proper transportation, accident reporting, and appeal processes. Special attention is given to the management of solar photovoltaic modules and their waste, with extended timelines up to 2035. State authorities are tasked with aiding in the setup of e-waste recycling facilities and ensuring the safety of workers involved in the sector. The rules aim for comprehensive management of e-waste to protect public health and the environment.

Read More: *https://cpcb.nic.in/uploads/Projects/E-Waste/e-waste_rules_2022.pdf*


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The Gazette of India

Guidelines on Extended Producer Responsibility for Plastic Packaging

Central Pollution Control Board (CPCB), New Delhi

The document, titled Plastic Waste Management (Amendment) Rules, 2022, amends the Plastic Waste Management Rules, 2016, issued by the Ministry of Environment, Forest and Climate Change, India. The amendments are aimed at strengthening the extended producer responsibility (EPR) framework for plastic packaging waste management. Key provisions include the inclusion of rigid and flexible plastic packaging under different categories, assigning responsibility to producers, importers, and brand owners (PIBOs) for ensuring that plastic waste is collected, recycled, or reused in compliance with specified targets. The amendments introduce detailed guidelines for EPR targets, requiring PIBOs to achieve specific percentages of recycling and reuse of plastic packaging by set deadlines. Additionally, the rules emphasize the registration of relevant stakeholders on a centralized portal and provide for penalties under the ""polluter pays"" principle for non-compliance. They also promote the use of recycled plastic and biodegradable alternatives.

Read More: *https://cpcb.nic.in/uploads/plasticwaste/PWM-Amendment-Rules-2022.pdf*


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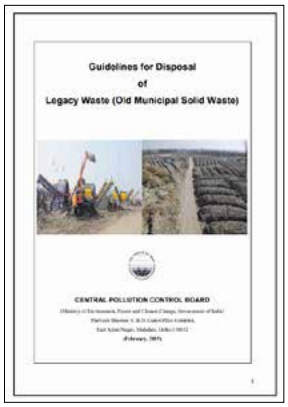
Plastic Waste Management Rules

Central Pollution Control Board (CPCB), New Delhi

The 2022 amendment to the Plastic Waste Management Rules, 2016, introduces significant changes aimed at improving the regulation and management of plastic waste in India. The key focus areas of the amendment include defining biodegradable plastics as distinct from compostable plastics, with specific standards set by the Bureau of Indian Standards and certification by the Central Pollution Control Board (CPCB). The rules mandate the use of biodegradable and compostable plastics that do not leave toxic residue or microplastics in the environment. The amendment enhances the responsibilities of producers, importers, and brand owners, requiring them to adhere to extended producer responsibility (EPR) guidelines for plastic packaging. It also broadens the scope of plastic waste processing to include not only recycling but also energy generation through methods such as co-processing in cement or steel industries. Additional changes include updated labeling requirements, protocols for biodegradable plastics, and the imposition of environmental compensation for non-compliance. The amendment aims to align plastic waste management with global environmental standards, promoting sustainability and reducing the ecological impact of plastic waste.

Read More: *https://cpcb.nic.in/uploads/plasticwaste/2-amendment-pwmrules-2022.pdf*


Guidelines for Disposal
of
Legacy Waste (Old Municipal Solid Waste)

CENTRAL POLLUTION CONTROL BOARD

Guidelines on Disposal of Legacy Waste (Old Municipal Solid Waste)

Central Pollution Control Board (CPCB), New Delhi

The guidelines outline the processes for the disposal of legacy waste in India, focusing on bioremediation and biomining as methods to address old municipal solid waste dumps. The document highlights the growing challenge of legacy waste, exacerbated by the introduction of plastics in urban waste streams. Open dumpsites, which have accumulated over decades, contribute to pollution through leachate generation, methane emissions, and frequent fires. Key methodologies, such as bioremediation and biomining, are explained in detail. These processes involve excavating waste, exposing it to air to reduce methane and leachate, and stabilizing the material for resource recovery. The waste is screened into different fractions for recycling, composting, or safe disposal. The document also addresses challenges in managing space, fire control, and leachate management, and underscores the importance of clearing dumpsites versus capping them, as clearing recovers valuable land for reuse. The guidelines emphasize the need for local bodies to take proactive measures, including training and the adoption of environmentally sound practices.

Read More: *https://cpcb.nic.in/uploads/LegacyWasteBiomining_guidelines_29.04.2019.pdf*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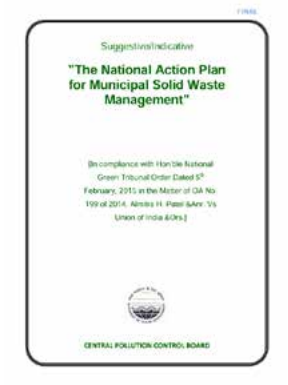
Hazardous Waste Management Rules

Central Pollution Control Board (CPCB), New Delhi

The document outlines the Hazardous and Other Wastes (Management and Transboundary Movement) Rules, 2016, implemented by the Government of India. These rules regulate the management, handling, and transboundary movement of hazardous and other waste materials, emphasizing environmental sustainability and safety. The document details the processes for the generation, collection, storage, transportation, recycling, and disposal of hazardous wastes. It defines key terms related to waste management and provides guidelines for industries to minimize environmental and health risks associated with hazardous waste. The rules also cover the responsibilities of state pollution control boards and the procedures for obtaining authorization for waste handling activities. Provisions for the import and export of hazardous waste are included, ensuring compliance with international agreements like the Basel Convention. The document also emphasizes the importance of recycling and reusing waste wherever possible, along with ensuring safe disposal methods for non-recyclable materials. Strict penalties are outlined for non-compliance, and authorities are empowered to enforce regulations and monitor waste management practices across industries.

Read More: *https://cpcb.nic.in/displaypdf.php?id=aHdtZC9IV01fUnVsZXNfMjAxNi5wZGY=*


Suggestive/Indicative

"The National Action Plan for Municipal Solid Waste Management"

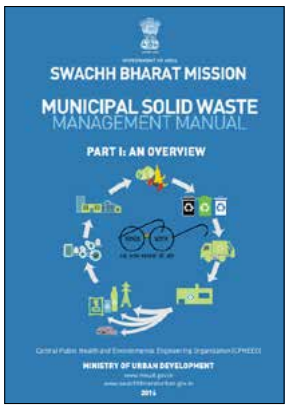
CENTRAL POLLUTION CONTROL BOARD

National Action Plan for Municipal Solid Waste Management

Central Pollution Control Board (CPCB), New Delhi

In most of the towns/cities, only important locations are maintained cleanliness leaving other places chocking with uncollected waste. The collected wastes are disposed on un-attended land-fills; and it is a long-way to see that the entire waste collected by a city or town is processed and only remnants disposed in landfill. In fact, remnants classified as “inert / non-recyclable have to be converted into other useable product so to realize the vision and mission of achieving ‘Zero’ landfilling. Drawing of time-targeted action plan for management of MSW by each city and town is essential against the population and developmental growth, otherwise, with the increasing quantity of waste will lead to un-healthy environmental conditions.

Read More: *https://cpcb.nic.in/uploads/MSW/Action_plan.pdf*

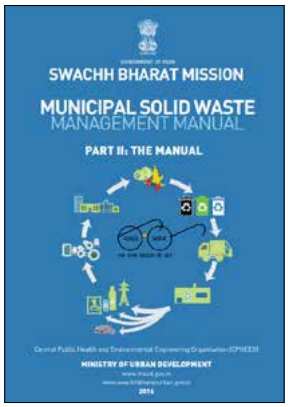


Municipal Solid Waste Management Manual (Part-1)

Central Public Health and Environmental Engineering Organisation (CPHEEO), New Delhi

The "Municipal Solid Waste Management Manual" (2016), created under the Swachh Bharat Mission and led by the Ministry of Urban Development, India, offers comprehensive guidelines for urban local bodies (ULBs) to manage municipal solid waste (MSW) sustainably. It integrates 3R principles—Reduce, Reuse, Recycle—emphasizing waste minimization, segregation, collection, transportation, processing, and safe disposal. The manual outlines institutional, technical, and financial frameworks needed for effective solid waste management and introduces a seven-step approach to develop MSW management plans. This plan includes stakeholder engagement, gap analysis, and the establishment of public-private partnerships (PPP) where necessary. The manual also addresses emerging issues like climate change, gender equity, and the informal sector's role, providing strategies to involve informal waste collectors. Technical aspects like waste-to-energy options, composting, recycling, and modern landfill usage are covered to guide ULBs in choosing appropriate waste management technologies. Emphasis is placed on sustainable financing mechanisms, including full-cost accounting, municipal bonds, and loans from multilateral agencies. Finally, it provides a roadmap for implementation, monitoring, and stakeholder consultation to ensure compliance with the Solid Waste Management Rules, 2016

Read More: https://cpheeo.gov.in/upload/uploadfiles/files/Part1(1).pdf



Municipal Solid Waste Management Manual (Part-2)

Central Public Health and Environmental Engineering Organisation (CPHEEO), New Delhi

The second part of the "Municipal Solid Waste Management Manual" (2016) continues to provide a detailed step-by-step guide for urban local bodies (ULBs) to prepare, implement, and monitor Municipal Solid Waste Management (MSWM) plans. It emphasizes compliance with the Solid Waste Management Rules, 2016, and integrates technical, financial, and community participation aspects. Key components include waste segregation, collection, and transportation systems, technical aspects of processing waste (like composting and waste-to-energy technologies), and landfill management. It also outlines the institutional roles and responsibilities for ULBs, including training and capacity building, financial planning, and the involvement of private-public partnerships (PPP). The manual provides practical guidelines for the selection of technologies and landfills, stakeholder engagement, and environmental monitoring. There is a strong focus on the inclusion of the informal sector and public participation to ensure the successful execution of these waste management strategies.

Read More: https://cpheeo.gov.in/upload/uploadfiles/files/Part2.pdf

Construction and Demolition (C&D) Waste Management Rules

Central Public Health and Environmental Engineering Organisation (CPHEEO), New Delhi

The Construction and Demolition (C&D) Waste Management Rules, 2016 amended 2024, were introduced by the Ministry of Environment, Forest and Climate Change to provide a comprehensive framework for managing waste generated from construction and demolition activities. These rules apply to individuals and organizations generating such waste, including building materials, debris, and rubble. The rules emphasize segregation, collection, storage, recycling, and safe disposal of C&D waste. Key responsibilities are assigned to various stakeholders, including waste generators, service providers, and local authorities. Waste generators are required to segregate waste into different streams (e.g., concrete, soil, steel) and submit a waste management plan for large projects. Service providers and local authorities must establish waste collection, storage, and processing systems and ensure waste is properly transported to authorized facilities. The rules also outline the roles of State and Central Pollution Control Boards in monitoring compliance, granting authorization for waste processing facilities, and submitting reports. Incentives are provided for recycling and reusing C&D waste materials, such as in non-structural concrete and road construction.

Read More: *https://cpcb.nic.in/c-d-waste-rules/*

National Framework on Safe Reuse of Treated Water

National Mission for Clean Ganga (NMCG), New Delhi

The Framework covers non-potable reuse of urban and rural used water. It recognizes diversity across the country in relation to levels of economic development and water endowment that call for a context-specific response, particularly in relation to setting priorities for re-use. The Framework embraces the principle of integration and holistic management of the water cycle by encouraging linkages to existing and proposed policies on sanitation, faecal sludge management, and the re-use of industrial used water, within a broader context of river basin planning and actions to address climate change. The Framework anticipates a situation where all States in India have adopted and started to implement SRTW policies by the end of 2022, with those States that already have SRTW policies undertaking to review them within the same timeframe to incorporate any relevant provisions necessary to satisfy eligibility criteria for national support programmes. Overall, the Framework will contribute to achievement of targets of the 2030 Agenda of Sustainable Development Goals (SDGs).

Read More: *https://nmcg.nic.in/writereaddata/fileupload/32_SRTW%20Framework_Final_23_11_2021%20(1).pdf*

Tamil Nadu's Septage Management Regulation & Operative Guidelines

Indian Institute for Human Settlements (IIHS), Bengaluru

This comprehensive document outlines the framework for effective septage management in Tamil Nadu. It addresses the collection, transportation, treatment, and disposal of faecal sludge and septage from individual household latrines and septic tanks. The guidelines aim to improve sanitation and prevent pollution by ensuring proper management of septage, thereby contributing to a healthier and more sustainable environment in Tamil Nadu

Read More: *https://cms.tn.gov.in/sites/default/files/go/maws_e_1_2023.pdf*

Operational Plan for FSTP under COVID-19 Emergency Interim Guidance

Indian Institute for Human Settlements (IIHS), Bengaluru

The report outlines daily measures for FSTP sites, emphasizing routine cleaning, operator health, PPE usage, and effective garbage disposal. It provides concise steps to ensure continued operations, including limiting visitors, maintaining physical distance, and issuing passes. The document also addresses potential shutdown scenarios based on factors like discontinued desludging, staff concerns, government orders, or a surge in COVID-19 cases. This guidance aims to assist FSTP operators in navigating challenges and sustaining operations during the ongoing pandemic.

Read More: *https://tnussp.co.in/wp-content/uploads/2020/08/Operational-Plan-for-FSTP-under-COVID19-Emergency_Interim-Guidance-1-min.pdf*

Guidelines for Sanitation workers CT/PTs (English)

Indian Institute for Human Settlements (IIHS), Bengaluru

The infographics represents the good practices to be followed at CTPTs by the sanitation workers

Read More: *https://tnussp.co.in/wp-content/uploads/2020/08/Guidelines-for-Sanitation-workers-CT-TNUSSP-min.pdf*

Guidelines for Sanitation Workers CT/PTs (Tamil)

Indian Institute for Human Settlements (IIHS), Bengaluru

The infographics represents the good practices to be followed at CTPTs by the sanitation workers

Read More: *https://tnussp.co.in/wp-content/uploads/2020/08/Guidelines-for-Sanitation-workers-CT-operators-TNUSSP-Tamil-min.pdf*

Guidelines for Sanitation Workers DSOs (English)

Indian Institute for Human Settlements (IIHS), Bengaluru

The videos tells about the good practices to be followed by the desludging operator at standard operating procedure at treatment facility and the usage of PPE

Read More: *https://tnussp.co.in/wp-content/uploads/2020/08/Guidelines-for-Sanitation-workers-DSOs-TNUSSP-min-1.pdfx*

Guidelines for Sanitation Workers DSOs (Tamil)

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Read More: *https://tnussp.co.in/wp-content/uploads/2020/08/Guidelines-for-Sanitation-workers-DSOs-TNUSSP-Tamil-min-1.pdf*

Guidelines for Sanitation workers Solid Waste Collectors (English)

Indian Institute for Human Settlements (IIHS), Bengaluru

The infographics represents the good practices to be followed by the SWM workers

Read More: *https://tnussp.co.in/wp-content/uploads/2020/08/Guidelines-for-Sanitation-workers-Solid-waste-collectors-TNUSSP-min.pdf*

Guidelines for Sanitation Workers Solid Waste Collectors (Tamil)

Indian Institute for Human Settlements (IIHS), Bengaluru

The infographics represents the good practices to be followed by the SWM workers

Read More: *https://tnussp.co.in/wp-content/uploads/2020/08/Guidelines-for-Sanitation-workers-solid-waste-workers-TNUSSP-Tamil-min.pdf*

Guidelines for Sanitation Workers FSTP (English)

Indian Institute for Human Settlements (IIHS), Bengaluru

The infographics represents the good practices to be followed by the FSTP operator at the treatment facility

Read More: *https://tnussp.co.in/wp-content/uploads/2020/08/TNUSSP-Guidelines-for-Sanitation-workers-FSTP-TNUSSP-English-min.pdf*

Guidelines for Sanitation Workers FSTP (Tamil)

Indian Institute for Human Settlements (IIHS), Bengaluru

The infographics represents the good practices to be followed by the FSTP operator at the treatment facility

Read More: *https://tnussp.co.in/wp-content/uploads/2020/08/TNUSSP-Guidelines-for-Sanitation-workers-FSTP-operators-Tamil-min.pdf*

AMRUT 2.0- Operational Guidelines

Ministry of Housing and Urban Affairs (MoHUA), New Delhi

The strengthening institutional capacity for sustainable urban development and service delivery under Atal Mission for Rejuvenation and Urban Transformation (AMRUT 2.0) aims to improve access to basic urban services by accelerating policy actions and reforms. The structural urban reforms are linked to improving water supply and sanitation service delivery outcomes and local revenue under AMRUT 2.0 with the aim of making cities water secure through circular water practices including water source conservation, rejuvenation of water bodies, ground water management and reuse of treated water.

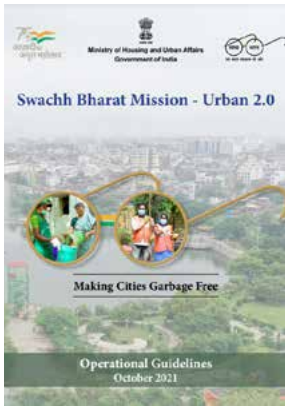
Read More: *https://amrut.mohua.gov.in/uploads/GESI-Guidelines-for-AMRUT-2.0_August-2023.pdf*

DO Letter Norms- Recycling and Reuse

Ministry of Housing and Urban Affairs (MoHUA), New Delhi

The guideline has been issued by add sec D. Thara to adhere effluent standards from new and exisitng Sewage treatment plants for all cities and towns in the country with many parameters including 10 BOD and 50 COD level. The norms have been The norms have been reviewed and amended aligning with the various International standards and norms as per BIS17663 (2021) as the amendment is a proactive step toward providing recycling and reuse of wastewater for non-potable applications such as toilet flushing, fire protection, vehicle exterior washing, recreational use (bathing etc.), non-contact impoundments (tanks, lakes etc.), horticulture, golf course, non-edible crops, crops which are eaten raw and cooked. A copy of the amended norms provided in the Table 7.19 of the Manual on Sewerage and Sewage Treatment Systems, 2013 is enclosed at Annexure-I.

Read More: *https://mohua.gov.in/pdf/65fab932dfd85DO-letter-Norms-Recycling-and-Reuse.pdf*

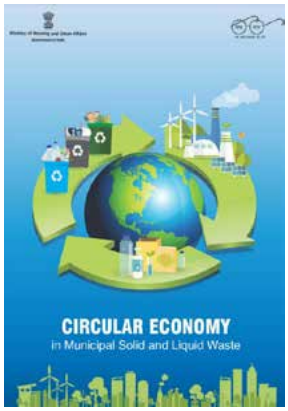


Swachh Bharat Mission Urban 2.0 Operative Guidelines

Ministry of Housing and Urban Affairs (MoHUA), New Delhi

This Mission has achieved significant levels of success against the above objectives, with massive engagement of citizens across all categories of society. An innovative survey conducted by the Ministry of Housing and Urban Affairs (MoHUA) under the SBM-U, to rank cities on various sanitation and cleanliness parameters.

Read More: *https://sbmurban.org/storage/app/media/pdf/swachh-bharat-2.pdf*



Circular Economy in Municipal Solid and Liquid Waste

Ministry of Housing and Urban Affairs (MoHUA), New Delhi

This report attempts to provide a comprehensive, implementable and forwardlooking action plan for the management of municipal solid & liquid waste. It also aims to promote India's transition from a linear 'take-make-waste' mindset to a multi lifecycle circular approach.

Read More: *https://mohua.gov.in/pdf/627b8318adf18Circular-Economy-in-waste-management-FINAL.pdf*

SBM ODF+ and SBM ODF++ Toolkit for Urban Local Bodies

Ministry of Housing and Urban Affairs (MoHUA), New Delhi

The ODF protocol is being rigorously followed for declaring and certifying ODF status of cities. With 24 states / UTs and 4,273 cities declared ODF, it is time to step up the rigour of the process by putting in place additional parameters to ensure the sustainability and long term impact of the ODF status. This toolkit on SBM ODF+ and SBM ODF++ protocols includes sustainability aspects including improved access to individual toilets, community and public toilet maintenance, functionality and liquid waste / fecal sludge and septage management (FSSM).

Read More: *https://www.cseindia.org/static/mount/recommended_readings_mount/SBM-ODF-Book-Final.pdf*

Advisory on On-site and Off-Site Sewage Management Practices

Ministry of Housing and Urban Affairs (MoHUA), New Delhi

This Advisory has shown the way of integrated planning of sanitation in a city comprising of onsite and off-site sewage management systems. It has identified interventions, as above, for optimal performance of on-site systems and subsequent progressive coverage of on-site systems with off-site systems as and when necessity arises. It is clarified that while FSSM is an important element of O&M of on-site sewage management system and essential for its optimal performance, but in no way is it an alternative to conventional sewerage system.

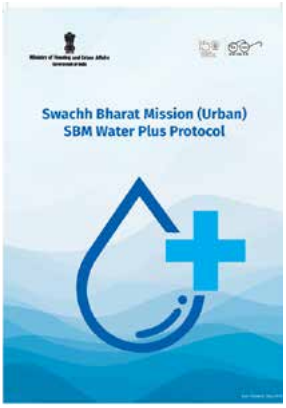
Read More: *https://www.cseindia.org/static/mount/recommended_readings_mount/Advisory-On-Site-and-ffsite-Sewage-Management-Practices-MoHUA.pdf*

Consultative Document on Land Application of Faecal Septage

Ministry of Housing and Urban Affairs (MoHUA), New Delhi

This Advisory as a continuation to the Ministry's Advisory on On-Site and Off-Site Sewage Management Practices, 2020 covers all the key aspects of land application of faecal sludge and septage. It further discusses about the pre-treatment to be given to the faecalseptage, precautionary measures to be taken, site selection criteria, dosage and various methods of land application. The monitoring mechanism and record keeping procedures for the land application process are also adequately addressed in the Advisory. It also describes in detail about the involvement of public in the beginning and at various key stages of the project's development for better management of the land application projects. Further, both international and national case studies were also included in the Advisory for the guiding the ULBs. Thus this will serve as a complete guiding document for the ULBs especially those having population of less than 20,000, to safely manage their faecal sludge and septage until the implementation of dedicated sanitation systems.

Read More: *https://scbp.niua.org/sites/all/themes/zap/knowledge/MoHUA_Consultative_Document_for_Land%20_pplication.pdf*

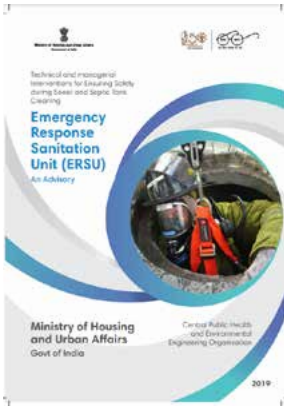


Swachh Bharat Mission (Urban) SBM Water Plus Protocol

Ministry of Housing and Urban Affairs (MoHUA), New Delhi

The purpose of this toolkit is to provide a readiness check and guideline for cities and towns that have already achieved Open Defecation Free (ODF)/ ODF+ /ODF++ status as per the existing protocols prescribed by the Ministry of Housing and Urban Affairs (MoHUA) and to work towards ensuring sustainability of sanitation status, hereby referred to as SBM Water Plus in order to achieve safe sustainable sanitation for all, by ensuring that no untreated waste water is discharged into the open environment. This toolkit provides the detailed SBM Water Plus protocol laid down by MoHUA, along with declaration formats to be obtained from various stakeholders, that wards / work circles (in case under jurisdiction of development authority) and cities are required to submit, as part of the SBM Water Plus declaration and certification process.

Read More: *http://swachhbharaturban.gov.in/writereaddata/WaterPlusBook24thMay20.pdf?id=7dywrgrvt2njvbjz*

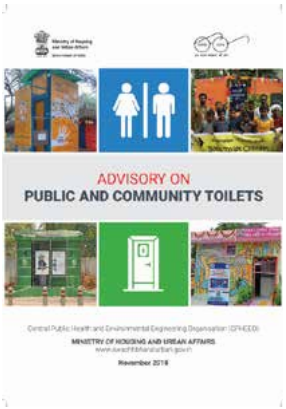


Advisory on Emergency Response Sanitation Unit (ERSU)

Ministry of Housing and Urban Affairs (MoHUA), New Delhi

Recent reports from various parts of the country describing fatal accidents among persons who had been tasked to enter sewers and septic tanks for purpose of their cleaning or removal of blockages has drawn utmost serious attention of the Central Government. An analysis of the situations leading to these accidents invariably shows that the persons who had entered the sewers and septic tanks were not observing laid down safety procedures, lacked training for such tasks, were not wearing proper protective equipment required and supervision was lax or absent altogether.

Read More: *https://sbmurban.org/storage/app/media/Advisory_on_Emergency_Response_Sanitation_Unit.pdf*

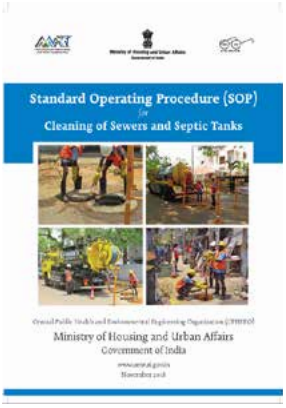


Advisory on Public and Community Toilets

Ministry of Housing and Urban Affairs (MoHUA), New Delhi

The Government of India had published 'Guidelines on Community Toilets' in 1995. This guideline was the first attempt by the Government of India to capture the subject of Community Toilets in a comprehensive and exclusive manner. This guideline served as an important resource book to implementing agencies on issues related to understanding of user preferences, demand responsive designs, construction and O&M. Few State Governments like Odisha, Andhra Pradesh, Telangana, Punjab, etc. have formulated state level guidelines for CT / PTs to further achievement of SBM objectives. There are also several norms from Bureau of Indian Standards that provide directions to specific aspects related to planning of PT/CTs.

Read More: *https://cpheeo.gov.in/upload/whatsnew/5c0a08232e7afAdvisory%20on%20public%20toilet.pdf*

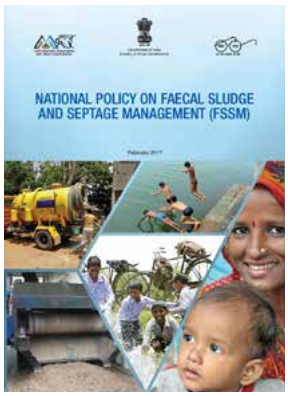


Standard Operating Procedure (SOP) for Cleaning of Sewers and Septic Tanks

Ministry of Housing and Urban Affairs (MoHUA), New Delhi

The main objective of this SOP is to eliminate hazardous cleaning or at least to avoid the accidents due to improper practice of cleaning of sewers/ emptying of septic tanks, thereby, preventing human casualties. Further, the SOP intends to prevent the risk of acquiring diseases to the concerned person because of following the unhygienic & unscientific working procedures. This SOP also provides information on protective gears, their applicability to sewers /septic tanks cleaning, emergency preparedness, emergency due to toxic gas emission, precaution due to gas hazard & infection, precaution due to vehicular traffic, responding to sewers/ septic tanks overflows by field workers/ employees in case of crisis, responsibility to stakeholders and so on.

Read More: *https://sbmurban.org/storage/app/media/SOP_for_Cleaning_of_Sewers_and_Septic_Tanks.pdf*

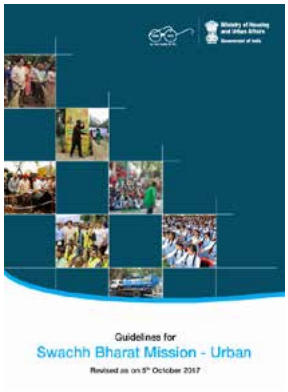


National Policy on Faecal Sludge and Septage Management (FSSM)

Ministry of Housing and Urban Affairs (MoHUA), New Delhi

The escalating urbanization in India, coupled with the rapid expansion of sanitation facilities under the Swachh Bharat Mission, has highlighted a critical gap in faecal sludge and septage management (FSSM). While significant strides have been made in toilet construction, the safe and sustainable treatment of human waste remains a pressing challenge. The proliferation of on-site sanitation systems, such as pit latrines and septic tanks, has exacerbated the issue, particularly in smaller towns where centralized sewerage networks are often absent. The inadequate capacity of existing sewage treatment plants further complicates the matter. To safeguard public health and mitigate environmental risks, India urgently requires a comprehensive FSSM policy that addresses the safe collection, transportation, treatment, and disposal of human waste. Such a policy is essential to ensure the long-term sustainability of India's sanitation infrastructure and protect the nation's natural resources.

Read More: *https://www.susana.org/_resources/documents/default/3-4933-340-1648113214.pdf*



Guidelines for Swachh Bharat Mission-Urban

Ministry of Housing and Urban Affairs (MoHUA), New Delhi

The Swachh Bharat Mission (SBM) emanates from the vision of the Government articulated in the address of The President of India in his address to the Joint Session of Parliament on 9th June 2014: "We must not tolerate the indignity of homes without toilets and public spaces littered with garbage. For ensuring hygiene, waste management and sanitation across the nation, a "Swachh Bharat Mission" will be launched. This will be our tribute to Mahatma Gandhi on his 150th birth anniversary to be celebrated in the year 2019. SBM is being implemented by the Ministry of Housing and Urban Affairs (M/o HUA) and by the Ministry of Drinking Water and Sanitation (M/o DWS) for urban and rural areas respectively. These guidelines are for the implementation of Swachh Bharat Mission (Urban)

Read More: *http://swachhbharaturban.gov.in/writereaddata/SBM_Guideline.pdf*

Solid Waste Management Rules

Ministry of Housing and Urban Affairs (MoHUA), New Delhi

The document uploaded is the "Solid Waste Management Rules, 2016" released by the Government of India. Here's a 200-word abstract: The Solid Waste Management Rules, 2016, published by the Ministry of Environment, Forest and Climate Change, replace the 2000 rules, aiming to comprehensively address urban waste management challenges in India. The rules outline the responsibilities of various stakeholders, including urban local bodies, waste generators, and authorities at state and central levels. They mandate waste segregation at source into biodegradable, non-biodegradable, and domestic hazardous waste, encouraging decentralized waste processing through composting, biomethanation, or recycling. Large-scale waste generators like hotels, markets, and gated communities must manage waste within their premises, reducing dependency on municipal systems. Additionally, manufacturers are held accountable for proper disposal mechanisms for non-biodegradable and hazardous waste products, emphasizing the principles of Extended Producer Responsibility (EPR). The rules also define the role of state governments in providing necessary infrastructure, monitoring compliance, and ensuring the allocation of appropriate land for waste processing and disposal. Special attention is given to energy recovery from waste and sustainable landfill management, ensuring environmental safety.

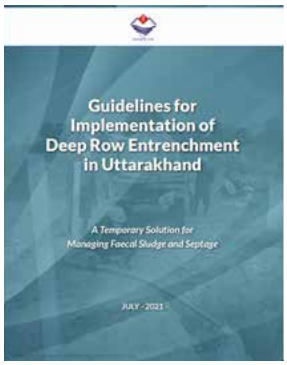
Read More: *https://cpcb.nic.in/uploads/MSW/SWM_2016.pdf*

Faecal Sludge and Septage Co-treatment Design Guidebook - Volume I

National Institute of Urban Affairs (NIUA), New Delhi

Co-treatment is a process where Sewage Treatment Plant (STP), in addition to treating the domestic sewage transported through sewers, also treats faecal sludge and septage (FSS) emptied from various Onsite Sanitation Systems (OSS) in the city. The guidebook is divided into two volumes. Volume 1 of the document details the rationale for Co-treatment at kargi STP and the design calculations including pre-feasibility for the proposed Co-treatment facility. Volume 2 of the document details the implementation of the facility. A decision making flow chart, template of Terms of Reference (TOR) for design engineers, protocol for trial runs, and a sample bidding document for procurement of works will help the engineers of Pey jal Sansthan and Peyjal nigam to carry-out Co-treatment conveniently.

Read More: *https://scbp.niua.org/sites/all/themes/zap/knowledge/Vol_1_Kargi_Technical_Report%20_For_web.pdf*

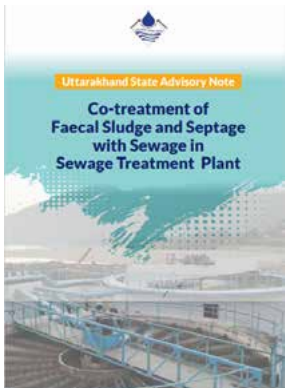


Guidelines for Implementation of Deep Row Entrenchment in Uttarakhand

National Institute of Urban Affairs (NIUA), New Delhi

Most of the Urban Local Bodies (ULBs) in Uttarakhand have no proper treatment facility available for disposal of faecal sludge and septage (FSS). The collected FSS is usually discharged into open ground or drains in an unregulated and ad hoc manner. This has negative implications for both public health and the environment. The purpose of this document, therefore, is to provide urban the ULBs of Uttarakhand technical guidance on Deep Row Entrenchment (DRE) as an interim measure for safe disposal of FSS in those regions where treatment facilities such as Sewage Treatment Plants (STPs) or Faecal Sludge Treatment Plants (FSTPs) are not presently available within 25 km distance. DRE is one of many methods of land application of FSS. Where DRE is not feasible, other forms of land application of FSS (eg. ridge and furrow method, spray irrigation etc.) can be explored. The present document only deals with the DRE method.

Read More: *https://scbp.niua.org/sites/all/themes/zap/knowledge/DRE%20Uttrakhand_For%20Print.pdf*

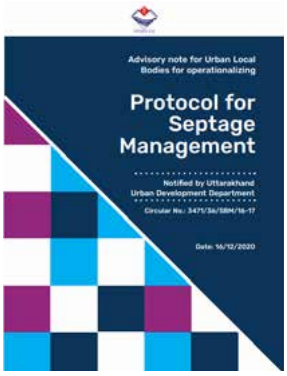


Uttarakhand State Advisory Note on Co-treatment Faecal Sludge and Septage (FSS) with Sewage in Sewage Treatment Plants (STPs)

National Institute of Urban Affairs (NIUA), New Delhi

This advisory note outlines the process for co-treating faecal sludge and septage (FSS) with sewage in sewage treatment plants (STPs) in Uttarakhand. It adheres to the 2017 State Septage Management Protocol and the Swachh Bharat Mission 2.0 guidelines. Key recommendations include conducting feasibility studies for Co-treatment, ensuring occupational safety at STPs, establishing decanting fees, and implementing capacity building programs. The advisory also provides guidelines for infrastructure requirements, monitoring, and stakeholder coordination. By following these recommendations, Uttarakhand can effectively manage FSS and improve sanitation services.

Read More: *https://scbp.niua.org/sites/all/themes/zap/knowledge/Co-treatment%20AdvisoryNote_UK.pdf*

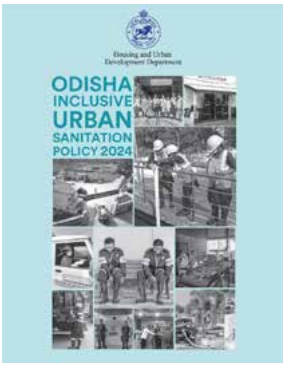


Advisory Note for Urban Local Bodies for Operationalizing Protocol for Septage Management

National Institute of Urban Affairs (NIUA), New Delhi

This advisory note, issued by the Uttarakhand Urban Development Department, provides guidance to Urban Local Bodies (ULBs) on implementing effective septage management practices. The document outlines the challenges of improper septage management and emphasizes the need for a regulatory framework. It references a study that identified several shortcomings in the current practices, such as infrequent desludging and non-compliant septic tank designs.The advisory note outlines steps for ULBs to take, including forming committees, identifying septic tanks, developing infrastructure, implementing public awareness campaigns, and capacity building programs. A detailed action plan outlines activities for ULBs across different timeframes.

Read More: *https://scbp.niua.org/sites/all/themes/zap/knowledge/Advisory%20Document_1.pdf*

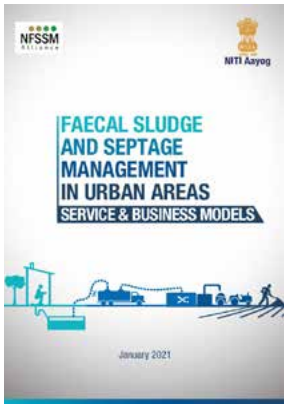


Odisha Inclusive Urban Sanitation Policy

National Faecal Sludge and Septage Management (NFSSM) Alliance

The "Odisha Inclusive Urban Sanitation Policy, 2024" outlines the Government of Odisha's commitment to enhancing sanitation infrastructure and services across urban areas, in alignment with the Swachh Odisha, Sustha Odisha movement. This policy aims to ensure that sanitation is recognized as a fundamental human right, particularly for marginalized populations, including women, children, and economically weaker sections. Building on the Odisha Urban Sanitation Policy established in 2017, the new framework emphasizes City-Wide Inclusive Sanitation (CWIS) and gender-transformative approaches, promoting community engagement and innovative partnerships. The policy also incorporates the 5T governance model—Teamwork, Technology, Transparency, Transformation, and Time Limit—to drive effective implementation. Key components include establishing Faecal Sludge Treatment Plants (FSTPs), enhancing service delivery, and addressing climate resilience. By integrating various frameworks—legal, financial, and monitoring—the policy aspires to create sustainable and accountable sanitation systems that ensure no one is left behind. This comprehensive document serves as a roadmap for achieving the Sustainable Development Goal 6.2 on sanitation and hygiene, reflecting Odisha's vision of inclusive, participatory governance in urban sanitation, ultimately fostering dignity and well-being for all residents.

Read More: *https://urban.odisha.gov.in/more/urban-International-conclave-2024*



Faecal Sludge and Septage Management in Urban Areas: Service Business Models

National Faecal Sludge and Septage Management (NFSSM) Alliance

Urban India has made significant strides towards safe sanitation under the government's flagship Swachh Bharat Mission–Urban. However, delivering access to toilets or sewer connections is only a part of the solution. Without adequate and timely desludging of septic tanks and treatment of faecal sludge and septage it is dumped untreated in open fields and water bodies, exposing citizens to serious health and environmental hazards. Cognizant of the implications, conversations in urban sanitation have expanded beyond toilet infrastructure to safe desludging, treatment, and reuse of human waste. The National Faecal Sludge and Septage Management Alliance (NFSSMA) has actively supported the sanitation movemen t in India, by catalyzing action towards safe and sustainable human waste management at the national, state, and city levels. Working in close partnership with the Government of India, the Alliance helped in accelerating the launch of the National Faecal Sludge and Septage Management (FSSM) policy in 2017. Since then, the Alliance has continued to work with the national, state and city governments to strengthen the foundation of urban India's faecal sludge management in urban India, especially championing inclusive, safe, and equitable sanitation approaches.

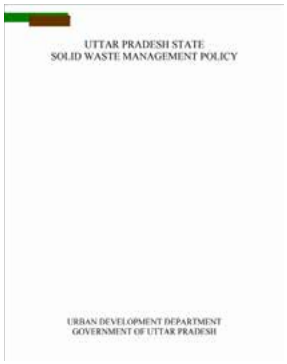
Read More: *https://www.niti.gov.in/sites/default/files/2021-08/NITI-NFSSM-Alliance-Report-for-digital.pdf*

A Guidebook for Local Governments for Majhi Vasundhara Abhiyan (English and Marathi)

Regional Centre for Urban and Environmental Studies (RCUES) of the All India Institute of Local Self-Government (AIILSG), Mumbai

A Guidebook for Local Governments for Majhi Vasundhara Abhiyan, available in English and Marathi, has been developed by the Regional Centre for Urban and Environmental Studies (RCUES) in collaboration with the Department of Environment & Climate Change, Government of Maharashtra, and is supported by UNICEF Maharashtra. This comprehensive guidebook serves as an essential resource for Urban and Rural Local Bodies, equipping them with the knowledge and tools necessary to actively and effectively participate in the Majhi Vasundhara Abhiyan 4.0. The guidebook emphasizes the importance of combating climate change, a pressing issue that impacts communities across Maharashtra. It provides local bodies with critical insights into key environmental concepts such as carbon sequestration, water and energy audits, and offers practical solutions to mitigate the effects of climate change. Additionally, it addresses adaptation strategies to help local bodies become more resilient to the evolving environmental challenges. By providing step-by-step guidance and practical tools, the Majhi Vasundhara 4.0 guidebook empowers local governments to adopt sustainable practices, reduce their environmental footprint, and contribute to the state's broader efforts in tackling climate change. It is a vital tool in ensuring that local bodies can actively participate in the fight for a more sustainable future.

Read More: *https://drive.google.com/file/d/1vE0-pbgI17C1P4LbEt7YVbMnirojSOUt/view*



Uttar Pradesh State Solid Waste Management Policy

Regional Center for Urban and Environmental Studies (RCUES), Lucknow

The program expanded significantly, starting with 224 participants in 2016 and culminating in the training of over 6,000 participants across multiple states and cities by 2020. Key features of the workshops included a mix of classroom learning, exposure visits, and group activities that facilitated peer learning and knowledge dissemination. The document also emphasizes the impact of these workshops, showcasing successful case studies from cities like Indore, Surat, and Ambikapur, where sustainable SWM models were implemented. Overall, the workshops have played a crucial role in equipping ULBs with the tools necessary to meet urban governance challenges and achieve the objectives of the SBM.

Read More: *https://drive.google.com/file/d/1KHVhOZve66F8icLVLc9mwf1PwMQEtVH9/view*

Standard Operating Procedure (SOP) for Making "Pellets from Plastic Waste"

Regional Center for Urban and Environmental Studies (RCUES), Lucknow

It also reflects on the achievements of the SBM, including the introduction of key protocols like ODF+, garbage-free city ratings, and technological innovations such as waste-to-compost plants and GPS tracking for waste collection. The publication aims to inspire continued progress in creating sustainable waste management systems across urban India.

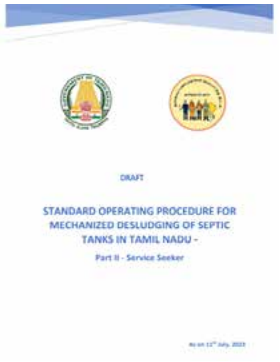
Read More: *http://rcueslucknow.org/publication/KnowledgeProducts/5.pdf*

Standard Operating Procedure for Desludging Operators on Mechanized Desludging of Septic Tanks in Tamil Nadu

Urban Management Centre (UMC), Ahmedabad

This Standard Operating Procedure (SOP) issued by Government of Tamil Nadu is a step-by-step guide for Desludging Operators (DSOs), Urban Local Bodies (ULBs) which includes Chennai Metropolitan Water Supply & Sewerage Board (CMWSSB) in respect of Chennai and desludgers (workers and drivers) for septic tank pumping, desludging, septage transportation and safe disposal. The scope of this SOP is to cover the actionable points that should be followed and practiced for all the desludging operations. The SOP mentioned in the document is applicable to DSOs.

Read More: *https://drive.google.com/file/d/131eoE4q7G41IfAtQ4Dky7b1Y_mw9LEnh/view*



Standard Operating Procedure for Citizens on Mechanized Desludging of Septic Tanks in Tamil Nadu

Urban Management Centre (UMC), Ahmedabad

This Standard Operating Procedure (SOP) issued by Government of Tamil Nadu is a step-by-step guide for service seeker to seek cleaning and maintenance services for septic tank. Service seeker means an individual consumer or institution seeking sanitation services from urban local body or private company/operator to undertake a sanitation work including cleaning/ maintenance of community/ institutional/ public toilets, septic tank, STP/FSTP, sewer and open drainage system etc. This document covers all the necessary instructions and procedures to be followed by the sanitation service seeker.

Read More: *https://drive.google.com/file/d/12kWjNfG0gM3dwaKI5wFbOt_PzshnifdZ/view*

Standard Operating Procedure for District Collector/Concerned Authorized Official on Mechanized Desludging of Septic Tanks in Tamil Nadu

Urban Management Centre (UMC), Ahmedabad

This Standard Operating Procedure (SOP) issued by the Government of Tamil Nadu serves as a comprehensive guide for Local Authorities and government officials involved in sanitation management. It outlines clear instructions and procedures to ensure safe and effective operations, particularly in hazardous cleaning tasks. This document aims to enhance accountability and ensure compliance with legal frameworks.

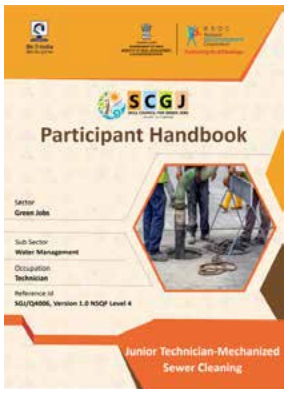
Read More: *https://drive.google.com/file/d/12wiY5ygBhJVShHy5mFjjhaRmKMGDPaeL/view?usp=sharing*

Standard Operating Procedure for Event of Post-Accident on Mechanized Desludging of Septic Tanks in Tamil Nadu

Urban Management Centre (UMC), Ahmedabad

This Standard Operating Procedure (SOP) issued by the Government of Tamil Nadu provides clear guidelines for handling post-accident situations during desludging activities. It outlines step-by-step actions to be followed by authorities in case of accidents, ensuring prompt and appropriate responses. The SOP includes procedures for addressing physical injuries or disablement of workers, as well as actions to be taken in the unfortunate event of a worker's death.

Read More: *https://drive.google.com/file/d/12mqpwXxj0hJGV_3sHSidMhjUD6GxEVFa/view*

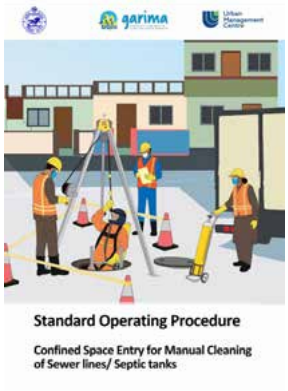


Handbook for Junior Technician-Mechanized Sewer Cleaning

Urban Management Centre (UMC), Ahmedabad

The handbook is a comprehensive resource designed to equip current and prospective job holders with essential knowledge and skills in operating mechanized equipment for sewer cleaning. Developed with contributions from Subject Matter Experts (SMEs) and industry professionals, this handbook offers the latest and most authentic information in the field. It outlines key National Occupational Standards (NOS), including the operation of mechanized equipment, health and safety practices, teamwork, and entrepreneurship skills.

Read More: *https://drive.google.com/file/d/11NmjpyeehQ0fUOstCYJ3HNc4HZfzgewg/view*

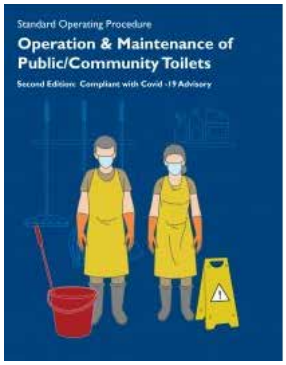


Standard Operating Procedure (SOP) for Confined Space Entry for Manual Cleaning of Sewer lines/ Septic tanks in Odisha

Urban Management Centre (UMC), Ahmedabad

This Standard Operating Procedure (SOP) has been developed by the Urban Management Centre and Saniverse Environmental Solutions to ensure occupational health and safety in confined spaces within the sanitation sector. It is based on extensive desk research and expert consultations on quality, health, safety, and environmental standards. International best practices for safe confined space entry have also been incorporated. The document provides essential guidelines to safeguard sanitation workers, minimizing risks in hazardous environments. The development of this SOP was supported by the Housing & Urban Development Department, Government of Odisha, demonstrating a collaborative effort toward safer sanitation practices.

Read More: *https://drive.google.com/file/d/11yxqE5v1sJ9R9OvcL7kor1BNON25McxJ/view*

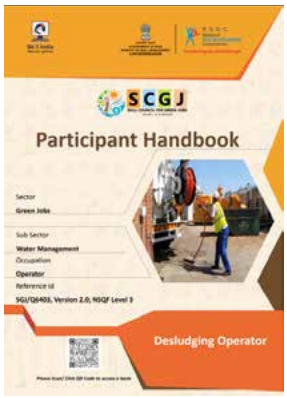


Standard Operating Procedure for Operation & Maintenance of Public/ Community Toilets

Urban Management Centre (UMC), Ahmedabad

The "Standard Operating Procedure for Operation & Maintenance of Public/Community Toilets" aims to provide comprehensive guidelines for cleaning and maintaining sanitation facilities in compliance with COVID-19 advisories. Developed by the Urban Management Centre under the MISAAL program, this document emphasizes the importance of effective sanitation management in urban areas, where only a fraction of public toilets are adequately maintained. The SOP outlines step-by-step cleaning processes, maintenance activities, and essential supplies required for caretakers and cleaners. It highlights the roles of caretakers and cleaners, ensuring they are equipped with personal protective equipment (PPE) and trained in proper sanitation practices. The document also addresses the need for frequent cleaning of high-contact surfaces to mitigate health risks associated with COVID-19. By standardizing operations and maintenance procedures, this SOP seeks to enhance the cleanliness and usability of public toilets, thereby promoting better sanitation practices and improving public health outcomes in urban settings.

Read More: *https://umcasia.org/what-we-do/toolkits-preparation-for-swachh-bharat-mission-water-sanitation-and-hygiene-institiute/*

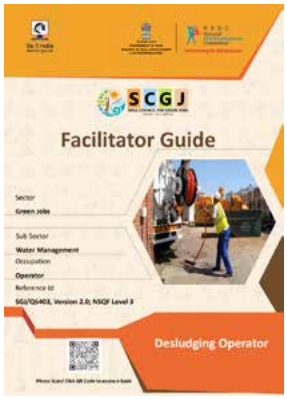


Handbook for Desludging Operator

Urban Management Centre (UMC), Ahmedabad

The handbook serves as a comprehensive training guide for individuals aspiring to work in the Faecal Sludge and Septage Management (FSSM) sector. Acknowledging the critical need for skilled professionals in this field, the handbook outlines essential National Occupational Standards (NOS) including septic tank emptying, safe sludge transportation and disposal, workplace health and safety, and entrepreneurship skills.

Read More: *https://drive.google.com/file/d/11KQl1_Krnxfqz2WiSWHCUpBkVEPt73TY/view*



Facilitator Guide for Desludging Operator

Urban Management Centre (UMC), Ahmedabad

The guidebook designed to support trainers in delivering both theoretical and practical training for aspiring Desludging Operators. This guide outlines essential National Occupational Standards (NOS) related to the emptying, transportation, and disposal of faecal sludge from septic tanks.

Read More: *https://drive.google.com/file/d/1F2NNS2iH9yG783B3scbNOa1EbXac3LdN/view*

Ready Reckoner for Sanitation Workers Safety

Urban Management Centre (UMC), Ahmedabad

Ready Reckoner for Sanitation Workers Safety serves as a comprehensive guide for Urban Local Bodies (ULBs) on improving the working conditions and ensuring the safety of sanitation workers. It emphasizes the need for proper Personal Protective Equipment (PPE), training, and mechanization to minimize the risks associated with hazardous cleaning tasks. It outlines various legal frameworks, including the Prohibition of Employment as Manual Scavengers Act, 2013, and includes best practices and provisions that ULBs should adopt to improve sanitation work environments, particularly in light of the risks heightened by COVID-19.

Read More: *https://umcasia.org/what-we-do/ready-reckoner-for-sanitation-workers-safety/*

Sanitation Mapping Ahmedabad– Slum Atlases

Urban Management Centre (UMC), Ahmedabad

This atlas provides data on 13 critical parameters concerning water, sewerage, sanitation, solid waste management, and demographics for slums. The thematic maps, based on a field survey conducted in 2019-20, visually represent household conditions and infrastructure deficits. Each map features a legend for easy interpretation and includes the city name, slum name, and ward number. The dotted lines indicate slum boundaries, with blocks representing households. Color coding illustrates access to toilets, while grey polygons denote non-responsive households. DMS markings assist in field navigation during surveys, facilitating effective planning and intervention strategies.

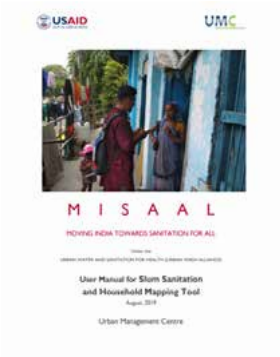
Read More: *https://umcasia.org/what-we-do/sanitation-mapping/*

Facilitator Guide for Junior Technician-Mechanized Sewer Cleaning

Urban Management Centre (UMC), Ahmedabad

The guidebook designed to support trainers in delivering both theoretical and practical training for aspiring sewer cleaners. This guide outlines essential National Occupational Standards (NOS) related to mechanized equipment and health and safety practices.

Read More: *https://drive.google.com/file/d/1a8z5vaI4_zoHlsK2FfMGYN8vUV64xa9C/view*

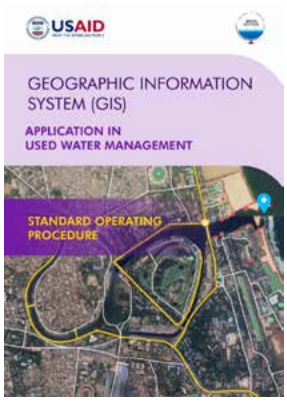


Water and Sanitation for Health in Urban Areas

Urban Management Centre (UMC), Ahmedabad

"Moving India towards Sanitation for All" or the MISAAL program proposes strategy to have sustained efforts for ODF status in heritage cities. The program aims to establish a precedence for scalable and replicable Swachh Heritage cities in India. All four cities represent key heritage cities in their respective states with Ahmedabad as India's first World Heritage City declared by UNESCO. Sanitation is imperative in heritage cities. MISAAL intervention is 4-pronged – 1. Sustain ODF; 2. Achieve ODF+; 3. BCC and IEC Dissemination to sustain ODF; and 4. National Scale-up. MISAAL will showcase replicable and scalable models and tools and will be implemented through city-state & state-nation implementation model. It is being implemented in the 4 intervention cities namely, Ahmedabad, Porbandar in Gujarat, Sambalpur in Odisha & Jodhpur in Rajasthan. As a part of the sanitation mapping process and formulating strategies to help the cities sustain ODF, one major activity is to conduct a sanitation mapping and surveying of slum present in the city. For which, UMC has prepared a detailed analysis tool which helps city to fasten the process of assessment.

Read More: *https://umcasia.org/wp-content/uploads/01_User-Manual-for-Slum-sanitation-and-household-mapping-tool_UMC.pdf*

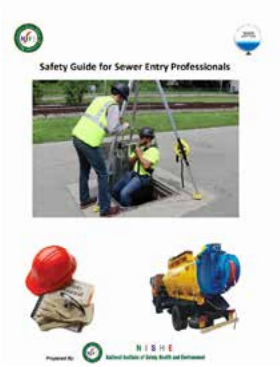


Standard Operating Procedure (SOP) in GIS for Used Water Management

United States Agency for International Development (USAID), Washington DC

A Geographic Information System (GIS) is a powerful tool for studying the Earth by capturing, analyzing, and interpreting data in a spatial context. In the realm of liquid waste management (LWM), GIS plays a key role by using spatial datasets to identify pollution sources, assess environmental and health risks, and develop site-specific management strategies. It aids in mapping crucial data such as drain endpoints, waterlogging areas, flow direction, and available open spaces, helping decision-makers plan and select appropriate technologies for managing liquid waste. To effectively use GIS for Used Water Management (UWM), there are four essential steps: Data Preparation, Topographical Analysis, Data Correlation/Analysis, and Data Visualization. These steps guide the process from understanding the types of available datasets and their sources to analyzing them for actionable insights. For successful planning, the data must include spatial parameters like coordinates or landmarks, ensuring accurate mapping and analysis. The subsequent chapters will explore these steps in detail, highlighting how each contributes to achieving specific outcomes in UWM planning.

Read More: *https://drive.google.com/file/d/1IM_r-V-zPqh-deFgDCIGw94JXCsOBndM/view*



Safety Guide for Sewer Entry Professionals

United States Agency for International Development (USAID), Washington DC

A comprehensive safety guide for sewer entry professionals was created to ensure the well-being of those working in hazardous environments. This guide covers critical safety protocols, including proper use of personal protective equipment (PPE), atmospheric testing, and emergency procedures for confined spaces like sewers and septic tanks. It also outlines best practices for identifying risks, handling hazardous materials, and adhering to safety regulations. Designed to equip workers with the necessary skills and knowledge, the guide aims to prevent accidents, safeguard lives, and promote a safer work environment for sewer entry professionals.

Read More: https://washi.sharepoint.com/sites/USAIDCBTeam/Shared%20Documents/Forms/AllItems.aspx?id=%2Fsites%2FUSAIDCBTeam%2FShared%20Documents%2FLibrary%2FKnowledge%20Products%2FInternal%2FBooklet%20%5FSEP%2Epdf&parent=%2Fsites%2FUSAIDCBTeam%2FShared%20Documents%2FLibrary%2FKnowledge%20Products%2FInternal&p=true&ga=1

Operations and Maintenance (O&M) Protocol Shamli DEWAT

United States Agency for International Development (USAID), Washington DC

This booklet provides a comprehensive overview of the DEWATS design and concept, along with a step-by-step guide for its operation and maintenance, ensuring that local communities can effectively manage and sustain their wastewater treatment systems.

Read More: https://cureindiaorg-my.sharepoint.com/personal/manasmita_cureindia_org/_layouts/15/onedrive.aspx?id=%2Fpersonal%2Fmanasmita%5Fcureindia%5Forg%2FDocuments%2FKNOWLEDGE%20MAPPING%2FO%26M%20Protocol%20Shamli%20DEWAT%2Epdf&parent=%2Fpersonal%2Fmanasmita%5Fcureindia%5Forg%2FDocuments%2FKNOWLEDGE%20MAPPING&ga=1

Section 3

IEC

TOTAL IEC : 150

ORGANISATION TYPE

1
Government

9
NGO, CSO, Development partners

3
Institutions

Enhanced WASH Services for the Sanitation Workers in Chikkaballapur and Chintamani, Karnataka

Bremen Overseas Research & Development Association (BORDA)
South Asia

Sanitation workers play a crucial role in providing essential sanitation services, yet they often lack access to basic water and sanitation facilities themselves. Their homes are typically located on the outskirts of towns, where they face inadequate toilets, piped water, and sewerage systems. At work, they also lack proper dining and rest facilities, including access to drinking water and bathrooms. To tackle these issues, TIDE has partnered with BORDA and Chikkaballapura CMC to launch a pilot project in Chikkaballapura, 60 km from Bengaluru. They constructed a Resting Facility for sanitation workers, which includes bathrooms, toilets, waterless urinals, hand and leg wash areas, a resting room, a drinking water dispenser, a dining space, and tool storage. Additionally, TIDE is empowering sanitation workers and ragpickers in Kandawara by building a community toilet, a simplified sewer system, a DEWATS facility for wastewater treatment, and a composting unit. TIDE also offers training on occupational health, safety, menstrual hygiene, and WASH operations. Enhancing the lives of sanitation workers not only improves their well-being but also benefits the broader community.

Read More: *https://www.youtube.com/watch?v=OSYlfVc9_L4*

Life of a Sanitation Worker

Bremen Overseas Research & Development Association (BORDA)
South Asia

A film on the Life of a Sanitation Worker by project partner LEDeG IUWM at the centre of Municipal Public Services project.BORDA (Bremen Overseas Research and Development Association), founded in 1977, is a civil society expert organisation focused on the provision of essential public services. BORDA South Asia operates in four countries: India, Bangladesh, Bhutan and Nepal. According to the World Bank, 2.5 billion people do not have access to improved sanitation. Through engagement with partner organisations, BORDA South Asia aims to improve the living conditions of socially disadvantaged groups by facilitating access to basic needs services such as sanitation, wastewater management and water provision while maintaining a safe environment. This is our contribution to creating liveable cities and communities for all.

Read More: *https://www.youtube.com/watch?v=MlncBWDvzMM*

The Change - Short Film

Bremen Overseas Research & Development Association (BORDA)
South Asia

The film is based on issues of the water table & contamination of the groundwater in Leh & discuss other issues that arise due to the same. The video is executed by the project partner LEDeG under the IUWM implementation project. BORDA (Bremen Overseas Research and Development Association), founded in 1977, is a civil society expert organisation focused on the provision of essential public services. BORDA South Asia operates in four countries: India, Bangladesh, Bhutan and Nepal. According to the World Bank, 2.5 billion people do not have access to improved sanitation. Through engagement with partner organisations, BORDA South Asia aims to improve the living conditions of socially disadvantaged groups by facilitating access to basic needs services such as sanitation, wastewater management and water provision while maintaining a safe environment. This is our contribution to creating liveable cities and communities for all.

Read More: *https://www.youtube.com/watch?si=H4fSXbirwjVtcKE1&v=Z_rwlyibr3o&feature=youtu.be*

WASH Facility Centre for Sanitation Workers of Leh

Bremen Overseas Research & Development Association (BORDA)
South Asia

The video is a testimonial of Leh Sanitation workers for the WASH Facility built for their convenience. The WASH Facility provides seperate washing, bathing, toilet, pantry areas for sanitation workers where they can get freshen up and take rest whenever necessary. The sanitation workers share how threatening their job was not only to them but to their families as they used to directly go to their homes with soiled clothed. They hardly had access to a proper safe toilet facility earlier. The WASH Facility targets to mitigate all these challenges of the workers and ensure safe and hygienic working conditions for them.

Read More: *https://www.youtube.com/watch?v=qtYDDBc1gcQ*

Plight of Sanitation Workers

Bremen Overseas Research & Development Association (BORDA)
South Asia

Sanitation workers are the most important part of the sanitation value chain and despite playing a vital role in town cleanliness and public health, they are usually marginalised and underappreciated by society, and face uncomfortable and unsafe conditions at work. The video highlights the plight of sanitation workers working condition and importance of WASH facility which provides access to basic services. BORDA (Bremen Overseas Research and Development Association), founded in 1977, is a civil society expert organisation focused on the provision of essential public services. BORDA South Asia operates in four countries: India, Bangladesh, Bhutan and Nepal. According to the World Bank, 2.5 billion people do not have access to improved sanitation. Through engagement with partner organisations, BORDA South Asia aims to improve the living conditions of socially disadvantaged groups by facilitating access to basic needs services such as sanitation, wastewater management and water provision while maintaining a safe environment. This is our contribution to creating liveable cities and communities for all.

Read More: *https://www.youtube.com/watch?v=5gXHD1J2N6k*

Aspirational Public Toilet at Chikkaballapur City, Karnataka

Bremen Overseas Research & Development Association (BORDA)
South Asia

In an effort to provide an Aspirational Public Toilet with easier access to quality and healthy sanitation, BORDA (South Asia) with its partner Technology Informatics Design Endeavour has supported the Chikkaballapur City Municipal Council, Karnataka in refurbishing the Public Toilet in the city.

Read More: *https://www.youtube.com/watch?v=Og_es_kSyow*

Sanitation Worker's Resting Facility, Chintamani CMC, Karnataka

Bremen Overseas Research & Development Association (BORDA)
South Asia

This video is a glimpse of the Sanitation Worker's Resting Facility in Chintamani, Karnataka

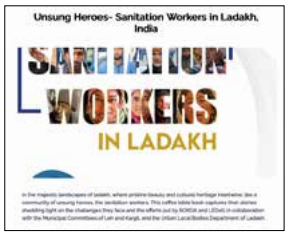
Read More: *https://www.youtube.com/watch?v=5kwgp7MQCQY*

A Video on Dignified Work Life Use of WASH Facility

Bremen Overseas Research & Development Association (BORDA)
South Asia

This video is a glimpse of the WASH Facility for sanitation workers in Nepal.

Read More: *https://www.youtube.com/watch?v=Qn0ERmu-AYw*



Unsung Heroes- Sanitation Workers in Ladakh, India

Bremen Overseas Research & Development Association (BORDA)
South Asia

In the majestic landscapes of Ladakh, where pristine beauty and cultural heritage intertwine, lies a community of unsung heroes, the sanitation workers. This coffee table book captures their stories, shedding light on the challenges they face and the efforts put by BORDA and LEDeG in collaboration with the Municipal Committees of Leh and Kargil, and the Urban Local Bodies Department of Ladakh.

Read More: *https://wash-towns.com/resources/unsung-heroes-sanitation-workers-in-ladakh-india*

Faecal Sludge Management Sanitation for All - A Visual Insight

Bremen Overseas Research & Development Association (BORDA)
South Asia

This book is about one of the global challenges to human communities - the handling and treatment of faecal waste. It shows the need for a proper Faecal management system and BORDA's work on the same through images and pictures.

Read More: *https://bordahq.sharepoint.com/sa/Publications/Forms/AllItems.aspx?id=%2Fsa%2FPublications%2F03%2E00%20Major%20Publications%2F01%2E00%20FSM%2F01%2E00%20FSM%20Photobook%2D2017%2Epdf&parent=%2Fsa%2FPublications%2F03%2E00%20Major%20Publications%2F01%2E00%20FSM&p=true&ga=1*

All-Weather Public Toilet The Dream Finally Comes True

Bremen Overseas Research & Development Association (BORDA) South Asia

"All-Weather Public Toilet – The dream finally comes true!" is a film on all-weather public toilets, and the importance of maintaining public sanitation and hygiene in Leh. We have made an effort to highlight simple methods to help us in overcoming the challenge of maintaining and operating public toilets in sub-zero temperatures in the winter through this film. The all-weather community toilet at Zangsti, Leh, was conceptualised and initiated by Ladakh Ecological Development Group with the help of its funding partner BORDA South Asia and supported by Municipal Committee Leh and Leh Development Authority. Let us pledge to keep our surroundings clean; let us avoid urinating in the open.

Read More: *https://www.youtube.com/watch?v=VRjGjugaxrg*

Faecal Sludge Treatment Plant (FSTP), Leh

Bremen Overseas Research & Development Association (BORDA) South Asia

This IEC document details out benefits and technical plan of the FSTP system installed in Leh

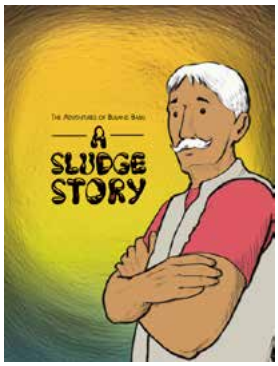
Read More: *https://bordahq.sharepoint.com/sa/Publications/Forms/AllItems.aspx?id=%2Fsa%2FPublications%2F02%2E00%20Factsheets%2F01%2E00%20FSTP%2F01%2E03%20FSTP%20Leh%20Factsheet%2D2017%2Epdf&parent=%2Fsa%2FPublications%2F02%2E00%20Factsheets%2F01%2E00%20FSTP&p=true&ga=1*

Double Boosting Pump : FSTP Leh

Bremen Overseas Research & Development Association (BORDA) South Asia

Manual scavenging is still practiced in India even though it is hazardous and unacceptable, and has resulted in the loss of human lives. Blue Water Company, a sanitation service company that provides end-to-end Faecal Sludge Management (FSM) services to make Leh the first ODF++ city in India, collects faecal sludge from septic tanks in Leh town, including the Army cantonment areas, and is later treated at Faecal Sludge Treatment Plant (FSTP) at Bombgarh near Housing Colony. The double boosting pump can collect sludge from inaccessible areas and narrow lanes even at a distance of more than 250 ft.

Read More: *https://www.youtube.com/watch?v=2ECtyJbO2Jo*



A Sludge Story - Comic Book

Consortium for DEWATS Dissemination India (CDD India), Bengaluru

This comic narrative highlights the efforts of ordinary citizens in Buland to tackle sanitation challenges, focusing on characters like Rahiul, an engineer, and Mrs. Swati, a local corporator. It addresses issues such as faecal waste management, open defecation, and inadequate treatment facilities, emphasizing the importance of community involvement and effective sanitation infrastructure. The story advocates for co-composting and proper desludging services to convert faecal sludge into safe agricultural inputs, promoting a cleaner environment and proactive waste management practices in Buland.

Read More: *https://cddindia.org/wp-content/uploads/2023/09/A-Sludge-Story-English-Comic-Book.pdf*

Wai-Citywide Inclusive Sanitation

Center for Water and Sanitation (CWAS), CRDF-CEPT University, Ahmedabad

This slide-deck presents a holistic view of the sanitation programme in Wai, starting from the preparation of City Sanitation Plan in 2013 to becoming an ODF++ city. Over these years, this city has shown that it is possible for a small town to deliver high quality, affordable, equitable and inclusive sanitation services to its citizens. Wai is now one of the eight global cities that are demonstrating the principles of Citywide Inclusive Sanitation.

Read More: *https://cwas.org.in/cwas-resources/wai-citywide-inclusive-sanitation*

Sinnar-Model for Sanitation

Center for Water and Sanitation (CWAS), CRDF-CEPT University, Ahmedabad

This book captures the journey of Sinnar city to become a model city for sanitation. Sinnar was declared an ODF city in 2017. The city resolved to pioneer scheduled desludging and set up an FSTP using its own funds. Donor funds to CWAS-CEPT from BMGF and HSBC were used for improving the sanitation infrastructure and services in the city. This book captures some of these interventions taken by Sinnar Municipal Council with support of CWAS-CEPT.

Read More: *https://cwas.org.in/cwas-resources/sinnar-a-model-city-for-sanitation*

Movie on Wai: Citywide Inclusive Sanitation

Center for Water and Sanitation (CWAS), CRDF-CEPT University, Ahmedabad

Wai city demonstrates citywide inclusive sanitation with support of Center for Water and Sanitation, CRDF, CEPT University.

Read More: *https://cwas.org.in/cwas-resources/movie-on-wai-citywide-inclusive-sanitation*

Training Module on Financing and Contracting Options for FSSM

Center for Water and Sanitation (CWAS), CRDF-CEPT University, Ahmedabad

The module on "Financing and contracting options for FSSM" focuses on how cities can leverage available public funds, augment these with private financing, encourage private sector role in service delivery and explore other blended and innovative financing mechanisms. It will provide guidance on potential service and operation models in FSSM for both conveyance and treatment. It has been developed in partnership with NIUA's Sanitation Capacity Building Platform.

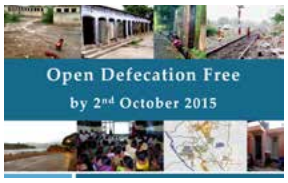
Read More: *https://cwas.org.in/cwas-resources/training-module-on-financing-and-contracting-options-for-fssmx*

Improving Safety of Sanitation Workers in Wai Municipal Council

Center for Water and Sanitation (CWAS), CRDF-CEPT University, Ahmedabad

Safety of sanitation workers has been acknowledged by Wai Municipal Council (WMC). As a step in this direction, a workshop was conducted by WMC with support from CWAS to sensitize sanitation workers towards occupational hazards and demonstrate the importance of PPE usage. The workshop oriented the workers towards appropriate use of PPEs, followed by a health camp which included general medical check-up of all workers.

Read More: *https://cwas.org.in/cwas-resources/improving-safety-of-sanitation-workers-in-wai-municipal-council*



Divisional Workshops for ULBs in Maharashtra: Making 100 cities ODF

Center for Water and Sanitation (CWAS), CRDF-CEPT University, Ahmedabad

A presentation was made to all cities in Maharashtra during division level workshops organized by the Urban Development Department, GoM, to share ideas and steps that are involved in making cities open defecation free.

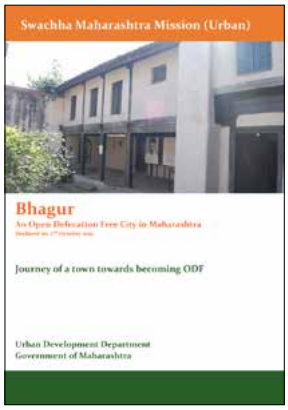
Read More: *https://cwas.org.in/cwas-resources/divisional-workshops-for-ulbs-in-maharashtra-making-100-cities-odf*

Divisional Workshops for All ULBs in Maharashtra (Round 2)

Center for Water and Sanitation (CWAS), CRDF-CEPT University, Ahmedabad

A presentation was made to all ULBs in Maharashtra for moving towards ODF+ and ODF++ Cities. It focused on five key components - Definition of ODF cities in Maharashtra, validation framework for declaration of ODF cities, moving towards "own toilets", ensuring the quality of construction of toilets & septic tanks and safe disposal of faecal waste

Read More: *https://cwas.org.in/cwas-resources/round-2-divisional-workshops-for-all-ulbs-in-maharashtra*

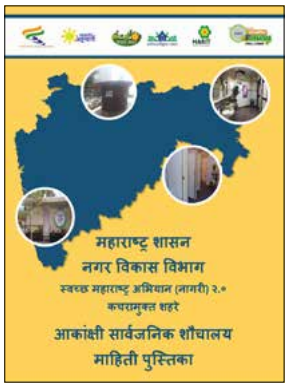


A Documentation of 19 Cities Declared Open Defecation Free (ODF)

Center for Water and Sanitation (CWAS), CRDF-CEPT University, Ahmedabad

The Chief Minister of Maharashtra, on 2nd December 2015, declared 19 cities in Maharashtra Open Defecation Free in a felicitation ceremony. PAS team has documented the success stories of these cities and their efforts toward becoming Open Defecation Free.

Read More: *https://cwas.org.in/cwas-resources/19-cities-declared-open-defecation-free-documentation*

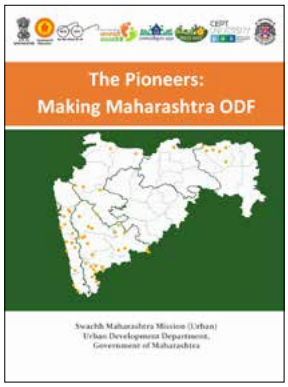


Swachh Maharashtra Mission 2.0 - Aspirational Toilets Information Booklet

Center for Water and Sanitation (CWAS), CRDF-CEPT University, Ahmedabad

On 30th September, Swachh Maharashtra Mission (Urban) 2.0 was launched. At this event in Mumbai, CWAS strengthened its long-standing partnership with Govt of Maharashtra by signing a MOU with the Urban Development Department, for supporting implementation of Citywide Inclusive Sanitation in urban areas. At the event, a booklet on Swachh Maharashtra Mission 2.0 was launched by Hon'ble Chief Minister Shri Eknath Shinde and Hon'ble Deputy Chief Minister Shri Devendra Fadnavis. This mission booklet was developed with support from CWAS team.

Read More: *https://cwas.org.in/cwas-resources/swachh-maharashtra-mission-2-0-aspirational-toilets-information-booklet*

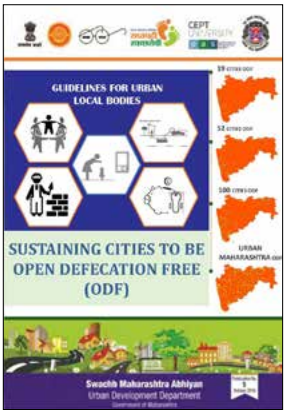


The Pioneers: Making Maharashtra Open Defecation Free (ODF)

Center for Water and Sanitation (CWAS), CRDF-CEPT University, Ahmedabad

This document summarizes the initiatives taken by ODF cities to achieve and sustain ODF status. It also highlights the extra efforts taken by some proactive ULBs and certain case specific solutions that were devised to address local challenges. Individual reports of the 19 ODF cities have been referred along with discussions with ULB officials of these cities.

Read More: *https://cwas.org.in/cwas-resources/the-pioneers-making-maharashtra-odf*



Sustaining Cities to be Open Defecation Free (ODF)

Center for Water and Sanitation (CWAS), CRDF-CEPT University, Ahmedabad

In a short span of time since the launch, the Swachh Maharashtra Mission has resulted in 52 ODF cities. The next crucial step is to maintain the ODF status of these cities. Sustainability of the ODF cities has to be based on a planned and systematic approach for which 'Guidelines for sustaining cities as Open Defecation Free (ODF)' has been prepared. These guidelines will not only channelize the efforts by the urban local bodies but will also help cities in achieving ODF+/ODF++ status.

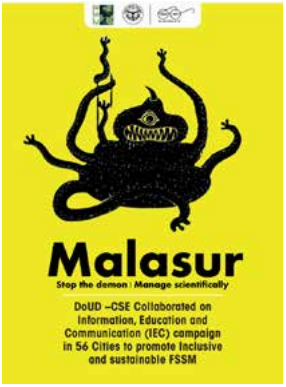
Read More: *https://cwas.org.in/cwas-resources/sustaining-cities-to-be-odf*

Divisional Workshops: Making 133 Cities ODF++

Center for Water and Sanitation (CWAS), CRDF-CEPT University, Ahmedabad

After achieving the target of making all cities ODF, the next aim of the Government of Maharashtra is to make cities ODF++ by implementing proper septage management and safe treatment of faecal matter. Workshops were conducted by CEPT in association with AIILSG Mumbai across all divisions in Maharashtra for 133 selected cities in order to expose municipal staff to the process of preparing a citywide septage management plan. The workshop presentations focused on emptying operations, treatment options, PSP engagement and financing.

Read More: *https://cwas.org.in/cwas-resources/divisional-workshops-making-133-cities-odf*



Malasur-Stop the demon | Manage scientifically

Centre for Science and Environment (CSE), New Delhi

The report the IEC campaign organised in 56 Cities to promote Inclusive and sustainable FSSM

Read More: *https://www.cseindia.org/malasur-stop-the-demon-manage-scientifically-12361*

Breaking the Taboo on Sanitation – A Behaviour Change Communication Strategy

Indian Institute for Human Settlements (IIHS), Bengaluru

This report examines the challenges to public health and overall development in Tamil Nadu due to inadequate sanitation. The Government of Tamil Nadu's 'Muzhu Sugadharam' initiative, implemented through the Tamil Nadu Urban Sanitation Support Programme (TNUSSP), emphasizes a holistic approach to sanitation. TNUSSP's unique Behavior Change Communication (BCC) strategy targets behavior deficits across the sanitation cycle, diverging from traditional methods. The report explores how this innovative strategy aims to create a supportive environment for behavior change, addressing diverse challenges, including open defecation and irregular septage disposal, ultimately contributing to the goal of achieving total sanitation in Tamil Nadu.

Read More: *https://tnussp.co.in/wp-content/uploads/2020/08/practice-brief-3_13-June-2018-min.pdf*

Nam Kadamai - A Film on Septage Management

Indian Institute for Human Settlements (IIHS), Bengaluru

These films directed at senior level decision-makers/ ULB leaders and the general public attempt at portraying septage management as a credible option for small and medium towns, and as value-for-money complements to achieve 100% sanitation in the larger cities that have underground drainage (UGD, or sewerage) systems, but do not cover the entire city.

Read More: *https://www.youtube.com/watch?v=5G3JKZevwG0*

Nam Kadamai- A Film on Septage Management - Periyanaickenpalayam

Indian Institute for Human Settlements (IIHS), Bengaluru

These films directed at senior level decision-makers/ ULB leaders and the general public attempt at portraying septage management as a credible option for small and medium towns, and as value-for-money complements to achieve 100% sanitation in the larger cities that have underground drainage (UGD, or sewerage) systems, but do not cover the entire city.

Read More: *https://www.youtube.com/watch?v=L_xlHDPBLvU*

SDG 6.2 – A Pipe Dream Without a Professional Sanitation Workforce, IIHS at UNWC 2023

Indian Institute for Human Settlements (IIHS), Bengaluru

Sanitation workers operate in a highly unregulated environment as a largely undocumented resource. Conversations and efforts to improve their health, safety, dignity, employment security, and quality of life are rare. The need and demand for sanitation services in Africa and South Asia outstrip current coverage due to rapid urbanisation and sluggish (or non-existent) investment in sanitation service provision.

This session, in line with the UN sanitation agenda, will showcase holistic experiences from the African and South Asian contexts and aims to discuss solutions based on research, practice and practical experiences of sanitation workers and lay the foundations to progress towards their overall well-being. Further, the session brings together diverse partners working in South Asia & Africa, representatives of workers and sanitation businesses to share successes, lessons, and existing efforts.

Event Partners:
Pan-African Sanitation Actors | WaterAid | World Health Organization | SNV Netherlands Development Organization | Sustainable Sanitation Alliance | International Labour Organization | World Bank | UN-Habitat

Read More: *https://www.youtube.com/watch?v=4buhqISQwho*

Management of CT/PTs- Case of Tiruchirappalli

Indian Institute for Human Settlements (IIHS), Bengaluru

This module outlines the importance of well-maintained Community Toilets (CT) and Public Toilets (PT) in urban areas of Tamil Nadu. It defines CTs and PTs, emphasizing their role in providing accessible sanitation for all citizens. It also showcases the five management models for these facilities, ranging from direct Urban Local Body (ULB) management to private contractors and community. And highlights the significance of design, maintenance, and effective management in ensuring hygienic and usable public sanitation facilities for diverse populations, including differently-abled individuals.

Read More: *https://www.youtube.com/watch?v=QV-ozqiuAnw*

Motorised De-Sludging - A Simple Innovation for a Big Change Annai Septic Tank Cleaners, Coimbatore

Indian Institute for Human Settlements (IIHS), Bengaluru

Kannan began his journey following his father's profession of manual scavenging. While working at a client's house he saw a water pumping motor, which he thought could be adapted for desludging. This idea was the beginning of Annai Septic Tank Desludging Services in 1995. He brought a tricycle, on which he mounted Sintex drums along with a succession pump and began offering mechanised desludging services . In 2002, when motorised vacuum trucks were introduced for desludging, Kannan bought one truck to do the desludging. Today, Annai Desludging Services has a fleet of 13 trucks which travel all over Coimbatore and neighbouring districts desludging both household septic tanks and containment structures in bulk generators. In 2017, Kannan was given a special award by the India Sanitation Coalition (ISC) for providing safe desludging services for three decades, during the ISC-FICCI Sanitation Awards in New Delhi. He was also was felicitated by Hardeep Singh Puri, Minister of State, Ministry of Housing and Urban Affairs, at the India Sanitation Conclave at FICCI House.

Read More: *https://www.youtube.com/watch?v=5YuTQ8nYJWY*

Localising SDGs, Accelerating Urban WASH – Lessons from Tamil Nadu, India

Indian Institute for Human Settlements (IIHS), Bengaluru

Finding sustainable approaches to achieve universal and immediate access to WASH is the need of the hour. Drawing from one of the largest global SDG 6 programmes that have impacted over 16 million people across 200 towns, this session offers lessons from the Tamil Nadu Urban Sanitation Support Programme (TNUSSP). Having started with a focus on FSM, TNUSSP has taken on a broader mandate of inclusive and sustainable sanitation services. This session intends to draw on the experience of government representatives and practitioners from the programme who have led the design, development, and implementation of unique context-based solutions for total and inclusive sanitation. Aligning with the UN's Water Agenda, the session will highlight how these solutions have acted as levers of change and can transfer to other contexts to accelerate safe and sustainable WASH.

Read More: *https://www.youtube.com/watch?v=Et4paH7VF_Y*

Support for Landscaping and Aesthetic Uplift for FSTPs in Tamil Nadu

Indian Institute for Human Settlements (IIHS), Bengaluru

The Tamil Nadu Government's Fecal Sludge Management initiative, in collaboration with TNUSSP, employs a clustered approach for 649 urban local bodies. The State Investment Plan involves constructing 56 Fecal Sludge Treatment Plants (FSTPs) as resource centers, emphasizing landscaping, visitor-friendly spaces, and awareness for sanitation workers. This strategic transformation aims to alter public perception, raise environmental awareness, and improve the well-being of sanitation workers, reflecting a comprehensive and sustainable approach to urban sanitation.

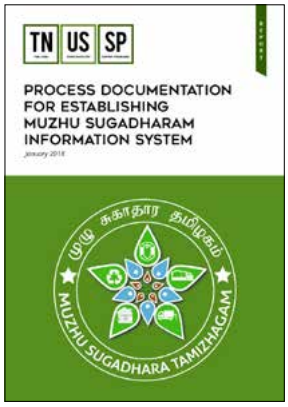
Read More: *https://tnussp.co.in/wp-content/uploads/2023/06/Support-for-Landscaping-and-Aesthetic-Uplift-of-FSTPs-in-TamilNadu-16-june-2022.pdf*

A Film on Septage Management for General Public

Indian Institute for Human Settlements (IIHS), Bengaluru

The film addresses the general public and describes the importance of septage management as a credible, value-for-money option for small and medium towns. It also complements the attempt to achieve 100% sanitation in larger cities that have underground drainage systems, but do not cover the entire city.

Read More: *https://www.youtube.com/watch?feature=shared&v=QEjaY3jfoQ4*

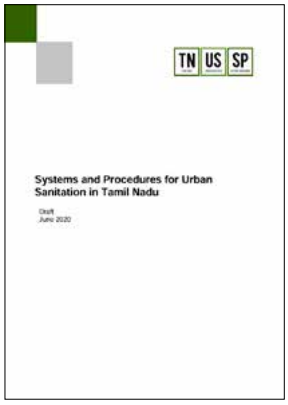


Process Documentation for Establishing Muzhu Sugadharam Information System

Indian Institute for Human Settlements (IIHS), Bengaluru

The Muzhu Sugadharam (MuSu) Information System, initiated by the Government of Tamil Nadu and implemented by the Tamil Nadu Urban Sanitation Support Programme (TNUSSP), aims to collect and compile accurate septage management data at the Urban Local Body (ULB) level. This report provides insights into the system's design, development processes, and monitoring mechanisms aligned with the Operative Guidelines for Septage Management.

Read More: *https://tnussp.co.in/wp-content/uploads/2021/06/Muzhu-Sugadharam-Information-System.pdf*



Systems and Procedures for Urban Sanitation in Tamil Nadu

Indian Institute for Human Settlements (IIHS), Bengaluru

The document outlines the urban sanitation systems and procedures in Tamil Nadu, emphasizing the Government's focus on Fecal Sludge Management (FSM) for improved public health. The report evaluates existing systems, identifies gaps, and proposes recommendations for enhanced FSM service delivery. It details responsibilities at the state, regional, and Urban Local Body (ULB) levels, addressing issues in access, containment, collection, conveyance, and treatment. The recommendations involve strengthening roles, introducing new processes, and ensuring sustainability for FSM in the institutional framework.

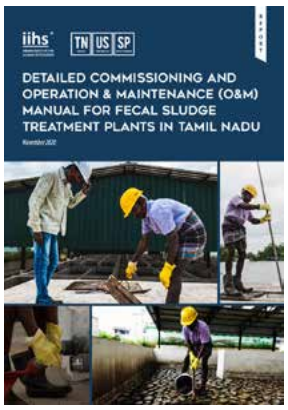
Read More: *https://tnussp.co.in/wp-content/uploads/2020/09/TNUSSP-Systems-Procedures-for-Urban-Sanitation-in-Tamil-Nadu.pdf*

Quality Assurance Support for Implementation of Fecal Sludge Treatment Plants in Tamil Nadu

Indian Institute for Human Settlements (IIHS), Bengaluru

This document details the Quality Assurance (QA) support provided by TNUSSP's Technical Support Unit during the construction of Fecal Sludge Treatment Plants (FSTPs). The report aims to understand processes, assess initiatives, and highlight the effectiveness of QA in FSTP implementation.

Read More: *https://tnussp.co.in/wp-content/uploads/2023/06/QA-Support-for-Implementation-of-FSTPs-in-TN-17-nov-2022.pdf*

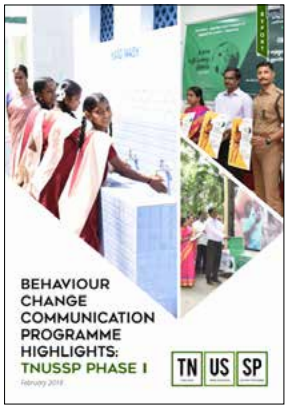


Detailed Commissioning and Operations and Maintenance Manual for FSTPs in Tamil Nadu

Indian Institute for Human Settlements (IIHS), Bengaluru

This manual provides guidance for operators, caretakers, and maintenance personnel for executing routine, specific, and critical tasks. It centers on the operation and maintenance of gravity-based decentralized Fecal Sludge Treatment Plants, aiming to guarantee the optimal performance and efficiency of all fecal sludge treatment infrastructures. This report serves as a valuable resource for personnel involved in the day-to-day management of these essential facilities.

Read More: *https://tnussp.co.in/wp-content/uploads/2022/11/Detailed-Commissioning-and-OM-Manual-for-FSTPs-in-TN_21-nov-2022.pdf*



Behaviour Change Communication Programme Highlights: TNUSSP Phase I

Indian Institute for Human Settlements (IIHS), Bengaluru

The Tamil Nadu Urban Sanitation Support Programme (TNUSSP), a collaborative effort between the Government of Tamil Nadu and the Bill and Melinda Gates Foundation, is dedicated to achieving holistic sanitation coverage in Tiruchirappalli, Periyanaicken-palayam, and Narasimhanaicken-palayam. With a strategic emphasis on Behavior Change and Communication (BCC), the program utilizes targeted communication campaigns for specific audiences, including school children, and broad outreach activities during events like World Toilet Day. These initiatives aim to heighten awareness, enhance knowledge of safe sanitation practices, and cultivate an environment conducive to meaningful behavior change. This report succinctly outlines the communication endeavors undertaken in the specified regions.

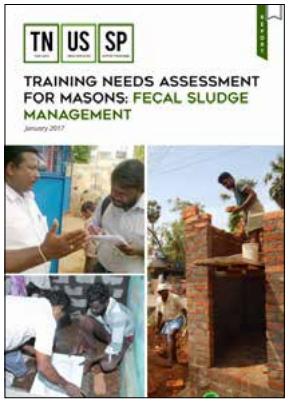
Read More: *https://drive.google.com/file/d/1RvxHY_RmqD9LmRMKRgdVgEmSg56MkF3P/view*

Summary Report of Trainings on FSM: TNUSSP Phase I

Indian Institute for Human Settlements (IIHS), Bengaluru

The report outlines the training initiatives conducted by the Technical Support Unit (TSU) focuses on achieving comprehensive sanitation improvements in Tiruchirappalli and Coimbatore. The training covers various stakeholders, including government officers, engineers, masons, and desludging operators, addressing gaps in knowledge on fecal sludge management. The report recommends scaling up training through government agencies and incorporating FSSM into academic curricula.

Read More: *https://drive.google.com/file/d/1NSwqYmum0WokYIoXE7LLOiswChHtjWMy/view*

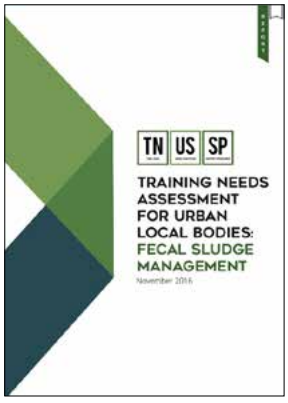


Training Needs Assessment for Masons: Fecal Sludge Management

Indian Institute for Human Settlements (IIHS), Bengaluru

The Training Needs Assessment (TNA) conducted by TNUSSP focused on evaluating masonry practices in toilet and on-site sanitation system construction in Tamil Nadu. The study, conducted between November and December 2016, involved 70 masons from Tiruchirappalli and town panchayats. Findings revealed a knowledge gap among masons regarding the construction of structures aligned with standards. Most masons lacked formal technical education, relying on familial traditions. A significant proportion showed deviations from standards in building septic tanks and twin pits. The study emphasizes the necessity of sensitizing masons to construction standards and providing practical training.

Read More: *https://drive.google.com/file/d/1a9sEWuI7-k6xPpQnqFPz2TTlhKjtShcV/view*



Training Needs Assessment for Urban Local Bodies: Fecal Sludge Management

Indian Institute for Human Settlements (IIHS), Bengaluru

The Training Needs Assessment (TNA) conducted for the Tamil Nadu Urban Sanitation Support Programme (TNUSSP) uncovers capacity and awareness gaps in fecal sludge management. The study recommends a strategy targeting government officers and urban local bodies, emphasizing designated roles, capacity-building, and tailored training programs. The goal is to enhance knowledge and skills at different levels, fostering a comprehensive approach to sanitation in Tamil Nadu.

Read More: *https://drive.google.com/file/d/1HIAPnRaEz-5WzBI7MZb70kJaq_aexbfs/view*

Capacity Building for FSM in Tamil Nadu

Indian Institute for Human Settlements (IIHS), Bengaluru

Capacity building is crucial in the water supply and sanitation sector, addressing gaps in knowledge and skills. The Tamil Nadu Urban Sanitation Support Programme (TNUSSP) conducted a Training Needs Assessment (TNA) for stakeholders involved in Fecal Sludge Management (FSM) in Tamil Nadu. As on-site sanitation systems are prevalent, focusing on masons, de-sludging operators, and Urban Local Bodies (ULBs) representatives is pivotal. The TNA identified organizational structures, competencies, and training needs to enhance capacities for safe sanitation and public health outcomes. TNUSSP aims to equip key stakeholders with the latest FSM knowledge and the necessary capacities for effective implementation.

Read More: *https://tnussp.co.in/wp-content/uploads/2020/08/practice-brief-2_13-June-2018-min.pdf*

Legal and Institutional Arrangements for Sanitation in Tamil Nadu

Indian Institute for Human Settlements (IIHS), Bengaluru

In Tamil Nadu, the lack of adequate sanitation hinders its development and public health goals, particularly in smaller urban settlements relying on on-site sanitation systems. Despite larger cities receiving policy attention, deficits along the full sanitation cycle persist in smaller areas. To address this, the Government of Tamil Nadu prioritized the full cycle of sanitation and issued Operative Guidelines for Septage Management in 2014. However, existing legal and institutional arrangements lack coordination, resulting in administrative fragmentation. The report offers a comprehensive review, identifying key areas for improvement and providing recommendations to achieve 100% safe sanitation, aligning with broader public health objectives in the state.

Read More: *https://tnussp.co.in/wp-content/uploads/2020/08/practice-brief-1_13-June-2018-min.pdf*

Assessment of Behaviour Change Communication TNUSSP Phase-I

Indian Institute for Human Settlements (IIHS), Bengaluru

This report assesses the Behavior Change Communication (BCC) Strategy of the Tamil Nadu Urban Sanitation Support Programme (TNUSSP) Phase 1 (Nov 2015 - Nov 2017). Focusing on three umbrella campaigns, the evaluation highlights impactful videos, challenges in state-wide launches, and operational constraints. Key recommendations emphasize nurturing volunteer groups, enhancing sustained campaigns, scoping district-level activities, and leveraging local partnerships for broader program implementation and increased outreach.

Read More: *https://drive.google.com/file/d/19iKAMu3curOLWkG8Y5CLZLAuybVStviM/view*

Assessment of Training Programmes on FSM: TNUSSP Phase I

Indian Institute for Human Settlements (IIHS), Bengaluru

This report evaluates the capacity-building initiatives of the Tamil Nadu Urban Sanitation Support Programme (TNUSSP) Phase I. Ipsos (a multinational research company) conducted an independent assessment of training programs for masons, desludging operators, and government officers. Positive impacts were observed in masons' practices and DOs' operational awareness, while officers reported improved sanitation efforts. Recommendations include enhancing practical training, sustaining efforts to valorize desludging operators, and providing awareness to engineers. Identifying peer educators and addressing specific stakeholder needs will contribute to the program's effectiveness.

Read More: *https://drive.google.com/file/d/1absHmNqMCOAPnnkYI3Pno4bjUdx60TzK/view*

Behaviour Change Communication Strategy: Fecal Sludge Management in Tamil Nadu

Indian Institute for Human Settlements (IIHS), Bengaluru

The report details the Bill and Melinda Gates Foundation's support to the Government of Tamil Nadu's Sanitation Mission through the Tamil Nadu Urban Sanitation Support Programme (TNUSSP). The focus is on establishing a Technical Support Unit (TSU) and implementing Behavior Change and Communication (BCC) strategies. The report outlines umbrella campaigns and specific initiatives addressing sanitation challenges, including septage management and the portrayal of sanitary workers. Nudges are incorporated for effective behavior change. The objective is to enhance urban sanitation in targeted areas, fostering innovation and addressing critical deficits along the sanitation chain.

Read More: *https://drive.google.com/file/d/16FYslrgZwa0BBgMg3ffdArjNzkO8dvL6/view*

A Film on Karunguzhi FSTP

Indian Institute for Human Settlements (IIHS), Bengaluru

Tamil Nadu has one operational Fecal Sludge Treatment Plant (FSTP) in Karunguzhi Town Panchayat, situated 82 km from Chennai. The FSTP is built on 1.5 acres of land and has a capacity of 23.40 kilo litre per day. The FSTP works on natural biological treatment system. This film shows the different units of the FSTP and how the treatment takes place.

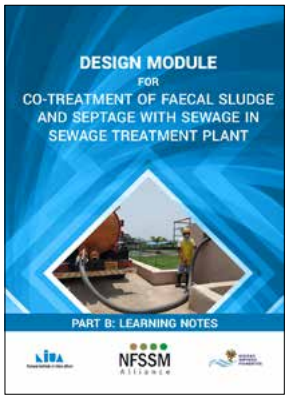
Read More: *https://www.youtube.com/watch?v=FwJ1yrOg6I8*

Co-treatment in Tamil Nadu- Summing Up the Efforts!

Indian Institute for Human Settlements (IIHS), Bengaluru

This video showcases Tamil Nadu's experience with Co-treatment and how TNUSSP is working with the Government to scale this effort across the state. It highlights the advantages of Co-treatment and presents its national-level potential.

Read More: *https://www.youtube.com/watch?v=xbAeRDeaL4k*



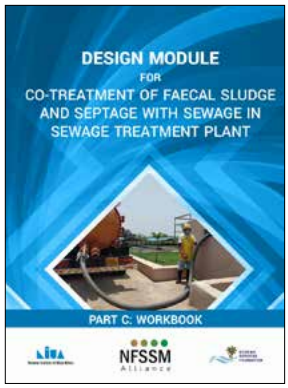
Design Module for Co-treatment of Faecal Sludge and Septage with Sewage in STP (Part B: Learning Notes)

National Institute of Urban Affairs (NIUA), New Delhi

The module aims to convey the following learnings:

- Understand the working principles of Sewage Treatment Plant
- Understand how to conduct feasibility assessment of existing sewage treatment plants (STPs) to evaluate Co-treatment potential and quantify the amount of FSS that can be cotreated
- Know the approaches for adding faecal sludge in a STP for Co-treatment along with the design of additional components such as septage receiving station
- Gain insight into the operation and maintenance as well as mitigation measures for different treatment units in a STP

Read More: *https://scbp.niua.org/sites/all/themes/zap/knowledge/CO-treatement%20B%2012-11-2021.pdf*



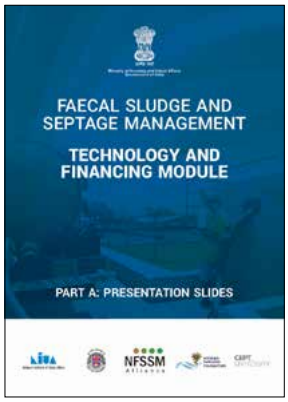
Design Module for Co-treatment of Faecal Sludge and Septage with Sewage in STP (Part C: Workbook)

National Institute of Urban Affairs (NIUA), New Delhi

The module aims to convey the following learnings:

- Understand the working principles of Sewage Treatment Plant
- Understand how to conduct feasibility assessment of existing sewage treatment plants (STPs) to evaluate Co-treatment potential and quantify the amount of FSS that can be cotreated
- Know the approaches for adding faecal sludge in a STP for Co-treatment along with the design of additional components such as septage receiving station
- Gain insight into the operation and maintenance as well as mitigation measures for different treatment units in a STP

Read More: *https://scbp.niua.org/sites/all/themes/zap/knowledge/Co-treatment%20C%2009-11-2021.pdf*



FSSM: Technology and Financing Module Part 2A: Presentation Slides

National Institute of Urban Affairs (NIUA), New Delhi

By the end of the workshop through experience sharing participants are expected to achieve:

- Understanding the sanitation value chain with challenges and need for addressing septage management solutions for their cities.
- Understanding of regulatory frame work, planning and financial options for Faecal Sludge Management initiatives in their cities and towns.
- Understanding technology options for treatment of septage through site visit and interaction with engineers and city officials.
- Understanding the importance of implementing small incremental Faecal Sludge and waste water Treatment measures in their cities and towns.

Read More: *https://scbp.niua.org/sites/all/themes/zap/knowledge/2A_-_PPT2.pdf*

FSSM: Technology and Financing Module Part 2B: Learning Notes

National Institute of Urban Affairs (NIUA), New Delhi

By the end of the workshop through experience sharing participants are expected to achieve:

- Understanding the sanitation value chain with challenges and need for addressing septage management solutions for their cities.
- Understanding of regulatory frame work, planning and financial options for Faecal Sludge Management initiatives in their cities and towns.
- Understanding technology options for treatment of septage through site visit and interaction with engineers and city officials.
- Understanding the importance of implementing small incremental Faecal Sludge and waste water Treatment measures in their cities and towns.

Read More: *https://scbp.niua.org/sites/all/themes/zap/knowledge/2B%20-%20Learing%20Notes_0.pdf*

Faecal Sludge and Septage Management Planning Module (Presentation Slide: Part A)

National Institute of Urban Affairs (NIUA), New Delhi

To build the capacities of ULB and state officials on planning of faecal sludge and septage management. This course will introduce the target audience to components of FSSM planning starting with approach and methodology for state and city level FSSM planning, aspects of FSSM, stakeholder's engagement, treatment approaches, financial aspects and O&M mechanisms. This module is crucial for officials of cities to be able to achieve the objectives under SBM-U 2.0 and AMRUT 2.0..

Read More: *https://scbp.niua.org/sites/all/themes/zap/knowledge/FSSM_Part%20A_May%202022.pdf*

Faecal Sludge and Septage Management Planning Module (Learning Notes: Part B)

National Institute of Urban Affairs (NIUA), New Delhi

To build the capacities of ULB and state officials on planning of faecal sludge and septage management. This course will introduce the target audience to components of FSSM planning starting with approach and methodology for state and city level FSSM planning, aspects of FSSM, stakeholder's engagement, treatment approaches, financial aspects and O&M mechanisms. This module is crucial for officials of cities to be able to achieve the objectives under SBM-U 2.0 and AMRUT 2.0..

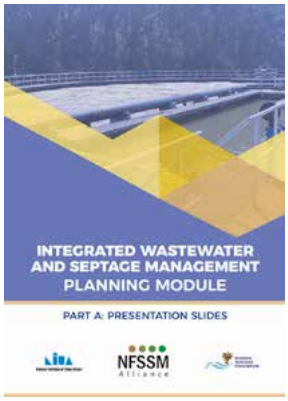
Read More: *https://scbp.niua.org/sites/all/themes/zap/knowledge/FSSM%20Planning%20Part%20B_May%202022.pdf*

Faecal Sludge and Septage Management Planning Module (Learning Notes: Part C)

National Institute of Urban Affairs (NIUA), New Delhi

To build the capacities of ULB and state officials on planning of faecal sludge and septage management. This course will introduce the target audience to components of FSSM planning starting with approach and methodology for state and city level FSSM planning, aspects of FSSM, stakeholder's engagement, treatment approaches, financial aspects and O&M mechanisms. This module is crucial for officials of cities to be able to achieve the objectives under SBM-U 2.0 and AMRUT 2.0..

Read More: *https://scbp.niua.org/sites/all/themes/zap/knowledge/FSSM_Part-%20C%2013-12-2021%20Final.pdf*

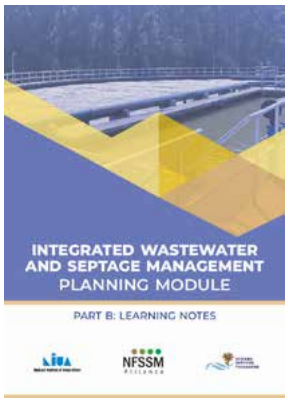


Integrated Wastewater and Septage Management- Planning Module (Part A: Presentation Slides)

National Institute of Urban Affairs (NIUA), New Delhi

The module introduces a city/town perspective of an integrated planning approach to managing wastewater and septage including methods and technological options for treatment. With the announcement of SBM-U 2.0 and AMRUT 2.0, continuation of NMCG and the recommendations of the 15th Finance Commission, this course provides participants a holistic understanding of wastewater and septage management approaches, which is a key component in these national missions.

Read More: *https://scbp.niua.org/sites/all/themes/zap/knowledge/IWSM_Part_A_26Jan2022).pdf*

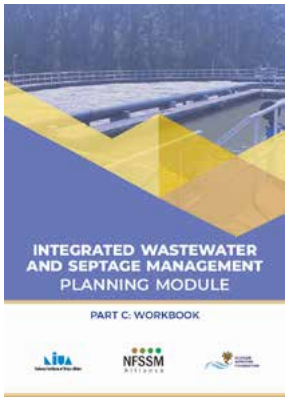


Integrated Wastewater and Septage Management- Planning Module (Part B: Learning Notes)

National Institute of Urban Affairs (NIUA), New Delhi

The module introduces a city/town perspective of an integrated planning approach to managing wastewater and septage including methods and technological options for treatment. With the announcement of SBM-U 2.0 and AMRUT 2.0, continuation of NMCG and the recommendations of the 15th Finance Commission, this course provides participants a holistic understanding of wastewater and septage management approaches, which is a key component in these national missions.

Read More: *https://scbp.niua.org/sites/all/themes/zap/knowledge/IWSM_Part_B_%2012-11-2021.pdf*

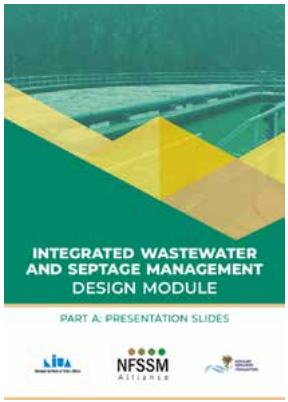


Integrated Wastewater and Septage Management- Planning Module (Part C: Workbook)

National Institute of Urban Affairs (NIUA), New Delhi

The module introduces a city/town perspective of an integrated planning approach to managing wastewater and septage including methods and technological options for treatment. With the announcement of SBM-U 2.0 and AMRUT 2.0, continuation of NMCG and the recommendations of the 15th Finance Commission, this course provides participants a holistic understanding of wastewater and septage management approaches, which is a key component in these national missions.

Read More: *https://scbp.niua.org/sites/all/themes/zap/knowledge/IWSM_TM_Part_C_01-10-2021_(web).pdf*

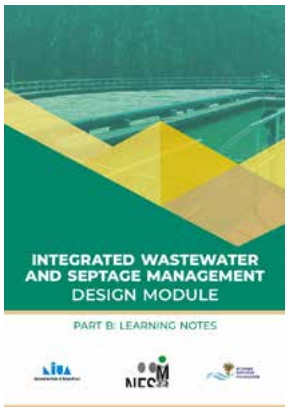


Integrated Wastewater and Septage Management- Design Module (Part A: Presentation Slides)

National Institute of Urban Affairs (NIUA), New Delhi

The Government of India has made sanitation its priority through the launch of Swachh Bharat Mission. SBM-U 2.0 goes beyond eliminating open defecation in cities, to focus on planning sanitation systems at city-level, through integrated wastewater and septage management targeted at recycle and reuse. Further, the recently announced Atal Mission for Rejuvenation and Urban Transformation (AMRUT 2.0) lays emphasis on creating a circular economy of water by ensuring treatment and reuse of wastewater and faecal sludge. This Module provides participants a holistic understanding of designing of wastewater and septage management solutions, to address the above mentioned priorities under these national missions.

Read More: *https://scbp.niua.org/sites/all/themes/zap/knowledge/IWSM_DM_Part_A%2012-11-2021%20Low%20Size.pdf*

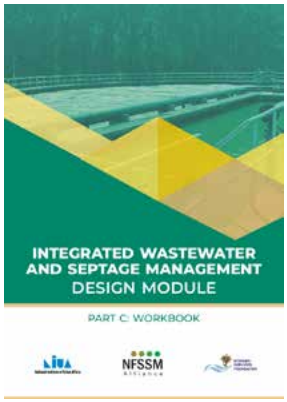


Integrated Wastewater and Septage Management- Design Module (Part B: Learning Notes)

National Institute of Urban Affairs (NIUA), New Delhi

The Government of India has made sanitation its priority through the launch of Swachh Bharat Mission. SBM-U 2.0 goes beyond eliminating open defecation in cities, to focus on planning sanitation systems at city-level, through integrated wastewater and septage management targeted at recycle and reuse. Further, the recently announced Atal Mission for Rejuvenation and Urban Transformation (AMRUT 2.0) lays emphasis on creating a circular economy of water by ensuring treatment and reuse of wastewater and faecal sludge. This Module provides participants a holistic understanding of designing of wastewater and septage management solutions, to address the above mentioned priorities under these national missions.

Read More: *https://scbp.niua.org/sites/all/themes/zap/knowledge/IWSM_DM_Part_B_12-11-2021.pdf*



Integrated Wastewater and Septage Management- Design Module (Part C: Workbook)

National Institute of Urban Affairs (NIUA), New Delhi

"The Government of India has made sanitation its priority through the launch of Swachh Bharat Mission. SBM-U 2.0 goes beyond eliminating open defecation in cities, to focus on planning sanitation systems at city-level, through integrated wastewater and septage management targeted at recycle and reuse. Further, the recently announced Atal Mission for Rejuvenation and Urban Transformation (AMRUT 2.0) lays emphasis on creating a circular economy of water by ensuring treatment and reuse of wastewater and faecal sludge. This Module provides participants a holistic understanding of designing of wastewater and septage management solutions, to address the above mentioned priorities under these national missions. "

Read More: *https://scbp.niua.org/sites/all/themes/zap/knowledge/IWSM_DM_Part_C_12-11-2021.pdf*

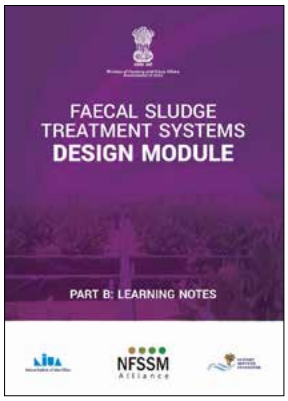
Faecal Sludge Treatment System Design Module (Part A: Presentation Slides)

National Institute of Urban Affairs (NIUA), New Delhi

The module aims to convey the following learning:

- Understanding characteristics and methods of quantifying faecal sludge and septage (FSS)
- Financial viability and planning of regular desludging of on-site sanitation systems such as septic tanks, at town level
- Understand the FSS treatment principles, for mechanized and non-mechanized treatment technologies in different context/geographies.
- Develop a know-how of different design aspects such as treatment technologies, siting and layout planning, and operation and maintenance of a treatment plant

Read More: *https://scbp.niua.org/sites/all/themes/zap/knowledge/Design%20Module%20Part%203A_15-11-2021%20web%20low%20Size.pdf*



Faecal Sludge Treatment System Design Module (Part B: Learning Notes)

National Institute of Urban Affairs (NIUA), New Delhi

The module aims to convey the following learning:

- Understanding characteristics and methods of quantifying faecal sludge and septage (FSS)
- Financial viability and planning of regular desludging of on-site sanitation systems such as septic tanks, at town level
- Understand the FSS treatment principles, for mechanized and non-mechanized treatment technologies in different context/geographies.
- Develop a know-how of different design aspects such as treatment technologies, siting and layout planning, and operation and maintenance of a treatment plant

Read More: *https://scbp.niua.org/sites/all/themes/zap/knowledge/Design%20Module%203B-%2011-11-2021.pdf*

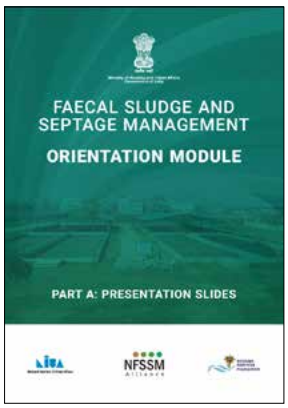
Faecal Sludge Treatment System Design Module (Part C: Workbook)

National Institute of Urban Affairs (NIUA), New Delhi

The module aims to convey the following learning:

- Understanding characteristics and methods of quantifying faecal sludge and septage (FSS)
- Financial viability and planning of regular desludging of on-site sanitation systems such as septic tanks, at town level
- Understand the FSS treatment principles, for mechanized and non-mechanized treatment technologies in different context/geographies.
- Develop a know-how of different design aspects such as treatment technologies, siting and layout planning, and operation and maintenance of a treatment plant

Read More: *https://scbp.niua.org/sites/all/themes/zap/knowledge/3C%20-%20Workbook%203C.pdf*

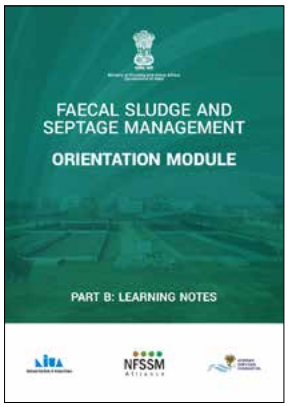


Faecal Sludge and Septage Management (FSSM) Orientation Module Part A: Presentation Slides

National Institute of Urban Affairs (NIUA), New Delhi

There are centralized and decentralized / on site systems of treatment of wastewater and septage. While conventional sewerage may be a comprehensive system for sewage collection and transport, it also is a highly resource intensive technology for CapEx and OpEx. Consequently, high capital cost and significant O&M cost of this system inhibits its widespread adoption in all sizes of urban areas. The Handbook attempts to instil a rational perspective for tackling urban sanitation challenge, without being prescriptive or offering single technology solutions. This is a compendium of planning process and technologies involved in treatment of faecal sludge and septage considering solid and liquid treatment

Read More: *https://scbp.niua.org/sites/all/themes/zap/knowledge/1A%20-%20PPT_Revised.pdf*



Faecal Sludge and Septage Management (FSSM) Orientation Module Part B: Learning Notes

National Institute of Urban Affairs (NIUA), New Delhi

There are centralized and decentralized / on site systems of treatment of wastewater and septage. While conventional sewerage may be a comprehensive system for sewage collection and transport, it also is a highly resource intensive technology for CapEx and OpEx. Consequently, high capital cost and significant O&M cost of this system inhibits its widespread adoption in all sizes of urban areas. The Handbook attempts to instil a rational perspective for tackling urban sanitation challenge, without being prescriptive or offering single technology solutions. This is a compendium of planning process and technologies involved in treatment of faecal sludge and septage considering solid and liquid treatment

Read More: *https://scbp.niua.org/sites/all/themes/zap/knowledge/1B%20-%20LEARNING%20NOTES_Updated.pdf*

Solid Waste Management Practices in Urban India: A Compendium

National Institute of Urban Affairs (NIUA), New Delhi

The compendium titled "Solid Waste Management Practices in Urban India" (2019) is a comprehensive resource that documents innovative waste management strategies implemented across various cities in India. It is developed to serve as a reference guide for Urban Local Bodies (ULBs) to adopt and improve their municipal solid waste management practices. The document is structured based on the population sizes and administrative setups of the cities and focuses on practices such as waste segregation, door-to-door collection, composting, waste-to-energy conversion, and decentralized waste management solutions.

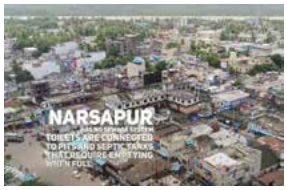
Read More: *https://niua.in/resources-and-waste/sites/default/files/2022-04/Final_Compendium.pdf*

An Almanac of Waste Management Practices

National Institute of Urban Affairs (NIUA), New Delhi

The document outlines various innovative waste management practices implemented across India under the Swachh Bharat Mission (SBM). It highlights specific approaches adopted in different cities, categorized into Tourist, Capital and Administrative, Industrial and Commercial, and Trailblazer cities. The practices involve strategies like waste segregation, decentralized waste management, and conversion of waste into energy, biogas, and compost. The document also discusses the roles of different municipal corporations and private organizations in managing solid waste, creating employment opportunities, and ensuring environmental sustainability. The Material Recovery Facility at Jigani, Bengaluru, and the community-based waste management facility Kasa Rasa in Koramangala, showcase decentralized waste handling and segregation into multiple categories for recycling. Additionally, cities like Alappuzha and Lonavala have developed community-oriented waste management practices, including biogas plants and composting facilities. These efforts not only address environmental challenges but also provide economic benefits through upcycling and resource recovery. The document serves as a resource for Urban Local Body (ULB) officials, offering technical specifications, financial details, and contact information to aid in the implementation of solid waste management plans. It also emphasizes peer learning and knowledge sharing among cities."

Read More: *https://niua.in/resources-and-waste/sites/default/files/2022-04/SBM_Alamanac_Low.pdf*



Sanitation Businesswomen in Narsapur

National Faecal Sludge and Septage Management (NFSSM) Alliance

Venkatalakshmi, a resident of Narsapur, is an inspiring businesswoman who fought against all odds to implement sustainable sanitation in her hometown. She recognized a business opportunity and financed it herself to buy a series of desludging trucks, hired drivers, and painted them to make them appealing. Despite facing resistance and violence, she continued to work and grow her business, empowering her family to work with her. Today, she is being supported by the town of Narsapur in building a state-of-the-art treatment plant, empanelling desludging operators, and providing safety training for regular desludging. Venkatalakshmi's story is a testament to the power of involving citizens, especially women, in providing a roadmap to enter the sanitation business in India.

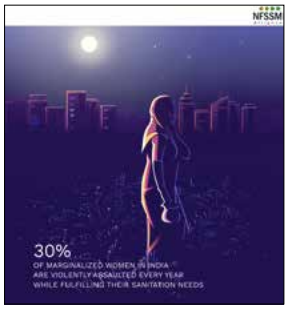
Read More: *https://www.youtube.com/watch?v=r7GEiKjXzaA&list=PLgbFKRCqfOtRlVlHnNhfiX2GrrgSW-lmA&index=26*

A Model of Community Engagement in Sanitation

National Faecal Sludge and Septage Management (NFSSM) Alliance

In the video "A Model of Community Engagement in Sanitation," CFAR, a Delhi-based non-profit, showcases its impactful work in empowering women's collectives in urban slums to advocate for essential water, sanitation, and hygiene services. Highlighting inspiring examples, such as women from Kalyanpuri slum who created a film to prompt local government action on community toilets, and those from Janta Jeevan Camp who mapped their area for improved water access, the video illustrates effective grassroots solutions. CFAR's model focuses on defining the urban poor, organizing women into community-based organizations, and fostering collaboration with government entities. This approach not only enhances community management but also formalizes engagement through memorandums of understanding on critical infrastructure issues. By using water and sanitation as catalysts for broader benefits, CFAR's successful model serves as a scalable blueprint for promoting sustainable change across India, ensuring that marginalized voices are heard and empowered in the sanitation dialogue.

Read More: *https://www.youtube.com/watch?v=HbbgTCTkJtQ&feature=youtu.be*

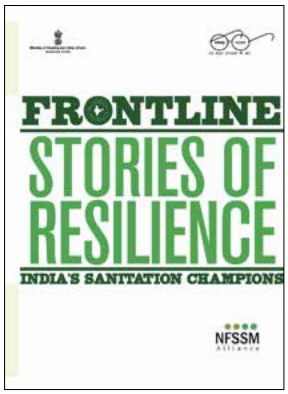


A Future Laid to Waste Inclusivity in Sanitation

National Faecal Sludge and Septage Management (NFSSM) Alliance

In India, women and young girls face violence while accessing sanitation facilities while young girls tend to drop out of school once they reach menstrual age because of the lack in infrastructure. This affects their potential to earn and live a dignified livelihood. The e-flipbook highlights the issues of lack of unsafe sanitation for women, transgender and other vulnerable groups. The document highlights key statistics on the impact of unsafe sanitation on women, transgender and other vulnerable communities and covers both, access to sanitation as well as lack of decision-making and active power in sanitation service delivery.

Read More: *https://www.youtube.com/watch?v=dU4TYveYwgU*

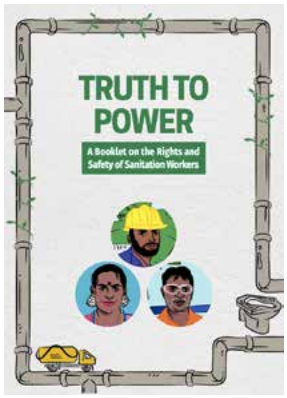


Frontline Stories of Resilience (Leadership Stories): 1st edition

National Faecal Sludge and Septage Management (NFSSM) Alliance

"Frontline Stories of Resilience: India's Sanitation Champions" offers an inspiring collection of narratives that illuminate the vital role of individuals working at the forefront of urban sanitation during the COVID-19 pandemic. This book captures the experiences of diverse champions who embody resilience and dedication in ensuring safe and sustainable sanitation for all. Each story reflects the unique challenges faced by these individuals, showcasing their courage and commitment in the face of adversity. From sanitation workers to community leaders, their compelling tales highlight the human spirit's power to drive change and safeguard public health. As they navigate risks and uncertainties, these champions exemplify the essential contributions that shape India's sanitation landscape, reminding us of the importance of solidarity and innovation in achieving universal sanitation goals. This book not only honors their efforts but also serves as a call to action for continued support and recognition of their critical work.

Read More: *https://drive.google.com/file/d/1w9v1TTTeb0lvSCe_G3UDWWTOOD5E3rzh/view*

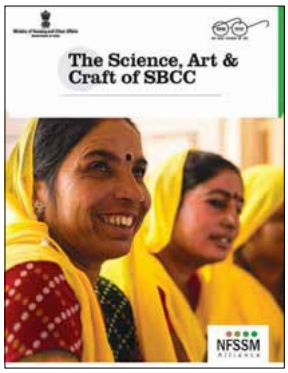


Truth to Power

National Faecal Sludge and Septage Management (NFSSM) Alliance

Truth to Power is a booklet on the rights and safety of sanitation workers. It explores Sanitation Worker Dignity through the following Best Practices: Recognition of Sanitation Workers Under Regulatory Systems; Making Sanitation Work safer and more dignified through inclusive practices; Building avenues for socio-economic empowerment of families of sanitation workers

Read More: *https://drive.google.com/file/d/1AFe0WIIFfD7fOz-k-w5acQWg2_83ECf2/view*



SBCC Primer

National Faecal Sludge and Septage Management (NFSSM) Alliance

This primer advocates for a shift from Information, Education, Communication (IEC) to Social and Behavior Change Communication (SBCC). The document presents a toolkit developed by BBC Media Action, offering strategies for strategic SBCC interventions. It cites a successful SBCC campaign on faecal sludge management in India as a model for addressing sanitation challenges. There is now a massive burden in sustaining ODF behaviours and ensuring safe and effective faecal sludge management. And there is a need for communication to support the momentum, to create a long-term enabling environment for safe sanitation by creating a demand among citizens. This demand will only come from better understanding among the people about the risks of mismanaged faecal sludge which is currently completely amiss in household discussions and priorities.

Read More: *https://www.dasra.org/individual-resources.php?id=1134*

SUJOG/DIGIT
Sustainable Urban Services in a Jiffy by Odisha Government

National Faecal Sludge and Septage Management (NFSSM) Alliance

This case study examines the innovative solutions implemented by the Odisha government to enhance Faecal Sludge and Septage Management (FSSM) through digital technology. By leveraging a digital interface, the government has transformed urban sanitation services, providing citizens with a streamlined platform to apply for or transfer connections related to sanitation services. The initiative facilitates real-time bill generation, allowing residents to track their usage and costs more effectively. This transparency not only empowers users but also fosters trust in the municipal services provided. Additionally, the online payment feature simplifies transactions, making it convenient for users to settle their bills without the need for physical visits to municipal offices. The digital system also aids in better data collection and management, enabling local authorities to monitor service efficiency and make informed decisions regarding resource allocation. By integrating these technological solutions into FSSM, Odisha is setting a precedent for other states, showcasing how digital innovation can enhance urban sanitation services.

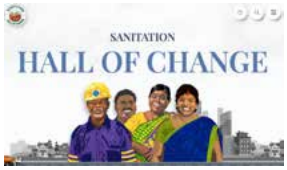
Read More: *https://www.nfssmalliance.org/reports/sujogdigit*

Frontline Stories of Resilience (Leadership Stories): 2nd edition

National Faecal Sludge and Septage Management (NFSSM) Alliance

The platform highlights the vital role of strong leadership in delivering resilient and sustainable WASH (Water, Sanitation, and Hygiene) services across India. Featuring stories from six states and fifteen towns and cities, this initiative showcases the efforts of government champions who have effectively championed inclusive sanitation outcomes.In the face of the COVID-19 pandemic, when public health systems were under immense pressure, these leaders remained steadfast on the frontlines, working tirelessly to ensure uninterrupted sanitation services. Their prompt and strategic decision-making not only maintained essential service delivery but also prioritized the safety of sanitation workers and vulnerable communities. This platform serves as a testament to the dedication and innovation of local leaders who have navigated challenges with resilience and adaptability. By sharing their journeys, the website aims to inspire further action and collaboration in the sanitation sector, demonstrating the impact of effective governance in fostering healthier, more inclusive communities. Ultimately, it underscores the importance of leadership in achieving sustainable sanitation and hygiene practices that benefit all citizens.

Read More: *https://web.archive.org/web/20221203191303/https:/nfssmalliance.org/Frontline-stories-of-resilience/*



Sanitation Hall of Change

National Faecal Sludge and Septage Management (NFSSM) Alliance

The Sanitation Hall of Change is an innovative platform dedicated to showcasing transformative sanitation initiatives worldwide. It highlights the diverse efforts of local governments, organizations, and communities that have successfully improved sanitation practices, emphasizing their unique approaches across various contexts. The site features a rich collection of case studies, best practices, and success stories that inspire and inform stakeholders committed to advancing sanitation solutions. By fostering knowledge exchange and collaboration, the Sanitation Hall of Change aims to accelerate progress and celebrate the unsung heroes in the sanitation ecosystem.

Read More: *https://sanitation-hall-of-change.nfssmalliance.org/#:~:text=The%20Sanitation%20Hall%20of%20Change,their%20distinct%20ways%2C%20across%20geographies.*

Faecal Sludge Management & the Role of Elected Representatives

National Faecal Sludge and Septage Management (NFSSM) Alliance

The video "Faecal Sludge Management & the Role of Elected Representatives" underscores the urgent need for effective Faecal Sludge and Septage Management (FSSM) in the face of rising urbanization in India. With low treatment levels of human waste and significant health risks associated with untreated waste, the role of local elected officials is crucial in advancing safe sanitation initiatives. This video highlights the proactive efforts of Mayors and other representatives who have successfully championed FSSM in model cities and states. Showcasing their advocacy and implementation strategies, it serves as a powerful reminder of the impact elected officials can have on public health and environmental sustainability. Presented at the South Asian Cities Summit 2020 in Goa, the video features over 80 elected representatives signing a declaration to enhance their commitment to safe sanitation practices and FSSM in their communities. Through this collective effort, the video calls for a unified approach to tackling urban sanitation challenges.

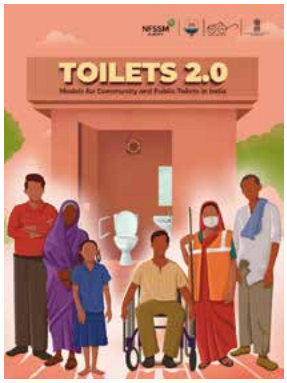
Read More: *https://www.youtube.com/watch?v=jfUYA2LhE1o&list=PLgbFKRCqfOtRlVlHnNhfiX2GrrgSW-lmA&index=9*

SDG & Sanitation Linkages

National Faecal Sludge and Septage Management (NFSSM) Alliance

The report "SDG & Sanitation Interlinkages" explores the vital connections between the 17 Sustainable Development Goals (SDGs) and the critical role of safe and inclusive sanitation in achieving these objectives. Recognizing that the SDGs are interconnected through complex systemic interactions, the report emphasizes the necessity of a collaborative and inter-sectoral approach to address global challenges. Safe sanitation is positioned at the core of the SDGs, offering significant potential to enhance social equity and environmental sustainability. By synergizing sanitation efforts with other initiatives, the report illustrates how inclusive sanitation can create an enabling environment for holistic impact, ensuring that marginalized and vulnerable populations are not left behind. This comprehensive analysis aims to inspire policymakers and stakeholders to integrate sanitation into broader development strategies, ultimately fostering sustainable communities and contributing to the realization of the 2030 Agenda.

Read More: *https://www.nfssmalliance.org/reports/sdg-sanitation-interlinkages*



Toilets 2.0 Compendium

National Faecal Sludge and Septage Management (NFSSM) Alliance

The "Toilets 2.0" compendium presents a comprehensive overview of innovative models for public and community toilets in India, aiming to enhance universal and inclusive access to sanitation. Following significant progress toward Open Defecation Free (ODF) status, the document highlights the critical role of shared toilets in public health and environmental outcomes. It addresses pressing questions regarding the adequacy, location, and accessibility of these facilities, particularly for vulnerable populations, including women, the elderly, and disabled individuals. The compendium showcases diverse case studies across five thematic areas: Access to All, Sustainable Operations and Maintenance, Technology-Enabled Toilets, People's Toilets, and Partnerships for Toilets. Each section provides practical insights and successful models, such as user-fee based systems, community-managed facilities, and eco-friendly designs. By emphasizing community engagement and collaboration among stakeholders, including local governments, NGOs, and the private sector, the document advocates for a holistic approach to sanitation planning. The principles of accessibility, cleanliness, and responsible waste management serve as guiding frameworks for developing shared toilets that are not only functional but also aesthetically integrated into urban landscapes. Overall, "Toilets 2.0" aims to elevate the discourse on sanitation, fostering a collective commitment to sustainable, dignified toilet solutions for all.

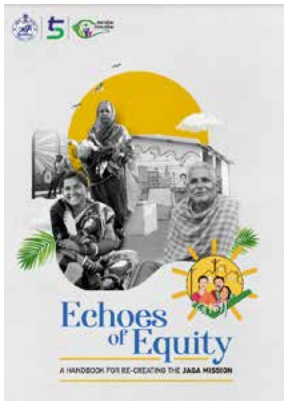
Read More: *https://drive.google.com/file/d/1JKMhR6csB6_B4MqIrfO6s2FTsgJkiWgq/view*

Reaching the Unserved Access to Individual Household Toilets in Vulnerable Areas

National Faecal Sludge and Septage Management (NFSSM) Alliance

COVID-19 has highlighted the need for more attention to be given to individual household toilets under the Swachh Bharat Mission (SBM), as shared toilets pose a greater risk to safe sanitation. Despite constraints such as space, infrastructure, and behavioral issues, women and families have adapted small spaces, utilized sanitation credit through self-help groups, and addressed infrastructural barriers in slums and densely populated areas to overcome challenges in providing individual household toilets. This compendium of cases showcases successful approaches to address these perceived barriers and highlights the important role played by women in leading toilet construction while working with local governments to receive necessary support. These cases demonstrate how women's leadership can transform living conditions in vulnerable urban communities and are used in vulnerable areas across Indian cities.

Read More: *https://drive.google.com/file/d/1jQBuwctQkW36G7cGT3hv49C3HHw7ifsl/view*



Jaga Mission

National Faecal Sludge and Septage Management (NFSSM) Alliance

This handbook provides a comprehensive overview of the Jaga Mission, an initiative launched by the Housing and Urban Development Department (HUDD) of Odisha, aimed at slum upgradation and delisting through a robust citizen participation framework. The Jaga Mission seeks to transform urban slums into vibrant, sustainable communities by actively involving residents in the planning and decision-making processes. Central to the mission is the formation of Slum Development Associations (SDAs), which serve as the voice of the community, enabling residents to express their needs and aspirations. These associations play a crucial role in facilitating dialogue between citizens and Urban Local Bodies (ULBs), ensuring that the perspectives of slum dwellers are integrated into urban planning efforts. By promoting inclusive governance, the Jaga Mission empowers communities to participate meaningfully in the development process. The handbook outlines the methodology of the initiative, highlighting key strategies for community engagement, capacity building, and sustainable development. Through this citizen-centric approach, the Jaga Mission aims to not only improve living conditions in slums but also to promote a sense of ownership among residents, fostering long-term resilience and social cohesion.

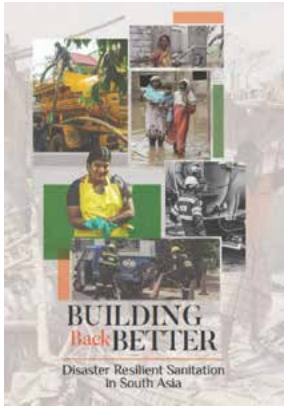
Read More: *https://www.dasra.org/individual-resources.php?id=1134*

Let's Talk Shit!

National Faecal Sludge and Septage Management (NFSSM) Alliance

"Let's Talk Shit!" presents an engaging and interactive game show format to address the critical issues surrounding the improper management of human waste and its implications for both environmental health and public safety. Through entertaining segments and thought-provoking challenges, the show emphasizes the urgent need for effective Faecal Sludge and Septage Management (FSSM) practices. The program simplifies complex concepts related to FSSM, making them accessible to a wide audience. Viewers learn about the health risks associated with untreated human waste, including pollution, disease transmission, and environmental degradation. The show creatively breaks down the components of FSSM, showcasing its importance in ensuring sustainable urban sanitation. In addition to educating participants, "Let's Talk Shit!" fosters open dialogue about sanitation issues, encouraging community involvement and awareness. The interactive nature of the game show format engages viewers, prompting them to think critically about their own communities' sanitation practices. By blending entertainment with education, the video aims to inspire action and promote the adoption of effective waste management solutions, ultimately contributing to healthier environments and improved public health outcomes. Through humor and interaction, the show seeks to transform perceptions of sanitation and mobilize communities toward positive change.

Read More: *https://www.youtube.com/watch?v=oPJxKjHaiYs&t=18s*



Building Back Better - Disasater Resilient Sanitation

National Faecal Sludge and Septage Management (NFSSM) Alliance

This report explores the critical intersection between sanitation and disaster resilience, emphasizing the importance of integrated approaches to enhance community preparedness and recovery. It presents the NFSSM Alliance Disaster Risk Reduction (DRR) framework, which outlines strategies for improving sanitation systems in the face of natural disasters. Through a series of case studies, the report illustrates successful implementations of this framework, demonstrating how effective sanitation practices can mitigate health risks during crises, support vulnerable populations, and foster resilient urban environments. The findings aim to inform policymakers and stakeholders on building robust sanitation infrastructure that contributes to overall disaster resilience

Read More: *https://www.nfssmalliance.org/reports/building-back-better-disaster-resilient-sanitation*

Inclusive Sanitation in Odisha

National Faecal Sludge and Septage Management (NFSSM) Alliance

Odisha has recognized the need to empower vulnerable groups and the urban poor, thereby making special efforts to leverage women and transgender Self Help Groups for Faecal Sludge and Septage Management. The SHGs are trained for service delivery and handling operations across the sanitation value chain. The Odisha model of community managed sanitation has not only led to more ownership among the larger community but also made operations sustainable in the longer run.

Read More: *https://www.youtube.com/watch?v=0-TAUEWUNw8&list=PLgbFKRCqfOtRlVlHnNhfiX2GrrgSW-lmA&index=7&t=2s*

The Road to Inclusive Sanitation: Involvement of Women and Community Members in FSSM Service Delivery

National Faecal Sludge and Septage Management (NFSSM) Alliance

Achieving Sustainable Development Goal 6.2—access to clean water and sanitation—is crucial for India's future. This report examines the importance of scaling inclusive sanitation models, emphasizing their impact on multiple sectors such as gender equality, public health, employability, and environmental sustainability. Effective sanitation solutions can transform lives and communities, fostering resilience in urban areas. By addressing sanitation challenges, we empower marginalized populations, improve health outcomes, and create equitable employment opportunities. Access to clean sanitation facilities is essential for women's dignity and safety, enabling their full participation in society. Additionally, proper waste management plays a vital role in environmental protection, promoting healthier ecosystems. The report highlights successful models and initiatives, underscoring the interconnectedness of sanitation with broader social issues. It advocates for a holistic approach that champions dignity and justice for all individuals. Investing in inclusive sanitation will enable India to develop urban spaces that reflect the values of equality and community well-being.

Read More: *https://www.youtube.com/watch?v=xTVJzB3oMbo*

Let's Talk Shit Again!

National Faecal Sludge and Septage Management (NFSSM) Alliance

The 2nd edition of Let's Talk Shit! Explains the relationship between Water and Sanitation – highlighting the interlinked nature of both. It proposes implementing FSSM models as a solution for protecting water resources.

Read More: *https://www.youtube.com/watch?v=xnKRRJKHX7c*

Lets Talk Shit! 3

National Faecal Sludge and Septage Management (NFSSM) Alliance

The 3rd edition of Let's Talk Shit! highlights the relationship between sanitation and climate change. The video highlights the need to climate proof sanitation services to make them more resilient in the face of climate threats and increased disasters while also highlighting the positive impact that practices such as FSSM can have in helping reduce greenhouse emissions.

Read More: *https://www.youtube.com/watch?v=2RUk_ug9IwE*

India for the World

National Faecal Sludge and Septage Management (NFSSM) Alliance

The website showcases a collection of state-level stories and initiatives focused on improving sanitation and hygiene across India. It highlights successful programs and innovative practices implemented by various states to address sanitation challenges, promote community engagement, and enhance service delivery. The platform aims to share knowledge, inspire action, and facilitate collaboration among stakeholders to achieve inclusive and sustainable sanitation solutions, aligning with national and global goals for improved public health and environmental outcomes.

Read More: *https://www.nfssmalliance.org/state-stories/index.html*

Understanding FSSM Operations Deep Dive into Bhubaneshwar's STP

National Faecal Sludge and Septage Management (NFSSM) Alliance

This video showcases Bhubaneshwar, Odisha, as a pioneer in Faecal Sludge and Septage Management (FSSM) in India, highlighting the city's innovative approach to handling sanitation waste. With the majority of toilets connected to septic tanks, Bhubaneshwar has developed a unique and effective infrastructure for treating faecal sludge and septage. Central to this initiative is a cost-effective, low-technology septage treatment plant that serves as a model for other cities in India and beyond. The video details the plant's design and operation, emphasizing its accessibility and sustainability. By employing simple, low-cost technologies, the facility demonstrates how cities can address sanitation challenges without the need for extensive resources or advanced infrastructure. It showcases the importance of local solutions that can be easily implemented in diverse urban contexts. Through interviews with local officials and community members, the video captures the positive impact of the septage treatment plant on public health and the environment. By presenting Bhubaneshwar's success story, the video aims to inspire other cities to adopt similar strategies, promoting effective waste management practices and contributing to a cleaner, healthier urban future.

Read More: *https://www.youtube.com/watch?v=m4wIEiw2JEw&list=PLgbFKRCqfOtRlVlHnNhfiX2GrrgSW-lmA&index=5&t=4s*

Faecal Sludge and Septage Management (FSSM) and the Role of Elected Representatives

National Faecal Sludge and Septage Management (NFSSM) Alliance

Water and sanitation are national priorities facing pressure from increasing urbanization in India. With poor treatment of human waste, poor conditions of manual scavengers, and health risks of untreated waste in urban areas, it is crucial to focus on Faecal Sludge and Septage Management (FSSM). The FSM & Role of Elected Representatives Video highlights the role of Mayors and local elected representatives in implementing FSSM and showcases model cities and states. The video was presented by the NFSSM Alliance at the South Asian Cities Summit 2020 in Goa, where over 80 elected representatives committed to prioritizing safe sanitation and FSSM in their cities.

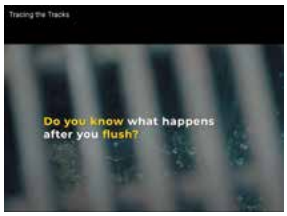
Read More: *https://www.youtube.com/watch?v=jfUYA2LhE1o&list=PLgbFKRCqfOtRlVlHnNhfiX2GrrgSW-lmA&index=13*

A Model of Community Engagement for Sanitation-Based Livelihoods

National Faecal Sludge and Septage Management (NFSSM) Alliance

Urban Management Centre (UMC) is driving the convergence of the National Urban Livelihoods Mission and Swachh Bharat Mission through a unique community engagement model that empowers vulnerable sanitation workers. UMC is implementing this model in three cities in Odisha by strengthening community platforms formed under NULM and providing them with training and enterprise support to become sanitation service providers.

Read More: *https://www.youtube.com/watch?v=t0s3yEcaH2o&list=PLgbFKRCqfOtRlVlHnNhfiX2GrrgSW-lmA&index=14*

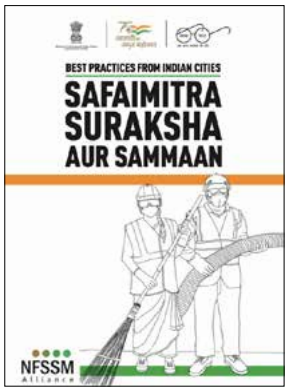


Tracing the Tracks

National Faecal Sludge and Septage Management (NFSSM) Alliance

This documentary provides a powerful exploration of the lives of sanitation workers in Odisha and Tamil Nadu, showcasing their journeys, challenges, and triumphs through their own voices. By allowing these workers to narrate their stories, the film highlights the vital role they play in public health and community well-being. The documentary reveals the daily struggles faced by sanitation workers, including social stigma, unsafe working conditions, and insufficient wages. It underscores the emotional and physical toll of their labor, painting a vivid picture of the challenges they navigate. Yet, amid these hardships, the film also celebrates their resilience and strength. Through heartfelt testimonials, viewers witness moments of pride and solidarity as workers express their aspirations for dignity, respect, and improved working conditions. The documentary emphasizes the importance of recognizing and valuing the contributions of these essential workers, urging society to confront the biases that marginalize them. By combining compelling visuals with intimate storytelling, this documentary serves as a poignant reminder of the humanity behind sanitation work. It calls for greater awareness and appreciation of the unsung heroes who keep our communities clean, safe, and healthy, fostering empathy and understanding in the audience.

Read More: *https://www.youtube.com/watch?v=B30mMDyfQuU*

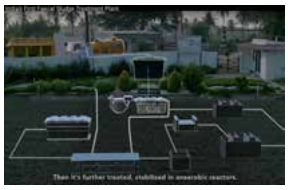


Sanitation Worker Compendium: Best Practices from Indian Cities

National Faecal Sludge and Septage Management (NFSSM) Alliance

This report focuses on sanitation worker safety to guide decision-making. It is a product of the Inclusive Taskforce of the Alliance in collaboration with key partners such as Water Aid, CSE, CFAR, NIUA, CWAS, BORDA, ASCI, CTC, IIHS, and Dasra. The report is structured into five comprehensive chapters, each addressing key aspects of improving the lives of sanitation workers in India. Chapter 1 emphasizes the establishment of administrative systems, ensuring safety, adequate wages, and the use of personal protective equipment (PPE). It also discusses the importance of collectivization through self-help groups (SHGs) and the formulation of model contracts for sanitation services. Chapter 2 explores access to financial resources for livelihood generation, featuring innovative models like performance-based contracts to empower sanitation workers. Chapter 3 focuses on capacity building, detailing training programs that enhance skills and ensure occupational health and safety. Chapter 4 addresses enabling access to benefits, including registration under the Garima Scheme and job card enrollment, to secure future prospects for sanitation workers. Finally, Chapter 5 highlights initiatives aimed at improving the overall quality of life, such as education access for their children, vocational training, and health services. The compendium concludes with a call to action, advocating for sustained efforts to enhance the dignity and livelihoods of sanitation workers across the country.

Read More: *https://drive.google.com/file/d/1rX7XLE_IPLeFUUlZ-t7_SxxGK9FIGfJM/view*

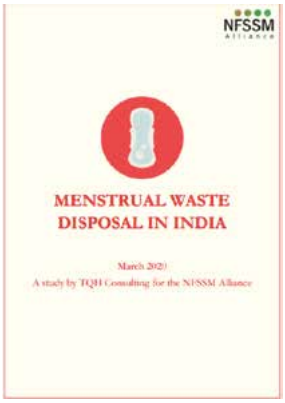


India's First FSTP in Devanahalli

National Faecal Sludge and Septage Management (NFSSM) Alliance

This video highlights the successful establishment of India's first Faecal Sludge Treatment Plant (FSTP) in Devanahalli, Karnataka, a collaborative initiative by the CDD Society and the Devanahalli Town Municipal Corporation. With 7,000 (population under 1 million) towns in India, 95% lack underground sewerage systems, untreated faecal sludge poses significant pollution risks. The video advocates for the implementation of decentralized Faecal Sludge Management (FSM) systems, positioning FSTPs at their core to transform waste into compost for agricultural use. The Devanahalli FSTP serves as a model, showcasing aesthetic design and cost-effective solutions that address immediate pollution challenges. The video outlines five essential steps for other towns to establish their own FSM systems: first, conducting a comprehensive assessment of local sanitation conditions; second, securing appropriate land for the FSTP; third, creating a regulatory framework to govern FSM practices; fourth, developing a sustainable financial model for operation; and fifth, fostering community engagement to ensure local support for the initiative. By sharing this blueprint, the video aims to inspire similar projects across India, promoting environmental sustainability and improving public health through effective waste management strategies.

Read More: *https://www.youtube.com/watch?v=WZgT2Vwfvwc&list=PLgbFKRCqfOtRlVlHnNhfiX2GrrgSW-lmA&index=27&t=41s*



Menstrual Waste Disposal in India

National Faecal Sludge and Septage Management (NFSSM) Alliance

This report provides a comprehensive blueprint for improving the Menstrual Hygiene Management (MHM) ecosystem in India, focusing on awareness, access, usage, and disposal. It emphasizes the necessity of establishing a robust five-year state plan for MHM while assessing the effectiveness of current menstrual waste disposal systems, particularly incineration technology. MHM aims to create an environment where women and girls can manage menstruation safely and with dignity, highlighting the importance of accessible feminine hygiene products and sustainable disposal methods. Despite advancements in product availability and awareness, India still faces significant challenges due to societal taboos surrounding menstruation and the environmental impact of disposable sanitary products, which contribute to approximately 1 billion used pads being discarded monthly. The report underscores the need for a holistic approach to menstrual waste disposal, addressing the interconnectedness of MHM and sanitation value chains. It identifies existing gaps in coordination among governmental agencies and stresses the importance of environmentally sustainable disposal methods to prevent health and environmental hazards. By promoting alternative menstrual products and effective disposal strategies, the report aims to enhance the overall MHM framework, ensuring better health outcomes for women and reducing environmental impact.

Read More: *https://www.nfssmalliance.org/reports/menstrual-waste-disposal-in-india-nfssm*

Warangal - The Model Sanitation City

National Faecal Sludge and Septage Management (NFSSM) Alliance

Warangal in Telangana has become a model city in sanitation, with a complete sanitation solution across the value chain. ASCI worked closely with the Greater Warangal Municipal Corporation, engaging the government, private sector, and innovative technologies. The model includes increased access to toilets, containment, treatment, and transport of toilet waste, all while keeping citizens at the forefront. The Warangal model showcases the importance of planning across the sanitation value chain for any city facing pressing sanitation problems.

Read More: *https://www.youtube.com/watch?v=Xdd4b2yAkgw&list=PLgbFKRCqfOtRlVlHnNhfiX2GrrgSW-lmA&index=28*

CEPT: A Model Sanitation City in Sinnar

National Faecal Sludge and Septage Management (NFSSM) Alliance

CEPT University and AIILSG's model for taking towns and cities across Maharashtra from Open Defecation Free to ODF+ and ODF++ is an important step towards achieving sustainable sanitation practices in India. It's great to see the success in Sinnar and the focus on Faecal Sludge and Septage Management through Public Private Partnership, scheduled emptying of septage, and a Faecal Sludge Treatment Facility funded by the city government. Scaling this model across all 200+ cities in Maharashtra and eventually for the entire country can have a significant impact on improving sanitation services for citizens and ensuring a sustainable future.

Read More: *https://www.youtube.com/watch?v=lGrtsXLwQQg&list=PLgbFKRCqfOtRlVlHnNhfiX2GrrgSW-lmA&index=21&t=3s*

Inclusive Sanitation - Faecal Sludge and Septage Management in Odisha

National Faecal Sludge and Septage Management (NFSSM) Alliance

The video "Inclusive Sanitation - Faecal Sludge and Septage Management in Odisha" highlights the state's innovative approach to empowering vulnerable groups, particularly women and transgender individuals, in the realm of sanitation. Recognizing the critical role of Self Help Groups (SHGs), Odisha has invested in training these collectives to manage and deliver faecal sludge and septage management services across the sanitation value chain. This inclusive model fosters greater community ownership and engagement, ensuring that sanitation operations are not only effective but also sustainable over the long term. By showcasing the transformative impact of this initiative, the video illustrates how empowering marginalized groups can lead to improved sanitation outcomes, enhancing public health and environmental safety. Odisha's community-managed sanitation approach serves as a compelling example for other regions seeking to implement inclusive practices in their sanitation strategies, demonstrating that collaboration and empowerment can drive meaningful change in urban sanitation.

Read More: *https://www.youtube.com/watch?v=0-TAUEWUNw8&list=PLgbFKRCqfOtRIVlHnNhfiX2GrrgSW-lmA&index=7*

Understanding FSSM Operations - A Spotlight on Bhubaneswar's Septage Treatment Plant

National Faecal Sludge and Septage Management (NFSSM) Alliance

The video "Understanding FSSM Operations - A Spotlight on Bhubaneswar's Septage Treatment Plant" explores the innovative approaches Bhubaneswar, Odisha, has adopted in managing faecal sludge and septage. In a country where FSSM remains a relatively new concept, Bhubaneswar has made significant progress by developing a robust infrastructure to address sanitation waste, primarily from its extensive network of septic tanks. This video showcases the city's septage treatment plant, emphasizing a cost-effective and low-technology model that can serve as a blueprint for other cities in India and globally. By highlighting the operational intricacies and successful implementation of this system, the video aims to inspire urban centers grappling with sanitation challenges to adopt similar strategies. Through Bhubaneswar's example, viewers gain insight into practical solutions that enhance public health and environmental sustainability, demonstrating the potential for scalable FSSM operations in diverse urban settings.

Read More: *https://www.youtube.com/watch?v=m4wIEiw2JEw&list=PLgbFKRCqfOtRIVlHnNhfiX2GrrgSW-lmA&index=5*

Case Study: Faecal Sludge & Septage Management in Cities: Comparative Assessment of FSSM Plant of Wai City Maharashtra, Bhubaneswar & Puri Cities of Odisha

Regional Center for Urban and Environmental Studies (RCUES), Lucknow

Effective Faecal Sludge and Septage Management (FSSM) is critical for ensuring sustainable urban sanitation, especially in rapidly urbanizing areas. This case study provides a comparative assessment of FSSM plants in three Indian cities: Wai in Maharashtra, Bhubaneswar, and Puri in Odisha. The study examines the design, implementation, and operational efficiencies of these plants, highlighting the unique approaches adopted by each city to address their specific sanitation challenges. Wai's decentralized FSSM model, with its community-centric approach, offers valuable insights into managing urban sanitation in smaller towns. Bhubaneswar's integration of FSSM with its larger sanitation infrastructure demonstrates the potential of scaling FSSM practices in growing urban centers. Puri's focus on FSSM in a religious and tourist hub underscores the need for robust systems to manage high and fluctuating waste loads. The study assesses these plants based on criteria such as technology, cost-effectiveness, stakeholder engagement, environmental impact, and sustainability. Through this comparative analysis, the case study aims to identify best practices and lessons learned that can be replicated in other cities facing similar challenges. The findings contribute to the broader discourse on urban sanitation and the role of FSSM in achieving India's Swachh Bharat Mission goals.

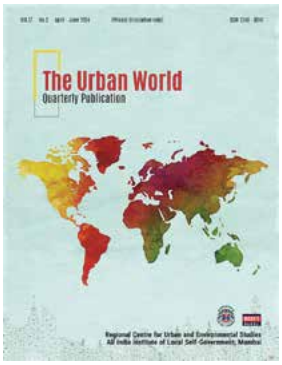
Read More: *http://rcueslucknow.org/publication/KnowledgeProducts/1.pdf*

Success Stories of Menstrual Hygiene Management in Maharashtra

Regional Centre for Urban and Environmental Studies (RCUES) of the All India Institute of Local Self-Government (AIILSG), Mumbai

Success Stories of MHM in Maharashtra developed through field activities with the State Council of Educational Research and Training Maharashtra and UNICEF Maharashtra, are compiled in an e-flipbook. This resource serves as both a reference for future MHM efforts and an inspiration for other community members to engage in further action.

Read More: *https://www.mahawashcoalition.com/wp-content/uploads/2024/03/Success-stories-of-MHM-in-Maharashtra_MahaUWESC_2021.pdf*



The Urban World

Regional Centre for Urban and Environmental Studies (RCUES) of the All India Institute of Local Self-Government (AIILSG), Mumbai

The Urban World - The Urban World is a quarterly publication inviting scholars, policymakers, urban planners, practitioners, and researchers to submit original, research-based articles and book reviews. It emphasizes developmental challenges and concerns in urban India, providing a platform for sharing insights and solutions for urban growth and planning.

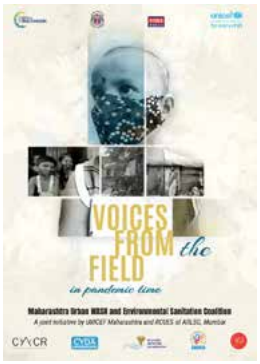
Read More: *https://aiilsg.org/urban-world.html*

Newsletter: A collection of Inspiring Stories of Sanitation Workers

Regional Centre for Urban and Environmental Studies (RCUES) of the All India Institute of Local Self-Government (AIILSG), Mumbai

"#SafaiMitraInspires: 12 Stories of the Unsung Mitras is a compilation of inspiring stories from across Maharashtra, featuring the lives of 12 dedicated sanitation workers. The idea for this collection emerged during the 'Statewide Intensive Capacity Building Programs on Occupational Safety and Dignity of Sanitation Workers in Maharashtra.' The resilience and dedication of these workers deeply moved the team involved. #SafaiMitraInspires was created to honor these unsung heroes who work tirelessly to improve and maintain the cleanliness and hygiene of their communities. Their efforts often go unrecognized, despite their vital role in sustaining urban environments. This initiative serves as a tribute to their hard work, perseverance, and commitment to creating healthier, cleaner cities. By sharing these 12 stories, #SafaiMitraInspires aims to raise awareness of the critical role sanitation workers play and advocate for their safety, dignity, and well-being. The collection not only celebrates their contributions but also encourages a broader appreciation of the work they do in transforming urban spaces."

Read More: *https://www.mahawashcoalition.com/wp-content/uploads/2024/05/SafaiMitraInspires_MAHAUWESC.pdf"*



Voices from the Field in Pandemic Times

Regional Centre for Urban and Environmental Studies (RCUES) of the All India Institute of Local Self-Government (AIILSG), Mumbai

"Voices from the Field in Pandemic Times is a poignant collection that illuminates the varied experiences of communities in urban slums and low-income settlements throughout Maharashtra. This beautifully designed coffee table book presents heartfelt stories that reflect the resilience and determination of these communities, while also showcasing the unwavering dedication of frontline workers during the pandemic. Developed by the Secretariat of the Maharashtra Urban WASH-ES Coalition, this compelling volume features invaluable contributions from partner organizations, development sector specialists, and elected representatives. It compiles human experiences through in-depth interviews and personal interactions, providing readers with a deeper understanding of the challenges faced by these communities. Each narrative captures the struggles and triumphs of individuals navigating life in Maharashtra's urban slums, revealing the strength and solidarity that emerged in times of crisis. By sharing these powerful stories, the booklet not only honors the voices of those who endured the pandemic but also serves as an important reminder of the vital role of community resilience in overcoming adversity. This collection stands as a testament to the human spirit's capacity to persevere and adapt in the face of unprecedented challenges."

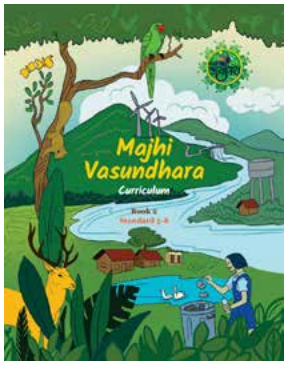
Read More: *https://www.mahawashcoalition.com/wp-content/uploads/2024/03/Voices-from-the-Field_in_Pandemic_Times_MahaUWESC_2022.pdf*

Majhi Vasundhara Curriculum

Regional Centre for Urban and Environmental Studies (RCUES) of the All India Institute of Local Self-Government (AIILSG), Mumbai.

Majhi Vasundhara Curriculum (Class 1 to 4): Under the guidance of the Hon'ble Minister of Environment and Tourism, Government of Maharashtra, the Department of Environment and Climate Change (DoE-CC) launched the 'Majhi Vasundhara' (My Earth) initiative. Based on the five elements of nature—Bhumi (Earth), Jala (Water), Vayu (Air), Agni (Energy), and Akash (Enhancement)—it aims to support climate change mitigation and adaptation efforts across the state. One key initiative is the 'Majhi Vasundhara Curriculum', designed to inculcate environmental values in schoolchildren from standards 1 to 8. The curriculum complements the existing state syllabus by focusing specifically on environmental education and climate change. It aims to build awareness on critical issues such as biodiversity conservation, solid waste management, water resource management, and air pollution. Developed with input from organizations like UNICEF Maharashtra and the Regional Centre for Urban and Environmental Studies (RCUES), the curriculum encourages active, activity-based learning. The curriculum development process began in December 2020, involving experts and partners who conceptualized and drafted lesson plans. Each lesson integrates practical activities and projects to foster environmental understanding as life skills, including key concepts, learning outcomes, and FAQs. The 'MV Curriculum' is now being handed over to the School Education and Sports Department for statewide adoption.

Read More: *https://www.mahawashcoalition.com/wp-content/uploads/2024/02/Majhi-Vasundhara-Curriculum_Book-1_Standard-1-4_MahaUWESC_August-2021.pdf*

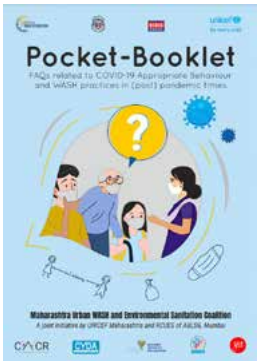


Majhi Vasundhara Curriculum

Regional Centre for Urban and Environmental Studies (RCUES) of the All India Institute of Local Self-Government (AIILSG), Mumbai.

Majhi Vasundhara Curriculum (Class 5 to 8): Under the guidance of the Hon'ble Minister of Environment and Tourism, Government of Maharashtra, the Department of Environment and Climate Change (DoE-CC) launched the 'Majhi Vasundhara' (My Earth) initiative. Based on the five elements of nature—Bhumi (Earth), Jala (Water), Vayu (Air), Agni (Energy), and Akash (Enhancement)—it aims to support climate change mitigation and adaptation efforts across the state. One key initiative is the 'Majhi Vasundhara Curriculum', designed to inculcate environmental values in schoolchildren from standards 1 to 8. The curriculum complements the existing state syllabus by focusing specifically on environmental education and climate change. It aims to build awareness on critical issues such as biodiversity conservation, solid waste management, water resource management, and air pollution. Developed with input from organizations like UNICEF Maharashtra and the Regional Centre for Urban and Environmental Studies (RCUES), the curriculum encourages active, activity-based learning. The curriculum development process began in December 2020, involving experts and partners who conceptualized and drafted lesson plans. Each lesson integrates practical activities and projects to foster environmental understanding as life skills, including key concepts, learning outcomes, and FAQs. The 'MV Curriculum' is now being handed over to the School Education and Sports Department for statewide adoption.

Read More: *https://www.mahawashcoalition.com/wp-content/uploads/2024/02/Majhi-Vasundhara-Curriculum_Book-2_Std.5-8_MahaUWESC_August-2021.pdf*



Pocket-Booklet : FAQs Related to COVID-19 Appropriate Behaviour and WASH practices in (post) Pandemic Times (English & Marathi)

Regional Centre for Urban and Environmental Studies (RCUES) of the All India Institute of Local Self-Government (AIILSG), Mumbai

Pocket-Booklet on Frequently Asked Questions (FAQs) regarding COVID Appropriate Behavior (CAB) and WASH Practices in Post-Pandemic Times addresses common queries from communities engaged in project activities focused on infection prevention and control. Available in both English and Marathi, this interactive and accessible booklet provides practical measures for maintaining sanitation and hygiene in daily life. It emphasizes the importance of promoting Risk Communication and Community Engagement (RCCE), Infection Prevention and Control (IPC), and WASH practices to ensure good health. Designed in a user-friendly format, the booklet aims to engage readers, particularly students, by delivering essential health tips that empower individuals to protect themselves from infections. This valuable resource targets vulnerable populations, as well as Urban Local Bodies, NGOs, frontline workers, and field staff involved in health and hygiene management. Key stakeholders include children in municipal and private schools, urban primary healthcare centers, communities, urban local bodies, partner organizations, WASH enthusiasts, and youth groups. By fostering a better understanding of CAB and WASH practices, the booklet plays a crucial role in enhancing community resilience against health threats.

Read More: *https://www.mahawashcoalition.com/wp-content/uploads/2022/08/Pocketbook_urban-CAB-WASH_-MahaUWES-C_Marathi.pdf"*

Urban COVID Appropriate Behaviour (CAB) WASH

Regional Centre for Urban and Environmental Studies (RCUES) of the All India Institute of Local Self-Government (AIILSG), Mumbai

"Urban COVID Appropriate Behaviour (CAB) WASH:The film focuses on a Coalition-led initiative aimed at supporting local governments in preventing and controlling communicable diseases. It highlights the importance of Risk Communication and Community Engagement (RCCE) and the reinforcement of Water, Sanitation, and Hygiene (WASH) practices. The narrative is set in densely populated urban slums, where these efforts are critical to preventing the spread of infection. Through targeted interventions, the Coalition seeks to build resilience among vulnerable communities, showcasing the impact of coordinated actions to promote public health and sustainable hygiene behaviors, ultimately enhancing the community's ability to combat future health crises."

Read More: *https://www.mahawashcoalition.com/#gallery*

WASH Connect Newsletter

Regional Centre for Urban and Environmental Studies (RCUES) of the All India Institute of Local Self-Government (AIILSG), Mumbai

WASH Connect is a newsletter that has been documents the key initiatives of the Maharashtra Urban WASH and Environmental Sanitation Coalition since August 2021. It captures the Coalition's ongoing efforts and collaborations with government departments, development partners etc. to improve water, sanitation, and hygiene in urban and rural areas across Maharashtra. Each edition highlights progress, innovations, and the implementation of impactful solutions in the field of environmental sanitation. By documenting these activities, WASH Connect provides a comprehensive overview of the Coalition's work, aiming to enhance public health and promote sustainable hygiene practices in vulnerable communities throughout the region.

Read More: *https://www.mahawashcoalition.com/resources/wash-connect-newsletter/*

Compendium of Good Practices on MHM Value Chain for a #PeriodFriendlyMaharashtra

Regional Centre for Urban and Environmental Studies (RCUES) of the All India Institute of Local Self-Government (AIILSG), Mumbai

Compendium of Good Practices on MHM Value Chain for a #PeriodFriendlyMaharashtra: 10th Menstrual Hygiene Day | May 2024 - On May 28, 2024, to commemorate the 10th Menstrual Hygiene Day, RCUES of AIILSG Mumbai, in partnership with UNICEF Maharashtra, released the "Compendium of Good Practices on MHM Value Chain for a #PeriodFriendlyMaharashtra." This important resource highlights innovative practices in menstrual hygiene management (MHM) and was launched during a webinar that featured presentations from 16 organizations whose case studies are included in the Compendium. The event was a valuable platform for exchanging ideas and insights from various sectors, showcasing diverse approaches to improving MHM across Maharashtra. The Compendium serves as a testament to the collective commitment to creating a more inclusive and period-friendly environment for all. This collaborative effort not only sheds light on the importance of menstrual hygiene but also encourages the adoption of effective practices to enhance awareness and access to MHM solutions. The insights and innovations shared within this resource are vital for anyone looking to contribute to better menstrual health and hygiene outcomes. Don't miss the opportunity to explore the Compendium and join the mission for a #PeriodFriendlyMaharashtra by learning from these groundbreaking practices.

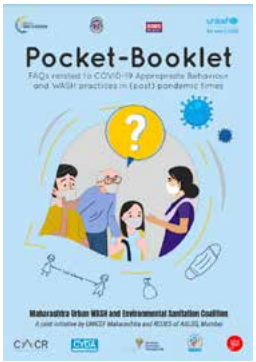
Read More: *https://www.mahawashcoalition.com/wp-content/uploads/2024/06/Compendium-of-Good-Practices-on-MHM-Value-Chain-for-a-PeriodFriendlyMaharashtra_10th-Menstrual-Hygiene-Day_28th-May-2024_MahaUWESC_May_2024.pdf*

WASH-Action4Change

Regional Centre for Urban and Environmental Studies (RCUES) of the All India Institute of Local Self-Government (AIILSG), Mumbai

WASH Action4Change is a publication that documents good practices in WASH and Environmental Sanitation. It captures innovative and effective practices which focuses on practical solutions implemented by Urban Local Bodies, development organizations, and the private sector. The publication highlights entrepreneurial initiatives in waste management and urban WASH that address challenges through innovative approaches. It also features collaborative efforts at the field level, where various stakeholders work together to address urban WASH issues. The publication places emphasis on technology-driven innovations adopted to improve sanitation and waste management services. Additionally, it showcases effective practices aimed at strengthening WASH infrastructure and improving community access to essential services. By presenting these examples, WASH Action4Change offers a resource for replicating successful models and promoting collaboration across sectors. Its focus on innovation, practical solutions, and partnerships provides insights for stakeholders seeking to address WASH challenges in urban areas efficiently.

Read More: *https://www.mahawashcoalition.com/knowledge-platform/wash-action4change/"*

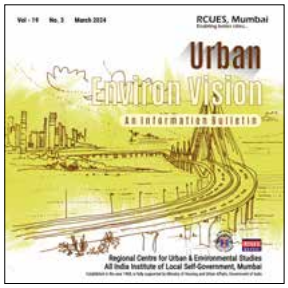


WASH Plus Sector Update

Regional Centre for Urban and Environmental Studies (RCUES) of the All India Institute of Local Self-Government (AIILSG), Mumbai

WASH Plus Sector Update is a monthly newsletter launched in December 2022, compiling news articles and bulletins focused on WASH (Water, Sanitation, and Hygiene) and Environmental Sanitation across Maharashtra. It highlights four key areas: Waste Management, Water Supply, Sanitation, and Environment and Climate Change. The newsletter covers significant activities, announcements, and campaigns led by government bodies and implemented across the state. Additionally, the newsletter features articles submitted by various WASH Warriors, making it more diverse and engaging. Each issue captures the latest developments and initiatives aimed at improving environmental and public health outcomes. The content is primarily sourced from a wide range of news clippings, articles, and government updates, providing a comprehensive overview of WASH-related progress in Maharashtra.

Read More: *https://www.mahawashcoalition.com/knowledge-platform/wash-plus-sector-update/*



Urban Environ Vision

Regional Centre for Urban and Environmental Studies (RCUES) of the All India Institute of Local Self-Government (AIILSG), Mumbai

Urban Environ Vision - An Information Bulletin - aims to take its readers through off-line training programmes of RCUES, Mumbai while providing encouragement and knowledge to its participants and displays the efforts undertaken by RCUES, Mumbai.

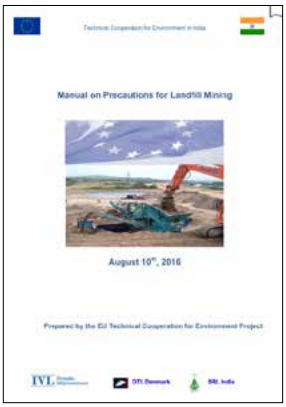
Read More: *https://aiilsg.org/urban-vision.html*

Consultation Workshop on Sewage Treatment and Sludge Management at Oberoi, Mumbai

Shriram Institutute for Industrial Research (SRI), New Delhi

To deliberate on adequacies of sewage management technologies including holistic sludge management.

Read More: *https://drive.google.com/drive/folders/1HQEpgNe7Jr2T-jh6dka6UQnIGnYiJkyV*



Consultation Workshop on Landfill Mining at SDMC Conference Hall, New Delhi

Shriram Institutute for Industrial Research (SRI), New Delhi

Challenges and Opportunities in Landfill Mining & Reclamation (LFMR) process

Read More: *https://drive.google.com/drive/folders/1HQEpgNe7Jr2T-jh6dka6UQnIGnYiJkyV*

Study Tour to Sweden and Germany on Solid Waste Management & Sewage Treatment (17th to 24th June, 2017)

Shriram Institutute for Industrial Research (SRI), New Delhi

To showcase best practices of Solid Waste Management and Sewage treatment to Indian Stakeholders representing MCGM, DJB, MCD, MPCB, CPCB, MNRE & MoHUA. Major areas covered were Waste to Energy, Waste to Biogas and upgradation of Biogas to Biomethane; Sewage Treatment Technologies such as SMR; MBR and MBBR; Sludge Management etc.

Read More: *https://drive.google.com/drive/folders/1HQEpgNe7Jr2T-jh6dka6UQnIGnYiJkyV*

Study Tour to Denmark and Sweden on Sludge Management (04th to 11th June, 2016)

Shriram Institutute for Industrial Research (SRI), New Delhi

Showcasing European Best Practices of sewage treatment and sludge management to Indian stakeholders representing Delhi Jal Board, Municipal Corporation of Greater Mumbai, MoHUA and CPCB. Major activities included participation in sludge Management with particular focus on Holistic Sludge Management Conference-2016 at Malm and visit to waste management sites at Copenhagen with particular focus on (i) recovery of nutrients from sludge; (ii) Biogas generation and its upgradation to Biomethane.

Read More: *https://drive.google.com/drive/folders/1HQEpgNe7Jr2T-jh6dka6UQnIGnYiJkyV*

Study Tour to Sweden on Solid Waste Management (11th to 18th June, 2016)

Shriram Institutute for Industrial Research (SRI), New Delhi

Showcasing European Best Practices of Solid Waste Management to Indian stakeholders representing MCD, MCGM, MPCB, MoHUA, CPCB, DOE-GNCTD, NGOs & Private Sector. Major activities included study of the process of (i) Biomethane production; (ii) Waste to Energy; (iii) Upcycling of Plastic Waste; and (iv) Landfill Mining and Reclamation.

Read More: *https://drive.google.com/drive/folders/1HQEpgNe7Jr2T-jh6dka6UQnIGnYiJkyV*

Consultation Workshop on Solid Waste Management at Trident, Mumbai

Shriram Institutute for Industrial Research (SRI), New Delhi

To deliberate on challenges and opportunities in Biochemical and Thermochemical routes of solid waste management.

Read More: *https://drive.google.com/drive/folders/1HQEpgNe7Jr2T-jh6dka6UQnIGnYiJkyV*

Consultation Workshop on Landfill Mining IFAT, Bombay Exhibition Centre

Shriram Institutute for Industrial Research (SRI), New Delhi

Challenges and Opportunities in Landfill Mining & Reclamation (LFMR) process

Read More: *https://drive.google.com/drive/folders/1HQEpgNe7Jr2T-jh6dka6UQnIGnYiJkyV*

Strengthening Engagement of SHGs in Sanitation Livelihoods

Urban Management Centre (UMC), Ahmedabad

These easy-to-read handouts and posters have been developed for Self-Help Groups (SHGs) engaged in sanitation livelihoods, ensuring accessibility for all stakeholders—from waste collection drivers to waste processing facility workers and supervisors. These handouts cover essential responsibilities like waste segregation, collection, fee management, and safety measures, while also outlining entitlements such as timely payments, health check-ups, and social welfare benefits. The objective is to ensure clarity, accountability, and support across all levels of waste management.

Read More: *https://umcasia.org/what-we-do/strengthening-engagement-of-shgs-in-sanitation-livelihoods/*

Training Manuals on Micro Composting Centre and Material Recovery Facility

Urban Management Centre (UMC), Ahmedabad

The training manuals on operation & maintenance of waste processing facilities, mainly MCC and MRF, were created in partnership with H&UDD, Odisha. These are designed with a trainers' guide for each slilde, supporting the trainers and ensuring that no information is missed during the training delivery. The objective of the module is to build capacities of workers engaged at these facilities to ensure efficient waste processing.

Read More: *https://umcasia.org/what-we-do/training-manuals-micro-composting-centre-and-material-recovery-facility/*

Training Material for Sewer Entry Professionals

Urban Management Centre (UMC), Ahmedabad

The training material was prepared to provide training to Sewer Entry Professionals (SEP) under the Garima Scheme of Odisha. It focuses on ensuring safe working practices in confined spaces, with training objectives that include hazard assessment, mitigation, understanding the roles and responsibilities of SEP teams and supervisors within the Emergency Response Sanitation Unit (ERSU), and enhancing capacity to follow Standard Operating Procedures (SOPs). The training also emphasizes rescue operations, aiming to equip SEPs with the necessary skills to safely perform their duties.

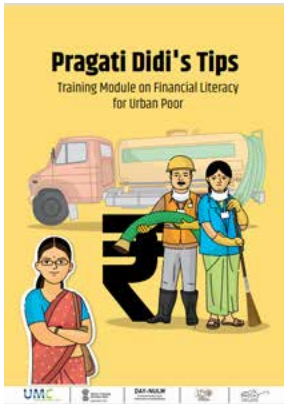
Read More: *https://umcasia.org/wp-content/uploads/1.-Training-module-for-Sewer-Entry-Professionals.pdf*

Mobilising Community Groups for Sanitation and Livelihoods

Urban Management Centre (UMC), Ahmedabad

This module is designed for state and urban local body functionaries, including officials managing SBM and NULM schemes. Its primary objective is to build capacities in the sanitation sector by identifying and promoting sanitation-based livelihood opportunities. Through this, the module aims to address the need for skilled workers to manage sanitation infrastructure created under various national missions.

Read More: *https://umcasia.org/wp-content/uploads/UMC_SanitationLivelihoods_04.01.20_isbn_UMClogo-compressed_230920.pdf*



Training Module on Financial Literacy for Urban Poor

Urban Management Centre (UMC), Ahmedabad

This module is designed to empower sanitation workers by enhancing their understanding of financial management and enabling them to make informed decisions about their income, savings, and investments. Targeted at self-help group members and sanitation workers, the module offers practical guidance on managing expenses, accessing affordable credit, and utilizing government schemes. The objective is to promote financial prosperity and security through responsible borrowing, investment, and long-term financial planning. Each slide is explained through the trainer's manual, created for ULB officials to support them in conducting the trainings.

Read More: *https://umcasia.org/assets/FLM_Manual_English.pdf*

Kerala UWM Conclave Report 2024

United States Agency for International Development (USAID), Washington DC

The Kerala UWM Conclave 2024 was organized to support the piloting and scaling of Used Water Management (UWM) projects in the state, addressing potential challenges and preventing project stagnation. Through technical sessions, case studies, and panel discussions, the Conclave aimed to foster knowledge exchange among academics, technical experts, and policymakers, introduce key stakeholders to infrastructure and strategies for FSSM and Greywater Management (GWM), and integrate climate resilience and circularity into treatment approaches. It also sought to build consensus for a clear sewerage policy in Kerala with empowered agencies. The Conclave outcomes included a shared understanding of organizational roles in UWM, advanced treatment technologies, and policy directions for overcoming challenges and ensuring field feasibility of various UWM projects.

Read More: *https://washi.sharepoint.com/:b:/s/USAIDCBTeam/EWyBVcP7pa1CtL3tlNoUQxsBd3wZZS_wPZIeT7NI0Jwm5g?e=h1EzNW*

E-Learning Modules: CT/PT Modules

United States Agency for International Development (USAID), Washington DC

India has made significant progress in universal toilet access through the Swaccha Bharat Mission, with community and public toilets playing a key role. To sustain these efforts, the Toilet Board Coalition and WASH Institute have developed Hindi e-learning modules to train and certify sanitation workers in toilet cleaning and maintenance, helping them improve their skills and achieve better Swacch Survekshan ratings.

Read More: *https://shorturl.at/jBMYa*

Proceedings of National Capacity Building Workshop- Accelerating Change for Safe Sanitation

United States Agency for International Development (USAID), Washington DC

The second National Capacity Building Workshop on Used Water Management (UWM) under Swachh Bharat Mission – Urban 2.0 brought together sector experts and state-level functionaries to share experiences and promote cross-learning. The workshop aimed to accelerate UWM initiatives across all urban local bodies (ULBs), celebrate state progress, and share lessons with ULBs still working toward the Mission's objectives. Key themes included toilet access and maintenance, mechanized cleaning of sewer systems, procurement, technology selection, and Fecal Sludge Management (FSM) for small and medium towns. Each session provided decision-makers with insights into successful UWM models, technologies, and approaches to drive progress toward ODF++ and Water+ goals. The focus on creating SafaiMitra Surakshit Shehar (safe cities for sanitation workers) highlighted various state-led schemes aimed at improving the welfare of sanitation workers, offering a model for ULBs to follow for achieving "Safe Sanitation for All."

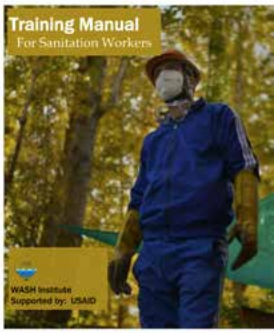
Read More: *https://washi.sharepoint.com/:b:/s/USAIDCBTeam/EcpEuFQTqxpPvf7KCivgxMgBuICFeSaIt-vePk5zclPTaQ?e=ob2ktg*

E-Tutorials: Simplified Sewer Networking

United States Agency for International Development (USAID), Washington DC

The video demonstrates how a simplified sewer network can effectively address sewage disposal issues and facilitate the construction of individual toilets. It highlights the planning and construction processes that involve community members, showcasing the benefits of improved sanitation and community engagement.

Read More: *https://youtu.be/VQg3Veaojdg?si=1Rcj7LtYuAfeYHPx*



Training Manual for Sanitation Workers

United States Agency for International Development (USAID), Washington DC

This training manual was developed to address the critical safety concerns faced by sanitation workers in Fecal Sludge Management (FSM). By providing comprehensive guidelines on safe practices, the manual aims to equip workers with essential knowledge about using personal protective equipment (PPE), understanding harmful gases, and minimizing exposure to sludge. It also emphasizes the importance of proper desludging techniques, compliance with septic tank standards, and effective waste disposal methods. Ultimately, the training manual serves as a vital resource to enhance worker safety, promote best practices, and ensure the well-being of sanitation professionals in their challenging roles.

Read More: *Training Manual for sanitation workers.pdf*

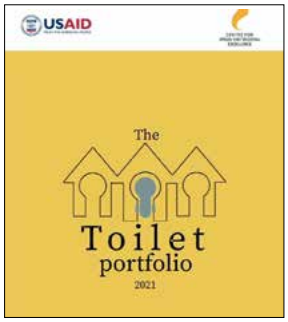
E-Tutorials: DEWAT

United States Agency for International Development (USAID), Washington DC

The video outlines the need for Decentralized Wastewater Treatment Systems (DEWATS) and highlights their importance, functionality, and ease of operation and maintenance. It emphasizes DEWATS as a decentralized solution for effective wastewater management.

Read More: *https://youtu.be/JiX45SO_6E4?si=nuvQO33jMoKSm8uF*

The Toilet Portfolio



United States Agency for International Development (USAID), Washington DC

This document outlines the urgent need for effective sanitation solutions for urban poor communities, highlighting the significant challenges they face in accessing decent toilets and proper waste management. Despite the existence of community toilets, many remain poorly maintained and inadequate, prompting a preference for open defecation, which has dire health and economic implications. Recognizing that household toilets are crucial for enhancing health and reducing poverty, CURE has developed innovative models for decentralized sanitation systems, including household and community toilets, tailored to various contexts. These models have been co-created with urban poor communities and focus on financial mechanisms and ecological approaches to sanitation. This portfolio serves as a resource for replicating successful sanitation solutions and aims to mentor organizations in implementing these designs while encouraging feedback and collaboration within the sanitation community.

Read More: *https://cureindiaorg-my.sharepoint.com/:b:/g/personal/manasmita_cureindia_org/EWf11HU9g25Dgk0-Qfw8U7gBSlGSfVjVY16KNHB2r5JTDA?e=HjAhpa*

Agra Urban WASH Fact Sheet

United States Agency for International Development (USAID), Washington DC

The factsheet provides essential demographic data and information on WASH infrastructure and practices in Agra city, derived from the PASS slum baseline survey conducted from 2015 to 2019. It highlights key statistics and insights to inform efforts in improving sanitation and water access for slum communities.

Read More: *https://drive.google.com/file/d/1vC37WwK6HoNS9Dai4SIcT6cLMqD7cbkU/view?usp=sharing*

Jaipur Urban WASH Fact Sheet

United States Agency for International Development (USAID), Washington DC

The factsheet offers crucial demographic data and insights on WASH infrastructure and practices in Jaipur city, based on the PASS slum baseline survey conducted from 2015 to 2019. It presents key statistics to guide initiatives aimed at enhancing sanitation and water access for slum communities.

Read More: *https://drive.google.com/file/d/1MT-w29TN7IU3EisRuOqJN16IVxHmUpuJ/view?usp=sharing*

Delhi Urban WASH Fact Sheet

United States Agency for International Development (USAID), Washington DC

The factsheet provides essential demographic data and information on WASH infrastructure and practices in Delhi city, derived from the PASS slum baseline survey conducted from 2015 to 2019. It highlights key statistics and insights to inform efforts in improving sanitation and water access for slum communities.

Read More: *https://drive.google.com/file/d/1gyWWWJMa0n6edpYtDAMZwchb0QH2qPTp/view?usp=sharing*

Dharamshala Urban WASH Fact Sheet

United States Agency for International Development (USAID), Washington DC

The factsheet delivers crucial demographic data and information on WASH infrastructure and practices in Dharamshala city, based on the PASS slum baseline survey conducted from 2015 to 2019. It highlights key statistics and insights to guide efforts in enhancing sanitation and water access for slum communities.

Read More: *https://drive.google.com/file/d/1plWyE4wRPyEoH0-Ki4fRjmGNNAOkSHNV/view?usp=sharing*

Shahjahanpur Urban WASH Fact Sheet

United States Agency for International Development (USAID), Washington DC

The factsheet presents essential demographic data and information on WASH infrastructure and practices in Sahjahanpur city, based on the PASS slum baseline survey conducted from 2015 to 2019. It highlights key statistics and insights to inform initiatives aimed at improving sanitation and water access for slum communities.

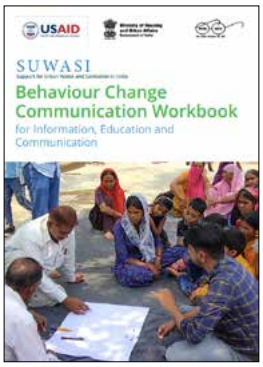
Read More: *https://drive.google.com/file/d/1KehkOGDQKS1LGrZ8t4O3QKKNqfEWmmfv/view?usp=sharing*

Comic Book: Sanitation Workers

United States Agency for International Development (USAID), Washington DC

WASH Institute developed a comic book to highlight the experiences of sanitation workers, who are often the unsung heroes of our society. The comic showcases the daily challenges faced by these workers, while also recognizing their essential role in maintaining public health and sanitation. Through engaging storytelling and illustrations, the comic aims to bring awareness to the critical work they do, often in difficult and dangerous conditions, and to foster greater respect and appreciation for their efforts. By shining a light on their experiences, WASH Institute hopes to inspire better support, safety measures, and recognition for sanitation workers.

Read More: *Final WASH Comic24 July compressed*

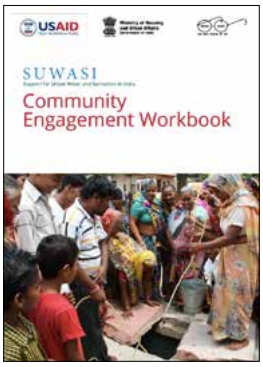


Behaviour Change Communication Communication Workbook

United States Agency for International Development (USAID), Washington DC

The BCC Workbook is a flexible guide for city managers and officials to design effective IEC campaigns for SBM-U 2.0, offering templates and strategies based on CURE's experience. It supports diverse stakeholders in creating inclusive, innovative BCC plans while evaluating campaign impact.

Read More: *https://cureindiaorg-my.sharepoint.com/:b:/g/personal/manasmita_cureindia_org/EdPg_KUW_5RHtLPDu21_IrIB4guD8och6-9hr6_Tpeg-dg?e=idLndp*

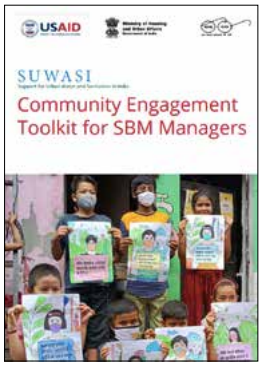


Community Engagement Workbook

United States Agency for International Development (USAID), Washington DC

The Community Engagement (CE) Workbook is a flexible guide for city managers to plan effective strategies for engaging communities under SBM-U 2.0. It provides templates and tools, based on CURE's experience, to foster collaboration and localized planning for improved sanitation outcomes.

Read More: *https://cureindiaorg-my.sharepoint.com/:b:/g/personal/manasmita_cureindia_org/ESGaRead_1RAl6tJilxMxTwBEVpJuiDlQuws4RVqtB4GcQ?e=zcInaM*

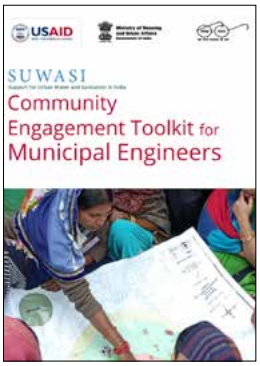


Community Engagement Toolkit for SBM Managers

United States Agency for International Development (USAID), Washington DC

The toolkit is designed to help SBM managers engage communities in planning, designing, and implementing processes for effective waste management and sanitation under SBM-U 2.0. It supports community involvement to enhance program outcomes.

Read More: *https://cureindiaorg-my.sharepoint.com/:b:/g/personal/manasmita_cureindia_org/EUz5S7fmFKNFtRVrFTIW-DsByVM3gC9iWuUXKVCJSbGXCw?e=ubPu4p*

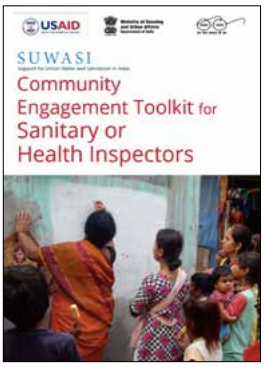


Community Engagement Toolkit for Municipal Engineers

United States Agency for International Development (USAID), Washington DC

The toolkit is specifically designed to assist Municipal Engineers in engaging communities for planning, designing, and implementing effective waste management and sanitation processes under SBM-U 2.0. It promotes community involvement to improve program outcomes.

Read More: *https://cureindiaorg-my.sharepoint.com/:b:/g/personal/manasmita_cureindia_org/EepfdFBqSTNIgAaluniF0nUBfVtLpgu6KvTWSi-KlWVDZw?e=l6BZV8*

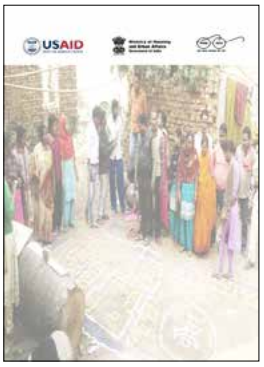


Community Engagement Toolkit for Sanitary or Health Inspectors

United States Agency for International Development (USAID), Washington DC

The toolkit aids Sanitary and Health Inspectors by providing a step-by-step guide for effective community engagement in SBM-U 2.0 activities. It helps address community concerns and aspirations, ultimately improving sanitation service delivery and outreach at the local level.

Read More: *https://cureindiaorg-my.sharepoint.com/:b:/g/personal/manasmita_cureindia_org/EWsMYxcx6cpHpMiIt-yAfIsBsFVbpiyPDdj44Fepogkuig?e=ecKBVi*



Compendium on NGO-led Initiatives

United States Agency for International Development (USAID), Washington DC

This compendium is focused on documenting and sharing the transformative impact of NGO-led sanitation initiatives. Its intention is to serve as a resource for understanding successful practices and lessons learned, thereby contributing to a collective knowledge base that fosters ongoing improvements in urban sanitation. By highlighting these initiatives, the compendium aims to inspire and inform stakeholders, ultimately shaping the future of urban sanitation in India toward healthier and more sustainable outcomes.

Read More: *https://cureindiaorg-my.sharepoint.com/:w:/g/personal/manasmita_cureindia_org/EdVgd_b12qBAtCf6W47brikB9_OhW63oV3FocZQ8RRKH0A?e=92UZt5*

E-learning Modules: Fecal Sludge and Septage Management (FSSM)

United States Agency for International Development (USAID), Washington DC

List of E-learining Modules:

1. Estimating Fecal Sludge Generation for a City/Town
2. Estimating Truck Requirement for a City/Town
3. Personal Protective Equipment for Desludging
4. Fecal Sludge Treatment Technologies Part 1
5. Fecal Sludge Treatment Technologies Part 2
6. FSSM Regulations
7. Co-treatment of Fecal Sludge
8. Overview of FS Treatment Technologies
9. Site selection for FSTP
10. Deep Row Entrenchment
11. Business Models in FSM
12. Gender Inclusiveness in FSM
13. Build your FSTP

Read More: *https://shorturl.at/HEvVF*

Training Manual: ERSU (Emergency Response Sanitation Unit)

United States Agency for International Development (USAID), Washington DC

Under the Prevention of Employment as Manual Scavengers and their Rehabilitation Act (PEMSRA, 2013) and provisions of the Indian Penal Code, manual scavenging is illegal, yet extreme situations still arise where blocked sewers or septic tanks require human intervention due to inadequate mechanical equipment, leading to sewage overflows and public health hazards. In contrast, sanitation workers in developed countries are properly trained and equipped when entering hazardous confined spaces. The primary cause of deaths in Indian sewers and septic tanks is the lack of personal protective equipment (PPE), insufficient training, and non-adherence to safety protocols by workers and their supervisors. As urban sanitation improves, the number of maintenance holes and septic tanks will rise, making it crucial to systematize human entry into these spaces. The establishment of Emergency Response Sanitation Units (ERSU) aims to provide a professional, well-trained, and properly equipped workforce for managing sewers and septic tanks, ultimately preventing fatalities due to inadequate skills, improper PPE use, and disregard for safety protocols. ERSUs offer a structured approach to safeguard the lives of sanitation workers while ensuring proper management of sewer networks and septic systems.

Read More: *Final Training Manual_Setting up ERSU*

Ministry of Housing and Urban Affairs
Government of India