

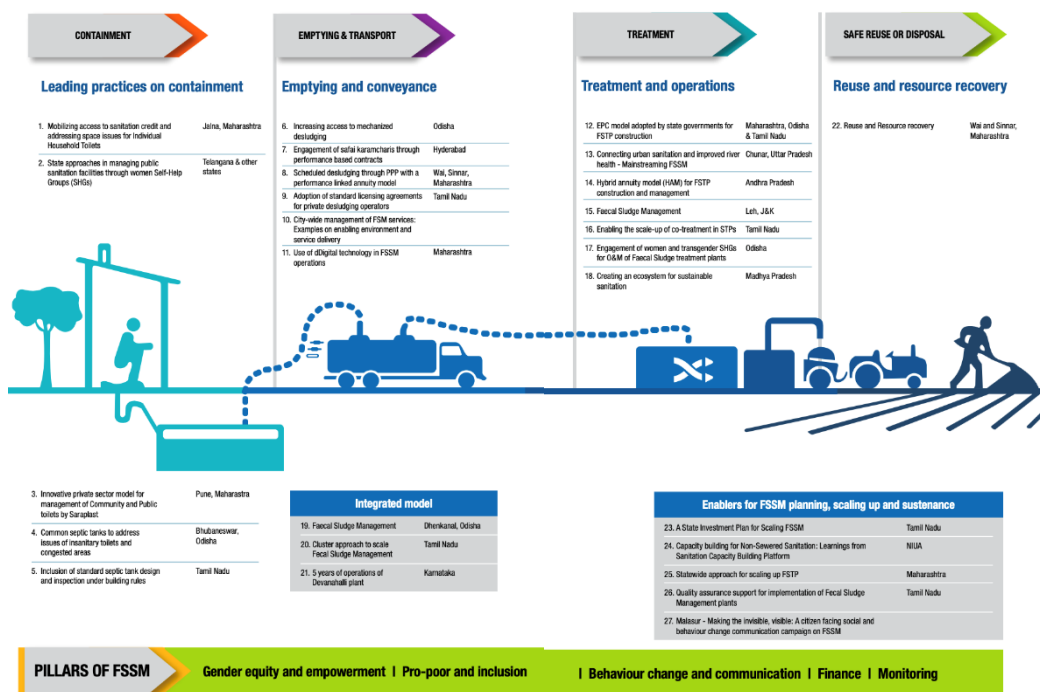
FSSM Models and Best Practices (Case Study Compilation)

(Developed for the U20 Summit, parts of which were published as blogs)

1. Encouraging Environmentally Responsible Behaviors

By 2030, half of India's population will live in urban cities, increasing the amount of faecal sludge generated. Currently, half of this sludge is dumped in open drains, which pollutes water bodies and makes clean resources inaccessible to the urban poor and vulnerable. This also disrupts city systems and affects the environment. A single truck of faecal sludge dumped into the open is equivalent to 5000 people defecating in the open. This pollution affects the soil's carbon absorption capacity and contributes to climate change. To mitigate these issues, cities need better faecal sludge treatment systems and processes to become more resilient.

FSSM Models & Best Practices (Report)



This joint publication by NITI Aayog and the National Faecal Sludge and Septage Management Alliance showcases leading faecal sludge and septage management practices in urban India. The report covers various models and interventions across the FSSM value chain, including state and city-level initiatives, private sector-led models, and community participation. It is intended for various stakeholders to understand the developments and opportunities in FSSM.

Link: <https://nfssmalliance.org/wp-content/uploads/2021/01/NITI-NFSSM-Alliance-Report-for-digital-compressed.pdf>

The Road to Inclusive Sanitation (Video)



It is critical to scale models of inclusive sanitation so India can achieve its Sustainable Development Goal 6.2 - clean water and sanitation. Solving for sanitation will have a direct impact on other sectors including gender, good health, employability, and the environment. This in turn will build resilient urban spaces where all communities can live with dignity and justice.

Link: [The Road to Inclusive Sanitation](#)

Let's Talk Shit (Video)



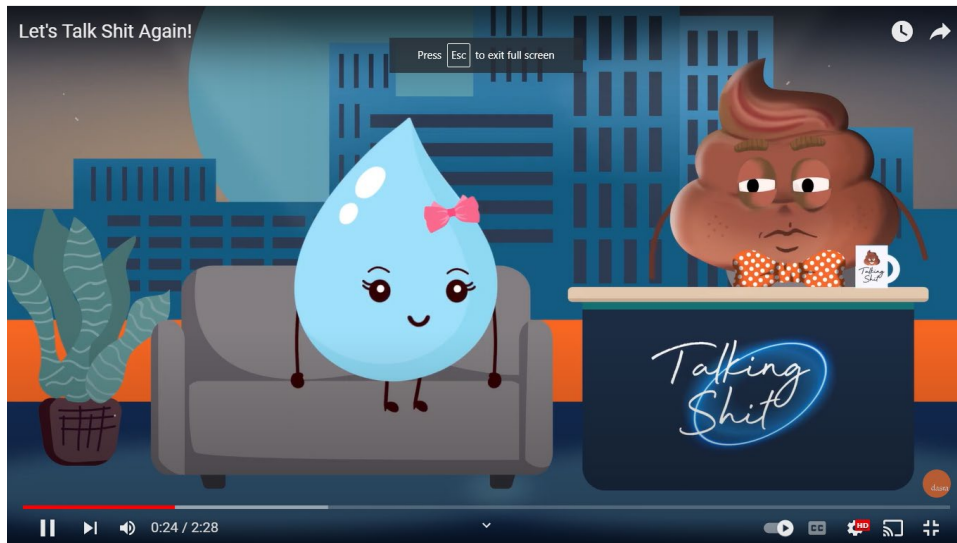
Through an interactive game show format, 'Let's Talk Shit!' lays down the implications of lack of proper management of human waste on the environment and human health and introduces Feecal Sludge and Septage Management, explaining the need for FSSM and breaking it down in a simplified narrative style.

Link: <https://www.youtube.com/watch?v=oPJxKjHaiYs&t=49s>

2. Ensuring Water Security

The disposal of untreated waste into water bodies is the single biggest source of water resource pollution in India. India is the **13th most water stressed country** in the world, with rapidly depleting groundwater levels and close to 70% of surface water being contaminated. This is further worsening the problem of water scarcity and lack of access to safe water for all living beings. Safe disposal and treatment of human waste has a pivotal role to play in ensuring water security.

Let's Talk Shit 2.0 (Video)



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.

Link: <https://www.youtube.com/watch?v=xnKRRJKHX7c>

A holistic water management system in urban areas for a sustainable future (Media Story)

Publication: Down to Earth

Author: Krishna Rao, Advisor Program & Management, WASH Institute, Member, NFSSM Alliance

Context

The article highlights India's water resource challenges stemming from urbanization, resulting in a heightened reliance on groundwater resources and strained water supplies. To mitigate these issues, the article advocates for the implementation of an innovative approach called Integrated Urban Water Management (IUWM), which factors in the local context, facilitates coordinated planning, and prioritizes stakeholder involvement. The article underscores the necessity for a paradigm shift in water management in India to tackle the obstacles of water scarcity, environmental risks, and public health hazards triggered by water pollution.

Solution

Integrated urban water management system (IUWM) is a process that ensures water supply, used water management, sanitation and stormwater management can be planned in line with economic development and land use. This process makes coordination among water departments easier at the local level and helps cities adapt to climate changes and manage water supply more efficiently. Collaborative action involving all stakeholders is one of the leading principles of IUWM, and a shift in perception must view water in connection with other urban sectors. IUWM prioritizes a rights-based solution approach over a one-size-fits-all approach and ensures water management can be done based on the quality and quantity of water targeted toward specific uses. One of the reasons for adopting IUWM is to prioritize access to water for the most vulnerable communities. Recent policies by the central government can help pave the way for state-wise planned implementation of IUWM to tackle water scarcity, address public health risks and make cities climate resilient.

Link: <https://www.downtoearth.org.in/blog/urbanisation/a-holistic-water-management-system-in-urban-areas-for-a-sustainable-future-85214>

Integrated urban water management (Opinion piece)

Publication: TOI

Author: Krishna Rao, Advisor Program & Management, WASH Institute, Member, NFSSM Alliance

Context

The article discusses India's urbanization, which is projected to double by 2050, and the increasing demand for water and food that is much higher than its supply in cities. The expansion of urban boundaries renders the surface water sources inadequate for the growing population, leading to an increased dependence on groundwater resources. Central Ground Water Board data has found that as many as 256 of 700 districts in India have reported 'critical' or 'over-exploited' groundwater levels. This, combined with contamination, pollution, and climate change, makes it necessary to manage water and its quality in our cities. Currently, different departments in India manage different types of water based on its utilities, leading to siloed planning and implementation. There is a need to shift from this 'siloed' approach to the 'systems' approach where the entire urban water cycle is understood, and integrated solutions are prioritized. The systems approach is referred to as Integrated Urban Water Management (IUWM), where all components of the urban water cycle are managed in a holistic and sustainable manner.

Solution

The article proposes the solution of Integrated Urban Water Management (IUWM), which considers the intersection of the water sector with other aspects of urban planning such as city infrastructure, economic development, and land use. It also ensures that water is viewed as a resource rather than an end product and that water management is carried out on the basis of quality and quantity of water, meeting the specific requirements of various categories of end-users. IUWM gives importance to the local context and requirements and expands the scope for involvement of multi-stakeholder participation in decisions related to water. IUWM has the potential to ensure efficient management of water resources and prioritize the most vulnerable in cities. It is a paradigm shift required in how water management is carried out in the nation. The government of India has taken necessary action by implementing the Swachh Bharat

Mission (SBM) and the Jal Jeevan Mission (JJM), and there is potential for all these initiatives to converge in Indian cities systematically through IUWM.

Link:<https://timesofindia.indiatimes.com/blogs/voices/integrated-urban-water-management/>

3. Accelerating Climate Finance

India is highly vulnerable to climate extremes, ranking seventh in the world, and has been experiencing more frequent and intense extreme weather events in recent years, which have disproportionately affected vulnerable communities. Climate change can also disrupt the functionality of urban sanitation services by damaging or reducing accessibility to sanitation infrastructure, and untreated human waste is a significant source of greenhouse gas emissions, contributing to global warming. Therefore, it is crucial to prioritize the climate resilience of sanitation services and reduce greenhouse gas emissions through proper FSSM.

Let's Talk Shit! #3 (Video)



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.

Link: [Let's Talk Shit! #3](#)

Centre for Science and Environment: A Zero Effluent Environment (Video)



This video captures the Centre for Science and Environment's commitment towards zero effluent environments. Sunita Narayan takes one on a tour around their office and covers zero effluent office components, including rainwater harvesting and wastewater treatment systems, helping the viewers understand the importance of having a zero effluent office spaces, the costs involved and the ways in which such models can be retrofitted.

Link: [Centre for Science and Environment: A Zero Effluent Environment](#)

World Toilet Day: So far, we have overlooked sanitation in the climate resilience discourse (Opinion Piece)

Publications: Down to Earth

Author: Parnasha Banerjee, Associate Director, Urban WsH, Dasra

Context

The article emphasizes the urgent need to address the missing link of sanitation in building resilience against the impacts of climate change in India, especially for vulnerable communities. Safe and inclusive sanitation solutions can play a crucial role in safeguarding against risks like water scarcity and natural disasters. The call is for collaborative action to prioritize intersectional narrative in service delivery for access to safe and sustainable sanitation services.

Solution

Investing in sanitation solutions that focus on the entire sanitation value chain can play a pivotal role in tackling water pollution and making cities more resilient to handle the anticipated increase in water stress. Sanitation must be included in disaster risk reduction and management guidelines and programs. Collaborative action among the government, private philanthropists, and experts is critical to building an enabling ecosystem. Service delivery infrastructures must be built resiliently to manage disasters more holistically and provide safe and dignified sanitation, especially during disaster/climate change events. An intersectional, inter-sectoral understanding is also essential to enabling access to safe and sustainable

sanitation services in the wake of the climate crisis. The article highlights that a comprehensive approach to sanitation can have a significant impact on building resilience against climate change.

Link:<https://www.downtoearth.org.in/blog/water/world-toilet-day-so-far-we-have-overlooked-sanitation-in-the-climate-resilience-discourse-86079>

World Environment Day Special – Engendering Climate Change Action (Opinion Piece)

Publication: NDTV

Author: Anju Dwivedi, Associate Fellow, and Tripti Singh, Senior Research Associate, Centre for Policy Research, Member, NFSSM Alliance

Context

This article sheds light on the gender inequality issues arising in India due to climate change. According to the United Nations Framework Convention on Climate Change (UNFCCC), women are at higher risk and experience greater impacts of climate change due to social, economic, and political barriers that limit their ability to cope. Women are also more likely to experience intensified gendered labor division during and after disasters. Additionally, the article notes that women have unequal access to safety nets, and existing cultural and social norms restrict their mobility.

Solution

To ensure gender-responsive climate strategies concerning water, sanitation, and hygiene (WASH) in India, the article recommends the following:

1. Development of new gender-responsive policy instruments and adaptation of existing ones from a gender perspective focusing on WASH. It is critical to place women's voices at the center while designing gender-responsive climate strategies.
2. Participatory planning. Women's participation in local bodies in India and the availability of democratic structures offer opportunities for their engagement in climate adaptive planning.

The UN Climate Change and the Human Rights to Water and Sanitation Position Paper highlights the importance of ensuring the participation of the vulnerable community in the design and implementation of interventions. India's Intended Nationally Determined Contributions (INDCs) on climate change aim to address poverty and gender inequality. However, the commitment is not clearly articulated in the top priorities identified under mitigating and adaptive strategies of INDCs.

Link:[World Environment Day Special - Engendering Climate Change Action | Expert Blog \(ndtv.com\)](#)

4. Leveraging 'Local' Potential and Identity

Engaging local champions and grassroots in the planning, implementation, and maintenance of sanitation infrastructure is critical for achieving inclusive sanitation in urban areas. This approach builds ownership, promotes sustainability and effectiveness, and enables development of context-specific, culturally appropriate, and long-term solutions that empower communities and meet the diverse needs of urban residents.

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



This book highlights the stories of **15 resilient individuals** making a difference on the front lines across the **urban sanitation value chain**. Each with a compelling tale and a unique identity, these individuals represent the human face of our country's efforts to ensure safe and sustainable sanitation for all.

Link: https://drive.google.com/file/d/1w9v1TTTeb0lvSce_G3UDWWTOD5E3rzh/view

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



Strong leadership at the city and state level is a building block for resilient and sustainable WASH service delivery. Frontline Stories of Resilience brings stories of **19 Government Champions** across India who have championed inclusive sanitation outcomes. During the COVID-19 pandemic, when systems were put to test, and the world stayed indoors, Government officials across all states and cities resiliently

worked round the clock to ensure seamless service delivery. Through these case studies we showcase government champions whose prompt and strategic decision-making not only ensures regular sanitation service delivery but also safeguards the sanitation workers and vulnerable communities.

Link: <https://nfssmalliance.org/Frontline-stories-of-resilience/>

Truth to Power (Booklet)

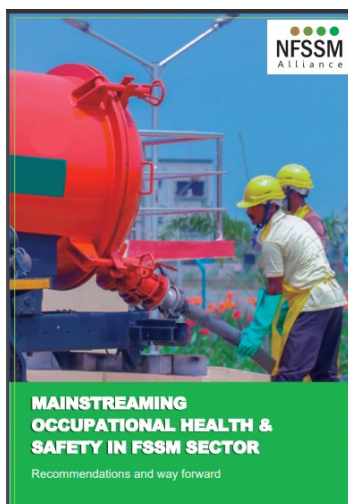


Truth to Power is a booklet on the rights and safety of sanitation workers. It explores Sanitation Worker Dignity through the following Best Practices:

- a. Recognition of Sanitation Workers Under Regulatory Systems
- b. Making Sanitation Work safer and more dignified through inclusive practices
- c. Building avenues for socio-economic empowerment of families of sanitation workers

Link: <https://www.dasra.org/urban-sanitation/rights-and-safety-of-sanitation-workers>

Mainstreaming OHS in the FSSM Sector (Recommendations Document)



The document emphasizes the importance of Occupational Health and Safety (OHS) in Faecal Sludge and Septage Management in India. The informal and privately run nature of the sanitation service industry

often leads to unreported accidents that have long-term impacts on workers. Mainstreaming OHS in the sector will reduce incidents, improve workers' social profile, and raise their dignity of work. The article provides specific recommendations for policy, regulation, enforcement, and monitoring stakeholders at various levels, with a step-by-step approach for achieving sustainable outcomes.

Link: https://drive.google.com/file/d/1oJzQjCBc_6WVmPB3Kx4Wd-duliXHTsH/view

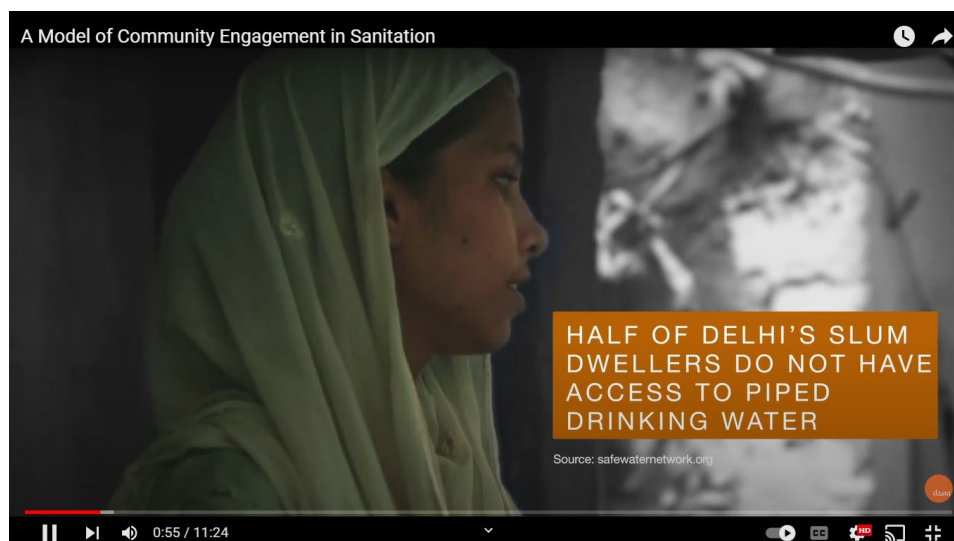
Personal Protective Equipment for Sanitation Workers (An Illustrated Guide)



The Guide provides a view of the different categories of the sanitation workforce: toilet maintenance, drain maintenance, desludging operators, plant operators, street sweeping, garbage collectors, vehicle drivers, transfer sanitation workers, NGO and ASHA workers. The Guide specifies the type of PPE required by different types of workers in the sanitation value chain.

Link: https://drive.google.com/file/d/1iymLye6NSv_4G8mrsdRQauZfHauBGZ6P/view

A Model of Community Engagement in Sanitation (Video)



CFAR empowers women's collectives in Delhi slums to demand water, sanitation, and hygiene services from the government. Women's groups have presented solutions in partnership with the government to improve sanitation, such as repairing community toilets and mapping the slum for water connections. CFAR's model involves defining the urban poor, collectivizing women, encouraging participation and

collaboration, strengthening impact, institutionalizing engagement, and using water and sanitation as a starting point for convergence on all benefits. This successful model has potential to be scaled across India.

Link: <https://youtu.be/HbbgTCTkItQ>

A model of community engagement for sanitation-based livelihoods (Video)



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.

Link: [UMC: A Model of Community Engagement in Sanitation Based Livelihoods](#)

Championing FSSM in Odisha with G Mathi (Video)



Under the leadership of Shri Mr. G. Mathi Vathanan, Odisha has witnessed a transformation in its sanitation system. Using a unique model of community engagement and prioritizing environmental protection, Odisha set an example to the world by taking the right actions towards effectively treating faecal sludge. This is a conversation with the FSSM champion who made it possible.

Link: [Championing FSSM in Odisha - with G. Mathi Vathanan, Principal Secretary, Govt. of Odisha](#)

Sanitation workers deserve an inclusive ecosystem — here are 5 best practices for their safety and dignity (Opinion Piece)

Publication: Down to Earth

Author: Meghna Malhotra (Deputy director, Urban Management Centre; Member, NFSSM Alliance)

Context

The article emphasizes the need to improve the working conditions, financial stability, and dignity of the sanitation workforce in India. The sanitation workforce is mostly composed of people from the most marginalized socio-political communities, and it is imperative to enumerate them to ensure they are included in welfare measures. The article recommends integrating mechanized solutions, providing Personal Protective Equipment, upskilling sanitation workers, leveraging Self-Help Groups, and setting up Emergency Response Sanitation Units to ensure the safety and dignity of sanitation workers.

Solution

The article highlights successful measures such as the Odisha government's GARIMA scheme, which provides uniforms and rest areas for sanitation workers. The Self-Help Group (SHG) model can also provide vulnerable groups with the safety of a community and opportunities to improve their skills and socio-economic well-being. Ultimately, implementing these best practices can ensure sanitation workers' safety at work, reduce discriminatory situations, and provide them with a dignified identity in the communities they serve. By prioritizing the welfare of sanitation workers, we can create a safer and more equitable urban environment for all.

Link: <https://www.downtoearth.org.in/blog/governance/sanitation-workers-deserve-an-inclusive-ecosystem-here-are-5-best-practices-for-their-safety-and-dignity-88540>

Explained: How GARIMA Scheme Is Empowering Sanitation Workers in Odisha (Opinion Piece)

Publications: India Times

Author: Meghna Malhotra, Deputy Director of Urban Management & Member, NFSSM Alliance

Context

The article discusses the challenges faced by sanitation workers in Odisha and how the GARIMA Scheme is empowering them. Sanitation work is hazardous, informal and stigmatized, leaving workers with no formal social, financial or occupational benefits. The GARIMA Scheme recognizes sanitation workers as professionals entitled to safety, benefits, and rights and provides them with PPEs, training, and financial benefits. The scheme also extends educational grants to cover the costs of tuition and hostel fees up to post-graduation, thereby securing the social security of sanitation workers and their families.

Solution:

The GARIMA Scheme has been successful in empowering sanitation workers in Odisha by recognizing their professional status, identifying core sanitation worker categories, and creating a dynamic database of 15,000+ informal sanitation workers. The scheme has provided appropriate PPEs, safety devices, and Garima Grihas for rest, washing, bathing, and changing. It has also mandated skill development and periodic capacity building of core sanitation workers and created a training ecosystem with appropriate pedagogy. Furthermore, the scheme has increased the wages of sanitation workers by 33-50%, provided additional risk and hardship allowances of 15%, and extended health insurance and life insurance. Post-service monthly perks and benefits have also been provided.

The GARIMA Scheme has also socially empowered sanitation workers by extending educational grants to cover the costs of tuition and hostel fees up to post-graduation. This has secured the social security of sanitation workers and their families. The scheme has emerged as a learning model for other states to adapt and enable sanitation worker safety and dignity.

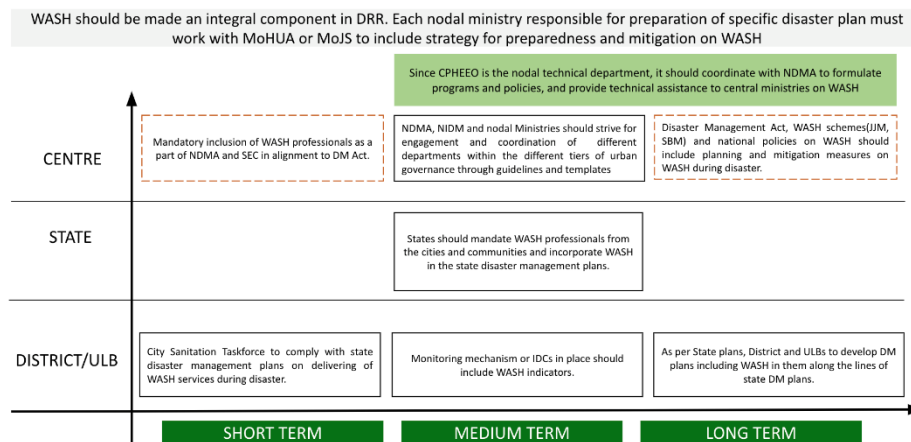
[Link;https://www.indiatimes.com/explainers/news/explained-how-garima-scheme-is-empowering-sanitation-workers-in-odisha-587829.html](https://www.indiatimes.com/explainers/news/explained-how-garima-scheme-is-empowering-sanitation-workers-in-odisha-587829.html)

5. Reinventing Frameworks for Urban Governance and Planning

The rapid urbanization in India has led to daunting challenges in urban sanitation, including faecal sludge mismanagement, crumbling infrastructure, and heightened disaster risks. These pose a danger to public health and the environment. Immediate action is needed to create innovative planning and governance frameworks for shared infrastructural needs such as waste management, sanitation facilities, and water supply. Sustainable sanitation principles, waste management systems, and disaster preparedness should be integrated to rejuvenate various city zones. The urgency of the matter must not be overlooked, and swift action must be taken to tackle these issues before they become critical.

Disaster Risk Reduction Framework

India is highly vulnerable to disasters due to its geographic and socio-economic conditions. Inadequate WASH infrastructure and services exacerbate the impact of disasters. The NFSSM Alliance has mapped WASH interventions for different types of disasters, but current disaster management frameworks focus mostly on relief-based WASH measures. There is a need to integrate WASH in mitigation, preparedness, and recovery planning. Recommendations propose ways to better integrate WASH in disaster management at various levels of government, drawing on international frameworks and organizations such as CDC and UNICEF.



Link: https://drive.google.com/file/d/1EOhpYvQn6RWiUt_iW_KfB5pSuvhfd3yS/view?usp=sharing

State Best Practices

States which have been forerunners in their sanitation and FSSM journeys have certain best practices which can be scaled and replicated in other states as well. Thus, these state-wise videos have been documented to foster cross-learning.

Odisha

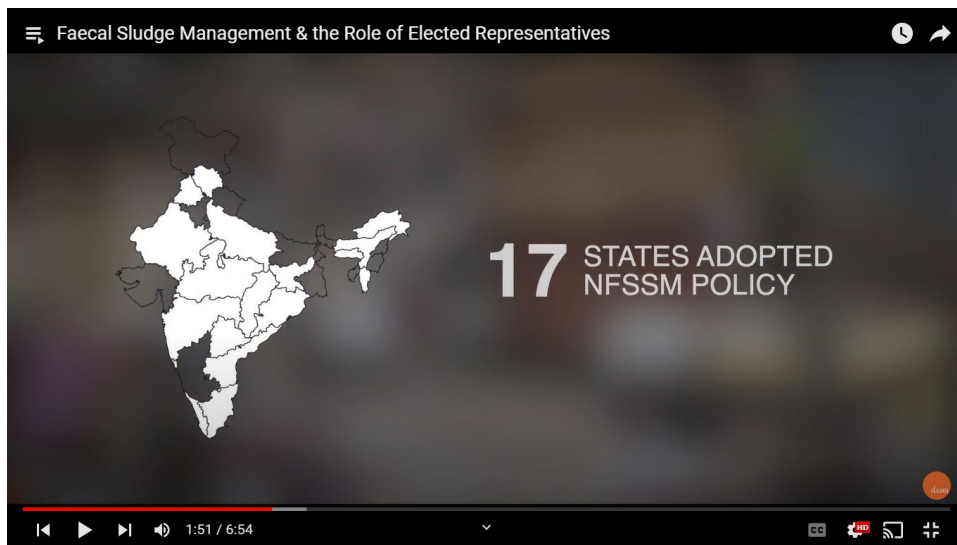
Odisha's FSSM journey (Video)



Odisha has pioneered Faecal Sludge and Septage Management (FSSM) across the state, implementing low-cost non-sewer sanitation systems in response to the prevalence of on-site sanitation systems in urban areas. This successful model has been scaled across all 114 Urban Local Bodies in Odisha, providing important learnings for other states looking to achieve complete sanitation.

Link: [The Road to Safe Sanitation - Odisha's FSSM Journey](#)

FSSM and the role of elected representatives (Video)



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.

Link: [Faecal Sludge Management & the Role of Elected Representatives](#)

Understanding FSSM operations – Deep dive into Bhubaneswar’s STP (Video)



Bhubaneswar, in Odisha, has made significant progress in its approach to dealing with sanitation waste through its unique infrastructure for Faecal Sludge and Septage Management (FSSM). With most toilets in the city connected to septic tanks, Bhubaneswar has developed a low-cost, low-technology model for FSSM, which is showcased in a septage treatment plant. This model can be adopted by other cities in India and around the world.

Link: [Understanding FSSM Operations - A Spotlight on Bhubaneswar's Septage Treatment Plant](#)

Inclusive Sanitation in Odisha (Video)

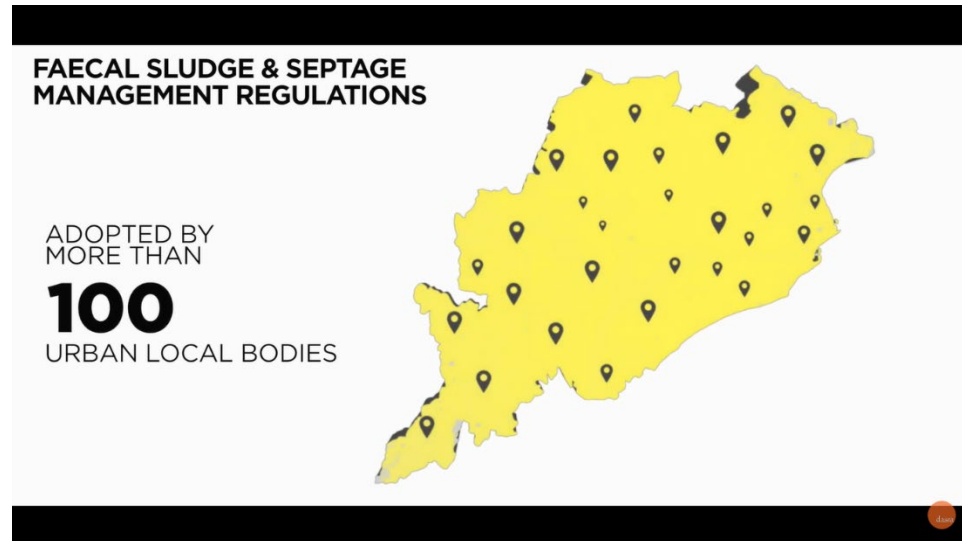


Odisha has recognized the need to empower vulnerable groups and the urban poor, thereby making special efforts to leverage women and transgender Self Help Groups for Faecal Sludge and Septage Management. The SHGs are trained for service delivery and handling operations across the sanitation

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.

Link: [Inclusive Sanitation - Faecal Sludge and Septage Management in Odisha](#)

Prioritizing FSSM regulations

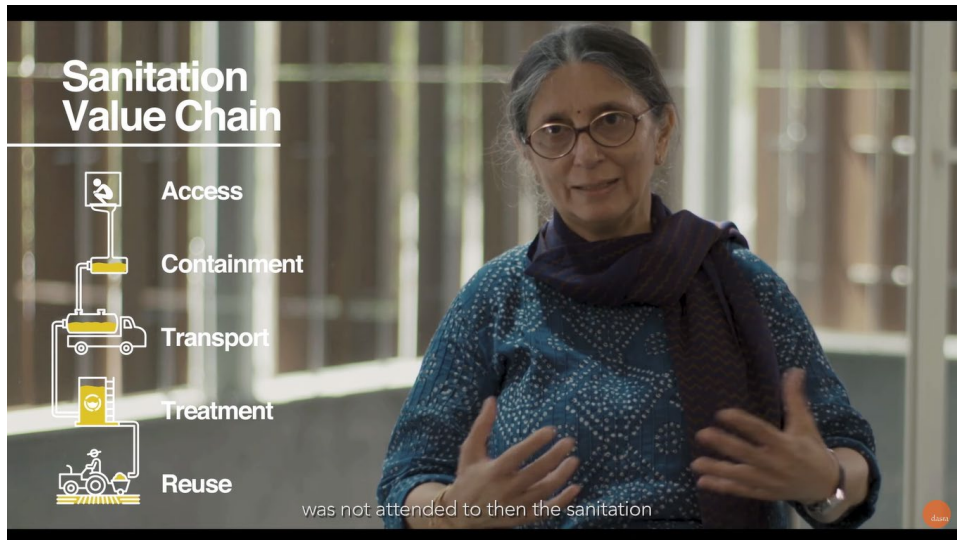


Odisha has successfully implemented Faecal Sludge and Septage Management (FSSM) across the state through the use of robust regulatory frameworks for urban local bodies. The state has ensured provisions for periodic desludging, safe transportation, and proper treatment of faecal waste, with the government using technology for monitoring and involving self-help groups and community members for awareness generation. As a result, there has been a significant improvement in the safety of sanitation workers and higher utilization rates of septage treatment plants.

Link: [Odisha Leading the Way - Prioritizing FSSM Regulations](#)

Maharashtra

Model Sanitation City in Sinnar (Video)



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.

Link: [CEPT: A Model Sanitation City in Sinnar](#)

Telangana

Sanitation Businesswomen in Narsapur (Video)



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.

Link: [A Sanitation Businesswoman Fighting the Odds](#)

Warangal – Model Sanitation City (Video)

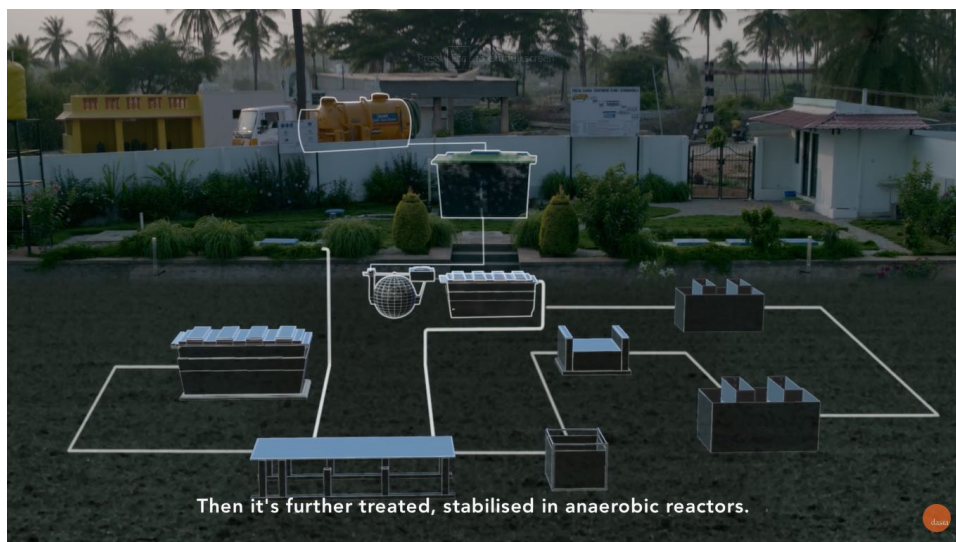


Warangal in Telangana has become a model city in sanitation, with a complete sanitation solution across the value chain. ASCI worked closely with the Greater Warangal Municipal Corporation, engaging the government, private sector, and innovative technologies. The model includes increased access to toilets, 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.

Link: [Warangal - The Model Sanitation City](#)

Karnataka

India's first FSTP in Devanahalli (Video)



This video showcases India's first successful pilot Faecal Sludge Treatment Plant (FSTP) in Devanahalli, Karnataka. With 95% of Indian towns lacking underground sewerage systems, the FSTP offers a solution for treating faecal sludge and converting it into compost for farmers. The Devanahalli FSTP is effective, aesthetically pleasing, and built at a low cost. The video outlines five steps to set up a decentralized Faecal Sludge Management system for any town or city in India, including assessment, land allocation, regulatory environment creation, financial modeling, and community engagement.

Link: [India's First Faecal Sludge Treatment Plant](#)

Inclusive Sanitation – Way Forward for Cities: A checklist and Framework

Urban poor in India face a significant disparity in accessing essential services such as water, sanitation, and hygiene. Approximately 70% of sewage is left untreated in slums where 1 in 6 Indians live in urban areas. The pandemic has worsened this issue, with only 6% of the poorest households having improved sanitation facilities compared to 93% of the richest. The government is making efforts to address this through mandates for universal access to household toilets, aspirational sanitation infrastructure, fair user-charges, and measurement systems. The Inclusive City Framework provides a comprehensive structure to define inclusive cities and a checklist for decision-makers to ensure accessible, affordable, and inclusive sanitation infrastructure.

Link <https://nfssmalliance.org/resources/inclusive-sanitation-for-cities-a-framework-and-a-checklist/>

City-wide inclusive sanitation: Why it is pathway to scaling sustainable and safe sanitation systems (Opinion Piece)

Publication: First post

Author: Niladri Chakraborti, Senior Lead in Practice, IHS and heads the City-Wide Inclusive Sanitation Program (CWIS) & Sugantha Priscilla, senior specialist in social development at IHS, Member NFFSM alliance

Context

The article highlights Trichy, one of four City wide inclusive sanitation cities in India, where initiatives have been implemented to ensure equitable and sustainable service delivery for urban poor communities. The article also discusses how Trichy has addressed unsafe disposal practices, nurtured a dignified workplace for service providers, and integrated gender mainstreaming in service delivery. The implementation of CWIS practices in Trichy has resulted in sanitation services reaching the most marginalized.

Solution

Trichy's initiatives towards CWIS have resulted in sanitation services reaching the most marginalized and vulnerable communities. The city has identified households with space available to construct individual household latrines (IHHL) and introduced various gender-friendly initiatives such as installing sanitary pad vending machines and incinerators for the safe disposal of menstrual waste. The city has also piloted septic tanks with improved treatment systems and an earthworm-based bioreactor effluent treatment to promote safe FSSM practices. Efforts have been made towards inclusive sanitation for trans communities by creating exclusive facilities for trans people and sensitizing caretakers of CT/PTs to ensure trans people can access sanitation services without discrimination. These initiatives are a pathway towards scaling sustainable and safe sanitation systems. Trichy's CWIS practices demonstrate the impact of inclusive and sustainable sanitation on building resilient cities and empowering communities.

Link:<https://www.firstpost.com/opinion/city-wide-inclusive-sanitation-why-it-is-pathway-to-scaling-sustainable-and-safe-sanitation-systems-12126072.html>

Sewer deaths: why machines are not replacing people (Opinion Piece)

Publications: Civil society

Author: Manvita Baradi & Meghna Malhotra Deputy Director of Urban Management & Member, NFSSM Alliance

Context

The article sheds light on the critical issue of manual scavenging in India and highlights the dire situation faced by Dalit community members who are forced to enter manholes and septic tanks without protective equipment, resulting in numerous deaths due to noxious fumes. However, the article also showcases the positive impact of organizations like the Urban Management Centre (UMC) and the National Faecal Sludge and Septage Management (NFSSM) Alliance, which are working towards addressing this issue by providing sustainable solutions for urban sanitation ecosystem and focusing on the safety and dignity of sanitation workers.

Solutions:

To eliminate manual scavenging and ensure the safety and dignity of sanitation workers, the article emphasizes the implementation of successful models such as the Garima and Namaste scheme. These schemes prioritize the safety and well-being of sanitation workers by strengthening city governance systems, developing policies for safe and sustainable handling of human waste, and providing loans, skilling opportunities, and protective gear. Such initiatives, including the State Commission for Core Sanitation Workers in Odisha, have emerged as

successful models for prioritizing the safety and dignity of sanitation workers in the sanitation ecosystem

Link:<https://www.civilsocietyonline.com/cities/sewer-deaths-why-machines-are-not-replacing-people/>

Improving sanitation services in India: How can a citywide scheduled desludging model for onsite sanitation enable safely managed sanitation (Opinion Piece)

Publication: TOI

Author: Aasim Mansuri - Senior Program Lead & Dhruv Bhaskar - Senior Program Lead · Center for Water and Sanitation (C-WAS), Member NFSSM Alliance

Context

The article highlights the critical role of scheduled desludging in advancing the cause of inclusive and equitable sanitation services. It emphasizes the need to protect the safety and dignity of sanitation workers by providing them with adequate personal protective equipment. Additionally, the article cites successful cases of scheduled desludging where local governments have joined hands with private companies to deliver regular desludging services.

Solution

Scheduled desludging of septic tanks is a solution to the challenges of sanitation in India. Wai and Sinnar in Maharashtra have set a leading example of successful implementation of scheduled desludging services. The local governments of these cities introduced scheduled desludging through a public-private partnership model, which collected waste from septic tanks (every 3 years) of residential, non-residential properties, low-income households, and urban slums and ensured its treatment at a solar-powered faecal sludge treatment plant and reused for creating carbon sinks. The scheduled desludging contracts in these cities used a performance-linked annuity model with a pay-for-results contract between the desludging company and local government. Additionally, a mobile-based application called SaniTab and SaniTrack was set-up to capture information of on-site sanitation systems and monitor the performance of private sector operator, while the scheduled services were being provided. For financing the O&M cost of scheduled desludging services, these cities levied a 'sanitation tax' as a part of the property tax. A vital aspect which scheduled desludging caters to is the equitable and inclusive approach for provision of sanitation services for both, households and sanitation workers. The services are welcomed by households as it is considered as a regular and "free service" provided by the local government, considering they do not have to pay any money at the time of actual desludging.

Link:<https://timesofindia.indiatimes.com/blogs/voices/improving-sanitation-services-in-india-how-can-a-citywide-scheduled-desludging-model-for-onsite-sanitation-enable-safely-managed-sanitation/>

Resolving India's sanitation issues with decentralized solutions (Opinion Piece)

Publications; India Express & TOI

Author: Drishti Basi, Manager, Urban Sanitation, WSH Dasra

Context;

This Article sheds light on the crucial role of faecal sludge and septage management (FSSM) in achieving complete sanitation in India. It showcases the remarkable success of FSSM implementation in several Indian states and emphasizes the need for an adaptable, convenient, and cost-effective method that requires multi-stakeholder collaborations among urban local bodies, state government, citizens, private sector players, and sanitation workers.

Solution:

The article emphasizes the need for a sustainable and planned system of scheduled desludging of septic tanks as an essential component to ensure hygiene and sanitation for all. It highlights the successful implementation of scheduled desludging in Wai and Sinnar, Maharashtra, and recommends the adoption of similar practices in other Indian cities. The article also suggests the need for local government commitment, multiple stakeholder involvement, and financing mechanisms such as a sanitation tax to support the implementation of scheduled desludging services. Therefore, the call to action is for the government, local authorities, and other stakeholders to prioritize and invest in the implementation of scheduled desludging services for onsite sanitation systems across India.

Link:<https://timesofindia.indiatimes.com/blogs/voices/resolving-indias-sanitation-issues-with-decentralized-solutions/>

Individual Household Toilets Are Essential in Reducing Exposure to Covid and Gender Based Violence (Opinion Piece)

Publications: NDTV

Author: Dhruv Bhavsar and Arwa Bharma

Context:

The article emphasizes the importance of Individual Household Toilets (IHHTs) in promoting the health and wellbeing of communities, particularly those living in urban slums in India. The COVID-19 pandemic has underscored the risks associated with shared toilets, highlighting the need for IHHTs to address privacy and safety concerns and to fulfill the needs of menstrual hygiene management. The article further discusses the far-reaching impact of access to safe sanitation, including improvements in public health indicators, education, livelihood opportunities, and security for marginalized individuals and groups.

Solution:

To address these constraints, appropriate measures are adopted intently by community members and government stakeholders. For instance, Pune Municipal Corporation has constructed IHHTs through their One Home One Toilet (OHOT) program, and cities like Wai, Mahad, Sinnar, Vadagaon, and Vita in Maharashtra have introduced the idea of Group Toilets, where joint families or two to three households share a toilet. Sanitation credit through banks and micro-finance institutions (MFIs) through self-help groups has also helped women and other groups belonging to vulnerable communities to construct individual household toilets. Collected data and behavior change programs have enhanced the understanding of communities' sanitation needs. These efforts, combined with community awareness programs, have generated optimal results. The Sustainable Development Goal (SDG) 6 and its target 6.2 for 2030 emphasizes access to adequate and equitable sanitation and hygiene for all, ending open

defecation, and paying special attention to the needs of women and girls and those in vulnerable situations.

Link:<https://swachhindia.ndtv.com/opinion-individual-household-toilets-are-essential-in-reducing-exposure-to-covid-and-gender-based-violence-67185/>

Why sanitation should matter to you (Opinion Piece)

Publication: Governance Now

Author: Khushi Desai is Analyst, Urban Sanitation, Dasra

Context:

The article highlights the challenges of unsafe sanitation practices in India, which lead to the spread of infectious diseases and antimicrobial resistance. Building safe water and sanitation systems, such as Faecal Sludge and Septage Management (FSSM), is crucial for achieving sustainable development goals and creating healthier, safer, and more sustainable communities

Solution:

To tackle this problem, an integrated and holistic sanitation value chain known as Faecal Sludge and Septage Management (FSSM) can be developed to safely treat the waste and convert it into a form safe for disposal into the natural environment. This solution is not only a crucial component of the One Health approach to public health but also an integral Sustainable Development Goal (SDG 6.2). By adopting FSSM, the treated wastewater can also be utilized in agriculture and other use cases by extracting key nutrients and energy from the sludge – provided it meets the scientific standards set in policy. Safe sanitation is essential for the healthier, safer, and more sustainable communities of the future. The implementation of FSSM and safely managed sanitation constructs can help achieve these goals in India and other countries facing similar challenges.

Link:<http://www.governancenow.com/views/columns/why-sanitation-should-matter-to-you>

Why private philanthropic funding needs to urgently shift focus to sanitation (Opinion Piece)

Publication: Frobos India, MSN, Flipboard, Zordo

Author: Neera Nandy, co-founder, Dasra

Context

The article stresses the importance of philanthropic investment in achieving city-wide inclusive sanitation outcomes by shifting the conversation from infrastructural sanitation goals to a more sustainable approach. The piece also delves into the advancement of urban sanitation in India, propelled by government initiatives such as the Swachh Bharat Mission and Atal Mission for Rejuvenation and Urban Transformation. Furthermore, it emphasizes the urgency for collaborative efforts, community involvement, and targeted solutions to tackle the multifaceted social challenges related to urban sanitation, encompassing elements beyond mere accessibility.

Solution

To achieve inclusive sanitation outcomes, philanthropists can invest in solutions that include ensuring universal access to safe sanitation for marginalised groups, providing appropriate personal protective equipment and skill-building opportunities for sanitation workers, and strengthening urban local bodies. Additionally, philanthropists can promote thought leaders who can drive the discourse and direct attention towards the sanitation needs of vulnerable communities. Collaborative efforts in the sanitation sector have been catalytic toward testing approaches and scaling them up, which can help evenly distribute the collective focus on toilet infrastructure and access across the entire sanitation value chain. A systems approach to philanthropic contributions can result in a sustainable impact on sanitation

Link:<https://www.forbesindia.com/blog/philanthropy/why-private-philanthropic-funding-needs-to-urgently-shift-focus-to-sanitation/>

Sustainable sanitation: Co-treatment emerges as a key solution in Uttarakhand (Opinion Piece)

Publications: First Post

Author: Doab Singh Program Officer, Shantanu Kumar Padhi, Senior Program Officer, NIUA, Member, NFSSM Alliance

Context:

The article sheds light on the state's commendable efforts in implementing co-treatment of septage and faecal sludge across existing and upcoming Septage Treatment Plants (STPs). By highlighting the significant progress made and discussing the collaborative efforts that have streamlined the process of safe disposal and treatment, the article underscores the state's commitment to achieving safely managed inclusive sanitation. Furthermore, the state's Advisory for Co-Treatment is established as a benchmark step towards sustainable sanitation, which showcases its leadership in the domain.

Solutions:

Uttarakhand's protocol for septage management has led to the formation of a Monitoring Committee, Septage Management Cell, and state-level Septage Management Cell to effectively plan, implement, and monitor septage management. The state's Advisory for Co-Treatment, in accordance with the Protocol for Septage Management, has emerged as a benchmark step towards mainstreaming the co-treatment process and achieving City-wide Inclusive Sanitation. The initiative focuses on planning and implementing co-treatment without adversely impacting the treatment efficiency of STPs, occupational safety of sanitation workers, and roles and responsibilities of ULBs and state officials. Co-treatment initiatives have ensured equitable access to improved sanitation services, restricted the discharge of hazardous faecal sludge, and led to increased accountability amongst stakeholders. The effective execution of these initiatives has empowered sanitation workers, provided communities with safer sanitation systems, and upheld their right to decent work. The adoption of cost-effective solutions, such as co-treatment, and collaborative efforts by local leaders, STP operators, engineers, and sector practitioners can further scale up co-treatment across ULBs and achieve sustainable and safe sanitation.

Link:<https://www.firstpost.com/opinion-news-expert-views-news-analysis-firstpost-viewpoint/sustainable-sanitation-co-treatment-emerges-as-a-key-solution-in-uttarakhand-11654331.html/amp>

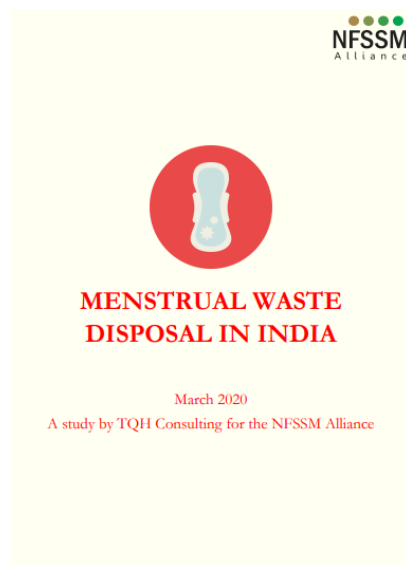
6. Inclusive Sanitation

Inclusive sanitation improves upon current technologies and practices to provide comprehensive, effective, sustainable, and equitable sanitation services for growing urban areas. It aims to ensure that everyone has access to and benefits from adequate sanitation, with all human waste safely managed. Inclusive sanitation includes capable institutions, safety and reliability, equity and inclusion, and sustainability, with specific actions to achieve these goals.

Menstrual Health Management

In India, menstruation continues to be a problem shrouded in taboo and stigma, despite being a reality for almost 336 million girls and women. As steps are taken to strengthen the MHM value chain as a whole, it has been observed that there is simultaneous need for a more specific and considered focus on the disposal and treatment phases.

Menstrual Waste Disposal in India (Study Report)



This document offers a blueprint for States and Centre to improve the complete MHM ecosystem, in terms of awareness, access, usage and disposal, and to draft a 5-year State plan for MHM. The report assesses the efficacy of menstrual waste disposal systems in India, with a specific focus on the use of incineration technology

Link: <https://nfssmalliance.org/resources/menstrual-health-management/>

First Period: An MHM Story (Video)



A surreal and unique film, *First Period* highlights the multi-pronged issues that are related to menstrual hygiene. The film is a Dasra & MH Alliance initiative.

Link: [First Period: An MHM Story](#)

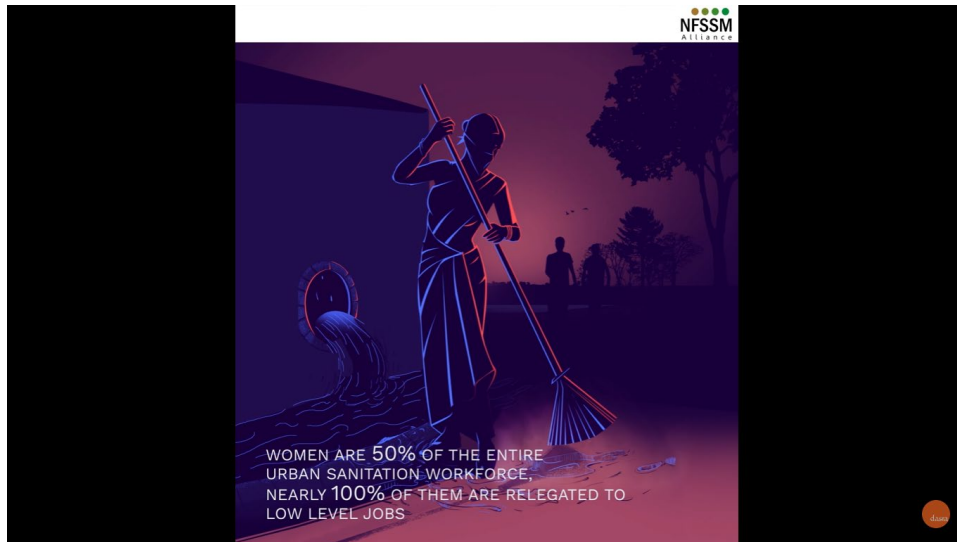
SDG & Sanitation Interlinkages (Booklet)



The 17 Sustainable Development Goals of 2030 are interconnected through complex systemic interactions and can only be solved through a collaborative and inter-sectoral approach. Safe and inclusive sanitation efforts lie at the very heart of the SDGs, carrying immense potential to synergize with other social and environmental causes and create an enabling environment for holistic impact leaving no one behind.

Link: https://www.dasra.org/urban_sanitation/sanitation-sdg-catalyzer/#dasra/page1

A Future Laid to Waste: Inclusivity in Sanitation (Video)



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.

Link: [A Future Laid to Waste | Inclusivity in Sanitation](#)

Access to Individual Household Toilets in vulnerable urban areas (Case Studies)

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.

Link: <https://drive.google.com/file/d/1jQBuwctQkW36G7cGT3hv49C3HHw7ifsl/view>