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National Institute of Urban Affairs

# Sanitation & Hygiene

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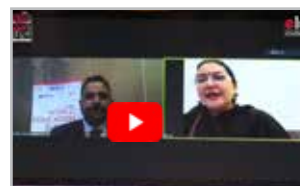
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From the Desk of Director-NIUA

# SDG 6.2—Sanitation and Hygiene

HITESH VAIDYA

Director, National Institute of Urban Affairs (NIUA)

One of the most significant demographic developments of our time is urbanisation. Globally, around 4.2 billion people live in the cities without sufficient access to sanitation facilities, including safe disposal of waste. Despite numerous efforts made under different urban sanitation programmes, a lot of work is still required in order to achieve 100 per cent coverage of sanitation facilities.

Sustainable Development Goal (SDG) 6.2 sets the target 'to achieve access to adequate and equitable sanitation and hygiene for all and end open defecation, paying special attention to the needs of women and girls and those in vulnerable situations by 2030'. The Government of India has undertaken various initiatives in order to achieve this target. The Swachh Bharat Mission – Urban, which calls for cities to be 'open defecation free', contributes directly towards achieving the target under SDG 6.2. The recent shift in the sanitation sector from rural to urban has helped cities in improving their health and economy. In fact it is quite evident that safe drinking water and sanitation systems are the key to ensure long-term sustainability of cities.

This edition on SDG 6.2 – Sanitation and Hygiene- is a compilation of seven uniquely articulated articles, related to the theme of urban sanitation and hygiene. The prime objective of this edition of the magazine is to capture and disseminate the perspective of experts, on different aspects of sanitation and hygiene relevant for Indian cities. This edition covers specific challenges, including sanitation for all, open defecation free cities, gender and sanitation and sanitation for vulnerable groups. In order to ensure a comprehensive outlook towards these challenges, this edition focuses on four different areas of SDG 6.2, which include 'Practice Oriented Policy', 'Inclusivity', 'Data & Technology' and 'Capacity Building'.

NIUA is committed to help Indian cities in improving their performance against each of the SDG Indicators. In addition to relying on our internal resources to do so, we partner with media houses, academic institutions and other government and non-government organisations, for research, capacity-building and advocacy outcomes. The collaboration of NIUA and eGov Magazine is a demonstration of the same. To come up with this special edition, teams at NIUA and eGov have enthusiastically worked together, to collate a diverse range of knowledge-base on the cross-cutting themes of urban sanitation and hygiene in India. My sincere thanks to all the authors who have contributed to this special edition and shared their knowledge to make this possible.

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# India's progress in increasing access to Sanitation and Hygiene

A direct relationship exists between water, sanitation, health, nutrition, and human wellbeing. Consumption of contaminated drinking water, improper disposal of human excreta, lack of personal and food hygiene, and improper disposal of solid and liquid waste have been the major causes of many diseases in developing countries.

In India, poor sanitation takes the form of an absence of toilets in households' dwellings, which, ipso facto, compel their members to defecate in the open. This practice spreads bacterial infections, which in turn have repercussions on child development.

However, the Swachh Bharat Abhiyan (Clean India Mission) has resulted in major improvements in access to safe potable water, sanitation, and hygiene facilities, especially in urban India. Against zero Open Defecation Free (ODF) cities in 2014, about 99 per cent of Indian cities today are ODF. From a meager 18 per cent in 2014, today Indian cities are processing 68 per cent of the solid waste generated.

According to government data, since the beginning of the mission, it has achieved 105 per cent of the total target in constructing individual household toilets; 118 per cent in constructing community and public toilets. Another big initiative of the government is the removal of GST on sanitary napkins, which shows the importance given by the government on women's health and hygiene.

To mitigate challenges like inadequate water supply, insufficient sewage facilities, traffic congestion, and urban pollution, the government also launched Atal Mission for Rejuvenation and Urban Transformation (AMRUT) in 2015 in 500 cities. As of June 2021, 105 lakh household water tap connections and 78 lakh sewer/ septage connections have been provided under the mission; 88 lakh streetlights have been replaced with energy-efficient LED lights leading to energy savings of 193 crore units.

This issue of the eGov Magazine, in partnership with the National Institute of Urban Affairs (NIUA), is an attempt to draw the spotlight on how India is faring on the global Sustainable Development Goal (SDG) 6.2 which says 'by 2030, achieve access to adequate and equitable sanitation and hygiene for all and end open defaecation, paying special attention to the needs of women and girls and those in vulnerable situations'. It is a compilation of enriching articles and insightful interviews on the theme from senior policymakers, experts and academia.

Do keep a copy of this collector's edition!

<https://egov.eletsonline.com/editorial/>



रविगुप्त

**DR RAVI GUPTA**

Editor-in-Chief, eGov magazine, and  
Founder Publisher & CEO,  
Elets Technomedia Pvt Ltd



## 08 Safe Sanitation for All





# SUSTAINABLE DEVELOPMENT GOAL 6

6.2- By 2030, achieve access to adequate and equitable sanitation and hygiene for all and end open defecation, paying special attention to the needs of women and girls and those in vulnerable situations

## UN Indicator for SDG 6.2

6.2.1 Proportion of population using  
(a) safely managed sanitation services and  
(b) a hand washing facility with soap and water

**3.6 billion** people, nearly half the world's population, do not have access to safely managed sanitation in their home.

**71.3%** of households in rural India and about **96.2%** of households in urban India has access to basic sanitation infrastructure.

The World Bank estimates that every \$1 spent on better sanitation delivers an average of \$5 in social, health and economic benefits - and WHO estimates that this benefit can go as high as \$34, depending on the region.



India is responsible for the **largest drop** in open defecation since 2015, in terms of absolute numbers.

**71%** of the households are connected to safely managed (or basic) sanitation systems

## Indicator for SDG 6.2 by Ministry of Statistics and Program Implementation

1. Proportion of households having access to toilet facility (Urban & Rural)
2. Percentage of Districts achieving Open Defecation Free (ODF) target.
3. Proportion of schools with separate toilet facility for girls.



## SBM-Urban



Open Defecation  
Free

**4,371** cities ODF

**4,316** cities ODF+

**963** cities ODF+

**9** cities Water+

Source: National Institute of Urban Affairs. (2021). Handbook of Urban Statistics, NIUA, New Delhi. Retrieved from [https://www.niti.gov.in/sites/default/files/2020-07/SDX\\_Index\\_India\\_Baseline\\_Report\\_21-12-2018.pdf](https://www.niti.gov.in/sites/default/files/2020-07/SDX_Index_India_Baseline_Report_21-12-2018.pdf)



# SAFE *Sanitation* for ALL

With over 1.37 billion people and one-sixth of the world's population, India has a significant role to play in achieving the Sustainable Development Goals (SDGs), particularly SDG 6.2, which focuses on sanitation and hygiene for all. It discusses not only the provision of basic infrastructure, but also the use of safely managed sanitation services, such as a hand-washing facility with soap and water. In this article, **Hitesh Vaidya**, Director, National Institute of Urban Affairs (NIUA) brings to light the aforementioned subject and government's efforts to achieve SDG 6.2.

India has made a commitment to provide its people with clean water and sanitation. Post 1960, India began to make progress on clean water and sanitation issues, with hygiene education as the primary goal. The sheer size and diversity of India's population make policy implementation difficult. Water, sanitation, health, and hygiene policies and sectors must be well-coordinated and managed holistically. To attain better WASH outcomes, a synergy must be developed and strengthened among diverse stakeholders, including state, district, city governments, academia, private sector, and CSOs.

Government has been considering urban sanitation policies with the goal of transforming all urban areas into community-driven, completely sanitised, healthy, and liveable cities. Swachh Bharat Mission - Urban, the most ambitious mission of the Government of India that directly contributes to SDG 6.2, was launched in 2014 for 100 per cent ODF cities and achieving 100 per cent scientific management of solid waste in all towns in the country, which led the country with more than 98 per cent of households having access to toilets. The primary goals of the SBM are the abolition of open defecation, the abolition of manual scavenging, behavioural change on healthy sanitation practices, capacity building of local governments, and the creation of an enabling environment for public sector participation in capital expenditure and O&M expenditure. The Mission allows state governments to adopt a state-specific implementation policy, including the use of funds and mechanisms. The programme has built over 100 million household toilets and established over 700 open defecation-free districts across



#### UN Indicator for SDG 6.2

Proportion of population using

- safely managed sanitation services and
- a hand washing facility with soap and water.

India. More than 62 lakh (6.2 million) individual household toilets and more than 6 lakh community/public toilets have been built in urban India, exceeding the targets.

Beyond the ODF targets set in Phase I of the SBM-U, the focus in the next phase is on achieving ODF + (aimed at sustaining and maintaining the toilets built) and ODF ++ (emphasising sludge and septage management), with 2,187 cities (49%) achieving ODF+ status and 551 cities (12%) achieving ODF ++ status.

In India, the WASH sector has undergone massive transformations to

successful sanitation strategy in India. Providing separate toilets for boys and girls has a significant impact on both genders' attendance and educational outcomes. The Supreme Court of India ruled in 2014 that separate toilets for girls and boys, as well as drinking water facilities in schools, were essential to the legal right to education. The court reaffirmed that the "norms and standards" mentioned in the Act's text included access to drinking water and toilets. The Ministry of Human Resource Development (MHRD) has also developed a



improve people's quality of life. The mass media campaigns and communication activities through advanced technology, modern advanced communication strategies, national-level campaigns, school involvement in awareness, integration of WASH curriculum in schools, and grassroots-level communication have contributed to the program's success; however, the sustainability of these sanitation interventions for long-term health benefits is critical.

Improving sanitation infrastructure in schools is one component of a

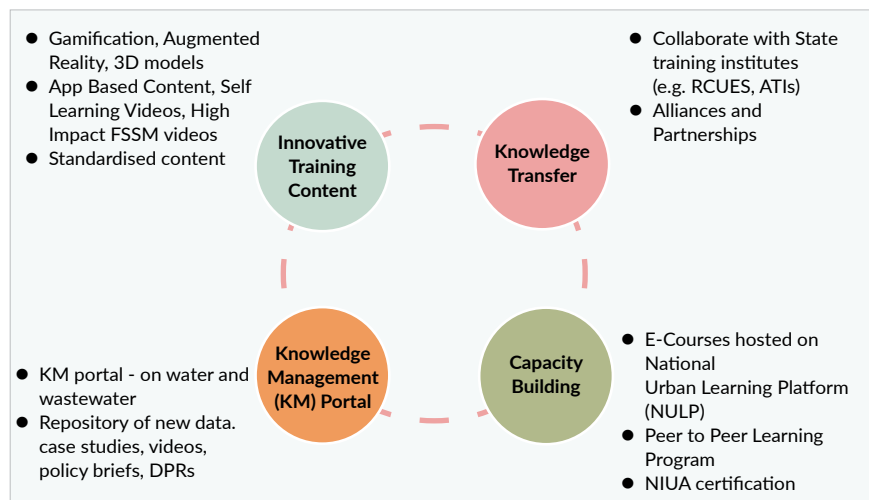
mechanism through which corporate entities wishing to invest in improving school sanitation with CSR funds can be assigned responsibility for specific schools.

Sanitation advancements have had a positive impact on the lives and health of women and girls. An increase in the proportion of households with toilets has been found to improve women's safety. A study conducted by UNICEF, BMGF in 2020 found that improved sanitation improved the

safety of women from sexual violence and animal harm.

An equally important aspect that should be prioritised at the central and ULB levels is the effective use of technology during any programme implementation. The programme's execution should be monitored and evaluated; for example, in SBM-U, it was monitored using a web-based e-Governance solution. The SBM-U provides up-to-date information of the beneficiaries and the status of their household toilet facilities. The database served as the foundation for all stakeholders to monitor and evaluate progress in an efficient, effective, and transparent manner. By engaging citizens, disseminating information, organising and managing all field level activities, social media and digital technologies can also be used creatively in creating a mass movement.

Water and sanitation infrastructure must be viewed through the lens of climate change, particularly the urban areas which are prone to extreme weather events such as flooding. Failure to achieve climate change resilience in water supply



NIUA's Approach for Capacity Building on Water and Sanitation



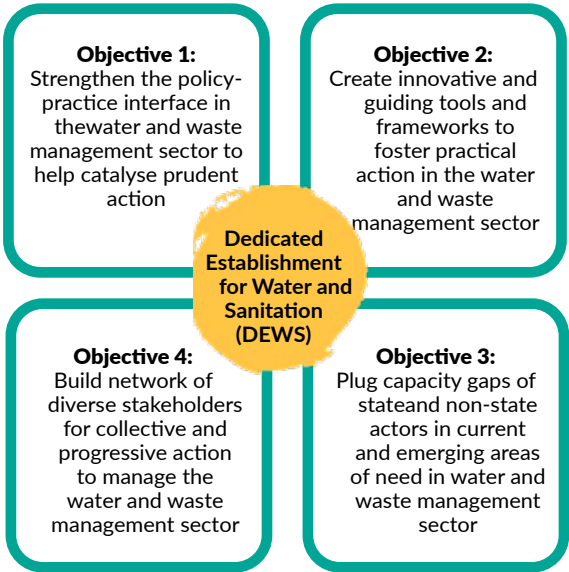
and sanitation will have serious consequences for public health. Long-term financing and planning is essential to maintain the infrastructure built and to sustain the benefits achieved.

NIUA is supporting the cities to localise SDG 6.2 through its five pronged approach (1) Contextual Research, (2) Training and Capacity Building, (3) Peer to Peer Learning, (4) Knowledge Management and (5) Collaborations, Partnership and Network. Sanitation Capacity Building Platform (SCBP) is an initiative of the National Institute of Urban Affairs (NIUA) for addressing urban sanitation challenges in India and it is supported by the Bill & Melinda

Poor sanitation costs India 6.4% of its GDP, or more than \$53 billion (or over Rs 300,000 crore) a year, as per a report by the Bill and Melinda Gates Foundation.

Gates Foundation grant. It is aimed at promoting non-sewered sanitation solutions for septage and wastewater management in India. The Platform is an organic and growing collaboration of credible national and international organisations, universities, training and resource centres, non-governmental organisations, academia, consultants and experts.


SCBP works in close collaboration with the National Faecal Sludge and Septage Management (NFSSM) Alliance. The Platform lends support to the Ministry of Housing and Urban Affairs (MoHUA), Government of India,



by focusing on urban sanitation and supporting states and cities to move beyond the open defecation free (ODF) status by addressing safe disposal and treatment of faecal sludge and septage.

NIUA is nudging states and cities through its centre Dedicated Establishment for Water and Sanitation (DEWS) to catalyse progressive action in the water and sanitation sector

through the adoption of improved water and waste (both solid and liquid) management solutions. The core objective of the centre is to strengthen the policy interface, create innovative guidelines, networking and plug capacity building in the water and waste management sector.

NIUA is devoted to assisting states and cities in aligning with the SDGs and initiating a conversation for future orientations in India's urban sanitation sector through substantial research, policy advisory, data solutions, technology, and capacity building. 



Source: WaterAid-CS Sharada Prasad

# Urban Sanitation

## Raising the bar

India's progress, alone, in sanitation will significantly shift the global indicators with regard to the achievement of the Sustainable Development Goal 6.2, writes **VK Madhavan**, Chief Executive, WaterAid India.

**T**he progress, thus far, has been possible because of a confluence of the following factors – political will at the highest level, clear intent, supportive policies, significant public investment, and a recognition of the importance of behaviour change.

The guidelines for Swachh Bharat Mission Urban 2.0 released in October 2021, whilst seeking to ensure that no one is left behind with regards to access to a toilet and on sustaining the gains thus far, also prioritise clear air, clean water and clean land with a



» **V K MADHAVAN**  
Chief Executive, WaterAid India

special emphasis on making our cities garbage free. Moving beyond mere Open Defaecation Free (ODF) cities, there are standardised protocols and clear targets for ODF+, ODF++ and for Water+. The use of innovative digital tools, continued incentivising of competition among urban local bodies through the Swachh Survekshan, and a continued recognition of the importance of behaviour change mark the focus.

Despite the clarity of thought, there is a need to raise the bar.

Evidence would suggest that the fastest growing urban centres are not merely the large metropolitan cities any more. More importantly, peri-urban areas have emerged as an important constituent of urban agglomerations that require attention. In many instances, these may still be governed by rural local bodies, despite displaying most other characteristics of an urban settlement. Governance by a rural local body in these areas and the accompanying funding patterns lead to a very different set of priorities in terms of basic services. There is also the problem of definitions of an urban area, with these not being substantially revised since 1971. In the absence of resolving these definitions, water supply, waste management, coverage of sewerage networks and waste or used water recycling do not find emphasis. Even within existing towns, the proportion of the urban poor residing in slums (formal or informal) should be an important criteria for determining emphasis and investment. A differentiated strategy for smaller towns, peri-urban areas, census towns as well as urban areas with a significant slum population is required.

The standards adopted by the Joint Monitoring Programme of WHO and UNICEF have a ladder of services. Reliance on shared toilets – community or public, are considered to be ‘limited’ in the context of the quality of services, while private toilets are essential to be

*“India should strive to focus on ‘safely managed sanitation’ – private toilets, safe management of faecal waste and a handwashing facility with soap and water.”*

considered ‘basic’. India should strive to focus on ‘safely managed sanitation’ – private toilets, safe management of faecal waste and a handwashing facility with soap and water. In other words, there is a need to focus on individual household toilets, as the first choice. This is particularly difficult in slums that are considered non-notified. Several cities have chosen to provide basic services such as water and sanitation to residents even in non-notified slums by separating the provision of such services from right to tenure. This may require national guidelines.


The guidelines for SBM Urban 2.0 seek to ensure the safety and wellbeing of sanitation workers. However, deaths in septic tanks and while cleaning sewer lines continue. Mechanisation of desludging is one step to improve safety, but inadequate. Gender and socio-economic factors currently not just condemn families to performing these roles in perpetuity, but inhibit their opportunities to break out of this occupation. Their invisibility and absence of a voice further pushes them to the periphery. Attempts at the rehabilitation of sanitation workers or even provision of compensation in case of death have, by and large, failed. There is an urgent need to commence with a rigorous enumeration of sanitation workers and the kinds of services they perform. This could be a part of the

existing Swachh Survekshan.

Enumeration of sanitation workers will provide reliable information about the extent of the problem and will facilitate systematic efforts to focus on their dignity and well-being.

Only 40 per cent of India’s urban population is connected to a sewer network. A smaller proportion of the treated waste or used water is actually recycled or reused. SBM 2.0 seeks to create a capacity of treating nearly 12,900 million litres per day in close to 4,000 towns with a population less than one lakh. This would require a significant investment in conveyance systems in addition to treatment facilities. Here again, ensuring connectivity of the urban poor, who reside in slums to these systems will pose a challenge. Finding the right balance between decentralised and centralised systems as well as creating the right incentives for recycling and reuse will be critical to ensuring that our waste water is not released without treatment.

Finally, there is an urgent need to address the challenges of urban governance and the capacities and roles of our urban local bodies as well as those of our public utilities. Most of our existing public utilities are financially unviable institutions. In addition to addressing existing inefficiencies, meeting the demands of our cities with regard to sanitation will require substantive financing – and new financial instruments - beyond SBM 2.0. Their skills and capacities to not just address the challenges of today but a future where the impact of climate change threatens all current plans, are limited. Their accountability to our elected urban local bodies also requires clarification.

Our cities are drivers of economic growth and living in a city is aspirational. Consequently, the proportion of our urban population will continue to grow. The quality of life will be contingent on our ability to ensure that we meet the targets of SBM 2.0 and SDG 6.2. 



Source: Sambad English Bureau



### » RAHUL SACHDEVA

Senior Program Specialist - Water and Environment Vertical, NIUA

## Breaking the glass ceiling: Engagement of women in operating and maintaining sanitary infrastructure in Odisha

Odisha is working on elevating women up the ladder in sanitation service delivery, looking beyond traditional services like road sweeping and waste segregation, writes **Rahul Sachdeva**, Senior Program Specialist - Water and Environment Vertical, NIUA

**H**istorically it has been seen, especially in developing countries, that poor sanitation has had devastating consequences on human health, women, and girls in particular due to inadequate and improper sanitation facilities. Talking specifically about India,

the lack of sanitation facilities and services pose significant disadvantages for women in terms of health, education, safety, and well-being. The planning and execution of sanitary infrastructure often lacks the sensitivity required for convenient and safe usage, for women in particular.

Now, if we look at the opposite spectrum, in terms of the role of women in the planning and delivery of sanitation services, the situation there also is not very heartening. In the context of sanitation service delivery by urban local authorities in



Source: <https://www.financialepress.com/lifestyle/odisha-takes-pioneering-step-towards-women-empowerment/1982835/>



Source: <https://www.firstpost.com/india/sanitation-is-gendered-occupation-how-to-get-one-step-closer-to-making-it-inclusive-in-india-9943351.html>

India, the women are primarily engaged in activities like street sweeping, maintaining cleanliness in government buildings including toilets/bathrooms, door-to-door collection, segregation of household solid waste, cleaning public and community toilets and so on and so forth. However, when it comes to the universe of services ranging from operating and maintaining the basic infrastructure related to water supply, sewerage system, and stormwater drainage system, the same is being dominated by the male community with very marginal or no representation from women fraternity.

The minuscule role of women in the delivery of higher degree of basic services in urban areas can be attributed to the fact that women are traditionally been relegated with the responsibility of health and hygiene of family or at best community level engaging in services that could be considered at the bottom

of the pyramid in terms of skill requirement and other lack of inadequate up-skilling opportunities for women to play a meaningful role in delivering services across the sanitation value chain. The women represent 50 per cent of the entire urban sanitation workforce in India but are engaged in low-skilled jobs earning meagre salaries with limited growth opportunities.

The sanitation-related policies and missions at the national level like National Urban Sanitation Policy (NUSP) 2008-2015, National Urban Health Mission (NUHM) 2013-2017, Swachh Bharat Mission (SBM) Urban 2014-2019, Rajiv Awas Yojna (RAY) 2013-2022 and others have in many ways attempted to address the women's sanitation needs, gender-responsive sanitation solutions and enhance women's engagement in urban local bodies, especially in relation to sanitation planning and implementation,

the nature and extent of women's role in sanitation service delivery have been of a lower base with minimal skills requirement. With the lack of opportunities coupled with social inhibitions, a woman working shoulder to shoulder with men has not been fructified.

The National Urban Livelihood Mission (NULM) 2013, launched by the Government of India, has one of the aims to create livelihoods on a sustainable basis specifically for the urban poor households by enabling them to access self-employment and skilled wage employment opportunities. The mission guidelines also emphasise convergence with other national schemes and programs to create job opportunities by imparting the marginalized required skills for getting market-based jobs. National missions like Swachh Bharat Mission – Urban and AMRUT 2.0 has brought about transformational changes



Source: *1DeendayalAarodhya Yojna - National Urban Livelihoods Mission - Mission Document (2013), Ministry of Housing and Urban Affairs, Government of India*



Source: *2Empowering Marginalized Groups - Convergence between SBM and DAY-NULM, March 2018 (document launched by MoHUA, GoI)*

in the cities and towns in terms of improving the sanitation coverage and services and in the process establishing the need for skilled manpower for the delivery of basic services in urban areas. The document "Empowering marginalized groups – convergence between SBM and DAY-NULM" released by the Government of India specifically talks about skill development and employment generation in the sanitation sector.

The state of Odisha, is doing pioneering work in the sanitation space by engaging marginalised groups, mainly women, in delivering services across the sanitation value chain for both liquid and solid waste management. The Odisha state through its scheme "GARIMA" has embarked on a journey to provide dignified and safe livelihood opportunities to workers engaged in sanitation services by Urban Local Bodies across the state. The state has brought hazardous services like sewer line cleaning, manhole cleaning, and emptying of septic tanks under the ambit of highly skilled job (which otherwise was looked upon as non-dignified and non-skilled) and other services like drain cleaning, maintenance of treatment plants, maintenance of public sanitation facilities like toilets as a skilled job. To this effect, "Sanitation Work" has been included as a separate item list in the Scheduled Employment List of Odisha state.

The Odisha state has taken a step further and is ambitiously working on elevating women up the ladder in sanitation service delivery, looking beyond traditional services like road sweeping and waste segregation. More than 16,000 Mission Shakti SHGs are empowered by the State Housing and Urban Development Department (H&UDD) and engage at both levels of service delivery as well as implementing partners in delivering urban development programs like water supply, liquid and solid waste management, subsidised mean program




Source: <https://www.telegraphindia.com/india/inclusive-sanitation-drive-in-odisha/cid/1779194>

and livelihood generation. Around 2300 SHGs under Mission Shakti are engaged in solid waste segregation, collection, transport, treatment, reuse and disposal as per the norms of service delivery. Also, the SHGs are engaged in delivering other services like being Swachh Supervisors/Swachh Sathis, operating and managing the micro composting centers, collection of user fees, etc. But that's only the tip of the iceberg. Odisha has the distinction of being the first state in India that has engaged women and transgender SHGs in operating and maintaining the Septage Treatment Plants (SeTP) to be set up across 114 ULBs in phase-wise manner. It is the first in the country that women are working at par with their male counterparts in delivering sanitation services in urban areas. The women SHGs have taken over O&M of SeTPs in around 9 ULBs in Odisha and many are undertaking the training to run the SeTPs to be installed and made operational in near future. Some of the cities where SHGs are operating and maintaining the SeTPs are Berhampur, Bhubaneswar, Baripada, Sambalpur etc. Another feather in the state's crown is the engagement of a transgender SHG who is handed the SeTP in Cuttack for O&M.

The decision to engage the SHGs in O&M of SeTP was done based on their ability in managing the community toilet

facilities across the state. The selected SHGs are thoroughly trained on various aspects of operations and maintenance associated with the optimal functioning of the SeTP. The training not only covers aspects related to the functioning of the system but also improves soft skills such as record-keeping, accounts, and financial management, group dynamics, problem-solving etc. The objective is to elevate members of the SHG to gain technical and managerial skills required for operating the treatment plant, a task that earlier was only entrusted to engineers. The O&M of a SeTP includes tasks like managing the cesspool vehicles entering the premises for disposal of septage; overseeing the treatment process as per the standard protocol, upkeep of the facility by undertaking minor repairs, and staff management. Each SHG engaged in O&M receives remuneration of INR 1.5 lakh per month.

The efforts of the Odisha state government have been recognised at the national level by being awarded the ISC-FICCI Sanitation Award 2021. The award is given to Bahuchara Mata Transgender SHG for O&M of SeTP in Cuttack. The award is a testimonial of the state's efforts in achieving the twin goals of sustainable urban sanitation along with the empowerment of the marginalised. 

# Achieving total sanitation through **inclusivity** and **climate resilience**

Universal access to adequate sanitation is a fundamental need and a human right. Securing access for all would go a long way in reducing illness and death, especially among children, writes **Dr. Mahreen Matto**, Team Lead, SCBP, NIUA and **Shantanu Padhi**, Senior Program Officer (Technical), SCBP, NIUA.

**T**he recent Intergovernmental Panel on Climate Change's (IPCC) Sixth Assessment Report, leaves no room for doubt that climate change is intensifying the water cycle. Thus impacting on people's rights to water and sanitation, by causing floods and droughts, changes in precipitation and temperature extremes, that result in water scarcity, contamination of drinking water and exacerbation of the spread of disease. It's a common sight in Indian cities during monsoon that heavy rain of a few hours floods the roads and drainage systems, as a result of sewage water from sewer holes, and open drains enter the houses which are located at lower ground level, thus creating havoc. The marginalised and low income settlements are especially the worst affected, often. Furthermore, heavy precipitation and flood events can lead to physical damage of non-sewered sanitation infrastructure, especially pit latrines and septic systems, making them non-functional when filled with water, especially in densely populated urban areas and informal settlements.

Similarly, during drought situations, due to lack of water, unhygienic



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conditions prevail for both population dependent on onsite systems and sewer network systems. Furthermore, sanitation systems contribute to greenhouse-gas emissions (GHGs), in the events such as during breakdown of excreta stored in onsite systems, indiscriminately

discharged of excreta into the environment, at treatment processes, and indirectly through when the energy is required in treatment steps.<sup>1</sup>

India has walked a commendable journey of moving from a country with 60 per cent of its urban population

1. Dickin, S., Bayoumi, M., Giné, R., Andersson, K., & Jiménez, A. (2020). Sustainable sanitation and gaps in global climate policy and financing. NPJ Clean Water, 3(1), 1-7

defaecating in the open (Census 2011), to open defaecation-free (ODF) within 5 years of Swachh Bharat Mission (SBM) implementation. The focus of the SBM 1.0 (Urban) remained largely on providing basic facilities to households by building toilets at Individual and community scale – precisely superstructure. Moreover, with this focused agenda, we see ~100 million toilets built on ground. Nevertheless, post providing the toilets-to-all, the question that has very well come out is 'What happens to the waste after it is flushed down the toilet?' Thus, we see time-to-time various guidelines and advisories being released by the Ministry of Housing and Urban Affairs (MoHUA), Government of India, addressing issues and challenges and recommending guidelines across sanitation value chain irrespective of centralised or decentralised waste management.

The recently launched SBM 2.0 has moved to the next step, from building toilets to providing treatment facilities for wastewater and septage treatment to the small and medium cities, realising that only providing conventional infrastructure in sanitation will not be enough and will not lead us towards sustainability with changing time. Hence, there is a need to adopt inclusive and resilient infrastructure, which would be able to safely manage wastewater, faecal sludge and septage. The marginalised, low income, woman, children and transgenders population of the cities have to be considered during planning across the sanitation value from User Interface to End-use/Reuse.

We need to integrate our strategies and solutions with the factors of climate change, in addressing the concerns of sanitation in India. The range of mitigation and adaptation opportunities related to sanitation and wastewater systems indicate that



*“Sanitation and climate change need to be used in the instruments of research, advocacy and capacity building to pitch it into the next sanitation programmes of Government of India.”*

opportunities for climate action are overlooked, as there is very limited inclusion in climate policy and finance. *Sustainable Development Goal (SDG) target 6.2 talks about achieving access to adequate and equitable sanitation and hygiene for all and end open defaecation, paying special attention to the needs of women and girls and those in vulnerable situations by 2030.* Closely linked is SDG 6.3 which talks

about improving water quality, wastewater treatment and safe reuse prove water quality, and wastewater treatment. Climate change impacts existing sanitation systems and impedes progress to achieving these targets. Such dangers further pose a serious challenge to India's sustainable development since they disproportionately affect marginalised and vulnerable groups of the society with limited capacity for adaptation.

#### Measures to be taken

The emphasis on integration throughout the SDG Agenda has highlighted that the target for SDG 6 (Water and Sanitation) is imperative, which must be achieved in order to attain a number of other outcomes of SDG, including good water quality, healthy aquatic ecosystems, gender equality, health and well-being. The possible options in this direction could be as follows:

- Need to develop effective information systems to access updated and reliable data, and to

2. SANITATION SAFETY PLANNING MANUAL FOR SAFE USE AND DISPOSAL OF WASTEWATER, GREYWATER AND EXCRETA - [https://www.google.co.in/books/edition/Sanitation\\_Safety\\_Planning/a1o0DgAAQBAJ?hl=en&gbpv=1&printsec=frontcover](https://www.google.co.in/books/edition/Sanitation_Safety_Planning/a1o0DgAAQBAJ?hl=en&gbpv=1&printsec=frontcover)



make informed decisions for ensuring climate resilient services

- More systematic assessment of GHG emissions from different sanitation technologies is needed to better inform decision making in the sector, whether it involves selection of on-site technologies or upgrading of wastewater treatment plants
- Identifying appropriate technologies that are most effective in reducing negative climate impacts and reaching the most vulnerable populations of the country. Thus, selection of affordable technology should also be based on climate performance, in addition to other environmental, technical, social and financial concerns
- Expanding the WHO's Sanitation Safety Planning (SSP), which provides a structure to bring together various stakeholders, to conduct local level assessment and management of health risks across the sanitation service chain, to include climate considerations beyond the identification of hazardous events related to seasonal or climatic factors.<sup>2</sup>

*"It is high time that we take our water and sanitation sector seriously and retrospect the way we manage it."*



Having said that, sanitation and climate change need to be used in the instruments of research, advocacy and capacity building to pitch it into the next sanitation programmes of Government of India. Need to incorporate climate resilience, nature based solutions, diversity & inclusion and net zero into 'business as usual'. Strengthening the urban environment from a climate lens requires holistic understanding of risks and vulnerabilities and incorporating the same in the design and implementation of new urban development projects.

### Way Forward

Based on the context presented, unfortunately we are still trying to solve new issues with old solutions and our past experience turns to be our greatest enemy when it comes to changing our attitude. We are still investing in linear systems, 'big pipes in and big pipes out' transfer model, focusing on 'hard' infra-technological solutions. We continue to operate in silos; our policies are set without aligning objectives with the required resources; we depend on public funds that are insufficient; and the new sources of finance for water and sanitation constrained by regulatory, institutional and other barriers. These factors are further exacerbated by the impacts of climate change and other environmental stressors, ultimately heightening the challenges, and constraining the availability and the quality of urban water and sanitation management. It is high time that we take our water and sanitation sector seriously and retrospect the way we manage it, as it will help in taking serious actions that will lead towards sustainable water and sanitation management. [elets.gov](https://elets.gov)

# Correlation between improved sanitation infrastructure in schools and girl child education in achieving SDG 6.2

The adoption of healthy hygiene behaviours at the school level helps foster these behaviours with benefits beyond the school environment to the home environment where children can be agents of change, writes **Yusuf Kabir**, WASH-CCES Specialist and DRR-Emergency Focal point, UNICEF India and **Anand Ghodke**, WASH-CCES Officer, UNICEF Mumbai

## Background

On August 15, 2014, the Honourable Prime Minister of India made a fervent and passionate appeal to the nation, to ensure that every child in India, especially girls, have access to a toilet in school. The Prime Minister urged all parliamentarians to invest their constituency funds into building toilets in every school. This is the moment for WASH (Water, Sanitation and Hygiene) in Schools, as he appealed to all stakeholders, including the corporate sector, to increasingly invest in the provision of WASH facilities to every school. In his message was the strong underlying point that providing quality education means creating a supportive environment to give children the best possible opportunity to enjoy school and perform to the best of their ability. This supportive environment not only includes well-resourced, clean classrooms and trained teachers. It also includes providing child-friendly WASH facilities and hygiene education including menstrual hygiene management (MHM). If boys and girls have separate clean toilets, come together to wash hands with soap before eating their Mid-Day Meal (MDM), and have safe drinking water throughout the day, they will be healthier, and perform better in school.



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WASH-CCES Specialist and DRR-Emergency Focal point, UNICEF India

Beyond school, children also positively influence the hygiene practices at home; by investing in WASH in Schools, everyone wins.

In accordance with the Convention on the Rights of the Child, every child's right to education is a fundamental principle to compulsory primary school education for all. WASH in schools helps fulfil the universal right to education and health



### » ANAND GHODKE

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and meets its role in achieving the United Nations Millennium Development Goals, thereby increasing access to primary education, reducing child mortality, advancing gender equality, and meeting targets for improving water and sanitation under SDG 6.1 and 6.2. The adoption of healthy hygiene behaviours at the school level helps foster these behaviours with benefits beyond the school environment to the home

environment where children can be agents of change. Benefits of proper hygiene behaviours extend also beyond school age, and even across generations, and women play a critical role in realising these benefits.

## WASH in Schools – Boosts Attendance and Achievement

In the long term, educational achievement is one of the most important determinants of health, life expectancy, economic productivity, and the well-being of future generations. Safe water to drink, water and soap to wash hands, and clean and private toilets make healthy, child-friendly schools, and healthy schools make healthy children. Young children are more vulnerable to the ill effects of unsafe water, insufficient quantities of water, poor sanitation, and lack of hygiene. Girls and female teachers are usually more affected than boys by the lack of sanitary facilities, because this may mean that they cannot attend school during menstruation, thereby giving rise to unequal learning opportunities. Some studies in rural India report that girls' attendance at schools rises when communities gain access to water, leading to a general rise in literacy levels in the area.[1] Studies from India and Nepal have presented some evidence, though self-reported, that when girls have access to safe and clean toilets and water at school, they are somewhat less likely to miss school during their menstrual cycle each month.[2] However, the presence of sanitary products, safe and clean toilets and sufficient water goes hand-in-hand. Each contributes to the creation of a clean, safe, and girl-friendly school.

## Milestone for WASH in School Program in India: Swachh Vidyalaya Puraskar

The Ministry of Human Resource, Department of School Education and Literacy has constituted the Swachh Vidyalaya Puraskar (SVP) under overall




Sanitary complex for girls with hand washing facility in Thane District: Photo Credit: UNICEF India

program of Clean School Clean India initiative with an aim to recognise, inspire and celebrate excellence in sanitation and hygiene practices in elementary and secondary schools. The awards are given at the National, State and District levels with technical support from UNICEF India and different State Offices. SVP has also brought many public and private sectors, corporates, business houses, INGOs like Coal India, Rotary International, ONGC, Hindustan Unilever, Water Aid, Aga Khan Foundation, National Stock Exchange Foundation, Viacom 18, Tata Trust, etc., to allocate substantial investment for improving hand hygiene, MHM and sanitation facilities in schools (including tribal residential and Kasturba Gandhi Balika Vidyalaya's) with focus on behaviour change and operation and maintenance of WASH facilities.

## Way Forward

While there has been substantial momentum created by SVP, India and many states have to go a long way to achieve SDG targets for schools in WASH. As per the national standards, there should be one toilet for 50 students with separate toilets for girls and boys, while the toilet ratio in schools is currently at 115:1[3]. Only 47.6 per cent of schools have basic hand washing facilities and 13 per cent of schools have

no handwashing facilities at all.[4] Toilets and MDM places should have group hand washing facilities and access to water. Girls' and teachers' toilets should also include MHM facilities. Key challenges to effective WASH in schools are the lack of targeted investment in O&M for WASH facilities in schools, as well as the lack of accountability for these tasks among stakeholders, including school management committees and local bodies. To optimally realise health benefits for children, WASH should be recognised as an important life skill among educators and parents, complemented by environmental and climate change education to sustain WASH practices in the long-term. Covid has further brought the importance of sustained hand hygiene in the community. 

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# Addressing the gaps in sanitation

Water, Sanitation and Hygiene, inclusively known as WASH, is the principal aspect at community level, with respect to health, livelihood and economy. Functional WASH interventions thus play the role of predominant factor in SDG 6.2 under SDG 6, that focuses on Sanitation and Hygiene, writes **Jheelam Sarkar**, Program Officer (Technical), Sanitation Capacity Building Platform (SCBP), NIUA and **Amita Pathria**, Program Officer, SCBP, NIUA.



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successful achievement and safe sanitation for all by 2030.

There was a prodigious improvement seen in the statistics of Indian population defaecating in the open, and suffering from indignity, lack of access to toilets, from around 568 million to an estimated 450 million people; all in the account of Government's flagship programme Swachh Bharat Mission (SBM) (Clean India Campaign); which now in its second phase of execution aims to extend the sustainable use of toilets and hygiene practices, besides proper waste (solid/liquid) management<sup>3</sup>.

Proper sanitation and hygiene implies to appropriate construction of toilets, safe management of human waste including safe confinement, treatment and disposal; availability of water, wastewater management, solid waste management, control of vector-borne diseases, and taking care of domestic and personal hygiene. While SBM

In spite of the initiatives being taken to eradicate the risks of unsanitary livelihood, India still has higher rates of stunting and wasting among children under five years of age, due to poor sanitation<sup>1</sup>. Even though access to water has improved, access to sanitation is still on the verge of augmentation, with a

coverage of 59.5 per cent<sup>2</sup>. Though the circumstances are challenging, enumerating the challenges and devising proper strategies to overcome these would surely lead to

1. Kedia, M, 2022. Sanitation policy in India—designed to fail?. Policy Design and Practice, pp.1-19.
2. Kanyagui, M.K. and Viswanathan, P.K., 2022. Water and sanitation services in India and Ghana: an assessment of implications for rural health and related SDGs. Water Policy.
3. Water, sanitation and hygiene, UNICEF

Phase I accomplished its targets by subsidising construction of single/twin pit toilets at household and community levels, in both rural (71.3 per cent access) and urban (96.2 per cent access) areas, and SBM Phase II is working on the sanitation chain, leading towards the objectives of SDG 6.2<sup>4</sup>, why is there a gap in provision of basic sanitation still pertaining?

The lack of basic sanitation is the result of the challenges that are being faced at every level with respect to awareness, behavioural change, and education. Rapid urbanisation initiates the emerging demand for sanitation, which would grow along, eventually by 2030.

Improving the toilet infrastructure cannot solely eradicate the faecal or oral transmission of pathogens. The



SDG 6.2 states that access to adequate and equitable sanitation and hygiene for all needs to be achieved by 2030, putting an end to open defaecation and paying special attention to the needs of women and girls, and those in vulnerable situations.



technical and behavioural components conducting the gap, contributing to the need for behavioural change are:

- Lack of access to clean water and properly constructed sanitary toilets being a key issue<sup>5</sup>.
- Unavailability of basic amenities like soap, menstrual hygiene products for emergency and disposal bins (for women and girls) etc.
- Lack of ergonomic design of public/community toilets, as they might be used by people of all ages, men, women, the third gender, and people with disability, following gender disparity.
- Lack of proper containment and disposal without treatment is still a persisting issue, due to inappropriately engineered toilet outlets/septic tanks, leading to overflow of septic tanks.
- Disposal through open drains reflecting improper management of faecal waste.

- Inappropriate framework of toilets, with no access for the third gender, and inconsideration of individual attitude towards the use of toilets.
- Lack of sanitation facilities fabricating psychological stress among girls and women, due to environmental obstacles such as unsafe toilets, leading to fear of sexual violence and social factors<sup>6</sup>.

To understand these concerns from a layman's perspective, involvement in sanitation programs, awareness creation, and involvement in various social movements are much needed. With the trend in change of traditional sanitation approach of centralised system to a safer system like Non-Sewered Sanitation (NSS) and Citywide Inclusive Sanitation (CWIS); that looks into core sanitation under the principle heads of safe, equitable, responsible, accountable and financially viable

4. Sarkar, S.K. and Bharat, G.K., 2021. Achieving Sustainable Development Goals in water and sanitation sectors in India. *Journal of Water, Sanitation and Hygiene for Development*, 11(5), pp.693-705.

5. Behera, M.R., Pradhan, H.S., Behera, D., Jena, D. and Satpathy, S.K., 2021. Achievements and challenges of India's sanitation campaign under clean India mission: A commentary. *Journal of Education and Health Promotion*, 10.

6. Sahoo, K.C., Hulland, K.R., Caruso, B.A., Swain, R., Freeman, M.C., Panigrahi, P. and Dreilbelbis, R., 2015. Sanitation-related psychosocial stress: A grounded theory study of women across the life-course in Odisha, India. *Social science & medicine*, 139, pp.80-89.

system with proper resource planning and management; the existing issues could be dealt with in a better way.

Talking about solutions, ULBs need to realise the urgency for continuous supply of water, parallelly with sanitation. Going ahead with the CWIS principles, firstly, for providing safe sanitation, responsibility should be taken into account for construction of technically designed toilets with containment systems following appropriate norms (IS 2470). Secondly, in many cities dependent on on-site sanitation, sludge flows mostly through underground drainage system, followed by stormwater drains to open drains; which should be sermonised with the need for Sewage Treatment Plants/ Faecal Sludge Treatment Plants, along with understanding of the concept of drainage system.

To address these issues from the very core of the problem, first it has to be realised that sanitation is a public service. Keeping that in mind-

- The education system needs to include modules for decoding the link between sanitation, hygiene, health and economic development.
- Addressing gray and black water management within training courses would help to understand the concept of sanitation chain, as per the second phase of SBM.
- Creating work designations and encouraging more women centric jobs/positions in the sector would ensure security as well as gender equality.
- Socially recognising and providing sanitation workers with financial, health benefits and social security, to give them recognition at the ground level.




Such steps would surely emphasise Information Education and Communication (IEC) and Behaviour Change Communication (BCC), as they are the cue towards the shift in attitude and mentality among the municipal bodies and common people.

Even though some premiere institutions under the NFSSM Alliance are already moving forward with capacity building for a better understanding of entire sanitation progress, a chain of champions and change makers is much needed for training the trainers, government officials as well as the educators. Building capacity does not

only signify gaining knowledge, but also working together as a community. Organising exhibitions, theatrics, nukkad natak, hoardings, mobile messages, and wall paintings to disseminate awareness and education through IEC and BCC are also a part of capacity building. In the same context, social media and the digital world should be persuaded to bring these issues to the forefront through more movies like 'Toilet', series like 'Panchayat' and different articles on such varied topics.

As a part of contribution to social and behavioural communication, the Malasur campaign – demon of defaecation - was launched by the Ministry of Housing and Urban Affairs (MoHUA) for spreading awareness about the risk of the mismanagement of faecal sludge, leading to pollution of water, under IEC and BCC with various artworks representing Malasur which are used by the ULBs for conducting the campaigns at respective local levels.

Acknowledging the issues is not enough, unless solutions are followed accountably. Only then could the indicators for monitoring usage of improved and safe sanitation along with proper maintenance of hygiene, lead to the fulfillment of SDG 6. 

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# Practice Oriented Policy: Localising national level FSSM policy in Uttarakhand

Safe sanitation practices and access to improved sanitation facilities are vital for public health and the environment. This is globally recognised in the form of the UN Sustainable Development Goals (SDG), particularly SDG 6.2, which aims to achieve universal access to adequate and equitable sanitation and hygiene by 2030, writes Program Officers for NIUA's Sanitation Capacity Building Platform - **Laila K Khongthaw, Doab Singh, Aparna Unni, and Gauri Srivastava.**



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**T**he importance of safe urban sanitation was first highlighted with the launch of National Urban Sanitation Policy (NUSP) in 2008, which emphasised on city sanitation plans and sanitation strategies for states. Later, when Swachh Bharat Mission (SBM) was launched in 2014, its focus on social behaviour change

ensured open defaecation-free status with 100% access to Individual Household Latrines (IHHL).

This progress under SBM saw a greater dependence on On-site Sanitation Systems (OSS). Subsequently, the Ministry of Urban Development (MoUD), now Ministry of Housing and Urban

Affairs (MoHUA), recognised that the end objectives and corresponding benefits of sustainable sanitation cannot be achieved without proper management of faecal sludge and septage (FSS) across the sanitation chain. Thus, MoUD launched the National Faecal Sludge and Septage Management (NFSSM) policy in 2017. The policy addresses synergies

between FSSM and sewerage systems, and its primary goal is to establish the context, priorities, and direction for nationwide implementation of FSSM services in all Urban Local Bodies (ULBs). It applies to all Central government schemes, programs, and projects that facilitate sanitation services in India's urban and peri-urban areas.

In urban Uttarakhand, the focus of this article, over 94% of the households have IHHL access and less than 5% rely on community or public toilets (Census 2011). According to the officials, 22 of the state's 103 ULBs have sewerage network access, but only 6 have sewerage network coverage of more than 50%. The state's hilly topography poses technical and economic challenges in retrofitting an entire city for laying a sewerage network; achieving 100% access to a sewerage network is impractical and cost-intensive.

Since almost 80% of urban Uttarakhand is dependent on OSS systems, it is imperative to implement FSSM in cities across the state to ensure safe sanitation.

A **study** by National Institute of Urban Affairs' (NIUA) Sanitation Capacity Building Platform (SCBP) in 2020 highlights the state of sanitation in different cities of Uttarakhand. The salient observations were:

- Majority of septic tanks do not conform to the IS code 2470 standards for installation of septic tank systems
- OSS emptying period ranges from 5 to 10 years, which is not as per the SBM guidelines of ODF++ Protocol 2020
- The state lacked registered private desludging operators in most cities
- Mechanical desludging in hill towns is impeded by lack of access to OSS from motorable roads
- Majority of cities lack treatment facilities and safe septage disposal provisions

Initiative by the State	Progress with support of NIUA-SCBP
Septage Management Cells at ULBs to regulate FSSM in cities	Formed in 93 of 103 ULBs
By-laws	17 ULBs have been gazette-notified, 35 others have requested notification
<b>Advisory for Operationalising Septage Management Protocol</b>	Issued in December 2020 by UDD, to provide a road map for ULBs and relevant state departments to implement different aspects of FSSM in the short, medium and long term
<b>Guideline for implementing Deep Row Entrenchment</b>	Issued in October 2021 by UDD, to provide temporary solution for safe disposal of FSS, for ULBs with a low septage generation (less than 10 KLD)
<b>Advisory on Co-treatment at STPs</b>	Endorsed by Uttarakhand Pijal Nigam <sup>2</sup> in 2022, to provide a basic technical framework for introducing co-treatment of septage at existing STPs in the state

*In urban Uttarakhand, over 94% of the households have IHHL access and less than 5% rely on community or public toilets (Census 2011).*

Apart from such issues associated with septage management, the state also has to contend with lack of greywater management. Municipal sewage is the cause of 80% pollution in river Ganga, according to a report published by State Program Management Group<sup>1</sup>, Namami Gange, Uttarakhand, leading to widespread water-borne diseases.

Pollution from sewage carried by municipal drains and overflow of OSS systems also affects other smaller rivers in the state such as Bhela, Dhela, Kosi,

and Pilakhar. This is highlighted in the River Action Plans, prepared by River Rejuvenation Committee, Uttarakhand, for restoring the nine critically polluted river stretches identified by Central Pollution Control Board (CPCB).

### Uttarakhand State's Efforts to Regulate FSSM

The national FSSM policy provides stakeholders, whether city or state, the direction they need for addressing gaps in the sanitation chain and provision of FSSM services. Recognising the importance of this, Uttarakhand state has taken several decisions and actions in accordance with the national policy.

The state issued the **State Septage Management Protocol** in 2017, shortly after the NFSSM policy was launched, as a guiding tool for all ULBs for effective and safe septage management. In 2019, the Urban Development Directorate (UDD) of Uttarakhand signed an MoU with NIUA to support state-wide FSSM implementation through capacity

1. <https://spmguttarakhand.uk.gov.in/pages/display/88-pollution-threat>

2. The state department in charge of water supply & sewerage infrastructure development

development, technical, policy advisory, and hand-holding support.

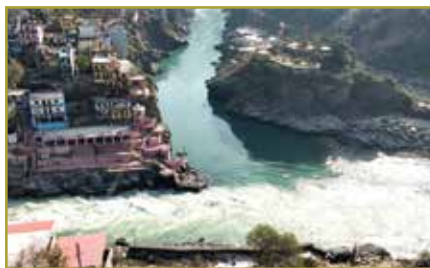
The state's Septage Management Protocol addresses some of the key features of the NFSSM policy locally at the state and ULB levels. These are reflected in the initiatives taken by the state, as shown in the table below.

Additionally, some cities have begun developing an OSS database through household surveys, and rolled out IEC on FSSM. Capacity development is one of the key components of NIUA-SCBP support to the state. The Uttarakhand Academy of Administration (UAoA) facilitates orientation and advanced training on FSSM for state officials and other practitioners in line with national priorities through its partnership with NIUA-SCBP. To date, state officials from over 80 ULBs, including 15 Ganga towns, have been trained either online or offline.

### Way Forward

Most ULBs in the state are small with less population<sup>3</sup>, and lack infrastructure for used water treatment. Therefore, to maximise utilisation of existing infrastructure, the Uttarakhand government is considering the clustering approach for streamlining FSSM across all the ULBs. Here, cities with existing or upcoming treatment infrastructure would serve as 'hosts' and smaller ULBs within 25 km would be the clusters.

For this, the state will seek to mobilise funds from SBM 2.0, which has allotted it Rs 203 crore for addressing the used water challenges. In this regard, UDD and Uttarakhand Urban Sector Development Agency (UUSDA), in consultation with NIUA, are preparing a sanitation plan for all 103 ULBs, to recommend appropriate



*Since almost 80% of urban Uttarakhand is dependent on OSS systems, it is imperative to implement FSSM in cities across the state to ensure safe sanitation.*

septage management approaches. To strengthen the process, NIUA, in consultation with UDD, is also developing a strategy and investment plan which will help plan and secure funds from SBM 2.0 and AMRUT 2.0, while also identifying potential treatment clusters for all ULBs. There is also a commitment to ensure co-treatment in all existing and upcoming STPs within the state. The **National Mission for Clean Ganga (NMCG)** recently approved the implementation of co-treatment in existing STPs of Haridwar, Srinagar, Rishikesh and Devprayag. The state also intends to

strengthen the capacity building on urban issues by establishing the State Urban Development Institute (SUDI) at UAoA, Nainital. This is envisioned as a state-funded training and research institute that will focus on urban issues including FSSM through training, research and documentation. The state government will fund SUDI for the coming four years.

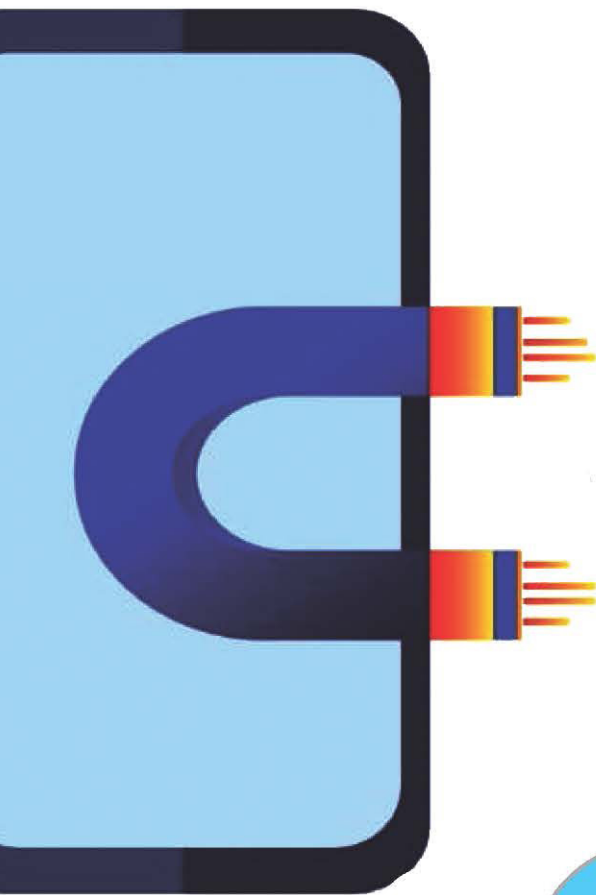
Uttarakhand state is taking steps towards achieving sustainable sanitation by addressing different aspects – policy regulation, capacity development, technical details – in an integrated manner. There is, however, a long way to go, given the unique challenges it faces as a mountain state, and catchment of the nation's major rivers, while also being especially vulnerable to climate-induced disasters. The state's experience can, therefore, offer insightful learnings for pursuing the Sustainable Development Goals. 

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3. 50 of the state's 103 ULBs have a population less than 10,000, while 36 ULBs are in the range of 10,000-50,000

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# Recognising the Unrecognised: Sanitation work added to list of scheduled employments in Odisha

Sanitation workers don't have access to safe and comfortable personal protective devices. Though this work should be considered admirable and these workers should be celebrated, the reality is starkly opposite, writes **Manvita Baradi**, Founder and Director, Urban Management Centre; **Meghna Malhotra**, Deputy Director, Urban Management Centre, and **Rishika Srivastava**, Project Associate, Urban Management Centre.



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**M**ost of us have in our lives read the news that a sanitation worker died while cleaning a maintenance hole. Why, in 2022, do we still read about sanitation workers' deaths and what are we doing as a society to prevent this? Furthermore, heavy precipitation and flood events can lead to physical damage of non-sewered sanitation

infrastructure, especially pit latrines and septic systems, making them non-functional when filled with water, especially in densely populated urban areas and informal settlements.

Sanitation workers in India have faced caste-based discrimination, occupational stigma, loss of health and life, and invisibility within the system. These workers don't have

access to safe and comfortable personal protective devices. Though this work should be considered admirable and these workers should be celebrated, the reality is starkly opposite. They lack access to basic human rights and dignity, and their efforts remain largely unacknowledged. Most of the sanitation work undertaken is intergenerational. The first step to

right this generational injustice is to identify sanitation workers, and enumerate them to ensure occupational, social, and financial safety.

The Government of Odisha has become the pioneer in the country for ensuring occupational, social, and financial safety for core sanitation workers.<sup>1</sup> With the Urban Management Centre as their implementation partner, Government of Odisha launched the GARIMA scheme to enable safe and dignified livelihoods for sanitation workers. Even more significantly, hazardous sanitation activities such as sewer line cleaning and septic tank emptying have been recognised as highly skilled, while less hazardous activities like drain cleaning, maintenance of wastewater treatment plant and community & public toilet cleaning have been recognised as skilled. This required to change the list of Scheduled Employments of the state and work with the Labour and Employees' State Insurance Department of the Government of Odisha, in accordance with the Minimum Wages Act, 1948. On July 5, 2021, sanitation work was included in the list as a separate item.

This also makes Odisha the first state in India to acknowledge that the work being done by sanitation workers is highly skilled.

Sanitation work, by its very nature, is complex. Septic tank cleaners, and sewer line cleaners often have to enter into confined spaces with low visibility and lack of oxygen to identify and correct damage to critical infrastructure or clean the sludge that has been depositing for years, sometimes as long as 15-20 years. The skills and knowledge a sanitation worker needs are highly



*The Government of Odisha has become the pioneer in the country for ensuring occupational, social, and financial safety for core sanitation workers.*

specialised, even without considering the tremendous hazards they experience while performing their task. There is a constant risk of contact with faeces and contaminants, risk of falling or drowning, and inhaling hazardous gases that build up in pipes and tanks. In almost all other industries, such severe threat to life and limb are

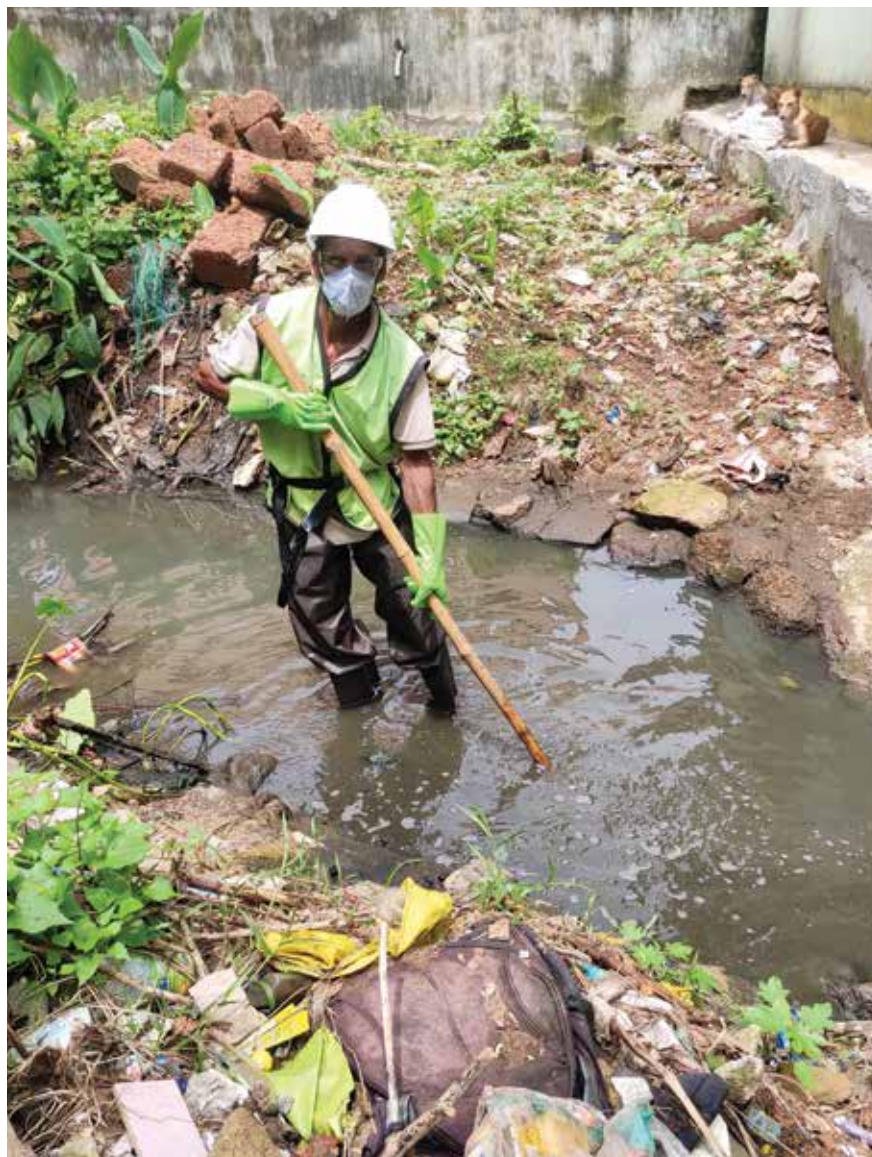
recognised and compensated and provided with appropriate benefits and covers. The Urban Management Centre (UMC) conducted an analysis of Scheduled Employments of various states in India from the perspective of sanitation work. In states that sanitation workers are recognised as labourers, they are often referred to as sweepers, cleaners, or even 'scavengers'; a word that is associated with a deep-rooted stigma involving sanitation work.

Despite these risks in the sanitation work, none of the states in India have recognised it as a skilled profession relegating the workers to receiving minimum wage with no focus on their training.<sup>2</sup> Sanitation workers often do not receive any support or additional allowances for insurance, healthcare, and counselling, nor do they receive hazard allowances for the high risks they take.<sup>3</sup>

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sanitation workers and targeting families for rehabilitation, based on their caste identities. Even though the Prohibition of Employment as Manual Scavengers and their Rehabilitation Act, 2013, has widened the limited view of what constitutes manual scavenging from its predecessor, there is still a huge gap in its interpretation. Employers lack recognition for the necessity of trained sanitation workers to maintain urban infrastructure. Consequently, we have not been able to address the socio-technical factors that incentivise unsafe sanitation work

*Odisha is the first state in India to acknowledge that the work being done by sanitation workers is highly skilled.*

In some cases, permanent employees of urban local bodies or parastatal organisations are paid higher wages, contributing to a belief that this change in the wage codes is redundant. However, the majority of sanitation workers in India are employed by private contractors or completely informally. In this situation, these workers still need protection via higher minimum wages and mandatory employment benefits like insurance and health care coverage.

The customary caste hierarchy relegated sanitation workers to the lowest rung of the social ladder. In the modern era, this has led to sanitation workers lacking the resources necessary to gain skills and access other occupations. Many social reform movements have attempted to help families break out from the cycle of exploitation; however, progress has been slow and spasmodic.

Over the years, the approach has been rooted in the mindset of punitive action against employers of

in cities. In the last 20 years, there has been significant investments in urban infrastructure to improve the overall efficiency and maintenance of the systems. However, the people-centric approach and infrastructure-centric approach have not come together as a comprehensive strategy to make the work itself safer.

The GARIMA scheme covers all workers in the state that perform job roles with a potential for direct contact with faecal matter. Before being recognised as skilled and highly skilled workers, they were entitled to a minimum wage of Rs 303/ day as unskilled labourers. After the amendment, they are now earning Rs 458/ day as highly skilled labourers. Overall, this change in the employment

categorisation is expected to increase the wages of sanitation workers by around 50 per cent.

The Housing and Urban Development Department (H&UDD), Odisha played a huge role in making this happen. Urban local bodies and their subcontractors collectively are among the largest employers of sanitation workers. The H&UDD recognised that the interventions made under GARIMA would be incomplete without the introduction of this wage category. Urban Management Centre (UMC) supported the state government by analysing the precedents that exist in other hazardous industries such as mining, construction, and providing advocacy support. UMC is now working with H&UDD to set up an institutional structure to ensure that these workers are trained and certified to perform such hazardous jobs.

While sanitation is mostly done by state urban development departments; the mandate of modifying the Scheduled Employments rests with the state labour departments; the two departments need to converge to ensure inclusion of sanitation work in the schedule of employment. The modification of the Scheduled Employments' list is a state subject, and the process to make these changes is slow; but Odisha has shown that it can be done!


The design and implementation of a comprehensive strategy for safety and dignity of sanitation workers, the Government of Odisha has set a precedent for the country. In the last two years, over 19,000 sanitation workers have been surveyed. In the 5 pilot cities, validated sanitation workers have been given Garima ID



*“The steps taken by the Government of Odisha are centered on the idea of visibilising sanitation workers to end the vicious cycle of caste-based discrimination, occupational stigma, loss of health and life.”*

cards. Over 3000 core sanitation workers (CSW) have been linked with various entitlements like Biju Swasthya Kalyan Yojna, Aadhar card. CSWs are also getting training and certification through

Odisha Water Academy. The government undertook institutional restructuring for setting up and strengthening of Emergency Response Sanitation Units (ERSUs) and a massive drive to procure and distribute Personal Protective Equipment (PPEs). To ensure CSWs have access to PPE washing-cum-drying area, drinking water facility, changing room, resting area, washroom, and a locker room, 31 Garima Griha have been constructed in 5 cities of Odisha as a pilot. It will be scaled up in all towns, so that all the individuals involved in hazardous work can clean after duty and go home to lead a dignified life.

The steps taken by the Government of Odisha are centered on the idea of visibilising sanitation workers to end the vicious cycle of caste-based discrimination, occupational stigma, loss of health and life. 

# India's Sanitation Story

In India, poor sanitation takes the form of an absence of toilets in households' dwellings, which ipso facto, compel their members to defecate in the open. However, the Swachh Bharat Abhiyan (Clean India Mission) has resulted in major improvements in access to safe potable water, sanitation, and hygiene facilities, especially in urban India. We take you through a pictorial journey of India's sanitation story.



India's Sanitation Story Through Pictures



Source: Jhansi Smart City Ltd



Source: UNICEF India



Source: India Water Portal



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