



The Energy and Resources Institute

Title of the project : **Strengthening Water and Sanitation in Urban Settings**

FOG Award Number : **AID-386-F-14-00002**

Name of Institutions : **TERI University, New Delhi**
Coca-Cola, India
TERI, New Delhi

Country : **India**

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Project Duration : **1st November 2014- 31st October 2017**

Reporting Activity : **Proceedings of the National Stakeholder Consultation Workshop**
5th December 2016 (Activity 3.6: State of Urban WASH Report)



NATIONAL STAKEHOLDER CONSULTATION WORKSHOP

December 5, 2016



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SUMMARY OF THE WORKSHOP

The Coca-Cola Department of Regional Water Studies at TERI University has undertaken a three-year study on 'Strengthening Water and Sanitation in Urban Area of India', which is supported by the USAID. This study explores all issues, challenges, and opportunities in implementing water and sanitation projects in urban areas. As a part of this project, TERI University and TERI organized the National Stakeholder Consultation Workshop on Water and Sanitation (Urban) on December 5, 2016, at the Indian Habitat Centre, New Delhi. The workshop aimed at bringing out a set of recommendations on Water and Sanitation (Urban) sector leveraging from the lessons shared in a series of regional consultation workshops held since the start of the programme in 2014. Fifty-one stakeholders representing Ministry of Urban Development, Urban local bodies (ULBs), NGOs, and implementing agencies from various states participated and shared their experiences. In the inaugural session, experts from USAID, Coca-Cola, India Sanitation Coalition, TERI University, and TERI shared their perspectives on the emerging challenges

and opportunities in the sector. A discussion paper titled 'Faecal Sludge Management in India: Policies, Practices and Possibilities' was also unveiled and distributed amongst the stakeholders during the inaugural session. In the subsequent sessions, best practices from Gujarat, Tamil Nadu, Maharashtra, Bihar, Delhi, and Karnataka were presented in three technical sessions.

Under this study, a 'State of Water and Sanitation (Urban)' report is being prepared, which will be a comprehensive collection of existing policies, plans, and programmes in the sector. The consultation workshop also deliberated on the dissemination plans of this report post its release in 2017 and how the network of stakeholders can be collectively leveraged to influence state and central policies and programme on urban sanitation. The report has cross-disciplinary orientation and focuses on systems approach towards Water and Sanitation (Urban) practices that will require major inter institutional collaboration to pool in learning resource and insights.

INAUGURAL SESSION



Distinguished Fellow and Director Dr S K Sarkar, TERI, delivers Welcome Address

L to R: Dr Leena Srivastava, Vice-Chancellor, TERI University; Mr Anand Rudra, Senior Project Management Specialist (Water & Sanitation), USAID; Mr Chandra Mohan Gupta, Director, Corporate Affairs Coca-Cola; Mr JVG Krishna Murthy, Program Leader, India Sanitation Coalition

Welcome Address

Dr S K Sarkar, Distinguished Fellow and Director, TERI, welcomed all the stakeholders and government officials for joining the National workshop on Water and Sanitation. He said that TERI collaboration with USAID and Coca-Cola India has resulted in policy brief on 'Swachh Bharat Mission' (SBM) and discussion paper on faecal sludge management. These publications have received a lot of feedback, which would be incorporated in the 'State of Water and Sanitation report', which is under preparation. He applauded the unprecedented attention this sector is receiving due to the importance Government of India is placing on SBM.

Dr Sarkar emphasized that the government needs to change its thinking from supply-driven approach to demand-driven approach in the provision of services. He

“Sharing of Knowledge and experience is vital for the urban sanitation sector”

critically commented on target-based approach of the government in finding solution to issues related to the provision of urban services. He appreciated stakeholders for taking several steps to solve the issues related to provision of urban services.

Special Addresses

Mr Anand Rudra, Senior Project Management Specialist (Water & Sanitation), USAID, stated that it is the third

year of USAID collaboration with TERI University over this project, and TERI University-TERI has carried out its responsibilities meticulously. He further said that in October 2017 the 'State of Water and Sanitation (Urban)' report will be launched. He also showcased his engagements with MOUD on Water and Sanitation (Urban) sector. He further deliberated about initiatives such as Summer school and WASH programme. He also added that USAID collaboration with a research organization, such as TERI University/TERI, has enabled them to share knowledge from generation to generation. Accentuating on the fruitful collaboration, he also said that this participation has grown step by step, including the engagement with youth.

Mr Rudra emphasized on providing three basic aspects, namely technical arrangement, Knowledge sharing, and a clear public-private participation (PPP) model, for solving the problems in provision of urban services.

Mr Chandra Mohan Gupta, Director Corporate Affairs, Coca-Cola INSWA BU, presented the business side perspective in the water and sanitation sector while highlighting the role of political leaders in this space. He further discussed a programme by Coca-Cola India titled 'Support My School', in which the company provide cleaner and healthier environment to marginalized schools. The interventions include access to improved drinking water, appropriate sanitation facilities for boys and girls, improvement in the school infrastructure and environment, recharging groundwater through rainwater harvesting system, etc. The company not only focussed on providing the hardware solutions but also in the behavioural change communication (BCC) strategies. Through this programme, the company plans to cover 1000 schools with the target of providing better environment to around 300,000 students. The next step for the company in this sector is to provide clean and barrier-free access to sanitation for differently-abled students in school.

“ We should not fall prey to the Abilene paradox, that is, our inability to manage agreements especially for the causes which are general, large, and in national interest ”



Mr Gupta further focussed on the fact that, in order to bring a change, not just technical interventions are required but behavioural changes hold an important place. He appreciated the PPP arrangements as it is a great opportunity to partner with civil societies and government. Finally, he requested the participants to not fall prey to the Abilene paradox, that is, our inability to manage agreements.

Dr Leena Srivastava, Vice-Chancellor, TERI University, highlighted the role of academicians and the need of integrating water and sanitation in academic curriculum. She explained about the multi-track programme of water science and governance initiated by TERI University that focusses on the science, economics, and governance apart from engineering. She focussed on the need of an overall water management strategy at a macro level and how climate change and rapid urbanization has increased the

“ We are not sensitive towards the state of vulnerability that has been created not just due to the overall water availability and quality but through over withdrawals of water, especially in urban areas ”

stress on the limited water resource. She identified lack of policy coherence as a weak point and shed light on the water and energy nexus.

She further discussed about the divided approach that has been undertaken to manage the very critical water resource. These divisions are evident from administrative

“ Sanitation is not one thing which we are looking at; it is also linked to or is going to effect the environment, water, food security, etc. ”

and disciplinary boundaries apart from lack in policy coherence. She highlighted the need for research and effective engagement of academia and recommended that a roadmap for collaborative action for sustainable solutions should be prepared.

In his special address, Mr JVG Krishna Murthy, Program Leader, India Sanitation Coalition (ISC), New Delhi, focussed on a need for a paradigm shift from target-driven toilet-building approach to an approach that incorporates strategies for behavioural change. The catch phrase of his organization is 'BUMT—Build, Use, Maintain, and Treat'. He stressed on the fact that treatment of faecal sludge should be a major focus area

as there are very few players. This gives rise to a business opportunity for entrepreneurs as massive waste is generated every day, of which less than 1 per cent is presently treated.

ISC collates the best practices in the sector of water and sanitation so that it is easier for stakeholders to replicate and scale-up technology/approach, which has been successful in one area to another. He concluded by saying that sanitation is linked to environment, water, food security, etc. and that it forms a chain with several other factors.

- The session was concluded with the release of a discussion paper titled 'Faecal Sludge Management in India: Policies, Practices, and Possibilities' by the dignitaries.
- A vote of thanks was delivered by Dr Girija Bharat. She thanked and appreciated the insights shared by the dignitaries and all the participants as well as the team.



Discussion Paper titled 'Faecal Sludge Management in India: Policies, Practices, and Possibilities' released by the dignitaries at the National Stakeholder Consultation Workshop

Technical Session 1: Looking Back to Think Ahead



Chair

Joep Verhagen, Senior Water and Sanitation Specialist, The World Bank

Panellists

Mr Sameer Jain, Lead, Infrastructure, Government and Health Care (IGH), KPMG

Ms Manvita Baradi, Founder Director, Urban Management Centre, Ahmedabad

Mr Madhu Krishnamoorthy, Director, Water Health India, Bangalore

Mr Manu Prakash, Director, Water and Sanitation, TARU, New Delhi

Mr Verhagen started the session with his perspectives on the theme. He stated that India is a country with huge population and diversity making implementation challenging. Besides this, he also focussed on the faecal sludge management in India and reusing of treated water, which requires immediate attention. He regarded urban sanitation as not only an area that requires technological intervention but also other aspects, such as financing, energy usage, reuse and recycle of waste water, etc. The urban agenda clearly calls for something different than business-as-usual (BAU) thinking. He also stressed on the need for greater effort towards development of the infrastructure.

Mr Jain described the goals of the SBM launched on October 2, 2014, and mentioned that SBM (Urban) focussed on making 4041 cities Open Defecation Free (ODF) and the role of every citizen is important to achieve this. The implementation strategy for SBM is to deliver a 100 per cent ODF status, awareness amongst citizens and enforcement through ULBs. He also highlighted the need

“ Urban agenda is multi faced challenge which calls for the vision but also the hard kind. ”

to incorporate behavioural change, capacity building, public awareness, citizen engagement, etc. along with building of toilets. According to SBM, household toilets for 66 lakh households are to be provided. A total of 739 cities will achieve ODF status by March 2017 and around 46 lakh toilets have been constructed. He also highlighted the potential India holds in terms of waste to energy (700 MW) and waste to compost (54 lakh MT). They have also established a protocol for understanding ODF, which was developed with the help of Quality Council of India and is available at the SBM website.

Swachh Survekshan was conducted for 73 cities in 2016 and Mysuru Municipal Corporation ranked number one in cleanliness and sanitation. The survey followed a three-pronged approach: data collection from ULBs, direct observations, and citizen feedback. For the year 2017, the number of cities has increased to 500, and citizen's feedback will be given more weightage.

He concluded the presentation by stating that for sustainable implementation, individual and institutional capacity building is essential.

Ms Baradi discussed challenges and approaches they applied in the urban areas. She pointed the unavailability of data since we do not have appropriate and reliable databases for making informed decision. She pointed out the problems in the urban governance system, such as fragmented and weak governance, poor inter-departmental coordination, unavailability of standard operating process to ensure quality, training of officials, etc. She suggested some steps for corrective action

- Building databases and understanding the problems;
- Spatial understanding of the existing situation;
- Solid waste management (SWM) excel tool for resource requirements and improvement across value chain;
- Standard operating procedure for drinking water quality surveillance;
- Standard operating procedure for faecal sludge management;
- Design guidelines for WASH in schools; and
- Monitoring frameworks for water-sanitation infrastructure.

She discussed developing a GIS-based model for urban areas to have a better approach for the decision makers

in analysing the scenario. She further added that rather than focussing on the quantity in provision of services, quality of services should also be considered. She emphasized on forming a model citizen charter which is currently not available for many cities.

Mr Krishnamoorthy shared his perspective on the situation of drinking water in urban areas, especially the urban slums and how it can be improved. He described the existing piped water supply system as cost and time intensive system, which requires a huge source of water to ensure that people receive water for purification. Using an analogy of telecommunication, he described how few countries leapfrogged to mobile phones; similarly, few cities in India should leapfrog to decentralized water purification systems. Through such systems, Water Health India (WHI) is able to provide safe drinking water to about 5 million people. These systems are preferred over the piped water supply because they are easy to set up and provide high-quality drinking water.

He further emphasized on the fact that there is a high degree of urbanization, which is expected to rise further by 2020, and the ULBs do not have the necessary infrastructure to cater to this inflow of people. Therefore, water, sanitation, and health conditions worsen in urban slums. A demand-driven approach needs to be adopted and drinking water is priced in order to avoid abuse of water. He also stressed on the fact that the non-revenue water (NRW) could be less than 2 percent with efficient technology. Finally, he concluded by saying that community inclusion should be focussed for long-term sustainability of solutions.

Mr Prakash stressed that urban sanitation is looked up in a linear dimension while the problem itself is multi-dimensional. He supported it by explaining the impact of various factors, such as economic growth, urban changes, environment & climate change, and public health on sanitation. He highlighted that huge investments have been made in this sector for infrastructural development, but the social issue of 'who will clean' has been neglected. Vector-borne diseases, such as chikungunya, dengue, and malaria, can be directly linked to sanitation in a city.

Another area that he described was the effect of heat stress on sanitation. The year 2016 has been the hottest year and some states of India were badly hit by drought. People resorted to open defecation due to lack of water, despite having toilets. This shows that the investments on behavioural change were not effective. Linkages

between sanitation and public health are not very well established. He stressed on the fact that we have a very weak law and regulation system in the country. He

highlighted the need of landscaping and beautification, as these lead to structural discipline.

Technical Session 2: Good Practices in Urban Sanitation in India



Chair

Ms Renu Khosla, Director, CURE

Panellists

Dr Ketaki Ghatge, Nodal Officer, SBM, Pune

Mr S Damodarana, Founder Chairman, Gramalaya, Tiruchirapalli

Ms Khosla started the session by comparing the current condition of sanitation by putting up two phrases 'broken window' and the 'tragedy of commons'. She pointed out the way the services are provided today are like the broken window syndrome as we are giving shared services and common toilets, and if one toilet or a tap is broken, it leads to the failure of a chain of events causing the system to fail and eventually giving rise to the tragedy of commons—a pessimistic view of sanitation. She also threw light on

the optimistic view, which she gave by giving examples from a book that reciprocates that today we have lot of knowledge and access to technology that allows us to solve the problems. The SBM is one of the optimistic views of looking into sanitation.

Dr Ghatge discussed about the achievements of Pune Municipal Corporation in becoming ODF in spite of handling a city of population of four million with 38 per cent of them living in slums. Despite the challenges the corporation faced, it has been able to provide basic amenities, including water and sanitation, to its citizens, especially the urban poor and achieved the target of becoming ODF. They are now aiming towards becoming ODF+ and ODF++ communities by addressing entire service chain of sanitation and not by just focussing on number of toilets constructed. She emphasized on strategic planning for gap analysis in the system,

community mobilization, and simplification of tenders. She also talked about Pune Public Toilet Policy, which has aspects, such as improvement in infrastructure, operation, maintenance, etc. She further added that the Pune Municipal Corporation is trying to build toilet sharing system that is one toilet for 2–3 families in slums, which is a step ahead of providing community toilets.

Mr Damodaran discussed about Gramalaya, which is working since 1987 primarily on water, sanitation and hygiene, and promotion of cost-effective toilets through design, such as twin-pit toilets, septic tanks, etc.

Gramalaya has introduced the concept of microfinance for sanitation, which has been successful and sustainable as well as a replicable model. He also talked about educating children by adopting child-to-child approach through 'School-build' programme. He also showcased the achievements from Tiruchirappalli city in Tamil Nadu that has become third cleanest city in India next to Mysuru and Chandigarh. The reason behind their success has been community participation by working with various NGO's. Women engagement was ensured by providing small funds to build toilets.

Technical Session 3: Good Practices in Urban Sanitation in India



Chair

Mr D Manavalan, Executive Director, AFRO, New Delhi

Panellists

Ms Pratima Joshi, Executive Director, Shelter Associates

Mr Manoj Kumar, Executive Engineer, Government of Bihar

Mr Sanjay Joshi, CEO, Shanti Life India Foundation, Ahmedabad

The session began with the chair Mr Manavalan sharing his thoughts on the theme. He highlighted the need of supply sustainability in which the consumers—the ultimate stakeholders—need to be trained and made aware. The second point he raised was institutional sustainability, that is, about who is going to maintain it. And finally, demand sustainability, where training of stakeholders is a must.

Ms Pratima Joshi has been working for over 16 years in the field of urban sanitation issues and has impacted over 70,000 people in the state of Maharashtra directly through a range of sanitation options from community to household toilets. She laid emphasis on the need for collecting datasets for the correct assessment, planning, and providing the right information in making strategies to solve the problems of a city. She showcased how data helped them towards evidence-based decision making, especially in creating access to toilets in the slums

of Pune.

Mr Kumar highlighted the problem of immigration as this brings stress to the already stressed services because the systems are installed for certain population strength and cannot work beyond that. He discussed about the project that he is running in Bihar. He also pointed out the potential of waste water reuse rather than just focussing on treatment only. He also discussed about importance of SWM in providing holistic solution to the problem of sanitation by highlighting the potential of solid waste in generating electricity.

Mr Sanjay Joshi discussed the socio-cultural restrictions that women face in an Indian society. This is further aggravated by self-restrictions. The lack of funds to construct a toilet adds to the problem. Shanti Life India Foundation plays a major role in this area. They give loans to women for sanitation infrastructure and are supported by several women federations. He further

Key Recommendations and Highlights of the Workshop

Inaugural Session

- The sanitation sector has witnessed tectonic shifts in the last two years and this trend is going to continue. In order to bring a change, not just technical interventions but behavioural changes also hold an important place.
- Three important aspects that require attention: technical arrangement, robust PPP arrangements and knowledge sharing.
- An approach of BUMT should be undertaken. Treatment of faecal sludge creates a business opportunity for entrepreneurs.
- Need for research and academia to be engaged effectively.
- Roadmap for collaborative action for sustainable solutions.

Technical Session 1: Looking Back to Think Ahead in Urban Sanitation

- Role of every citizen is important in achieving SBM objectives. This is reflected in the approach of

Swachh Survekshan 2017, whereby the ranking of 500 cities is being carried out based on their level of sanitation. This survey has increased its marking from the previous year in terms of its citizen participation.

- Engaging communities and raising funds for operation and maintenance of toilets is the key for sustainable sanitation.
- Availability of database, spatial distribution of existing situation, and development of standardized tools and guidelines shall be useful for evidence-based decision making.
- Since ULBs have limited resources to cater to the demands of the residents, we need an alternative to centralized water distribution systems. The presentation by Mr Krishnamoorthy from WHI shared how decentralized water purifier systems can serve as a strong alternative to achieve universal water access with NRW as low as 2 per cent.
- Urban sanitation at present is looked up in a linear dimension while the problem itself is multi-dimensional. The economic growth, urban changes, environment and climate change, and public health,

together has an effect on urban sanitation. Mr Prakash from TARU emphasized on the fact that sanitation can be a preventive model to help improve not only the public health but also the economic growth.

Technical Session 2: Good Practices in Urban Sanitation in India

- Dr Ghatge highlighted multifaceted approach that helped improve urban sanitation in Pune. This was achieved by simplifying the tendering process, innovative designs, capacity building, along with multi stakeholder engagement and community mobilization.
- Mr Damodaran focussed on the software side of the implementation of WASH infrastructure that included community mobilization and demand generation, social marketing, and cost sharing. BCC was another important strategy that helped make Tiruchirappalli the third cleanest city in the country. Interestingly, Tiruchirappalli is not only emphasizing upon open defecation but has moved to preventing open discharge by faecal sludge operators.
- Shelter Associates in Pune has shown how mapping can be constructively used to identify gaps in urban sanitation and how to solve them together with the local government. Something to learn from the case of Pune is that by providing building materials at the door steps of the beneficiary acts as an incentive for not only building toilet but also to invest in them further to make it attractive. Shelter Associates success in Vicharemale slum of Pune has also shown us that individual household latrines (IHHL) in small household of size 10 × 10 feet with safe on-site sanitation system is possible.
- Mr Kumar discussed innovative technology, such as the phytoid technology, and its usefulness in treating waste water. He threw light on the success stories of this technology and how it has helped huge operating cost and is economically viable for peri-urban areas.
- Mr Joshi discussed about micro credit loans for women for sanitation infrastructure. He emphasized on the fact that women got empowered through this aspect as they all made their own bank accounts and were introduced to the banking sector.

Annexure 1: Background Note of the National Workshop

India is rapidly urbanizing in the twenty-first century and the share of urbanization has increased to over 377 million people residing in urban areas. The contribution of urban sector to India's gross domestic product (GDP) is presently 62–63 per cent and is likely to be 75 per cent by 2021. The urban economic activities are dependent on basic infrastructure, such as power, telecom, roads, water supply, and mass transportation, coupled with civic infrastructure, such as sanitation and SWM. The rapid rate of urbanization has created immense pressure on cities' infrastructure and other civic amenities, especially in larger cities. It is important to note that the economic impact of not addressing a basic civic amenity, such as sanitation, can cost the country 2.6 per cent loss of national GDP each year.

The SBM, launched by the Prime Minister of India, aims to eradicate open defecation in the country by October 2, 2019. The SBM has gained huge momentum and wide participation with a large number of stakeholders, from various sectors, strengthening the political will in making this mission a successful reality.

The SBM also aligns with global focus on eradication of open defecation and focus on health and sanitation in the form of Sustainable Development Goal (SDG) Goal 6: Ensure availability and sustainable management of water and sanitation for all. As indicated in the Joint Monitoring Programme update, more than 50 per cent of the open defecators globally are from India. Thus, the eradication of open defecation in India is crucial for the achievement of the targets of SDG 6 globally.

Studies indicate that among people who practice open defecation in India, a significant number prefer to do so despite having access to toilets. This indicates that a mere focus on building toilets is not sufficient. The government needs to focus on creating awareness on the hazards of open defecation and must employ its resources in changing the prevalent mindset. Also, with an increase in the number of household toilets, larger questions emerge, such as do we have the requisite infrastructure to treat the sewage generated out of these toilets? If not, are we able to provide access to safe sanitation with safe disposal of faecal sludge matter to prevent groundwater contamination?

The urban sanitation sector has been facing a number of challenges. A BAU approach will not be able to plug the gap between supply and demand in the water and sanitation sector. There is an urgent need for a paradigm shift from purely engineering works to a systems approach that incorporates a hybrid approach of network and non-network solutions, traditional practices, socio-anthropological, as well as the financial and political profile of the local community.

About the Workshop

The TERI University along with The Energy and Resources Institute (TERI) and Coca-Cola has undertaken a three-year study on 'Strengthening Water and Sanitation in Urban Areas of India', which explores all issues and challenges in implementing water and sanitation projects in urban areas. As a part of the project, a 'Status of Water and Sanitation (Urban)' report is planned to be released, which will be a comprehensive collection of existing policies, plans, and programmes in the sector. It will also give suggestions on how the existing gaps may be filled. The report having cross-disciplinary orientation and practice focus will require major inter-institutional collaboration to pool in learning resources and insights. The report will be published in October 2017 and would have complete mapping of all players in the SBM (Urban); their role, jurisdictions, barriers, decision making processes; and the way forward. This is being done through focussed one-to-one interviews with key players. The report is expected to provide strategies and action plan with complete solution space for various actors for the next 5 years. The discussions and deliberations of the National Stakeholder Consultation Workshop will provide key inputs for the upcoming report.

In order to facilitate experience-sharing, cross-fertilization of ideas, and to bring out a consultation report on WASH, the team at the TERI University and TERI is organizing a one-day national workshop at New Delhi. The national workshop will have key stakeholders from Urban WASH sector coming from diverse perspectives. The discussions from this workshop are expected to provide valuable primary data to the report. The programme will facilitate a systematic amalgamation of widespread knowledge of authors of several chapters and other stakeholders,

under a common platform, which in turn will foster learning through an interdisciplinary approach and make this report useful for policymakers.

The objectives of the workshop were

1. To build upon the findings of the regional-level stakeholder consultation workshops, conducted so far, and deliberate on the key policy and institutional drivers of sustainable sanitation, showcasing some of the best practices.
2. To discuss and deliberate on the important aspects of the on-going study on urban sanitation in India and provide key inputs and insights for future for the upcoming 'Status of Water and Sanitation Report'.
3. To deliberate on the dissemination plans of the report and how the network of stakeholders can be collectively leveraged to influence state and central policies and programmes on urban sanitation.

Annexure 2: Agenda of National Workshop

09.30–10.00	Registration
Inauguration	
10.00–10.10	Welcome Address by Dr S K Sarkar, Distinguished Fellow and Director, TERI
10.10–10.25	Special address by Mr Anand Rudra, Senior Project Management Specialist (Water & Sanitation), USAID
10.25–10.35	Special Address by Mr Chandra Mohan Gupta, Director Corporate Affairs, Coca-Cola INSWA BU
10.35–10.45	Special Address by Dr Leena Srivastava, Vice-Chancellor, TERI University, New Delhi
10.45–10.55	Special Address by Mr JVG Krishna Murthy, Program Leader, India Sanitation Coalition, New Delhi
10.55–11.05	Release of the Discussion Paper titled 'Faecal Sludge Management in India: Policies, Practices, and Possibilities'
11.05–11.10	Vote of Thanks by Dr Girija Bharat
11.10–11.35	Tea Break
Technical Session 1: Looking Back to Think Ahead in Urban Sanitation	
Time: 11.35 AM–1.30 PM	
Chair: Mr Joep Verhagen, Senior Water and Sanitation Specialist, The World Bank	
11.35–11.45	Sharing of perspectives by the Chair
11.45–12.00	Perspectives on Urban Sanitation in India by Mr Sameer Jain, Lead, Infrastructure, Government & Healthcare (IGH), KPMG
12.00–12.15	Systemic improvements in water-sanitation service delivery in Gujarat cities by Ms Manvita Baradi, Founder Director, Urban Management Centre, Ahmedabad
12.15–12.30	Decentralized water systems for enhanced access to safe drinking water facilities by Mr Madhu Krishnamoorthy, Director, Water Health India
12.30–12.45	Urban sanitation: Insights for future by Mr Manu Prakash, Director, TARU, New Delhi
12.45–1.30	Discussions
1.30–2.30	Lunch Break
Technical Session 2: Good Practices in Urban Sanitation in India	
Time: 02.30 PM–03.25 PM	
Chair: Ms Renu Khosla, Director, CURE	

2.30–2.40	Sharing of perspectives by the Chair
2.40–3.00	Holistic approach to sanitation—Pune model by Dr Ketaki Ghatge, Nodal Officer, SBM, Pune
3.00–3.20	Community mobilization for improved sanitation by Mr S Damodaran, Founder Chairman, Gramalaya
3.20–3.40	Tea Break
Technical Session 3: Good Practices in Urban Sanitation in India	
Time: 03.40 PM–05.10 PM	
Chair: Mr D Manavalan, Executive Director, AFPRO, New Delhi	
3.40–3.55	One home one toilet—Improving dignity and safe sanitation in urban slums of Pune by Ms Pratima Joshi, Executive Director, Shelter Associates
3.55–4.15	Innovative technologies in urban sanitation by Mr Manoj Kumar, Executive Engineer, Government of Bihar
4.15–4.35	Women and Sanitation Loans by Mr Sanjay Joshi, CEO, Shanti Life India Foundation, Ahmedabad
4.35–5.10	Discussions
Summing Up Session	
Chair: Dr S K Sarkar, Distinguished Fellow and Director, TERI	
5.10–5.30	Key recommendations from the Workshop
5.30–5.50	Dissemination Plan of the ‘State of Water & Sanitation (Urban) Report’
5.50	High Tea

Annexure 3: List of Speakers and Participants

Sl.No.	Name	Designation	Organization
1.	Dr S K Sarkar	Distinguished Fellow and Director	TERI
2.	Mr Anand Rudra	Senior Project Management Specialist (Water and Sanitation)	USAID
3.	Mr Chandra Mohan Gupta	Director Corporate Affairs,	Coca-Cola INSWA BU
4.	Dr Leena Srivastava	Vice-Chancellor	TERI University, New Delhi
5.	Mr JVG Krishna Murthy	Program Leader	India Sanitation Coalition, New Delhi
6.	Mr Joep Verhagen	Senior Water and Sanitation Specialist	The World Bank
7.	Mr Sameer Jain	Lead, Infrastructure, Government & Healthcare (IGH)	KPMG
8.	Ms Manvita Baradi	Founder Director, Urban Management Centre	Ahmedabad
9.	Mr Madhu Krishnamoorthy	Director	Water Health India
10.	Mr Manu Prakash	Director	TARU, New Delhi
11.	Ms Renu Khosla	Director	CURE
12.	Dr Ketaki Ghatge	Nodal Officer, SBM	Pune
13.	Mr S Damodaran	Founder Chairman	Gramalaya
14.	Mr D Manavalan	Executive Director	AFPRO, New Delhi
15.	Ms Pratima Joshi	Executive Director	Shelter Associates
16.	Mr Manoj Kumar	Executive Engineer	Government of Bihar
17.	Ms Shipra Saxena		India Sanitation Coalition

18	Mr Sanjay Joshi	CEO	Shanti Life India Foundation, Ahmedabad
19	Dr Girija Bharat	Consultant	TERI
20	Ms Mary Abraham	Fellow	TERI
21	Ms Angira	Research Associate	WASH Institute
22	Ms Nina Badgaiyan	Consultant	UNICEF
23	Ms Abha Bahadur	President	Centre for Water, Sanitation, and Health for Women
24	Dr Bhawna Bali	Assistant Professor	TERI University
25	Ms Ranjana Chaudhuri	Lecturer	TERI University
26	Dr Sonal Choudhary	Lecturer, Management School	The University of Sheffield, UK
27	Ms Shrestha Chowdhury	Senior Program Associate,	SafeWater Network
28	Dr Nicola Dempsey	Asst. Professor	The University of Sheffield, UK
29	Dr Debashish Goswami	Consultant	The World Bank
30	Mr Gulesh Jaiwar		Delhi Jal Board
31	Ms Poonam Kaur	Manager CSR & Sustainability INSWA	Coca-Cola India Pvt Ltd
32	Prof. A M Khan	Professor	Jamia Milia Islamia
33	Mr Nitin Khanna	CEO	Aantrishti Skill Development
34	Mr Varun Khanna	Director	Aantrishti Skill Development
35	Mr Manish Kumar	CEO	NSDC
36	Mr Girish Kumar	Director	Delhi Jal Board
37	Mr Lokesh Kumar		Delhi Jal Board
38	Ms J Lakshmi	Programme Director	Centre for Good Governance
39	Ms Meghna Malhotra	Dy. Director	Urban Management Centre
40	Dr Suneel Pandey	Director	TERI
41	Ms Lakshmi Prasad	Dy Director	International Papers
42	Ms Medria Rani	Director	The University of Sheffield, UK
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44	Ms Shivanjali Sharma	Associate Director	Mu Gamma Consultants Pvt Ltd, Gurgaon
45	Mr S L Sharma	CTO	Delhi Jal Board
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