



Workshop Report

Urban Pro Poor Workshop Consultation

on

Water and Sanitation Challenges and the Urban Poor

22nd December, 2010

Willow Hall, India Habitat Centre, New Delhi



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Author

Dr. Meera Pillai

E-mail: mpillai65@yahoo.com

Editor

Depinder Kapur

E-mail: Kapur.depinder@gmail.com

India WASH Forum

K-U, 6 Pitampura

New Delhi-110034

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Abbreviations and Acronyms

AFPRO	Action for Food Production
BOT	Build-Operate-Transfer
BSUP	Basic Services to the Urban Poor
CBOs	Community Based Organisations
CSCs	Community Sanitary Complexes
CSOs	Civil Society Organisations
CSP	City Sanitation Plan
FTL	Full Tank Level
GHMC	Greater Hyderabad Municipal Corporation
GoI	Government of India
GoMP	Government of Madhya Pradesh
GTZ	German Technical Cooperation
HMWS&SB	Hyderabad Municipal Water Supply and Sewerage Board
IHSDP	Integrated Housing and Slum Development Programme
ILCS	Integrated Low Cost Sanitation Scheme
IUSP	Integrated Urban Sanitation Programme
JNNURM	Jawaharlal Nehru National Urban Renewal Mission
M&E	Monitoring and Evaluation
MARI	Modern Architects of Rural India
NRCP	National River Conservation Plan
O&M	Operation and Maintenance
SWM	Solid Waste Management
TERI	The Energy and Resources Institute
UIDSSMT	Urban Infrastructure Development for Small and Medium Sized Towns
ULBs	Urban Local Bodies
USCs	Urban Sanitation Cells
WATSAN	Water and Sanitation

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The India WASH Forum (IWF) is a registered Indian Trust, since July 2008. It is affiliated to the UNOPS-based Water and Sanitation Collaborative Council (WSSCC) in Geneva. It is a membership-based coalition of Indian organisations and individuals working on water, sanitation and hygiene. A unique feature of the IWF is its non-hierarchical set up. Trustees of the IWF represent the coalition in their individual capacity and do not represent the organisations they are associated with.

The IWF Charter includes the following commitments:

- Promoting knowledge generation through research and documentation which is linked to and supports grassroots action in the water-sanitation-hygiene sectors
- Supporting field-based NGOs and networks in their technical and programmatic, consistently highlighting gender and pro-poor considerations, and providing a national platform for interest groups working in the sector to come together.
- Undertaking policy advocacy and influence work
- Undertaking lobbying and networking to promote common objectives.

On December 22, 2010, IWF organised a one day consultation/workshop on Pro Poor Urban Water and Sanitation. The purpose of the workshop was to situate the status and issues of pro poor urban water and sanitation within the larger initiatives of the City Sanitation Plans (CSPs), and identify the priorities that NGOs could have in the emerging situation for programming or designing other interventions. City Sanitation Plans were being developed with a deadline of March 31, 2011. The workshop aimed at integrating the learnings from the CSPs, with some basic research that IWF partners had done in several cities on access to water and sanitation for the urban poor, as well as for the general public in public facilities like markets, bus stations and railway stations.

The one day consultation provided an opportunity to NGOs and bilateral agencies to share and learn from the ongoing process of City Sanitation Plans, from the ground realities of denial of access to safe water and sanitation in urban slums and poor settlements and interaction with policy makers.

In this workshop we had presentations on the status and issues of sanitation in four cities of India, by local representatives from the urban slums of these cities. Experience of working on sanitation issues in urban slums were made by many NGOs. Presentations on City Sanitation Plans were made by WSP, GTZ and Shelter Associates. The keynote address was given by the Jt. Secy Ministry of Urban Development

The proceedings of the workshop will hopefully contribute to furthering the pro poor urban water and sanitation priorities of India.

Mr. Ashok Jaitly
Chairperson
India WASH Forum

April 2011

Session I

Introductory Session



Chairperson: Mr. Ashok Jaitly, President, India WASH Forum

Participants: Mr. Depinder Kapur, Mr. Arun Mehta, Mr. Meenakshisundaram

In the introductory session, **Mr. Ashok Jaitly**, President of the India WASH Forum, welcomed the invitees to the Urban Pro Poor Consultation Workshop on Sanitation. Welcoming the participants, he suggested that a round of introductions would be in order. Thereafter, he briefly summed up some of the main areas of concern driving the need for the consultation. He noted that in the rapid urbanisation process taking place in the country, the focus tended to be largely on the metropolitan areas and state capitals. However, with the migration of people from rural areas looking for better opportunities, smaller town and district headquarters around the country were also growing rapidly, and the infrastructure was unable to cope. He observed that water and sanitation could not be separated in the Indian lifestyle, and although the focus of the day's consultation was on sanitation, the two issues could be discussed in an integrated fashion.

He suggested that discussing water and sanitation for the poor was ironic, given that all over the country, the poor were paying more than the rich for water, with issues of equity on the backburner, and

the poor largely left to fend for themselves. One reason for the lack of pressure on the government was that those who lived in the better off areas were simply not aware of the pressures that such questions of basic needs posed on the individual in poverty. While sanitation was a challenge in rural areas, in the urban areas, where there was such pressure on space, there was no question of privacy at all. Hence, apart from the question of equity, concerns related to gender, health and hygiene, and the environment also made this an issue that was appropriate for the consultation.

Although much was being done by the government through various programmes, the overall impact was simply insufficient, and this was a matter that needed to be probed further. For instance, a computation of government expenditure on water for various purposes, including irrigation at TERI showed that it was in excess of Rs. 100,000 crores per year. Yet every year, the water crisis was getting worse. Every year more people were drawn to the field with experience and knowledge, but the money being spent was not being converted into any concerted impact. Since the consultation process was currently

on for the 12th Plan, it would be useful if the consultation could come up with a set of concrete recommendations for consideration for the Ministry of Urban Development.

Prior to briefly sharing the agenda for the day, **Mr. Depinder Kapur**, Secretary of the India WASH Forum explained that the Forum was not an organisation; and it did not have a programme, a budget or a programme implementation strategy. It was a coalition bringing together interested stakeholders in the Water and Sanitation sector in the country, with a modest budget big enough to organise one or two events in a year. The activities of the Forum were guided by a group of twelve trustees.

One of the main reasons for the current consultation was that currently, City Sanitation Plans (CSPs) were being developed in several cities, and the Forum had felt that this was a subject with which it needed to engage, to understand what was in the CSPs and how the process was being undertaken. Mr. Arun Mehta, Joint Secretary in the Ministry of Urban Development would help to introduce this, by sharing the government's priorities in the context of the water and sanitation challenges for the urban poor, in his keynote address. Members in the Forum had also undertaken some modest research in four cities to understand the situation of sanitation for the urban poor at the ground level, and this was to be shared in the next session. The third session would focus on the City Sanitation Plans, and the ways in which various donor agencies had been involved. The agenda also included the screening of a film on water supply related issues in Bangalore and a panel discussion involving organisations like Jagori, ActionAid, Arghyam, etc.

Keynote Address

Mr. Arun Mehta, Joint Secretary, Ministry of Urban Development, Government of India.

Inviting **Mr. Arun Mehta** to deliver the keynote address, outlining the perspectives of the government on water and sanitation for the urban poor, Mr. Jaitly noted that Mr. Mehta was a dynamic advocate for decentralisation.

Summing up the situation from the perspective, **Mr. Mehta** observed that nationally, certain messages related to water and sanitation were coming through loud and clear. Firstly, the government was doing

more for water than sanitation. 60 to 70 per cent have access to piped water. About 30 per cent have access to water, but not piped access. About 9 per cent had access to deep wells. However, the access to sanitation was "terrible", especially if it was interpreted more broadly to include solid waste management and liquid waste management.

Secondly, while the issue of access to water may have been addressed to some extent, quality was quite a different matter. In a survey of 423 towns, the water quality in only 39 was found to be acceptable. Whenever the issue is raised with local authorities, they wish to strengthen the water quality monitoring protocol. However, the protocol laid down by the Central Public Health Organisation's manual is quite adequate. The difficulty has been with implementing the protocol, but cities have been less open to this.

The situation with sanitation was even worse. Of the four categories, not a single city fell into the optimal 'Green' category. Only New Delhi Municipal Corporation, Mysore, Surat and Chandigarh fell into the next category of 'Blue'. The rest of the sample fell into the last two categories, of which 159 cities fell into the worst, or 'Black' category. In this survey, the city authorities had carried out a self-assessment and assigned scores to their own services as positively as possible, but still had been unable to achieve a score of 33 points or more that would have lifted them out of the 'Black' category. Officially, access to piped sewerage stood at about 33% of the population; in fact, that number was probably closer to 20%, as even where lines have been laid in many places, they have not been connected.

The 13th Finance Commission was going to be allocating five times more funds for sanitation in the 12th Plan as compared to the current plan, and the Ministry has asked the cities for solutions. If cities were only going to think in terms of investment-oriented solutions, the sanitation issue could not be effectively addressed. As an example, he pointed out that whenever the solid waste management issue came up, cities asked for funds for trucks and bins. Two years on, these trucks and bins seem to 'disappear', with no clarity about where they are. The issue is hence as much, or more, one of culture than investment.

Even if investment was the issue, the numbers involved were such that the government would not be able to provide the resources. A McKinsey study had

pegged the investment required for total sanitation to be about 2.3 trillion USD (approximately Rs. 1 lakh crores) over a two decade period, and CII had estimated an expenditure of Rs. 50 lakh crores over a decade. The Central and State governments simply could not supply funds on this scale, and cities needed to think for themselves.

As a part of this, the ministry was trying to urge cities to move towards an outcome-oriented, rather than an investment-oriented approach. A pilot to encourage 28 cities to carry out Service Level Benchmarking (SLB) had been sufficiently successful, and the 13th Finance Commission had endorsed the process. Now, 3,800 bodies across the country would complete the process, and by 2011, the country would have WATSAN-related data like never before. While this data might not be completely accurate, it would serve the purpose of helping cities plan for themselves. The data would be in the public domain, and would help cities think systemically.

The next question that was moot was that of the capacity of the cities to improve the situation. Not only supply of sanitation, but demand was also poor. However, cities found it easier to build flyovers than to build the capacity of the people, and even the comparatively small amounts of money allocated governments to address social marketing issues remained unspent, so merely an increase in budget to improve demand for sanitation did not seem to be a solution. Another matter for concern was that as cities grew upwards, the number of properties had also risen to about five times as had been planned for. However, this too was an issue that cities were unwilling to face.

Faced with the sanitation situation, there are several limitations. For one, cities seem to be thinking only think in terms of piped underground sewerage systems. However, the central government will never be able to provide the kind of funds required for this. To be able to think of other options, cities need the capacity to think outside the box, which in turn requires people who can support the cities with this capacity. However, the human resources with the required capacity did not exist at present in sufficient numbers.

With respect to water, it was important for cities to get value for money, and this would mean strategising beyond a project-oriented approach. The problem currently was not one of bulk water, as the country had adequate water. Rather, the issue was one of

distribution and discipline. Cities needed to think in terms of Performance Improvement Plans. For instance, authorities admit that 52% of the water supplied in Delhi is non-revenue water. The actual percentage is closer to 60 per cent. When this is so, it is difficult to ask for more resources. The situation is similar for many other cities. Before determining how much investment was necessary for improving systems, cities needed to carry out water and energy audits. Another problem related to how the solutions proposed by cities never considered rehabilitation of existing infrastructure; the solutions always proposed formation of new capital infrastructure.

For water, in the near-term, supply management was very important. The capacity of a number of cities to draw up CSPs was suspect, according to Mr. Mehta, who reiterated that cities needed to think of technology options apart from piped, underground, sewerage systems. In the short-term, supply management issues needed to be seriously addressed.

Responding to **Mr. Mehta's** address, several participants added questions and comments. Accepting that the issue of expenditure was a tough one, Dr. I. P. Bhagwat of WaterAid India requested more information on the CSP process, and wondered whether the government was thinking in terms of total sanitation solutions on a fast-track basis for at least a few cities to serve as models.

Mr. B. P. Mishra observed that cities continued to give engineering the priority while discussing sanitation; social engineering had not received enough attention.

Mr. Nabaroon Bhattacharjee, Country Team Leader of WSP-SA at the World Bank, suggested that the admittedly enormous investment that would be required to provide total sanitation in the country should be balanced by the losses occasioned by the lack of sanitation. The Economics of Sanitation study conducted by the World Bank indicated a loss of 6.4% of the GDP or an impact of about 58 billion dollars because of lack of proper access to water and sanitation. While about 12% each of this loss was due to the impact on tourism and because of loss of time, most was because of the negative impact on health. There was a significant need to create greater visibility for the sanitation issue.

Ms. Jasveen Jairath of Hyderabad stressed the importance of preparing basic documentation

for addressing the issue of WATSAN for the urban poor. Currently the focus with basic services in cities was on WATSAN crisis management, and any documentation was only on technical parameters, and not on benchmarking studies. At the same time, demand assessments were also critical. For example, a consumption analysis for water would reveal who uses how much for what purposes. Water was being wasted not only due to technical reasons, but because of poor social responsibility on the part of citizens who were better off. In addition, in Hyderabad, big business, like Coca-Cola and large commercial housing projects, was also striking deals with city authorities, and securing water supply from the Manjira Water Supply project, at the expense of the poor, who were paying much more for what they needed for basic consumption, and such inequities needed to be addressed as a priority.

Secondly, while the sanitation issue was being addressed on a broad scale for urban settlements in India, it was also important to pay attention to the destruction of urban water bodies. Raw sewage entering such water bodies, and encroachment and construction within their Full Tank Levels (FTLs), then lead to the attitude that “Abhi to ganda ho gaya, chalo bhar lo”, which had led to the disappearance of many such water bodies. There was need for policy level work at the Centre on urban water bodies, and the message then needed to be sent down to the local level very strongly.

Ms. J. Geetha of Gramalaya, Tiruchirapally, expressed distress that the combined Central and State subsidy of Rs. 9,000 under the Integrated Low Cost Sanitation (ILCS) Scheme was being offered only by Karnataka and Andhra Pradesh and not by all the states.

Mr. Manjunatha Prasad, Head of Urban Initiatives at Arghyam, Bangalore, sought information on the data currently being collected. He also wondered if cities were being encouraged to look inwards for water and sanitation solutions, what kind of support they could expect from the Central Government.

Ms. Radha Khan, Consultant with Jagori, New Delhi, pointed out that a major problem for the urban poor was the multiplicity of government stakeholders involved in providing basic services, because of

which many people did not know whom to approach when they needed redressal.

Addressing some of the issues raised, **Mr. Mehta** pointed out that while the 12th Schedule assigned 18 functions to Urban Local Bodies (ULBs) as per the 74th Amendment, 29 functions were assigned to PRIs as per the 11th Schedule of the 73rd Amendment to the Constitution. He speculated on why such a differentiation had happened, wondering whether cities were inherently incompetent, or whether State governments felt that they were better equipped to deal with the issues of cities. Consequently, there was little convergence in governance. Acknowledging that city governance in the country was a work in progress, he felt that a debate nevertheless needed to begin on this issue. While the Prime Minister represented the Central government and the Chief Minister the State government, the system currently did not provide for such a face of authority for the city.

Mr. Mehta said that data related to 28 parameters related to Water Supply, Waste Water Management, Solid Waste Management and Storm Water Drainage, including coverage, per capita supply, continuity, grievance redressal, etc. was being generated for 1784 municipalities and municipal corporations. Data about distribution at ward level would also be generated, which would also reveal ward level disparities. (He noted, for instance, that data from Pimpri-Chinchwad revealed that the ward that complained the most got the most water.)

Raising the question whether the data so generated would make us feel disenchanting, Mr. Mehta replied in the negative, as he felt it would help us move to planning. He agreed that pilot projects were necessary, and the JNNURM was designed to undertake such projects in 65 cities. He felt that, generally, there was a lack of capacity in the WATSAN sector, but that some outcomes would be seen. The CSPs being currently developed for 130 cities could also be seen in the form of model projects.

Agreeing with Mr. Nabaroon Bhattacharjee on the costs of poor sanitation, he nevertheless suggested that social engineering was as important as engineering solutions. He noted that the ILCS scheme was primarily targeted at eliminating dry latrines, and that the single pit latrines and



biolatrines that had taken their place were not optimal solutions.

Mr. Mehta concluded his interaction with the participants, contending that the divide of Union,

State and City governments was an artificial one, but constituted a major barrier at the moment, and that all levels needed to work together in an integrated fashion to address the issues of sanitation for the urban poor.

Session II

Findings of Research Studies



Chairperson: Mr. Lourdes Baptista, WaterAid India

Status of Water and Sanitation for Urban Poor in Indian Cities: Hyderabad – **Mr. Venkatesh Aralikatty**

In this session, **Mr. Venkatesh Aralikatty**, a consultant with Modern Architects for Rural India (MARI), presented a case study on Hyderabad, as part of the research commissioned by the India WASH Forum on the status of public toilets in Indian cities. In addition to secondary research, the study conducted by MARI examined the WATSAN situation in three slums and three public places, and also conducted interviews with officials and community leaders.

The Greater Hyderabad Municipal Corporation (GHMC), formed in 2007 by converging Hyderabad with twelve other municipalities, has a total population of nearly 64 lakhs. Summarising the sanitation situation in Hyderabad, Mr. Aralikatty noted that the existing sewerage system primarily serves the former Municipal Corporation of Hyderabad area, of which about 70% is covered. A sewer network 2400 km long serves the city, of which 67% consists of local sewers. The peripheral municipalities largely lack safe sanitation systems. While 589 MLD of sewage is generated every day, capacity for sewage treatment

exists for only 133 MLD. Hyderabad generates 3379 tons of solid waste every day, and collection efficiency stands at about 90%.

A third of Hyderabad's population (i.e., over 20 lakh people) live in slums. According to the GHMC's records, there are 1448 slums, of which 280 are unnotified. Piped drinking water supply (368 km in length) is available for 60% of the population, and this is supplemented by 2131 drinking water supply public stand posts. Sanitation coverage, with sewer lines 672 km in length, and storm water drains of 602 kms, is available for about 55% of the population.

The study was carried out in the Addagutta, Bholakpur and Budaga Jangam Basti slums and the public spaces of Monda Market, Jubilee Bus Station and Balanagar Industrial Area. The findings related to drinking water showed that people living in slums continued to depend on PSPs, even as the access to individual water connections was steadily increasing. Typically water was supplied on alternate days, with frequency decreasing in the summer.

On an average, households in Bholakpur slum paid Rs. 1500 annually to obtain water in the summer.

The tariff for PSPs was supposed to be paid by the GHMC, but payment was erratic, leading to erratic supply, operations and maintenance as well by the Hyderabad Municipal Water Supply and Sewerage Board. Low water pressure and pit taps was a common problem across the slums. Pipelines tended to be old and poorly maintained, and contamination with sewage and at pit taps was common, making water quality a serious issue. In 2009, 14 people died, and 50 per cent of the households reported fever and diarrhoea in Bholakpur slum as a result of water contamination. The problem was especially acute for the slums which had not been notified. Grievance redressal was poor. While willingness to pay user charges was high if quality and continued supply was maintained, there was poor recovery on the part of authorities, which then led to a lack of accountability on their part. A hide-and-seek situation resulted, with authorities of the opinion that as long as the residents did not pay, they were not entitled to quality services.

Buses and railway stations tended to be better equipped with water supply sources as compared to public places like markets.

With respect to sanitation, open defecation and urination tended to be common in slum communities, as space constraints limited toilet coverage. Those people who used public toilets spent an average of Rs. 720 per person per year, and women, who were charged Rs. 2 as against Rs. 1 for men for the use of urinals, tended to pay more than men. This aspect, combined with others like poor maintenance and security, male caretakers and lack of separate entrances, meant that women constituted only 10% of the user group of public toilets. Officials tended to be apathetic about clearing old clogged sewer lines, and there were no proper systems for garbage clearance, because of which garbage tended to be dumped at crossroads. Willingness to pay was less for solid waste disposal, with the system of door to door collection of garbage with tricycles for a payment of Rs. 20 per month being unacceptable to the community.

The GHMC has constructed 103 public urinals, which are also maintained by the local body. Located on main roads and public places, these tend to be in a dilapidated condition. There are no plans to renew these urinals, as the GHMC is planning to promote more public toilets on a Build-Operate-Transfer (BOT) model. Currently, the city has 111 public

toilets of the pay and use model, constructed by the engineering wing of the GHMC. When the GHMC ran into O&M related problems, it invited Sulabh to take over these. Sulabh opted to run only 54 toilets, which were located in busy locations where revenue generation was possible, and the rest are being operated by the GHMC. GHMC's lease agreement with Another 78 toilets on the BOT model have been constructed, and are operated, on a public-private partnership basis, and 100 more public toilets based on this model are proposed. Public toilets are connected to the HMWS&SB water lines, but the hour-long water supply is insufficient, and the operators supplement the water supply with private tankers. About 3 lakh people use the public toilets daily, and general hygiene tends to be below average.

211 community toilets were built by the GHMC in slums and poorer residential areas, but these are becoming increasingly dilapidated and non-functional as the GHMC shifts its focus to public toilets and assumes that all households have individual toilets. Some have been demolished and the space used for other purposes, for example, to build a community hall and health centre, but reducing the community's access to sanitation. Further, the authorities put little effort into awareness raising about the hazards of open defecation, or promotion of the use of community or public toilets or individual toilets. The site selection has not always been optimal, and some toilets are locked up for lack of demand from users. Under the BOT scheme, the private partners propose sites. Many of the partners propose sites on main roads, where the structure can also be used for advertising, and interior areas of the city remain underserved. Lack of coordination between different government agencies also leads to inefficient use of resources.

The municipal resource base depends on ad hoc grants, which makes it difficult to maintain infrastructure consistently. Also informal settlements tend to get ignored. However, under the JNNURM, a project of Rs. 400 crores for rehabilitating and strengthening the sewerage system in the Old City, and another of Rs. 1000 crores for Phase II of the Krishna Drinking Water Supply Project have been sanctioned. Budgets of Rs. 30 crores to improve sewerage coverage in 352 slums and Rs. 25 crores to lay water supply lines in 408 slums have also been authorized. NGOs and CBOs have an important role in creating demand and mobilizing the community,

developing community monitoring systems for maintenance of common facilities, improving grievance redressal and increasing accountability of service providers, and exploring models for affordable and space-saving options.

Mr. Aralikkatty's presentation was complemented by presentations by Mr. Mohammad Munawar Chand, a social worker and resident of Bholakpur slum and Mr. Sultan Yadgiri, President of the Twin Cities Slum Dwellers Forum, and a resident of Addagutta slum. Mr. Chand said that due to water contamination, thousands of people had to be hospitalized for up to 10 days, in addition to the deaths that had occurred in his area. Apart from losing their earnings during those days, members of the community had to pay large sums towards medical expenses. However, the response from the government had been disappointing. The main feeder line had been changed but local lines had only had patchwork repairs which had collapsed soon enough. Consequently, he said that when they received water, it tended to be a dirty brown in colour, and taps had to be left running for about 10 minutes before the water ran clear. Mr. Chand said that finding space in the slums for community toilets was difficult. Members of the community had concerns that the toilets would be poorly maintained and hence resisted moves to locate them close to their houses. He suggested that offering a property tax rebate to families willing to locate the community toilets close to their houses would help to identify space for these facilities. Mr. Chand's observations were confirmed by Mr. Yadgiri as being true for his area as well. He noted that while the upmarket Banjara Hills area received uncontaminated water supply every day, about 28 slums surrounding the area went thirsty.

In response to questions from Mr. Aniruddhe Mukerjee, the Hyderabad team confirmed that there were fewer seats for women in community toilets and that no user groups were taking on maintenance of the community toilets at present.

Ms. Aparna Das of GTZ asked whether the community toilets were open throughout (24x7)? The Hyderabad team said that community toilets (in residential areas) tended to be shut from 10 p.m. to 5 a.m., but public toilets on main thoroughfares tended to be open throughout the night. Ms. Das suggested that clearer definitions and parameters needed to be drawn up for the two kinds of toilets

specifying size, mode of operation, etc. She also said, using Delhi as an example, that the contracts between the Municipal Corporation of Delhi and the NGOs operating public toilets were so weakly drawn up that the latter could get away with very poor levels of standards. She suggested that it was important that these contracts should specify certain minimum levels of service provision and accountability to get paid.

Clarifying questions about design, the team said that the toilets tended to be open on top, and had doors opening to the side, which raised insecurity levels for women. Mr. Murali of MARI said that the GHMC was disowning community toilets and they were disappearing. In addition to the fixed population of about 60 lakhs, the city also had a floating population of 20 lakhs and sanitation planning had to take this demographic into consideration as well.

Dr. I.P Bhagwat of WaterAid noted that enough models in the country had successfully proved the relevance of community maintenance and wondered why cities were struggling to understand this. He suggested that the sanitation campaigns in India had largely focused on rural areas, and perhaps it was time for an Urban Sanitation campaign. City planners could not assume that individual toilets would solve the sanitation problem in cities, as approximately 30 per cent of the dwellings in urban areas did not have space for toilets, and hence thinking of community-based solutions was imperative.

Status of Water and Sanitation for Urban Poor in Indian Cities: Aurangabad – Mr. Venktesh B. Shete, AFPRO.

Action for Food Production (AFPRO) undertook research in two cities in Maharashtra, Aurangabad and Ahmednagar, as part of the India WASH Forum initiative to understand the issues related to water and sanitation for the urban poor. Due to the paucity of time, Mr. Venktesh B. Shete of AFPRO presented the findings related to Aurangabad.

Mr. Shete explained that the study was conducted in October 2010, and the team included an engineer and a geologist. The methodology included transect walks, meetings with key informants including representatives of CBOs, elected representatives and officials of the municipal corporation, household level structured interviews with 15% of the population in the selected slums of Nirmala

Devi Nagar, Priyadarshani Indira Nagar, and Rajiv Nagar, and structured interviews with workers and authorities responsible for operations and maintenance of water and sanitation facilities, together with field visits for physical verification.

Aurangabad city, with a population of 8.73 lakhs, has about 2.43 lakh people living in slum communities. The city is divided into seven zones with about 15-20 wards in each zone, and has 170 slums of which only 53 are notified slums.

Aurangabad sources its water from the Jaikwadi Reservoir across the Godavari river, 40 kilometers away. Three purification plants with a combined capacity of 162 MLD send water to 67 storage points from which piped water supply reaches 91135 individual water connections and 835 commercial water connections. In addition, there are 648 hand pumps in the city. The city collects differential user charges for residential and commercial purposes.

On an average, 4-5 safai kamgars work at the ward level, based on population density, road length and drainage length, under the supervision of a "jawan". At the zone level, three sanitary inspectors are in charge of solid waste management, under the supervision of a Ward Officer. Local collection vehicles (ghanta gaadi) collect solid waste from households, which is then sorted and dumped about 10 kilometres away from the city. This work is outsourced to an external agency.

The research was carried out in three slums. Priyadarshani Indira Nagar is an authorized slum with a population of about 2833 families. Rajiv Nagar, a 30 year old slum close to the main railway station had about 450 families before the Cantonment Board forcibly demolished the houses on its land. About 250 families continue to live on land owned by the Municipal Corporation. Nirmala Devi Nagar was created by property developers who sold off agricultural land as plots without getting the necessary approvals from authorities to convert it into land that could be used for non-agricultural purposes. Hence, this settlement receives no facilities from the municipal corporation. In Rajiv Nagar and Priyadarshani Indira Nagar, the bulk of the population belongs to the Hindu Mahar and Matang and the Muslim communities, in Nirmala Devi Nagar, most of the families belong to the Baudh, Maratha and Matang communities. The major sources of livelihood are daily wage labour and scrap collection. In

Priyadarshani Indira Nagar, a number of people also do domestic work. Almost all households possessed assets like televisions, bicycles, mobile phones and even motor cycles, and had bank accounts

With regard to the status of slum level sanitation infrastructure. In Priyadarshani Indira Nagar, 85% of the families had individual toilets. There were three community sanitary complexes (CSCs), of which two were totally defunct, and the third had five functional, but poorly maintained seats. The Municipal Corporation was responsible for operations and maintenance. The CSCs had no electricity or water supply. The toilet facility of the school near the slum was non-functional. Rajiv Nagar had no sanitation facilities and the community practised open defecation. At Nirmala Devi Nagar, 10% of the families had individual toilets with septic tanks, while the rest of the community practised open defecation. The area had a problem with water logging. Priyadarshani Indira Nagar had open and closed drainage systems which were cleaned and maintained regularly by the Municipal Corporation, but the other two slums had no roads or drainage infrastructure.

As an authorized slum, Priyadarshani Indira Nagar also received water supply from the municipal corporation, with 30 standposts, and 436 individual water connections. Nirmala Devi Nagar had 60 handpumps owned by families, which was an improvement as earlier the community obtained water from a private open well located a kilometer away from the settlement. For the past five years, Rajiv Nagar relied on a leaking valve in a main pipeline 100 metres from their settlement as their sole water source. Ten years earlier, the corporation had built a 5000 litre cistern with two taps, which had stopped functioning five years afterwards. Of the two schools that serve the area, only one has a functional water supply facility.

The Central Bus Stand in Aurangabad had a CSC, built, operated and maintained by Sulabh International under a contract with the Maharashtra State Road Transport Corporation. The CSC has 13 toilet seats, 9 for men and 4 for women, and 3 bathrooms, 2 for men and 1 for women. Facilities are provided free of cost for women; for men, the charges are Rs. 2 and 5 for the use of the toilet and bathroom respectively. The CSC functions with water supplied by private tankers. Drinking water at the Bus Stand is provided by private water supply tankers through 3 functional taps.

The city corporation follows guidelines laid down by the All India Institute of Local Self Government (AIILSG), the anchor institute for urban management in Maharashtra, to try and launch innovative programmes from time to time.

Dr. P. K. Jha, of the Foundation for Environment and Sanitation, New Delhi, asked very pertinent questions about disposal related to sanitation. For instance, there was a lifting system for solid waste management for authorised slums, but not for unauthorised slums. Likewise, for public toilets like the one at the Central Bus Stand, the sewage may collect in septic tanks, but where did the sludge from the septic tanks go?

Ms. Aparna Das of GTZ observed that while there was some agreement at policy level that basic services would be delinked from tenure, this decision remains at policy level and does not work at the grassroots level, because at that level, decisions about providing services are linked to real estate prices, and the decision to provide services may be seen

as an informal way of acknowledging tenure. Much planning in the country happens at the level of formal land use plans related to the formal city, but the city grows informally, because the economy is informal. There is an urgent need to resolve this issue.

Mr. Murali of MARI raised a question about methodologies for determining the carrying/catering capacities of public toilets, and criteria for sludge management, meeting the needs of children and people with disabilities, etc. Dr. Jha said that the criterion was 40 users per seat, but in practice, in many public toilets, the usage could be more than 150 users per WC per day. He also observed that currently seats in public toilets tended to be in a ratio that favoured men, often at 60:40. There probably needed to be a movement towards a 50:50 ratio, or even a 40:60 ratio, given that women were often accompanied by children. However, this would have to be accompanied by enough attention to such matters as security concerns.

Session III

Progress on Development of City Sanitation Plans and Inclusion/Exclusion of the Urban Poor



Chairperson: Mr. Aniruddhe Mukherjee

Presentation on the Hoshangabad City Sanitation Plan – Mr. Vivek Raman, WSP, World Bank

The first presentation in this session was on the Hoshangabad City Sanitation Plan, presented by Mr. Vivek Raman of the WSP programme at the World Bank. Mr Raman started with some of the results of the recently concluded Rating of Cities by MoUD carried out in 2010. No city was green and healthy, 185 cities were in the red category and 234 cities were in the black category. No city could claim to be 'open defecation free'. Over 50 cities reported 90 per cent safe collection of human excreta, but 380 collected and treated less than 40% of human excreta and disposed of it unsafely. 24 cities reported collecting over 80 per cent of solid waste, but open dumping still existed. The water body samples of 286 cities failed completely, and only 21 cities passed all samples. Only 40 cities passed all drinking water samples. Only Chandigarh had a sanitary landfill.

Considering the present urban sanitation situation, the Ministry of Urban Development is attempting to develop City Sanitation Plans (CSPs) as a means to identify and address the issues. Emphasising that CSPs were not Detailed Project Reports (DPR), he said that rather, these were comprehensive holistic city wide plans addressing universal access, safe collection, treatment and disposal of 100 per cent of liquid and solid wastes, unique for each city. Features of the CSP included

- Thinking city wide: systemic
- Focusing on Outcomes, NOT Outputs
- Setting clear institutional responsibility
- Not technology/infrastructure focused
- Total Sanitation for all
- Support from- political actors, state governments, GoI
- Sustainability/ O&M is key
- Regulatory framework
- Incentives/ M&E
- Attention to manpower issues

Other elements which received attention during the preparation of the CSPS were;

- Multi stakeholder participation
- Special provisions for the poor
- Baseline data collection (not necessarily a door to door survey, but a fairly accurate situation analysis)
- Financing
- Capacity building/Training

Issues related to choice of technology, possibilities for upgradation or new infrastructure, O&M and management of assets were also taken into account.

The development of the plan would involve many steps of different sizes including determining leadership and lead departments, mobilising stakeholders, sanitation mapping, consultations and securing buy-ins, awareness raising through a sanitation campaign, monitoring outcomes, etc. It would also be necessary to look at the regulatory and legal framework and what existing laws, rules, etc. needed to be adopted and adapted; staffing aspects, including clarity of structure, roles and responsibilities; and technological and O&M issues, including exposure visits where necessary to see good practices across the country. The plan also explored financing issues, including existing schemes like the JNNURM, Urban Infrastructure Development Scheme for Small & Medium Towns (*UIDSSMT*), National River Conservation Plan (NRCP), satellite township proposals, etc, possible support from the MoUD, funding from the state government, private sector and international support agencies, etc. and propose approximate financing costs. The CSP would also identify capacity building needs, include incentives and reward schemes and monitoring plans.

The WSP was requested to develop a CSP for Hoshangabad in Madhya Pradesh as part of the Integrated Urban Sanitation Programme (IUSP) of the state and also to demonstrate one of the approaches to drawing a CSP. Hoshangabad is a mid-size town close to Bhopal on the banks of the Narmada, a district headquarters and a town of religious importance with a highly responsive urban local body. The Government of Madhya Pradesh also has an IUSP, which requires cities to undertake sanitation planning, so this effort was in alignment with the policy of the government.

Hoshangabad has a population of just under 2 lakhs, with a floating population of 15,000 daily. Of its 33

wards, 15 are termed slum wards. The city is served by 154 km of drainage of which 94 km is pucca, and the water supply of 90 lpcd is supplemented by 56 deep tube wells and 71 handpumps. The city has 6 public toilets with 90 seats and 20 urinals but no community toilets. The ones maintained by Sulabh is a pay and use facility, whose lack of monthly user charges discourages resident users from accessing the facilities regularly. The ones maintained by the ULB are poorly maintained and have not user charges. Baseline information on sanitation from 17, 420 households revealed that:

- 85 % household have individual sanitation arrangements
- 9/33 wards have 100 percent Sanitation Coverage
- 2625 (15%) household lack individual sanitation arrangements. Of these
- 35 % use community toilets
- The rest resort to open defecation

While 94 percent of the respondents of the town agree that public sanitation facilities are inadequate, only 7 percent are willing to contribute towards the capital cost, and only about 15 percent are willing to pay for the operation and maintenance, of common facilities.

One critical issue that was revealed by the situational analysis was that the city had more than 11,000 septic tanks in use, but only one vacuum truck for septage removal. As a result, only about 10 – 15 septic tanks were cleared every month, with Rs. 500 charged per clean up. This meant that only about 180 septic tanks cleared every year, which was grossly inadequate. No information was available on septic tank cleaning through private contractors, but untreated septage was disposed unsafely in the open.

About 9.2 MLD of wastewater was generated in the city, which had no wastewater treatment facilities. Household drainage flowed into roadside drains, and then through four natural nallahs into the Narmada. With respect to solid waste management, 91 % of the households disposed of waste in open or drains. About 40 – 45 MTPD was generated, which was collected from bins and transported by the ULB deploying six vehicles, with a collection efficiency of 70 – 75%. However, there was no treatment: waste was dumped at the 8-acre Idgah dump site. The ULB organised street sweeping and for market waste to be collected daily, and special cleaning of Ghats after festivals. The operational expenditure of solid

waste management in the city was 1.7 Cr or Rs. 1400 – 1540 per metric ton.

Some of the key issues related to solid waste management in Hoshangabad related to the lack of integrated planning and operations for collection and transportation (for example, the storage bins and vehicles were not compatible.). There needed to be a greater understanding built among lower levels of sanitation staff on how their work fit in with the larger sanitation scheme of the city. There was lack of compliance with regulatory requirements like segregation, covered transportation, treatment and safe disposal. Currently, the city also faced a high per ton cost.

As part of fixing institutional responsibilities and implementation roles that would facilitate the CSP, a basic analysis of available institutional arrangements were also made. The city had an elected ULB of 33 members headed by the Mayor, and Ward and Mohalla Committees legislated by the Government of Madhya Pradesh. In addition, over 5000 members of the community were part of SHGs, of which about 46 were especially active. Also, about 900 community members were part of community development societies. The position of the Health Officer was vacant at the time of the analysis, with the Sanitary Inspector overseeing the work of 235 safai karmacharis and 8 ward supervisors. With respect to the legal and regulatory responsibilities, the ULB was empowered by the MP Municipalities Act to ensure safe sanitation. The IUSB guidelines provided for Sanitation Committees at the City, District and State Levels, and Urban Sanitation Cells at the City and State levels to facilitate the CSPs. Although the formal building approval process requires approval by the Urban Development Authority and certification by the Municipality, the high workload rendered the latter process largely ineffective. Standards and norms needed to be specified through bye-laws and building rules. Also the penalty for non-compliance was not significant.

Analysing the emerging issues and opportunities, Mr. Raman pointed out that the National Urban Sanitation Policy, Integrated Housing and Slum Development Programme (IHSDP), and the ILCA presented opportunities to ensure that the 15 per cent of households currently without sanitation arrangements could received coverage. Building public sanitation facilities under the National River Conservation Plan (NRCP) could address the sanitation needs of the floating population. The

Integrated Urban Sanitation Programme (IUSP) and the CSP could address the septage and wastewater management issues. The CSP could also be used as an opportunity for sustainable service delivery.

Because the request for support for developing the CSP had come from the Government of Madhya Pradesh, there was strong support from the state government. The initial part of the process involved meetings with ULB elected representatives and officials like engineers to strengthen their buy-in into the development of the CSP. Data collection and field visits helped to prepare a baseline situational analysis report. Good communication was a keystone of the process and the findings of the baseline situation analysis were shared in workshops with all stakeholders so that they could arrive at an informed agreement on the vision for the CSP. State and city level officials led the discussions as the City Sanitation Task Force and Ward level committees were formed. On the principle that 'seeing is believing', WSP also organised exposure visits to sites known for best practices. On the basis of this process the CSP for Hoshangabad was prepared.

Based on the needs of the city, five sanitation options were considered for Hoshangabad.

1. Fully on-plot sanitation system:

- All domestic wastewater treated on site: septic tanks with soakaways and soak pits
- The septage is removed and transferred for further treatment and final disposal.

2. Settled (small bore) sewerage

- Internal plumbing modified to dispose liquid waste into existing septic tank or new interceptor tank.
- A small diameter sewer pipe is laid at flatter gradient to carry effluent from domestic wastewater.
- Septage from septic tanks is removed periodically, for further treatment and disposal

3. Part on site/ Part off site

- Domestic wastewater collected through a network of underground sewerage pipes and treated in wastewater treatment facility
- Households in uncovered parts use on-site sanitation systems and septage is treated periodically

Table 1: Showing the indicative investments by public bodies and households for the various sanitation options considered for Hoshangabad

OPTION	Total (crs)	Public (cr)	Private/ Household (cr)	O&M Public Annual	O&M per household Annual
Fully onsite:	17.4	2.1	15.5	59 lacs	Rs 591 ST
Small bore sewerage:	31.8	14.7	17.9	1.8 crs	Rs 671 (WW) Rs 335 (ST)
Part on site/part off site:	39.7	23	16.8	3.8 crs	Rs 1269 (ww) Rs 476 (ST)
Simplified sewerage:	43	24.3	18.9	53 lacs	Rs 205 (WW)
Mixed sanitation:	30.9	15	16.1	73 lacs	Rs 275 (WW) Rs 651 (ST)

4. Simplified Sewerage with decentralized wastewater treatment

- Wastewater from households is collected through a network of underground sewerage pipes
- Collected wastewater is treated in decentralized wastewater treatment facilities

5. Mixed Sanitation

- On plot sanitation: Septic tank with soak away and twin pit latrine
- Off plot sanitation: Simplified sewerage with decentralized waste water treatment systems

Based on this analysis, the mixed sanitation option was considered in greater detail. The components included:

1. Public Toilets

- Discharged into either on plot or into sewer network for treatment at decentralized plant
- Need approximately 250 seats to cater to 15000 people daily
- Currently have 90 seats; plans to add 90 more; Therefore require 70 seats additional
- Approximate Cost: Rs 35 lakhs (@ Rs 50000 per seat)

2. Septage Management

- Set up efficient septage collection system (either municipality or private operator) for 13500 on site systems
- Treatment at sludge drying beds @Rs 80 lakhs; 8 trucks required @ Rs 80 lakhs
- Low O&M expenditure @ Rs 44 lakhs/ year; charge households. Charge approx Rs 650 per clean up per 2 years.

3. Wastewater Conveyance

- Approximately 11000 households served by year 5 (40% population)
- Construct sewerage network (~ 29 km)
- Investments: Approx Rs 1.27 crores

4. Wastewater Treatment

- Capacity required in 2020: 7.05 mld
- Decentralized waste water systems cost per MLD: Rs 1.6 crore: Total: 11.5 cr (tertiary level)
- O&M: Rs 30 lakhs: Households pay Rs 275/ annum

The plan also made an analysis of the current financials. Currently, municipal expenditure almost matched revenue, so there was little surplus. However, it was observed that the recovery rate of the water tax was only around 40 per cent.

The improvements proposed for the solid waste management system are presented in the table 2.

The CSP also calculated the manpower and equipment needed, and the revenues and outgoes. The anticipated incremental spend was about Rs. 51 lakhs. Cost recovery was proposed at Rs. 5, Rs. 10, Rs. 20 and Rs. 35 per month from pilgrims, kiosks, APL households and shops respectively, and it was calculated that even at 50 per cent collection efficiency, Rs. 51.3 lakhs per annum could be generated.

The CSP proposes that the City Urban Sanitation Cell (USC) will be the executive responsible for the implementation of the CSP. Dedicated Sanitation Support Unit teams will assist the USC in its day to day operations, while the City Sanitation

Table 2: Showing the proposed improvements in the solid waste management component

Sl. No	SWM Activity	Proposed System
1	Primary (D-to-D) Collection	<ul style="list-style-type: none"> • Mechanised auto-tippers, with 5 member crew each • Auto-tippers tip waste directly into dumper bins
1. a	Collection from Market Places	<ul style="list-style-type: none"> • Dedicated 2 member team for each market • Morning and afternoon sweeping & waste collection
1. b	Drain cleaning	<ul style="list-style-type: none"> • Dedicated 6 member team to clean all drains monthly
1. c	Road Sweeping	<ul style="list-style-type: none"> • Two member teams organized into beats • Major roads swept daily; minor roads once in two days
3.	Secondary Storage	<ul style="list-style-type: none"> • Use of existing 4.5 Cu M. dumper bins
4	Secondary Transportation	<ul style="list-style-type: none"> • Deployment of existing dumper placers. • To be augmented to ensure daily clearing of wastes
5	Treatment	<ul style="list-style-type: none"> • Phased reclamation of dump at Idgah • Establishment of compost facility
6	Disposal	<ul style="list-style-type: none"> • Development of Scientific landfill site at Bhaikhedi

Committee will grant formal approvals and review progress. The District Sanitation Cell will coordinate in inter-agency matters and supervise the environmental impacts of decisions taken for the district. It will also assist with periodic reviews for state reports.

Before undertaking the CSP, the city's sanitation solution had been to access the NRCP scheme to provide sewer network (only trunk and branch) and sewage treatment plants at a cost of Rs. 10.3 crore, and the ULB was requesting additional funds for laying lateral sewerage network at a cost of about Rs. 25 crore. However, the city had not considered the O&M expenditure which would amount to approximately Rs 6.6 crore over 7 years. After the CSP process of Hoshangabad, ILCS funds had been sanctioned for 2625 individual household toilets. Septage management guidelines had been issued by the state, which had also decided to integrate all sources of funding like the IHSDP, ILCS, and NRCP to the CSP. Three locations (stress areas) had been identified to pilot decentralized wastewater treatment plants, and funding options were being considered). The learnings from Hoshangabad had also prompted the GoMP to scale up the CSP to 11 cities in the state.

In the discussion that followed the presentation, Mr. Meenakshisundaram asked whether the CSP was owned by the people, and how the City Corporation would implement it to the point of sustainability.

Mr. Raman replied that representatives from the State and local governments were involved at every stage of the process, during the field visits and data collection for the baseline survey, and information gathered was presented to the Commissioner, Mayor and the Council. The Council members were also part of the exposure visit. Over time, the WSP group was seen as making the plan with the council and the corporation, and not as an external agency. There was no doubt that the plan had to be owned by the city. Currently, the plan was being presented to and discussed with the ward sabhas.

Mr. Aniruddhe Mukherjee pointed out that many plans, including those under the NRCP had problems with implementation. Years after the plan had been submitted, work had not begun.

Mr. Nabaroon Bhattacharjee said that cities often submitted DPRs, but often this was about underground sewerage systems. The question was whether these were sustainable in terms of O & M requirements and costs, especially given that there were alternatives. If the city takes ownership of the CSP, then it is possible to look at alternatives to completing an underground sewerage system twenty years hence.

Mr. Meenakshisundaram reiterated that the CSP should not be done by a government order.

Mr. Arun Jaitly said that it was necessary to make a customized CSP for every city. In this case,

Hoshangabad had the benefit of handholding. He wondered how, when the effort was upscaled, ULBs would manage. The process was time consuming, and had significant costs. Both the human and financial resources required would be a challenge.

Mr. Manjunatha Prasad observed that the cost of the septic tank infrastructure cost for each household had not been factored in. Besides, the issue of daily discharge of residual water from septic tanks had not been addressed, and hence this was not a total sanitation solution. He also harked back to Mr. Arun Mehta's statement in the morning that cities would have to look inwards for solutions, and wondered where cities had the capacity to look inwards for solutions such as CSPs. He also said that now that the city had a plan, it needed to migrate to the project level, and wondered what the timeframe envisaged was.

Mr. Raman said that the overflow from the septic tanks would be led into soak away pits. In houses where soak pits are not possible, the effluent from those septic tanks will have to be collected and conveyed to a decentralised treatment facility. Sludge drying beds would be one of the options for sludge de-watering and drying and the dried sludge could be used as a soil conditioner.

Mr. Manjunatha Prasad continued with a follow-up query on the impact of soak away pits on the levels of nitrates and nitrites in the groundwater. The levels would be monitored and also the concentration. Attenuation, usage will be considered and analysed while deciding the next course of action.

Ms. Jasveen Jairath raised a question about the strategies for political support once the plan begins to challenge existing vested interests.

Mr. Aniruddhe Mukherjee asked about the status of the approval of the Hoshangabad CSP. The plan was shared with the city council, chairperson and locals MLAs and there was universal acceptance of the CSP.

Mr. Raman said that the CSP had been submitted to the government of Madhya Pradesh for approval. The ministry of urban development had identified about 80 cities for which CSPs were to be developed and identified donors who would work with sets of cities. In the upscaling phase, the World Bank would provide orientation for consultants through multiple workshops and user-friendly toolkits. Inputs would

also be provided on what has worked in the country with respect to slum sanitation, and create a listing of ten simple steps that municipalities can take to improve sanitation coverage in their cities.

Mr. Gautam Banerjee of the Ministry of Urban Development added that the government was not looking at individual CSPs in isolation, but was asking states to look at all the CSPs and make a State Sanitation Strategy, supported by a plan for resource generation and supportive regulatory frameworks to assist with its implementation. He said that the necessary capacity building would have to be done by the state. Already five states had State Sanitation Plans and several cities were developing CSPs on their own.

City Sanitation Plans – Ms. Aparna Das, GTZ-ASEM

The Advisory Services in Environmental Management (ASEM) program follows the recognition of Environment and Sustainable Development as important areas of bi-lateral cooperation between the Governments of India and Germany. The program is being implemented by the German agency for Technical Co-operation (GTZ) in coordination with Government of India, State Governments and Local Bodies. GTZ-ASEM has committed to support Ministry of Urban Development to prepare City Sanitation Plans for six cities. These are Nashik, Shimla, Tirupati, Varanasi, Kochi and Raipur. In addition GTZ-ASEM is also supporting capacity enhancement of five non-JNNURM cities so that they are enabled to prepare the CSPs themselves. Ms Aparna Das informed that the task to prepare CSPs has just begun in last November in full swing. GTZ-ASEM has already prepared a Terms of Reference and through competitive bidding processes consortium of two consultants have been selected. As the work is in progress she expressed her wish to use this discussion forum to put forward few of the challenges that they were posed with.

She said while preparing the Terms of Reference GTZ-ASEM team realized that it is difficult to select an organization that has the technical competency as well as other capacities like to address issues like financial management, institutional strengthening and other such governance issues. Those with technical competencies like the architects and civil engineers do not have the relevant knowledge about the institutional frameworks and municipal

governance systems, as this was not part of their professional training. The internal strength of GTZ-ASEM traditionally has been too in the technical side, so it was also for the organization treading into a new domain of knowledge. Further, there was also a challenge to integrate the concerns of the informal city while preparing the CSPs.

After getting the consultants and cities on board, the next step was to work on constituting the City Task Force- an important step envisaged under National Urban Sanitation Policy (NUSP) guidelines. To create ownership of the CSP it is important to have CTF meetings where members can deliberate and be informed. This in process would generate commitments and ownership of the CSP.

The next challenge was related to obtaining factual information about the city to prepare thematic maps. Cities were often clueless about the relevant data required for the preparation of the Base Maps and Utility Maps, and this is a challenge that the project is still struggling with. For example, Varanasi Nagar Nigam (VNN) provided a property tax map. But this knowledge was never transferred to VNN by their consultant. VNN do not have the internal capacity to understand or analyze and use this data. VNN gets in touch with the consultants each time they need this data. Although the VNN has paid for the preparation of these maps, every time it needs to be used, it needs pay again to the consultant. Moreover the quality of information is also a big question. Even when a map is produced with details of, for example, where the sewerage network is, the ground truths may be completely off.

Then there are questions about who is the custodian of the base maps produced, how much information should be in the public domain, and how partial representations can be produced. In Varanasi, the architects and builders lobby-part of the City Task Force wants all the maps to be put in the public domain, but VNN is reluctant to do so as it feels in such a situation it will be difficult to control the land management in the city. Further, in the city map, slums were shown as dots, with no perimeter, or demarcation about authorized and unauthorized slums. Data continues to be a critical issue in the project.

The base maps were to be produced within four months. After almost eight months only the baseline information status report has been produced, yet to

be officially endorsed by the Commissioner of the Corporations. A pilot project, based on the baseline report, is also to be implemented in two wards. A lot of deliberation is going into deciding which two wards will get the pilot project.

Another challenge relates to how the problem of sanitation is positioned. In most cities, the issue of sanitation is addressed in sectoral manner: for example Solid Waste Management, Storm Water Management, Septage Management and so on. CSP is creating an opportunity to address the sanitation in integrated manner addressing all the above cross sectoral issues. Deciding on how to prioritize the issue of integrated Sanitation is a challenge. She opined that traditionally issues pertaining to sanitation has always been addressed from the public health standpoint. However this may be misleading. In Kochi, where communities traditionally boil water for drinking, the incidence of dysentery is low. But this does not make the water quality better here. In Kochi often in low income settlements, toilets are directly connected to water bodies like backwaters, lakes and rivers, and also the septage is dumped directly in the water bodies.

There are other specific local issues as well. For example, issuance of building permits in Varanasi. Large proportion of dwelling units in Varanasi are constructed without any official building permits. Under these circumstances, it is difficult for the VNN to manage and regulate individual sanitation systems – i.e., work with communities around what kind of septic tanks will be built and how they will be regulated. Citing another of her experience she said in Kochi, 90 percent of the houses have septic tanks. The Municipal Corporation assumes no responsibility for cleaning these. Evacuation of the septic tanks is done by informal private operators. In the absence of any septage treatment plants and any regulatory mechanism there is high risk that septage is handled and disposed in an appropriate manner. This situation may call for an enhancement of the scope of The Employment of Manual Scavengers and Construction of Dry Latrines (Prohibition) Act 1993.

Mr. Depinder Kapur thanked **Ms. Das** for her presentation which helped to provide an understanding of the process of how GTZ went about the process of assisting with the development of CSPs. He asked how the cities had been short listed, and whether they had thought in terms of modules

applicable for urban settlements of varying sizes, say from one lakh through ten lakh through forty lakhs

Ms. Aparna Das said that the selection was done by the Ministry of Urban Development, the cities that GTZ worked with represented a geographical spread.

Mr. Gautam Banerjee said that the donors had also been consulted in assigning the cities. For example, the Japan International Cooperation Agency (JICA) had opted for cities where it was working on other schemes. The government had also tried to include cities of different sizes, from a metro like Hyderabad, to a comparatively much smaller settlement like Hoshangabad.

Ms. Das clarified that in Tirupati, GTZ was also working on the Eco City Programme, and hence this was a good linkage.

Mr. Vivek Raman explained that in the case of Hoshangabad, large towns were covered under the MP-USP scheme. Working on the CSP was an opportunity to work with a smaller town. In terms of data, he said, "We worked with what we had. Madhya Pradesh already had some baseline data, we retrofitted it onto Google Earth."

Ms. Nafisa Barot expressed the concern that even after a plan had been developed, access to land was going to be an issue, and asked what was the level of commitment to acquire the necessary land for implementing the plan.

Ms. Aparna Das raised a counter question about why land was not there, and answered it by saying that land was not there because information on land was not available to the authorities, otherwise they did have a lot of land.

Ms. Barot suggested that encroachment was also an issue.

Ms. Das also pointed out that the Floor Area Ratio was very low in India, for example, compared to Hong Kong and Shanghai. The earlier assumption that if we developed the villages, people won't move to the cities does not apply any more, so it may be important to revise our attitudes to this.

Mr. Manjunatha Prasad asked how GTZ was specifically addressing the issues of sanitation for the poor.

Ms. Das replied that it was difficult to generalize, because the situations were so different. For example, in Kochi, even in the poorest area, there are toilets, but the effluents are discharged into the backwaters untreated. In contrast, even the poshest area in Varanasi does not have an acceptable level of sanitation, almost 70 per cent of the city consists of slum-like settlements. Raipur is a village that has suddenly grown into a city. It wants a sewer network to cover the whole city, but the costs involved suggest that this is unlikely to happen soon. The core area has a sewerage network but no connections. The bone of contention is the Rs. 3000 that has to be paid as connection charge. The issue is less that of people being unable to pay as "Why do I need it?"

Mr. Manjunatha Prasad contended that even in Koch, there will be ten per cent of the population that does not have access to a toilet and will be defecating in the open. For a population of 1 lakh, that works out to ten thousand people without access to a toilet. He stated that this was a serious problem and the issue needed to be addressed.

Mr. Nabaroon Bhattacharjee said that the Slum Sanitation Plan was an integral part of the CSP.

Mr. Ranjan Kumar Singh pointed out that focusing on the slums would still exclude the homeless and pavement dwellers.

Presentation on the Use of GIS for the Development of City Sanitation Plans – Ms. Pratima Joshi, Secretary, Shelter Associates, Pune

The final presentation of this session, in the post-lunch period, was offered by Ms. Pratima Joshi, Secretary of Shelter Associates, Pune. She explained that the NGO had been started by architects and planners for securing better housing and infrastructure for the urban poor. Shelter found that cities had very little information on the poor, and policies were framed not keeping ground realities in mind. Shelter had pioneered the use of Geographical Information Systems (GIS) software for poverty mapping, and using remote sensing images to come up with city-wide perspectives on planning for the poor. Candidly sharing that the organisation's experience with data provided by the government was not good, Ms. Joshi shared that shelter always starts work with their own primary surveys. They

had obtained an opportunity to get involved in preparing the CSP when the consultants employed by GTZ sub-contracted this part of the work to Shelter Associates. The fact that the terms of reference did not specify a methodology gave the organisation a free hand to try and choose methods that would suit the purpose. The Nasik City Development Plan listed 104 slums. The first discovery from the independent inquiries, using GIS mapping and data from Google Earth, further verified by physical means, made by Shelter Associates was that there were 159 slums in the city, which were home to 35,000 families. However, the slum development authorities had not yet accepted the figure.

In looking for data related to the slums, the team chanced upon data for many of the slums from the Basic Services for the Urban Poor (BSUP) project. For another 65 slums across all administrative zones, the team did a rapid appraisal. A reasonably comprehensive factsheet for each settlement (about five pages each) was appended to the maps of each of the settlement. In addition, the organisation collected information from the local slum department. They located the survey number of each slum, and tried to determine the owner of the land, the legal status of the slum, whether it had been considered under the BSUP scheme, how many families lived in the slum, where the families had come from, what the water situation was like, etc. For instance, information had also been collected on the existing situation of sanitation in each of the slums, including the existence of gutters, their quality, the effectiveness of their gradients; roads within the slum, external roads and the difference in heights between the two as an indicator of potential water logging in the slums during the rains, the timing of the water supply and the water pressure. By and large the areas were not served with garbage containers. The city relied on daily lifting of garbage, and when this did not happen, garbage was dumped.

The information that they collected was brought onto the GIS platform so that it was possible to ask queries related to data spatially – for example, pinpoint locations on the map and ask about landownership. Under the JNNURM, 16,500 houses were proposed. Under the BSUP scheme, sites have been identified, and currently, 6,500 houses are being built. Another 450 houses are proposed to be built. However, so far the government has given no indication of which of the slums will be relocated and who will be allocated the houses that are being built, which are far outside the city

limits. Communities are anxious that of the 16,000 dwellings already on government land, those from inner city slums, where land value is high are likely to be moved off government land and probably outside the city. So far, the government has refused to divulge information, and people are not allowed to visit the area where the new houses are being built. 38 slums are on privately owned land, and 50 slums have residential zoning. Ms. Joshi said that there was much lack of transparency and clarity. In the unrecognized slums, there are nearly 7,000 dwellings.

Mrs. Joshi felt that there were a range of options that emerged when spatial data was used. For example, in the last few years, the city had a lot of sewer networks laid, and the maps helped to pinpoint areas where there were gaps in service delivery, so that these could be targeted and budgeted for in the following years. At the user end too, they found that when they reached out to the slum communities, there was a tremendous response when information was shared visually.

Leading the response to Ms. Joshi's presentation, Mr. Vivek Raman said that the information generated by the approach of Shelter Associates was very good, and far more detailed than what had been generated through the Hoshangabad City Sanitation Plan. He was also impressed by the way the initiatives for the slum communities were integrated with the plan for the whole city – it did not ring fence the poor.

Ms. Joshi speculated whether Nasik could be a city with completely individual toilets for two reasons. Firstly, the city had built a fairly extensive sewer network. Even in the case of dwellings built with tin panels beaten out of biscuit tins, the families had identified tiny spaces for toilets because they did not want to queue up in front of community toilets. Ms. Joshi said that the 65 slums for which Shelter Associates had done the rapid appraisal were home to 45 per cent of the city's poor.

Mr. Narsing Rao raised the issue of why government subsidies so often did not provide the poor with the help that they required. The funds were released as reimbursements in installments, and at every stage, for the release of funds, paperwork and inspection was required which help up the work. Even if the reimbursement approach was taken, a system for rapid appraisals and clearances was necessary.

Mr. Manjunatha Prasad shared some information from his own organisation's experience in an Andhra Pradesh town where, of the 1300 families which needed toilets, only 240 could find land to do so. He also pointed out that 85 per cent of Indian towns were not sewered, and the rest had only partial sewerage coverage. He pointed out that these would be challenges to a solution that focused entirely on individual toilets.

Ms. Joshi shared the example of Sangli, which had 78 slums, no sewerage network, and was further handicapped by the black cotton soil of the area which created leaching problems. Nevertheless, using the geospatial mapping methodologies offered by Shelter Associates, the Council and the Commissioner were able to identify land which could be used for construction of toilets. Often, when land was

identified, communities had proposed alternative uses and conflicting priorities, for example, to build community halls on the identified land. They had been given ultimatums by the local bodies – “You choose how you want to use the identified land, and also build toilets – but we don't want you sitting outside [to defecate].” Such a stand had helped communities make choices to improve their sanitation.

Ms. Aparna Das said that we had an option to either focus on the urban poor/slum framework or approach sanitation at the city wide level. If the latter approach was taken, then everyone in the city must have an acceptable level of sanitation. The City Sanitation Plan approach employed by Shelter helped to identify the gaps and provide ideas about where to locate sanitation options.

Session IV

Research Findings: Case Studies of Status of Public Toilets in Indian Cities



Chairperson: Mr. S C Jain

On behalf of Gramalaya, Tiruchirapalli, Dr. S. Prabhakar, presented a study on the access of the urban poor to water and sanitation in the slums of Salem and Erode in Tamil Nadu. The study was undertaken in three slums, Asokapuri (700 families), Puthumai Colony (1,300 families), and Rajajipuram (1,100 families). The slums were all fairly old settlements; the youngest at 25 years was Puthumai Colony, while Asokapuri and Rajajipuram were 40 and 47 years old respectively. In Salem, the study was carried out in National Improvement Colony (720 families), Gandhi Mahan street (578 families) and Panchathanki Yeri (768 families). Again, the slums were of fairly long standing – Panchathanki Yeri is 28 years old, while National Improvement Colony and Gandhi Mahan Street are 34 and 45 years old respectively.

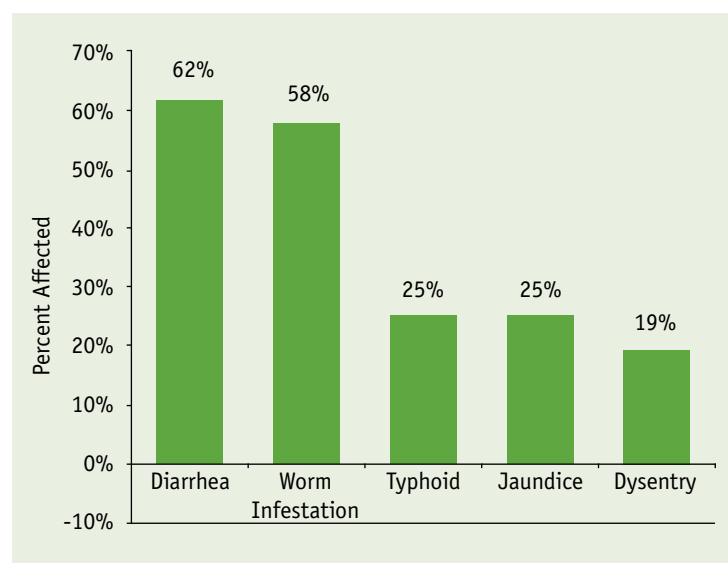
The study found that while the slums were well connected to all the major places in both the cities through public transport system. However, within the slums, very few streets were connected by concrete roads, which were very narrow and in bad shape. It was found that for the past five years,

quite some new house construction and housing improvement programmes are being implemented. However, the government-implemented programmes are not able to keep pace with the ever increasing size of slums, and the general surroundings are marked by dirt and filth.

80% of the total houses are of Kutcha and Semi-pucca construction and 70% of the families live on less than Rs. 4000/- a month. Most of the houses have electricity. Very few houses have individual tap connection, and supply of drinking water is maintained through public supply systems. More than 80% of the beneficiaries felt that storing drinking water in a closed container was enough to ensure good quality of drinking water. 10% of the families had their own latrines, while the rest used public toilets, which were poorly maintained. Open defecation was also practised. Garbage was dumped in and around the slums making them polluted and unhygienic.

No proper drainage facilities were available in the slum. During the rainy seasons, all the slums

Chart 1: Showing the illnesses reported by the residents of slums in Erode and Salem



experienced water stagnation for 15 days to a month, leading to the breeding of mosquitoes. Clearing of the open drains by the respective municipalities is irregular except in Rajajipuram slum of Erode. An ironic fact was that although several of the people living in the slums worked as sanitation workers, they did not work at keeping their surroundings clean. Poor sanitation had its impact on public health, and the chart below shows incidence of the common illnesses in the areas, most of which were water-borne. Medical expenses ate into the meager income of the community.

With respect to access to sanitation in public places, a survey of the facilities in the bus station, railway station and main market in the two cities was made. There were separate toilet blocks for men and women in all six locations, details of which are given in the table below. In the bus stations alone there were around 1000 to 2000 users on

an average every day. The latrines, bathing space and urinals are not proportionate to the number of people using them daily. Seats were insufficient in all the cases. Water and electricity for the facilities were supplied by the government for an annual cost. Convenience for the general public was not a major concern as generally, toilets were located at the most inaccessible place, in the remotest corner of the public space. Public ratings for the facilities also indicated the dissatisfaction. Availability of water was rated as "Below Average", while accessibility & visibility and maintenance of toilets were rated as "Poor".

The toilets were maintained by annual contract, but the staff were unwilling to give the details of the name of the agency they work for and about the income earned. Generally, contracts were given to a single individual and renewed every year to the same person who usually has strong political ties. Mr. Prabhakar said that although the charges fixed by the government were low, the contractors were charging more.

There was a brief discussion on why, even though members of the community were involved in sanitation work, they were not cleaning their own neighbourhoods. It was felt that the answer that this was because of lack of awareness was too simplistic.

Dr. Bhagwat pointed out that while in Tiruchirappally, all the slums were serviced by community-maintained toilets, the same had not happened in Erode and Salem, and wondered whether it was because the district administration had shared the responsibility in the former city.

Mr. Arun Jaitly held that while the prime mover for such initiatives, a catalyst NGO was necessary, like the role played by Gramalaya in Trichy.

Table 3: Showing access to sanitation at public places in Salem and Erode cities

Place	Salem Bus stand		Salem Railway station		Salem Market		Erode Railway station		Erode Bus stand		Erode Market	
	M	F	M	F	M	F	M	F	M	F	M	F
No. of Urinals	9	9	7	7	12	12	1	1	3	3	1	1
No. of Toilets	9	9	7	7	12	12	6	6	6	6	4	4
Average daily use	>2000	>2000	>400	>300	>800	>500	>200	>200	>1000	>1000	>300	>300
Cost per usage (in Rupees)	2	2	3	3	1	2	3	3	2	2	1	2
Separate unit and access	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes

Ms. Radha Khan maintained how important it was for the NGO sector to learn from each other.

Dr. Bhagwat further observed that while there had been a lot of effort expended into strengthening the panchayati raj institutions (PRIs), no similar effort had gone into strengthening urban local bodies. Ms. Radha Khan agreed that the 94th Amendment to the Constitution was not being enforced in many cities.

Participants also pointed out that sanitation workers continued to be drawn from the traditionally marginalised castes, and that even when sanitation workers were paid by the government, the work did not draw applicants from the so-called privileged castes.

Mr. Murali of MARI pointed out that access to infrastructure was a major issue, and slums were not connected to sewerage networks. It was not fair to put the onus on individuals – creating a demand for services from slum communities was part of the process of empowerment. He pointed out that there was a lot of development and real estate booms associated with cities like Hyderabad, Chennai and Bengaluru. However, when the development process is happening, the people catering to the needs of the development process also need to be served, and attention paid to their basic needs and sanitation requirements. Otherwise, there would be more slums created alongside the new developments.

Mr. Manjunatha Prasad observed that in addition to the “Public Private” partnerships that were often cited, two more Ps needed to contribute to change the status quo – Politicians and People. He said that often Junior Engineers were expected to solve problems when all the people at this consultation (with all the resources they represented), were unable to address these issues.

Status of Access to Water and Sanitation for Urban Poor in Indian Cities: Bhilai and Raipur – Mr. Santhosh Gunjal, AFPRO

The final set of case studies related to access to water and sanitation for the urban poor was presented by Mr. Santhosh Gunjal of AFPRO, who focused on access for the urban poor of Bhilai and Raipur cities of Chhattisgarh. The study involved collection of information from the concerned ULBs and NGOs in the two cities, field visits to slum areas, interviews with key informants, focus group discussions with citizens,

and a random survey of ten per cent of the population of the slums studied. Due to the paucity of time, Mr. Gunjal presented the findings of the study conducted in Bhilai.

Chhattisgarh has 6 municipal corporations, 20 municipalities and 49 nagar panchayats. The most important service provided by the ULBs is water supply. However, except in Bilaspur, domestic water supply is unmetered. Most cities do not have underground sewerage systems either. Individual septic tanks are used for sanitation by households which have toilets. According to the study, all the municipal corporations of Chhattisgarh collect a consolidated tax of Rs. 180 per annum for lighting, fire fighting and sanitation, together with a 5 per cent surcharge on property tax. The ULBs collect no water tax from slum areas.

Bhilai, in Durg district is located 25 kilometers west of the capital Raipur, and was under a Special Area Development Authority till 1998, when it was brought under the newly formed Bhilai municipal corporation. The study focused on two slums, Odiyapara and Chandrashekhar Azad Nagar, both jhugi colonies which are authorized slums under the Municipal Corporation. Odiyapara is the larger of the two slums with 450 houses, of which 70% are kuchha constructions, and a population of 2,500 people. The major occupations are construction labour and rickshaw pulling, and households report average incomes of Rs. 1700 per month. 60% of the 150 houses in Chandrashekhar Azad Nagar slum are pucca, and 750 people live in the area. The major occupation is labour work in the Nagar Nigam and families report a monthly income of Rs. 2,200.

Ninety per cent of the Chandrashekhar Azad Nagar slum has pucca roads, whereas the equivalent figure for Odiyapara is only ten per cent. 40% of Chandrashekhar Azad Nagar slum and 30 per cent of Odiyapara slum have drainage channels which are cleaned regularly. The municipal corporation arranges for solid waste and garbage collection and cleaning of garbage channels, but there is a shortage of manpower. With two safai workers covering 2 to 4 wards, regular cleaning is a casualty. Ten years earlier, Odiyapara slum had no toilet facilities, no drainage channels, and the slum’s connectivity consisted of kuchha roads, and residents practised 100 per cent open defecation. Today the slum has one public toilet, but because of lack of maintenance, it is not in use. 5 per cent of the population has access to individual

toilets, but the remaining 95 per cent continue to practise open defecation. The situation is better in Chandrashekhar Azad Nagar slum, where conditions were similar to those in Odiyapara slum ten years earlier. Today, 20 per cent of the population use individual toilets, and another 32 per cent use the 1 public toilet in the slum. 48 per cent of the population practise open defecation.

Odiyapara had five standposts and Chandrashekhar Azad Nagar slum had two, while both areas had two handpumps each. In Odiyapara, 20 per cent of the population accessed water from handpumps and the rest from standposts. In Chandrashekhar Azad Nagar slum, 40 per cent accessed water from handpumps and the rest from standposts. Water was supplied for one to two hours a day, but because of an insufficient number of standposts, residents felt that they did not receive enough water to meet their daily needs comfortably. 40 per cent of the households in Odiyapara and 30 per cent in Chandrashekhar Azad Nagar reported fetching

water from other sources, including government water tankers in the summer. Neither slum had a school located in it, so school sanitation was not considered.

The study also looked at access to water and sanitation at the Bhilai bus stand. The public toilet had been contracted out to Sulabh International had been operational since 2000 on a 30 years' lease. Water supply was supplied free by the government for the toilet. A total of 15 urinals and toilets were available, with separate facilities for men and women, which could be used for a payment of Rs. 2. On an average, 200 people used the facilities everyday, and the facilities generated a turnover of Rs. 144,000, of which Rs. 72,000 went towards costs of operation and the rest served as a profit. No income was generated from any other source, like advertisements. Drinking water supply was made available from taps linked to a tube well all day, and the responsibility for maintaining the drinking water facility was undertaken by a local business association.

Session V

Screening of “Water and the City”



While increased migration to cities, and the growth of urban settlements, cities seek to source more and more water for its people as a matter of right, often paying little attention to the complexities and contentions related to a number of factors, including sources, legal points of view related to ownership, institutional structures and administration, and the cost and pricing of water. At the same time, cities are perpetually thirsty. For instance, the city of Bengaluru requires 1000 MLD to satisfy the needs of its denizens, but gets 500 MLD. Using the water issues of Bengaluru as a case in point, Swati Dandekar, in her 52-minute film “Water and the City”, has explored some of the social, economic, legal and environmental challenges associated with supplying water to cities, where ‘developed’ citizens live and stake claim to

the resources they need. Ms. Dandekar has brought together the perspectives of the multiple stakeholders involved – the government, different groups of citizens like residents of middle-class localities, the urban poor, and communities close to the source of the water, private suppliers, groups trying to promote rainwater harvesting, etc. She discovers how the water stakes are loaded against the urban poor and rural communities who face the ecological consequences as their water is diverted for the city. For instance, while a kilo litre of water costs the Bangalore Water Supply and Sewerage Board Rs. 34, the average consumer receives this at a subsidised rate of about Rs. 18. However, poor and peri-urban consumers buy water by the tanker or the pot, the price goes up to Rs. 300.

Session VI

Programming for Pro Poor Urban Water and Sanitation:

Strategies Adopted by NGOs for Watsan Interventions and Further Needs



In the panel discussion in the concluding session, Mr. Manjunatha Prasad of Arghyam said that there had been a clear failure on the part of the 4 Ps mentioned earlier – Public-Private Enterprise, Politicians and the People in addressing issues related to water and sanitation for the urban poor. Lakebeds had been converted into infrastructure and approach channels encroached. The polity was in a state of coma, and any action to shock it into action only shook the body, while no messages reached the brain or soul. NGO action had produced oases of success. If these were to be scaled up an integrated plan was necessary, assessing demand and hydrogeology. The cost of undertaking such an initiative for the country was estimated to be around 2.3 trillion dollars. But apart from the expenditure, other pressing questions related to the capacity to undertake the work, and taking responsibility for it.

Arghyam was currently in the process of piloting an integrated water management programme in Mulbagal town.

Dr. Bhagwat of WaterAid said that the organisation worked with 23 cities and small town. They worked through partners, reaching watsan to slums and assisting with creating City Sanitation Plans. One strategy was to consciously take on the activity of mapping the poor, with a view to giving visibility and voice to the urban poor, while another was to engage with the concerned government departments and influence policy and programmes. Five of the organisation's current partners had worked with it from 2003, so there was continuity and an attempt to reach the forgotten populations. He said that he was using the word forgotten quite consciously,

and then gave the example of the 2001 Census, which had reported that Lucknow city had no slums. However, when WaterAid had mapped the city in 2008, it had 55 slums. While it was possible that these slums had developed since the 2001 Census, it was unlikely. Apart from this, focusing on the slums left out the homeless – street children and street families. Such assessments also left out the needs of special populations like people in poverty with disabilities.

WaterAid's pro-poor agenda was very strong and using a tool developed with UNH called Poverty Pocket Situation Analysis, it proactively sought out the poor. The tool used a combination of GIS and Field Surveys and identified inequity in the slums and helped to work with the poorest. However, there was very little infrastructure provided by WaterAid. The focus was on empowering the poor to secure their rights. Using the JNNURM infrastructure mechanisms to get onto the Ward Committees had helped with this process in Hyderabad. WaterAid's experience of working with nine Town Panchayats in Tamil Nadu also shows that "handholding" support is required, and ULBs are willing to say, we will do it, come and help us. They had found that politicians were attuned to Tamil Nadu getting urbanised, and when the Town Panchayats wanted to do something, they could also find the financing mechanisms for this. Involving the politicians was a practical strategy, since they tended to see each individual as a vote, and they were willing to support processes that would convert individuals into votes.

Contributing to the panel discussion, Prof. P S N Rao of the School of Planning and Architecture, New Delhi, explained that the CSPs were conceived as overarching plans looking at a time horizon of 25 to 30 years. It was not intended as very detailed documents. If the plan is very detailed, its components won't get executed, because cities grow and change very fast. By the time a DPR is made, it is redundant. He also pointed out how important it was to tailor the plans to contexts. Speaking of Chhattisgarh, he said the whole capital city was a kind glorified slum, but within it, there were obvious slums. Bilaspur was currently implementing the building of a sewer system, badly, but something was being done. In Korwa, the power capital of the country, 50 per cent of the solid waste consisted of ash. So, a one-size-fits-all approach would simply not work. Each place had its own peculiarities which needed to be addressed.

Even where there were regional and master plans, they were not being implemented. For instance, he asked how many new colonies had been built by the Bangalore Development Authority in the past twenty years. Given that this was the case, what was likely to happen over the next thirty years, the time frames generally envisaged in CSPs? It was safe to assume that no less than 15 per cent of the inhabitants would be people in poverty, and CSPs had to anticipate who these people were and where they were going to live. The pattern of human settlement development showed that people were building for themselves. On the one hand there were the integrated, hi-tech townships being built through PPPs and often actively promoted by the government (e.g., Punjab had a township policy). But the people who live at these townships are the well-heeled, with deep pockets.

So how do the poor get served? They get served by small-time colonizers, who buy three or five acres of agricultural land and carve it up into plots. People can't wait for the government to get around to serving them, they make their own arrangements to settle. It is so easy for an academic to prepare a CSP, but where are the sewer lines going to be made when there is no possibility of a physical plan of how the city will grow? Obviously, sewer lines will zig-zag all over the place. If the solution then is to come up with decentralised sanitation systems for existing settlements, usually the challenge is that there is not enough land.

The preparation of CSPs is a key issue, and there is a major role for NGOs to play. Big towns have Public Health Engineers, but small towns have very little capacity. However, this also means engaging with the existing political culture, which means addressing questions and concerns from local power centres about "Are you going to decide to whom the contract is going to be awarded? Are you bringing money from Delhi? What's in it for us?" In stakeholder consultations also, it is possible to get involved to an incredible level of detail. For example, how many people in the city purchase gutkha packets and what system shall we adopt to keep the streets clean? We have to stop somewhere and get going. There are too many things beyond our control, but the Ministry wants the CSPs by March 31, 2011. The CSP is a challenging document to prepare, but it should not be a departmental affair. The people must be involved in planning and implementation.

Ms. Sarita Baloni of Jagori threw light on how to bring women's perspectives into the process of planning – in particular, how safety audits and exploring how the right to life was affected by mapping access to basic services could assist with planning. They also involved government officials in the safety audit walks to identify what services were missing or inadequate, and how these then contributed to gender-based violence. These sensitisation processes were important not only for the people, but for officials from the Delhi Development Authority, Municipal Corporation of Delhi, police, etc. The issues identified through these methods as well as surveys, interviews and stakeholder consultations included the following:

- When easily accessible sanitation was not available, the security of girls and women was compromised.
- Women usually go in groups for open defecation, but when there were single women, the possibility of assault and gender-based violence was higher, especially since they were forced to leave their homes very early in the morning or late at night.
- Streets in slums tended to be narrow to start with. When open defecation practices dirtied the sides of the road, the usable space got narrower, there was less space to pass each other freely, and women were more liable for casual touching or even deliberate harassment by strangers.
- Incidents like this led to more violence at home.
- Time spent by women on collecting water or going to the toilet affected access to economic opportunities.
- Girl children did not go to schools when there were no toilets available. It was also found that girl children often went to school hungry, because they did not have the time after their morning chores like water collection to get to school in time.

Jagori also assisted communities with building their capacity so that they could learn how to present their issues to service providers in ways that would help them get heard. The organisation believed that some of the government initiatives on the Right to

Food had happened because of mass action. Working at the policy level was part of the solution. In addition, behaviour changes had to be brought into communities, and particularly, children could serve as drivers of change. The media, academics and students could all play a part in this.

Summing up for the panel discussion and the day, Mr. Meenakshisundaram said that several important points had emerged. Not enough people know about critical issues – for example, what is the cost of water, and who is paying how much? In spite of living in Bangalore, and having been a part of both government and the NGO sector, until he had watched Ms. Dandekar's film, he had not understood that he was getting water at a subsidised rate of about Rs. 18 per kilo litre, while the poor were paying almost 1500 per cent more. Getting such information to communities so that they can contribute towards sustainable and equitable solutions was important.

Another point that had emerged was that decentralised solutions, specific to the challenges of individual cities were necessary. At the same time, most cities lacked the capacity to identify and implement such solutions. CSOs could help with both these elements.

Thirdly, Mr. Meenakshisundaram raised a question about whether the development of CSPs was a government-run exercise, with the government saying, "I want this to be implemented." Based on his 40 years of experience in government, he was of the opinion that while for short-term gains, government solutions would work, in the long-term, no government programme has worked without the support of the people. At the same time, the government, as represented by the BDO or equivalent official in the urban context, would not involve the people, as this would mean trouble for him or her. This is where CSOs could play the critical role of ensuring people's participation.

Mr. Meenakshisundaram closed the workshop with an exhortation to the participants "Do not allow these WATSAN initiatives to disappear as a government programme!"

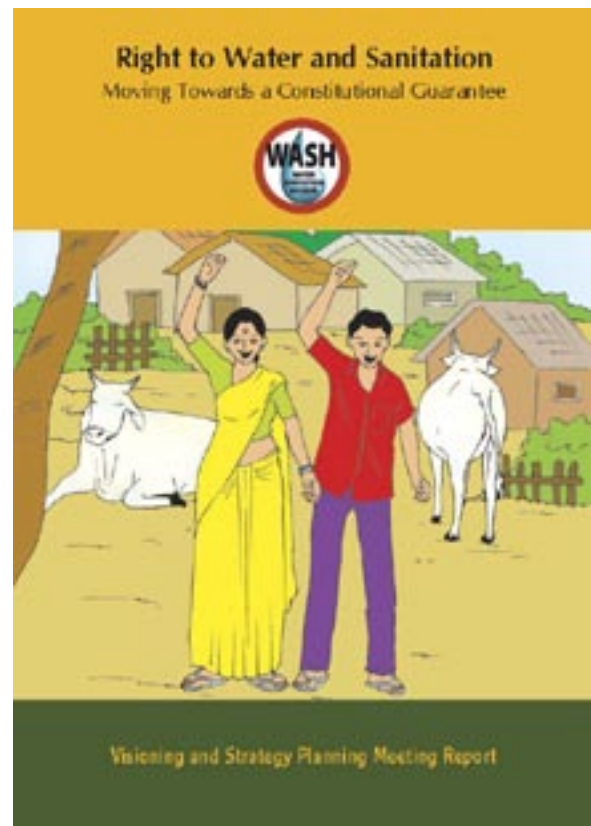
List of Participants

Sl No	Name	Affiliation
1	Venkatesh Aralikatty	MARI
2	Sarita Baloni	Jagori, New Delhi
3	Gautam Banerjee	Ministry of Urban Development, Govt. of India
4	Lourdes Baptista	WaterAid India
5	Nafisa Barot	Ex-Director, Utthan, Ahmedabad
6	Dr. J. P. Bhagwat	WaterAid India
7	Nabaroon Bhattacharjee	WSP-SA, World Bank
8	Mohammad Munawar Chand	Social Worker, Hyderabad
9	Aparna Das	GTZ, New Delhi
10	Paramita Datta Dey	National Institute of Urban Affairs, New Delhi
11	Shouvik Dutta	European Union
12	J. Geetha	Gramalaya, Tiruchirapally
13	Santosh Gunjal	AFPRO, New Delhi
14	S. C. Jain	AFPRO, New Delhi
15	Jasveen Jairath	Society for Participatory Development, Hyderabad
16	Ashok Jaitly	India Wash Forum
17	P.K. Jha	Foundation for Environment and Sanitation, New Delhi
18	Pratima Joshi	Shelter Associates, Pune
19	Depinder Kapur	India Wash Forum
20	Neha Kaushik	Ministry of Urban Development, Govt. of India
21	Radha Khan	Jagori, New Delhi
22	Ashish Kumar	AFPRO. New Delhi
23	Arun Mehta	Ministry of Urban Development, Govt. of India
24	Meenakshisundaram	MYRADA/NIAS
25	B. P. Mishra	Development Consultant
26	Aniruddhe Mukerjee	Government of Madhya Pradesh, Bhopal
27	R. Murali	MARI/IWF/FANSA
28	S. Prabhakar	Department of Sociology, Pondicherry University
29	B.S. Manjunatha Prasad	Arghyam, Bangalore
30	Meera Pillai	Independent Consultant, Bangalore
31	Vivek Raman	WSP-SA, World Bank
32	Narsing Rao	Sanitation Consultancy Services, New Delhi
33	Venktesh B. Shete	AFPRO
34	Ranjan Kumar Singh	NIDAN, Patna
35	Sultan Yadgiri	Twin Cities Slum Dwellers Forum, Hyderabad

Global Sanitation Fund Launch Workshop



Right to Water and Sanitation Launch Workshop



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India WASH Forum is committed to the following:

- Promoting knowledge generation through research and documentation which was linked to and supported grassroots action in the water-sanitation-hygiene sectors. Special emphasis is given to sector-specific and cross-cutting thematic learnings.
- Supporting field-based NGOs and networks in their technical and programmatic work. The IWF would also consistently highlight gender and pro-poor considerations, and provide a national platform for interest groups working in the sector to come together.
- Undertaking policy advocacy and influence work through
 - Monitoring and evaluations
 - Media advocacy and campaigns, and
 - Fact finding missions
- Undertaking lobbying and networking to promote common objectives in the sector.

India WASH Forum

K-U, 6 Pitampura, New Delhi-110034
Kapur.depinder@gmail.com