



RESEARCH ARTICLE

COMMUNITY AND STAKEHOLDERS PERSPECTIVE ON WASH STRATEGY IN SLUM AREAS
OF LUCKNOW, UTTAR PRADESH, INDIA

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ABSTRACT

WASH in the urban areas has been a recurring concern in the current Swacch Bharat Mission (SBM), the flagship program of Government of India regarding WASH issues being implemented under the Ministry of Drinking Water and Sanitation (MODWS). The current study was done in 2017 with the objective of a situational analysis and study of WASH in the slum areas of Lucknow. The study areas constituted of urban slums of Lucknow. The study was supported by Ankur Yuva Chetna Shivir (AYCS), a NGO working on WASH issues with slum areas of Lucknow. The current study is a qualitative study. It cited out what is to be done in future regarding WASH by the civic authorities like Lucknow Municipal Corporation and NGOs based upon the discussions held at two levels viz, the community and stake holders like the staffs of civic authority like Lucknow Nagar Nigam (LNN) and Front Line workers of public Health system like ASHA, ANM and AWW. The community level included FGDs of men and women, stake holders included staffs of Lucknow Municipal Corporation and Public Health System of UP.

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INTRODUCTION

AYCS, a NGO based in Lucknow has been working in the field of WASH in the urban slums of Lucknow since a decade. The current study was done with the objective of a situational analysis and study of WASH in project area of Lucknow. The project areas of AYCS constitute of urban slums of Lucknow. The study was done on the lines of the WASH strategy document of UNICEF. The two objectives of the WASH strategy document of UNICEF for 2016-2030 are to achieve universal and equitable access to safe and affordable drinking water for all and the second one is to achieve access to adequate and equitable sanitation and hygiene for all and end open defaecation, paying special attention to the needs of women and girls and those in vulnerable situations. Keeping these two objectives in view, the current study cited out what is to be done in future regarding WASH by the civic authorities and NGOs based upon the discussions held at two levels viz, the community and stake holders. Similarly, the study aligned itself with the Sustainable Development Goals (SDG) of United Nations where the 6th Goal is WASH related.

The study included FGDs done exclusively for women and girls in community and schools respectively to ascertain their special needs. It also included information on source of drinking water and time taken to fetch portable water by each house hold. In this context, the study was aligned to the objectives of SDG. The structure of the article has sections like introduction, research methodology, rationale of the study, summary of the discussions held at each level, the suggested activities to be done in future by AYCS. The summary of the discussions is based upon the entire contents of all the discussions at the two levels as mentioned above. FGD protocols and Interview schedules were used as research tools to do the study.

Background of WASH as a relevant issue: The field work of the study was done in 11 slums of Lucknow. The names of these slums are Vinayak Purwa, old Hanuman temple, Baba ka Purwa, Purania Basti, Basti on GSI boundary road, Basti in Vikas Nagar, Basti in Mama ka Chauraha, Balumandi basti, Janganana colony, Shankar Purwa and Phool baba ka mazar, Madioan. In all, 8 FGDs were conducted in the study. 4 FGDs each for 4 groups of men and women were conducted in the

study. There were 62 men in the 4 groups of men and 75 women in the 4 groups of women. The following section cites some studies on slums of Lucknow. As per the report of the committee on slum statistics/census, ministry of housing and urban poverty alleviation, GOI, 2011, a slum is defined "as a compact settlement of at least 20 HH with the collection of poorly built tenements, mostly of temporary nature, crowded together usually with inadequate sanitary and drinking water facility in unhygienic conditions". As evident from the definition, working in slums on WASH related activities is a priority. The Water and Sanitation for Urban Poor (WSUP) business plan launched in March 2016 for the period 2016-2020 mentions 5 strategic areas out of which the second strategy mentions of "developing capacity in the public and private sectors". The work of the NGOs and civic authorities falls in the category of private sector and it is imperative that the capacity of NGOs will be strengthened through focused work in WASH.

Globally it is seen that poor WASH leads to water borne and vector borne diseases. Among these, the major killers of U5 children in India are diarrhoea and pneumonia. As per WHO report of 2015 for causes of U5 death, diarrhoea contributes to 11% of all deaths and pneumonia contributes to 16% of all deaths in India. As per NFHS 4, 2015-16, the prevalence rate of diarrhoea is 15% in UP and for pneumonia it is 5% where as it is 10% and 3% for India. In Lucknow district, as per AHS, 2012-13, the prevalence rate of diarrhoea is 12% and for pneumonia it is 15%. Similarly, as per NFHS 4, the prevalence rate of diarrhoea in Lucknow is 8% and for pneumonia it is 2%. As per the Integrated action plan for Prevention and control of Pneumonia and Diarrhoea (IAPPD) of UNICEF, the prevalence of diarrhoea and pneumonia can be prevented by WASH through promotion of behaviors like hand washing. The WASH component is as per the goal # 6 of the Sustainable Development Goals of the United Nations as adopted in 2016. The figure below gives the details of the goal. It is clearly evident here that it is a mammoth task to address all components in the slums of Lucknow. The study aims to discover those areas which are doable and the efforts on the other hand will strive to achieve the larger goals as per the components of SDG 6. WASH process start with water and then moves on to sanitation followed by hygiene both at individual and community level. The FGDs included all sections of the society where women, mothers, adolescents and older children participated. The WASH strategy contributes to benefits in all these stages of life. The benefits as per the stages of life as per the WASH strategy document of UNICEF are-

Pregnancy: Reduced maternal disease and death, reduced under nutrition, protection from violence, increased dignity.

Childbirth and New-born: Reduced neonatal, maternal disease and death, increased dignity.

Infant to 2 years: Reduced child disease and death and reduced stunting.

Young children (2-5 years): Reduced child disease and death, reduced under nutrition.

School age children: Reduced child disease and death, reduced under nutrition, increased school attendance, protection from violence, increased dignity.

Adolescent girls and boys: Reduced adolescent disease and death, reduced under nutrition, increased school attendance especially for girls, protection from violence, increased dignity. To address benefits to all ages through WASH it was only appropriate that the study included all the sections of the society through community level FGDs and interviews with the various stakeholders as mentioned above. The prioritized activities at all these levels are expected to lead to WASH related outcomes as described above. As per census 2011, 31.16% of population i.e. 377.10 million lives in urban areas and 18% of these population live in urban slums. Similarly, 28% of the total population of Lucknow resides in slums. WASH issue was addressed in slums through the Rajiv Awas Yojana till 2005. From 2005 to 2014, WASH was addressed in slums through the JNNURM scheme. Since 2014, SBM and AMRUT schemes are the vehicles through which WASH is addressed in slums of India. The current study matched these schemes along with the identified priority areas to work on WASH related issues. Slums are the visible manifestation of poverty in India. Along with Bihar, MP and Rajasthan, UP constitute 40% of the total urban poor in India. Poor WASH conditions and poverty force the families to have higher out of pocket expenditures in terms of health care. To improve WASH in slums of Lucknow, the city sanitation plan was developed in 2011.

The census 2011 revealed that in 4041 towns close to 8 million defecate in the open. The SBM aims to reduce OD by 2019 and the study tries to find out strategies or ways to contribute towards reducing the menace of OD. The SBM guidelines mention components such as use of public toilets, solid waste management and IEC for public awareness. The current study works to find out ways in which the slum dwellers use public toilets, manage the solid waste of their homes and participate in IEC activities contributing to increased awareness on WASH. From the country level, when we come down to the city sanitation plan of Lucknow, we find that 10 to 11% of HH do not have toilets and from among the zones, zone 3, 4, and 5 have maximum users per toilet seat of community toilets. In these zones, only 20% HH have public toilets within walking distance of 100-200 meters. Poor number and quality contribute to open defecation. The city has 207 toilets having 2656 seats. 72% of these toilets are maintained by Sulabh International. In the city, 7 to 10% of HH resort to open defecation where zone 3 contributes to 8-10% and zone 5 contributes to 13-15% thus having maximum number of people doing open defecation. 35-39% of slum HH do open defecation in zone 4. The floating population that constitute 8-10% of population also contribute to an increase in open defecation.

The city sanitation plan of Lucknow, 2011 also mentions four aspects of achieving the vision of the Community Sanitation Plan. Among the infrastructure aspect, the document mentions making Lucknow ODF by 2020. Among institutional aspect, it mentions role of institutions in creating sanitation assets. Among social aspect, it describes of increased awareness among citizens regarding health and hygiene issues. The current study is contextual in the sense that it found ways to address the above-mentioned issues under the respective aspects. A study done regarding hand washing practices of mothers in slum communities in May 2016 reflected that hand washing before preparing food was only 37.1% in slum communities among lower socio-economic status mothers. Another study done on new born care practices in urban slums of Lucknow city in 2010 hints that the WASH practices of

mothers and house-hold members were poor as cord care and early bathing were the barriers to healthy WASH practices. As per the citizen's report card on water, sanitation and hygiene in 25 slums of Lucknow, Uttar Pradesh in 2013, more than 60% HH defecate in open, most people dispose garbage on roads, the tap provided drinking water for only 2 hours a day and people suffering more during summers. It was on this light that the current study brought out qualitative aspects on WASH in slums. A study by London School of hygiene and tropical medicine and AYCS for the Gomti river pollution control project in June 1996 on diarrhoea and hygiene in Lucknow slums reflects that mothers do not relate hygiene to diarrhoeal diseases in children. Mothers were washing hands with ash and mud after defecation. Muslims considered ash as dirty but not Hindus where as it was just opposite for mud. Mothers washed hands after handling elder children's stool but not with infant's stool. As per the slum free city plan of Lucknow in 2013 by the ministry of urban development, GOI, the cost allocation for physical infrastructure break up was for water supply was 22%, 63% for sanitation and 2% for solid waste management. The allocation shows that WASH has been an integral part of the plan. As per the NUHM launched in 2013, urban PHCs are to be set up in slums and slum population are to be covered through Urban Health and Nutrition Days. The study also focuses on UHNDs as critical points for disseminating WASH messages and distribution of OZ tablets to children suffering from diarrhoea.

MATERIALS AND METHODS

Purposeful sampling technique was used for the study as these slums were the areas where AYCS, the NGO had worked/working currently. The tools used for the study were FGD protocols and Interviews schedules (IS). FGD protocols were used at community level. IS were used for stakeholders. Observation technique was also used to observe WASH related activity done by the community during the field work. Both the tools had open ended questions. The initial pattern of questions in the tools ranged from the basics of SBM and their awareness about SBM. Next part was about the activities they do regarding SBM followed by their experiences on SBM related activities. This part was followed by the opportunities and challenges that they face. The last part was about the future plans or activities that they want for themselves. In order to have adequate representation from the community and stake holders, 8 FGDs were done in community and 7 stake holders were interviewed. From among the community, 4 groups of females and 4 groups of males were the vehicles for the FGDs. The seven stakeholders were those who have direct stakes in the programs implemented by AYCS were the ASHA, ANM, AWW, Safai Karmacharis (sanitation employees), two supervisors, Social Welfare Officers of SBM at Lucknow Municipal Corporation (LMC) and a ward councilor of LNN. The data was analyzed using qualitative research techniques software to summarize and prioritize the issues as per the number of respondents replying per issue. The qualitative data was grouped into common thematic areas that emerged in the study which formed the basis of the ensuing results and discussion.

Research tools: The staffs were interviewed using an open-ended interview schedule which included sections on variables on their community rapport and capacity building initiatives and discussions in the consortiums held in their office.

The flow of the interview schedule had their brief background, their capacity building initiatives, their awareness level and the types of job aides they received on WASH and how they use and perceive these materials. FGD protocol was used to collect information from the community. FGDs were conducted separately for men and women.

RESULTS AND DISCUSSION

Summary of the findings at the community level revealed that Very few people knew about the SBM and the logo of SBM of GOI. None of the HH use dust bins for solid garbage. They collect the garbage and throw in the designated area of the slum. In recognized slums, there is a designated area but in unrecognized slums, people dump. In recognized slums, people want to pay for garbage if it is picked up from their homes. People were reluctant to pay as their past experiences in this context were not fruitful. Unrecognized slums do not have piped water put up by nagar nigam (municipal corporation). They depend upon private player for drinking water who takes money to give them water. Usually, people keep the water in plastic buckets and no one purifies it further for portability but they keep it covered. Usually one family takes about 5 minutes to fetch water in recognized slums where as it is up to one hour in unrecognized slums. In recognized slums, people pay for the maintenance/repair of the pump. Unrecognized slums burn the garbage every 2-3 months as the garbage is not picked up by nagar nigam. In recognized slums, very few people have functional toilets. Very few people among the non- toilet HH use the public toilets like sulabh sochalaya. Majority defecate in the open. The males sit in one corner and the females in another corner of the place used for defecation. There was no beneficiary for toilet construction in the communities. Few people wash their hands with soap after urination and defecation. Children usually defecate in open and the stool is thrown in the garbage across the open space used to dump garbage. All the HH throw the excreta of children in the garbage near the slum across the open area. All HH use the pits dug by them to drain out the wastage water from home. They also collect the waste water and throw later every day. Usually people do not segregate the garbage and they mix the garbage and throw in the open area for garbage across the slums. Hand washing campaign was done once by AYCS in all the communities (recognized slums). Usually they had one handwashing demonstration in the last 6 months. Regarding MHM, the females use any cloth during their MC. Most of them are not aware about the use of cotton cloth and pads during MC days. Not all of them also throw the cloth and pads wrapped in a paper along with the garbage. Fogging was also not done in any of the slums. No other special campaign was done by nagar nigam in the communities. Occasionally, machines clean the drain only once a year in all the communities.

Observation related: Observations at community level showed that People were throwing excreta of young children in the garbage and not always washing hands with soap. The drinking water is not covered at HH level. After urinating, people were not washing hands with soaps. People have bathing spaces temporarily made but not toilets. The constructed toilets have silted in the slums. Women are not open to talk about MHM and whisper among themselves.

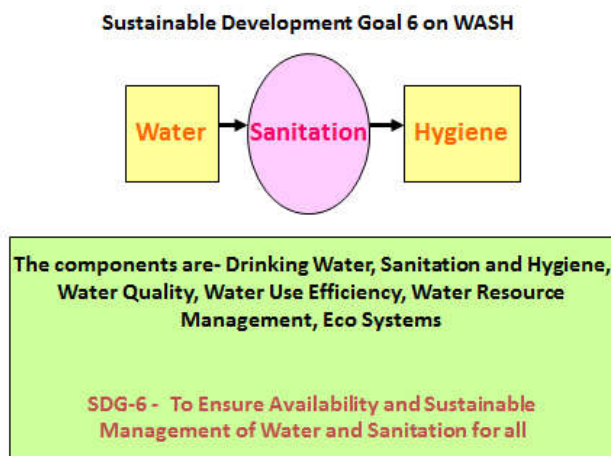
Discussions held with stake holders: Summary of the discussions with Social Welfare Officer, SBM, nagar nigam

Box-1- Recommendations for NGOs and civic authorities like LMC for WASH in slums

1. Focus on individual habits like hand washing after defecation and urination through demonstration of handwashing in the slums.
2. Encourage the people to use Sulabh Sochalaya instead of open defecation. Introduce family cards for HH after linking up with nagar nigam and Sulabh International.
3. Make discussions on MHM a regular feature where emphasizing on use of cotton cloth to be done if they do not wish to use sanitary pads.
4. The slums which have less chances of getting evicted are willing to pay if the garbage is picked up from home.
5. All the slums have the will or are paying for the repairing charges of the water pump.
6. Continue to learn from the HH which use toilets currently and encourage other HH to use toilets.
7. Encourage mothers to attend VHND sessions to use OZ, deworm and iron tablets for them and children. Share the 60 seconds movie on diarrhoea on use of OZ tablets.
8. Repeat the habit of keeping the drinking water covered at home.
9. Link with nagar nigam to do fogging and spread of mosquito oil in drains of legal slums while focusing on individual habits in illegal slums.
10. Link with nagar nigam to pick up garbage slums from illegal slums so that people do not burn the garbage.

Box-2. Recommendations for NGOs and Civic authorities like LMC for stakeholders

1. Work with PARSHAD to deploy safai karmis for legal slums for cleaning drains, picking up of garbage, provision of tap for drinking water and tankers for drinking water in illegal slums.
2. Hand washing demonstration for children of AWC and distribution of deworm and iron tablets with support of ANM of NHM.
3. Hand washing demonstration in VHND sessions and explain proper use of OZ to mothers by ASHAs for diarrhoeal cases in children. Share the 60 seconds movie on diarrhoea in groups. MHM should be discussed in these sessions.
4. Involve the safai karmis and supervisors in the community meetings of legal slums to elicit functional support from them. They can also be involved in office meetings to tune them with the activities and plans of AYCS.
5. Work with the SWO to issue family cards for using of community toilets by the people of the slums.
6. Participate in the campaigns and surveys related to SBM to remain highlighted as a NGO working in the field of SBM.
7. Find out functional modalities to work with eco green for separation of garbage at source.
8. Share work progress data with nagar nigam so that these are included in their achievement targets.
9. Explore with the stake holders like ASHA and ANM to visit the schools on the days the RBSK team visits the school.
10. Conduct a half day meeting of all the stake holders of the project area to help them focus on ODF, segregation of garbage, critical points of hand washing, use of tablets like Zinc, iron and deworm along with ORS.

**Figure 1.**

revealed that the priority areas of SBM are to build individual toilets and then community toilets. Next priority is source segregation of garbage. Achieving targets of ODF is another priority. They do campaign every 3 months in certain slums with NGOs. They take the help of safai karmacharis and their supervisors. Till date, they have covered 50 Resident Welfare Societies. The campaign was done in May 2017. They have covered schools in April and June to disseminate SBM related behaviors. They also covered CMS to disseminate HH behaviour through school children. The sanitation and food inspector visits the field to address SBM related activities. They can not cover all the areas as they are busy doing inspection of restaurants. In zone v of Alambagh, dustbin distribution was done as it was a sponsored event. 1000 buckets were distributed covering 500 HHs. The private player hired for garbage collection is Ecogreen. Prior to this, jyoti environment was hired.

Illegal slums are the major challenge. Achieving the targets for toilets and ODF is very very low and challenging. Acquiring land to build community toilets is another challenge. The toilets constructed by HUDA and NEDA are not functional. Only by Sulabh is functional. Currently their focus is completing the Swacch survekhyan survey 2018.

They are involving all NGOs and stake holders to participate in the survey. Funds are also less. They get Rs8000/- per individual toilet which is less for building a toilet. Public relation related activity is another obstacle as it diverts all the work. Community contribution is another challenge in rolling out any activity. The cross cutting obstacle is interference of public representatives. The three areas for which private players are hired are bio medical for medical wastes. Eco-green for solid wastes, need based player for liquid wastes.

Summary of the discussions held with front line workers such as ASHA, AWW and ANM: The ANM at the urban VHND session uses the hub cutter for the used needles and deposits in the Bal Mahila Chikistalaya with out realizing that she is addressing SBM related activities. The ANM was unaware of the SBM related activities in the community but the ASHA knew about SBM. The ASHA informed that the nagar nigam picks up the garbage from the area where the community throws the garbage. The SBM activity that they do in the session is to talk about hand washing with pregnant women, mothers. The ASHA and ANM distribute ORS and Zinc to the children under the age of 5 years for diarrhoeal diseases. The ASHA also discusses hand washing with the members of HH when she visits the HH. The AWW informed that the students of ECDC urinate in the open and for latrines they go home. The helper of AWW cleans the plates and the children wash their hands using soaps at the AWC. The children had de-worm tablets only once in this year. They had also received iron tablets only once this year. Not all students ate the tablets at the AWC. However, there was no dustbin available in the AWC. There is no indicator related to SBM in the reporting system of the ICDS for AWW.

Summary of the discussions held with Ward Councillor (PARSHAD) of LMC: Except for picking up of garbage and cleaning of drains, the focus was on bijli, sadak and pani for the councillor. Every 3 months there is a meeting of councillors in nagar nigam to discuss on the progress but the obstacle that still remains are segregation of garbage and proper disposal. The role of NGOs he says are minimal but it can be augmented with synchronisation. Another obstacle is the cowsheds of buffalo that dumps the buffalo dung in the drains but once the buffalo dung dries it becomes an obstacle for water flow. The deployment of staffs of nagar nigam in the ward for PR related activity related to VIP movement is another challenge. The whole staff is deployed at the main road instead of cleaning the lanes and by-lanes of the ward. The annual budget of each ward in Rs 75-80 lakhs in which they have to maintain everything that is under the domain of nagar nigam in the ward. The budget is not proposed but allotted to the ward by the nigam. He gave the example of the sewer treatment plant of Lucknow which cleans the waste water and recycles the water back to Gomti river. The other obstacle he mentioned is construction of toilets as about 1000 applications were there but only about 15 HH built toilets with support of SBM.

Summary of the discussions held with safai karmacharis and Supervisors: There was one safai karmachari and two supervisors in the discussion. The safai karmachari told that there is no active community participation in any work of nagar nigam. They have to work for extra hours that is beyond 2 pm as they are given too much of unscheduled work also. They are overloaded but they have not been paid their salaries for the last 3 months. Shortage of staff in relation to the work is another constraint that they face regularly.

They could say that some NGOs help them in their work in dealing with the communities occasionally but besides that they do not envisage the role of NGOs. The difference that the SBM has brought about is that now-a-days polythene is less used and people have started talking about the cleanliness drive.

Conclusions

The study concludes that four major activities that NGOs and civic authorities needs to do in near future. The first is to make family cards for house-holds to promote use of community toilets there by addressing open defecation issues. The second is to reinforce hand washing demonstration at community level as people learn through repetition. The third is to involve all the stakeholders in the project area whether they are directly or indirectly related to WASH activities. The fourth is to strengthen mechanisms at the slums so that people get portable water irrespective of the fact that the provider is private or public.

REFERENCES

- CRISIL infrastructure advisory, July 2011, Final document on City Sanitation Plan of Lucknow.
- FANSA UP chapter, SES, 2013, Document on Citizen's report card on water, sanitation and hygiene in 25 slums of Lucknow, Uttar Pradesh.
- GOI, 2011, Report of the committee on slum statistics/census, ministry of housing and urban poverty alleviation.
- GOI, 2012-13, AHS fact sheet and report document for India, UP, districts of UP.
- GOI, 2013, NUHM PIP guidelines.
- GOI, 2013, Slum Free City Plan of Lucknow, Ministry of Urban Development.
- GOI, 2014, SBM guidelines, Ministry of Drinking Water and Sanitation.
- GOI, 2015-16, NFHS 4 fact sheet document and NFHS 4 report document for India and UP.
- London School of Hygiene and Tropical Medicine and AYCS, June,1996, Report on Gomti River Pollution Control Project, Diarrhoea and Hygiene in Lucknow Slums.
- Mukesh Shukla, Monika Agrawal, 2016, Hand Washing Practices of Mothers attending Immunization Clinic at a Tertiary Care Hospital of Lucknow, IJCMR, 2016;3(5):1372-1375.
- Gupta, P. et al., Jan 2010, New born care practices in urban slums of Lucknow, UP, IJCM, 35(1), 82-85
- RGI, 2011, Census of India report.
- The Water and Sanitation for Urban Poor (WSUP), 2016, WSUP vision and strategy document, 2016-2020.
- UNICEF, 2015, IAPPD strategy document for U5 children.
- UNICEF, 2016, WASH strategy document 2016-2030, UNICEF, 2016-2030.
- United Nations, 2015, Document on SDG for 2016-2030.
- Urban WASH strategy, Water Aid India, 2015.
- WHO CHERG, Report of causes of U5 children deaths document, 2015.
