

SANITATION AND HYGIENE PROBLEM IN INDIAN COMMUNITIES: A CASE STUDY OF DALIGANJ URBAN COMMUNITY AREA OF DISTRICT LUCKNOW, UTTAR PRADESH

ASIF AHMAD SIDDIQUI, RUCHIRA NIGAM, AISHWARYA AWASTHI, PREETI R. KANAUIA AND AMITA KANAUIA

ABSTRACT

The present study investigates the sanitation and hygiene problems and other related issues of the Daliganj Community area of Lucknow District of Uttar Pradesh. Using qualitative data analysis methods and through interview schedule technique, we reveal the actual ground level situation related to behavioral aspects of the population in the urban and semi-urban area of Daliganj Community area of Lucknow District of Uttar Pradesh. The study reveals many hygiene related aspects that are similar to those in other communities, which are going through similar problems. It also reveals that behaviour of the people is a major hurdle to make our country, state, city clean and sanitation friendly. The problem can be solved by making a successful government-public bond, besides strengthening the rules and regulations. Resettlement of local resources, such as provision of community toilets, construction of sewage treatment infrastructure, etc., should be done. In addition, appropriate steps should be taken by the Government to generate awareness among students, teachers and households about sustainable development goals and teach how these are relevant to a better life for common man as well as for the development of the country.

Keywords: *Environment, Sanitation, Hygiene, Water contamination*

INTRODUCTION

According to a blog in Live Mint, the National Sample Survey Office (NSSO) in 2012 conducted a survey that underlined the dangerous state of sanitation in the country, particularly in rural India. According to the survey, 32% of the

Asif Ahmad Siddiqui, Centre for Biodiversity & Wildlife Research and & Conservation, Lucknow, and Centre for Environment Education North & Himalayans; **Ruchira Nigam**, Centre for Biodiversity & Wildlife Research and & Conservation, Lucknow, and Centre for Environment Education North & Himalayans; **Dr. Aishwarya Awasthi**, Department of Anthropology, University of Lucknow, Lucknow, Uttar Pradesh, Email: aishanth16@gmail.com; **Preeti R. Kanaujia**, Centre for Environment Education North & Himalayans; **Dr. Amita Kanaujia**, University of Lucknow, Lucknow, Uttar Pradesh.

rural households have their own toilets and less than 50% of all Indian households have a toilet. (www.livemint.com/Politics/FDZA5LXCjefWaelq6IA6bI/Union-budget-Jaitelyallocates-2037-crore-to-Ganga-conser.html MoDWS, 2012). In fact, the percentage of households having access to television, telephones, mobile phones in rural India is more than the percentage of households with toilet facilities. Billions of peoples in the world are still following open defecation practices of which more than half are only from India. Several studies show that poor sanitation is closely related to health problems, leading to high rates of malnutrition and productivity loss. India's sanitation problems lead to 6% loss of Gross Domestic Products (GDP). According to World Bank's estimate, disease burden in the country is higher than other Asia-Pacific countries; children are affected more than the adults as diseases inhibit children's ability to absorb nutrients leading to stunted growth.

Spears, *et al.* (2013) stated that large parts of India have malnutrition burden which leads to unhygienic environment. Poor sanitation and high population density act as stimulants for poor health conditions of Indian children. States with low levels of sanitation accompanied with high levels of population density, such as Bihar, Jharkhand and Madhya Pradesh, Uttar Pradesh, also have the high levels of malnutrition. Due to large population size and less fund allocation to health services in India, public health services are highly neglected, which results into an unhygienic environment for its people. Therefore, in a densely populated country like India, there is an absence of effective public health network which has resulted in an extraordinary burden of water and sanitation related diseases. According to an estimate, about 48% of Indian children are suffering from malnutrition to some extent. According to the UNICEF (1990), water-borne diseases like diarrhoea, cholera as well some respiratory infections are one of the major causes of child mortality in India. Children affected by frequent diarrhoeal infections are more vulnerable to malnutrition and infections such as pneumonia. As per the RICE data, approximately 638 million people are still practicing open defecation accompanied by 44% mothers disposing off their children's faeces in the open area, which in turn leads to high risk of the microbial contamination (bacteria, viruses, and amoeba) of water causing diarrhoea in children. It has been noticed that the two major health conditions like diarrhoea and worm infestations are severely impacting the school-going children with their learning abilities.

The present study was carried out to investigate the sanitation and hygiene problems and other related issues of the Daliganj Community area of Lucknow District of Uttar Pradesh. It was also aimed at assessing the synergies and convergences between Sustainable Development Goals (SDGs) and existing government schemes and programmes and also to assess and quantify resources required and to highlight potential gaps in achieving SDGs.

MATERIALS AND METHODS

The primary data for the present study was collected from 130 house holds of

the Daliganj Community area of Lucknow District of Uttar Pradesh. We used qualitative data analysis methods to understand the actual ground level situation related to behavioral aspects of the population in the study area. Qualitative analysis is defined as a form of text data from interview transcripts that is mostly dependent on the researcher's integrative, analytical skills with the personal knowledge of social context from where the data is collected. Qualitative data analysis gives you an understanding of the research objectives by revealing patterns and themes in data (Miles et al, 1984). The attitude of the participant in context set of analytical strategies is needed by a creative as well as investigative mindset for qualitative analysis. Research starts off with the collection of quality information and data.

We used Interview schedule in this research because it is practically a list containing set of structured questions prepared, which act as a guide for researchers, interviewers and investigators for collecting information or data about a specific topic or issue. An Interview Schedule is the best method to cover small groups in short time with the focus on suggested topic. During the research it also limits the researcher from making mistakes and as a result researcher gets less chance to be distracted from the topic.

Study Area and the Population

The study area for this investigation was Daliganj Urban Community area of Lucknow, Uttar Pradesh. This area is inhabited, mostly by people who migrated from Sitapur, Lakhimpur and other adjacent districts to Lucknow. The households which were selected for the study were of majority daily wage workers, like fruit and vegetable vendors, fishermen, etc. Women were much involved in this research study as they were available most of the time in the households rather than men who often were not at home due their occupations. Figure-1 shows field data being collected through interviews along with some general aspects of the area.



Figure-1: Images of the Daliganj Area. (A)- Field interview data collection from a group of respondents; (B)- Meeting with household women to know their basic problems;(C)- Field interview of an old respondent; (D)- Area at the Gomti River Bank dumped with waste near Daligunj community.

RESULTS AND DISCUSSION

The present results are based on interviews conducted on a sample of 130 households of Daliganj community .

Dustbin Use: Figure-2 depicts the percentage of the use of dustbins among the locality members. It was found that 67% members were using community/locality dustbins and rest 33% members were using their own dustbins. On an average, dustbins located in the Daliganj Community area were cleaned, twice a month while those in houses were cleaned thrice a week. Waste material collected from houses included kitchen waste, edible waste, and medicinal waste.

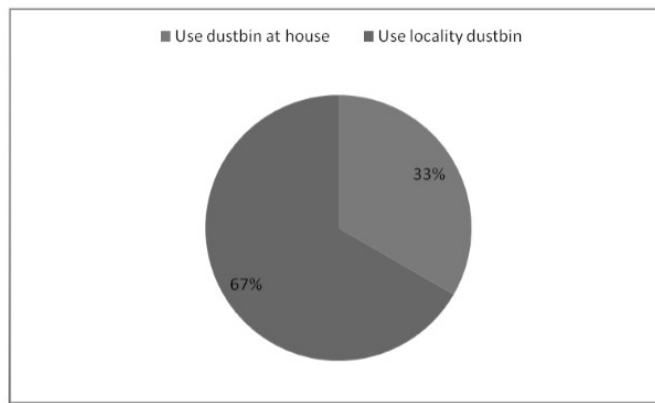


Figure-2: Percentage of people using community and in-house dustbins

Defecation method used by family: Figure-3 displays the incidence of various defecation methods used by the families. It is clear from the figure that 47% members were using personal toilets, 47% were using community toilets and the rest 6% families were using both the toilets. Various sources of water used in the house and locality included Supply water, Submersible Water and Hand Pump Water. All the people of the locality received their drinking water by submersible pump/storage.

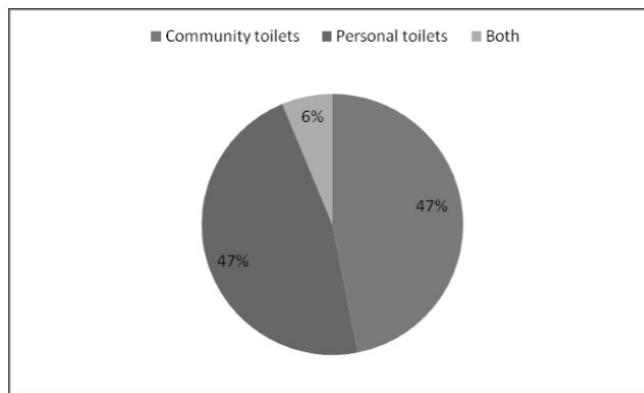


Figure-3: Percentage of people using various toilet facilities

Water cleaning methods: Figure-4 depicts the different water cleaning methods used by the families. As can be seen in the figure, 60% members were found to be unaware about the water cleaning methods, 23% were using water filters for purification and the rest (17%) of the families were using other cleaning methods, like use of alum, boiling of the water, chlorine and use of clay pots. It was noticed that, among the people of the locality, very few kept their water and food safely in proper containers and in refrigerators and a large number of them were not using any safety measures while some of the members only kept them in containers. Diseases that recently occurred in the locality included Typhoid, Diarrhoea, Viral Fever, some type of fungal and bacterial infections, etc. As per responses from households, condition of the sewage treatment structure of the locality was very bad, which was reported as negative in cleanliness and maintenance matter by 100% of the respondents.

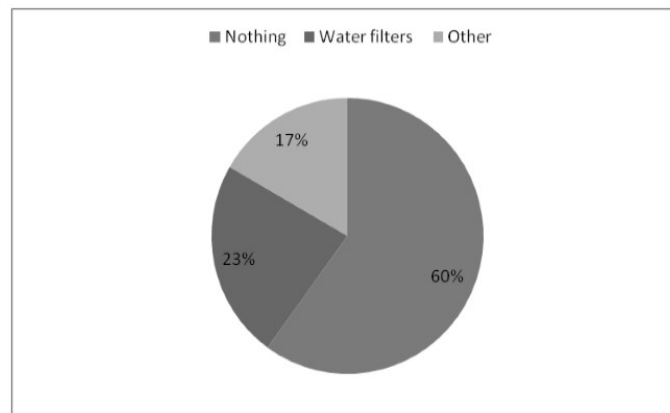


Figure-4: Percentage of people using various water cleaning methods

Existence of Open Defecation System in the locality: Figure-5 indicates the incidence of open defecation in the locality. As can be seen in the figure, 70% members were still found defecating in open, 20% members gave a neutral response (which also shows that they might be defecating in open), 7% families were using their own toilets (so they didn't show any concern) and the rest 3% were surely using their own toilets. According to the respondent, there were community toilets in locality but the condition of those toilets was not good and their cleanliness status was average.

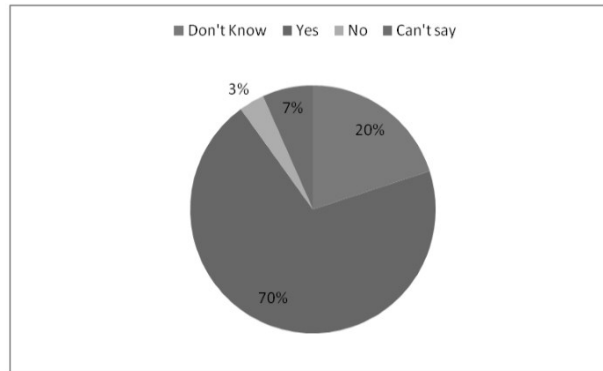


Figure-5: Incidence of open defecation in the locality

Safe and Clean Water Source: Figure-6 shows the use of safe and clean water source. It is clear from the figure that 50% members were not using clean water source (which was also harming their health and causing various water borne diseases), 43% members gave a neutral response (which also shows that they might or might not be using safe water source), while the rest 7% families were using the safe and clean water source like submersible water, hand pump water, water filters or use of alum.

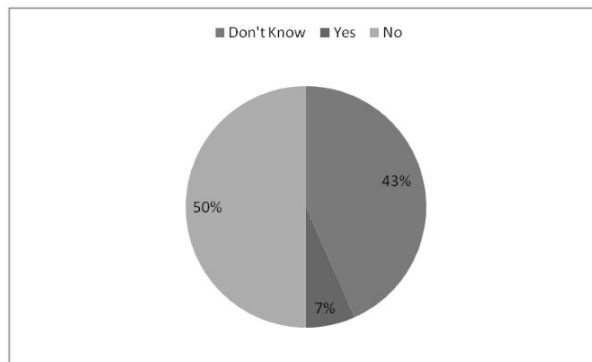


Figure-6: Use of safe and clean water source by members of the locality

Personal hygiene activities: An analysis of the responses given by the respondents revealed the following personal hygiene activities adopted by the members of the community:

- wash hands properly before eating and after going to washroom.
- Always brush the teeth properly.
- Always take bath properly.
- Cook food properly to avoid any diseases.
- Keep home neat and clean.

All household were found to have a water storage facility, such as: water

tank (only a few), most were found to have container/bottles, and only a few had small containers. Majority of the people who had water storage containers cleaned these twice a week. Very few cleaned these daily and four times a week. Few cleaned these thrice a week.

People and their toilet status: It was noticed that those who had toilets cleaned it once a week (by only a few) and twice a week by even fewer people. Majority cleaned their toilets four times a month and twice and thrice a month by only some respondents.

Their houses were cleaned daily by only a few people. Most respondents cleaned their houses thrice a week and twice a week by some people. In the present sample, 70% of the respondents had no idea about locality cleanliness and hygiene problems. The remaining 30% who responded considered the careless attitude of the people, lack of awareness about hygiene, excessive plastic trash, fewer facilities, often choked sewerage system and poor management as the main issues. On the whole, none of the households was satisfied with the locality condition with respect to cleanliness.

Table-1 shows a comparison of the urban households having toilets of the Daliganj Community area with Uttar Pradesh, Lucknow and India. It is clear that the present area lags far behind in this respect.

Table – 1: Urban community households having toilets

India*	94%
Uttar Pradesh*	93%
Lucknow*	89.84%
Daliganj Community Area(Present Data)	47%

*Source: Swachh Bharat Mission: Baseline Survey. MoDS, MoRD GOI. (2010).

Table-2 depicts the availability of drainage facilities in the households of Daliganj Community area in comparison to Lucknow, Uttar Pradesh and India as a whole. The present area is slightly better than Lucknow and India as a whole, in this respect.

Table-2:Urban community households having drainage facilities

India*	81.76%
Uttar Pradesh*	93.4%
Lucknow*	75%
Daliganj Community Area(Present data)	85%

*Source: www.mospi.gov.in Swachh Bharat Mission: Baseline Survey. MoDS, MoRD GOI. (2010).

Table-3 shows the percentage of households in the Daliganj area having toilets with sewer connections in comparison with that of Lucknow, Uttar Pradesh and the country. In this respect, the situation in the area is better than Lucknow and the country as a whole.

Table – 3:Urban community households having toilets with Sewer Connections

India	32.7%
Uttar Pradesh	28.3%
Lucknow	49%
Daliganj Community Area(Present data)	47%

* Source: Census (2011), Municipal solid waste report, India.

As can be seen in Table-4, 67% of urban households have community dustbins in the Daliganj area, which is clearly less than those of Uttar Pradesh (82%) and the country as a whole (75%).

Table – 4 :Urban community households having community dustbins

India*	75%
Uttar Pradesh*	82%
Lucknow*	65%
Daliganj Community Area(present data)	67%

Source: Municipal solid waste report India.

As can be seen in Table-5, the literacy rate (60%) in the present area is very poor as compared to Uttar Pradesh (67.68%), Lucknow (77.29%) and the country as a whole (74.04%).

Table – 5 :Urban community education status

India*	74.04%
Uttar Pradesh*	67.68%
Lucknow*	77.29%
Daliganj Community Area*(present data)	60%

*Source: Census of India, 2011.

Open defecation means no sanitation. It contaminates the environment and spread diseases. According to the report in 2010 by WHO-UNICEF, India is at the highest rate of open defecation system. For the livelihood of a family with better learning and retaining ability of the children, access to safe drinking water and good sanitation is necessary which results in the control of enteric diseases. Due to the improper sanitation facilities, girls avoid going to schools, colleges and universities. Sanitation marks a positive contribution in the literacy of the family. According to a study by UNICEF, a country's economy can grow upto 0.3% for every 10% increase in the female literacy. The social and economic development of the society is largely marked or contributed by sanitation. Improved sanitation facilities lead to the safer and greener environment. Clean drinking water and good sanitation would not prevent infections unless and untill we practise good hygiene habits. The habit of simply washing hands goes a long way towards preventing diseases. Sometimes, due to the lack of hygienic facilities, the stored water supply may also serve as the sources of infection.

CONCLUSIONS

In the Daliganj community, the number of people having toilet facility is average and status of cleanliness of toilets is also average. Garbage management facility is also not good. Dustbins of locality of Daliganj Community area are cleaned after a long gap. Sources of water are varied but due to unawareness and lack of education, the people in the present community, do not use clean measures. Community is prone to many diseases as sewage facility always gets choked due to waste material mismanagement. Over all status of cleanliness and sanitation here can at best be stated as average, which can largely be attributed to the irresponsible behavior of the people and some amount of apathy of local authorities.

LIMITATIONS

The study area is confined to a limited area of Lucknow because to study the situation of clean water and sanitation in whole Lucknow City is not an easy task and the situation may vary from place to place. However, Daliganj community area was found to be a core zone to fulfil the objectives of the study. Majority of respondents were female because after 8 am most of the male and working women leave for work. So only the housewives and old persons were available.

RECOMMENDATIONS

Behaviour is a major hurdle to make a country, state and city clean and water and sanitation friendly. It can be achieved by making a successful government-public bond, increasing literacy, and also strengthening the rules and regulations, including punishment to offenders. Resettlement, restructuring and regular monitoring at ground level of local resources, such as community toilets, sewage treatment infrastructure, should be carried out. Government should also take appropriate steps to increase awareness among students, teachers and household about Sustainable Development Goals and teach how these are relevant and connected with common man's life and development of our country.

References

- Census of India, 2011. Provisional Population Totals. https://censusindia.gov.in/2011-prov-results/paper2/data_files/india2/1
- Centre for Science and Environment, 2000. *Fighting against pollution. Down to Earth*. IANS. (2012, April 17).
- Chandy *et al.*, 2013. *The Final Countdown: Prospects for Ending Extreme Poverty by 2030*. Washington, DC: The Brookings Institution.
- ICSU, ISSC, 2015. *Review of Sustainable Development Goals: The Science Perspective*. Paris: International Council for Science.
- Khanna, *et al.*, 2014. *Ganga clean up dissertation gets Rs. 2037 crore in Union budget*. Retrieved June 2015, from Livemint:

Miles, M. B., *et al.*, 1984. *Qualitative Data Analysis: A Sourcebook of New Methods*. Newbury Park, CA: Sage Publications.

SDGs index India via NITI Ayog.

Spears, D., Ghosh, A. and O. Cumming., 2013. Open Defecation and Childhood Stunting in India: An Ecological Analysis of New Data from 112 Districts. *PLoS One.* ; 8(9): e73784 . doi: <http://dx.doi.org/10.1371/journal.pone.0073784>.

Strategic Plan – 2011- 2022: *Ensuring Drinking Water Security in Rural India*. Ministry of Rural Development, Government of India.

Swachh Bharat Mission: *Baseline Survey*. *Ministry of Drinking and Sanitation*, Government of India. MoRD. (2010).

The Economist. (2013, June 1). *Not always with us*. Retrieved June 2015, from www.economist.com/news/briefing/21578643-world-has-astonishing-chance-to-take-billion-people-out-of-extreme-poverty-by-2030-not.

UNICEF, 1990. Strategy for Improved Nutrition of Children and Women in Developing Countries. A UNICEF Policy Review. New York: UNICEF.

www.livemint.com/Politics/FDZA5LXCjefWaelq6IA6bI/Union-budget-Jaitely-allocates-2037-crore-to-Ganga-conservation.html MoDWS. (2012).

www.mospi.gov.in/sites/default/files/publication_reports/Final_Report_Swachha_Status_India_16oct18.pdf



This document was created with the Win2PDF “print to PDF” printer available at <http://www.win2pdf.com>

This version of Win2PDF 10 is for evaluation and non-commercial use only.

This page will not be added after purchasing Win2PDF.

<http://www.win2pdf.com/purchase/>