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Impact Of Water And Sanitation Infrastructure On Urban Households – Issues And Challenges

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Abstract

Water and sanitation service infrastructure and personal hygiene behaviours are potentially important determinants of health. Poor sanitation is one among the reasons for high Infant mortality rate (IMR) in India. The inadequate water and sanitation infrastructure and service delivery and unsafe behavior are collective responsible for high diarrhea incidence especially in children. Sanitation is a composite and comprehensive expression covering personal hygiene, domestic cleanliness, favorable environmental condition, safe disposal of waste water and solid waste. Safe drinking water supply and sanitation facilities are a basic need to life and a crucial input in achieving the health of "Health for all". The Ninth five year plan emphasizes on safe drinking water and sanitation as a primary responsibilities of the state through financial and technological inputs under the centrally sponsored schemes. The present paper mainly focuses on the level of awareness of women on safe water supply, hygiene and sanitation aspects.

Key words: Water, sanitation, community, health, solid waste, households.

Introduction

Sanitation is defined as safe management of solid waste, including safe confinement, treatment, and disposal and associated hygiene related practices. The Millennium development goal (MDGs) enjoin upon the signatory nations to extend access to improved sanitation to at least half of the population by 2015, and 100 per cent by 2025. Poor village sanitation and lack of toilet facilities cause untold hardships and health hazards to rural women and children. Open defecation is one of the age old behavioral practices in the rural areas and to stop this is a very challenging task because of the deep rooted acceptance of the community in social/ cultural terms. It was especially inconvenient for they had to wait till early morning or night for venturing out in the open causing health problems. Women had to walk long distances bare footed to find a suitable place for defecation.

It is in this context that the government of India envisioned the 'National Urban sanitation policy' in 2008 in which vision is stated as 'All Indian cities and towns become totally sanitized, healthy and livable and ensure sustain good public health and environmental outcomes for all their citizens with a special focus on hygienic and affordable sanitation facilities for the urban poor and women.

Components of National Urban Sanitation- Policy awareness generation

A country wide Information, Education and Communication (IEC) strategy will be designed and implemented for raising awareness on the public health and environmental importance of sanitation and sanitary work need to be targeted. The National policy will help urban areas adopt demand based participatory approach to individual and community sanitation where individual sanitation facilities are not feasible. Community participation and awareness generation are at the core of the strategy adopted to ensure sustainability of sanitation. The National Urban Sanitation policy declared and also the Total Sanitation campaign (TSC) place greater thrust on information, education and communication for bringing about behavior change, community participation etc to create demand and motivate people to use, maintain and upgrade existing facilities, so that sanitation and hygiene becomes an integral part of life and there by sustainable. Local communities become partners in the development instead of recipients. Community groups are supported to take charge of their resources and the decision on how these are to be used.

Access to sufficient safe and affordable water is vital for human development. In addition to immediate domestic use, many poor households use water to earn an income. In rural areas, water is also used for livestock, for growing vegetables, preparation and cooking foods, and for making bricks etc. It was felt that fresh water in vulnerable resources is essential to sustain life, for development and environment. Women play a central part in the provision, management, and safeguarding of water and water has an economic value in all its competing uses and should be recognized as an economic good. Sanitation cover in South Asia is lagging behind. Of the 1.2 billion people who practice open defecation worldwide, 778 million people are in South Asia (Water Aid, 2008). This means enormous health burden for citizens, and massive economic loss for, countries and deprivation of dignity, especially for women.

The Government of Andhra Pradesh identified and Prioritized Faecal Sludge and Septage Management (FSSM) as a viable approach to address these urban sanitation challenges resulting from the inadequate waste management resulted from the increased number of toilets construction during SBM. The Solid waste management is obligatory on the part of municipal authorities to arrange for collection, segregation, transportation and suitable disposal of municipal wastes of the municipal bodies. Disposal of MSW may be through composting/ incineration, recycle and landfill.

The name of the water harvesting programme in Andhra Pradesh is 'NEERU MEERU' which means 'Water and You". The scheme also helps the rural poor to conserve water for drinking, irrigation, fisheries, afforestation and allied activities like horticulture, agro forestry and silviculture.

Objectives of the Study

- To study the socioeconomic status of the respondents.
- To analyze the safe drinking water and sanitation facilities.
- To measure the awareness of women on solid waste disposal.
- To analyze the role of water supply and sanitation scheme.

Study Area and sampling procedure

The study was conducted in Tirupati, Tirupati district of Andhra Pradesh, the total sample size comprises of 100 women. Purposive sampling procedure was followed in the selection of respondents.

Tools used

An Interview schedule was prepared to collect the data from the respondents. The interview schedule was worded in the simplest possible way to avoid confusion and misunderstanding among the respondents.

Data collection and analysis

The study includes both the primary and secondary data collection methods. After the data collection the data coded, pooled and analyzed. Frequencies and percentages were calculated and presented in the form of Tables.

Results and Discussion

Age

Table-1 Percentage distribution of the respondents according to their Age

S, no	**Age of the respondents**	Number	Percentage (%)
1.	20-35	28	28
2.	35-45	53	53
3	Above 45	19	19
Total		100	100

The data in table-1 shows the age-wise distribution of the respondents. Majority (53%) of the respondents are in the age group of 35-45 years more than one-fourth (28%) of the respondents are in the age group of 35-45 years, and 19 % are in the age group of above 45 years.

Caste

Table-2 Percentage distribution of the respondents according to their Caste

S. no	Caste of the respondents	Number	Percentage (%)
1	General	23	23
2	OBC	67	67
3	SC/ST	10	10
Total		100	100

It is clear from the table-2 majority (67%) of the respondents belong to OBC category 23% belongs to general category and one-tenth of the respondents belong to SC/ST category.

Educational status

Table-3 Percentage distribution of the respondents according to their Educational status

S. no	Educational status	Number	Percentage (%)
1	Graduation/ PG	52	52
2	Intermediate	32	32
3	High school	16	16
Total		100	100

Among the respondents more than half (52%) of the respondents have completed their graduation and 32% of the respondents have educational level up to Intermediate followed by 16% have completed the high school.

Annual income

Table-4 Percentage distribution of the respondents according to their Annual income

S. no	Annual income	Number	Percentage
1	Below 50,000	9	9
2	50,000 – 1,50,000	17	17
3	Above 1,50,000	64	64
Total		100	100

Table-4 depicts the annual income levels of the respondents. Most of the respondents (64%) have an annual income of above Rs. 1, 50,000 per annum, 17 % of the respondents income ranges between 50,000- 1, 50, 000 per annum, and least number of (9 %) of the respondents have an annual income of Rs.48,000.

Water sources

Improved water supply and sanitation, and better management of water resources, can boost countries economic growth and can contribute in prevention of diseases.

Table-5 Percentage distribution of the respondents according to the sources of water available

S. no	Sources of water available	Number of Respondents	Percentage (%)
1	Public taps	11	11
2	Hand Bore wells / wells	6	6
3	Household tap connection	83	83
Total			

Majority (83%) of the respondents are having household tap connection of water and some (11%) of the respondents gets water from the public taps and only a least person get water from hand bore wells. The respondents expressed that due to proper water supply and safe sanitation practices they were living safely and were out of water scarcity.

Water supply and Sanitation

Table- 6 Percentage distribution of the respondents according views about water supply and sanitation

S. no	Views about water supply and sanitation	Number of respondents	Percentage (%)
1	Satisfied	89	89
2	Somewhat satisfied	12	12
3	Not Satisfied	7	7
Total		100	100

Table-6 incorporates the views of the respondents on views about water supply and sanitation scheme. The study findings revealed that majority (89%) of the respondents were satisfied with water supply and sanitation facilities whereas 12 per cent were somewhat satisfied and a negligible (7%) are not satisfied with water and sanitation.

Safe disposal of Solid wastes

Solid waste is a problem that must be properly managed. Solid waste should be managed through a number of activities – waste preservation, recycling, composting, controlled burning, or land filling. Using a combination of these activities together in a way that best protects the community and the local environment is referred to as Integrated Solid Waste management (ISWM). An ISWM reduce green house gas emissions and slow the effects of climate change.

Table- 7 Percentage distribution of the respondents according to their views on Safe disposal of Solid wastes and waste water disposal

Type	Satisfied (%)	Somewhat satisfied (%)	Not satisfied (%)
1.Public dustbins	88	9	3
2.Demolition of debris , sanitation residue & waste from streets	91	9	-
3.Waste pickers or Scavengers collects wastes from households & streets daily	97	3	-
4. Treatment and disposal of waste water	68	11	21

It was observed from Table-7 a large proportion (88%) of the respondents were satisfied and a small (9%) were somewhat satisfied and a negligible percent were not satisfied with the public
Dust bins. When asked about the views on demolition of debris sanitation residue and waste from streets, majority (91%) of the respondents was satisfied and 9 per cent of the respondents were somewhat satisfied. The findings revealed that majority (97%) of the respondents were satisfied about the collection of wastes from households and streets by the waste pickers daily.
Regarding the treatment and disposal of waste water a large per cent (63%) of the respondents were satisfied 11 per cent of the respondents were somewhat satisfied and 21 per cent were not satisfied with the disposal of waste water from streets.

Conclusion

Appropriate sanitation and safe drinking water are basic facilities for health care. Provision of safe drinking water and sanitation is the primary responsibilities of the State through financial and technological inputs under the centrally sponsored scheme. Providing safe drinking water in rural and urban areas is a challenging task. There is a necessity to provide people today with knowledge with regard to water usage and conservation, effective sanitation practices focusing on children today by this we will be securing upcoming generation from the threats of water and sanitation related diseases and also conservation of safe drinking water.

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