

Health and sanitation problem in rural India

RIPA MAZUMDER AND DEB PRASAD SIKDAR*

Department of Education, University of Kalyani
Kalyani (W.B.) India

ABSTRACT

Accelerating progress on sanitation in India remains one of the global development agendas most urgent yet most difficult challenges. The problem of sanitation is receiving considerable attention worldwide. Sanitation is an important development indicator; United Nation has given it a strong priority in Millenium Development Goals (MDG). Poor sanitation, hygiene, quality and quantity of water are one of the main reasons behind more than 80% of reported cases of infectious diseases in rural India. Numerous National and International efforts have been made over the past few decades to enhance sanitation in India. Nonetheless, the net result is reported to be not proportionate to the efforts and money spent. Upon analysis of national level political, economic and social dynamics, this study reveals that low political priority, lack of properly designed , lack of awareness programs are prime barriers towards achieving total sanitation. Therefore, inadequate sanitation and public health has been found to be a major problem in rural India. This Study therefore sets out to investigate the current situation of sanitation in rural India, and its impact on health and other societal factors.

Key Words : Health, Sanitation, Rural area, Development Goals

INTRODUCTION

“Water Contributes much to Health” ...

(<http://en.wikipedia.org/wiki/Hippocrates>)

The World Health report 1998 (WHO, 1998) begins the twenty first century offers a bright vision of better health for all. It holds the prospect not merely of longer life, but superior quality of life, with less disability and disease.

Long over before 1947 , the statement of Mahatma Gandhi – “Sanitation is more essential than Independence “ that is backed by the Prime Minister of India in 2014 by reiterating “Toilet First –Temple next “ indicates the pressing need towards improvement of sanitation standard in India. The term “Sanitation” be as it may is a much more extensive but neglected subject. Poor and insufficient sanitation has been a central reason for spread of a few preventable and transmittable diseases in developing nations of the world. An important segment of the infectious diseases referred to be water related. In 1997 33% of all deaths were due to infectious and parasitic diseases. About 1.7 million deaths a year worldwide are attributed to unsafe water, sanitation and hygiene mainly through infectious diarrhea. Nine out of ten such deaths are in Children and virtually all of the deaths are in developing countries (WHO, 2002).

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Clean water is life. Contaminated water is death. Human health depends on the provision of safe, adequate, accessible and reliable drinking water supplies (Mc Junkin, 1983). In India, access to potable water is one of the societal issues. People who do not have access to safe drinking water suffer from health problems such as diarrhea, Cholera, typhoid and amoebic dysentery. This problem affects economic, social and human development in various ways ([http:// www.cdc.gov/safewater/publications-pages/proven.pdf](http://www.cdc.gov/safewater/publications-pages/proven.pdf)). Health hazards due to lack of access to potable water reduce the total time that spends one working days and thus lower productivity and income. Also, children who suffer from these diseases have to be absent from Schools repeatedly and consequently this affects their educational level ([http:// www.cdc.gov/safewater/publications-pages/proven.pdf](http://www.cdc.gov/safewater/publications-pages/proven.pdf)).

This is the case in West Bengal states too. In rural area, people suffer from health problems by drinking water from dug-wells which are contaminated with bacteria and other Viruses. People in rural area fail to receive appropriate services (<http://www.westbengal.gov.in>).

Lack of infrastructure prevents some people from obtaining water easily, making them walk up to 500 meter to fetch water in daily basis. Also even through there are dug wells, the quality of water is not appropriate for drinking, thus causes health problems and subsequent barriers to economic development (<http://www.waterhealth.com>). For a country like India with huge population and limited access to basic amenities, it is a challenge to manage the human excreta itself. It is therefore, Country is focused on construction of toilets (WHO, 2002).

In rural area 30.7% households have latrines within premises, 1.9% households use public latrines and rest that is 67.3% practice open defecation. This data for India level is 46.9%, 3.2% and 49.8%, respectively and that for the urban area are 81.4%, 6% and 12.6% (Census, 2011). Comparison among these suggests that problem is more in the rural areas. The most dangerous practice of open defecation is the highest in rural areas and is almost five times higher than urban areas. In this light let us see the dynamics of sanitation in the rural areas.

Sanitation and its impact on health :

Lack of sanitation leads to disease, as was first noted scientifically in 1842 in Chadwicks seminal "Report on an enquiry into the sanitary condition of the laboring population of Great Britain" (Chadwick, 1842).

The Disease associated with poor sanitation are particularly correlated with poverty and infancy and alone account for about 10% of the global burden of disease. At any given time close to half of the urban population of Africa, Asia and Latin America have a disease associated with poor sanitation, hygiene and water (WHO, 1999).

Eighty eight per cent identified infections are created by water in India. Sanitation and natural contamination which prompts mortality and incapacity (Chandrasekhar *et al.*, 2013). Adults and children get diarrhea and different diseases from ingesting the disease causing germs in human excreta, these results in dehydration, malnutrition, fever and even death, particularly of children and those with bargained insusceptible immune systems in the same way as more established persons and HIV/AIDS patients (Attili *et al.*, 2006). Different diseases associated with fecal transmission are polio, hepatitis A and E, intestinal worms, skin diseases like scabies and eye contaminations like trachoma that can result in visual impairment. Polio can occur due to oro-fecal and polar physical distortions and inabilities and Hepatitis can induce liver disappointment (Pruss *et al.*, 2002).

Every 20 seconds a child dies of preventable waterborne diseases (UNICEF/WHO, 2009). In India, 72 of the 1000 children failed to achieve their fifth birthday. The real executioners are gastrointestinal diseases, pneumonia, preterm birth complications and diarrhea and malaria

(Chandrasekhar *et al.*, 2013). Diarrhea is the second highest reason for death among children under five internationally. 20% of the world population is contaminated by Hepatitis E. In a study led by All India Institute of Medical Sciences (AIIMS), it was discovered that water borne Hepatitis E was the essential reason for intense liver disappointment in all most 60% of pregnant ladies. Hepatitis E, a preventable disease is transmitted basically through drinking water and can prompt demise by activating an intense liver distress. The immunization for Hepatitis E is still in the pipeline, yet Hepatitis E could be forestalled by taking preventive measures as far as enhanced sanitation and safe drinking water (Dalton *et al.*, 2013).

Improved sanitation itself could lessen diarrhea related morbidity by more than 75% and improved water sources, the diarrhea morbidity by 21% (UNICEF, 2006). A methodological survey of the impact of hand washing with soap lessening of 43% in diarrheal sickness (Curtias *et al.*, 2003). Sanitation and water can lessen overall child mortality by 55%. In 1991 study by Esrey identified six diseases like ascariasis, diarrhea, dracunculiasis, hookworm infection, schistosomiasis and trachoma where the positive impacts of water supply, sanitation and hygiene have been demonstrated (Esrey *et al.*, 1991).

Rural health status in India :

“Health is not everything but everything else is nothing without health.” In the beginning, there was desire which was the first seed of mind”, says Rig-Veda, which probably is the earliest piece of literature known to mankind. India being the first state to give its citizens national health care as a uniform right. Presently Indian rural health care faces an unmatched to any other social sector. Nearly 86% of all the medical visit in India are made by ruralities with majority still travelling more than 100 km to avail health care facility of which 70-80% is born out of pocket landing them in poverty (Kumar, 2012).

A majority of 700 million people lives in rural areas where the condition of medical facilities is deplorable. Considering the picture of grim facts there is a need of new practices and procedures to ensure that quality and timely healthcare reaches the deprived corners of the Indian villages. In rural India number of primary health care centre is limited norms by the WHO, 8% of the centres do not have doctors or medical staff, 39% do not have lab technicians and 18% Public Health Centre's (PHCs) do not even have a pharmacist (<http://www.gramvaani.org>).

India also accounts for the largest number of maternity deaths. A majority of these are in rural areas where maternal health care is poor. Even in private sector, health care is often confined to family planning and antenatal care (ANC) and do not extend to more critical services like labor and delivery, where proper medical care can save life in the case of complications (www.linkedin.com/company/gramvaani-community-media).

Government of India allocated 0.9% of gross domestic product for Health care. Spending average 14% of the house hold income on health care by the poor house hold varying from 13% in Tamil Nadu to about 37% in Jalore (Rajasthan) suggests peoples reluctance towards health care putting it in a side corner than other priorities (Iyengar *et al.*, 2012).

Due to non accessibility to public healthcare and low quality of healthcare services, a majority of people of India turn to the local private health sector as their first choice of care (<http://gramvaani.org>). In one of the study, it was indicated that 143 public facilities found absenteeism of 45% doctors from PHCs with 56% of time found to be closed with an unpredictable pattern of closure and absenteeism during regular hour visit (Bhandari *et al.*, 2007).

A survey report from Madhya Pradesh in 2007 states that out of 24,807 qualified doctors and

94,026 qualified paramedical staff mapped in the survey in the state, 18,757 (75.6%) and 67,793 (72.1%) were working in the private sector, respectively highlighting the government failure to provide basic infrastructure to doctors and other health care workers in rural areas (Jat *et al.*, 2011).

This could be tackled by focusing on skill up gradation, capacity development and capability reinvigoration and limiting the scope for practice of illicit and unqualified practitioners. Thus primary health care in India needs to be re-evaluated immediately.

The great Indian sanitation crisis :

New data released by the National Sample Survey Office (NSSO) have once again underlined the abysmal state of sanitation in the country, particularly in rural India where two- third of the country lives.

Only 32% of rural households have their own toilets, according to the recently released results of a large scale survey conducted by NSSO in 2012. An additional 9% have access to toilets although the access figure could be an overestimate.

The results of the last census, 2011 had also highlighted India's gaping sanitation deficit. Census results showed that less than half of Indian households had a toilet at home there were more households with a mobile phones than toilets.

The inadequate progress in sanitation makes India an outlier even among developing countries of the estimated billion of people who defecate in the open, more than half of reside in India. Poor sanitation impairs the health of Indians, leading to high rates of malnutrition, weight and height loss and poverty.

Poverty and sanitation:

The lack of access to safe drinking water and sanitation directly related to poverty. Poor access to safe water and sanitation has a close correlation with poor health. In spite of good correlation between access to safe water and infant mortality rates one has to consider also that poor housing condition and lack of access to health services are all conditions associated to poverty that will increase child mortality rates (UNDP, 2006).

Poor sanitation linked to malnutrition:

On average, Indian children are exceptionally short, because height is an important indicator of human capital, the puzzle of widespread stunting in India has attracted the recent attention of many economists (Iyenger and Dholakia, 2012). Although stunting is commonly referred to an indicator of "Malnutrition", evidence is accumulating for an important role of the disease environment in shaping nutritional outcomes (Smith *et al.*, 2013).

Not only does stunting contribute to the deaths of a million children under the age of 5 each year, but those who survive, suffer cognitive deficits and are poorer and sicker than children not affected by stunting. They also may face increased risk, for adult illness like diabetes; heart attacks and strokes, lower learning capacity, lower productivity (WHO/UNICEF, 2012).

Due to their lower social status girls are far more at risk of malnutrition than boys. Partly as a result of this cultural bias, up to one third of all adult women in India are underweight. Inadequate care of these women already underdeveloped, especially during pregnancy, leads them in turn to deliver underweight babies who are vulnerable to further malnutrition and disease. (http://www.unicef.org/india/children_4259.htm).

Cultural belief related to sanitation :

Open defecation in rural areas where it is widely practical is not just socially acceptable, but is seen as a wholesome activity associated with health, strength and masculinity. Some people see latrines and toilets as “ritually impure”, no matter how clean they are kept (<http://www.organicbiotech.com>).

In 1962 Sociologist R.S. Khare explains that the worlds “dirty and clean” have ritualistic connotations. Apart from physical ones, there are things which are both ritually polluting and physically unclean, some ritually polluting but physically unclean, and some ritually not polluting but physically unclean. Hindus who own pit latrines see them as shameful objects (Shroff, 2017).

Distaste for latrines has to do with maintaining ‘purity’ of the home. When people justify open defecation, they are saying that it’s good to go far from home to defecate, people who do build it far from home, often. Children, handicapped and elder person defecate within the premises of the home or compound and the feces being disposed off by the women of the house (<http://www.organicbiotech.com>).

The research study analyses several barriers to sanitation and hygiene in rural areas of India. Among those are financial limitations, physical limitations and gender inequalities. Low sanitation coverage could be an outcome of material conditions of the lack of water and space for toilets, as well as a result of subsistence livelihoods. The sanitation situation often varies from one village to another, with growing density of population; the practices of open defecation are shrinking, which promotes people to build toilets. However, where open spaces are plenty, there is often less pressure to build toilets (www.wsscc.org).

Gender barriers to sanitation uptakes are not as simple as they appear. Many women, girls and elderly do feel a desperate need for toilet, but they think that it is unreasonable to make the demand considering the financial crisis of the family and the struggle of their parents or head of the family. Although men make most financial decisions including construction of a toilet, women said that they understood and agreed with the men whenever financial stress was a limiting factor (www.wsscc.org).

Strategies to achieve success in sanitation :

- 1) Subsidy for low cost household toilets should be given to rural Below Poverty Line (BPL) families, and it should be at par with subsidy for the urban household.
- 2) The recommendations made with regard to urban low cost sanitation should also have applied to the rural segment. Creation and maintenance of a record of locally relevant information regarding various technological options, hydro-geological information, availability of building materials, choices in design and implementation etc. at the block level should be organized through the panchayats, sanitary marts and building centre’s.
- 3) For success of the schemes and to overcome the huge problem of insanitary practices in the country, a programme of education-propagation, training designing and development, production and installation need to be undertaken. NGOs should be mobilized to support the programme , especially for supervision , monitoring ,training and development work.

Sanitation should become a massive people’s programme. This is possible through motivation and awareness education programmes with the concerted efforts of panchayats, voluntary clubs, Mahila Mondals and the government machinery.

The awareness campaign must revolve around the concept of total environmental sanitation. Active involvement of PRIs must be ensured in the task of promoting hygiene and environmental

consciousness in relation to community health and welfare.

Conclusion :

Sanitation is a vital parts of humans everyday life. We need to perform our bodily ablutions as a matter of routine, physiological processes to eliminate the waste from our body. Urine and feces are the end products of our metabolism. So, it is very important to properly dispose off this bodily waste, for both aesthetic and health reasons. Properly disposed off feces and urine ensure a clean, odorless environment, as well as prevent diseases due to microbes like fecal coliform bacteria. Improper disposed of waste, on the other hand will cause a noxious odor and be a breeding ground for diseases. Therefore, it is important to have proper sanitation facilities for everyone.

REFERENCES

- Attili, V.S., Gulati, A.K., Singh, V.P., Varma, D.V., Rani, M. and Sundar, S. (2006). Diarrhea, CDC4 counts and enteric infections in a hospital – based cohort of HIV infected patient around Varanasi, India, **6**(1) : 39.
- Bhandari, L. and Dutta , S. (2007). India Infrastructure Report, Health Structure in Rural India.
- CDC, preventing Diarrheal diseases in Developing countries: Proven Household Water treatment options. Centres for disease control and prevention. {Online web} URL [http:// www.cdc.gov/safewater/publications-pages/proven .pdf](http://www.cdc.gov/safewater/publications-pages/proven.pdf).
- CENSUS OF INDIA (2011). {ONLINE WEB} ACCESSED ON 1st February 2014 URL <http://www.census India.gov.in/census-data-2011/India-at a glance/admn-asp>.
- Chadwick, E. (1842). Report on an enquiry in to the sanitary condition of the laboring population of Great Britain, London: Her Majestys Stationary office, 279.
- Chandrasekaar, V. and Karuppiah, A. (2013). Environment, sanitation and Health: some Issues. Sulabh International Social Service Organization, New Delhi, India. *Sociology of Sanitation*, 1.
- Curtis, V. and Cairncras, S. (2003). Effects of Washing Hands with Soap on Diarrhea Risk in the Community. A systematic review, *The Lancet Infectious Diseases*, **3**(1).
- Dalton, H. R., Hunter, J. G. and Richard, P.B. (2013). Hepatitis E. Wolters Kluwer Health/Lippincott Williams and Wilkins, {Online web} Accessed 5th September 2014 URL <http://www.svmi.web.ve/wh/intertips/INFECTOLOGIA-2013-HEPATITIS-E.pdf>
- Esrey, S.A., Potash, J.B. and Shiff, C. (1991). Effects of Improved Water supply and Sanitation on Ascariasis, Diarrhea, Dracunculiasis, Hookworm infection, Schistosomiasis and trachoma. *Bull. World Health Organization*, **5**(69) : 609-621.
- <http://en.wikipedia.org/wiki/Hippocrates>.
- http://www.unicef.org/india/children_4259.htm
- <http://www.water health.com>
- Iyenger, S. and Dholakia, R. H. (2012). Access of the rural poor to primary health care in India. *Rev. Market Integr*, **4** : 71-109.
- Jat, T.R., Ng, N. and San Sebastian, M. (2011). Factors affecting the use of maternal Health Services in Madhyapradesh State of India: A multi level analysis. *Internat. J. Equity Health*, **10** : 59.
- Khare, R.S. (1962). Ritual, Purity and pollution in Relation to domestic Sanitation. *Estern Anthropologist*, **15** : 12.

- Kumar, R. (2012). Academic Institutionalization of Community health services: way ahead in medical education reforms. *Journal of Family Medical Primary Care*, **1** : 9-10.
- Mc Junkin, F.E. (1983). Water and Human Health National Demonstration Water Project. Us Agency for International Development.
- Pruss, A., Kay, D., Fewterell, L. and Bartram, J. (2002). Estimating the Burden of Disease from Water, Sanitation and Hygiene at a Global Level. *Environmental Health Perspect*, **110**(5) : 537-542.
- Rural Health Care: Towards a Healthy India-gramvaani-community-powerd-technology, {Online web} URL <http://www.linkedin.com/company/gramvaani-community-media>.
- Rural Health Care: Towards a Healthy India-gramvaani-community-powerd-technology, {Online web} URL <http://gramvaani.org>.
- Sanitation and Cultural Beliefs: The Indian Dilemma, {Online web} Accessed April 6 2017 URL <http://organicbiotech.com/sanitation-Cultural-belief-Indian-dilemma>.
- Shroff, K. (2017). Sanitation and Cultural Beliefs: The Indian Dilemma. Organicbiotech.
- Smith, M.I., Yatsunenko, T., Manary, M.J., Trehan, I., Mkakosya, R., Cheng, J., Kau, A. L., Rich, S.S., Concannon, P., Mychalecky, J.C., Liua, J., Houpt, E., Li, J. V., Holmes, E., Nicholson, J., Knight, D., Ursell, L.K., Knight, R. and Gordon, J.I. (2013). Gut microbiomes of Malawian twin pairs discordant for Kwashiorkor. *Sci.*, **339** : 548-554.
- The official portal of the West Bengal State Department, {Online web} URL <http://WestBengal.gov.in/portal/BanglarMukh/Government/Departments/DepartmentaListportal-window?action=e & window state=normal mode=view>.
- UNDP (2006). Human Development Report 2006: Bengal Scarcity- Power, poverty and the global water crisis. New York, United Nations Development Programme, 440.
- UNICEF/WHO (2009). Diarrhea: Why Children are still dying and what can be done, New York.
- UNICEF (2006). Progress for Children: A Report Card on Water and Sanitation, New York.
- WHO (1998). World Health Report 1998. Executive Summary. World Health Organization Home Page.
- WHO (1999). Creating Healthy Cities in the 21st Century. The Earth Scan reader on Sustainable Cities. Earth scan Publications, 137-172.
- WHO (2002). The World Health Organization Report, Geneva.
- WHO/UNICEF (Defecation Data) - 2012. Hamah Fair fids/One New York Times.
- WSSCC (2016). "Water supply and sanitation collaborative council", {Online web} Accessed 5th July 2016 URL <http://www.wsscc.org/2016/study-rural-sanitation-India-aims-answers-questions-behaviour-change/>
