

SANITATION IN RURAL INDIA

MUDIT KUMAR SINGH

Visiting Faculty, Motilal Nehru National Institute of Technology, Allahabad, Uttar Pradesh, India

ABSTRACT

Sanitation is one of the important Millennium Development Goals which covers the important aspects of management of human excreta, domestic and industrial wastewater and hazardous substances. It also includes reuse of recycled products which is part of this management. However, developing countries like India where highly increasing population leaves policy makers in worry to provide basic amenities; toilets are mainly focussed to manage human faces and urine. In order to achieve the MDG, Government of India has been running many policies like Nirmal Bharat Abhiyan (NBA) and Total Sanitation Campaign. Convergence has also been done with schemes like Mahatma Gandhi National Rural Employment Guarantee Act (MNREGA). However, it doesn't seem to be really an effort achieving the target in the time anyhow. So, Government has set a new deadline of 2022.

This article will address the gaps and issues and will provide possible strategic solution in achieving the target.

KEYWORDS: Millenium Development Goals, Sanitation, Nirmal Bharat Abhiyan, Mahatma Gandhi National Rural Employment Guarantee Act, Convergence, Rural

INTRODUCTION

In 2004, 4 out of 10 people around the world have no access to improved sanitation (WHO). The highest proportion of deaths as well as the highest absolute numbers occurs in countries with high mortality patterns, such as in Africa and parts of South-East Asia. Most diarrheal deaths in the world (88%) are caused by unsafe water, sanitation or hygiene. In 2008, 2.6 billion people – 40 percent of the world's population -- had no access to improved sanitation facilities. India is one of these countries.

Every year, 1.5 million children die due to diarrhea caused by the combined effects of inadequate sanitation, unsafe water supply, and poor personal hygiene

Millennium Development Goal seven states about ensuring environmental sustainability. Target ten aims to halve, by 2015, the proportion of people without sustainable access to safe drinking water and basic sanitation. Among the forty eight points of MDG, point thirty and thirty one are as below:

30. Proportion of population with sustainable access to an improved water source, urban and rural

31. Proportion of population with access to improved sanitation, urban and rural

There are two major indicators to measure the progress of India- one is drinking water supply and the other is sanitation. In this reference, the progress of our country is on track or more at faster rate than expected in terms of a main indicator -drinking water supply. However, it is very slow in terms the other major indicator –sanitation. The focus of this article will be on the indicator which is on problematic side i.e. sanitation.

49.2% households are not having sanitation facility (NSS 2008-09). It means almost half of the households don't have access to toilets.

India may achieve to reduce the proportion of households without any sanitation to about 43% by 2015 missing the target by about 5 percentage points.

SANITATION

Sanitation generally refers to the provision of facilities and services for the safe disposal of human urine and faeces. The word 'sanitation' also refers to the maintenance of hygienic conditions, through services such as garbage collection and wastewater disposal (WHO).

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.

In rural area, 30.7% households have latrine with in premises, 1.9% households use public latrine and rest i.e. 67.3% practise open defecation. This data for India level is 46.9%, 3.2% and 49.8% respectively and that for the urban area is 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 dynamics of sanitation in the rural areas.

Sanitation in Rural Areas

People in rural areas use toilets inside house, defecate in open fields or use community toilets. In all these three utmost care must be taken. In our tradition it is mentioned that a small ditch should be used for defecation and covered by the nearby soil after the use. That way it worked as manure after decomposition and houses were well away from the excreta. One could freely do so without fear of being seen by others because population was very less. But in today's context, increasing population has put immense pressure on land as a result of which land holding size has become very small. So, it is almost not feasible to use such ditch concept for everyone in today's world. So, people just defecate in open and move on. It is the behaviour which is remained unchanged since last thousands of years.

After so many efforts of many Civil Society Organisations (CSOs), Government agencies and Educational institutions, people began to adopt practise of using toilets. But mere using toilets, is not so simple that it can solve the problem of poor sanitation. There are various technical and behavioural aspects involved with it. We will closely examine these under the points below.

Types of Toilets under Usage

There are lots of designs available of toilets based on need of family and its bearing capacity. The most commonly used toilets in the rural areas is two-pit pour flush toilets. Besides community toilets, biogas linked toilets are also used. Specifications can be understood in the table.

Bio gas linked toilets are successful only where large amount of excreta and food waste is available. But the number of animals per family in villages is becoming very low so animal excreta is less than it was available on average basis per family to operate biogas smoothly.

RISKS DUE TO IMPROPER EXCRETA MANAGEMENT

Ground Water Contamination

Waste water of toilets and domestic water creates risk of ground water contamination if technical care is not taken. This may pollute water of hand pumps, wells and tube wells on which major proportion of population live up on. E.g. Water logged areas having high water table, must have elevated toilets. This contamination may occur due to poor soak pit system and poor drainage. Faecal Coliform, Nitrate, Phosphate, Chloride and Ammonia are some of the common contaminants of ground water due to poor sanitation.

Drinking Water Pollution

Besides above mentioned sources piped drinking waters are also at risk where proper drainage system is not available. Leakage in drainage water pollutes the piped drinking water when both pipes run congruently.

NEED OF SANITATION

Women and children are the most susceptible section of the society due to poor sanitation. In our tradition, women have to go in the open to defecate where they are vulnerable to various infections and diseases and in turn this pose threat to other women, men and children. Children are often caught by diarrhea and insects carry harmful diseases with them. So, unfortunately they become victim and carrier of the disease. Women going in open are forced to stand up when someone passes by. They always have to go either before sun rise or after sunset. However this will be unfair to say that only women and children carry the contaminants or diseases but men are likewise contributing to same by in-hygienic practises. For example, besides open defecation they eat and drink and play with their children without proper hand wash after activities like ploughing their fields.

People lose their money for medical treatments. Children's education also suffers.

Above all, sanitation affects all the Millennium Development Goals

GOVERNMENT INITIATIVES

Government of India has been running many schemes since last many years. Let us analyse these schemes.

Central Rural Sanitation Programme (CRSP)

Central Rural Sanitation Programme (CRSP) was launched in 1986 with the objective of improving the quality of life of the rural people and also to provide privacy and dignity to women by providing proper sanitation facilities in rural areas.

Nirmal Bharat Abhiyan and Total Sanitation Campaign

The concept of sanitation was further expanded to include personal hygiene, home sanitation, safe water, garbage and excreta disposal and waste water disposal with the name "Total Sanitation Campaign" (TSC) with effect from 1999.

Individual toilets, community sanitation complexes, institutional toilets and solid and liquid waste water systems are constructed under the scheme. The key feature of this scheme is role of CSOs, Community Based Organisations (CBOs) and Panchayati Raj Institutions (PRIs) is very important.

It has been recently allowed that certain component of the toilet construction can be taken from Mahatma Gandhi National Rural Employment Guarantee Act (MNREGA) with a maximum ceiling of 4500 Rupees per unit only. Whereas Rupees 3200 Rupees comes from central Government and 900 Rupees is beneficiary's share. States usually give amount of approximately half of the amount provided by central Government. This is sufficient only to build basic structure (substructure) of individual two pit pour flush toilet.

Nirmal Gram Puraskar

To add motivation to this scheme, GOI launched an award based Incentive Scheme for fully sanitized and open defecation free Gram Panchayats, Blocks, Districts and States called "Nirmal Gram Puraskar" (NGP) in October 2003. Till the date many villages have been awarded to bring in motivation among the people specially PRI functionaries at village level to make NBA a success.

WEAK LINKS

- PRI systems lack technical support i.e. engineers to design and construct feasible toilets in the rural areas. The financial assistance given under NBA is not in pace with the inflation to meet out the expenditure on material and manpower required.
- Households that have benefitted once would not be eligible for any further assistance. There is no involvement of private sector and issue of local leadership.
- Convergence of MNREGA and NBA is insufficient to build a complete walled toiled everywhere. The pattern of funding is different in the schemes. In MNREGA, it is proposed and in the latter it is obtained after work done. So, not only the ceiling on amount under MNREGA but also the funding pattern is a problem.
 - The behavioural practice of open defecation is yet another concern which cannot be solved by mere building toilets.
 - Tensions and fight with in villages have led to occupation of tradition water bodies or blockage of those. It adds up to unhygienic environment around people.
 - Dedicated human resource is not in place to promote and monitor hygiene or sanitary practices anywhere in the country in Government system.

SUGGESTIONS

- Removal of the ceiling from the MNREGA to build toilets will allow planners more flexibility in different terrains to construct toilets.
- Construction of toilets in Indira Awas Yojana with convergence of NBA.
- Appointing competent staffs at block level to facilitate convergence of other schemes with NBA and sensitizing Government functionaries for improved sanitation practices. This officer can be important in facilitating meetings of Village Water & Sanitation Committees.

A financial illustration in appointing the same can be seen in the table 1. And the desired qualification with key roles and responsibilities can be seen in the table 2.

This is a tentative calculation which may be adjusted on the basis of size of the blocks and population to be catered. This calculation shows that it will give a burden of INR 41.5 Crores for the whole country.

- Coordination between the various stakeholders must be facilitated by a Government agency for convergence, training and implementation.
- Bringing in the Behaviour Change Communication (BCC) at various administrative levels along with beneficiaries
- Preparation of effective IEC material with a proper blending of social and technical knowledge for it becomes easier to understand.
- Hand holding support of trainees after Training of Trainers (ToTs) is required.
- Exposure visits of key role players to various institutions- NGOs like Safai Vidyalaya, Sulabh International etc.

CONCLUSIONS

We can conclude that Socio-technological approach towards achieving the MDG goal is required. Using environment friendly appropriate technologies from place to place, promoting environment friendly industries, applying BCC among every stakeholder and effective monitoring and implementation can help us getting our target.

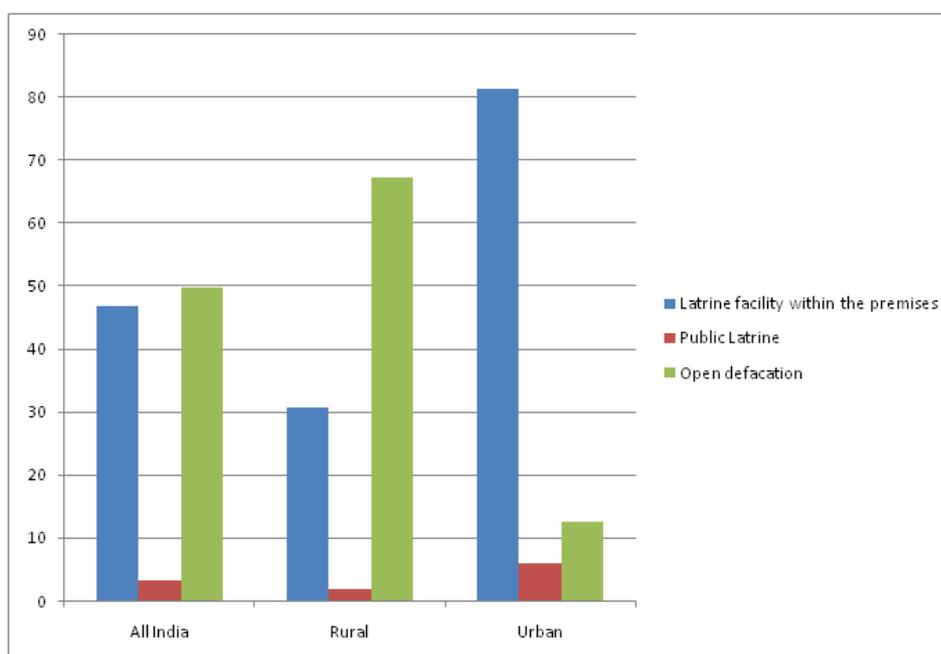


Figure 1: Households by Type of Latrine Facility (%) - Census 2011

Table 1: Human Resource Requirement with Financial Projection

Post Name	Qty. per Block	Number of Blocks	Salary per Post (INR)	Total Amount (INR)
Officer-Sanitation	1	6374	25000	15,93,50,000
Assistant officer-Sanitation	2	6374	20000	25,49,60,000

Table 2: Desired Qualification and Key Roles of Staffs

Position	Qualification and Experience	Roles and Responsibilities
Officer-Sanitation	B.Tech./M.Tech. in Environmental /Civil Engineering, Experience in toilet construction, waste water management desired	Leading the training and capacity building of staffs at blocks and village level functionaries, ensuring proper sanitation up to the village level.
Assistant Officer-Sanitation	Post Graduate in Social Sciences/Allied disciplines with experience in community mobilization and policy implementation desired	Mobilizing community through Behaviour Change Communication and improving capacity of village level functionaries, assisting Officer-Sanitation in above tasks.

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