# FIELD PROJECT

## A Survey on the influence of Environmental Sanitation Programs on the lives of People

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## Influence of Environmental Sanitation programs on the lives of people

**SUBMITTED TO,**

**Department of Environmental Sciences**

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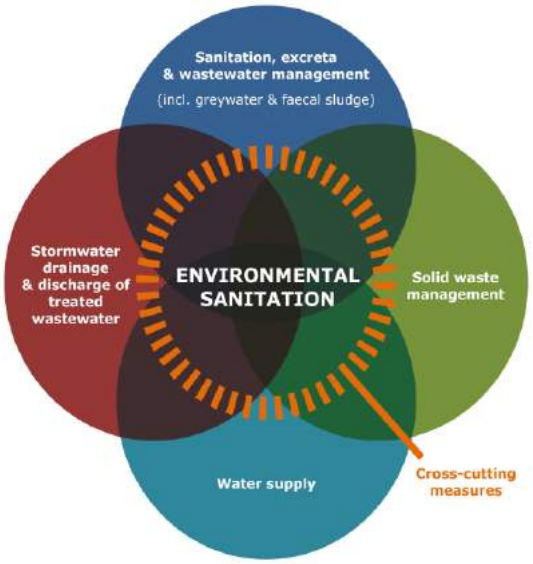
# INTRODUCTION




Sanitation in the sense of maintaining or living with a healthy environment for the well-being of one's own family, includes taking healthy food, using fine clothing, living in a clean house, using sanitary latrine, and living with medical care.

Environmental sanitation is a major public health issue in India. Environmental sanitation intervention studies conducted in India recently stressed the importance of prioritizing control strategies. Research related to the appropriate cost-effective intervention strategies and their implementation in the Indian context is a big challenge.

Community sanitation is the essential issue for environmental sustainability, as climate and environment are dependent on people. Undoubtedly, proper hand washing is necessary after defecation or before and after taking food, which results in the spread of thousands of diseases in the community. Besides these, most of the rural people do not know how to manage wastewater that creates an unhealthy and muddy wetland around the community. Similarly, 50% to 80% people do not know how to maintain the kitchen waste; they not only throw these wastes on the roadside without using a dustbin or recycle bin, but they also spit in the public places without applying their civic sense. In response to these challenges, several programs have been developed in India and abroad to achieve environmental and ecological sustainability. Out of these, start-up activities, Information Education and Communication activities, and hands-on activities are recently effective. Hence, the Government is allocating funds to maintain old latrines and providing 100% grant to setup new latrines, dustbins, or waste recycle bins in India.

***SANITATION IN INDIA***

**India's *Total Sanitation campaign***

**Swachh Bharath Mission**

India has made rapid progress in ending open defecation across the Country which is having a huge impact on improving water, sanitation and hygiene (WASH). Just a few years ago, in 2015, nearly half of India's population of around 568 million people suffered the indignity of defecating in fields, forests, bodies of water, or other public spaces due to lack of access to toilets. India alone accounted for 90 per cent of the people in South Asia and half of the 1.2 billion people in the world that defecated in the open.

By 2019, according to the latest estimates, the number of people without access to toilets has reduced significantly by an estimated 450 million people. A tremendous achievement, only possible because of the **Swachh Bharat Mission (SBM) (Clean India Campaign)**, led by the Prime Minister. UNICEF has been a proud partner of the **Swachh Bharat Mission.**

Whether in the cities or the countryside, open defecation has historically been most prevalent among the poorest citizens. This practice amounted to tons of faeces introduced daily into the environment, which regularly exposed India's children to excrement through direct contact. The risk of spreading diarrheal and waterborne diseases is compounded by the lack of regular

handwashing and microbial contamination of water in their homes and communities. The situation contributed to nearly 100,000 diarrheal deaths of children under five years in India. Poor sanitation can also have a ripple effect when it hinders national development because workers are suffering from illnesses and living shorter lives, thereby producing and earning less, and unable to afford education and stable futures for their children.

Inadequate water, sanitation and hygiene (WASH) services in India's health facilities, contributes to the high neonatal mortality rate, which is currently 24 deaths per 1000 live births. Sepsis – mostly spread in health facilities – contributes to 15 per cent of the overall neonatal mortality and 11 per cent of maternal deaths. And the risks do not end there when they are brought home to a community that lacks toilets.

In India's schools, recent reports also showed that 22 per cent did not have appropriate toilets for girls, 58 percent of preschools had no toilet at all and 56 per cent of preschools had no water on the premises.

Less than 50 per cent of the population has access to safely managed drinking water (located on premises, available when needed and free of contamination). Chemical contamination of water, mainly through fluoride and arsenic, is present in 1.96 million dwellings. Moreover, two-thirds of India's 718 districts are affected by extreme water depletion, and the current lack of planning for water safety and security is a major concern. Sectoral demands for water are growing rapidly in India owing mainly to urbanization and it is estimated that by 2025, more than 50% of the country's population will live in cities and towns. Population increase, rising incomes, and industrial growth are also responsible for this dramatic shift. National Urban Sanitation Policy 2008 was the recent development in order to rapidly promote sanitation in urban areas of the country. India's Ministry of Urban Development commissioned the survey as part of its National Urban Sanitation Policy in November 2008. In rural areas, local government institutions in charge of operating and maintaining the infrastructure are seen as weak and lack the financial resources to carry out their functions. In addition, no major city in India is known to have a continuous water supply and an estimated 72% of Indians still lack access to improved sanitation facilities.

## ➢ ***Global health and sanitation***

- In 2017, 45% of the global population (3.4 billion people) used a safely managed sanitation service.
- 31% of the global population (2.4 billion people) used private sanitation facilities connected to sewers from which wastewater was treated.

- 14% of the global population (1.0 billion people) used toilets or latrines where excreta were disposed of in situ.
- 74% of the world's population (5.5 billion people) used at least a basic sanitation service.
- 2.0 billion people still do not have basic sanitation facilities such as toilets or latrines.
- Of these, 673 million still defecate in the open, for example in street gutters, behind bushes or into open bodies of water.
- At least 10% of the world's population is thought to consume food irrigated by wastewater.
- Cropland in peri-urban areas irrigated by mostly untreated urban wastewater is estimated to be approximately 36 million hectares (equivalent to the size of Germany)
- Poor sanitation is linked to transmission of diseases such as cholera, diarrhea, dysentery, hepatitis A, typhoid and polio and exacerbates stunting.
- Poor sanitation reduces human well-being, social and economic development due to impacts such as anxiety, risk of sexual assault, and lost educational opportunities.
- Inadequate sanitation is estimated to cause 432 000 diarrheal deaths annually and is a major factor in several neglected tropical diseases, including intestinal worms, schistosomiasis, and trachoma. Poor sanitation also contributes to malnutrition.

## ➢ ***Sanitation programs and Impacts***

India's first nationwide program for rural sanitation, the **Central rural sanitation program** was launched in 1986. The basic objective of this program was to improve the quality of life of rural people by providing privacy and dignity to the women. The objective also emphasized on the construction of toilets in rural India. The program which was reconstructed again in April 1999 focused on a demand-driven approach in a phased manner with a view to cover the wider range of rural population by the end of the ninth 5-year plan.

The International Environmental Council is allocating funds to train the Anganwadi workers, teachers, and students who could be aware of the common people. Hence, Gram panchayats are receiving different central and state government funds for village sanitation and cleanliness.

On March 13, 2014, the Ministry of Rural Health Development, Government of India, implemented a new program - **Nirmal Bharat Abhiyan** to make people in rural and urban slums aware about sanitation and cleanliness. However, this was a holistic approach to address the community to use household toilets, community toilets, and toilets in the schools and Anganwadi.

Similarly, **Swachh Bharat Abhiyan** is working in the rural and urban slums for developing best practices among the people. Similarly, **Nirmal Bharat Rural Sanitation and Hygiene Strategy (2010–2012)** was implemented to clean the air, water, and soil for the economic and social well-being.

In 2008, the Government of India developed the **National Urban Sanitation Policy** and encouraged the people to keep urban areas clean and green.

Furthermore, to encourage the people, the center planned to provide **Nirmal Gram Puraskar** to facilitate school sanitation and hygiene education in the rural areas.

The hygiene education program was a comprehensive program to learn theory and to practice different skills related to handwashing, composting, cleaning, and waste recycling, which could promote behavioral change toward hygiene education. Then, a total **community sanitation program** was enforced by the United Nations (UNO) to assist different African and Asian countries to keep their locality clean and green by establishing sanitary latrines, using waste recycling bins, and handwashing techniques.

**Community-led total sanitation (CLTS) program** is advancing in Bangladesh, India, Indonesia, Pakistan, Ethiopia, and Kenya with the help of government and nongovernmental organizations. Sanitation remains one of the biggest development challenges of our time and a long-neglected issue associated with taboos and stigma. However, few potential and challenges of CLTS are under research in Bangladesh, India, and Indonesia, as well as experiences from Africa. Despite growing attention and efforts, many top-down approaches to sanitation have failed, reflecting that simply providing people with a toilet does not necessarily guarantee its use.

- A study was conducted to evaluate the effects of community sanitation programs on the awareness of environmental sustainability in Assam, India. About 20 university students, 6 university professors, and 14 local people participated in the community sanitation and hands-on activity program organized on the roadside of Silchar Medical College & Hospital and Irongmara Market nearer to the Assam University, Silchar. The participants' responses towards the questionnaire were analyzed.


At the end of the community sanitation and environmental sustainability program, a dichotomous-type (i.e., yes or no) feedback form was provided to the participants to rate the effort of environmental sustainability.

| S. No | Statements | Yes | No |
|---|---|---|---|
| 1 | Are you feeling better after attending the sanitation camp? | 40(100%) | 0 |
| 2 | Do you want to keep your home and community clean? | 40(100%) | 0 |
| 3 | Do sanitation activities facilitate environmental sustainability? | 40(100%) | 0 |
| 4 | Do you plan to clean your locality at least once a week? | 37(92.5%) | 3(7.5%) |
| 5 | Do you feel your locality needs free sanitation? | 35 (87.5) | 5(2.5%) |
| 6 | Is this community sanitation sufficient? | 26 (65%) | 4(35%) |
| 7 | Do you think sanitation needs both inside and outside the house? | 40(100%) | 0 |
| 8 | Do you think this sanitation work encouraged local people? | 38(95%) | 2(5%) |
| 9 | Do you use the dustbin and recycle bins available earlier? | 22(55%) | 18(45%) |
| 10 | After this program, do you think people will practice eco-friendly habits to protect nature? | 38(95%) | 2(5%) |
| 11 | Do you think this community sanitation program is helpful for environmental sustainability? | 39(97.5%) | 1(2.5%) |

As a whole, the results showed that 97% to 100% participants enjoyed the program and they have positive feedback towards the community sanitation and hands-on activity program on environmental sustainability. Their valuable feedback claimed that the sanitation program encourages hygienic practice and motivates people to use latrine against open defecation, effective handwashing, no spitting in public places, and cleaning courtyards and roadsides, which result in conserving the native ecosystem. Not only the common people of the community but also the university professors should adopt the community sanitation work. In addition, the students of school and colleges will learn how to keep the community clean, healthy and sustainable.

- **TOTAL SANITATION CAMPAIGN**

India's Total Sanitation Campaign (TSC) was launched in 1999 with the ambitious goal of eliminating open defecation in India by 2012. Scaled up to all districts in India, the program is one of the largest rural sanitation programs in the world. As one of the less developed and predominantly rural states in India, Madhya Pradesh suffers from particularly poor water and sanitation infrastructure. Only 13 percent of rural households have access to on-premise latrines and less than 10 percent have access to tap water. The World Bank provided capacity building support to ten districts in Madhya Pradesh to strengthen the implementation of the TSC.

## *Result*

The TSC, when implemented with support from the World Bank, increased the availability of IHLs in households and reduced open defecation practices. The program had the greatest impact on households below the poverty line and those that did not have an IHL before the program.

However, the increased availability of IHLs and reduced open defecation practices had no impact on child health outcomes. These results suggest that scaled up sanitation and hygiene programs in rural settings have difficulty delivering health benefits. The program increased the proportion of households in treatment villages with improved sanitation facilities meeting WHO standards to 41.4 percent—19 percentage points more than in comparison villages. Men and women in treatment villages were also 11-12 percent less likely than those in comparison villages to practice daily open defecation. However, more than 70 percent of men, women, and children in treatment villages continued to practice daily open defecation. Among the treatment households with improved sanitation facilities, 41 percent of households reported that adult men or women practiced daily open defecation. A follow-up survey identified the main reasons for daily open defecation in spite of having an IHL were culture, habit, or preference, followed by inadequate water availability. Despite the improvement in availability of improved sanitation facilities and the reduction in open defecation, the TSC had no significant effect on child health outcomes, measured in terms of caregiver-reported illnesses, intestinal infections, and cases of anemia. Anthropometric measures of growth also revealed no significant differences between children in the treatment and comparison villages.

## CONCLUSION

Community refers to the unit of living with various types of people starting from literate to illiterate, child to adult and old, but nowadays, most of them have no perfect knowledge or idea to maintain or manage environmental sustainability. Most of the literate and illiterate people are doing the same activities in their common day-to-day practices, keeping the community unhealthy. They use polythene bags, plastic straw, plastic tea cups, and plastic bottles and throw them here and there without thinking about its side effects. Every year, UNO and other related international green missions are working in the underdeveloped and developing countries to keep the locality clean and green. Therefore, the total community sanitation program under the **United Nations Environment Programme (UNEP)** scheme was sponsored to create awareness and educate the people toward total sanitation for healthy and wealthy living.

As a whole, we could conclude that controlling open defecation, using dustbins without throwing domestic wastes on the road, using sanitary latrines, setting up of individual latrines and community latrines, setting up of dustbins, and recycle bins in community places are the efforts made toward environmental sustainability.