

SANITATION IN INDIA

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Abstract

As per estimates, inadequate sanitation cost India almost \$ 54 billion or 6.4 percent of the country's GDP in 2006. Over 70 percent of this economic impact or about \$ 38.5 billion was health-related, with diarrhoea followed by acute lower respiratory infections accounting for 12 percent of the health-related impact. Improved sanitation facilities (% of population with access) in India were last measured at 35.10 in 2011, according to the World Bank. Access to improved sanitation facilities refers to the percent of the population with at least adequate access to excreta disposal facilities that can effectively prevent human, animal, and insect contact with excreta. Improved facilities range from simple but protected pit latrines to flush toilets with a sewerage connection. To be effective, facilities must be correctly constructed and properly maintained. A dialogue with governments, the private sector, local authorities, national human rights institutions needs to be promoted and sustained with a view to identify, promote and exchange views on best practices related to access to safe drinking water and sanitation.

Introduction

Sanitation generally refers to principles, practices, provisions, or services related to cleanliness and hygiene in personal and public life for the protection and promotion of human health and well being and breaking the cycle of disease or illness. It is related to the principles and practices of collection, treatment, removal or disposal of human excreta, household waste, water and other pollutants.

Water, Environment and Sanitation

UNICEF's long standing support for improving water supply, sanitation and hygiene stems from a firm conviction and based on sound evidence that these are central to ensuring the rights of children. In fact, it is essential for children to survive, grow and develop into healthy and fulfilled citizens of the world. In the broader context, UNICEF's activities in Water, Sanitation and Hygiene (WASH) contribute to the achievement of the Millennium Development Goals.

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UNICEF Action

UNICEF supports the national and state governments in developing and implementing a range of replicable intervention models for sanitation, hygiene and water supply. UNICEF’s Child’s Environment Programme in India supports the government’s flagship programmes of Total Sanitation Campaign to improve access to and use of sanitation facilities and the National Rural Drinking Water Programme to provide adequate safe water to every rural household in India.

The Childs’ Environment programme also works with Sarva Siksha Abhiyan and Integrated Child Development Services, to promote hygiene, water and sanitation services in schools, anganwadi centres and health centres with lasting outcomes.

Sanitation in India

Most Indians still do not have access to modern sanitation: for example, rural sanitation coverage was estimated to have reached only 21 percent by 2008 according to the UNICEF/WHO joint monitoring programme. There are a number of innovative efforts to improve sanitation including the community led Total

Sanitation Campaign and the monetary rewards under the Nirmal Gram Puraskar.

Inadequate Sanitation

Sanitation is broadly defined to include management of human excreta, solid waste and drainage. The ESI India study focused on the safe management of human excreta and associated hygiene behaviour. This is not to discount the importance of the other aspects, but to focus on the key dimensions that cause a substantial health burden on Indians, especially poor people and children. The United Nations-World Health Organization Joint Monitoring Programme for Water Supply and Sanitation defines ‘improved’ sanitation as: the means that hygienically separate human excreta from human contact and hence reduces health risks to humans. Inadequate sanitation is thus the lack of improved facilities (toilets, conveyance, and treatment systems), and hygienic practices (for example, hand washing, proper water handling, personal hygiene, and so on) that exposes people to human excreta and thus to disease-causing fecal-oral pathogens through different transmission pathways.

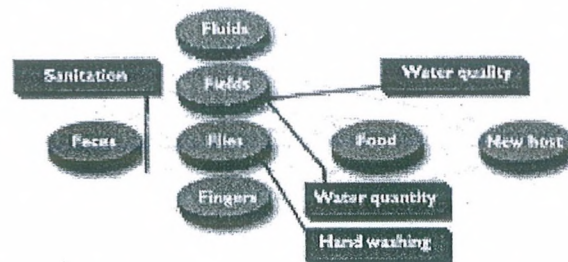
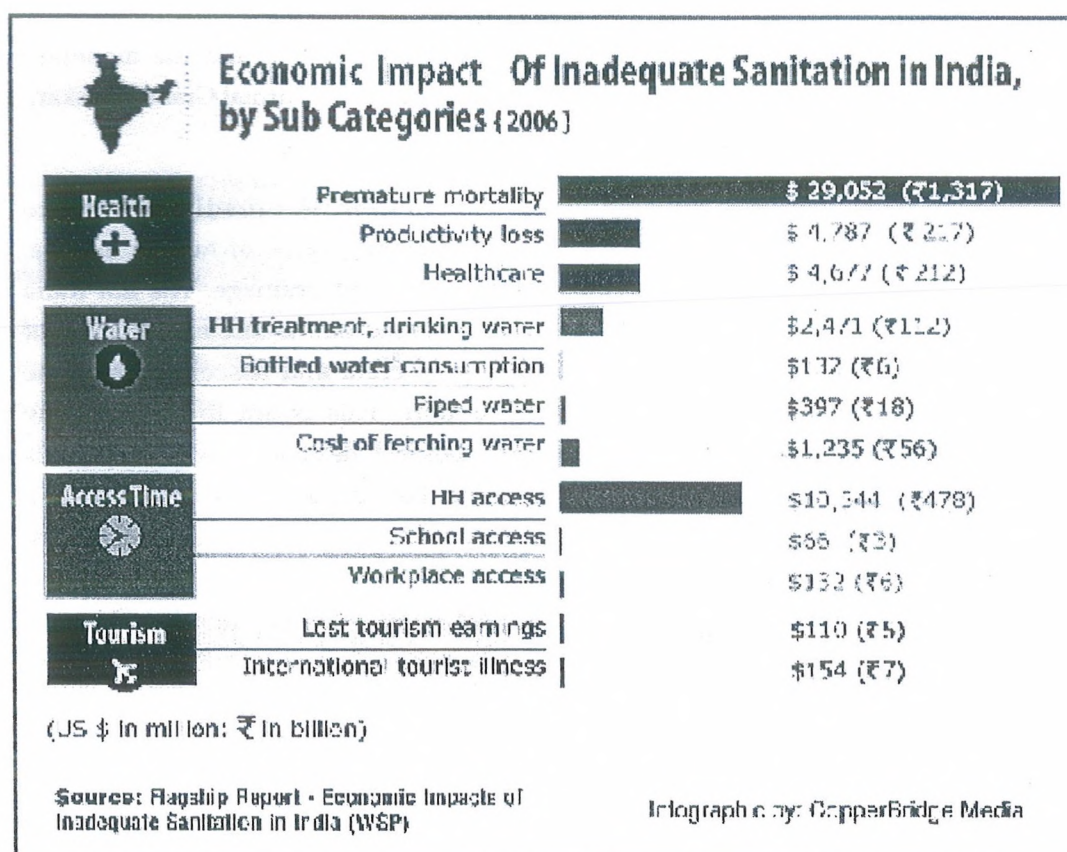


Figure 1. Transmission pathways of diseases carried by feces



Estimates of Economic Impact Under Each Category

The health-related economic impact of inadequate sanitation, at ₹1.75 trillion (US\$ 38.5 billion), accounts for the largest category of impact. Access time (productive time lost to access sanitation facilities—shared or public toilets—or sites for defecation) and drinking water-related impact are the other two main losses, at ₹ 487 billion (US\$10.7 billion) and ₹ 191 billion (US\$ 4.2 billion), respectively.

India has a population of almost 1.2 billion people in which 55 percent of this population (nearly 600 million people) have

no access to toilets. Most of these numbers are made up by people who live in urban slums and rural areas. A large populace in the rural areas still defecates in the open. Slum dwellers in major metropolitan cities, reside along railway tracks and have no access to toilets or a running supply of water. The situation in urban areas in terms of scale is not as serious as rural areas. However what escalates problems in urban areas is poor sewerage systems and highly congested living conditions.

Sewerage systems, if present at all, suffers from poor maintenance which often leads to overflow of raw sewage. Today,

cities are highly populated. Over 20 cities have over a million residents, including the metropolitan cities of Mumbai, New Delhi and Kolkata. In these places the existing sewerage systems, built to serve a population of around three million people, cannot handle the waste water produced by an average of 12-14 million residents.

What makes matters worse is that the existing infrastructure is not suited to cater to the needs of an exponentially growing population. Waste water treatment facilities are inadequate- India neither has enough water to flush out city effluents, nor does it have enough sewage treatment plants. Needless to say this has a severe impact on human health. The water pollution aids the transmission of oral-fecal diseases like diarrhoea and other intestinal infections such as round worm and hook worm. Diarrhoea alone accounts for over 535,000 deaths in children under 5 years of age. Several malnutrition cases in children due to contaminated water have also been reported. Polluted water is also breeding grounds for mosquitoes. Mosquitoes, carriers of diseases like Malaria and Dengue fever are responsible for another 300,000 deaths in India annually.

In addition to health issues, poor sanitary measures set India back by billions of dollars every year. Illnesses are costly to families, and to the economy as a whole in terms of productivity losses and expenditures on medicines and health care. The economic repercussions are also evident in other areas like fisheries and

tourism which are also hit by water related problems. As per World Bank statistics India's nominal GDP stands at 1.3 Trillion dollars and currently ranked 11th in the world on the basis of nominal GDP. If there is reduction in expenses incurred due to illnesses and lack of productivity due to illnesses, the economy would get the impetus it needs to flourish even more. This in turn would enable governmental agencies to improve sanitation standards and medical infrastructure which would in turn help improve living standards of people. Overcoming the demons of poor sanitation and addressing health issues arising out of the same will surely help us become a global superpower in a holistic sense.

Steps to Improve Sanitation

The Government of India (GOI) has taken some important steps in trying to address the problem of rural sanitation (emphasising the need to focus on community outcomes through the launch of Nirmal Bharat Abhiyan (NBA); a significant 42.5 percent increase in allocations for the rural sanitation sector in the 12th Five Year Plan; enhancing allocations for Information, Education and Communication (IEC)

The first step in building an outcome based delivery system for sanitation (which the NBA hopes to achieve), is the need to develop a database on outcomes. In other words, it needs a process of assessing needs on the ground, setting targets and measuring achievement.

However, while the concept of Open Defecation Free (ODF) communities as an objective has been part of the guidelines since the start of Total Sanitation Campaign (TSC) in 1999, the only estimation of usage came in 2008 with the introduction of the Nirmal Gram Puraskar- a financial reward given to Gram Panchayats (GPs) for achieving Open Defecation Free (ODF) status. The NGP guidelines defined ODF as the complete elimination of open defecation within the jurisdiction of a Gram Panchayat. In other words - all members of a GP have access to and are using a sanitation facility. Apart from this various sanitation programmes are initiated by our government. They are listed below:

Sanitation Programmes initiated by the Government

- Financial Progress under Total Sanitation Campaign (TSC) (1986-2012)
- Physical Progress under Total Sanitation Campaign (TSC) (1999-2012)
- State-wise Physical and Financial Progress under Total Sanitation Campaign HYPERLINK "<http://www.indiastat.com/table/socialandwelfareschemes/27/ruralsanitationprogramme/18019/617781/data.aspx>" Campaign HYPERLINK "<http://www.indiastat.com/table/socialandwelfareschemes/27/ruralsanitationprogramme/18019/617781/data.aspx>" (TSC) in India (2011-2012-Upto December, 2011)
- Number of Individual Household Latrines (IHHLs) Constructed and Expenditure Incurred under Rural Sanitation HYPERLINK "<http://www.indiastat.com/table/socialandwelfareschemes/27/ruralsanitationprogramme/18019/558316/data.aspx>" Programme HYPERLINK "<http://www.indiastat.com/table/socialandwelfareschemes/27/ruralsanitationprogramme/18019/558316/data.aspx>" in India (2007-2008 to 2009-2010-upto September 2009)
- State-wise Financial and Physical Achievements under Total Sanitation Campaign in India (2009-2010)
- State-wise Financial and Physical Achievements under Total Sanitation Campaign in India (2008-2009)
- State-wise Sanitation Coverage under Rural Sanitation HYPERLINK "<http://www.indiastat.com/table/socialandwelfareschemes/27/ruralsanitationprogramme/18019/558367/data.aspx>" Programme HYPER LINK "<http://www.indiastat.com/table/socialandwelfareschemes/27/ruralsanitationprogramme/18019/558367/data.aspx>" in India (2009)
- State-wise Financial and Physical Achievements under Total Sanitation Campaign in India (2007-2008)
- State-wise Financial and Physical Achievements under Total Sanitation Campaign in India (2006-2007)

- State-wise Number of Proposal Received for Sanitation and Development of Rural Area in India (2001-2002 to 2006-2007)
- Physical and Financial Progress under Rural Sanitation HYPERLINK "<http://www.indiastat.com/table/socialandwelfareschemes/27/ruralsanitationprogramme/18019/290959/data.aspx>" Programme HYPERLINK "<http://www.indiastat.com/table/socialandwelfareschemes/27/ruralsanitationprogramme/18019/290959/data.aspx>" in India (1992-1993 to 2005-2006)
- Selected State-wise Fund Released for Water Supply and Sanitation under Communication and Capacity Development Unit (CCDU) in India (2005)
- State-wise Central Share Releases and Achievements under Total Sanitation Campaign (TSC) in India (2004-2005)
- State-wise Central Share Releases and Achievements under Total Sanitation Campaign (TSC) in India (2003-2004)
- State-wise Central Share Releases and Achievements under Total Sanitation Campaign (TSC) in India (2002-2003)
- State/District-wise Total Sanitation Campaign (TSC) Projects Approved in India (2002)
- State-wise Number of Sanitary Latrines Constructed under Central Rural Sanitation HYPERLINK "<http://www.indiastat.com/table/socialandwelfareschemes/27/ruralsanitationprogramme/18019/11175/data.aspx>" Programme HYPERLINK "<http://www.indiastat.com/table/socialandwelfareschemes/27/ruralsanitationprogramme/18019/11175/data.aspx>" (Total Sanitation Campaign) in India (1999-2000 and 2000-2001)
- State-wise Rural Sanitary Marts/ Production HYPERLINK "<http://www.indiastat.com/table/socialandwelfareschemes/27/ruralsanitationprogramme/18019/18480/data.aspx>" Centres HYPERLINK "<http://www.indiastat.com/table/socialandwelfareschemes/27/ruralsanitationprogramme/18019/18480/data.aspx>" and Funds Sanctioned in India (As on 28.08.2001)
- State-wise Allocation and Achievement under CRSP in India (Since Inception)
- State-wise Details of Physical and Financial Progress under Total Sanitation Campaign in India.

The Water and Sanitation Programme (WSP)

The Water and Sanitation Program (WSP) is a multi-donor partnership administered by the World Bank to support poor people in obtaining affordable, safe and sustainable access to water and sanitation services.

It works directly with client governments at the local and national level in 25 countries through regional offices in

Africa, East and South Asia, Latin America and the Caribbean and in, Washington D.C.

WSP has led or supported many of the advances made within the water and sanitation sector over the last three decades. WSP shares best practices across regions and place a strong focus on capacity-building by forming partnerships with academia, civil society organizations, donors, governments, media, private sector, and others. The work helps to effect the regulatory and structural changes needed for broad water and sanitation sector reform. The challenge is to replicate successful approaches, continue targeted learning efforts, and support reforms that ensure the adoption of sustainable investments in the sector that help people rise from poverty.

Improved sanitation facilities (% of population with access) in India

The improved sanitation facilities (% of population with access) in India was last reported at 34 in 2010, according to a World Bank report published in 2012. Access to improved sanitation facilities refers to the percent of the population with

at least adequate access to excreta disposal facilities that can effectively prevent human, animal, and insect contact with excreta. Improved facilities range from simple but protected pit, latrines to flush toilets with a sewerage connection. To be effective, facilities must be correctly constructed and properly maintained.

Total Sanitation Campaign (TSC)

The Government of India have restructured the Comprehensive Rural Sanitation Programme with effect from 1.4.1999 and launched the Total Sanitation Campaign (TSC) and the details are shown in Table 2. The main objectives of the TSC are to bring about an improvement in the general quality of life in the rural areas and to accelerate sanitation coverage in rural areas to access to toilets to all by 2012 by motivating communities and Panchayati Raj Institutions in promoting sustainable sanitation facilities through awareness creation and health education.

Individual Household Latrines, School Toilets, Anganwadi Toilets, Sanitary Complexes and Rural Sanitary Marts are taken up under the scheme.

Table 2. Sharing Pattern Under TSC

Category	Government of India share	Government of Tamil Nadu share	Beneficiary contribution
IHHL	60 (in Percent)	28 (in Percent)	12 (in Percent)
School toilet	70	30	0
Anganwadi toilet	70	30	0
Sanitary complex	60	20	2

Source : tnrd.gov.in

Total Sanitation Campaign

Women Sanitary Complex

Provision of sanitary facilities for women was one of the priority areas of the Rural Development Department. The non availability of sanitary facilities affects women and they suffer in silence. Absence of sanitary facilities is primarily due to both poverty and cultural inhibitions, which need to overcome. Therefore, it was of paramount importance to ensure privacy and safety to women besides improving general hygiene and health to the rural people. The Government in 2001 decided to build Integrated Sanitary Complexes for Women in all the 12,618 Village Panchayats in the State of Tamil Nadu at an approximate area of 750 sq.ft. each. The selected sites were easily accessible to the rural women and nearer to the habitations. Each complex had 14 water closets, two bathrooms, one pump room with pump set, one water tub and stone-paved washing facilities.

Adequate water supply for washing and bathing requirements were also ensured. The total users were identified and grouped for the purpose of allocation of individual toilets within the complex. The Village Panchayats provided electricity connection for water supply and lighting and the allotted families maintained the upkeep of the complex. The complexes were provided with incinerators for disposal of the sanitary napkins of the user women.

Initially, 385 Integrated Sanitary Complexes for Women were constructed at the rate of one per Panchayat Union at a cost of ₹ 2.00 lakh each. Between 2001 and 2004, all the Village Panchayats in the State were covered under the scheme with the enhanced unit cost of ₹ 2.25 lakh and 12,796 sanitary complexes which were in the state of disuse have been renovated at a cost of ₹ 170 crore during 2011-12, thereby restoring the basic facilities of the rural women.

Nirmal Gram Puraskar

To give a fillip to the Total Sanitation Campaign, the Government of India launched an incentive scheme from June 2003 in the form of an award for total sanitation coverage, maintenance of clean environment and open defecation-free Village Panchayats, Blocks and Districts called 'Nirmal Gram Puraskar'.

A Gram Panchayat will be eligible to apply for the NGP on the following grounds:

- Gram Panchayat has adopted a resolution to ban open defecation within its entire area inclusive of all habitations and villages.
- All habitations within the Gram Panchayat jurisdiction have access to water for drinking and sanitation purposes.
- The Gram Panchayat has achieved objectives for all components as approved in the District Project and entered it in the IMIS of the Ministry of Drinking Water and Sanitation.

Member of Parliament Local Area Development Scheme (MPLADS)

The objective of this Scheme is to fill the gaps existing in the provision of infrastructure through various Central and State schemes thereby enabling wholesome development. A sum of ₹ 2 crore is allotted per Member of Parliament (Lok Sabha and Rajya Sabha) per year for taking up developmental works identified by the concerned M.P. In the case of Lok Sabha, the scheme is implemented in the districts falling within the constituency of the concerned MP. In the case of Rajya Sabha, the MP can suggest works in one or more districts within the State from which he is elected.

Conclusion

Implementation of low-cost sanitation system with lower subsidies, greater household involvement, range of

technology choices, options for sanitary complexes for women, rural drainage systems, IEC and awareness building, involvement of NGOs and local groups, availability of finance, human resource development, and emphasis on school sanitation are the important areas to be considered. Also appropriate forms of private participation and public private partnerships, evolution of a sound sector policy in Indian context, and emphasis on sustainability with political commitment are prerequisites to bring the change.

Providing adequate sanitation will have profound implications for human health and poverty alleviation. Access to adequate sanitation literally signifies crossing the most critical barrier to a life of dignity and fulfillment of basic needs. Focusing on youth and using education is possible to make the change easily and the progress should be constantly monitored.

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