

## SANITATION AND ENVIRONMENT: ISSUES AND CHALLENGES

**Dr. S. R. Manza**

Pandit Jawaharlal Nehru Mahavidyalaya  
 Chatrapati Sambhajnagar

### Abstract:

*Safe sanitation means promotion of safe disposal of human excreta, right use of toilet and avoiding open defecation as well as management of solid and liquid waste. Poor sanitation is a primary cause for many deadly diseases, deaths among children under age five, contamination of ground water sources, loss of family income on account of increased health costs, and compromised human dignity. In managing safe sanitation at each level - household, community, and governments, understanding impacts of poor sanitation, contribution of all key stakeholders including communities, implementation of safe sanitation processes is considered crucial. Water is a precious commodity. Provision of clean drinking water, sanitation and a clean environment are vital to improve health and life span of people. Sanitation is a basic need like food and drinking water. A sanitary toilet within or near home provides privacy and dignity to women. Sanitation and hygienic improvement is very important for the development of society. In this study discussing all methods, management, conditions etc. for a sanitation conditions in India.*

**Keywords:** Rural Sanitation, Drinking Water, Diseases, Hygiene, Water, Public latrines, Education Campaign, Society, Environment.

### Introduction:

Water, sanitation and hygiene service are very important to address the poverty, livelihoods and health. Water is a precious commodity. Provision of clean drinking water, sanitation and a clean environment are vital to improve the health and life span of people. Women and girls spend hours fetching water from different sources like Public Stand Post, Hand Pump, Household Tap, Open Wells, Agriculture Wells and Surface. In the twenty first century more than half of the global population is expected to live in towns and cities. In some of cities more than quarter a million people are added every year. This poses huge challenge to urban municipal corporation and planning bodies, which are responsible for providing infrastructure and basic services to the urban population. The growing cities of developing countries are facing crisis between demand and

supply of the basic amenities like drinking water and adequate sanitation services and necessary infrastructure. India has been grappling with the problem of water and sanitation coverage, especially for the rural areas and poor in urban areas. The most cities and towns of India are characterized by over-crowding, congestion, inadequate water supply and sanitation which include disposal of human excreta, waste water, and garbage disposal, which in turn affects the health of urban people.

Water and improved sanitation play a major role in the overall well-being of the people, with a significant bearing on the infant mortality, longevity and productivity. Causes of contamination of water are indiscriminate use of chemical fertilizers and chemicals, poor hygienic environment of water sources, improper disposal of sewage and solid waste, pollution from untreated industrial effluents, over-exploitation leading to quality degradation. Thus, the supply of additional quantity of water by itself does not ensure good health; proper handling of water and prevention of contamination are also equally important. Contagious, infectious and waterborne diseases such as diarrhoea, typhoid, infectious hepatitis, worm infestations, measles, malaria, tuberculosis, whooping cough, respiratory infections, pneumonia and reproductive tract infections dominate the morbidity pattern and prevalence in India.

The study of the sanitation facilities available to the households is an important aspect of living facilities and it is closely related to the health and hygiene of the household's members and its surrounding environment. In this consideration, the objectives of this paper are to examine the water and sanitation conditions and the effects on diseases prevalence in urban areas of India.

### Objective of the study:

1. To study the water and sanitation condition in India.
2. To study the sanitation and hygiene issues.

3. To analyse the effects on diseases prevalence in urban and rural areas of India.

**Research Methodology:**

Required data is collected from various reports of government agencies, different educational apex body reports, websites and various secondary sources such as books, magazines, literature reviews, and research of various authors in the relevant field was taken into consideration.

**Rural Sanitation in India:**

In the mid-nineties, the government of India strongly felt that rural water supply and sanitation are crucial aspects for rural development. After consultations with the different stakeholders, the Ministry of Rural Development finally decided to create a separate department at Government of India level. Because of this, the Department of Drinking Water Supply was created with separate institutional arrangements with a focused approach. From then, the government is allocating separate funds and making budgetary provisions to tackle the rural sanitation challenges. At the same time, based on the institutional changes, the state governments have also created separate departments and wings under the Panchayat Raj or Rural Development departments at the state level. States like Maharastra created separate department to focus on issues related to rural sanitation and safe drinking water. Based on the above-mentioned institutional changes, the government had taken up a few initiatives to assess the country's situation on sanitation. A baseline survey about rural water supply and sanitation was done by the government to understand the issue. In line with the National Agenda for Governance, it was resolved to provide safe drinking water in accordance with the stipulated norms on a sustainable basis to all habitations by March 2004, which is also the target set in the approach paper for the Tenth Plan.

**Rural Sanitation coverage in India:**

The rural sanitation coverage in India is gradually improving every year. The census data shows the scenarios from the last three decades. In the year 1981, only 1 per cent of

people had rural sanitation facilities. After two decades, in the year 2001, the percentage reached 22 per cent. By the end of the year 2005, the number reached 33 per cent. According to an estimate, 650 million people in India still defecate in the open every day. If we examine other facts, out of the 48.5 per cent in the year 2007 an estimated 200, 000 tons of faecal matter is deposited in the open every day. If we observe from the public health point of view, near about six lakhs diarrhoea deaths occur in India per year. One more fact is children aged below five fall prey to diarrhoeal deaths and surviving children suffer from three to five episodes of diarrhoea every year. According to available information, the rural sanitation facilities still pose a challenge for the government and civil society. The reason is not only low availability of funds, but also other aspects.

**The National Sample Survey Findings on Rural Sanitation Coverage:**

The National Sample Survey Organization released data related to rural sanitation in November 2010. It has mentioned, in its 65th report on housing amenities in India in 2008-09, that 65.2 per cent rural households and 11 per cent urban households<sup>13</sup> have no latrine facility. This report found that there was a lot of gap between usage and access. There are also many sustainability issues involved in the implementation process.

**Nature and scope of sanitation:**

Providing better sanitation facilities is one of the biggest challenges till date. After the millennium era, tackling sanitation and hygiene issues is becoming a key issue in terms of providing sanitation facilities and in creating awareness among the masses for behavioural change. Social ailments like poverty are more than a lack of income or a shortage of material goods. Human poverty, lack of basic capabilities for participating in the standard activities of the communities is aggravated by lack of sanitation. For urban slum dwellers and rural population, living in areas surrounded by human waste and garbage is creating embarrassment and depriving people of participation, choices and opportunities.

Around 8,00,000 people in India still live by manual scavenging by carrying feces (waste) in baskets on their heads, a livelihood that bars their inclusion in mainstream society. In these pathetic conditions, people are suffering due to lack of basic sanitation amenities. Poor awareness is the main cause for this problem. The sanitation problems in rural and urban areas are different and challenges also vary.

The National Sample Survey is the main source to draw strategies for addressing rural sanitation problems in the country. A project based approach has been initiated by the government with help of national and international civil society and development organisations. As a result, priorities have been set up to achieve the objective of providing safe drinking water to all rural habitations in India. Based on the objectives given below, a few priorities have been given to habitations. These strategies paved new ways in the sanitation sector in India.

**The priorities are as under:**

- Highest priority to be given to ensuring that the ‘not covered’ habitations are provided with sustainable and stipulated supply of drinking water and sanitation facilities.
- It will be equally important to ensure that all the ‘partially covered’ habitations having a supply level of less than 10 litres per capita per day and those habitations facing a severe water quality problem are fully covered with safe drinking water facilities on a sustainable basis.
- Thereafter, other ‘partially covered’ and ‘quality affected’ habitations are to be covered.
- Once drinking water supply facilities are provided to all rural habitations, the remaining period of the Tenth Plan would be utilized for consolidation purposes. This will involve covering newly emerged habitations and those, which have slipped back to ‘partially covered’ or ‘not covered’ status due to a variety of reasons.
- Simultaneous action is also needed to identify and tackle habitations where water quality problems have emerged recently.

- It should be ensured that Scheduled Caste (SC) and Scheduled Tribe (ST) population and other poor and weaker sections are covered fully on a priority basis.
- A systematic survey of all such identified habitations shall be undertaken.
- The above priorities show that the government of India considers rural sanitation as a highly prioritized issue in the rural development field.
- In these findings, a few norms have been framed to assess the vulnerability related to rural sanitation. The main norms are more realistic, as opined by the experts and development organizations.
- At least one hand pump/spot-source for every 250 persons is to be provided. Additional water is to be provided under the Desert Development Programme areas for cattle, based on the cattle population. The water requirements for cattle need not necessarily be met through piped water supply and could be made through rainwater harvesting structures/spot sources.
- Moreover, the water sanitation and public health are interrelated and inter dependant aspects from the development point of view.

**Important elements of sanitation:**

In accordance with the studies and various findings, there are a few most important elements involved in rural sanitation. If these elements are handled properly, many public health problems can be solved. So far, majority of the diseases are spreading due to lack of proper sanitation and availability of protected drinking water sources. Even though the protected drinking water source is available, if there is no proper sanitation or water handling and better sanitation practices, the problem will be the same. Keeping this in view, the following, most important elements have been identified to address rural sanitation issues in a focused manner. Later these were identified as better sanitation hygiene practices.

They are:

- Safe handling of drinking water,

- Disposal of waste water,
- Safe disposal of human excreta, since human excreta is associated with more than 50 per cent of diseases,
- Safe solid waste disposal,
- Home sanitation and food hygiene,
- Personal hygiene, particularly, washing one's hand with soap.
- Sanitation in the community

The above-mentioned best hygiene practices are unavoidable aspects in the process of rural sanitation. So far, due to lack of awareness, rural communities are generally not familiar with the hygiene practices.

**Conclusion:**

The study of sanitation conditions is very important with the perspective of hygiene and health of human being. The availability of improved latrine facility to the households has very significance relationship with diseases prevalence in urban areas of India, because it directly related to hygiene and health of human. In the absence of latrine facility person have to go for open defecation and there is always chance to get contact with disease's vector i.e. flies, mosquitoes etc. So, the association between water, sanitation and micro-environmental conditions is very significantly related to diseases prevalence. The results of this paper indicate that improvement of water and sanitation conditions can substantially reduce the rates of diseases prevalence and it can be expected to affect other aspects of human hygiene and health.

**Suggestion:**

- The Strategy is to move towards a 'Swachh Bharat' by making it a massive mass movement that seeks to engage everyone in the task of cleaning homes, work places, villages, cities and surroundings, in a collective quest..
- The focus is to provide flexibility to state governments, as sanitation is a state subject, to decide on their implementation policy,

use of funds and mechanisms, taking into account state specific requirements.

- This is to enable states to develop an implementation framework that can utilise the provisions under the mission effectively and maximize the impact of the interventions.
- The government of India's role would be to complement the efforts of the state governments through the focused programme being given the status of a mission, recognizing its dire need for the country.
- Augmenting the institutional capacity of districts for undertaking intensive behaviour change activities at the grassroots level.
- Strengthening the capacities of implementing agencies to roll out the programme in a time-bound manner and to measure collective outcomes.
- Incentivizing the performance of State-level institutions to implement behavioural change activities in communities.

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