

# CHALLENGES OF SANITATION IMPROVEMENT IN INDIAN URBAN AREAS

Ar. Vikas Jaiswal  
MITS, Gwalior, India

Dr. Anjali Patil  
MITS, Gwalior, India

**ABSTRACT**-Infrastructure development meets the needs of human society effectively. It has been established through extensive research that infrastructure services represent the living standard of citizen on the global landscape. Adequate sanitation, together with good hygiene and safe water, are fundamental to good health and to social and economic development. According to the World Health Organization (WHO), substandard sanitation and inadequate access to clean drinking water are the cause of over 1.7 million deaths each year, approximately one-third of which occur in Africa and one-third in South Asia. The urgency of this public health crisis has found expression in the UN Millennium Development Goals (MGD). To improve the sanitation condition and achieve MGDs, Gov. of India has launched the National Urban Sanitation Policy (NUSP) in 2008 and Swachh Bharat Mission in 2014. This paper talks about the existing condition and challenges of sanitation in India.

**KEYWORDS:** Community Toilet, Urban Services, Sanitation.

## INTRODUCTION

India, the second most populated country in the world, the urban population is increasing at very high rate, 31% of Indian's Population lives in urban areas in 2011 and is expected to increase further to 50% by 2050. Urban population is likely to increase from present 377 million to 900 million by 2050. It emerged as one of the fastest growing economies. (Swamidurai) Increasing urbanization forms an usual process of economic development and the challenge is to make this growth sustainable and efficient. The positive effects of urbanization are often overshadowed by the evident deterioration in the physical environment and quality of life in urban areas, mainly caused by a widening gap between demand and supply of essential services and infrastructure.

To cater those urban load cities need to be improved. Where ever sanitation is a human essential need in the earth. Sanitation services are necessary to support urban stability, enable social balance, economic growth and development and are imperative for the improvement of urban public services. In the absence of proper sanitation, people suffer from high levels of infectious, contagious, water borne, air borne and vector borne diseases leading to high incidences of morbidity and mortality. Pitiable sanitation is much more than just a problem - It costs lives, dignity and productivity. Ensuring access to clean water and basic sanitation services is the first step in eliminating poverty. Lack of planning, inadequate toilet infrastructure poor quality of sanitary infrastructure, & their inadequate maintenance has compelled urban poor, all across Indian cities to defecate in open. Access to safe sanitation is a right of every human being under article 21 of Indian constitution which is right to life. Sanitation is also a part of the 'Directive Principles of State Policy' (DPSP) in Part IV of the Constitution. This directly affects the ability of a country to maintain an efficient economy and implies great personal suffering among infected individuals and their families. Thus, improving environmental health is the most cost effective means of enhancing people's health and welfare. Everyone needs basic hygiene for a living. (Andre)

The Government of India has launched flagship program the Swachh Bharat Mission (SBM), a joint mission of the Ministry of Urban Development (MoUD) and the Ministry of Drinking Water and Sanitation (MDWSS). The vision set forth is to realize the dream of Mahatma Gandhi that all cities, towns and villages should become clean, as tribute on his 150th Birth Anniversary to be celebrated on 2nd October 2019. In order to achieve open defecation free towns, ensuring adequacy through construction of toilets –individual, community and public toilets and effective operations and maintenance is the strategic approach which the scheme emphasizes. Individual Household Toilet (IHHT) is a major component of the SBM. The aspect of public or community sanitation also assumes greater importance because, in some cases, an IHHT may not be feasible (for example, lack of space for toilet construction), or in situations with a high percentage of floating population (for example, at markets, temples or seasonal fairs). (Murlidhar)

Study of the literature reveal that many community toilets remain under such insanitary conditions that users do not like to enter them; they prefer open air defecation. Major deficiencies identified by survey are:

- (i) lack of cleanliness and poor up-keep (noticeable more in the case of 'No-Pay & Use' toilets),
- (ii) Insufficient water supply and poor lighting,
- (iii) Inappropriate location,
- (iv) Poor construction standards,
- (v) Insecurity (specially for female users), and
- (vi) Inadequate funds for operation and maintenance. (Singh)

Many of these deficiencies can be effectively addressed by better planning, design, construction, operation and maintenance. All forms of activity ultimately require land as well because workers, equipment, and buildings need to be located somewhere, either directly or indirectly. The direct use of land for sanitation purpose is through demand of community toilets, waste treatment plant, disposal site for solid and liquid waste management. (Andre)

### SANITATION AND GOVERNANCE IN INDIA

The central government and state governments have been implementing a number of laws and policies to address sanitation issues. As per the Constitution of India, regulation and governance of sanitation is in the domain of state governments and local government. State governments have the power to adopt laws relating to sanitation. While the legislative competence lies with the state government, the Constitution envisages major sanitation related responsibilities to be vested with the local governments. (Joy and Bhagat, 2016)

The Constitution of India does not recognise the right to sanitation explicitly. However, the Constitution recognises the right to sanitation indirectly in different forms. The higher judiciary in India (the Supreme Court and High Courts) has interpreted the fundamental right to life under Article 21 of the Constitution to include the right to sanitation. The right to sanitation is, therefore, a part of the fundamental right to life and is a justiciable right. Sanitation is also a part of the 'Directive Principles of State Policy' (DPSP) in Part IV of the Constitution. More specifically, it can be read as part of Article 47, which provides that it is a duty of the government to raise the standard of living. Sanitation is undoubtedly a factor that contributes to a decent standard of living. Sanitation is also a part of Article 48A that makes it a duty of the state to 'protect and improve the environment'. Directive Principles are not enforceable and therefore no individual can approach a court against the government for its failure to give effect to the above-mentioned provisions. (Joy and Bhagat, 2016)

### EXISTING CONDITION OF SANITATION INFRASTRUCTURE IN INDIA:

It is seen that despite of being part of fundamental right sanitation condition are not up to mark in India. This issue is being addressed under the flagship of swachh Bharat Mission but the condition is still not upgraded much and maintenance issues are seen in many areas, following images shows the condition of community toilets.



Figure 1: Community Toilet at Lucknow



Figure 2: Community Toilet at Bhopal



Figure 3: Community Toilet at Mumbai

Some of the key sanitation issues and concerns are:

1. Around 57% (626 million) of the 1.1 billion people in the world who practice open defecation are found in India. According to the 2011 census, the national sanitation coverage is 46.9%, whereas rural sanitation coverage is just 30.7%.
2. The 2011 census report notes that 22.39% (or over Rs. 3.75crores) of toilets supposedly built through various government schemes at individual household levels do not exist in reality. (Hindustan Times, 2015).
3. According to the 2011 census data, there are 794,390 dry latrines in India from which the human excreta are removed by human beings, mostly by Dalit women.
4. Women face several health, safety and dignity issues including physical and sexual violence due to a lack of sanitation facilities (Philippe, Lovleen and Sujith)
5. India has over one million sewerage workers. An overwhelming majority of them work without adequate protective gears. As a result, they increasingly suffer from occupational diseases. Also, accidental deaths of sanitation workers are not uncommon.(Joy and Bhagat, 2016)

### URBAN SERVICE LEVEL GAP

The urban infrastructure sector has historically suffered neglect over the years, with policy and resources directed mainly towards the rural sector, until the launch of JNNURM. This neglect has now created a huge infrastructure challenge of not only having to cater for the new population but also having to ramp up capacity to address the backlog of the past. India does not have to look very far for successful government intervention in channelizing urbanization for economic growth.

**Table 1: Urban Service Level Gap**

Services	Standard (URDPFI 2014)	Gap
Water Supply	Per capita consumption norm: 135 lpcd and 100% connection coverage with revenue	36% urban population is not having individual connection. Non-revenue water(NRW) 74%
Sewerage and Sanitation Management	Underground sewerage system for all cities and 100 per cent collection and treatment of waste water	1. <b>18.6% of the households in urban India do not have a toilet.</b> 2. <b>13% household population went for open defecation.</b>
Solid Waste	100 per cent of solid waste collected, transported, and treated for all cities as per Municipal Solid Waste 2000 Rules	30% of household are not covered by municipal corporation for collection of solid waste.

(HPEC) (Ramachandran) (Census of India)

Operation and maintenance of community toilets is a major problem in urban areas because development is under domain of state and central government but maintenance of public utilities is come under the municipalities as per 74<sup>th</sup> constitutional amendment. Literature studies shows that inadequate distribution of fund is major reason behind the poor sanitation.

### GLOBAL INITIATIVES ON SANITATION

According to the World Health Organisation, substandard sanitation and inadequate access to clean drinking water are the cause of over 1.7 million deaths each year, approximately one-third of which occur in Africa and one-third in South Asia. The urgency of this public health crisis has found expression in the UN Millennium Development Goals. Two targets under Goal 7 aim to improve the access to drinking water and sanitation facilities. One seeks to halve, by 2015, the proportion of the population without sustainable access to safe drinking water and basic sanitation. The other target aims to have achieved a significant improvement in the lives of at least 100 million slum dwellers by 2020. The need for improved sanitation also finds voice in Goal 4 which seeks to reduce by two thirds, between 1990 and 2015, the under-five mortality rate, for which diarrheal diseases are a major cause.

To improve the sanitation condition and achieve MGDs (Millennium Development Goals), Gov. of India has launched the National Urban Sanitation Policy (NUSP) in 2008.



**Figure 4: Millennium Development Goals**

**NUSP has set following vision:**

All Indian cities and towns become totally sanitized, healthy and liveable and ensure and sustain good public health and environmental outcomes for all their citizens with a special focus on hygienic and affordable sanitation facilities for the urban poor and women.

To achieve NUSP vision following strategies has been suggested in the policy

- 1) Awareness Generation and Behaviour Change
- 2) Open Defecation Free Cities
- 3) Integrated City-Wide Sanitation
- 4) Sanitary and Safe Disposal:
- 5) Proper Operation & Maintenance of all Sanitary Installations:
- 6) Implementation Support Strategy

Aligned with the NUSP, the primary goal of this study is to study existing Operation and Maintenance of Community and Public Toilet in the PimpriChinchwad Municipal Corporation (PCMC) to be open defecation free & totally sanitized city, with special stress affordable access to sanitation in urban slum.

**SWATCHHA BHARAT MISSION**

Government of India's (GoI's) Swachha Bharat Mission (SBM) was announced on October 2nd, 2014 with a target of making India open defecation free by October 2nd, 2019, the 100th birth anniversary of Mahatma Gandhi. Given that 49.8 percentage of the country's population continues to defecate in the open, the provision of clean and well maintained public and community toilets requires immediate and rapt attention. (Dirk and Murlidhar)

Under SBM (Urban), it is estimated that about 20% of the urban households in cities, who are currently practicing open defecation are likely to use community toilets as a solution due to land and space constraints in constructing individual household latrine. The Projects will be prepared, sanctioned and implemented by ULBs. In the entire project approval and procurement process, all provisions and procedures as prescribed by respective State Governments for ULBs must be followed in their entirety. The entire approval procedure should end at the ULB level. To this end the States are required to empower the ULBs if not already done so. This includes the delegation of powers to allot land (for this purpose) to ULB's and mechanisms to leverage this land to make the Public Toilet a viable project. The norms according to SBM state that public toilets should be provisioned at the rate of 1 unit per 100 male users and 1 unit per 50 female users and community toilets at the rate of 1 per 35 male users and 1 per 25 female users. These norms indicate the total footfall that a toilet unit will get, however, they do not account for peak loading factor. (Dirk and Murlidhar)



**Figure 5: Importance of Community Toilet**

Public toilets are an important infrastructure for urban poor, or people who generally do not have access to private sanitation, either at home, or at their workplace. Local bodies either provide and maintain Community/Public toilets or issue open tenders for their construction and maintenance of the same. However, land title arrangements are convoluted in slums and most slum-dwellers do not own the land they live on. This makes service provision a challenging task – one that requires coordination between various tiers of government and collaboration between departments which deal with land, property, slums, urban planning, infrastructure, water and sanitation, electricity etc.

**CONCLUSION:**

Despite the enactment of the 74th Constitutional Amendment, which sought to make urban local bodies (ULBs) responsible for sanitation, improvements in urban sanitation have been marginal. A key reason behind this is that sanitation has always been accorded low priority and there is poor awareness about its inherent linkage with public health. Spatial distribution of public and community toilets and slums reflects a strong correlation between the two variables. Literature was studied taking functional

issues in consideration. Literature is shows that the entire successful sanitation model considered operation and maintenance issues in priority.

#### REFERENCES:

1. Andre, Dzikus. Rejuvenation of Community Toilets. Bhopal: Directorate of Urban Administration & Development, Government of Madhya Pradesh, 2014.
2. Census of India. New Delhi: Ministry of Home Affairs, GOI, 2011.
3. Dirk, Walther and D. Murlidhar. GUIDELINES FOR PUBLIC AND COMMUNITY TOILETS MANAGEMENT BY CITIES FOR ANDHRA PRADESH. Guidelines. Hyderabad: Swachha Andhra Corporation, 2016.
4. Hardeep, S, Puri, Shankar, Mishra Durga and VINOD KUMAR JINDAL. Guidelines for SWACHH BHARAT MISSION - Urban. Guidelines. Delhi: MoHU, 2017.
5. HPEC, Ahluwalia Isher and. Report on Indian Urban Infrastructure and Services. Delhi: Ministry of Urban Development , 2011.
6. Mayank, Sharma and Patni Rima. Pune Consultation on Sanitation Engaging Local Legislators. Pune: Centre for Legislative Research and Advocacy, 2014.
7. Murlidhar, D. GUIDELINES FOR PUBLIC AND COMMUNITY TOILETS MANAGEMENT BY CITIES FOR ANDHRA PRADESH. Hyderabad: Swachha Andhra Corporation (SAC),, 2016.
8. Philippe, Cullet, Bhullar Lovleen and Koonan Sujith. "Inter-Sectoral Water Allocation and Conflicts." Economic & Political Weekly 22 august 2015: 61-69.
9. Ramachandran, Dr. M. HANDBOOK OF SERVICE LEVEL BENCHMARKING . New Delhi: Ministry of Urban Development , n.d.
10. Shyamal, Sarkar, Ghosh Moulik, Soma and Sen, Somnath. " The Mumbai Slum Sanitation Program: Partnering with Slum Communities for Sustainable Sanitation in a Megalopolis Water and Sanitation Programme." 2006.
11. Singh, Dr. J.P. Guidelines on community toilets. New Delhi: Ministry of Urban Affairs and Employment; GoI, 1995.
12. Somnath, Sen and Ma Yue. IMPROVEMENT AND MAINTENANCE MANAGEMENT OF PUBLIC TOILETS IN LIUZHOU: A STUDY. Final Report. Netherland: The World Bank, 2005.
13. Suvrathan, P.I. "LOCAL GOVERNANCE: An inspiring journey into the future." SECOND ADMINISTRATIVE REFORMS. OCTOBER 2007.
14. Swamidurai, Santhakumar. "Factors Affecting Urban Land Value in Indian Cities - Chennai City as a Case Study." IJRSI (2014): 31-34.
15. Vinaya, Padmanabhan and Shekhar Satyarupa. PUBLIC SANITATION MANAGEMENT MODELS. Chennai: IFMR Research, 2012.
16. WSTF. Public Toilet Facility Guideline. Guidelines. Nourobi: water services trust fund,Kenya, 2011.