

# CHAPTER – I

## INTRODUCTION

Sanitation crisis claims more lives through disease than any war claims through guns. Taking into consideration the different development reports and views expressed by the development experts from across the globe, it can be asserted that sanitation is being regarded as one of the basic determinants of quality of life and is being considered as a yard stick for assessing the socio-cultural and economic progress of any nation.

Now it is internationally accepted that all people have the right to water and sanitation. It is a fundamental human right which has a legal foundation in several treaties. (COHRE et al, 2008). But at the same time, lack of sanitation is one of the single biggest challenges being faced by the world today. This silent global crisis constitutes an affront to human dignity on a massive scale causing widespread damage to human health and child survival prospects; social misery especially for the women, the elderly and for the sick; depressed economic productivity and human development; and pollution to the living environment and water resources. The United Nations declared 2008 to be the International Year of Sanitation. This gives us a vital opportunity to bring sanitation to the front of everyone's minds. (Hazra, 2011)

### **1.1.0. Concept of Sanitation**

According to Water Supply and Sanitation Collaborative Council, sanitation means interventions in reducing people's exposure to diseases. This usually includes disposing and hygienic management of human excreta, animal excreta and waste water, control of diseases, and provision of washing facilities for personal and domestic hygiene. Sanitation involves both behaviours and facilities, which work together to form hygienic environment (UNICEF, 2008). World Health Organization (WHO) defines sanitation as group of methods to collect human excreta and urine as well as community waste waters in a hygienic way, where human and community health is not altered. (WHO, 1987) However among the contemporary experts, Cross has made a concerted effort to define the concept of sanitation in a comprehensive manner. Cross (2003) argues that the concept of sanitation was earlier limited to disposal of human excreta by cesspools, open ditches, pit latrines, bucket system etc. but today it connotes a comprehensive concept, which includes liquid and solid waste disposal, food hygiene, and personal, domestic as well as environmental hygiene; the concept of sanitation is, therefore, expanded to include

personal hygiene, home sanitation, safe water, garbage disposal, excreta disposal and waste water disposal.

### **1.2.0. Importance of Sanitation**

Improving hygiene behaviours and promotion of latrine-use have become a major concern in most developing nations because of their ability to fight against poverty, improve health, and promote education (Avvannavar & Mani, 2008; Cross, 2003). Safe disposal of human waste leads to decreased morbidities and mortalities that are linked to oral-faecal diseases and transmissions such as diarrhoea, helminthic infections and ascariasis (roundworms). Besides, the availability of latrines promotes privacy and safety especially for the women allowing them to live dignified lives (Jenkins & Curtis, 2005). Despite these facts, it is estimated that over 2.6 billion people lack the access to improved sanitation with the situation being more felt in Asia and Africa where twice as many people do not have access to improved sanitation compared to improved water supply; with about four out of every ten people lacking a simple pit latrine to use (UN, 2010).

Even though the water and sanitation goals seem ambitious to some, they are very modest. First, they only consider halving the population without these basic amenities, and second, the definitions of access include the most basic facilities - certainly not a tap and a latrine in every house. The WHO definition of access to water varies according to location, but averages 20 litres per person per day within one kilometre walking distance from the household. Today, African women may walk over six kilometres per day in search of water, spending as much as eight hours collecting water (UNFPA, 2002). The carrying of water over long distances is, moreover, a health hazard, especially during development and pregnancy periods. During daily water collection, women face the risk of drowning (from floods) and of injuries from attacks. In most countries, it is often girls who are given the task of collecting water, carrying 15 to 20 litres of water from the water point back home. Insufficient access to water and sanitation can, thus, be the reason why girls are kept out of school. In many developing countries, girls are furthermore often not permitted to attend schools that do not have latrines, because their privacy and modesty might be violated (World Bank, 2004).

Research proves that safe sanitation and hygiene can lead to profound results in achieving multiple Millennium Development Goals such as eradicating extreme hunger and poverty (goal1), achieving universal primary education (goal 2), promoting gender equality and empower

women (goal 3), water and sanitation (goal 7), reduction of common diseases like diarrhoea (goal 6), improving maternal health (goal 5) and, reducing child mortality (goal 4) (Chambers, 2009; Peal, Evans, & van der Voorden, 2010). However, there is evidence that these seven goals have not been fully realized because of the inadequate attention given to sanitation and hygiene matters. In most developing nations, sanitation is viewed from a narrow and medical perspective and usually policies surrounding the subject are classified under those of water policies obscuring the impact the subject can have if viewed from its own perspective. As a result, the subject has gained very minimal political attention and this has had implications in addressing the problem because very few resources have been committed to alleviate the situation (Lenton et al., 2008). Estimates show that while about US\$ 16 million is invested in water and sanitation, only a fifth of this goes to sanitation yet in the developing world about 2.6 billion people (out of the world's 6.5 billion) – nearly one third - lack access to improved sanitation (Montgomery, Desai, & Elimelech, 2010; WHO/ UNICEF, 2008) and about 1.1 million practice open defecation (UN, 2011). As a result, it is anticipated that by 2015, the water goal will be far surpassed but for sanitation, it may take until 2049 to provide 77% of the global population with improved sanitation. The seventh MDG focuses on environmental sustainability and one of its three targets is to reduce by half, the number of people without sustainable drinking water and basic sanitation (Lenton et al., 2008).

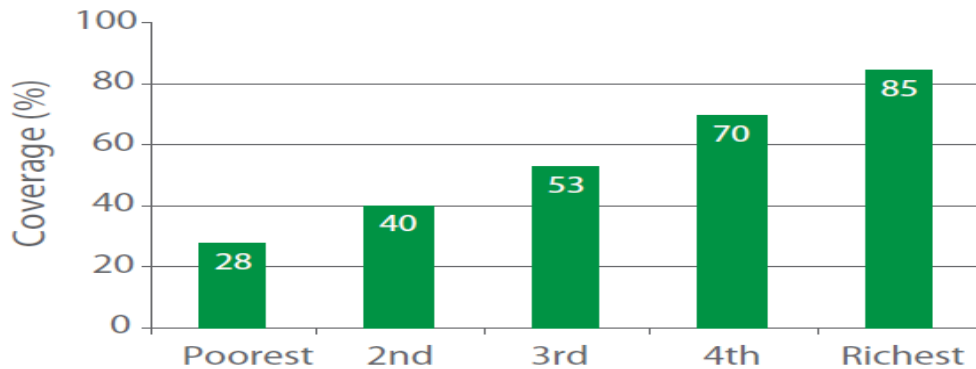
On the other hand, WHO's burden of disease analysis shows that poor access to water, sanitation and hygiene is the third most significant risk factor for ill health in developing countries (WHO/ UNICEF, 2008). Although the relationship between diarrhoea diseases and inadequate water, sanitation and hygiene is complex, a review by Zwane & Kremer (2007) of the 25 studies done by Esrey et al (1991) found that interventions in either sanitation or hygiene promotion activities reduced diarrhoeal disease by 35% and 33% respectively compared to water quality and/or quantity which reduced the same by 15%. (Sidibe & Curtis, 2002)

An analysis of 38 developing countries WHO/UNICEF (2008) as depicted in Figure 1 shows that only a third of the improved sanitation could be accessed by 20% of the poorest and the richest 20% of the population are five times more likely to use an improved facility compared to the poor. From the analysis, it appears that there is not only a strong relationship between poor sanitation and ill health, but also one between poor sanitation and poverty.

**FIGURE 1**

**Improved sanitation coverage by wealth quintiles in 38 developing countries**

**The richest are three times more likely to use improved sanitation than the poorest**



Source: WHO/UNICEF (2006)

A more recent UN (2011) report reinforces similar inequalities by showing that sanitation coverage for the poorest 40% of the households has hardly increased and that four out of five people in the bottom 2 quartiles practice open defecation. These inequalities have been more felt in Sub Saharan Africa where poverty levels are higher and where about 46% of the population survives on less than a dollar a day (Morella, Foster, & Banerjee, 2008; United Nations University, 2010) Usually, when a households' income is limited, priority is usually given to basic needs like food and it may not be easy to convince people to part with their hard earned cash to install a latrine (Jenkins, 2004; McConville, 2003). Such households are equally incapacitated to take measures that may protect them against sanitation related diseases or seek treatment once they contracted such illnesses. When illness prevails, it facilitates a vicious cycle of poverty by further limiting their ability to work and the high treatment costs further exacerbates their poverty (UN, 2011).

Throughout the developing world the low sanitation coverage figures paint a stark picture. In many instances even though new toilets and washing facilities have been built, and coverage is recorded by officials as relatively high, proper usage remains low and little or no benefit is derived.

**1.3.0. Current Status of Sanitation across the Globe**

Keeping in view the recent reports and statistics regarding the current status of sanitation across the globe, it is appearing to be quite evident that all most all the countries across the World, more or less are suffering from the deadly threat of inadequate sanitation. (Box 1) Around 2.6 billion

people do not have access to improved sanitation facilities; this will probably increase to 2.7 billion people in 2015. (UN, 2010) Map 1 shows the distribution of improved sanitation coverage worldwide in 2006. Visible is the lag of Sub-Saharan Africa and Southern Asia. In Sub-Saharan Africa only 31 percent of the people had access to improved sanitation in 2006, this was 33 percent for Southern Asia. (WHO, 2008) There is a huge difference between urban and rural sanitation coverage. This is shown in map 2 and 3. It is visible that in rural areas there is much less sanitation coverage, in comparison with urban areas. This is particularly the case in the developing world.

### **BOX 1**

#### **Some Alarming Statistics on Sanitation: The Current Scenario**

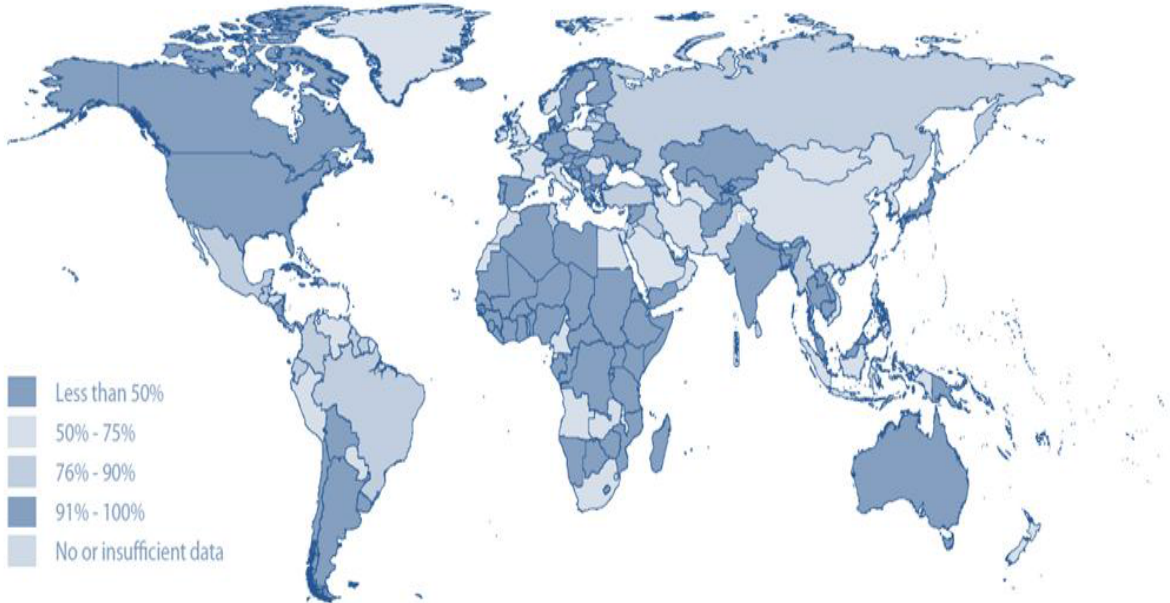
- ☞ 2.5 billion: Number of people without access to improved sanitation. The vast majority live in Asia and Sub-Saharan Africa.
- ☞ 1 billion: At the rate of current progress, the world will miss the MDG for sanitation by this many people.
- ☞ 1.7 billion: Number of people who lack access to improved sanitation facilities even if the MDG for sanitation is met.
- ☞ 40%: Percentage decline in open defecation worldwide between 1990 and 2010 (from 25 percent to 15 percent).
- ☞ 1.1 billion: Number of people who still defecate in the open. Most live in rural parts of South Asia and Sub-Saharan Africa.
- ☞ More than one in six people worldwide - 894 million - don't have access to this amount of safe freshwater
- ☞ Globally, diarrhoea is the leading cause of illness and death, and 88 per cent of diarrhoeal deaths are due to a lack of access to sanitation facilities, together with inadequate availability of water for hygiene and unsafe drinking water.

Source: WHO/UNICEF (2012)

The most important problem that comes along with the lack of access to sanitation facilities is the bigger chance on illness. At all times, more than half of the poor people in the developing world are ill from causes that are related to the lack of hygiene, sanitation and water supply (WSSCC, 2010). Around 18 percent of all deaths, under children under five, are due to diarrhoeal diseases. This has as a consequence that diarrhoeal diseases are the leading cause of child death on a global scale. Diarrhoeal diseases are mainly spread by faecal-oral contact. To prevent diarrhoeal diseases different preventive measures are needed. This includes the improving access to safe drinking water and adequate sanitation. (Botting et al, 2010) If one

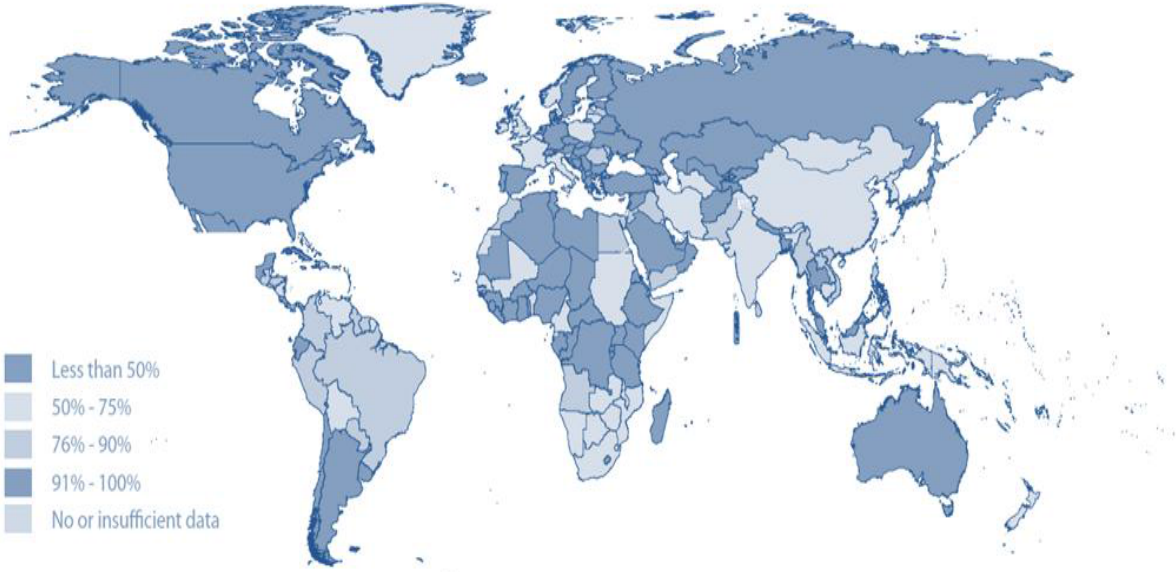
accepted the fact that lacking access to sanitation facilities is related to having a bigger chance to be ill, one must see the serious consequences for communities when lacking sanitation facilities. If people are ill, they cannot work, or they drop out of school, this has serious consequences for the national and local economy, environment, and children’s education. (WSSCC, 2010)

**MAP 1**  
**Improved Sanitation Coverage across the Globe in 2006**



Source: WHO (2008)

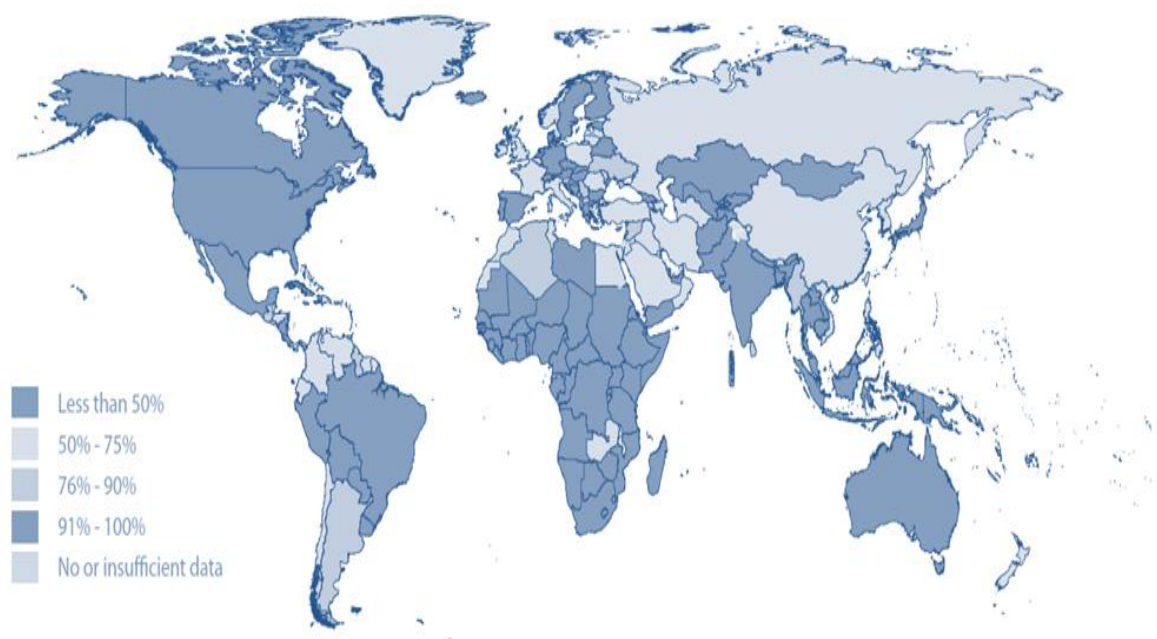
**MAP 2**  
**Improved Urban Sanitation Coverage across the Globe in 2006**



Source: WHO (2008)

### MAP 3

#### Improved Rural Sanitation Coverage across the Globe in 2006



Source: WHO (2008)

The problem of how to dispose of human waste is not a new one, but in a world that is increasingly bound by constraints of resources, population growth, rapid urbanization and corresponding levels of poverty and disease, the pressure for appropriate and sustainable solutions is mounting. Diarrhoeal disease resulting from poor sanitation and hygiene is the leading cause of child morbidity and mortality in the world, resulting in the death of 1.5 million children a year (WHO, 2009). In addition, the world's 1.1 billion people who practice open defecation (WHO/UNICEF, 2010) are daily faced with threats to their privacy, health and safety. As a result, improvement in sanitation coverage has been targeted by the United Nations Millennium Development Goals (Target 7.C: United Nations, 2000) because of its strong link to issues of environmental and public health, economy, and human dignity.

#### 1.3.1. Southern Asia

Southern Asia is lagging behind on reducing the amount of people without access to improved sanitation. Approximately 64 percent of the population, almost 1 billion people (WaterAid, 2008), lacks access to basic improved sanitation, and the gap between the urban and rural areas

remains enormous. (UN, 2010) In the rural areas the sanitation coverage is still remaining extremely low, while the urban areas are revolting.

### **1.3.2. Global Efforts towards Sanitation: At A Glance**

Rich countries and international organisations first began to give assistance for water and sanitation through the World Bank in 1961. (Botting et al, 2010; Grover, 1998) The assistance for sanitation facilities were until the mid 1990s part of the water policies. Most of the funds went to the supply of water facilities, and the coverage gap between water and sanitation supply increased. In 2004 water supply had a worldwide coverage of 83.3 percent, while sanitation had a worldwide coverage of 59.1 percent (WHO, 2006).

In the 1970s the United Nations organized several conferences on water policies. In 1976 the first UN conference on Human Settlements, Habitat, was organised. In this conference the importance of water supply and sanitation in the rapid growing cities in third world countries was emphasized. (Grover, 1998) These conferences have led to several programmes that concentrated on water policies.

More cooperation in the water and sanitation sector started in the 1980s. The Water Supply and Sanitation Collaborative Council (WSSCC) was established, and tried to bring more cooperation between the different policies in water and sanitation of bilateral and unilateral aid. The UN organisations working on water and sanitation also started to have more meetings and to cooperate with each other in this decade. (Grover, 1998) At the same in recent years some major Global initiatives were taken in order to promote sanitation around the World (Box 2).

The sanitation theme gets more important in international policies and treaties after 2000. Within the Millennium Development Goals (MDGs) the improvement of the world sanitation status is mentioned. Target 7.C indicates that by 2015, the proportion of people without sustainable access to basic sanitation has to be halved. (UN, 2011) This ensured that within more countries there was need to a good working policy on sanitation, so the goals could be met.

Until the end of the 1990s almost all water and sanitation policies were, as it is called, 'hardware' policies. The policies were mainly focussed on the installation of water supply and latrines. This changed with the upcoming of Community Led Total Sanitation (CLTS), in the beginning of the 2000s in Bangladesh. (WSSCC, 2011) The CLTS approach was the beginning



of a new era in the sanitation policies, the ‘software’ policies. ‘Software’ policies focus more on awareness raising, and education on the use of sanitation and hygiene, instead of only the installation of toilets and water supply. The idea is, when people get educated about the use of sanitation and hygiene, the policies will be more effective than when only toilets are build.

## **BOX 2**

### **Some Recent Global Commitments towards Promoting Sanitation: At A Glance**

- **World Toilet Day:** In 2001, the World Toilet Organization declared its founding day, **19 November**, as World Toilet Day. World Toilet Organization (WTO) [H.Q.: Singapore] is a global non- profit organization committed to Improving sanitation conditions for people globally through powerful advocacy, inventive technology, education and building marketplace opportunities locally.
- **Global Hand-washing Day:** It was originally created for children and schools, but can be celebrated by anyone promoting hand-washing with soap. Each year on **October 15**, over 200 million people are involved in celebrations in over 100 countries around the world
- **International Year of Water Cooperation [IYWC] 2013:** IYWC 2013 kicks off in Paris! The International Year of Water Cooperation 2013 officially launched with a high-level event taking place at UNESCO Headquarters in Paris, France.
- **International World Water Day:** International World Water Day is held annually on 22 March as a means of focusing attention on the importance of freshwater and advocating for the sustainable management of freshwater resources.
- **International Decade for Action: Water for Life:** The year 2005 marks the beginning of the “International Decade for Action: Water for Life”

Source: WHO/UNICEF (2006) & WSSCC (2011)

#### **1.4.0. Current State of Sanitation in India**

Lack of adequate sanitation is a pressing challenge in both rural and urban India (Box 3). Sanitation -related diseases take a heavy toll of lives, especially children’s lives, and are a drain on productivity and incomes. Lack of adequate sanitation also forces households into the continued indignity of open defecation, which is an acute problem especially for women and young girls. Every day, an estimated 1,000 children under five die in the country because of diarrhea alone, a preventable disease. Prevalence of child under-nutrition in India (47 per cent) is among the highest in the world and nearly double that of Sub-Saharan Africa. (IIPS and Macro

International, 2007) Child under-nutrition is aggravated by the prevalence of diarrheal disease, and is responsible for 22 per cent of the country's burden of disease (World Bank 2005). Some studies suggest that it affects child cognitive and motor development and undermines educational achievement. Sanitation related illnesses in both children and adults drain productivity and income, ultimately perpetuating poverty. In addition to public health implications, lack of adequate sanitation forces households into the continued indignity of open defecation, which is an acute problem especially for women and young girls. On the other hand, access to safe sanitation in schools is linked to continued education enrolment by young girls and teenage women, particularly at puberty.

### **BOX 3**

#### **Status of Sanitation in India: The Current Scenario at a Glance**

- ☞ A UNICEF study explores Indians make up 58% of the world population which still practices open defecation, and the sense of public hygiene in India is the worst in South Asia and the world. (South Asia Investor Review, 2011)
- ☞ A DFID Report (UK's Department for International Development) shows that the number of open defecators in rural India alone is more than twice those in the whole of sub-Saharan Africa. (South Asia Investor Review , 2011)
- ☞ Nearly half of India's 1.2 billion people have no toilet at home (ORGI, 2011)
- ☞ The Census Report shows that 53.1% (63.6% in 2001) of the households in India do not have a toilet, with the percentage being as high as 69.3% (78.1% in 2001) in rural areas and 18.6% (26.3% in 2001) in urban areas (ORGI, 2011)
- ☞ Jharkhand tops the list with as high as 77% of homes having no toilet facilities, while the figure is 76.6% for Orissa and 75.8% in Bihar (Sanitation updates, 2012)
- ☞ Two-thirds of Indian homes have no drinking water facility from a treated tap source, and four-fifths are devoid of closed drainage connectivity for discharge of wastewater. (The Hindu Business Line, 2012)
- ☞ While 87% of the households now use tap, tube-well, hand-pumps and covered wells as the main source for drinking water, only 47% have the source of water within the premises. (The Hindu Business Line, 2012)
- ☞ 36% households still have to fetch water from a source located within 500 meters in rural areas and 100 meters in urban areas. (The Hindu Business Line, 2012)
- ☞ 17% women in the rural areas have to walk more than half a km to get water for their families and for their cattle, and 55% of them are forced to bathe in the open because they do not have any private bathing facilities. (Pande, 2012)

- ☞ Over 1% of all households in both the urban as well as rural areas continue to rely even today on this practice. (Mohanty, 2012)
- ☞ Around 25 lakh households, nearly 12 lakh in rural areas and 13 lakh in urban areas depend on manual scavengers to remove night soil from the toilets. (Mohanty, 2012)

India stands second amongst the worst places in the world for sanitation. The severity of the problem in India could be judged from the fact that hardly 33% of overall population has sanitation facility available. A mere 14 percent of people in rural areas of the country had access to toilets in 1990, the proportion had gone up to 28 percent in 2006. Interestingly, the coverage is 59 percent in urban areas (WHO/UNICEF 2004). In rural areas of India, 74 percent of the population still defecates in the open. In these environments, cash income is very low and the idea of building a facility for defecation in or near the house may not seem natural. And where facilities exist, they are often inadequate. The sanitation landscape in India is still littered with 13 million unsanitary bucket latrines, which require scavengers to conduct house-to-house excreta collection. Over 700,000 Indians still make their living this way. Moreover, India is losing billions of dollars each year because of poor sanitation. Illnesses are costly to families, and to the economy as a whole in terms of productivity losses and expenditures on medicines, health care, and funerals (United Nations, 2008).

#### **1.4.1. Lack of toilet facilities**

Recent evidence indicates that India is heading towards a major sanitation crisis in the coming years. The fastest growing economy seems to have missed out on having adequate toilet facilities for as high as 65% of its population. For example, nearly half of India's 1.2 billion people have no toilet at home, but more than half of India's people own a mobile phone, indicates the latest census data. (Image 1) According to India's 2011 census, nearly half of population have no toilet at home, but more people own a mobile phone. (Sanitation updates, 2012) The Census Report shows that 53.1% (63.6% in 2001) of the households in India do not have a toilet, with the percentage being as high as 69.3% (78.1% in 2001) in rural areas and 18.6% (26.3% in 2001) in urban areas. (ORGI, 2011)

## IMAGE 1

### India Has More Mobiles than Toilets: A Symbolic Representation



Source: Google Images (2013)

Furthermore, field studies indicate that even the use of the existing toilets in both rural and urban areas is very low. These facts have also been reconfirmed by another report released on 6<sup>th</sup> March 2012 by the WHO/UNICEF's Joint Monitoring Programme on sanitation for the Millennium Development Goals, which has also indicated that 59% (626 million) Indians still do not have access to toilets and practice open defecation and that majority of them live in rural areas. (WHO/UNICEF, 2012) Figure 2 shows within India amongst the different states, Jharkhand tops the list with as high as 77% of homes having no toilet facilities, while the figure is 76.6% for Orissa and 75.8% in Bihar. All three are among India's poorest states with huge populations that live on less than Rs 50/- a day. (Sanitation updates, 2012)

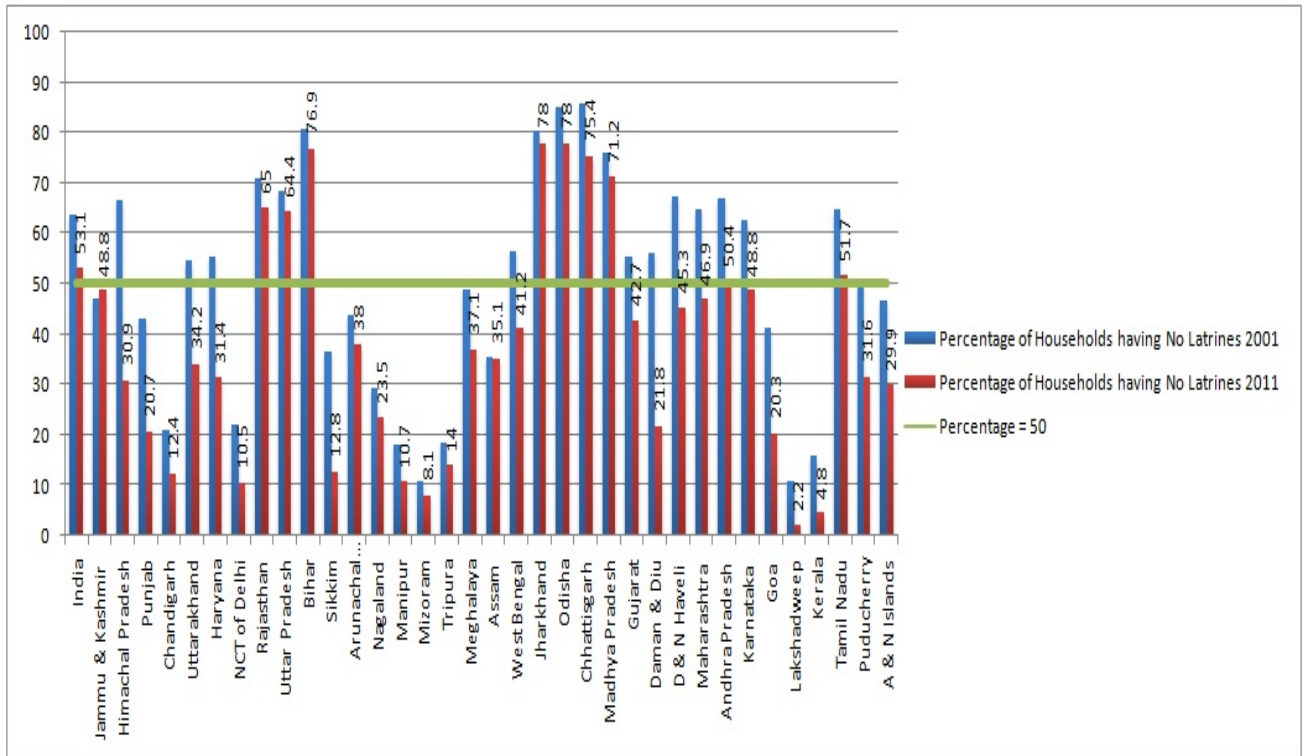
#### **1.4.2. Lack of access to water supply and drainage facilities and implications for sanitation**

In addition to more than half of Indian homes having no toilets within their premises, access to water supply and drainage facilities is also another serious problem. For example, two-thirds of Indian homes have no drinking water facility from a treated tap source, and four-fifths are devoid of closed drainage connectivity for discharge of wastewater. While 87% of the households now use tap, tube-well, hand-pumps and covered wells as the main source for drinking water, only

47% have the source of water within the premises. 36% households still have to fetch water from a source located within 500 meters in rural areas and 100 meters in urban areas. (The Hindu Business Line, 2012)

**FIGURE - 2**

**Households Not Having Latrine in India: A Comparison between 2011 & 2001 Census**



Source: ORGI (2011)

This has a significant impact on the sanitation and hygiene practices and the health of women in terms of extra workload and evidence indicates that 17% women in the rural areas have to walk more than half a km to get water for their families and for their cattle, and 55% of them are forced to bathe in the open because they do not have any private bathing facilities. The situation is even worse in areas, which are drought-prone or face perennial water shortage, such as the Bundelkhand region in Uttar Pradesh and states like Rajasthan, Bihar, Jharkhand and Orissa. (Pande, 2012)

**1.4.3. Widespread practice of manual scavenging**

Manual scavenging is still widespread in India. Over 1% of all households in both the urban as well as rural areas continue to rely even today on this practice. Evidence indicates that there are 7.94 lakh dry latrines in the country and excreta are regularly cleaned by scavengers. In over 13 lakh toilets, the waste is flushed into open drains and cleaned by humans. Around 25 lakh households, nearly 12 lakh in rural areas and 13 lakh in urban areas depend on manual

scavengers to remove night soil from the toilets (Mohanty, 2012). In Jammu & Kashmir, 8.9% of households still have their toilets emptied by manual scavengers. (Sanitation updates, 2012)

#### **1.4.4. Increase in Budget allocation for tackling the crisis of Sanitation**

Following the report of the Joint Monitoring Programme for Water and Sanitation (JMP) released by UNICEF and WHO, which has pointed out that India is lagging behind by around 11 years in meeting the Millennium Development Goal targets, the government has resolved, that it will deal with the situation. However, the census report findings have complicated matters further and present an alarming development with an 11% decline in households having toilets. The percentage has gone down to 53 from 64 in 2011 (Pande, 2012). The officials from the Ministry of Drinking Water and Sanitation, Government of India, have admitted that although a lot is being done by the government to tackle the problem of sanitation, and although efforts are yielding positive results, a lot still needs to be done, looking at the needs of the population. (Pande, 2012) In response to the situation, the budget for the sector has been more than doubled, from Rs 1,500 crore in 2011-12 to Rs 3,500 crore for the coming fiscal year. (Pande, 2012) A Steering Committee of the Planning Commission has proposed an allocation of Rs 44,116 crore (at a hike of 675 per cent over the 11th plan allocation) for sanitation and Rs 1,22,570 crore (hike of 312 per cent over the 11th plan allocation) for drinking water in the 12th Plan. (Sindhu, 2012)

A detailed exercise is also being conducted to identify the shortcomings of the existing sanitation and drinking water efforts and incorporate them into the 12th Five Year Plan. However, a lot of confusion exists in terms of the reliability of the information available. For example, the Ministry of Drinking Water and Sanitation claims 74% sanitation coverage in the urban areas of the country while the Joint Monitoring Programme quotes 39% and the Census report puts sanitation coverage at 30.7%, which is less than half of the figures presented by the Ministry. (Pande, 2012)

Even in the case of rural sanitation, the Ministry claims that the coverage is 53% whereas the Joint Monitoring Programme and census data keep the figure at 33% and 30%, respectively. At the state level, The Ministry of Drinking Water and Sanitation claims that in states like Uttar Pradesh and Madhya Pradesh, only 31.7% and 34.8% of the population lacks sanitation facilities. However, according to the Census data, 78% population in Uttar Pradesh and 86.9% population in Madhya Pradesh do not have access to sanitation facilities. The Ministry claims that only 23.4% people do not have sanitation coverage in Tamil Nadu, while the Census data reports that 76.8% people lack sanitation coverage in Tamil Nadu. In the context of this situation, there is a

need to develop a more accurate monitoring system by revamping the existing monitoring mechanism and evolving a community-based monitoring system. GPS technology is being taken into consideration and pilot projects are already underway in a few states like Himachal Pradesh and Bihar. (Pande, 2012)

### **1.5.0. Evolution, Growth and Expansion of Rural Sanitation in India: An Overview**

#### **1.5.1 Policy Framework for Sanitation and Hygiene**

The responsibility for provision of sanitation facilities in the country primarily rests with local government bodies – municipalities or corporations in urban areas and Gram Panchayats in rural areas. The State and Central Governments act as facilitators, through enabling policies, budgetary support and capacity development. In the Central government, the Planning Commission, through the Five Year Plans, guides investment in the sector by allocating funds for strategic priorities. While the first five plan periods were characterized by relatively negligible investments in sanitation, it received a major fillip from the Sixth Plan (1980-85) onwards and the launch of the International Drinking Water Supply and Sanitation Decade in 1980. Responsibility for rural sanitation was also shifted from the Central Public Health and Environmental Engineering Organization to the Rural Development Department.

In 1986, the Rural Development Department initiated India's first nation-wide program, the Central Rural Sanitation Program (CRSP). The CRSP focused on provision of household pour-flush toilets and relied on hardware subsidies to generate demand. This approach failed to motivate and sustain high levels of sanitation coverage as it was based on the erroneous assumption that provision of sanitary facilities would lead to increased coverage and usage. It also did not include adequate attention to 'total' sanitation which includes improved hygiene behaviour, school and institutional sanitation, solid/liquid waste management and environmental sanitation. Despite an investment of more Rs. 6 billion and construction of over 9 million latrines in rural areas, rural sanitation grew at just 1 per cent annually throughout the 1990s and the Census of 2001 found that only 22 per cent of rural households had access to a toilet. (DDWS, 2008)

#### **1.5.2 Sector Reforms and their Impact**

Despite considerable investment, CRSP approach failed to motivate and sustain high levels of sanitation coverage as it was based on the erroneous assumption that provision of

sanitary facilities would lead to increased coverage and usage. Recognizing the limitations of this approach and taking into account the KAP study findings - Government of India restructure CRSP and launch Total Sanitation Campaign (TSC) in 1999. TSC moved away from the principle of state-wise allocation primarily based on poverty criterion to a “demand- driven” approach. The programme gives emphasis on Information, Education and Communication (IEC) for demand generation for sanitation facilities. It also gives emphasis on school sanitation and hygiene education for changing the behavior of the people at a younger age itself. (DDWS, 2008) Some key features of the TSC include:

- A community led approach with focus on collective achievement of total sanitation
- Focus on Information, Education and Communication (IEC) to mobilize and motivate communities towards safe sanitation
- Minimum capital incentives only for BPL households, post construction and usage
- Flexible menu of technology options
- Development of supply chain to meet the demand stimulated at the community level
- Financial incentive in the form of a cash prize (Box 4) – Nirmal Gram Puraskar (NGP) – to accelerate achievement of total sanitation outcomes.

#### **BOX 4**

##### **Financial Incentives under Nirmal Gram Puraskar (NGP)**

The Nirmal Gram Puraskar of the Government of India, introduced in 2004, is a scheme that offers cash rewards to local governments that achieve 100% sanitation i.e. they are 100% open defecation free (ODF) and have tackled issues of liquid and solid waste management. The amount of incentive is based on population as shown below.

(All figures in Rs. 100,000)

Particulars	Gram Panchayat					Block		District	
	Less than 1000	1000 to 1999	2000 to 4999	5000 to 9999	10000 and above	Up to 50000	50001 and above	Up to 1 million	Above 1 million
PRI	0.50	1.00	2.00	4.00	5.00	10.00	20.00	30.00	50.00
Individuals			0.10				0.20		0.30
Organizations other than PRIs			0.20				0.35		0.50

Source: DDWS (2008)

The TSC is being implemented at scale in 590 districts of 30 States/Union Territories (UTs). Against a target of 108.5 million individual household toilets, the toilets reported completed

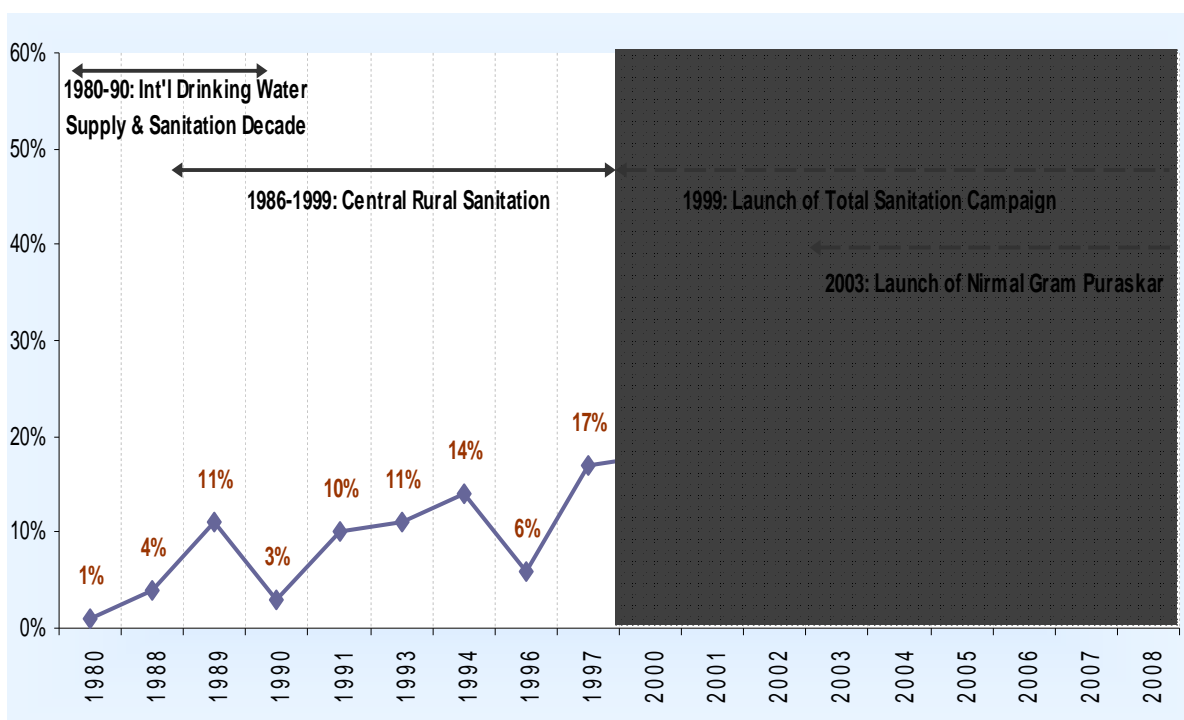


is about 57 million as of October 2008. In addition, about 0.68 million school toilets, 14,540 sanitary complexes for women, and 222,267 anganwadi (pre-school) toilets have been constructed. The Eleventh Five Year Plan has a target of completing 12.9 million individual toilets. In addition to individual household toilets, the TSC lays emphasis on school sanitation. Since inception, a total of 6,80,000 school toilets have been constructed towards a target of 11,80,000. (UNICEF 2008)

### 1.5.3. Coverage

After sluggish progress throughout the eighties and nineties, rural sanitation coverage received a fillip with the implementation of the TSC. As can be seen from Figure 3 below, individual household latrine coverage has more than doubled, from around 22 per cent in 2001 to 57 per cent in 2008.

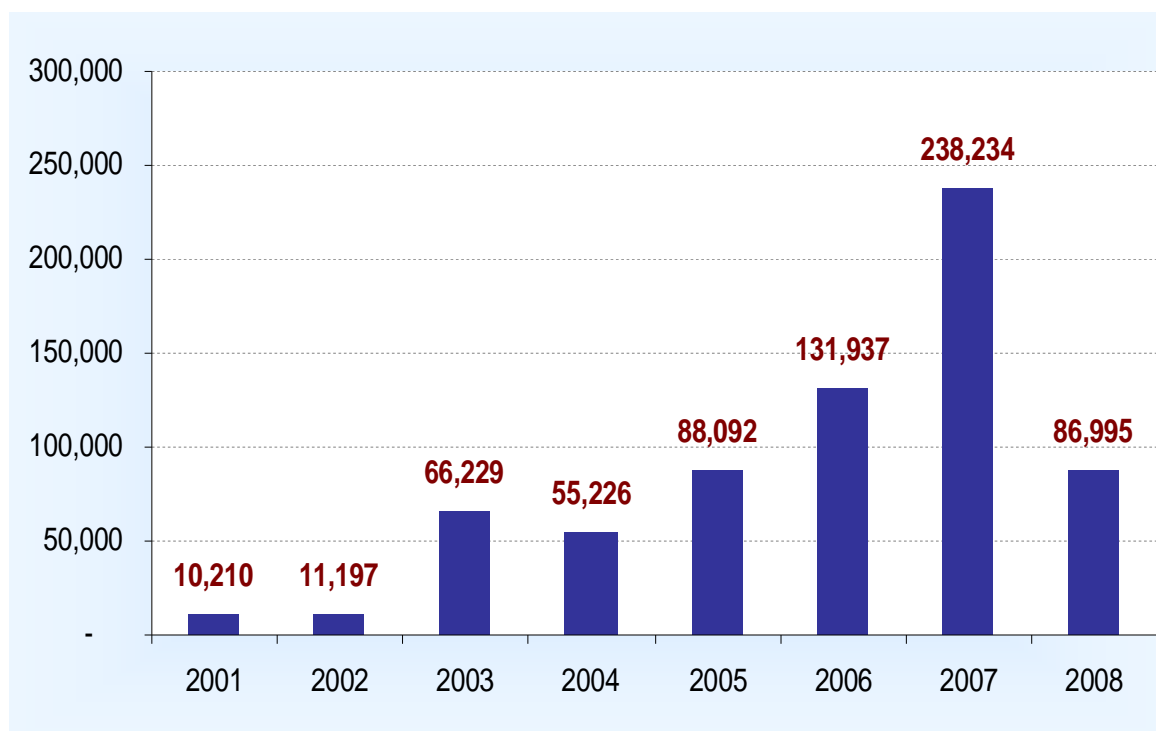
**FIGURE 3**  
**Rural Sanitation Coverage in India**



Source: DDWS (2008)

In addition to individual household toilets, the TSC lays emphasis on school sanitation. Since inception, a total of 6, 80,000 school toilets have been constructed towards a target of 11, 80,000. The year-wise physical progress on this component is shown in Figure 4.

**FIGURE 4**  
**Year-wise Achievement in Construction of School Toilets**

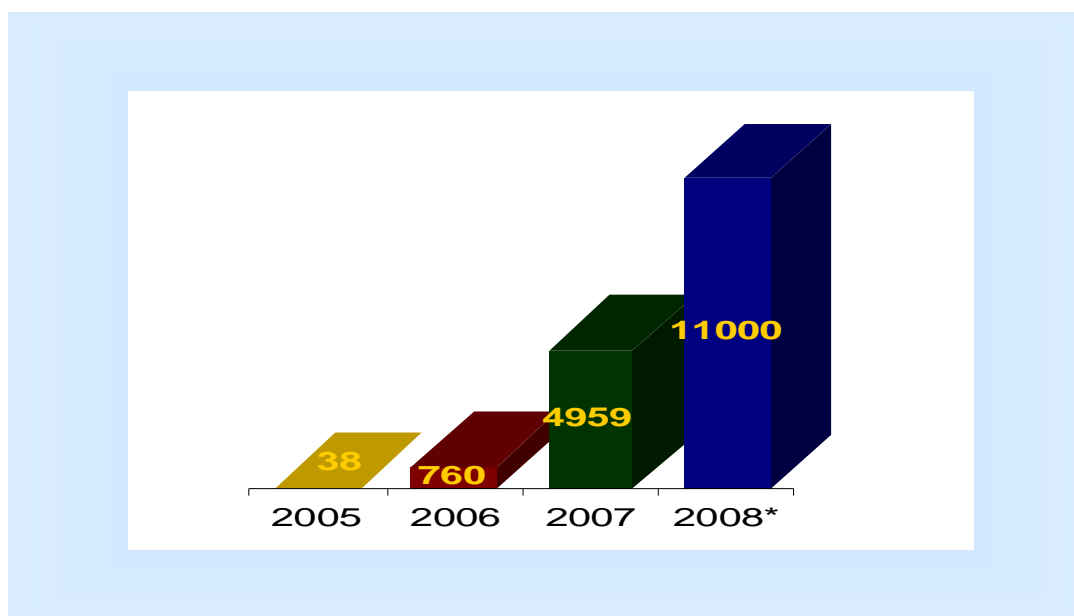


Source: DDWS (2008)

It is important to note that the figures above only reflect the number of households/schools that have a toilet and do not take into account sanitary conditions of the toilet or its usage. They also do not consider sanitation more broadly e.g. by considering improved hygiene behaviours such as hand-washing with soap. The coverage figures are also calculated by taking the number of households as in the 2001 census or in the original project documents. Initial indications of an evaluation study show that around a quarter of household latrines are not being used. Field studies have pointed to lower levels of latrine usage because of inadequate awareness of the importance of sanitation, water scarcity, poor construction standards and the past emphasis on expensive standardized latrine designs.

Since its launch, the Nirmal Gram Puraskar (NGP) has been very successful as a fiscal incentive for achievement of sanitation outcomes. From just 40 Gram Panchayats from 6 states that received the prize in 2005, the number went up to 4959 Panchayats from 22 states in 2007. In 2008, more than 30,000 Panchayats were nominated for this prize and more 11,000 Panchayats have been selected for the award in 2008 (Figure 5).

**FIGURE 5**  
**Year-wise Nirmal Gram Puraskar Achievement**



Source: DDWS (2008)

\* denotes provisional figure for NGP awards

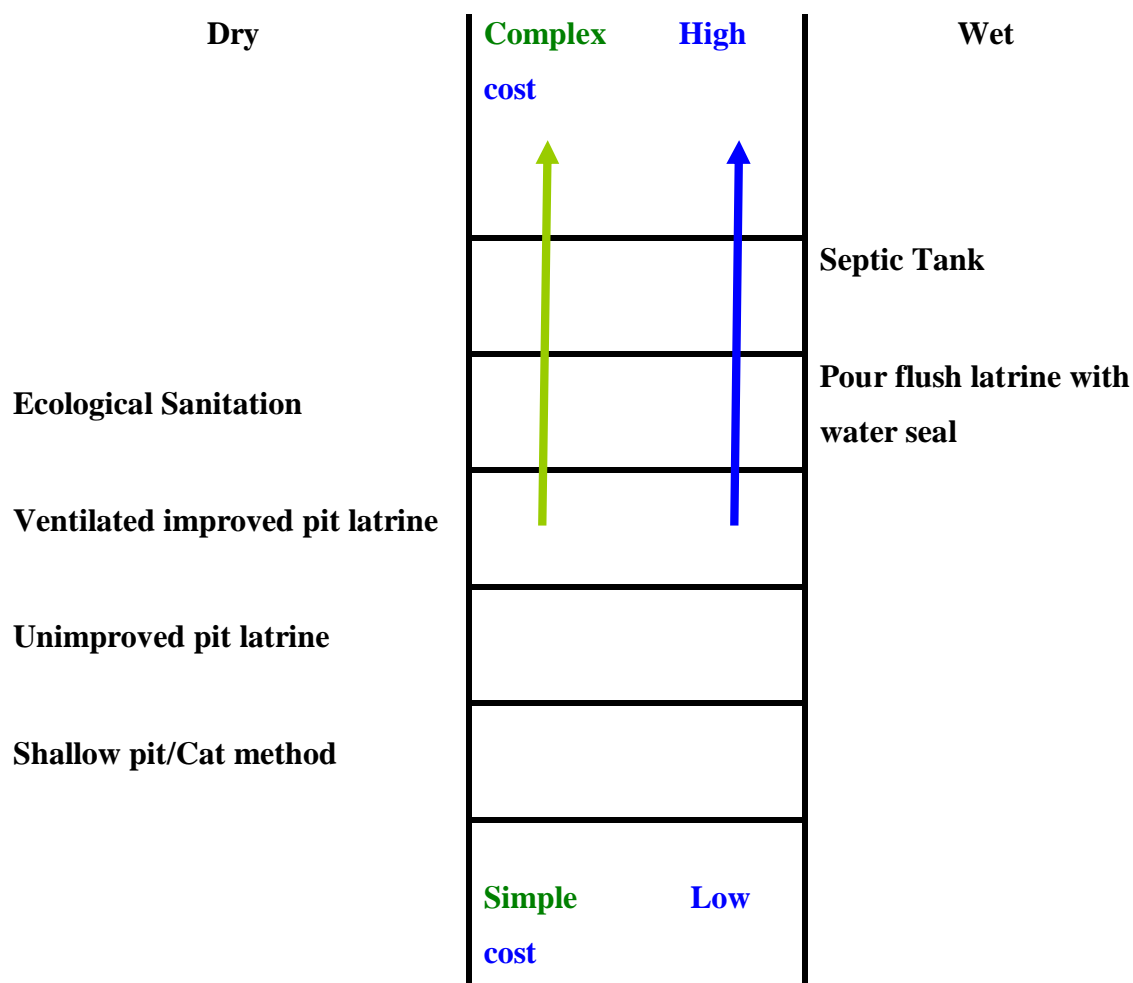
#### **1.5.4. Community Led Approach and Technology Choices**

The TSC strategy is to make the campaign community led through leadership by the local bodies, youth and women organization, school in implementing the campaign. The community is sensitized by creating awareness about the impact of open defecation and lack of sanitation on health, dignity and security especially of women and children. In rural sanitation, ‘encouraging cost-effective and appropriate technologies for ecologically safe and sustainable sanitation’ has been one of the main objectives of the approach. The implication for technology is that this should be improvised to meet consumer preferences ‘in an affordable and accessible manner by offering a range of technological choices’ (Figure 6).

#### **1.5.5. Convergence with Related Sectors**

Integrating sanitation programs with initiatives to improve water availability and health care would increase the likelihood of achieving public health outcomes such as reduction in diarrheal diseases. Parallel to the implementation of the TSC, Government of India is also implementing the rural water supply programs and the National Rural Health Mission (NRHM) program. GoIs rural water program seeks to address issues of access to water and its quality in 55,067 habitations, while the main aim of NRHM is to provide accessible, affordable and reliable primary health care in rural areas. (DDWS, 2008)

**FIGURE 6**  
**Menu of Technology Options**



Source: DDWS (2008)

The RGDWM, NRHM and TSC are all identified as social sector flagship programs by the GoI. In principle, all three programs are implemented through the same district-level institutions. Many activities of the programs are complementary, such as community mobilization, IEC campaigns, capacity development and others, and there are many complementarities e.g. *Anganwadi* (crèche) workers are included as motivators for taking up interpersonal communication at the grassroots level.

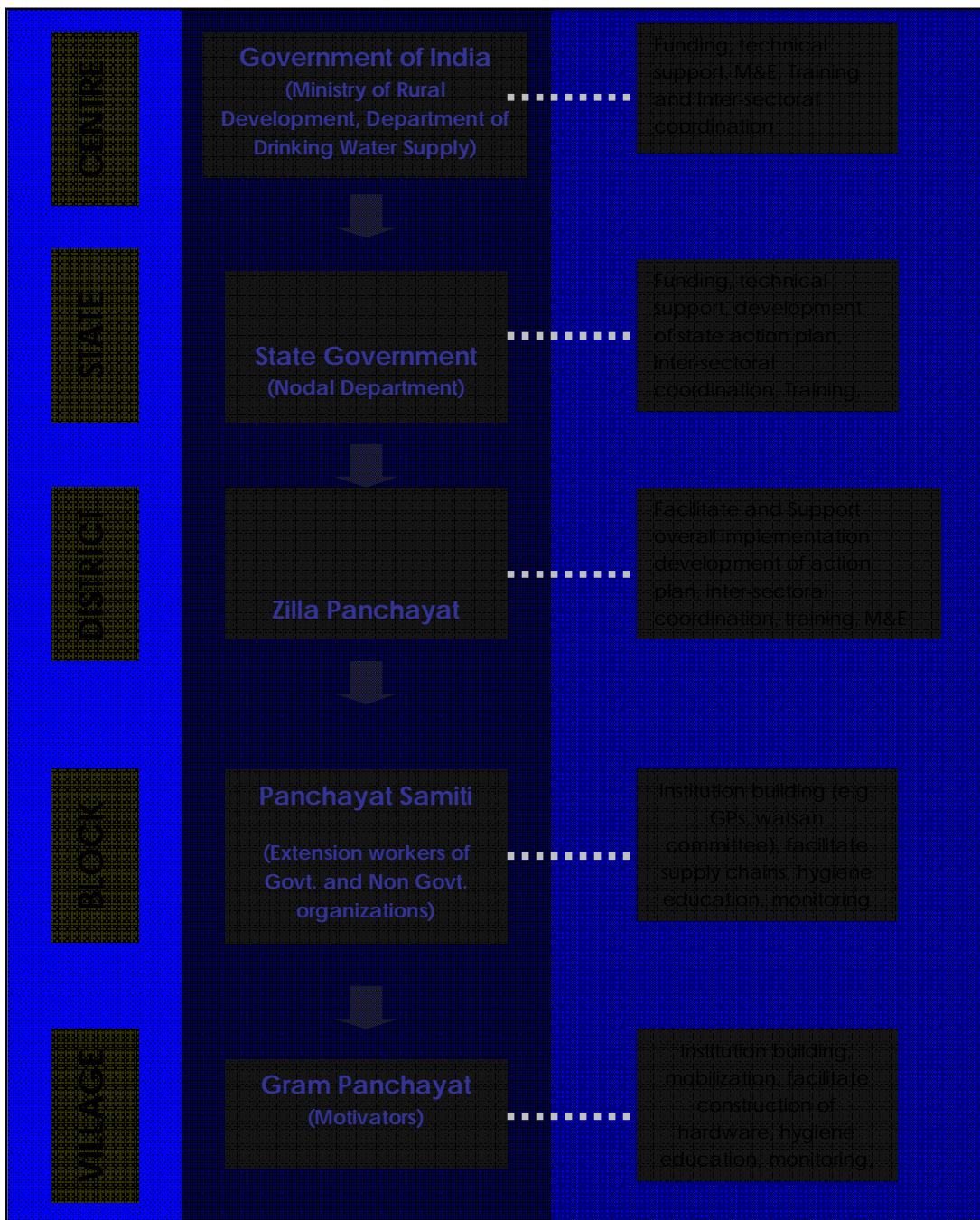
Since school sanitation and hygiene education is an integral part of TSC, convergence is established with Department of School Education and Literacy (DSEL) and the Sarva Shiksha Abhiyan (SSA), the flagship program of GoI to achieve universal elementary education. The emphasis is on providing a school environment equipped with necessary inclusive sanitary facilities as well as ensuring these facilities are safe and well maintained and help to inculcate improved hygiene behaviours in children. Training of teachers is also organised at district and sub-district levels to impart hygiene education in the schools.

### 1.5.6. Service Delivery Mechanisms

The TSC operates through district projects of 3-5 years duration, jointly financed by central and state governments with contribution from beneficiary households (generally in the ratio of 65:25:15). At district level, Zilla Panchayats implement the project. Similarly, at the block and the Panchayat levels, Panchayat Samitis and respective Gram Panchayats are involved in implementation of the TSC. TSC delivery structure is shown in Figure 7.

**FIGURE 7**

**Total Sanitation Campaign (TSC) Delivery Structure**



Source: DDWS (2008)

### 1.5.7. Achievements: Progress towards Millennium Development Goals

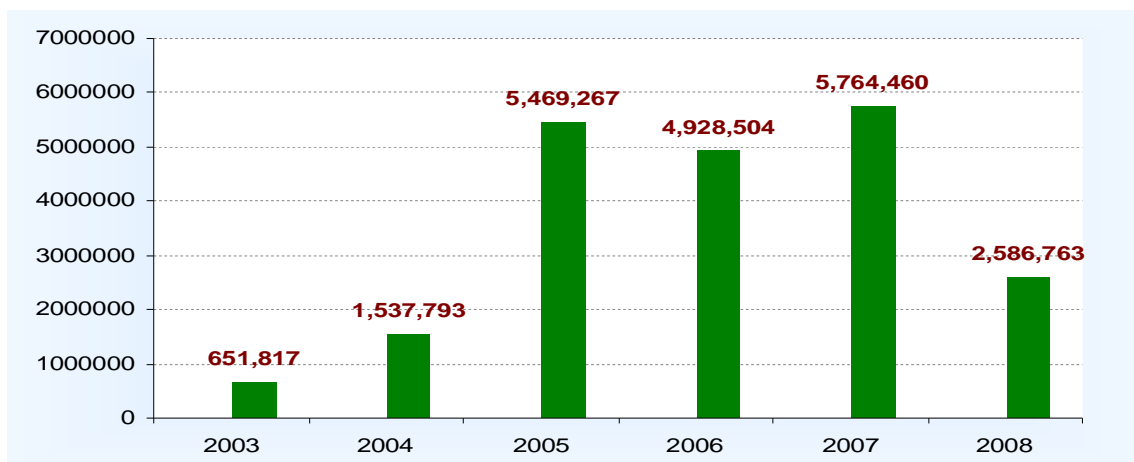
Sanitation is one of the most pressing global development issues and is appropriately included in the Millennium Development Goals (MDGs). Out of eight MDGs, three are directly linked to sanitation: reduce child mortality, combat disease and ensure environmental sustainability. Even the first goal, eradicate extreme poverty, is linked to sanitation as high health and coping costs associated with illnesses caused by inadequate sanitation drain productivity and incomes, contributing to poverty.

One of the targets under the MDG Goal 7: ensure environmental sustainability, is to halve, by 2015, the number of people without sustainable access to safe drinking water and safe sanitation. Although the MDGs were formulated in 2000, the baseline for most of the MDG targets, including that on water and sanitation, has been set as 1990. At current rates of progress (57% coverage as of 16-10-08), GoI will not only meet the sanitation MDG but exceed it, as more than 90% rural sanitation coverage may be achieved by 2012. (DDWS, 2008)

### 1.5.8. Private initiatives

Private initiatives play a major role in achievement of household and institutional sanitation coverage. Under the TSC, Above Poverty Line (APL) households are expected to build household toilets without any household incentives. To date, more than 20 million APL household toilets have been constructed as compared to 26 million BPL household toilets (DDWS 2008). The trend in APL toilet coverage (Figure 8) is shown in the graph below. In addition, the private sector is predominantly involved in the supply of sanitary materials and services, and to an increasing extent in maintenance.

**FIGURE 8:**  
**Year-wise APL Toilets Constructed**



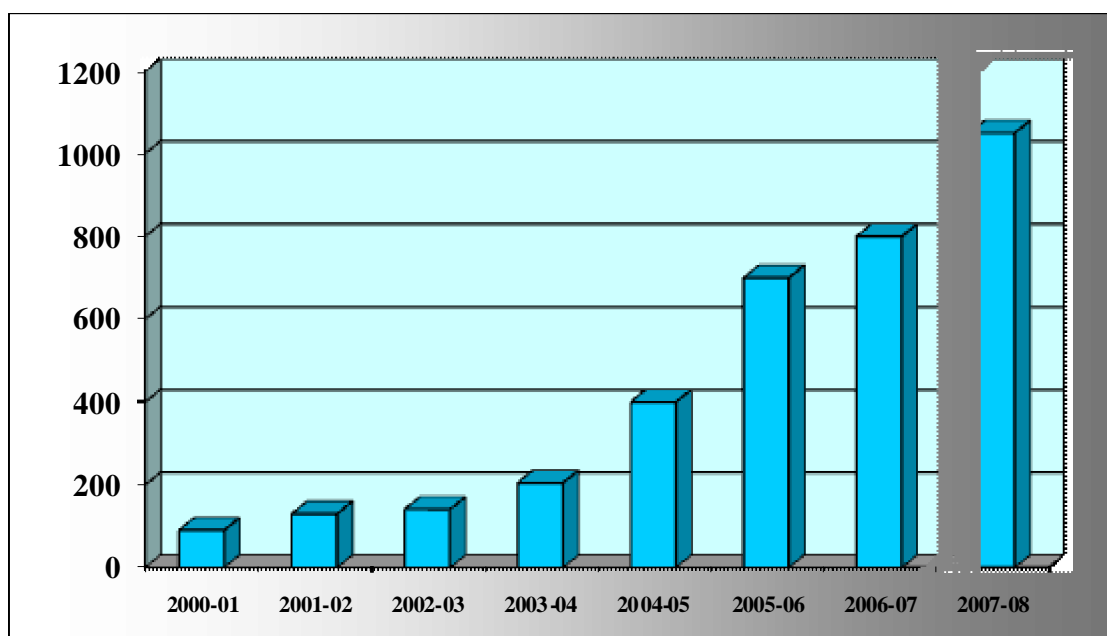
Source: DDWS (2008)

### 1.5.9. Resource mobilization

Reflecting the high priority attached to rural sanitation, a budget of more than Rs 4400 crores has been allocated for TSC projects since inception in 1999 (Figure 9).

**FIGURE 9**

**TSC Fiscal Year-wise Budget Allocated (in crores)**



Source: DDWS (2008)

### 1.5.10. Dignity of women

Lack of awareness and socio-cultural attitudes have meant that sanitation has not received the recognition it deserves. This forces a large number of households to the continued indignity of open defecation. This has adverse impacts on health, well-being and dignity, and is an acute problem especially for women and young girls. This is because women and young girls often have to wait until after dark to defecate which increases the risk of urinary tract infections, chronic constipation and psychological stress. Women are also vulnerable to physical and sexual violence if they are forced to wait until early morning or late evenings to look for a secluded space in which to defecate. Lack of toilets also makes it difficult to manage discreetly symptoms related to pregnancy, menstruation and child birth. The absence of sanitary facilities in schools is also linked to female drop-out, especially at puberty. Finally, recruitment and retention of female teachers is also affected by lack of proper sanitary facilities in schools.

Field evidence shows that the involvement of women in water and sanitation programs increases the likelihood of successful interventions. In light of the significant gender dimension of sanitation, the TSC Guidelines encourage the involvement of women in the implementation of the program. While not laying down a straitjacketed approach, the Guidelines suggest that women's thrift and credit groups or other committees may be involved in mobilizations as well as entrepreneurial activities such as supplies of sanitary materials and services.

#### **1.5.11. Bridging Gaps: Equity, Gender, Environment**

The Total Sanitation Campaign (TSC) and the Nirmal Gram Puraskar (NGP), by its emphasis on collective achievement of safe sanitation, is effectively an inclusive approach by including the marginalized populations, involving the poor and women. A focus on Total Sanitation as the goal means that the whole community has to achieve access to safe sanitation, which makes the community address the sanitation needs of the marginal populations as well. Incentives are targeted at Below Poverty Line households. Regular monitoring is done to ensure coverage of schedule caste and schedule tribe households. The new school toilet designs incorporate requirements of disabled and girls including menstrual hygiene. In schools especially, disposal of sanitary napkins in girls' toilets is big problem from the health aspects.

#### **1.5.12. Role of Civil Society**

Civil society has played a key role in India's sanitation movement. Many civil society organizations have operated successfully as intermediaries between the project and local people, responsible for facilitating project implementation activities such as community mobilization, capacity building and cost-sharing. These civil society organisations have experimented and developed innovative approaches in community mobilization, technologies and other spheres of sanitation, the lessons from which has been sought to be scaled up and sustained in the national level sanitation campaign.

#### **1.5.13. Partnerships, Alliances and Networking: Media as Partner**

Sanitation is considered taboo, a 'dirty word' that does not often come up in polite conversation. The International Year of Sanitation initiative acknowledges this cultural bias, noting that the topic of sanitation is not a regular feature in mainstream news media, unless there is sensational news such as a disaster linked to sanitation or its lack thereof. However, different types of media, be it print, radio or television, at national, state and sub-state levels, are an important target audience as they are the main channel to communicate with other target audiences.



DDWS recognizes the important role played by media in communicating the message of total sanitation in its national communication strategy. The strategy envisages that mass media will play an integral role in IEC at national and state level, supplemented by IPC (inter personal communication) at grassroots level (TSC Guidelines 2007). To operationalize this strategy, a Communication and Capacity Development (CCDU) has been set up in each state which is fully funded by the central government. As part of its media outreach, DDWS has introduced a 'Media Corner' on its website (<http://ddws.nic.in/MediaCorner.htm>) which lists the latest sanitation news stories from across the country.

#### **1.5.14. Research and Development**

R&D is a support activity for which DDWS provides 100 per cent funding to research organizations. Traditionally, research funding has focused on water sector but the need for focusing concerted research efforts for sanitation has been highlighted. The three major areas identified for R&D inputs to enrich and sustain the current sanitation program are:

- **Technology related:** Initiatives are required in sanitation technologies particularly in the product/design, evacuation, decomposition and maintenance and construction with regard to leach pit technology or any improvement in existing installed septic tank technology. More investments are needed in solid and liquid waste technologies, bio-gas, eco-sanitation, methane recovery from landfill sites, etc.
- **Program related:** Innovations in planning, communication, monitoring, financing sanitation program are needed to ensure faster and sustainable implementation of the sanitation program.
- **Other areas that impact sanitation sector:** Initiation of impact studies on the importance of sanitation interventions in the areas of cognitive development of children, nutritional status, other health and disease indicators, education: drop out and enrolment rate, water quality improvement, cost benefit analysis (increase in income, reduction in loss of man-days), overall child development, women empowerment, etc. Initiation of other R&D initiatives in the excreta decomposition technology for railway coaches, developing standards/norms for food hygiene, using of solar/wind energy in sanitation, innovation in sanitary pad technologies and its promotion, improvement in incinerator-cost, design, standardization, disposal of used sanitary pad, school friendly waste management technologies and systems, inclusive designs for households and institutions.

### 1.5.15. Use of Information Technology

A significant factor in the success of the TSC is the online monitoring system which makes information on program implementation available in real time. Monthly Progress Reports (MPRs), comprising physical and financial data, are submitted by districts through an online interface (paper reports are explicitly discouraged). To incentivize timely submission of MPR, successive financial disbursement is linked to this and this is also an indicator in the state performance report card prepared by DDWS. For process monitoring, including quality of sanitary facilities and usage, District-level Monitoring Agencies (DLMs) have been appointed which submit quarterly monitoring reports into the online system. (DDWS, 2008)

### 1.5.16. Challenges and Solutions

The challenges and solutions facing the TSC program are analyzed below using a SWOT – Strengths, Weaknesses, Opportunities and Threats (Table 1).

**TABLE 1**  
**SWOT Analysis of TSC Program**

<p><b>Strengths</b></p> <ul style="list-style-type: none"> <li>• Committed financial resources</li> <li>• Programme focusing on all elements- HHL, School, Pre-school, Supply chain, SLWM, Communication and capacity building, incentive system</li> <li>• Local bodies taking lead</li> </ul>	<p><b>Weaknesses</b></p> <ul style="list-style-type: none"> <li>• Inadequate focus on hygiene promotion</li> <li>• Weak supply chain affecting post construction support and O&amp;M</li> <li>• Weak monitoring system for process parameters</li> <li>• Lack monitoring of usage and sustainability of the toilets</li> </ul>
<p><b>Opportunities</b></p> <ul style="list-style-type: none"> <li>• Increased awareness among PRIs, Women groups and government officials</li> <li>• Successful models in all states for scaling up</li> <li>• No dearth of resources</li> </ul>	<p><b>Threats</b></p> <ul style="list-style-type: none"> <li>• Too rapid scaling up</li> <li>• Poor monitoring of clean village award (NGP)</li> </ul>

### **1.5.17. Lessons learned from Experiences**

In 2009, the TSC will complete a decade of implementation. During this time, the program has scaled up from a few pilots to cover 590 districts across the country. Given the time and scale of experience gained, now is an opportune time to take stock of lessons learned from key drivers of program successes. These are discussed below in the form of 4i's, namely, Inclination, Institutions, Information and Incentives. (DDWS, 2008)

#### **1.5.17.1. Role of Inclination**

In the context of TSC, inclination is understood at two levels. Firstly, at the macro level it refers to mobilization of political will and creation of an enabling environment to support program implementation. Secondly, at the grassroots level, inclination refers to the importance of behavior change in ending open defecation and achieving total sanitation.

At the macro level, TSC has been identified as a flagship social sector program for development of rural areas by the GoI (Planning Commission, Eleventh Plan). The strong buy-in for the program approach and goals at all levels of government is evidenced by the progressive increase in financial and other resources committed towards program implementation (from outside government also) and the upscaling of the project districts since 1999. TSC has also received priority from His/Her Excellency the President of India and Union Minister for Rural Development, who have graced the Nirmal Gram Puraskar awards ceremony and felicitated the winners in person.

At the grassroots level, inclination is interpreted as willingness to change behavior to end open defecation and adopt safe sanitation. Further, safe sanitation becomes meaningful and effective only when an entire community adopts it because even if a few persons practice open defecation, all are exposed to sickness and disease. Recognizing that safe sanitation is a *habit* and not just constructing toilets, the TSC Guidelines explicitly support a demand-driven and participatory approach at community level. In addition, the TSC envisages that the key actor in changing the sanitation status of a community is the community itself, while the role of government and outsiders is to facilitate this process of transformation. This has been demonstrated by the increase in number of local governments (communities) which have attained NGP.

#### **1.5.17.2. Role of Institutions**

The current institutional arrangements demonstrate a holistic approach to sanitation service delivery and involve all administrative levels of the implementation chain, from centre to village.

Experience with TSC implementation shows that having a dedicated sanitation cell within this holistic framework that is concerned specifically with and held accountable for implementation of sanitation initiatives can be very effective.

Sanitation is often a local issue that has to be addressed by the community residing in a particular habitation. Panchayats or local governments are ideally placed to promote total sanitation due to their outreach and mandate. In addition, Panchayats are in a good position to undertake or facilitate the long-term monitoring and support of rural sanitation services. NGO interventions have been successful in community mobilization and capacity building, but experience shows that Panchayats' involvement in partnership with civil society organizations accelerates scaling up and promotes sustainability. Most importantly, however, communities must be empowered to own the process of changing their sanitation status. Commercial sanitary-ware suppliers can support this process by responding to demand for different types of technology options, but this can also occur through local entrepreneurs, community groups, NGOs or cooperatives.

#### **1.5.17.3. Role of Information**

TSC signals a departure from the traditional mode of implementing sanitation programs by focusing on behavior change rather than infrastructure. Communicating this approach across tiers and building the capacity of different actors involved in implementation is integral to the success of the program. To realize the full potential of this campaign, instead of seeing IEC as a one-time activity, it cannot be considered complete until total coverage and usage are achieved. To facilitate IEC, GoI provides funding at state and district levels and has also identified reputed research and development institutions as Key Resource Centres to orient program managers in states and districts. In addition, the innovations introduced by TSC such as shift from a subsidy to a post achievement incentive regime can be scaled up based on demonstrated success on the ground through exposure visits, documentation (electronic, audio-visual and print) and exchanges at different levels e.g. a regional exchange like SACOSAN. At grassroots level, there are many approaches to mobilization but the best way is a holistic approach that empowers communities to take informed decisions regarding their sanitation status. While this change can be initiated by a facilitator (government or NGO), leadership within the community is required for scaling up and sustaining change.

#### **1.5.17.4. Role of Incentives**

Despite a tendency to look towards enabling financing as a means of mobilization, the TSC moves away from high, upfront subsidy and instead provides for a post usage cash incentive for

identified BPL families. This has to be given as a reward *after* the BPL family has constructed its own toilet and is using it. Further, to incentivize collective outcomes, Nirmal Gram Puraskar (NGP- Clean Village Award) has played an integral role in scaling up TSC. The NGP scheme has elicited a tremendous response, with the number of Panchayats awarded going up from a mere 40 in 2005 to more than 11,000 in 2008. (DDWS, 2008) By providing incentives to community efforts to meet collective gains in sanitation, the scheme helps to raise the status of the winning village, create peer pressure among neighboring villages, and stiff competition among all tiers of governance within and across states. Mobilization of Panchayats for sanitation promotion also has positive spill-over effects such as strengthening decentralization to facilitate the overall socio-economic development of a community.

### **1.5.18. Measuring Outcomes**

As the TSC has been operating at scale for several years across districts, it is an opportune time to measure outcomes of this program. This is because outcomes, especially public health outcomes, take time to come to fruition. The current monitoring system which was put into operation at program inception captures the inputs e.g. financial investment, and corresponding outputs achieved, e.g. toilets built, ODF Panchayats. In terms of tracking outcomes, these are partially captured through indicators like usage and to some extent by the NGP verification process, but this is currently a one-time event.

The present monitoring system can include outcomes such as health, e.g. changes in infant mortality and burden of disease that can be attributed to the TSC. Developing this will require an agreement on a standard set of indicators that are based on agreed upon international definitions, preferably linked to the Joint Monitoring Program. This should clarify roles and responsibilities at all levels, provide the formats and protocols for linking the system, and include simple tools that can be used at the state and district levels. In addition, capacity needs to be developed to implement the systems including the capacity to use the data to inform program implementation.

TSC moves away from the traditional supply-driven approach which prescribed technology and instead articulates informed choice from among a menu of technology options for households that opt to move from open defecation to fixed point defecation. While many options exist for on-site sanitation, choosing between options is often predicated not on technical factors alone, but also on affordability, aesthetics, cultural factors and so on. However, the sanitation technology adopted has to conform to safe sanitation standards, i.e. it should not lead to human contamination through any intermediary like water, flies, etc. To facilitate decision-making

among options to ensure safe and sustainable sanitation, there is a need for standards and benchmarks that enable like-for-like comparison between different options and provide reliable estimates of installation and recurring maintenance costs.

The Central and State Governments have made substantial investment to the tune of US \$ 10 billion since Independence (1947) in establishing one of the largest rural drinking water supply infrastructure in the world, consisting of approx. 3.7 million hand-pumps and 145 thousand piped water schemes. While significant achievement has been in terms of providing access to potable drinking water with 94.3% of the country's 1.4 million rural habitations fully covered, and another 5.3% partially covered as per the national norms, the sanitation coverage in rural areas continues to be a challenge. According to census 2001, only 36.4 percent of households in the country had individual sanitary toilets. In rural areas this was even lower, standing at around 22 percent. Also, only 34.2 percent households in rural areas had drainage facilities for wastewater disposal. Though, over the years<sup>1</sup> the rural sanitation coverage has improved, there is still a long way to go. (DDWS, 2005).

#### **1.6.0. Background and Rationale of the Present Study**

The importance of involving both women and men in the management of water and sanitation has been recognized at the global level, since the 1977 United Nations Water Conference at Mar del Plata and during the International Drinking Water Supply and Sanitation Decade, 1981-1990. Among the guiding principles adopted at the International Conference on Water and the Environment in Dublin (January 1992), principle No. 3 explicitly recognizes the pivotal role of women as providers and users of water and guardians of the living environment. At the same time, it acknowledges that this pivotal role "... has seldom been reflected in institutional arrangements for the development and management of water resources." Dublin was followed by the United Nations Conference on Environment and Development, held in Rio de Janeiro in 1992, which outlined approaches to the management and use of water resources (Chapter 18 of Agenda 21) and referred to the participation, capacity building, education and mobilization of women as decision makers and managers of water resources and sanitation. In the Johannesburg Plan of Implementation of the 2002 World Summit on Sustainable Development (WSSD), para 25(a), governments agreed to: "... support capacity-building for water and sanitation infrastructure and services development, ensuring that such infrastructure and services meet the needs of the poor and are gender-sensitive." In December 2003 at the end of the International Year of Freshwater, the General Assembly proclaimed, building on all these commitments, in its resolution 58/217 the time span from 2005 to 2015 as the International Decade for Action,

'Water for Life', and called on all levels to focus on the implementation of water-related programmes and projects, "whilst striving to ensure women's participation and involvement in water-related development efforts ...". (Brewster et al. 2006)

At the same time, numerous studies have shown that women undertake a variety of household chores, waste management and attending to the needs of young children and the elderly and therefore they are better placed to participate in sanitation related activities to enable them provide proper hygiene to their families (Wijk-Sijbesma, 1987). The roles, it is believed, exposes them to contact with human wastes that contains biological pathogens that tend to increase particularly in areas that have low hygiene awareness and where latrines are not existing (UN Millenium Project, 2005). Women vulnerabilities to sanitation in relation to the social context are influenced by a range of gendered and power dynamics (Movik & Mehta, 2010). Safe sanitation and hygiene is required to realize the Millennium Development Goals targeting gains against diarrhoeal diseases, improving maternal health and reducing child mortality. As a result women are an important target for improving sanitation and hygiene because of their roles as household managers, in child rearing and environmental care. New approaches to tackling a lack of sanitation have been informed by community level approaches, but this has not increased women participation because social determinants, such as unequal gender, and power relations, pose barriers to their involvement.

So, for making sanitation system truly effective and sustainable, it is, first, crucial to mainstream gender perspectives into water resource management and sanitation policies to ensure that the specific needs and concerns of women and men from all social groups are taken into account. Secondly, it is vitally important to determine what people (consumers of water and sanitation) want, what they can and will contribute and how they will participate in making decisions on the types and levels of service, location of facilities and operation and maintenance. For reaching this second goal, it is indispensable to analyse a given target group from a gender perspective. (Brewster et al. 2006)

Now, while justifying the rationale of the present study – the researcher would like to draw attention to the following points:

### **1.6.1. Why 'sanitation' ...and particularly 'rural sanitation' is chosen?**

First and foremost, prior to joining academic fraternity - the researcher himself was associated

with UK-based international developmental organisation called Water Aid – which is exclusively working world-wide for the promotion of safe drinking water supply, sanitation and hygiene education. Being an employee of Water Aid, the researcher has conducted quite a few numbers of pilot studies on different aspects of sanitation and realised the essence of safe sanitation in daily life as well as the need to undertake more in-depth studies with a special focus on rural sanitation, keeping in view its current scenario at the grassroot level. So while thinking about a research topic, sanitation was the first thing which promptly appeared in researcher's mind. Hence it can be said that the experience and quality research exposure gained by the researcher while working with Water Aid have been the main source of inspiration for the researcher to conduct the present study and to choose sanitation as a topic of research.

Secondly, in India not much empirical studies have been conducted, focusing particularly on rural sanitation. Interestingly, majority of such studies have been conducted by different international and national-level NGOs working for promotion of sanitation in India, and only a few have been done by academic/research institutes or by academic researchers. (Water Aid, 2008).

Thirdly, recent evidence indicates (as reflected from 1.4.1. & 1.4.2.) that India is heading towards a major sanitation crisis in the coming years. Sanitation is enshrined in the Millennium Development Goals and is a cornerstone of the fight against poverty. Lack of basic sanitation puts millions of lives at risk and is responsible for a quarter of all child deaths in developing countries every year. (Cumming, 2008) Lack of sanitation and poor hygiene also severely limit the impact of other development interventions in education, health, rural and urban development. Providing proper sanitation facilities to millions of people is a significant challenge, especially in the world's second most populated country. The task is doubly difficult in a country where the introduction of new technologies can challenge people's traditions and beliefs.

### **1.6.2. Why 'women' was incorporated in the study?**

Studies across the globe aptly suggests that (chapter II & V) women are found to be the most vulnerable population to be affected due to lack of proper sanitation facilities at home – as most of the activities related to sanitation, for example right from bringing safe drinking water for the family to the maintenance of basic health and hygiene practices at the household level, are taken care of by the women in a family. In absence of a sanitary latrine at home, it is the women's dignity which is found to be at stake.

Gender considerations are at the heart of providing, managing and conserving the world's



water resources as well as for safeguarding public health and private dignity through proper provision of sanitation and hygiene. The central role of women in water resource management and sanitation, especially in developing countries, is increasingly recognized at all levels of development activity. In most countries, women are, in fact, the primary stakeholders in the water and sanitation sectors, and are the primary providers of water for domestic consumption. They are also responsible for health, hygiene, sanitation and other productive activities at the household level. Lack of access to water and sanitation directly affects women's health, education, employment, income and empowerment. The gendered dynamics of water and sanitation underscore the close inter-linkages between poverty, gender and sustainable development. (Seager et al., 2008)

The issue of sanitation received global recognition and concrete commitments for the first time in 2002 at the World Summit on Sustainable Development. There, governments agreed to a specific target to cut in half the proportion of people without basic sanitation by 2015. This complemented the Millennium Development Goal (MDG) target on safe drinking water. At the same time, these commitments highlighted the role of sanitation in improving human health, in reducing infant and child mortality, and improving the situation of women in terms of their dignity and security. So far, global commitments made in the areas of water and sanitation, (including the MDG goals) do not specifically address the equitable division of power, work, access to and control of resources between women and men. The current system to assess global progress towards reaching the MDGs, through the Joint Monitoring Programme (JMP), until recently did not have any gender indicator for the water and sanitation goals; one gender-specific indicator has now been added. This slight representation underscores how critical it is to better mainstream gender perspectives into national and global water and sanitation (WATSAN) planning and monitoring processes to ensure that the different needs of women and men are understood, and that the specific needs and concerns of women are taken into account. (Seager et al., 2008)

### **1.6.3. Why West Bengal ...and particularly Birbhum district?**

Almost one out of two persons lives without a toilet in India and in West Bengal the percentage of using sanitary latrine especially among rural women is found to be very less. (DDWS, 2008) At the same time, as per the latest available Human Development Report of West Bengal i.e. West Bengal Human Development Report 2004 - the progress of rural sanitation coverage is concerned, Birbhum district has been identified as one of the backward districts of West Bengal.

So, taking into consideration the slow progress of rural sanitation in India, the significance and

need of proper sanitation in women's life as well as the current state of poor sanitation among women of rural West Bengal - it is quite evident that an empirical and in-depth study on rural sanitation focussing women's role, may be considered as the need of the hour – which will not only be helpful in exploring and identifying the factors for slow progress of rural sanitation but also will be instrumental in framing suitable strategies and approaches for a better implementation of rural sanitation growth, involving women.

### **1.7.0. Objective of the Study**

1. To study the level of awareness about the basic sanitation practices among rural women
2. To review the prevalence of diseases among women as a consequences of not using sanitary latrine
3. To explore the role of women in promotion and management of rural sanitation, particularly at the household-level
4. To find out the factors affecting the success of rural sanitation programmes
5. To explore the scope of intervention for social work profession in promoting rural sanitation and suggest policy measures for ensuring better implementation of rural sanitation programme

### **1.8.0. Operational Definitions:**

**1.8.1. Women:** For this study, 'women' signifies female members of a family who are currently in their reproductive age group i.e. 'women in between 15 – 44 years of age'. Only women of reproductive age group will taken into consideration for the present research as recent statistics and studies across the Globe suggest that women from this age group are found to be most actively involved in sanitation-related activities and at the same time mostly affected by poor sanitation

**1.8.2. Basic sanitation practices:** For this study, 'basic sanitation practices' signify the usage of sanitary latrine, washing hands before and after taking food, keeping food covered, washing hands with soap after defecation etc.

**1.8.3. Scope of intervention for social work profession:** For the present study, it signifies the methods, principles, techniques as well as body of knowledge of Social Work Profession that can be used and effective in promoting rural sanitation and ensuring better implementation of rural sanitation programs

### **1.9.0. Research Questions**

In order to address the objectives of this study, following research questions have been framed:

1. Whether the rural women of Birbhum district do carry the knowledge of basic sanitation practices?
2. What are the common diseases that are affecting the rural women for practicing open-defecation?
3. What are the major activities that the rural women are performing in the context of promoting household sanitation?
4. In spite of enough investment, why progress of rural sanitation has remained slow?
5. Whether there is any scope for application of Social Work knowledge and skills in the context of rural sanitation promotion?

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