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## AN ANALYTICAL STUDY ON SANITATION COVERAGE AND PUBLIC POLICY IN INDIA



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### Short Profile

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### ABSTRACT:

Sanitation is vital for human health and it is one of the important indicators that reflect the quality of life of the people. Despite its immense importance in human lives, this issue remained neglected for years in developing countries including India. India stands second amongst the worst places in the world for sanitation where hardly 33 percent of rural population has access to basic sanitation. Upto the decade of 1980 ('World Water Decade'), rural sanitation didn't receive proper attention of the government in India; however, gradually its importance became recognized as a development agenda. This paper tries to analyze the status of sanitation coverage in India, particularly in the last decade. It also tries to conceptualize the poverty factor in the sanitation issue through a comparative interstate study. The

findings are based on the secondary data given in various government reports, periodicals etc. The main techniques adopted, here, are tabular representation of the data, and matrices formulation and some elementary level statistical methods.

### KEYWORDS

*Sanitation, Government intervention, Indian states.*

## 1. INTRODUCTION

Sanitation is vital for human health and it is one of the important indicators that reflect the quality of life of the people. It may be conceived as yardstick of socio-economic development of a nation. Individual health and hygiene is, by all means, largely dependent on availability of proper sanitation facility. Improper disposal of human excreta, and improper environment for sanitation have been major causes of many diseases in developing countries. High Infant Mortality Rate (IMR) is also largely attributed to poor sanitation in those countries. However, the situation is improving gradually. Over one billion people world-wide have gained access to improved sanitation during last two decades (UNICEF, 2008). In this context, India has to travel a good distance to meet the Millennium Development Goal (MDG) to reduce by half the proportion of people without access to basic sanitation by 2015. However, the hard realities are: India stands second among the worst places in the world for sanitation and only 33 per cent of overall population has sanitation facility available in the country. A mere 14 per cent of people in rural areas of the country had access to toilets in 1990; the proportion went up to 28 per cent in 2006. In rural areas 65 per cent of people still defecate in the open (NSSO, 2008). So, it's a major challenge before the government of India.

## II. PROBLEM OF THE STUDY:

Sanitation is a state responsibility under the Indian Constitution . With the commencement of five years plans in India, the focus of the government on the importance of sanitation has have undergone changes overtime. The first five year plan did not allocate adequate funds for the effective implementation of the programme. However, with the declaration of the decade 1980 as the 'World Water Decade', rural sanitation did receive proper attention of the government. As a consequence, during the Sixth plan period considerable funds were sanctioned and allocation for rural sanitation campaign. During eighties, in 1986, the National Drinking Water Mission (NDWM) was launched. In November 1986, The Central Rural Sanitation Programme (CRSP) was started in 1986 to provide sanitation facilities in rural areas. It was a supply driven, highly subsidy and infrastructure oriented programme. CRSP did not meet with much success. It resulted in a mere 1 per cent increase in rural sanitation (Snehalatha and Anitha, 2012). The 2001 census revealed the fact that only 22 per cent of the households had access to toilet. Recognizing the limitation of the programme, CRSP was restructured and was launched as Total Sanitation Campaign (TSC) in 1999. TSC is a community-driven, awareness generating programme that concentrates on promoting behaviour change with effective involvement of Panchayati Raj Institutions (PRIs), Community Based Organization (CBOs), and Non-Government Organization (NGOs) etc. The key areas under TSC where the government is intervening are: Individual Household Latrine (IHHL), School Sanitation, Community Sanitary Complex and Anganwadi toilets. To add more vitality to the implementation side of sanitation coverage, Govt. of India launched an award based incentive Scheme called Nirmal Gram Puraskar in 2003. This sort of fiscal incentive scheme by the government promotes the role of gram panchayats and local communities in achieving sanitation coverage throughout the community. So there was a growing concern over the sanitation issue in the public policy that may have favorable impact on the status of sanitation even in less developed poverty stricken states. This paper tries to highlight the status of sanitation in the background of above said programmes, particularly total sanitation programme.

### III. SIGNIFICANCE OF THE STUDY:

Rural sanitation came into focus of the Government of India in the World Water Decade of 1980s. The first government intervention in India in this field was Central Rural Sanitation Programme (1986) followed by Total Sanitation Campaign (1999), Nirmal Gram Puraskar (2003) and recently by Swachha Bharat Campaign (2014). The central rural sanitation programme was a traditional, supply-driven, subsidy oriented programme. The total sanitation campaign was a revised version of central rural sanitation programme and includes peoples' orientation and emphasized demand-component in the sanitation programme. Hence, there are lots of changes in the programme design but the implementation status of sanitation aspect needs to be elaborated further. This study is an attempt to that direction.

### IV. SCOPES AND LIMITATIONS:

This paper is intended as an introductory exploration of the subject of recent sanitation coverage. It does not seek to comprehensively catalogue or analyze the full spectrum of issues and data that exist in this field. The second limitation is that this analysis is purely based on supply side analysis whereas the demand factor is very much important in sanitation issue. It is anticipated that this overview will encourage and suggest further research and inquiry in specific sub-topics.

### V. METHODOLOGY AND STATISTICS USED:

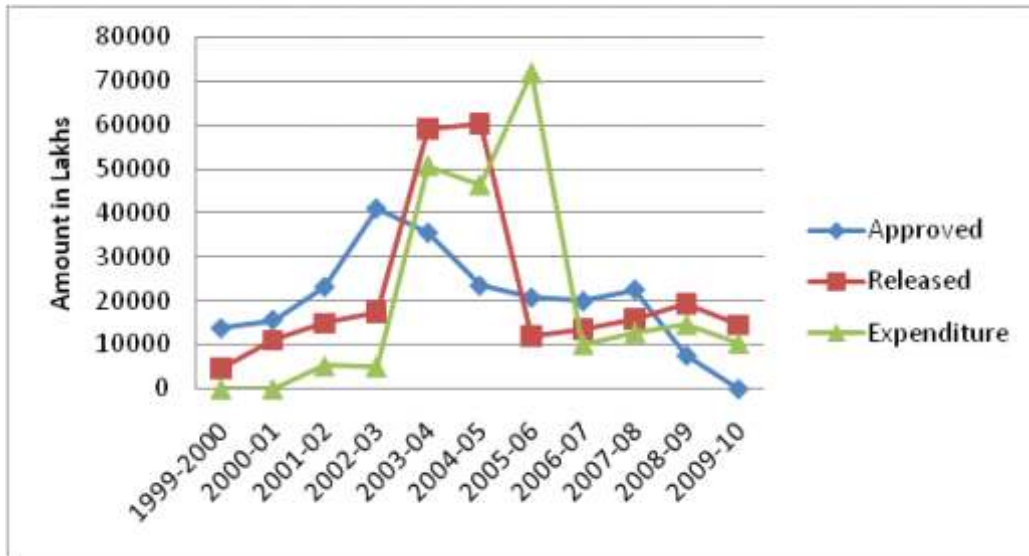
The main technique of analysis in this paper is tabular and graphical representation. This paper is composed with secondary data collected from various literatures published in different journals, reports of department of drinking water supply, government of India.

### VI. IMPLEMENTATION AND ACHIEVEMENT:

#### Expenditure pattern:

Sanitation is a mixed public and private good; while services benefit individuals, they also have considerable public health and environmental benefits. Public Sanitation received only a small part of public expenditure in India till 2002-03, then it observed a sharp increase upto 2005-06 after which it again exhibited a downturn trend. As the sanitation sector is dominated by household on-site facilities and is generally financed from household expenditures, limiting public expenditure in this area might be partly justified. Huge public investments will be required as countries get richer and people move up the sanitation ladder and move toward public infrastructure, such as condominium sewerage.

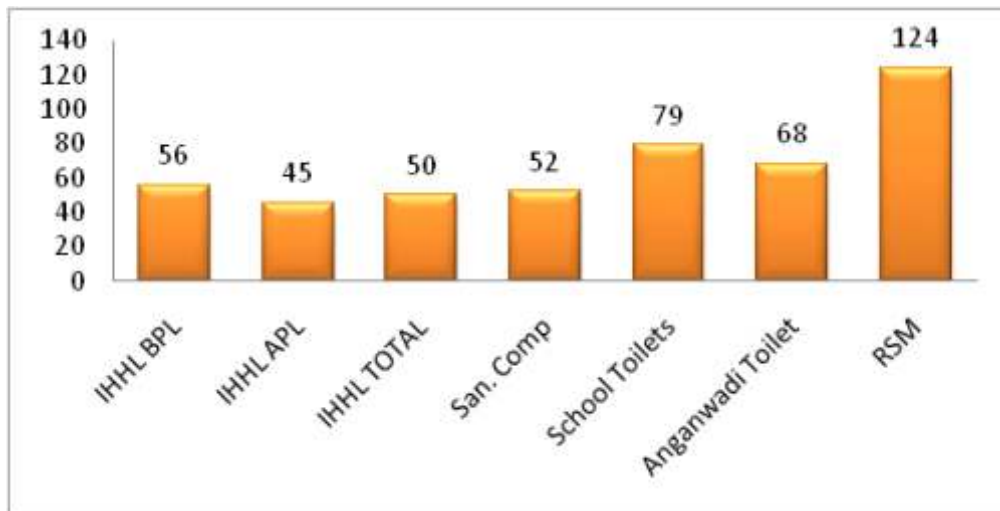
Fig. 1: Year-wise Allocation and Expenditure on Sanitation in India



Source: Anitha and Snehalatha (2012).

Extent of physical targets covered under sanitation programmes: Under the total sanitation programme, effective measures have been taken to provide access to proper sanitation facilities in the rural areas of the country. However, despite of continuous efforts and incentives, the achievement in rural sanitation is not satisfactory in all respects.

Fig.2: Component-wise Physical Targets vis-à-vis Achievement in Sanitation (2001-2010)



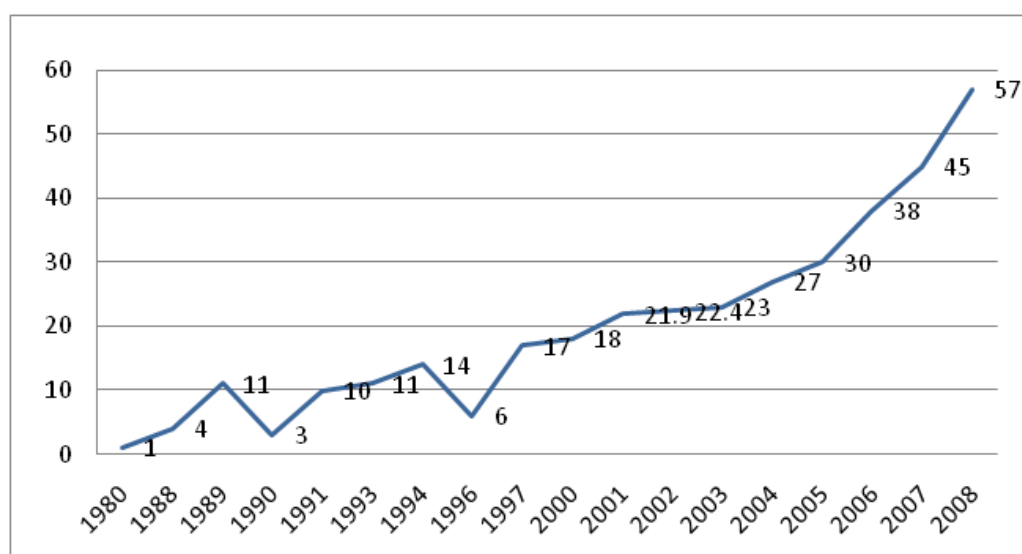
Source: computed on the basis of data cited in [www.mdws.gov.in/](http://www.mdws.gov.in/)

It could be seen from figure 2 that targets achieved during 2001 to 2010 is merely 50 p.c. in IHHL, marginally above 50 p.c. in sanitary complex and nearly 70 p.c. in Anganwadi toilets. The encouraging fact is that in respect of providing sanitation at the school levels, govt. is exerting more effective role for which there is almost 80 p.c. school toilets achieved against the target level during the decade. At the all

India level, only the provision of rural sanitary marts has crossed 100 p.c. as opposed to its target level. It could be seen from figure 1 that the year-wise allocation has been declining sharply in India since 2002-03. It may be due to seeing the large extent of unused fund in rural sanitation, the govt. is emphasizing on the effective use of the existing funds. The reason could be improper planning and lack of efforts in demand creation etc (Anitha and Snehalatha, 2012).

**Sanitation coverage:** It has been noted through analysis of data that the sanitation coverage in India seems to be picking up at a slower pace than anticipated. However, it is after the inception of TSC there has been considerable improvement in the sanitation coverage in rural areas. This has been depicted in figure 3.

Fig. 3: Rural Sanitation IHHL Coverage in India



Source: computed on the basis of data cited in [www.mdws.gov.in/](http://www.mdws.gov.in/)

Here, it is seen that before the initiation of TSC, during the period of CRSP, the coverage was never greater than 20 p.c. However, with the advent of TSC, the coverage climbed up very rapidly and went upto nearly 60 p.c. in 2008-09.

## VII. POVERTY AND SANITATION COVERAGE: AN INTER-STATE PERFORMANCE-

Rural Development is often conceptualized as a process of improving living standards of the masses of the low income population residing in rural areas and making the process of their development self-sustaining. Even though the development priorities differ from country to country, poverty alleviation remains as the primary element. Now, it is easy to infer that better off households are more likely to have access to household toilet facilities than their poorer counterpart because access to basic needs of a person often seems to be determined by the status of poverty of the household in which he or she belongs. The same explanation may be forwarded for the states also. Therefore, the major challenge of any development intervention in this field is to reach the millions of poor household of this country.

Indian union is composed of 29 states 7 union territories. Among them fifteen states are ratified by NSSO as major states. If Bindhya Mountain is taken as a geographical earmark, then the states falling

above the mountain is called the Northern States and those falling below are the Southern States. Several researchers (Krishnan, 2000; Shah and Rani, 2003) found severe regional disparity in respect of development between these two regions where the northern states are lagging far behind their southern counterpart. The poor states like Bihar, Madhya Pradesh, Rajasthan, Orissa and Uttar Pradesh showed dismal performances while Kerala appears to be the best in figures at par with the developed countries. The associated table exhibits the per capita income of the major states along with their development indicators. The states are grouped into three categories in respect of their socio-economic status from which country's development affairs can easily be assessed and needs no elaboration further.

Table: 1 Development Fabric in India

Name of the States	Southern Forward Group		Northern BIMAROU group			Northern others		
	Per Capita Income	Human Development Index	Name of the States	Per Capita Income	Human Development Index	Name of the States	Per Capita Income	Human Development Index
Andhra Pradesh	37061	0.473	Rajasthan	24166	0.434	Gujarat	48511	0.527
Kerala	45908	0.790	Assam	20193	-	Haryana	54884	0.552
Karnataka	38646	0.519	Bihar	12012	0.367	Punjab	42727	0.605
Tamil Nadu	46692	0.590	M.P.	21095	0.375	W.B.	30327	0.492
Maharashtra	57458	0.572	Orissa	24275	0.362			
			U.P.	16374	0.380			

Source: India Human Development Report, 2011.

The degree of achievement of different components of sanitation i.e. IHHL, School toilet, Anganwadi toilets and Sanitary Complex across the major states in India as ratified by NSSO is indicated in Table 2.

Table 2: Component-wise Achievement in TSC across the different states (in %):2009-10

States	Poverty Ratio	IHHL	School Toilets	Anganwadi Toilets	Sanitary Complex
<b>Southern States</b>					
Andhra Pradesh	21.1	36.85	67.60	20.15	95.18
Kerala	12.0	84.85	98.27	67.29	58.15
Karnataka	23.6	23.69	64.83	94.11	43.80
Tamil Nadu	17.1	57.02	94.23	105.56	56.49
Maharashtra	24.5	25.43	82.14	91.95	20.85
<b>Northern BIMAROU States</b>					
Rajasthan	24.8	11.60	59.48	36.81	16.66
Assam	37.9	11.85	58.51	26.14	2.22
Bihar	53.5	15.54	52.34	15.31	9.03
Madhya Pradesh	36.7	32.09	73.65	78.03	42.93
Orissa	37.0	21.74	68.65	41.99	2.84
Uttar Pradesh	37.7	69.94	83.80	73.36	97.28
<b>Northern others</b>					
Gujarat	23.0	47.77	101.70	87.60	82.02
Haryana	20.0	62.49	98.24	79.45	75.47
Punjab	15.7	1.44	25.49	0	9.85
West Bengal	26.7	53.44	47.36	30.13	29.46
<b>India</b>	<b>23.69</b>	<b>35.34</b>	<b>69.75</b>	<b>63.46</b>	<b>35.08</b>



Source: Ministry of Drinking Water and Sanitation, Gol.

Data on inter-state achievement in TSC across the different states reveals that in poorer states small proportion of funds have been utilized for building up of IHHL except in Uttar Pradesh which achieved 70 p.c. of target in building up of IHHL. Among the Southern states, Kerala exerted highest figure (85 p.c.) in respect of target achieved for IHHL. In Northern states, achievement level of Punjab for IHHL is measurably poor- less than 2 p.c. Again amongst the poorer states, Uttar Pradesh and Madhya Pradesh performed significantly well in building up of school toilets with 84 p.c. and 74 p.c. target achieved respectively in both the states. Southern states, namely Kerala and Tamil Nadu secured 98 p.c. and 94 p.c. respectively in target achieved for school toilets. For Northern states, Gujarat achieved fascinating more than 100 p.c. target achieved followed by Haryana (98 p.c.). Madhya Pradesh and Uttar Pradesh, in poorer states, achieved target 78 p.c. and 73 p.c. respectively in view of Anganwadi toilets. Performance of three Southern states- Tamil Nadu (105 p.c.), Karnataka (94 p.c.) and Andhra Pradesh (91 p.c.) is commendable. Gujarat (87 p.c.) and Haryana (79 p.c.), among the northern states, performed well in achieving targets regarding Anganwadi toilets in the states. Punjab did not spend her funds for Anganwadi toilets. Uttar Pradesh (97 p.c.) is one of poorer states in India which delivered remarkably well in achieving targets for developing sanitary complex in the state. Achievement of Assam (2 p.c.) and Orissa (3 p.c.), in this respect, is dismal. Among the southern states, Andhra Pradesh (95 p.c.) has the best figure in achieving targets regarding the sanitary complex. Two North Indian states, namely Gujarat (82 p.c.) and Haryana (75 p.c.) performed better in achieving targets toward building up of sanitary complexes in the state; whilst Punjab (10 p.c.) exerted the worst level of achievement.

Table 3: Performance of States in TSC~ The North–South Divide

Indicators	Type of states	Highest value	Lowest value	Mean	Standard Deviation
IHHL (%)	Southern States	84.85	23.69	45.57	25.66
	Northern BIMAROU States	69.94	11.6	27.13	22.34
	Northern States	62.49	1.44	41.29	27.25
School Toilets (%)	Southern States	98.27	64.83	81.41	15.12
	Northern BIMAROU States	83.8	52.34	66.07	11.55
	Northern States	101.7	25.49	68.20	37.78
Anganwadi Toilets (%)	Southern States	105.56	20.15	75.81	34.10
	Northern BIMAROU States	78.03	15.31	45.27	25.33
	Northern States	87.6	0	49.30	41.53
Sanitary Complex (%)	Southern States	95.18	20.85	54.89	27.01
	Northern BIMAROU States	97.28	2.22	28.49	36.90
	Northern States	82.02	9.85	49.20	35.14

Source: Calculated on the basis of table 2.

Table 3 has been portraying some important implications. The performance in view of various indicators of TSC is widely dispersed between states of India. The performance of states toward targets achieved on an average is always higher with respect to all indicators in southern states as compared to the northern states. The average level of target achievement is minimal in poorer BIMAROU states. The average achievement level is, however, relatively more widely dispersed in northern states as opposed to the southern states and in the poorer BIMAROU states.

This interstate comparison is exercised by classifying the achievements into three categories, namely- below 50 p.c., 50-75 p.c. and above 75 p.c. as shown table 4.

Table 4: Categorization of states across the Sanitation Components

Achievement percentage	IHHL	School Toilets	Anganwadi Toilets	Sanitary Complex
Below 50%	Andhra Pradesh, Assam, Bihar, Karnataka, Gujarat, Madhya Pradesh, Maharashtra, Orissa, Punjab, Rajasthan	Punjab, West Bengal	Andhra Pradesh, Assam, Bihar, Orissa, Punjab, Rajasthan, West Bengal	Assam, Bihar, Karnataka, Madhya Pradesh, Maharashtra, Orissa, Punjab, Rajasthan, West Bengal
50%-75%	Haryana, Tamil Nadu, West Bengal	Andhra Pradesh, Assam, Bihar, Karnataka, Madhya Pradesh, Orissa, Rajasthan,	Kerala, Uttar Pradesh	Tamil Nadu, Kerala
Above 75%	Uttar Pradesh, Kerala	Gujarat, Haryana, Kerala, Tamil Nadu, Maharashtra, Uttar Pradesh	Gujarat, Haryana, Karnataka, Madhya Pradesh, Tamil Nadu	Gujarat, Haryana, Andhra Pradesh, Uttar Pradesh

Above 75%Uttar Pradesh, KeralaGujarat, Haryana, Kerala, Tamil Nadu, Maharashtra, Uttar Pradesh  
Gujarat, Haryana, Karnataka, Madhya Pradesh, Tamil Nadu Gujarat, Haryana, Andhra Pradesh, Uttar Pradesh

Source: Computed on the basis of data given in table 2.

## VIII.CONCLUSION:

There are various constraints that impede the effective implementation of sanitation campaign in India. Lenton et. al. (2005) argued that the ever changing political scenario makes it difficult to ensure a lasting programme as investment may not yield results during one term-period. There are other challenges like:

Sanitation coverage in states of India is still low and there are huge variations across states too. Thus, there is little learning and sharing between states on how to take this noble agenda forward. Large extent of unused fund under the sanitation campaign is one of the reasons for which govt. is quite reluctant to motivate this programme. Generating awareness and building up of the capacities of local communities regarding sanitation behaviour may be perceived as one of the major challenges.

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