

## PROBLEMS OF OPEN DEFECATION: A CASE STUDY AT KANDAVARAYANPATTI PANCHAYAT, SIVAGANGA DISTRICT, TAMIL NADU

Article Particulars: Received: 22.12.2018 Accepted: 03.01.2018 Published: 20.01.2018



### S. SHAJAHAN

Ph.D Research Scholar, Department of Economics  
Arumugam Pillai Seethai Ammal College  
Thirupattur, Tamil Nadu, India



### S. MARIYARATHINAM

Associate Professor, Department of Economics  
Arumugam Pillai Seethai Ammal College  
Thirupattur, Tamil Nadu, India

### Abstract

Open defecation is the serious problem in India. It is a well known fact that, majority of the rural people lack toilet facility, hence they use open places for defecation. Ultimately, the surroundings of the villages will be polluted. Besides, the people's health would be severely affected. This article analyses the problems of open defecation in Kandavarayanpatti Panchayat, Sivaganga district of Tamil Nadu State. The study has analysed the primary data collected from the respondents of this panchayat. Despite the Central and State Government have been implementing various schemes for the best sanitary environment, still the country is lacking compare to the Western Countries. This study makes an in-depth analysis about the majority of rural people are not using toilet. Other factors related to open defecation, construction of toilets, health and environmental aspects been covered in this study. The findings reveal the real facts about the problems of open defecation in the study area.

**Keywords:** Swachh Bharat, Open Defecation, Sanitary Issues,

### Introduction

Sanitary is the vital factor especially to a developing nation like India. Open defecation is the serious problem mainly in rural areas. India has around 6, 00,000 (six lakh) villages, that is why, Gandhiji said, "India lives in villages". The villagers have been habituated of open places for defecation purpose. This will affect the human health, also create the environmental problems. Keeping this view, this study analyses the problems of open defecation in rural areas. Sanitation includes water supply, safe disposal of human waste, wastewater and solid waste management, control of vector diseases, domestic and personal hygiene, food, sanitation, housing etc. The United State National Sanitation Foundation (USNSF) defines Sanitation thus: "it is the quality of living expressed in clean homes, clean farms, clean neighborhoods and clean community. Being a way of life, it must come from people, nourished as it is by knowledge and it grows as obligation and ideal in human relations.

The safe disposal of human excreta is essential for public health. The unsafe disposal of excreta is a principal cause in the transmission of pathogens within the environment and improvements in excreta management i.e using toilets provide significant reductions in diarrhea disease. Improvement of sanitation and access to water supply throughout world and in particular within developing countries are very essential. The Global Water Supply and Sanitation Assessment 2000 Report estimated that over twice the number of people lack access of sanitation and water supply (WHO and UNICEF, 2000). If ideas about pollution and untouchables that have their origins in the Hindu caste system importantly influence defecation behavior in rural India, one can expect to find differences in latrine ownership and use between Hindus and Muslims. Indeed, India's 2005 National Family Health Survey (NFHS) finds that rural Muslim households are 19 percentage points less likely to defecate in the open than rural Hindu households, despite the fact that they are poorer on average (Geruso and Spears 2015). Rural Muslims are not only more likely than rural Hindus to own latrines, they are also more likely to own affordable latrines. Only

4 per cent of rural Hindu households used inexpensive pit latrines, compared to 15 per cent of rural Muslim households. If Hindus construct the presence of simple pit latrines to be polluting, Ali (2002) suggests, Muslims often practice purity differently than Hindus, it makes sense that rural Indian Muslims would be more likely to construct simple, inexpensive pit latrines.

### Review of Literature

In the past, various studies had highlighted about the problems of open defecation and sanitary issues around the Globe. The following reviews of literature related to open defecation are given focused attention.

**Balamurugan and Ravichindran (2014)** focused that the Children are vulnerability to health hazards associated with poor water and sanitation. In India, nearly every second person is defecating in the open air defecation, every third person is drinking unsafe water and at least 1,000 children are dying every day due to preventable diseases like diarrhea. Each year, an estimated 2.5 billion cases of diarrhea occur among children under the age 5. Diarrhea diseases attributed to poor water supply, sanitation and hygiene account for 1.73 million death each year and 90 per cent are children under 5 years, mostly in developing countries, 88 per cent of cases of diarrhea disease world wide are attribute due to unsafe water, inadequate sanitation and poor hygiene.

**Ellege and Macella Clatchey (2013)** carried out a study about the world's population is in dire need of improved sanitation, but it remains a neglected priority. The United Nations Millennium Development Goals (UNMDG) includes a global target of a 75 per cent improvement in sanitation coverage by 2015, but with current progress rates, this target is one of the most inaccessible. Currently 2.5 billion people do not have access to improved sanitation worldwide, and nearly 1.1 billion resorts to open defecation. Open defecation poses significant health and environment risks. Each year, 1.5 million children die from diarrhea disease and in India, diarrhea kills one child per minute. Open defecation also creates vulnerability, particularly for women and girls who exposed to abuse and harassment while defecating in the open places. Improper waste management can seriously contaminate important sources of drinking water such as surface and groundwater and discourage tourism and economic development.

**As per State Planning Commission Report (2013)**, Tamil Nadu State lags behind the sanitation with 60.7 per cent of Household resort to open defecation. Among the 39.3 per cent of households which had access to toilets, 20.63 per cent are non-functional. While Kanniyakumari has the highest share of household toilets, Dharmapuri has the least. The coverage under Nirmal Bharath Abhiyan is also high in all the districts. But there is a vast gap in the availability and usage of household toilets. Affordability is not an issue, since the tendency to spend for Television and mobile phones seems to be higher than that on constructing toilets. Lack of proper knowledge coupled with perception barriers has resulted in low usage of toilets by the people. Since it does not involve any cost towards installation and usage the open defecation is a much preferred solution. Other issues such as non-availability of water, psychosocial barriers, and economic barriers prevent toilet construction and usage within households.

**Bonu, Sekhar and Hun Kim (2009)** highlighted on an estimated 55 per cent of all Indians, or close to 600 million people still do not have access to any kind of toilet. Among those who make up this shocking total, Indians who live in urban slums and rural environments are affected the most in rural areas, the scale of the problem is particularly daunting, as 74 per cent of the rural population still defecates in the open places. In these environments, cash income is very low and the idea of building a facility for defecation in or near the houses may not seem natural. In addition, 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 7, 00,000 Indians still make their living this way.

**Anjan Datta (2008)** emphasized the water pollution and its impacts on human health and environment. Water pollution creates poor sanitation costs in Southeast Asia more than US\$ 2 billion per year. Indonesia and Vietnam creates environmental costs of more than US\$ 200 million annually, primarily from the loss of productive land. Reusing waste has many benefits. Sanitation involves a range of actions, but for a healthy environment in communities as well as in the larger

natural world, the top priority is separating excreta, with its host of biological pathogens, from contact with human beings as well as plant and animal life. In areas where it is practiced, ending open defecation is a critical first step. But to fully realize the health, social, and economic benefits, the management of wastes must be considered. Conventional sewerage can now be supplemented with ecological sanitation technologies that make use of the nutrients in human waste. Though there were many studies focused about the problems of open defecation, this study is unique in analyzing the reasons for why many households are not having toilets particularly in rural areas?

### **Statement of the Problems**

Open defecation is the perennial problems in India. Indian Government has been implementing many schemes to eradicate open defecation, yet the target achievement is not significant. Hence, the present Central Government headed by Modi has introduced a novel scheme of 'Swachh Bharat'. Under this scheme, the Central Government assists the people to build toilets with the support of State and local bodies. If people use toilets for defecation purpose, they will be protected from many diseases like skin diseases, itching problems etc. The children are the vulnerable group, who are affected most due to open defecation. Sometimes, they touch the excreta and that would create a serious health problem. Hence, toilet facility is the most important factor to have good health and to keep better environment. Rich people have the toilet facility, only the poor people are unable to construct toilets, but they can utilize the government's scheme for that.

### **Open Defecation: Eradication Policies and Problems**

According to the country's Tenth Five-Year Plan, three-fourths of India's surface water resources are polluted, and 80 per cent of the pollution is due to sewage alone. The impacts on human health are very significant and cannot be ignored. Unsafe disposal of human excreta facilitates the transmission of oral-fecal diseases, including diarrhea and a range of intestinal worm infections such as hookworm and roundworm. Diarrhea accounts for almost one fifth of all deaths (or nearly 5, 35,000 annually) among Indian children under 5 years. In addition, rampant worm infestation and repeated diarrhea episodes result in widespread childhood malnutrition (Indian Institute of Population Sciences, 2007). The Human Development Report regarded open defecation as a serious threat to the health and nutritional status. India constitutes one-fourth of the infant deaths that occur globally due to acute diarrhea. However, data released by the Indian government shows a different picture. The statistics released by Ministry of Health and Family Welfare shows that only 1,818 persons died in India in 2009 due to acute diarrhea. Out of that, only 18 deaths occurred in Tamil Nadu. These figures vastly underestimate the current health needs of the society. Clearly, lack of data and the absence of a systematic system to record data are major obstacles to proper planning and policymaking (Human Development Report, 2011)

### **Objectives**

The following are the two important objectives in this study for the in-depth analysis.

- 1) The study attempts to find out the serious problems of open defecation in the study area.
- 2) The article aims to bring out the reality factors of the reasons for not having toilets in the majority households of the study area.

The present study focuses about the households which are having and not having toilets, also the number of people (percentage) who uses open places for the defecation in the study area of Kandavarayanpatti panchayat, Sivagangai District of Tamil Nadu.

### **Background of the Study**

The important reason for the open defecation is mostly inadequate toilet facility. The public toilets are always dirty due to various reasons like either no sufficient water or there may not be permanent workers to clean it. The mindset of the people is also an important factor in using toilet facility or for open defecation. Though the governments or NGOs make awareness of the

people to use toilets, but people are hesitant for utilizing toilets for many reasons. The derived result indicates that there are a few serious problems in the study area due to open defecation.

**Purpose and Significance of the Study**

The study targeted to find out the problems of open defecation in the study area. Educated and youth prefer toilets, but generally most of the uneducated and elderly people like only the open places for defecation. The findings derived would enable the policy makers, health department etc to assist the people to overcome the problems. Without hiding the facts, the article explains the reality nature of open defecation, besides this study would make a right path for the better solution.

**Methodology**

In the study, the following methodology was applied for the analysis of data and derives the findings. Primary data is the major data source to achieve the objectives of the study. Both male and female (40 each) aged between 30-50 (total 80) were interviewed with a structured interview schedule related to open defecation. Purposive sampling method was adopted, also percentage analysis is the main statistical tool applied to analyse the data to derive the findings.

**Time Period**

The primary data was collected in the months of January to March 2017. This time period was very much suitable to collect data, because the people may not have more agricultural works, especially after the harvest (period of harvest is December in Tamil Nadu) season.

**Result and Data Interpretation**

After analysing the data, a few tables were classified. The tables result shows as follows:-

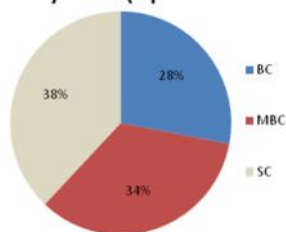
**Table 1: Open Defecation (Community Wise)**

Sl.No.	Community	Sample Respondents		No. of people Open Defecation		Total (%)
		Male	Female	Male	Female	
i)	Backward Class	30	30	18	20	38 (28%)
ii)	Most Backward Class	30	30	22	26	48 (34%)
iii)	Scheduled Class	30	30	24	28	52 (38%)
	<b>Total</b>	<b>90</b>	<b>90</b>	<b>64</b>	<b>74</b>	<b>138 (100%)</b>

Source: Primary Data

**Figure 1 Open Defecation (Community Wise)**

Community Wise (Open Defecation)



In Tamil Nadu, three castes are dominant, they are: i) Backward Community (BC) ii) Most Backward Community (MBC) iii) Schedule Caste (SC). The number of people (percentage) going for open defecation in Community Wise has been analysed with the following table and diagrammatic representation. Since all the forward community people are utilizing the toilets, they were not taken as the sample respondents.

The first table and the figure 1 analysis show that majority of the Schedule caste people both men and women are going for open defecation (38 per cent) followed by MBC (34 per cent). Compare to SC and MBC the BC people are less in numbers in the open defecation (28 per cent).

**Table 2: Toilet Facility Available in Respondents Households**

Sl. No.	Community	Sample Respondents		No. of Respondents Household	Respondents Household	
		Male	Female		With Toilet (%)	Without Toilet (%)
i)	Backward Class	30	30	60	44 (47)	16 (18)
ii)	Most Backward Class	30	30	60	32 (34)	28 (33)
iii)	Scheduled Class	30	30	60	18 (19)	42 (49)
	<b>Total</b>	<b>90</b>	<b>90</b>	<b>180</b>	<b>94 (100)</b>	<b>86 (100)</b>

Source: Primary Data

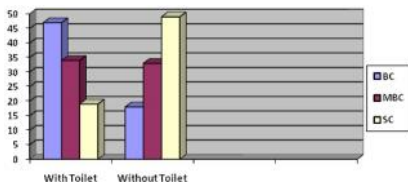


Figure 2 With or Without Toilet Facility in the Households (Community Wise)

The Table 2 shows that the majority of SC households are not having toilets (49 per cent) followed by MBC (33 per cent). Regarding the BC households, only 18 per cent are not having toilets. In total 52 per cent households are having toilets. Among the sample respondent’s households, 48 per cent are not having toilets in the study area.

Table 3: Open Defecation by the Respondents (Education wise)

Sl.No	Educational Status	Using Open Place for Defecation							%
		BC		MBC		SC		Total	
		Male	Female	Male	Female	Male	Female		
i)	Illiterate	8	10	9	12	7	7	53	38
ii)	Primary	4	4	5	5	6	7	31	22
iii)	Secondary	1	-	5	3	4	5	18	13
iv)	HSC	2	3	2	3	5	3	18	13
v)	Degree / Diploma	2	2	--	2	1	4	11	9
vi)	PG Degree	1	1	1	1	1	2	7	5
	<b>Total</b>	<b>18</b>	<b>20</b>	<b>22</b>	<b>26</b>	<b>24</b>	<b>28</b>	<b>138</b>	<b>100</b>

The Table 3 analysis shows that education and open defecation are positively correlated. The people who are qualified with degree and above use toilets. Mostly the illiterate and primary level education respondents are going for open defecation. In the study area, illiterate and primary level respondents combined together accounts 60 per cent (38+22 per cent) uses open places for defecation. Hence, education is the prime factor in eradicating the open defecation.

**Limitations and Implication of the Study**

**The following are the Few limitations in this Study**

The study covered only one panchayat to find out the problems of open defecation. The percentage of people going for open defecation may vary from one panchayat to another in the study area. The secondary data result shows that open defecation is the serious issue not only in the study area, but also in many panchayats. The derived results would enable the policy makers to take steps and initiatives to eradicate the open defecation.

**Conclusion**

Sanitation and the best environment determine the health and human resource, besides, it will pave the way for the better economic development. The sanitary factors have the interlinking aspects in the social, economical, environmental aspects, hence, every nation gives the top priority in this regard. Education is the lynchpin for having the better environment, using toilets and keeping good health. In addition to that, the sanitary schemes which are beneficial to the rural mass especially the weaker section must be reached without any hindrance.

**References**

1. Ali Syed. (2002). Collective and Elective Ethnicity: Caste among Urban Muslims in India, *Sociological Forum*.
2. Anjan Datta. (2008). United Nations Environment Programme, The Hague, The Netherlands, Available from <http://www.adatta@unep.nl> © UN-Water
3. Balamurugan and Ravichindran. (2014). Environmental Sanitation Index for the State of Tamil Nadu, India, *International Research Journal of Environment Sciences*.
4. Bonu, Sekhar and Hun Kim. (2009). *Sanitation in India: Progress, Differentials, Correlates, and Challenges*. ADB. Based on author’s analysis of the 2005 National Family Health Survey.
5. Geruso, M and D Spears. (2015). Sanitation and Health Externalities: Resolving the Muslim Mortality Paradox, Working Paper, the National Bureau of Economic Research, Massachussettes.
6. Human Development Report. (2011).
7. Indian Institute of Population Sciences. (2007). *National Family Health Survey*, Mumbai.
8. Myles F. Ellege and Macella Mc Clatchey (2013), “India, Urban Sanitation and the Toilet Challenge”, RTI International Press, Available from <http://www.eti.org>.
9. State Planning Commission Report. (2013) .Open Defecation free Tamil Nadu
10. WHO and UNICEF. (2000). *Technical Report*, Geneva.