

## **Assessing the sanitary status in rural area**

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### **ABSTRACT**

The human development indicators also depend upon the better sanitation accessibility to the side-lined communities. Sanitation is not only a development issue, but also an empowerment instrument for the development of society and it has now turned into a multidisciplinary subject in the global development sector. Sanitation is regarded as the maintenance of sanitary conditions. Therefore, basic sanitation means the provision of sufficient hygienic, hazard free toilets, the effective removal and disposal of household waste, and effective effluent disposal. The concept of hygiene, cleanliness, purity, and beliefs about sanitation and disease vary widely, but are often deeply ingrained through religious practice and culture. Cleanliness and hygiene are important from not only the public health point of view, but also socio and economic development of the family. There is no doubt to say in this era sanitation dictates the human life. The objective of the study is to know the socio economic status of the beneficiaries and assess the standard of living in terms of toilet and sanitation. The sample size comprises of 200 rural people. The area of the study was Vinobaginagar, Odanturai Panchayat, Karamadai Block, in Coimbatore District of Tamil Nadu state. The data is collected with the support of interview schedule through survey method. The findings of the study shows that that cent per cent of the houses having toilets, all the household toilet was constructed under Indira Awas Yojana during (1996), Green house scheme and Swach Bharat Mission scheme in the year of 2014.

**Key Words :** Toilet, Sanitation, Household

### **INTRODUCTION**

Sanitation, hygiene, and cleanliness are the hallmarks of a civilized society. Sanitation is critical for health and sustainable socio-economic development. There is an increasing tendency for communities in rural hinterlands to defecate in the open much to the annoyance of officials who are working overtime to deal with different aspects of sanitation with individuals, families and the nation at large. NGOs and the staff and line agencies in the government see this as a crucial aspect for development, as this seems to be the biggest challenge for the governance of development in the 21st century. The quality of human life, directly or indirectly, depends upon accessibility to better sanitation. In the post globalization scenario, water and

sanitation have become important agendas for developing countries, not truly reflected in rural areas. Sanitation is a worldwide problem, and one with sometimes awkward and highly charged topics and words from “public defecation” to “faces” that invoke political cultural, religious, social, and economic issues. Solutions must be found through a holistic approach of the “politics of shit,” which examines the environmental, social, political, and historical dimensions of toilets, and how a community’s society and culture intersects with the institutions responsible for providing sanitation amenities or who might have contributed to, or exacerbated, the current sanitation crisis.

Sanitation is vital for good health. Health problems associated with poor sanitation include diarrhoea, dysentery, typhoid, cholera, malaria, bilharzias, worm infestations, eye infections, skin diseases and increased infections in HIV positive people. Sanitation is also vital for wealth creation. Economic benefits of improved sanitation include savings in health costs, higher worker productivity, better school attendance, improved tourism and reduced water treatment costs.

Hence the study has undertaken with the following Objectives:

- To know the socio economic status of the beneficiaries
- To assess the standard of living in terms of toilet and sanitation.

Murty (2013) done research on “Impact of total sanitation campaign on rural households in Andhra Pradesh.” With the objective of the study was to examine the impact of TSC with respect to open defecation among rural households and to find out the impact TSC in terms of health expenditure among rural households in the study area, In order to pursue the objectives outlined. He research proposed to consider a simple random sample of 255 households from one village namely Vasadi in Gantyada mandal of Vizianagaram district in Andhra Pradesh. Both primary and secondary data has collected and designed questionnaire tool include information relating to health, hygiene and sanitation aspects for collecting the data. The findings are, out of 255 sample households; only 44 households (17 %) reported to have personal toilets at home. Hence, 83 per cent of households are opting for open defecation as there is no alternative to attend natural calls. However, though 44 households have toilet facility at home, due to restricted use on account various reasons, some family members of those households are also opting for open defecation. Thus, irrespective of income levels, more or less all the households are opting for open defecation in the village. Further, the analysis also implies no association or relationship between reasons for households opting ODF and education status and of sample households. Hence, the study draws support in favour of hypothesis 2 implying that open defecation is more behaviour related rather than income and education related in the rural areas.

Sportal (2002) done research on “The influence of socio-cultural norms and community perceptions on the sustainability of rural water supply and sanitation in Tamil Nadu, India”. The purpose was to examine the efficiency and sustainability of village water supply and environmental sanitation facilities and how they are influenced by socio-cultural norms and community perceptions. The methods were mainly qualitative with a participatory, community-based and gender-sensitive approach. The research found that: government water supply and sanitation initiatives are supply-driven; socio-cultural norms and gendered perceptions influence community and household management of water supply and sanitation; and the

village water supply and sanitation facilities are unsustainable. The conclusions were that: there is a gap between policy and practice; limited resources have been invested in sanitation; consultation between governments and the community is limited; social inequalities increase the complexity of establishing sustainable water supply and sanitation; perceptions affect water supply and sanitation management; villagers rely on government to provide and maintain public facilities; and mismanagement of resources has led to water scarcity.

Pore and Randive (2014) has carried out a research on “The study on environmental sanitation, and personal hygiene among the slum area in Solapur city, Maharashtra”. The survey was conducted in 2011, to study environmental sanitation status of Solapur slum area. In this area 351 settlements are situated. For survey purpose, (10% houses) 35 houses selected randomly. This ward has population 9439 with 335 houses. The strength of the data is based on the fact that the sample is nationally representative. Questionnaire and interview were following for study of health status and awareness of environmental sanitation. To check water quality physical and chemical analysis of water was done by standard methods (APHA). The purpose of this study was to analyse the availability of domestic water and sanitation in slum area, Solapur. The result of his study was shows that people live in unhygienic conditions. The lack of environmental sanitation and safe water has significant negative health impact on people. Due to unsafe water, inadequate sanitation and unhygienic, people suffer from allergies, and diseases. Unsafe drinking water, poor environmental sanitation, unsanitary food preparation, improper disposal of waste and unclean household environment constitute a major burden on health and leading to causes ill health in children. People in study region are not educated which result into low income and low standard of living which result into lack of awareness in public about environmental sanitation and its importance. Ignorance of solapur Municipal Corporation toward public health, their standard of living, and provision of appropriate facility (water supply, solid waste and liquid waste management.

Kamal Mazumdar (2004) done research on “The rural water supply and sanitation sector development in India impact of donor’s policy and projects.” The objective of the study was improved health and economy through the provision of improved water, sanitation and hygiene education in a broad rural development framework and adopting integrated holistic approach linking with health, education, income generation, irrigation and watershed projects in which provision of drinking water supply can be the entry point. In the findings of the result he was found that It has become clear that in order to improve rural service levels in the water and sanitation sector of a developing country a programme has to be implemented that is by necessity low cost and within the affordability and community based. However, to launch such a programme a process has to be initiated, a model, which is likely to be similar to that of the recent experience in India. It cannot be claimed that this is a universal model; there may be a number of facets that are similar and applicable to the situations in other countries. The model for the design of rural water supply and sanitation project presented below is based on the experiences of India, which is integrated and flexible. It is recommended that the following basic principles should be observed. Project designs should balance between providing for the basic needs of the community and the need to strengthen or build the capacity of government and local self-government to execute future projects.

Sriram (2013), done research on “Role and impact of IEC campaign on rural sanitation

in Andhra Pradesh". The objective was to study the role and impact of Information, Education and Communication (IEC) campaigns in rural sanitation initiatives, to know the impact of different campaigns on the absorption of suitable low cost, effective and appropriate sanitation technologies by the rural people and to know how various communication tools have been employed for implementation of rural sanitation programmes. The research study was empirical. The study has been undertaken based on primary and secondary data. The primary data has been mainly obtained from official records, registers, government orders, pamphlets, brochures, training material and unpublished material. The researcher has conducted interactions, face-to-face discussions with rural stakeholders and held consultations with the officials dealing with this subject at various levels. In the result found that the impact of campaign is high (100%) in the area where all stakeholders were actively involved, low cost sanitary models were demonstrated during the campaign in that area, which resulted in effective implementation of the programme, and door to door Campaign and street plays had the desired impact on households, which motivated people to go in for implementation of sanitation.

## METHODOLOGY

The area was selected for the research is Vinobhaji Nagar village, Odanthurai Panchayat, Karamadai Block, Coimbatore District, Tamil Nadu.

The total sample size is two hundred. The beneficiaries of the, Indira Awas Yojana, Green House Scheme and Swachh Bharat Mission are chooses as a sample to conduct the research. The interview schedule was prepared and used to collect the information regarding to the study.

## RESULTS AND DISCUSSION

### **Socio-economic characteristics of the beneficiaries :**

The data indicate that forty eight per cent of the beneficiaries under the age group 30-40 years and followed by five per cent are above sixty years. Sixty three per cent of the beneficiaries are female Seventy five per cent of the beneficiaries are belonging to OBC and five per cent are Hindus and five per cent are Christian. Whereas forty per cent are completed high school followed by thirty three per cent higher secondary and two per cent are post graduate. Regarding marital status of the beneficiaries ninety two per cent are married only eight per cent unmarried. Sixty three per cent of beneficiaries are belonging to joint family, and thirty seven per cent are belongs to nuclear family. Sixty two per cent of beneficiaries under the category of medium family, it is amazing to know that there is no large family, this shows that government has create awareness on family planning so rural people understood the importance of small family. Fifty per cent beneficiaries' occupation is coolies and eight per cent is doing private job (Table 1).

Thirty seven per cent of the beneficiaries' annual income range between Rs. 20,000 to 30,000 and twelve per cent of the family income is above Rs. 40,000.

### **Information about drinking water :**

The data shows that river is the main sources of water in Odanthurai Panchayat. The

<b>Table 1 : Socioeconomic characteristics of the beneficiaries (N=200)</b>			
	Characteristics	F	P
Age(years)	20-30	50	25
	30-40	95	48
	40-50	45	23
	Above 50	10	5
Gender	Male	75	38
	Female	125	63
Caste	OBC	130	65
	BC	20	10
	SC	30	15
Religion	ST	20	10
	Hindu	150	75
	Muslim	40	20
	Christian	10	5
Education	Illiterate	35	18
	High school	80	40
	Higher secondary	60	30
	Graduate	20	10
Marital Status	Post graduate	5	2
	Married	185	92
	Unmarried	15	8
Types of family	Joint	125	62
	Nuclear	75	38
Family size	Up to 3(small)	75	38
	4 to 5 (medium)	125	62
Occupation	Business	35	17
	Government job	50	25
	Coolies	100	50
	Private job	15	8
	<20,000	45	23
Annual income (Rs.)	20,000-30,000	75	37
	30,000-40,000	55	28
	Above 40,000	25	12

\*Source: Field survey, March 2017

water is supplied through public tap to seventy five per cent of the houses whereas only twenty five per cent supplied through individual tap. This shows that adequate taps available. Cent per cent stated that once in two days water is provided by the panchayat between 2 to 4 hours. The water is collected by the home maker (75 %) followed by mother in law (5 %), whereas the distance between public tap and house only ten meter (62 %) and 30 meter (8 %), respectively (Table 2).

#### **Details about drainage system :**

The data clearly indicates that cent per cent drainage system is functioning in the location

<b>Table 2 : Information about drinking water (N =200)</b>			
Information	Sources	F	P
Sources of water	River	200	100
Mode of water supply	Public tap	150	75
	Individual tap	50	25
Frequency of water supply	Alternative day	200	100
Duration of water supply	2 -4 hours	200	100
Person responsible for collecting water	Home maker (wife)	150	75
	Husband	50	25
	Children	40	20
	Mother in law	10	5
Distances from home	10 meter	125	62
	20 meter	60	30
	30 meter	15	8

Sources: Field survey, March 2017\*Multiple responds

of beneficiaries' areas well as in the village. This is one of the indicators for sustainable development. Cent per cent of beneficiaries stated that they are having only open drainage system. It is interesting to note that cent per cent stated that cleanliness of the drainage is good. This strongly indicates that panchayat is functioning effectively. The community is also maintaining a good drainage system (Table 3).

<b>Table 3 : Drainage system (N=200)</b>			
Details		F	P
Provision of drainage	Yes	200	100
Types of drainage system	Open drainage	200	100
Cleanliness of drainage	Good	200	100

Sources: Field survey, March 2017

#### **Information about waste management :**

Cent of the beneficiaries stated that the panchayat is collecting the waste every day. Sixty five per cent of the beneficiaries stated that they are disposing the waste in the street dustbin, whereas ten per cent in the garbage pit and thrown on the waste pit meant for garbage disposal.

Fifty per cent of homemaker takes responsibility for disposal of waste thirty per cent of them taken responsible by husband, respectively. It is amazing to note that cent per cent of the beneficiaries are clean their disposal daily. This shows that beneficiaries are aware of need and importance of disposal of waste so this prevents mosquito breeding, and reduce the risk of disease (Table 4).

#### **Information on toilet system :**

The findings of the study shows that that cent per cent of the houses having toilets at the household whereas seventy per cent of the toilet constructed under Indira Awas Yojana during (1996), remaining thirty per cent of the toilet constructed under Green house scheme

<b>Table 4 : Information about waste management (N=200)</b>				
Details		F	P	
Waste disposal	Dustbin	200	200	
Collection of waste by Panchayat	Daily	200	100	
Place of disposal	Throw on the street	20	10	
	Throw in the street dustbin	130	65	
	Throw in the garden	30	15	
	Throw in the pit for garbage	20	10	
Person responsible disposal	Home maker(wife)	100	50	
	Husband	30	15	
	Children	70	35	
Frequency of cleaning disposal	Daily	200	100	

\*Source: Field survey, March 2017

and Swachh Bharat Mission scheme in the year of 2014. The amount spent for the construction of house and toilet under Indira Awas Yojana is Rs. 1, 10,000, the Green House scheme is Rs. 1, 80,000 whereas Swachh Bharat Mission is contributed Rs. 12,000 for toilet contribution (Table 5).

<b>Table 5 : Toilet system (N=200)</b>				
Details		F	P	
Availability of toilet (yes)		200	100	
Toilet pattern	Single pit	180	90	
	Double pit	20	10	
Types of toilet	Individual toilet	200	100	
Toilet condition	Covered with roof	200	100	
Toilet contracted by	Government	200	100	
Location of the toilet	Back side of the house	200	100	
Name of the scheme	Indira Awas Yojana(1996)	140	70	
	Green House scheme(2014)	30	15	
	Swach Bharat mission(2014)	30	15	
Contribution (Rs.)	Green house scheme(GHS)	1,80,000 (Rs.)	30	15
	Indira Awas Yojana(IAY)	1,10,000 (Rs.)	140	
	Swachh Bharat Mission (SBM) (only toilet)	12,000 (Rs.)	30	15
Mode of water supply to toilet	Carrying in bucket	79	40	
	Fix tap inside the toilet	121	60	

\*Source: Field survey, March 2017

This shows government scheme is functioning successfully in Vinobaji Nagar. Due to this reason there is no open defecation in that area and cleanliness is also very good. Sixty per cent of the beneficiaries have provision for taps inside the toilet whereas only forty per cent are carrying the water in bucket to the toilet.

**Details about drainage system :**

The data clearly indicates that cent per cent drainage system is functioning in the location of beneficiaries' areas well as in the village. This is one of the indicators for sustainable development. Cent per cent of beneficiaries stated that they are having only open drainage system. It is interesting to note that cent per cent stated that cleanliness of the drainage is good. This strongly indicates that panchayat is functioning effectively. The community is also maintaining a good drainage system (Table 6).

<b>Table 6 : Drainage system (N=200)</b>			
Details		F	P
Provision of drainage	Yes	200	100
Types of drainage system	Open drainage	200	100
Cleanliness of drainage	Good	200	100

Sources: Field survey, March 2017

**Benefit of constructing toilet :**

The Table 7 shows that the advantages constructing toilet under Water Sanitation and Health Programme

<b>Table 7 : Benefits of toilet (N=200)</b>		
Benefits	Yes	Percentage
Cleanliness	200	100
Privacy	180	90
Avoid spread of infection /disease	170	85
Safety	155	78
Proper hygiene	140	70
Safe life	155	78
Proper disposal of human waste	125	63
Prevent environmental pollution	155	77

\*Source: Field survey, March 2017

The data indicates that cent per cent the beneficiaries stated that cleanliness is the roots of having toilet, whereas sixty three per cent of them indicate that proper disposal of human waste is the another advantages of toilet. Thirty per cent of beneficiaries do not have knowledge on hygiene which is one of the major advantages of having toilet.

**Disadvantages of open defecation :**

The data express that the knowledge on open defecation among the beneficiaries, majority (90 %) of beneficiaries have knowledge on dirtiness is one of the main causes of open defecation, forty per cent of them have the knowledge that due to open defecation water pollution and health hazards has been occurred in the environment.

**Suggestion :**

- The society need to be educated about environmental sanitation and personal hygiene.

- Government and Non-Government Organisation should increase awareness on why and how best to use water and sanitation for, public health; and environmental sustainability
- Government and NGO should improve infrastructure or methods to take forward the development and implementation of water and sanitation infrastructure and ensure sustainable maintenance
- Panchayat should create awareness about the advantages of toilet and disadvantages of open defecation.

### **Conclusion :**

Every one of get toilet to use then only we know our country has reached the pinnacle of progress. Creation of awareness among public, financial assistance to construct toilet in every household, availability of regular water supply and maintenance of sanitation of facilities would improve the situation in India.

### **REFERENCES**

- Bhaskar, A.B. and Vijay, T.M. (2009). Joint Secretary India Department of Drinking Water Supply. Sustaining the Sanitation Revolution: India Country Sanitation Status. Manash publication New Delhi. pp 152.
- Dueñas, Christina (2005). Water Champion: Sanitation Coverage in Rural Communities in India. UB publication New Delhi India, Pp 129-132
- Herron, A.H. (2007). Low Cost Sanitation: An Overview of Available Methods. Wilson Center. Retrieved April 17, 2013. Pp 33
- Karthikeyan, G., Sudhir, M.A. and Mazumdar, K. (2003). The Origin of the International Drinking Water Supply and Sanitation Decade - Foreign Aid - Trends and Issues, International Journal, pp. 4
- Kumar Ganesh, S., Sitanshu, SekharKar and Jain, Animesh (2011). *Indian J. Occup Environ Medv.*, **15**(3); Sep Dec 2011, PMC3299104
- Mohanty, S.K. and Ram, F. (2004). Methodological Issues and Evidences on the State of Human Development in India, in Roy. T.K., M.Guruswamy and P.Arokiasamy (eds.), Population, Health and Development in India, Changing Perspectives, Rawat Publication, Jaipur.
- Sanitation Updates News, Opinions and Resources for Sanitation for All. (n.d.). Sanitation Updates | News, Opinions and Resources for Sanitation for All. Retrieved May 10, 2010, from <http://sanitationupdates.wordpress.com>
- Singh, Mudit Kumar (2014). Visiting Faculty, Motilal Nehru National Institute of Technology, Allahabad, Uttar Pradesh, India, *IMPACT: International Journal of Research in Humanities, Arts and Literature (IMPACT: IJRHAL)* ISSN(E): 2321-8878; ISSN(P): 2347-4564 Vol. 2, Issue 5, May 2014, 19-24
- Srkar, Rajiv, Banda, Kalyan, Govindarajan, Jeyanthi, Harijan, B.B. and Jeyakumar, M.B. (2009). Study of water supply and sanitation practices in India using geographic information systems: Some design and other considerations in a village setting, *Indian J. Med. Res.*, **129** : 233-241.

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