

Toilet as an Asset: Necessity versus Luxury

Rukhsat Hussain (Corresponding author)

Rural Research Center, S M Sehgal Foundation , Plot No. 34, Sector-44, Institutional Area, Gurgaon,
Haryana-122003, India

Tel: 91-124-4744158 E-mail: r.hussain@irrad.org

Bhawna Mangla

Rural Research Center, S M Sehgal Foundation , Plot No. 34, Sector-44, Institutional Area, Gurgaon,
Haryana-122003, India

Tel: 91-124-4744142 E-mail: b.mangla@irrad.org

Abstract

Sanitation hinders overall development process and poor sanitation practices deprive human access to healthy living conditions. Improving sanitation is crucial to gear the development process in India whose sanitation performance has been unsatisfactory even after a program for better sanitation in place since 1986. This paper focuses on sanitation condition in 78 villages of Mewat district of Haryana in comparison to Haryana and India as a whole. The findings show that Mewat's sanitation condition has been dismal negatively affecting the other paradigms of development. Also, we studied on to the asset holding preferences of the rural inhabitants to understand the effectiveness of fiscal benefits under the current scheme- Nirmal Bharat Abhiyan. The findings report that rural households which own other kinds of luxury and mediocre assets still fail to have toilets in their homes. In such cases, non-affordability could not be a reason and instead households do not consider toilet as a necessity. Therefore, compensatory policy becomes inefficient and ineffective means to improve sanitation situation. Additionally, financial support has become a disincentive for people to install toilet facility and the real poor continues to be deprived of the compensation as he can't afford the start up cost of building toilets which makes him eligible for the sum of rupees under the scheme. Strengthening IEC and promoting community led sanitation are ways ahead to improve sanitation condition in India.

Keywords: Sanitation, Toilets, Asset Ownership, NBA

I. Introduction

The three basic necessities of a human being are food clothing and shelter. In today's world there is a fourth dimension added to it which is proper sanitation. Poor sanitation affects health, education, personal security, human dignity and environment and this effect is skewed towards women and children. Children are constantly, exposed to germs of open faeces which prevents the good use of nutrients in food by the body and hence poor sanitation has been established as one of the factors responsible for high incidence of malnutrition in India. (*Down to Earth*) From an MDG 'view of the world', the target for total sanitation is categorized under MDG7 (Note 1). Additionally, safe sanitation is a key to prevent certain infectious diseases such as diarrhoea that cause infant and child mortality captured by MDG4 (Note 2)

Some 2.6 billion people lack access to improved sanitation in the world, two-thirds of whom live in Asia and sub-Saharan Africa. More than half of these people (1.2 billion) have fund to be living in India. (Mara et al, 2010) UNICEF put forward some facts for year 2008 highlighting that India is home to 638 million people defecating in the open; over 50 per cent of the population and in rural India, 21 per cent use improved sanitation facilities.

One of the prosperous states of India is Haryana which is a landlocked state in northern India surrounded by Punjab, Himachal Pradesh, Uttar Pradesh, Delhi and Rajasthan. The state accommodates a population of 25 million with an overall density of 573 persons/ km². In terms of the size of population Haryana ranks 16th in the country. According to the 2011 Census, latrines were available to only 68.6 percent of the households in the state signalling towards 31.4 percent of the households still using open space for defecation. However, inside it lies poor Mewat (Note 3) which has always lagged in almost all indicators of growth and development. This district is unsuccessful in reaping any benefits from the state sanitation coverage as less than one-fifth of the Mewat residents have toilets in their homes.

In lieu of destitute condition of sanitation prevalent in India since ages, Central Rural Sanitation Program (CRSP) was launched in 1986. The objective of CSRP is to improve the quality of life of the rural people and also to provide privacy and dignity to women. The government revised the CRSP and launched new program in 1999 titled “Total Sanitation Campaign” (TSC) (Note 4) with the objective to achieve universal rural sanitation coverage by 2012. To give a boost to the TSC, the government introduced an innovative incentive program known as Nirmal Gram Puruskar (NGP) in 2003 (Note 5). In 2012, TSC has been renamed as the “Nirmal Bharat Abhiyan” (NBA) with the objective of accelerating the sanitation coverage in rural areas by providing individual household latrines, latrines in schools and anganwari centre with the help of Gram Panchayat.

Government initiatives intend towards overcoming the financial constraint amongst the poor households which holds back the poor rural communities in adopting better sanitation practices.

II. Objective and Methodology

This paper attempts to study the sanitation practices and condition in pro-poor Mewat district of Haryana. We compared the sanitation situation in Mewat with that of Haryana and India as a whole. Also, we have observed asset holding preferences of rural households of Mewat to analyze the effectiveness of monetary support to beneficiaries as a part of NBA initiative in order to promote better sanitation practices in Rural India. The argument established in paper is that having toilets is what we consider as a necessity, but do rural community also accepts and realize the need of this asset.

This study uses both secondary and primary data for analysis. The secondary data has been derived from Census 2011. The primary data for this study has been collected from 78 (Note 6) villages of Nagina, Nuh, Tauru, Punhana and Jhirka blocks of Mewat district of Haryana in the year 2011 through interview schedule and focus group discussions. These villages constitute around 20% of the total number of villages in Mewat which were randomly selected. The total sample size is 2122 comprising of 10% randomly selected households from each of the 78 villages.

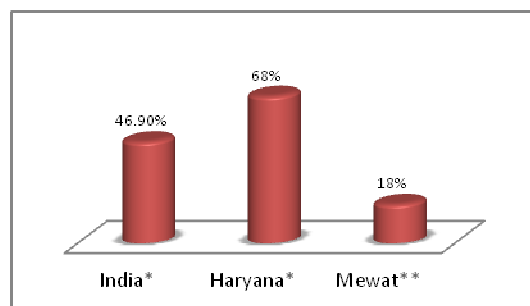
III. Results and Discussion:

The first section of findings highlights the secondary data comparison of installation of toilet across India, Haryana and Mewat. The section discusses the socio-economic profile of rural households followed by third section emphasizing on the asset ownership pattern of rural households of Mewat which is linked to their preference for healthy sanitation practices.

3.1 Availability of Toilet Facilities and Asset Ownership

The deplorable condition of Mewat district with respect to Haryana state in terms of installation of toilets and sanitation situation is represented in Figure 1. According to Census 2011, little less than half of the population of India on an average has access to toilet facility in their homes but in Haryana, more than two third of population have installed toilets in their homes. Primary data illustrates that in 2011, as low as less than one-fifth of the sample population from 78 villages of Mewat have reported to have toilets installed at their residence.

Figure1: Distribution of Households by Availability of Toilet Facilities

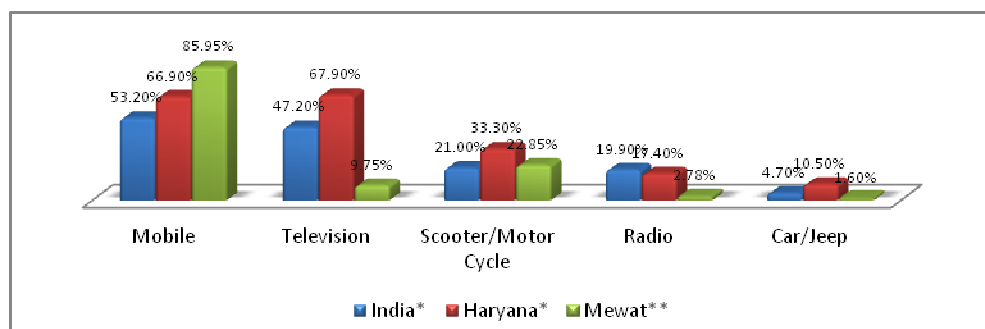


(*Census 2011 and ** Primary Data 2011)

Sanitation coverage in Haryana is doing better than average national levels but a small part of Haryana itself, Mewat, is showing below average performance of sanitation coverage. This indicates towards repercussions of poor sanitation condition on health of the villagers of Mewat which is ought to be colossal.

The ownership status of some of the household is explored to compare the assets holding pattern across India, Haryana and Mewat (Figure 2). Except for mobile and scooter/motor cycle, percentage of households from Mewat owning Television, Radio and Car is very less when compared to average national standards. The difference is increased when compared to asset holding pattern of Haryana as a state. This disparity suggests existence of deep poverty in Mewat whose status of development is way below than its mother state Haryana. Low levels of sanitation coupled with high rates of poverty have worsened the living conditions for the inhabitants of Mewat making them vulnerable to diseases, affecting their health and therefore productivity. The cause and effect relationship of poor sanitation and deep poverty is what can be looked for future research in context of Mewat.

Figure 2: Asset Ownership Pattern



(*Census 2011 and ** Primary Data 2011)

3.2 Social Economic Linkages with Ownership of Toilets

The motivating factors for adoption of safe hygienic practices as perceived by sanitation stakeholders are varied and complex. These factors can be grouped into four linked and overlapping categories, namely: cultural, economic, institutional, structural, environmental, psycho-social and educational factors. (Mafuya and Shukla, 2005). This section understands how far social and economic factors are affecting the adoption of better sanitation practices.

The first social factor under consideration is religion which is found to have a significant association (Note 7) between ownership of toilets and religion was found (χ^2 (, N=2122) = 36.108 with p value < 0.01)). The religious composition of Mewat makes evident the pre dominance of Meo-Muslims across all blocks of the district. Examination of primary statistics shows that Hindu households have performed fairly better in installation of toilet facilities as compared to Muslim households. Additionally, a significant association was found between ownership of toilets and caste category as well (χ^2 (, N=2122) = 26.189 with p value < 0.01)). Caste differences (Table 1) highlights the greater access of toilet facility to relatively higher caste (General) people and more than one-fourth of people belonging to SC, ST category are following the practice of open defecation. The percentage of people practicing fixed point defecation stoops down to extreme low levels when it comes to BC households.

Table1: Distribution of Households and Toilet ownership

		Percentage of Households in the category	Among the category households, percentage of households having toilets	Chi Square Coefficient	P Value
Economic Status wise distribution	Above Poverty Line (APL)	51.08%	20.60%	21.586**	0.000
	Below Poverty Line (BPL)	29.41%	19.40%		
	Antyodaya (AAY)	7.78%	17.60%		
	No Card	11.73%	8.00%		
Caste wise distribution	General	1.89%	40.00%	26.189**	0.000
	Scheduled Caste (SC)	14.84%	25.10%		
	Scheduled Tribe (ST)	0.52%	18.20%		
	Other Backward Caste (OBC)	19.79%	19.00%		
	Backward Caste (BC)	62.96%	16.17%		
Religion wise distribution	Hindu	21.06%	28.30%	36.108**	0.000
	Islam	78.94%	16.00%		

Source: Primary Data

One of the common reasons for not installing toilet facility is attributed to insufficient financial resources. There exist a positive correlation between income category and ownership of toilets (χ^2 (, N=2122) = 21.586 with p value < 0.01)). The inability to afford toilet construction by the poorer households was the reason why monetary support was included in the Total Sanitation Campaign. Contrastingly, APL and BPL households have shown similar toilet ownership pattern (Table 1). Approximately one-fifth of households in respective income category have toilets at their residence and majority of them practice open defecation. While, in absolute terms, APL households performs better than BPL households but relative analysis put both the categories at same performance level. Such a situation where households with relative better economic conditions are also depicting low incidence of toilet installation refutes the above line of reasoning completely.

Table 2: House Type and Ownership of Toilets

		Percentage of Households in this category	Among the category households, percentage of households having toilets
HH infrastructure	Kuchha	19.37%	8.00%
	Half Pucca	9.71%	13.60%
	Pucca	70.92%	22.10%
HH ownership	Self	99.76%	18.50%
	Rented	0.09%	50.00%
	Other	0.14%	0.00%

Source: Primary Data

Further, almost all the people are residing in the self-owned houses but majority (81.50%) of them have not constructed any toilets. (Table 2) Additionally, 78% of people living in pucca houses lack the facility of toilets. Such a scenario again point towards the same non-affordability argument that the households who can afford to build concrete houses fail to construct toilets. Considering the above facts, how far are we able to justify insufficiency of funds as a reason for lack of sanitation in rural India and hence the appropriateness of compensatory mechanism needs to be questioned.

3.3 Assets ownership

Out of the world's estimated 7 billion people, 6 billion have access to mobile phones. Far fewer — only 4.5 billion people — have access to working toilets. Of the 2.5 billion who don't have proper sanitation, 1.1 billion defecate in the open. (UN, 2013) In this paper, we capture other assets into account apart from mobile phones and establish a linkage in ownership pattern of these assets and ownership of toilets. This section explores the asset holding pattern and toilet holding pattern of the 2122 respondent households from 78 villages of Mewat district of Haryana (Table 3).

Table 3: Detailed ownership of assets versus ownership of toilets

		% HH having assets	% HH having assets but not toilets	Chi Square Coefficient	P Value	Grouping %	HH having group of assets	HH having group assets but not toilets
(1)	(2)	(3)	(4)	(5)	(6)	(7)	(8)	(9)
Luxury	Local Phone	0.57%	41.67	12.676***	0.000	(0-10)	1	0
	Car/Jeep	1.60%	32.35	55.263***	0.000			
	Washing Machine	2.26%	31.25	82.111***	0.000			
	Radio	2.78%	72.88	2.973*	0.085			
	Tractor	4.81%	67.65	13.587***	0.000			
	Television	9.75%	56.04	98.383***	0.000			
Mediocre	Refrigerator	16.49%	61.71	108.509***	0.000	(10-30)	48	22
	Cycle	20.55%	77.52	5.693**	0.017			
	Scooter	22.86%	68.87	66.287***	0.000			
	Sewing Machine	29.03%	71.75	54.415***	0.000			
Necessity	Fan	74.98%	79.45	17.411***	0.000	(>75)	1460	1152
	Mobile	85.96%	80.76	4.501**	0.034			

Source: Primary Data

Column 3 provides information on percentage ownership of assets listed in column 2. These percentages are arranged in increasing order of ownership. The ownership pattern helps us in classification of assets in 3 categories: luxury, mediocre and necessity (Column 7). Assets owned by less than 10% of total population are classified as luxury assets since these assets are relatively expensive for all the households to afford. Mediocre assets consist of those assets which are owned by 10-30% of households and necessity assets are those assets which are owned by more than 75% of sample households. There exist a significant association between ownership of individual assets mentioned in Column 2 and ownership of toilets (evident from low p values (Column 6) for each chi square coefficients (Column 5) between list of asset and toilet ownership). However, when looked at Colum 4 which highlights the further tabulation of households who own particular asset but are not having toilets installed in their homes, a large chunk of sample population have failed to have toilet even after a significant association of asset ownership. Explicitly, for the luxury item group, households ranging from 30-70% have access to these scarce assets but have not invested money in improving the sanitation conditions of the households. They still continue to practice open defecation when they are able to afford television and radio for entertainment, use washing machines for mechanized way of cleaning clothes, and enjoy travelling distances in Car or Jeep. More than 60% of households own mediocre group of assets but fail to get toilet constructed in their house or even in community. The latter group of necessities is owned by majority of households and further

majority of them do not have toilets in their houses as well. When looked at collective ownership of these assets in different group as in columns 8 and 9, we could find only 1 respondent who owns all the luxury asset and this household do have toilets installed as well. However, for households owning all the assets in mediocre group, approximately 50% of households have all assets of this group but not toilets in their homes. This percentage further rises when we look on to the necessity item group. Households having all the mediocre assets are most likely to afford toilets in their home but 50% have not really considered having them. (We ignored luxury asset group since only 1 household is found to own all the assets in this group) In such a case, we need to find the reasons for not having toilets instead of simply considering non-availability of financial resources as the only reason.

Surprisingly, discussions with the villagers have revealed that for many cases, these mediocre and luxury assets have not been purchased, rather have been transferred in form of dowry. Such instances further raise concerns because parents are comfortable marrying their daughters in houses without toilets while they send other items of luxury for her to live a comfortable life after wedding. Having toilets in their houses nowhere stands to have priority in their decision making process.

In qualitative discussions with the villagers, it was observed that villagers seek government assistance in construction of toilets even when they themselves have enough resources for the same and they blame government for not having toilets in their homes. The awareness of monetary benefits acts as a disincentive for the households preventing their efforts in installing toilets themselves at their residence. They prefer to wait for the financial assistance from the government. Such kind of moral hazard needs to be considered in future formulation and implementation of the scheme.

From above findings, we can infer that consumer theory is negated in case of rural households taking decision in buying economic goods and constructing toilets. While economic theory suggests increase in consumption of economic goods (goods with positive marginal utility) with increase in income, whereas, in case villages of Mewat, people do not feel the need of having toilet in home even when they have resources to buy other expensive economic goods. It is important to note that we are not denying non-affordability as a reason for not having toilets constructed in their homes but we are trying to point towards other reasons for low level of sanitation in rural parts of India which the scheme is not able to address. There is a need to revisit the question on inclusion of monetary support for construction of toilets from the government side and to include mobilization activities in order to make community understand the necessity of having toilets.

Case Study: Sanitation Condition in Village *Sukhpuri* (2014)

Village Sukhpuri lies in Nagina Block of Mewat having approximately 300 to 350 households. A transect walk in the village revealed the poor condition of roads and nearby surroundings which were covered in sludge after short rainfall in the month of January. The water drainage system of the village was miserable. However, most of the households (almost 80% as reported by few villagers) had constructed toilets in their home in the past 3-4 months. The reason for recent scaling up of construction was anticipated money which they will receive from the government for installing toilets in their homes. Although very few have been able to receive compensation from the government till now. Also, few households who had toilets earlier have renovated and painted their toilets recently in order to seek compensation. Unfortunately, the condition and quality of toilets is impaired. It is simply a 3 walled structure with neither a ceiling nor any door making it completely unfit for any kind of use. Households still continue to defecate in open. Awareness of the compensatory scheme did give them motivation to construct toilets but the quality is sub standard and ultimate goal of open defecation free village is still not achieved.



The above illustration have shown that recently, in late 2013 and early 2014, toilet construction have paced up but the construction is of low quality, inappropriate to use and high incidence of open defecation exist even after improvement in “sanitation coverage”. An important observation was that the relatively poorer households fail to even construct low quality toilets and hence are not eligible for any monetary assistance (since the scheme entitles the compensation delivery to the beneficiary only after completed construction of toilet). The real poor are still deprived of benefit of the scheme and other relatively richer households are making all efforts to be able to extract compensation under the scheme. Other important rural insight is that households who have installed access to toilet facilities their home have their own inhibitions in actually using them. The list of reasons varies from suffocating and smelly toilets to problems in changing their habits of open defecation. For women in particular, lack of privacy and efforts to preserve their dignity force them to wait till after dark to go out but not

use constructed toilet in their home. This creates huge discomfort during the day and posing safety risks when they go out for open defecation. Furthermore, as mothers and prime caregivers, they are faced with the tragic and preventable loss of their children. (<http://www.communityledtotalsanitation.org>) Old women agreed to the problems of open defecation but still prefer to continue their daily routine instead of using safe and private toilets inside. In particular to Mewat, where water availability is great cause of concern, apparently it was never brought up as a problem in adopting fixed point defecation. The discussion with the villagers suggests that apprehensions of people prevents them either constructing or using the toilets. Thus, simply building toilets will not be sufficient enough to reach sanitation targets. Promotional methods incorporating improvements in hygiene behaviour will be essential to ensure building more toilets and will lead to increased use and reductions in health implications of poor sanitation. Essentially, a household having toilet must be mobilized enough that it maintains clean and faeces free toilet to avoid contamination to reach target sanitation levels. (Fan, 2012)

With respect to relative contribution of “subsidy” and “shame” components of treatment in understanding the impact on behavior of rural community to accept healthy sanitation practices, it was found that subsidies caused about one-third of the effect while ‘shame only’ contributed two-thirds of the treatment effect. (Pattanayak et al, 2009) Social mobilization is directly correlated with improved sanitation conditions and is required to motivate people construct toilets at least the ones who can afford it and thereby provide subsidies to ones who can’t.

IV. Suggestions and Recommendations

4.1 Behavioral change through awareness campaign

Lack of awareness stand out as the predominant reason in both the case, one those household having toilets but not familiar to use it and second are those household whose prioritize assets such as television, washing machine, refrigerators, cell phone etc over availability of toilets. Open defecation in rural areas continues to be a socially and culturally accepted traditional behavior at large, by both rich and poor. Large scale efforts needed to create and sustain community demand for hygiene and sanitation. Effective Information, Education and Communication (IEC) come out as the most important requirement to realize the importance of toilet for the people. IEC needs to strengthen so as to motivate people in adopting better sanitation practices. The motivating factors could be (1) perceived improvement in social status, (2) self motivation factors (convenience of fixed point defecation) and (3) not enough open space. Government and local organizations (Local Self Help Group, Women’s organizations, CBO (Community Based Organization)’s youth association and NGOs (Non-Government Organization)) should make the programmed to build the capacity for behavior change. Local Self Help Group, Women’s organizations, CBO’s youth association and NGOs can play a crucial role in making the local people aware and mobilizing them to built and uses the toilets.

4.2 Community Sanitation Complex

Community toilets as an effective alternative for the poorest section needs to be seriously persuaded. To achieve open defecation free environment, community toilets should not be installed at the public or market place, rather, it should be a little outside the village so as to match rural inhabitants’ traditions and beliefs. Few Gram Panchayats have these facilities; there is a need to give some more emphasis to it. Process and maintenance, water shortage and scarcity of land are the main problems in this regard. In the later versions of TSC (NBA) and in the recommendation in 12th Five Year Plan, this issue has been properly addressed. Few successful examples of community led sanitation at village level in different parts of rural India can be effectively replicated to achieve open defecation villages. There is a need to converge schemes to provide water and conduct massive public mobilization programs for arrangement of land and community contribution.

“It is plain that investment in sanitation is a down-payment on a sustainable future. Economists estimate that every dollar spent can bring a five-fold return.” (Arbogast, 2013)

V. Conclusion

Our study delivers evidence on the extreme low level of sanitation coverage in Mewat which is already exposed to high levels of poverty. Mewat being a part of prosperous state Haryana has been completely untouched by the growth and development of its fellow districts. It has been shown that monetary benefits under the current sanitation program in India is not sufficient to improve sanitation condition. This holds true especially when rural households do not really consider as a necessary good. The consumer theory which suggests increase in consumption of economic goods with increase in income doesn’t hold true for rural inhabitants of Mewat and how they consider toilet. Therefore, compensatory mechanism should be limited since not only it give rise to moral hazard problems but also do not reach the real poor. Focus should be given in spreading awareness about importance of having toilet facilities and better hygiene practices. Community led sanitation has shown various

successful examples reflecting the need of people participation in bringing behavioural changes and therefore it should be promoted further.

References

1. Amarjeet Singh and Arvinder Kaur Arora (2003), *Knowledge, Attitude and Practices on Sanitation Latrines*, Indian J.Prev.Soc.Med.Vol.34 No.3&4,2003
2. Benny George (2009), *Sanitation Programs: A Glass Half-Full*, Economic and political Weekly
3. Government of India (2013), *Evaluation Study on Total Sanitation Campaign*, Ministry of Planning Commission, Government of India
4. Guidelines, Central Rural Sanitation Program, One of the objectives of TSC, Guidelines, Central Rural sanitation Program, 2007.
5. Guidelines, Central Rural sanitation Program, 2007
6. Guidelines, Central Rural Sanitation Program, Total Sanitation Campaign,(July2011)
7. MARA D, LANE J, SCOTT B, TROUBA D, SANITATION AND HEALTH. PLOS MED 7(11): E1000363. DOI:10.1371/JOURNAL.PMED.1000363, 2010
8. Nilika Mehrotra(2008), *Culture Versus Coercion: Other Side of Nirmal Gram Yojana*, Centre for the Study of Social System. Jawaharlal Nehru University, New Delhi, India
9. Progress on Sanitation and Drinking-Water (2012), *Sanitation and Drinking Water*, a WHO-UNICEF sponsored study
10. Relevant Websites for Data, e.g., Census of India Planning Commission of India, DDWS, *World Bank Blog*, Center for Global Development, etc.
11. Subhrendu K Pattanayak (2009), *Social Mobilization for Sanitation in Orisa*, India, Bull World Health Organ 2009;87:580-587.doi:10.2471/BLT.08.057422
12. Sonal Jain (2013), *A comparative Analysis of Water and Sanitation Practices*, The experiment,Mar,2013 vol.8(2),461-467
13. Towards Nirmal Bharat, Development a Strategy for Rural sanitation, 2010-2012, Status and Issues: *Department of Drinking Water and Sanitation*, Ministry of Rural Development, Government of India
14. Vikas Gupta and Mahipal (2008), *Community Sanitation Campaign*, *Economic and Political Weekly*
15. World Health Statistics: *World Health Organization*
16. <http://www.un.org> (April 24, 2014)
17. <http://www.unicef.org> (April 9 2014)

Notes

1. Target 7.C: Halve, by 2015, the proportion of the population without sustainable access to safe drinking water and basic sanitation
2. Target 4.A: Reduce by two thirds, between 1990 and 2015, the under-five mortality rate
3. Mewat lies in semi-arid region which is adversely affected by water scarcity where majority of population is dependent on agriculture.
4. The TSC gives strong emphasis on Information, Education and Communication (IEC), Capacity Building and Hygiene Education for effective behaviour change with involvement of PRIs, CBOs, and NGOs etc. The key intervention areas are Individual household latrines, School Sanitation and Hygiene Education, Community Sanitation complex, Anganwadi toilets supported by Rural Sanitation Marts and Production centres.
5. NGP offer a cash prize to motivate Gram Panchayat to achieve total sanitation. NGP is an attractive incentive for the village level institutions as winner is felicitated by the President of India at the national level and by high –ranking dignitaries at the state level
6. Block Wise distribution of villages (Nagina-27, Firozpur Jhirkha-22, Nuh-10, Tauru-10 and Punhana –9)
7. Chi square coefficient is used to measure association. Since both the variables are categorical Karl Pearson's coefficient of correlation couldn't used, hence to find statistical correlation between any two variables in paper we have used Chi Square test for our contingency table analysis

The IISTE is a pioneer in the Open-Access hosting service and academic event management. The aim of the firm is Accelerating Global Knowledge Sharing.

More information about the firm can be found on the homepage:
<http://www.iiste.org>

CALL FOR JOURNAL PAPERS

There are more than 30 peer-reviewed academic journals hosted under the hosting platform.

Prospective authors of journals can find the submission instruction on the following page: <http://www.iiste.org/journals/> All the journals articles are available online to the readers all over the world without financial, legal, or technical barriers other than those inseparable from gaining access to the internet itself. Paper version of the journals is also available upon request of readers and authors.

MORE RESOURCES

Book publication information: <http://www.iiste.org/book/>

Recent conferences: <http://www.iiste.org/conference/>

IISTE Knowledge Sharing Partners

EBSCO, Index Copernicus, Ulrich's Periodicals Directory, JournalTOCS, PKP Open Archives Harvester, Bielefeld Academic Search Engine, Elektronische Zeitschriftenbibliothek EZB, Open J-Gate, OCLC WorldCat, Universe Digital Library, NewJour, Google Scholar

