

The Present Status, Behavioural Pattern, Governance and Challenges in Rural Sanitation: A Village Level Study of Cholapur Block, Varanasi District in Uttar Pradesh

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Abstract: With holding a title of second most populace country in the world constitutes 70 percent of rural population in its dimensions. India needs a prosperous development by developing its rural areas. A country cannot leave its 70 percent population behind in the pace of development. Basic minimum criteria should be fulfilled and upgraded to run in the developed society. Massive chunk of Indian populace has lived with an uncomplicated elementary life-style with fewer modern means and despite the interminable push by the Indian Government the use of modern sanitation facilities till recent times has been scarce. Sanitation is used to define a package of health related measures. According to the union ministry of health, around 7, 00,000 children die each year due to diarrhoea and other sanitation related diseases. In the last five years Indian Government has started to ante up the programmes for providing sanitation facilities for its population. The present paper analyses the status of governance and pattern of rural sanitation and water Supply in the wake of current impetus on hygiene through Swachh Bharat Mission and other Government programmes to improve the status of Sanitation and Water supply in Rural India. The sample size was 400, covering all the villages in Cholapur Block of Varanasi District. Covering all 80 gram panchayats.

Keyword: Rural sanitation; Hygiene; Governance.

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I. INTRODUCTION:

“Sanitation is more important than Independence”-Mahatma Gandhi. Literally, the word Sanitation means the conditions related to public health, especially in the matter of clean drinking water and adequate sewage disposal. According to World Health Organization, “Sanitation refers to the provision of facilities and services for the safe management of human excreta from the toilet to containment and storage and treatment onsite or conveyance, treatment and eventual safe end use or disposal.” Health is the state of well-being and sanitation and hygiene is one of the factors that may affect health. Maintaining proper sanitation and good hygiene practices are necessary for improving and protecting health and well-being of people. In 1988, World Bank report showed that only 19 percent of the world rural population had adequate excreta disposal facilities (Cairn cross, 1993). In 1989, same report stated that about 80 percent of all diseases may be due to inadequate and poor water quality and sanitation. Building sanitation system is not enough until and unless an effective primary health care education programme is not approached (Chapman, 1991). Primary health care education programme involves importance and methods hygiene. Sanitation and hygiene is a long term behavioural process if not marketed correctly it may not always be successful (Dindar, 1996). Over 2.2 billion people now have access to improved sanitation facilities till 1990 (World Bank report 2018). Globally 2.3 billion people live without access to basic sanitation service out of which 832 million people practice open defecation (World Bank report, 2018). One gram of human faces from an infected person contains approximately 10⁶ viral pathogens 10⁶ – 10⁸ bacterial pathogens, 10⁴ protozoans cysts or oocysts, and 10⁴ – 10⁶ helminth eggs (R.G. Feachem 1984). Poor sanitation leads to the transmission of cholera, diarrhoea, dysentery, hepatitis A, typhoid, polio (K.H. Jacobsen 2013). Diarrhoea takes more life than any other. It can be prevented by following various sanitation and hygienic measures in daily lifestyles (K.H. Jacobsen 2013). Five million children in developing countries dies due to diarrhoea or acute respiratory infections (R.E. Black 2003). In 2012, diarrhoeal disease cause 842,000 deaths and 1.5 percent of the global burden of diseases (T.R. Zolnikov 2018).

Table 1: Top 10 countries with lack of basic sanitation facilities

RANK	COUNTRY	NUMBER OF PEOPLE WITHOUT ACCESS TO AT LEAST BASIC SANITATION	POPULATION WITHOUT ACCESS TO AT LEAST BASIC SANITATION (%)
1	INDIA	732,207,000	56
2	CHINA	343,499,264	25
3	NIGERIA	122,802,379	67
4	ETHIOPIA	92,354,960	93
5	BANGLADESH	85,499,092	53
6	INDONESIA	82,712,477	32
7	PAKISTAN	78,873,482	42
8	DRC	62,034,676	80
9	TANZANIA	40,886,656	76
10	KENYA	32,306,737	70

Source: Report by Water Aid titled–Out of order: The state of the world’s Toilets 2017

According to the report published by Water Aid, almost 56 percent of the total population that is 732,207,000 lack access to basic sanitation facility in India. Almost 732 million people are still waiting for basic sanitation in which 355 million were women and girls, in spite of the government data that indicates 52 million household toilets were built between October, 2014 and November, 2017.

Table 2: Top 10 best countries for reducing open defecation – by percentage

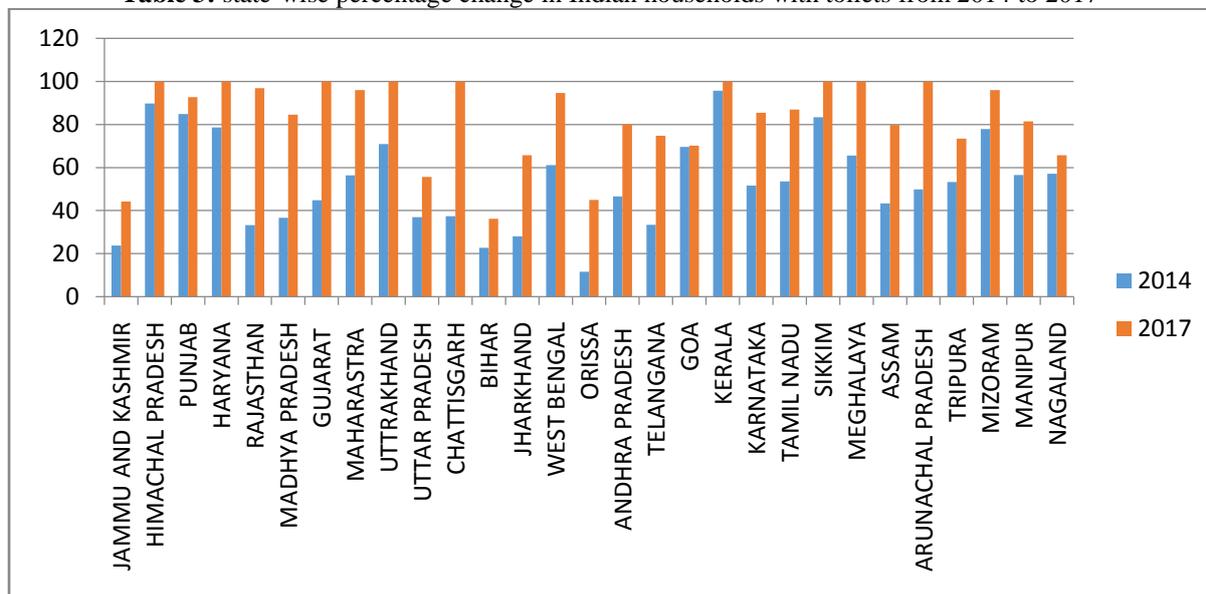
RANK	COUNTRY	PERCENTAGE POINT DECREASE	PERCENTAGE OF PEOPLE PRACTISING OPEN DEFECTION IN 2000	PERCENTAGE OF PEOPLE PRACTISING OPEN DEFECTION IN 2015	NUMBER OF PEOPLE PRACTISING OPEN DEFECTION IN 2015
1	ETHIOPIA	52.7	79.8	27.2	26,997,570
2	CAMBODIA	42.2	82.7	40.6	6,319,829
3	LAOS	39.9	62	22.1	1,501,104
4	NEPAL	34.8	64.6	29.8	8,504,753
5	PAKISTAN	29.9	41.5	11.5	21,813,413
6	INDIA	26.1	66	39.8	522,261,058
7	SUDAN	24.3	50.9	26.7	10,728,934
8	BURKINA FASO	23.4	71.4	48	8,686,380
9	SOLOMAN ISLANDS	22	63	41.1	239,588
10	SAO TOME AND PRINCIPE	20.8	70.6	49.8	94,775

Source: Report by Water Aid titled Out of order: The state of the world’s Toilets 2017

It is evident from the above published data sheet that India has helped itself curbing out the problem by Swachh Bharat Mission. The data manifests that 66 percent of Population were practising open defecation in 2000 and it shows a decline of 26.1 percent till 2015 which means that approximately 39.8 percent which still is an enormous population i.e. 522,261,058, still defecate in open. According to Department of Drinking Water and Sanitation (GOI), India’s first nation-wide programme for rural sanitation –“Central Rural Sanitation Programme” (CSRP) was launched in 1986. It mainly focused on the subsidies provided by government to people to construct sanitation facilities. In 1996-97 a study was conducted by the government, showed that awareness among the population is need of the hour rather than just providing the subsidies. Therefore, keeping on view the findings of the studies a Total Sanitation Campaign was launched in the year 1999 with the motive of accelerating sanitation coverage in rural areas, creating an awareness among the people about self-building sanitation facilities rather than depending on government, promoting good hygiene practice and the cost-effective technologies etc. In the year 2007, Nirmal Bharat Abhiyan was restructured from Total Sanitation Campaign with the intent to transform India till 2022 and it also envisages facilitating individual household toilets to the Below poverty line (BPL). Later, Swachh Bharat Mission (SBM) was launched on 2nd October, 2014 with a goal of achieving hundred percent ODF (open defecation free) India till 2nd October 2019. SBM

plays vital role in changing the whole scenario. Latest report published by National Annual Rural Sanitation Survey shows the state- wise differential changes.

Table 3: state-wise percentage change in Indian households with toilets from 2014 to 2017



SOURCE: National Annual Rural Sanitation Survey (2017-2018)

As the table 3 illustrates, there is drastic percentage change in households with individual toilets over the years. In 2014, there was only one state Kerala with 95.60 percent of households with toilets but in the year 2017 nine states which are Himachal Pradesh, Haryana, Gujarat, Uttarakhand, Chhattisgarh, Kerala, Sikkim, Meghalaya, Arunachal Pradesh achieved hundred percent household with individual toilets. Four states namely Bihar, J&K, Orissa, UP lie with the lowest percentage increase. Bihar with 36.22 has shown lowest percentage in all. Jammu and Kashmir is lagging behind in the pace of development. Orissa shows that it has only 11.53 percent of household using toilets in 2014 and in the year 2017 the number boost up to 44.99 percent. Uttar Pradesh has the highest number of population and holds only 55.61 percent of household with toilets. Almost half of its population remains out the scenario.

OBJECTIVES

- To analyse the current status of sanitation facility in the Cholapur block.
- Impact of Government schemes on sanitation and change detection analysis occurred during the last five years.
- To study the behavioural pattern of rural persons in using toilet and drinking water source facilities in study area.
- To suggest the measures for awareness among rural habitants.

II. STUDY AREA:

Cholapur(latitude(82° 57' 8" – 83° 10' 40') longitude-(83° 1' 15'-83° 2' 39') is one the eight blocks of Varanasi district and located in north- eastern part of the district. Geographically the present study area is situated at the confluence of Ganga and Gomati River. The Northern boundary is decided by the Gomati River, Eastern by Ganga, and Western by Pindrablock and Southern by the Chiraigaon and Harahua.Cholapur block extend over an area of 190 square kilometres with 81 Gram panchayat and a total of 148 villages.It holds 35,056 households (Census, 2011) with a total population of 238945(Census, 2011).Male and female population are 122,945 and 116,000 respectively. InCholapur block, 146,400 persons are literates out of total population, in which 86,334 males are literate and 60,066 females are literate (Census, 2011). Here significant changes may be seenbetween 2014 and 2019 in the awareness regarding sanitation and other related issues due to Joint Monitoring Programme (JMP) of WHO and UNICEF and governmental policies—Swachh Bharat Abhiyan, and Total sanitation campaign.

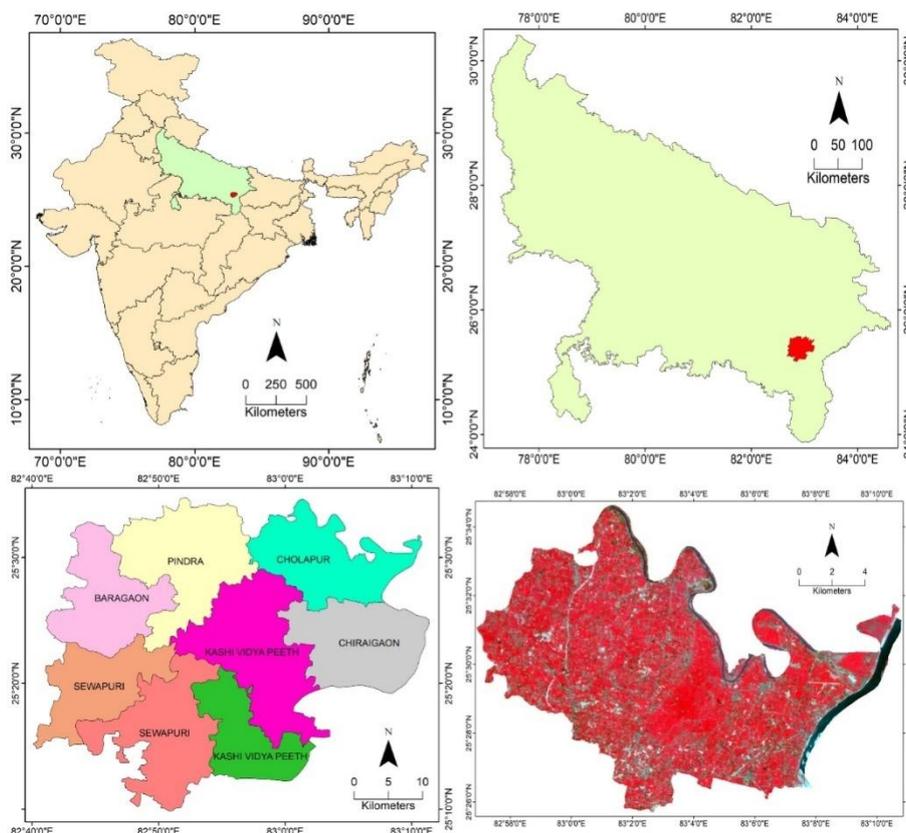


Fig: Location map of Cholapur Block in Varanasi District

III. DATA AND METHODOLOGY

For the present study, a Socio- economic survey was conducted in 2018 of Cholapur Block of Varanasi district. Cholapur block was selected purposively because of its geographical location and the distance from the urban centre. The block consist of 81 gram panchayats. A total of 400 samples were taken, that is five from each gram panchayat on the basis of Yamane’s formula, $n = N / (1 + N * e^2)$. Supporting datasets like Block level and Village level has been collected from concerned developmental block office. Reports on sanitation developed by Joint Monitoring Programme of World Health Organization and UNICEF have been taken under consideration as well as reports of UN- water Global Analysis and Assessment of Sanitation and Drinking-water (GLASS), Water Aid, National Annual Rural Sanitation Survey 2017-2018 were utilized as a source.

IV. RESULT AND DISCUSSIONS

Status of basic sanitation facility and behavioural pattern in the study area:

Table 4 illustrates the current status of individual household toilets in Varanasi district at block level. Table indicates the impact of urbanization on the availability of basic sanitation facilities-KashiVidyapeeth Block (82365) has the most individual households with the basic toilet facility as it lies in urban Varanasi but Arajiline (44266) embodies most number of household without toilet facilities. Baragaon (3394) lies in the bottom with the minimum number of household with toilets. Cholapur is the second ranked block from the bottom with 6945 number of household with toilet facility and fourth from the top in terms of number of households without individual toilets i.e. 26586.

Table 4: Block- wise total number of household with and without Toilets

BLOCK	TOTAL HOUSEHOLD	TOTAL HOUSEHOLD WITH TOILETS	TOTAL HOUSEHOLD WITHOUT TOILETS (APL+BPL)
ARAJILINE	59011	14745	44266
BARAGAON	37225	3394	27291
CHIRAI GAON	42645	13615	29030
CHOLAPUR	33531	6945	26586
HARAHUA	38860	12698	26162
KASHI VIDYAPEETH	100142	82365	17777

PINDRA	38280	12123	26157
SEVAPURI	35654	11069	24585
TOTAL	385348	163494	221854

Source – Swachh Bharat Mission Gramin(data.gov.in)

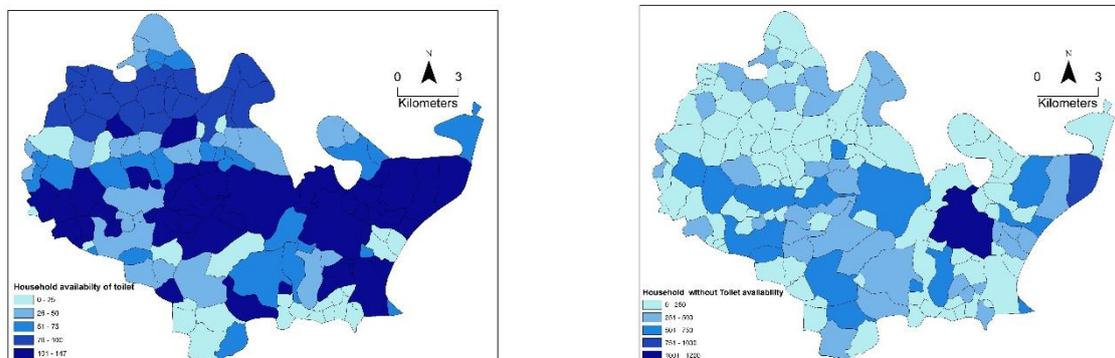
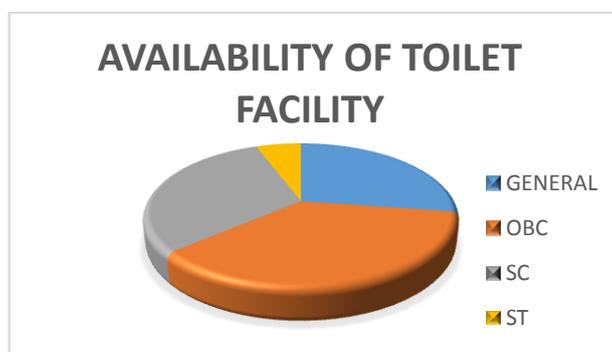


Fig 1: map shows household having toilet facility **Fig 2:** map shows household without toilet facility

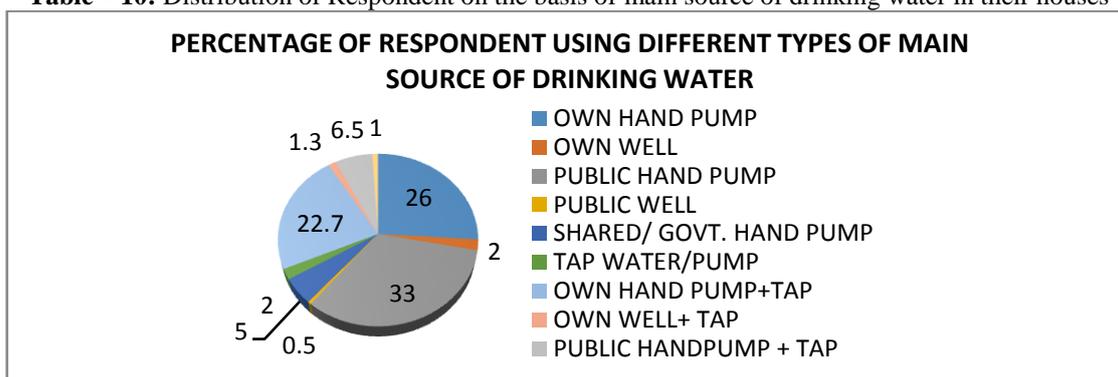
The above figure shows the number of household with and without toilet availability at village level. With 148 villages in the block figure one shows the village-wise availability of toilet facility. 26 villages shows the presence of toilet facility in not more than 25 households and between 26 to 50 household suggested the presence of toilet facility in their home in 25 villages. More than 100 household in 44 villages. Figure two clears the idea about number of household without having toilet facilities. 95 villages' shows unavailability and maximum of 250 household have toilet facilities out of 148 villages. A total of 400 samples were collected in the study area to know the status of basic sanitation facility and behavioural pattern. Caste-wise distribution table helps to understand the real status of the society. 82 persons out of 88 persons (93.2 percent) in the general category have toilet in their houses. Followed by OBC category 109 persons out of 121 (90.1 percent) have the toilet facility. Since the government programme tackled the problem little bit 60.1 percent of the SC and 44.7 percent of the ST category respondent have the basic toilets facility. In general 75 percent respondent have given a positive response in the availability of toilets.



Drinking water source in study area:

Sanitation not only depends on the method and procedures of hygiene and disposal but also directly or indirectly depends on the source of drinking water. Chalapur block wholly lies in the basin area of Gomati and Ganga River, consequently, a total of 22.7 percent of the total respondent possess own hand pumps and taps followed by 33 percent of respondent using public hand pumps. 2 percent and of total respondent own well or have tap water.

Table – 10: Distribution of Respondent on the basis of main source of drinking water in their houses



Place of defecation in the study area:

As of table no. 6 states that 300 respondent out of total use toilet facility. Within premises number and percentage of respondents are 146(48.7%) and outside the premises the number and percentage are as follows 154(51.3%). 100 respondents that is 25 percent of total respondent states that they use shared or open area defecation. In which 61 percent use shared toilets whose condition are very poor and 35 percent practice open defecation system. Condition of cholapur block in terms of sanitation and other household facility like education and health care centres are not up to the mark.

Table – 6 : Distribution of the respondent a/c to the place of availability in case of presence of toilet of availability in case of presence of toilet facility and place of defecation in case of absence of toilet facility

Place of toilet facility	No.	%
Within premises	146	48.7
Outside premises	154	51.3
Total	300	100

Shared	61	61.0
Open field defecation	35	35.0
Shared open field	04	4.0
Total	100	100

V. SUMMARY AND CONCLUSION:

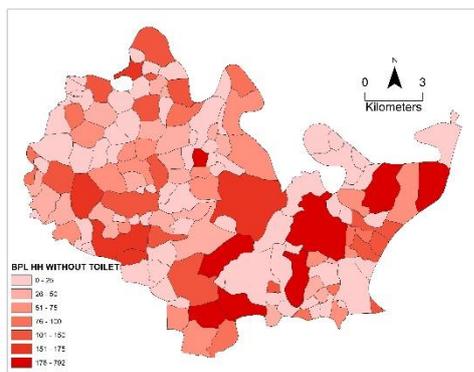


Fig 3: map shows BPL families without toilet facility

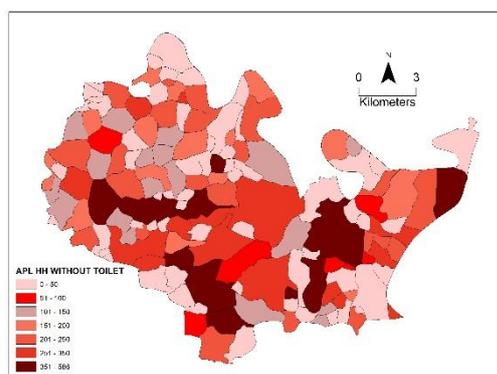


Fig 4: map shows APL families without toilet

In the figure three shows the availability of toilet facility in the household below poverty line in the Cholapur block. 73 villages out of total are not showing toilet facility and minimum 25 household in BPL categories in these villages have toilet facility at their houses. In figure four 60 villages shows the unavailability of toilet facility and maximum 50 households have toilet facility at their houses. Numbers shows the actual sanitation condition in the villages. The present study give an inside glimpse of sanitation status in rural Varanasi. Status of cholapur block very poor in terms of sanitation. In the block there is about 33531 household in which only 6945 household have individual toilets and the rest 26586 household have either shared or practice open defecation. Availability of toilet in 300 out of total 400 respondents. 100 respondent still don't have toilets in their houses because the aid from the government is beyond reach to these households. 146 respondent out of 300 claimed about the presence of toilet within the premises and rest 154 claimed outside the

premises because the toilets claimed within are individual and outside the premises the toilets are either shared or public toilets used by more than two or three families. In block there is still 35 household out of 100 who practice open defecation. This means government programs and aids are still on paper not on reality. Drinking water status in the block is good because either they use own hand pump or government tap/hand pump. This shows the well functioned status of ground water resource. Sometimes aids are provided by the government but did not distributed by the medians to the needy. There is serious need to take action by the local government regarding the built and use of toilets. There is need of house to house survey by the well-organized team to enquire about the sanitation practice and make them aware.

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