Status of ODF Sustainability in Maharashtra

OCCASIONAL PAPER-I

SIGMA FOUNDATION

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STATUS OF ODF SUSTAINABILITY IN MAHARASHTRA

Prepared by SIGMA FOUNDATION

With the Support of UNICEF, Maharashtra

Contents

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SIGMA Foundation would like to thank the Government of Maharashtra for extending all cooperation while carrying out the fieldwork for the collection of qualitative as well as quantitative data for this assessment. UNICEF, Maharashtra has not only supported the project financially but was an active intellectual partner all through the process for which we are grateful to UNICEF Maharashtra. We convey our sincere thanks to the Dr Sanjay Chahande (IAS) ACS, WSSD and his Department, CEOs of the districts and officials of the blocks. We extend our gratitude to the VSTF CEO and his team for the support during the field study. The Study Team is taking the opportunity to express heartfelt gratitude to the District Executives and the Rural Development Fellows for extending their support in carrying out the study. Last but not the least, SIGMA Foundation would like to thank the Gram Panchayats and the villagers for always welcoming our team members and sharing their knowledge and experience related to the implementation of VSTF.

28th March, 2020

(M. N. Roy)
President SIGMA Foundation

List of Acronyms

APL	Above Poverty Line
AWC	Anganwadi Centre
AWH	Anganwadi Helper
AWW	Anganwadi Worker
BMW	Bio-Medical Waste
BPL	Below Poverty Line
BRC	Block Resource Coordinator
CMRDF	Chief Minister's Rural Development Fellowship
COVID-19	Coronavirus Disease 2019
CSR	Corporate Social Responsibility
FHTC	Functional Household Tap Connection
GoI	Government of India
GP	Gram Panchayat
HCF	Health Care Facility
HH	Household
IEC	Information Education and Communication
JJM	Jal Jeevan Mission
LPCD	Litre Per Capita Per Day
MAM	Moderate Acute Malnutrition
MDM	Mid-Day Meal
MGNREGS	Mahatma Gandhi National Rural Employment Guarantee Scheme
MHM	Menstrual Hygiene Management
MUW	Moderate Underweight
O&M	Operations and Maintenance
ODF	Open Defecation Free
PMAY	Pradhan Mantri Awas Yojana
PPE	Personal Protective Equipment
PWSS	Piped Water Supply Scheme
RTE	Right to Education
SARS-CoV-2	Severe Acute Respiratory Syndrome Coronavirus 2
SBCC	Social Behaviour Change Communication
SLRM	Solid & Liquid Resource Management

SLWM	Solid and Liquid Waste Management
SUW	Severe Underweight
VHND	Village Health and Nutrition Day
VHSNC	Village Health, Sanitation and Nutrition Committee
VSTF	Village Social Transformation Foundation
VWSC	Village Water and Sanitation Committee
WASH	Water, Sanitation and Hygiene
WHO	World Health Organisation
WinS	WASH in Schools

EXECUTIVE SUMMARY

Government Maharashtra has taken up an initiative to reform selected rural villages affected by natural calamities like drought and other social, economic, livelihood and infrastructural challenges. This initiative has been started by recruiting CMRD Fellows in each GP for village planning, community participation and effective execution of the schemes according to the plan.

SIGMA Foundation in collaboration with UNICEF Maharashtra Field Office has taken up a 12-month long concurrent monitoring, as a third party, for understanding the ground reality of the progress made in the WASH sector in the VSTF supported villages across Chandrapur, Gadchiroli, Jalna, Nandurbar, Osmanabad, Pune, Raigad and Washim districts. This report is the outcome of the process to reflect progress of WASH related performance in some of the VSTF villages for which data was collected during July to December 2019 across six districts (Nandurbar and Raigad could not be visited during the first phase due to unforeseen issues).

Each district had been visited once in two months and every district was visited thrice in six months. A total of 21 villages had been visited and primary data was collected through field and interaction with 10 to 15 households, on an average, from each village, selected at random. There were also interactions with the functionaries of the GPs, CMRD Fellows and village level institutions like Schools, AWCs and the HSCs. The sample size being small it may not exactly represent the situation of the entire state. However, the report brings out the qualitative aspects of WASH in the villages as well as the nature of interventions being made, successes achieved and the problems being faced to guide policymaking and planning future interventions.

The team of SIGMA Foundation has covered 226 households across 21 villages during the survey.

- 85.8% of the households had access to own toilets. 10.6% of the households did not have any access to toilets. 0.9% used shared toilets within the premises while 2.7% used community toilets.

- 87.1% of toilets were functional and in use while 6.7% were not being used although those were functional. 6.2% of the toilets were defunct.
- In 16% households, the toilet was inconvenient to use due to construction defects while 4% households did not use the toilet due to non-availability of water.
- In 79.3% of the households all the members always used the toilet.

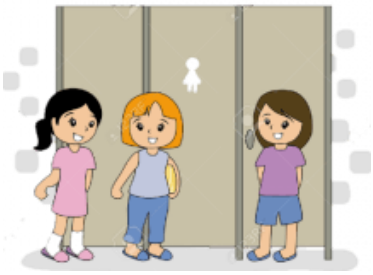
- 39.2% of the HHs had constructed single pit latrine. Although 26.8% households had twin pit toilet, 11.3% did not have any junction chamber. Septic tank toilets were found in 32.5% households while 1.5% households had toilets linked to biogas chamber. Cleanliness of the toilets of 19.1% households were found to be poor, 33.5% were average and 47.4% were very clean. In 16% of the households although piped water supply was available, the household members used that source for toilet use while for drinking purpose, water was fetched from tube-wells and covered wells.

- The distance of the source of water used for toilet purpose varied from within the dwelling (30%) to more than 500 feet (8%).
- In 54.4% cases, the child's faeces were thrown into the village tracks or open area outside the household premises. Safe disposal was noticed in 45.6% households. In 74.8% households, hand washing before meals and in 68.1% households, hand washing with soap after toilet use was practiced while in 4.4% households, none of the members washed their hands with soap after toilet use.

- Drinking water was piped into the premises in 21.2% households while 34.5% households used the water from tube-well for drinking. Water was treated before consumption by 80.5% of the households.

- 22% of the households did not have any drainage system and water was found to be spilling out in the premises. In 46% of the households there were pucca drains.
- Only 12.8% of the households practiced waste segregation. 7.5% households had vermi-compost pits while the waste was collected by the GP in 12.4% cases.

- The team of SIGMA Foundation had visited 19 AWCs during the survey. There were total 21 SUW children, 90 MUW children, 5 SAM children and 11 MAM children enrolled in the AWCs.
- Only one child of the age group of 0-36 months had suffered from diarrhoea within the last two weeks prior to the survey.



- 78.9% of the AWCs had own toilet facilities within the premises. Out of these, 20% were defunct while one toilet remained locked and was never used and another one was under construction.
- 53.3% of the toilets had single pits having both on-pit (13.3%) and off-pit (40%) squatting arrangements. Although 26.6% of the toilets had twin pits, half of those, i.e., 13.3%

did not have any junction chamber. 13.4% of the toilets had septic tanks but only 6.7% were connected to soak pits. 6.7% of the toilets were connected to sewer.

- Cleanliness of the toilets of 26.7% AWCs was found to be good, that for 40% was average and 33.3% was poor. In 80% AWCs, the toilet was cleaned by the Anganwadi worker or helper while in 13.3% the toilet was never cleaned.
- In 66.7% of the AWCs, water was available throughout the year while in 26.7% AWCs, water scarcity was faced during the summer months. 6.7% AWCs did not have any water supply throughout the year.

- In 47.4% of the AWCs, there was no arrangement for hand washing while soap for washing hands near/inside the toilet was available in 66.7% of the AWCs during the survey.
- In 47.4% of the AWCs, water was piped within the premises while 26.3% AWCs had tube-wells with hand pump. In 52.6% AWCs, water was not available within the premises and had to be carried from outside.
- 10.5% AWCs reported that there was some arrangement by the GP to collect the waste either daily or once a week using mechanised vehicle or hand-cart.

- All the 18 schools that were surveyed had separate toilets for girls and boys except in one upper primary school there was no girls' toilet. In 8 schools (44.4%), there were either separate toilets for Divyang students or the toilets were provided with special arrangements like hand rail or ramp to make to accessible to the students with special needs.

- The average number of girls using one toilet was 38.1 while the range varied from 6 to 114 and the average number of boy's using one toilet was 35.7 while the range varied from 4 to 87.

- 19% of the girl's toilets and 42.9% of the boy's toilets were defunct i.e., 31.4% of the school toilets were defunct.
- 61.1% of the toilets had single pits, 16.7% had twin pits and 22.2% of the toilets had septic tanks.

- 44.4% of the schools had piped water supply inside the toilet while in 22.2% schools, water was manually stored inside the toilets.
- In 44.4% schools there was no soap available in any of the toilets.
- Cleanliness of the toilets of 72.2% schools was found to be good, 22.2% was average and 5.6% was poor. In 16.7% schools, the toilets were cleaned only with water while in 66.7% schools, some toilet cleaning protocols were being followed. Only in 8.3% of the schools, the toilets were cleaned daily.

- In 38.9% of the schools, there was no fixed hand washing station while in one school (5.6%), the hand washing station was under construction. Students of 50% schools washed hands with soap at all the critical times.

- In 55.6% of the schools, water was piped within the premises.
- In 77.8% schools, water was treated before consumption.

- Waste segregation was done in 15.8% schools. In 5.3% schools, the waste was thrown in some pit or municipal/community bins while another 5.3% schools burnt everything.
- In 11.1% schools, the grey water drained to soak pits while in 5.6% schools, there was no drain.

- All the 7 Health Care Facilities (HCFs) visited by the team of SIGMA Foundation were sub-centres.

- There was one toilet in 3 out of 7 HCFs (42.8%) for the in-patients out of which the toilet of only one HCF was functional and in use. In each of the 7 HCFs there was one toilet for the out-patients out of which the toilets of 2 HCFs (28.6%) were defunct.
- 42.9% of the toilets had twin pits with junction chamber while 57.1% of the toilets had septic tanks.
- In 71.4% HCFs, there was at least one toilet which had facilities to manage menstrual hygiene needs i.e., covered bin, hooks/hanger and/or water and soap.

- Soap and water for hand washing was available within 5 metres of the toilets of 85.7% HCFs while in 14.3% HCFs there was no such facility.
- In 57.1% of the HCFs, water was piped within the premises while 42.9% HCFs had tube-well or borehole.
- Bio-medical wastes were segregated in 57.1% HCF and coloured bins were available in those HCFs during the visit.

- Waste water was safely managed in 57.1% HCFs while the waste water management system was non-functional in 28.6% HCFs.
- Although 57.1% HCFs had participated in Kayakalp award competition but the score was not known to any of the respondents.

- 15 GPs were visited by the team of SIGMA Foundation during the survey.

- As per records of the GP, 89.3% of the households in the GP had own toilet facilities while 53.6% of the LOB households were yet to have a toilet. 86.4% of the households having IHHLs were using the same. 3.6% of the households were using shared toilet while 0.5% used community toilets exclusively. 2.8% of the toilets were defunct.

- 86.7% of the GPs were covered under PWSS out of which 61.5% schemes were fully functional while 7.7% were non-functional. Remaining 30.8% had partial coverage or those failed to function during certain months.
- 93.3% of the drinking water sources within the GPs had been tested out of which 85.7% had been marked as safe.
- 40% of the GPs had some system of collecting garbage from the households. In 16.6% GPs waste was segregated at the household while segregation was done post collection in another 16.7% GPs. In 66.7% GPs, waste was not segregated at all.

- Only 6.7% GPs had fully *pucca* and covered drains while 53.3% of the GPs had fully *pucca* but uncovered drains.
- 55.8% of the GPs were fully aware of the role of the VSTF Fellows while in the remaining GPs, the functionaries were partly aware.

- For sustaining ODF status, toilets should be constructed for those HHs who are yet to own toilet.
- Support of financial institutions, micro-finance organizations, SHG Federations and Corporate bodies need to be mobilized and GP can play a proactive role to assist deserving people to get funds for construction of WASH infrastructure.
- There should be strong advocacy to construct only twin pit toilets by the HHs as well as all at the village level institutions.
- It is important that grey water is disposed of in drains connected to a septic system or sewer or in a soak pit.
- Every GP should also have a water security plan which will also include steps for source sustainability through water harvesting, stoppage wastage and irrational use of water.

- Every GP should have a water safety plan and the GP should be more empowered to take all preventive measures in ensuring water quality.
- The state government should guide the GPs on installation of RO Plant and in which case there is no need for such plants
- Building capacity of all the implementers including PRIs and particularly the GP functionaries about various technology options for taking up activities related to the 2nd phase of the SBM and attaining the goals set under the JJM by 2024 is a critical need.
- The GPs will be required to spend 50% of 15th FC grants for improvement of WASH for which they need to be empowered and guided.
- Strengthening IEC/SBCC is a critical need and GPs should have capacity to organize IEC/SBCC at the local level for recommended change of behaviour of the people.
- There is need for improving monitoring of the progress and the GPs need to play an important role in monitoring. There should be also third-party monitoring to particularly watch on the quality aspects of the progress.

BACKGROUND

1.1 Maharashtra has taken up an initiative in putting the development on the fast track in some selected villages. The state has established a Village Social Transformation Foundation (VSTF), a Not for Profit company to carry on the interventions towards transformation of the villages. VSTF is working at the village level to implement 'Village Social Transformation Mission' to reform villages affected by natural calamities like drought and other social, economic, livelihood and infrastructural challenges in rural Maharashtra. The strategy is to create an inclusive growth model for scaling up and transforming villages towards self-sustainable development and bring in collaborative and focused effort to provide last mile service delivery and build infrastructure to empower the villagers for their own development. The foundation has the approach of holistic transformation of the villages to achieve multiple developmental goals in the field of housing infrastructure, affordable and clean energy, safe and clean water and water security, skill development, environment protection and improved agricultural productivity, gender equality, healthy lives and well-being, quality education, health and sanitation, digital connectivity etc. Moreover, the main target of VSTF is to empower the villagers up to the level where they can sustain the changes by their self- initiative. For the sustainability of the changes, the Foundation has initiated the Chief Minister's Rural Development Fellowship (CMRDF) Programme where highly qualified Fellows were recruited to be placed in each Gram Panchayat (GP) for village planning, community participation and effective execution of the schemes according to the plan.

1.2 UNICEF has emphasised on the delivery of the developmental goals at scale, for the most vulnerable and deprived communities of the Aspirational districts of Maharashtra. Hence, there is a need for capturing ground reality of the status of WASH, the capacity gap in strengthening WASH in the VSTF villages and work for strengthening capacities of the implementation machinery for better outcome.

1.3 In this background, a PCA was signed between UNICEF and SIGMA Foundation for understanding the ground reality of the progress made in the WASH sector in the VSTF villages across eight districts.

AIM

Concurrent monitoring of progress of WASH related performance in some of the VSTF villages of selected districts through rapid assessment

OBJECTIVE

3rd party concurrent monitoring of the ODF sustainability status and implementation of ODF sustainability plan and the status of drinking water supply in the selected villages

METHODOLOGY

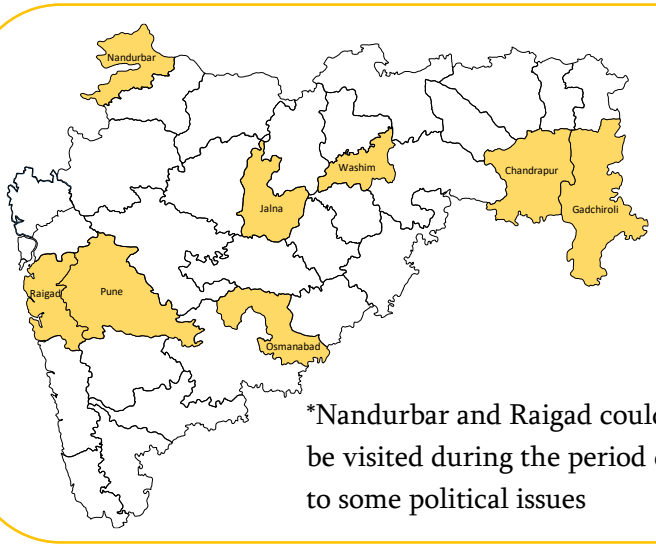
METHODOLOGY

Sample districts have been taken to cover the VSTF villages across 3 Aspirational districts and 3 non-Aspirational districts. Each district has been visited once in two months and every district has been visited thrice in six months. A team from SIGMA Foundation has visited 21 villages from July to December 2019 and collected primary data through field observations as well as interaction with 10 to 15 households, on an average, from each village, selected at random. There were also interactions with the functionaries of the GPs, CMRD Fellows and village level institutions like Schools, Anganwadi Centres (AWCs) and the Subsidiary Health Centres (HSCs).

SAMPLE SIZE

DISTRICTS 6	BLOCKS 9	GRAM PANCHAYATS 15	VILLAGES 21
HEALTH SUB-CENTRES 7	ANGANWADI CENTRES 19	SCHOOLS 18	HOUSEHOLDS 226

PROJECT AREA



*Nandurbar and Raigad could not be visited during the period due to some political issues

The sample size being small it may not exactly represent the situation of the village concerning the quantitative parameters based on the HHs visited. However, the report brings out the qualitative aspects of WASH in the villages as well as the nature of interventions being made, successes achieved and the problems being faced for policymaking and future interventions.

KEY FINDINGS ON WASH IN HOUSEHOLDS

85.8 %

Households had access to individual latrines

10.6 %

Households did not have any access to toilet

3.6 %

Households used community/shared toilets

87.1 %

Toilets were functional and in use

74.8 %

Effective coverage

Incidence of open defecation by any member of the HH*

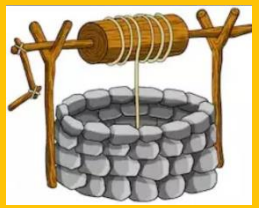
40.7%

45.6 %

Safe disposal of child excreta

21.2 %

PWS coverage



9.3%

Unsafe source of drinking water

*This indicates the percentage of households having at least one member practicing open defecation

STATUS OF HOUSEHOLD SANITATION

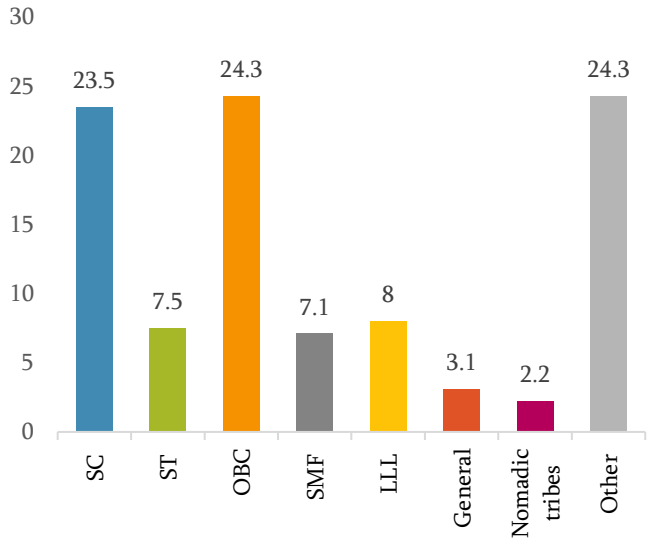
Introduction

2.1 Rural Maharashtra has been declared as Open Defecation Free (ODF) in April 2018 based on attainment of universal access to toilet for its households as on the baseline of 2012. ODF status may not be sustainable unless open defecation is stopped as a social norm by every individual of the society. The Government of Maharashtra has taken an initiative of second phase of verifying the ODF status using a mobile application developed by SIGMA Foundation. As on 11th February 2020, 8,932 out of 22,487 households (39.7%) have been covered under the survey. This chapter is based on the analysis of data captured at the household level during the primary field survey by the team of SIGMA Foundation and also from the second phase of ODF verification. The team of SIGMA Foundation has covered 226 households across 21 villages during the survey.

General Information

2.2 Out of the 226 households visited, a majority of them (126 households which is 55.8% of total) were BPL and remaining 100 (44.2%) households were APL. The social classification of the household composition has been shown in Graph 1.1. Out of the total households visited, 99.6% had ration card, 96.5% had Aadhar card, 66.4% had MGNREGS job card, 53.5% had BPL card and 18.6% were PMAY beneficiaries. The average monthly income of the households was Rs. 8,519 and the range varied from Rs. 1,100 to Rs. 45,000. The average number of members in the households was 4.8 and the range varies from 1 to 11. In 8.4% cases, the household heads were female of which 52.6% were illiterate.

Graph 1.1: Social composition of the households



ACCESS TO TOILET, USAGE AND SUSTAINABILITY

Availability of individual toilets

2.3 85.8% of the households had access to Individual Household Latrines (IHHLs). 77% were within the premises and 8.8% were outside the premises. 10.6% of the households did not have any access to toilets. Also, statistically, the association of sex of household head and social category of household with the type of toilet availability, is accepted respectively with 95% and 99% level of confidence. It is found that the 26.5 % of female headed household

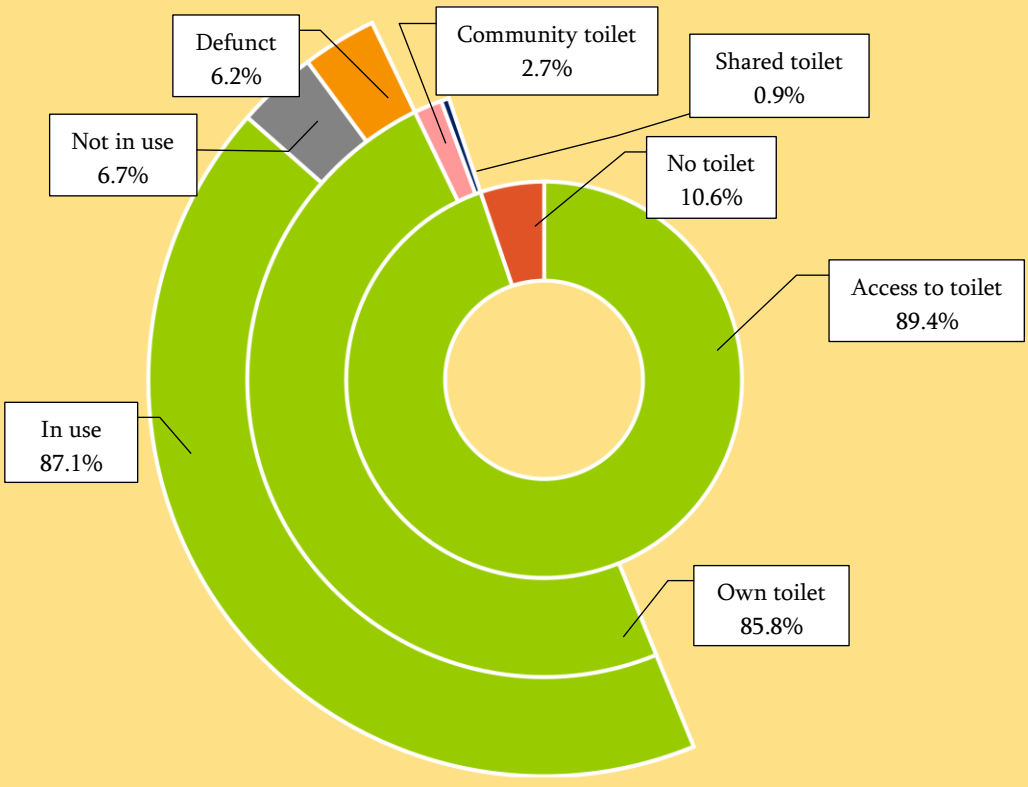
have no toilet whereas it is 9.2 % for the male-headed household. However, no association of schooling and income category with the type of toilet availability is found at 95% confidence level.

2.4 The data from ODF verification app shows that 91% of the households have access to toilets across these six districts while for the state as a whole, 91.7% households have access to toilets.

Functionality and usage of toilet

2.5 87.1% of toilets were functional and in use while 6.7% were not being used although those were functional. 6.2% of the toilets were defunct. 0.9% used shared toilets within the premises while 2.7% used community toilets. It may be noted that preference for open defecation (OD) (52%) and lack of maintenance (28%) were the major reasons for not using the toilets. In 16% cases, the toilet was not fit for use due to construction defects while 4% households did not use the toilet due to non-availability of water. In case where the toilets were defunct or not in use, the household members either shared toilet with relatives/neighbours (8%) or practiced open defecation (92%). On the other hand, the data

Graph 1.2: Sanitation status of the households



from the ODF verification app shows that 92.5% of the toilets were functional out of which 99.7% were being used.

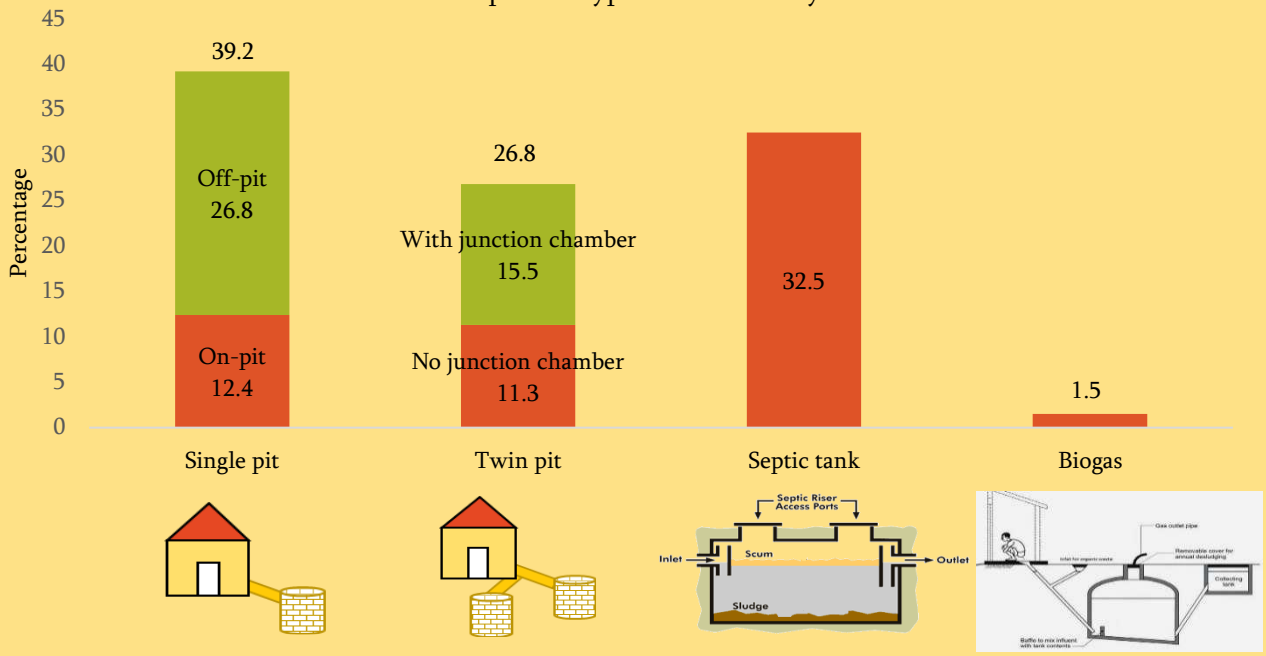
2.6 In 79.3% of the households all the members always used the toilet while in 11.2% households some of the members always used the toilet. Some of the members sometime used

the toilet in 7.1% households while in 2.4% households, some of the members did not use the toilet at all.

Type of toilet facility

2.7 39.2% of the HHs had constructed single pit latrine having both on-pit (12.4%) and off-pit (26.8%) squatting arrangements. Although 26.8% households had twin pit toilet, 11.3% did not have any junction chamber. Septic tank toilets were found in 32.5% households while 1.5% households had toilets linked to biogas chamber as shown in Graph 1.3. All the septic tank toilets had vent pipes.

Graph 1.3: Type of toilet facility

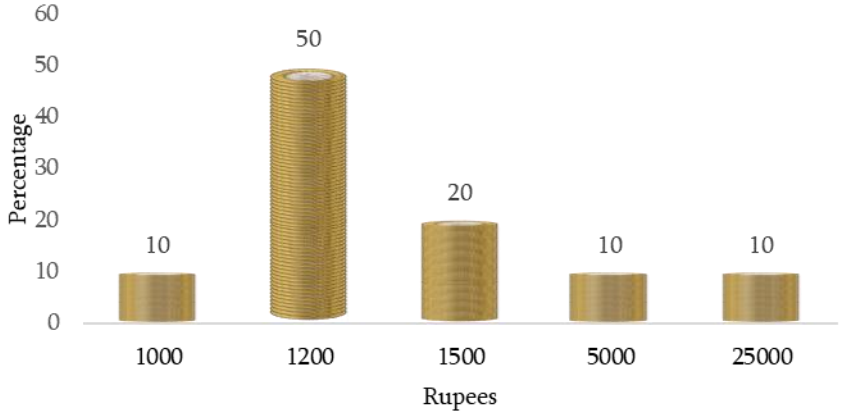


2.8 The data from the 2nd phase of ODF verification app shows that 57% of the households had twin pit toilets, 31.1% had single pits, 10.8% had septic tanks, 0.1% had biogas-linked and 1% had some other type of toilets.

Emptying of septic tanks

2.9 15.9% of the septic tanks got filled up out of which 10% was cleaned 1 to 3 years ago, 80% was cleaned 8 to 10 years ago while another 10% was cleaned 10 to 15 years ago. In all the cases, private individuals were hired

Graph 1.4: Cost incurred for cleaning septic tanks

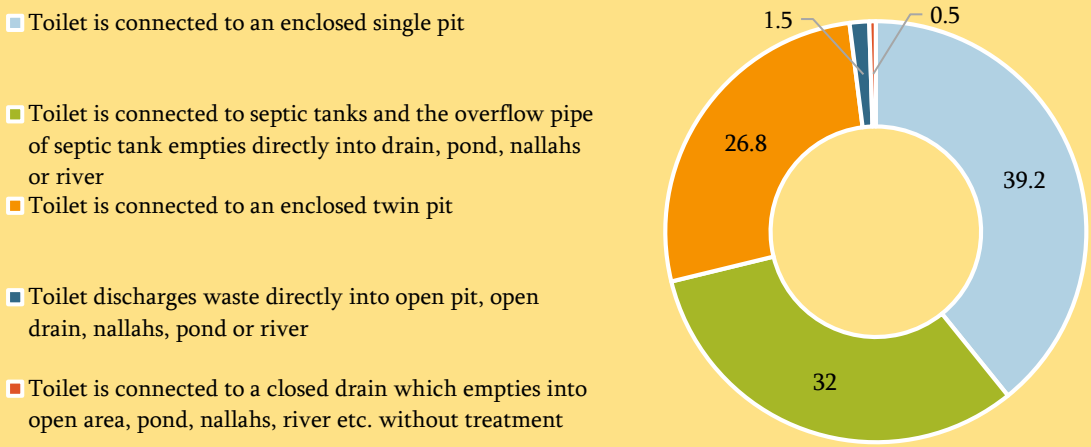


to clean the septic tanks. In 90% cases, mechanized air compressors, hose pipes and vacuum pumps were used to empty the sludge from the septic tanks while 10% practiced manual scavenging. The cost incurred by the households to evacuate the septic tanks has been shown in Graph 1.4. The last time the septic tanks were emptied, the contents were buried in covered pits in 10% cases while in another 10% cases the contents were either buried in an uncovered pit or thrown to open ground or water body. In 80% cases, the sludge was removed by some service provider and the households were not aware of the disposal mechanism. Therefore, faecal sludge management has remained a major problem.

Discharge of the toilets

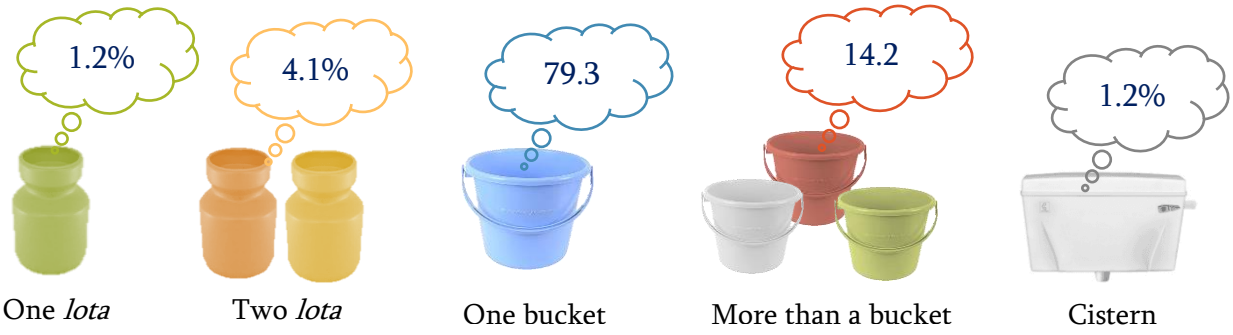
2.10 1.5% of the households had toilets which discharged into open pit, open drain, nallahs, pond or river while 0.5% households had their toilet connected to a closed drain which empties into open area, pond, nallahs, river etc. without treatment. 32% toilets were connected to septic tanks and the overflow pipe of septic tank empties directly into drain, pond, nallahs or river. 26.8% of the toilets were connected to twin pits while 39.2% were connected to single pit as shown in Graph 1.5.

Graph 1.5: Discharge of the toilets



Types of pan and quantity of water used for flushing

2.11 Only 5.2% of the surveyed households had rural pans while remaining 94.8% households had urban pans. 79.3% of the households used one small bucket (5 litres) for toilet

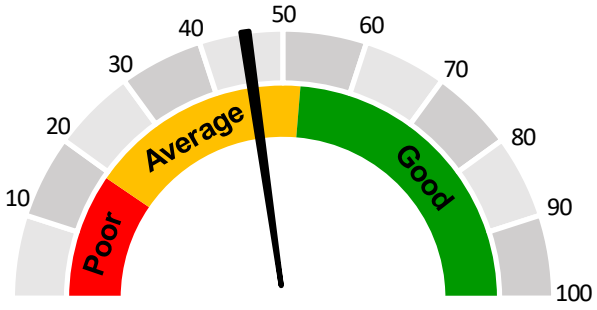


Quantity of water used for flushing

usage. 80% households having rural pans and 79.2% households having urban pans used one small bucket of water (5 litres) for flushing. 14.5% of the households having urban pans used more than a bucket of water against 10% of the households having rural pans.

Cleanliness of toilets

2.12 Cleanliness of the toilets is critical for developing a good sanitary environment and is important for sustaining the ODF status. Cleanliness of the toilets of 19.1% households were found to be poor, 33.5% were average and 47.4% were very clean.

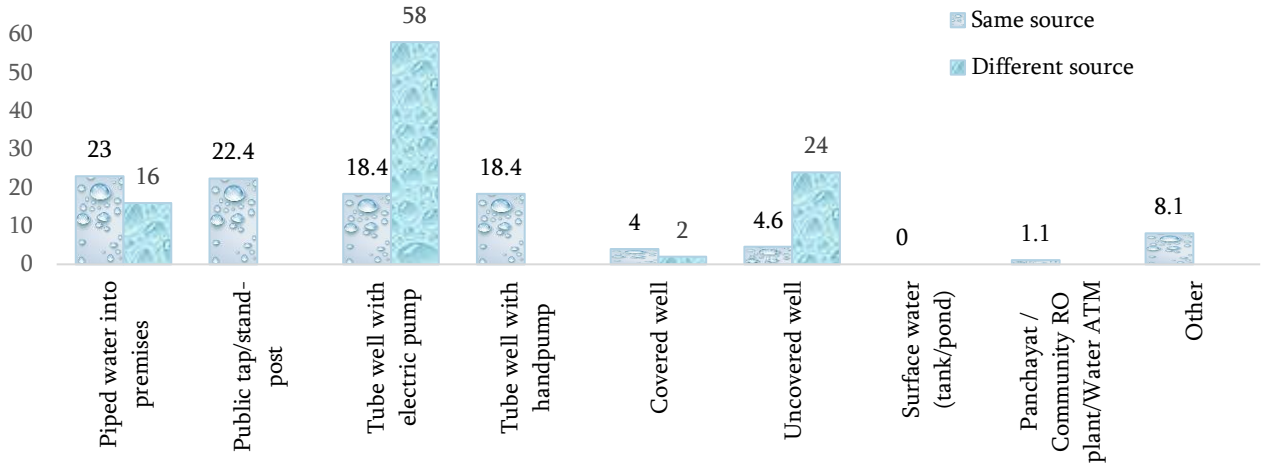


2.13 The association of income category of household, and schooling of household head with the cleanliness of toilet is accepted statistically with 95% confidence., whereas the association of social category of household with cleanliness of the toilets, is accepted with 99% confidence. However, the association of sex of household head with the cleanliness of toilet is statistically accepted with 95% confidence level. It is found that cleanliness of toilet of the 44.9% men-headed household is rated as good whereas the cleanliness of toilet is rated as good for 22.2 % of the women-headed household.

Availability of water for toilet use

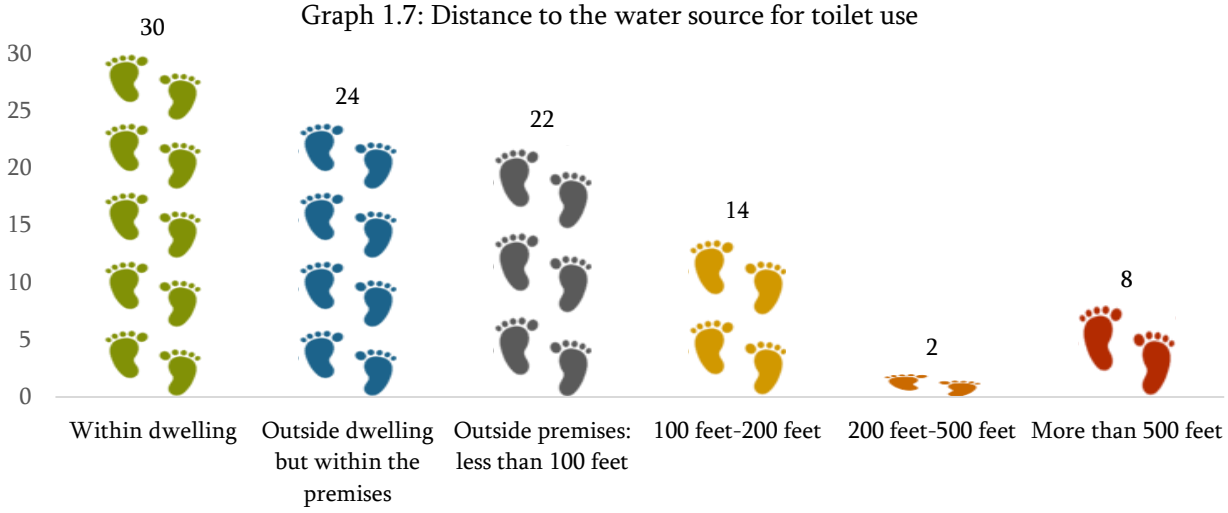
2.14 The source of water for drinking and toilet use is same for 77.9% households while the sources for the remaining 22.1% households are different and the distribution of sources for each case has been shown in Graph 1.6. Interestingly, in 16% of the households although piped

Graph 1.6: Source of water for toilet use



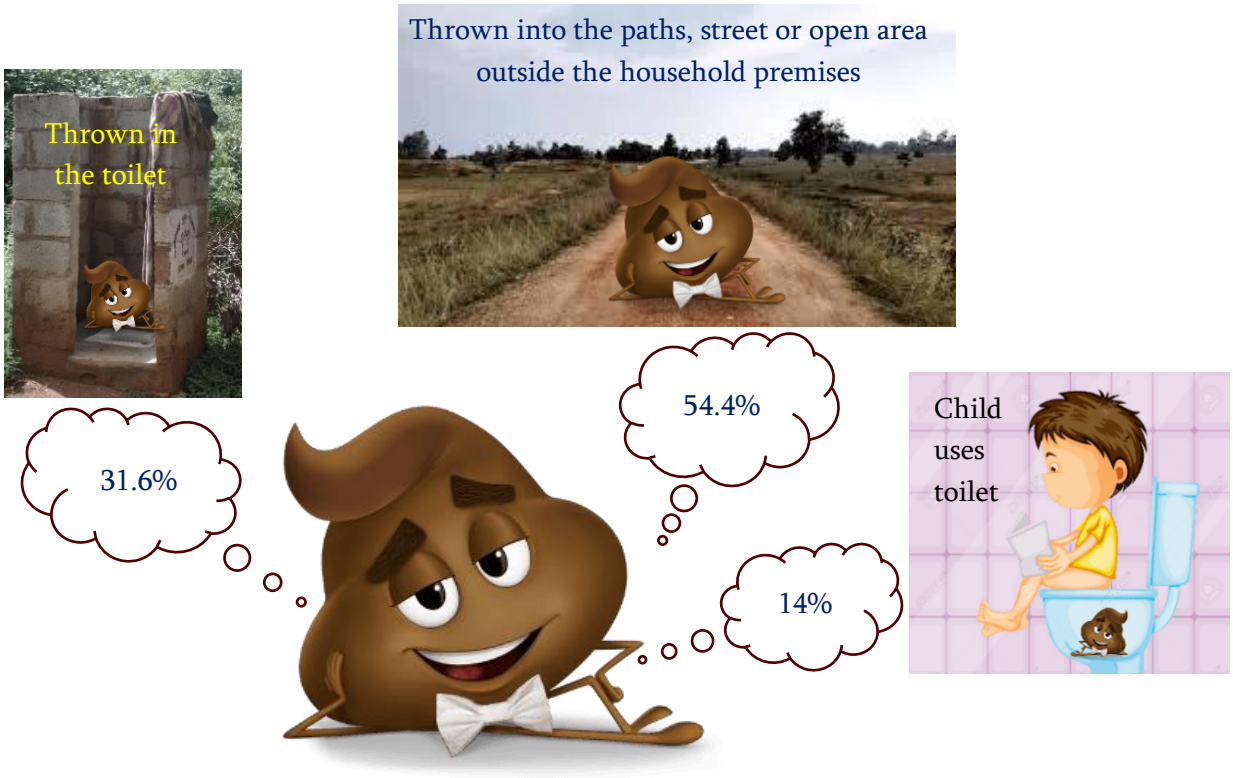
water supply is available, the household members use that source for toilet use while for drinking purpose, water is fetched from tube-wells and covered wells. The distance of the source of water used for toilet purpose varied from within the dwelling (30%) to more than 500 feet (8%). The details have been shown in Graph 1.7.

Graph 1.7: Distance to the water source for toilet use



Disposal of child's excreta

2.15 Unsafe disposal of child's faeces makes people, particularly the children susceptible to many diseases that transmit through faecal-oral route. A child's excreta are considered to be disposed of safely when the child uses the toilet/latrine or the faeces is put or rinsed in the toilet or buried. Recent research has shown that even Corona virus can stay in human excreta for many days[1]. It was found from the study that in 54.4% cases, the child's faeces were



Disposal of child excreta

[1] *Lancet Gastroenterol Hepatol (2020): Prolonged presence of SARS-CoV-2 viral RNA in faecal samples, Published Online March 19, 2020 https://doi.org/10.1016/ S2468-1253(20)30083-2.*

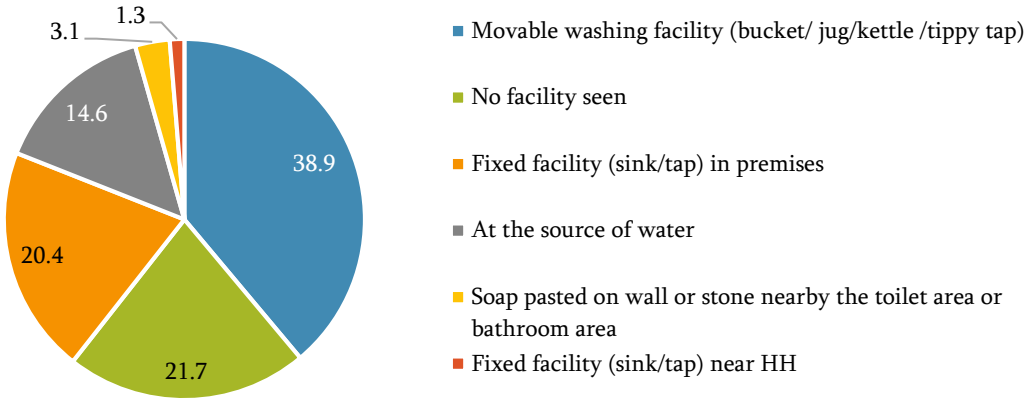
thrown into the village tracks or open area outside the household premises. Safe disposal was noticed in 45.6% cases where the child uses the toilet (14%) or the faecal matter is thrown in the toilet (31.6%). The data from ODF verification app shows that 5.9% of the households disposed the child faeces in the open while 94.1% threw the faeces in the toilet.

HANDWASHING AND OVERALL HYGIENE

Hand washing facility available in the household

2.16 Hand hygiene at home plays an essential role in helping to reduce the spread of infectious diseases. Thorough hand washing is one of the most important things that can be done to prevent and control the spread of illnesses. From flu and food poisoning to pandemic like COVID-19, there are a number of diseases which can be passed on by not washing hands properly. Handwashing with soap, chlorinated handwashing water (0.05%) or alcohol-based sanitizer at critical times, particularly after coughing or sneezing, after visiting of public spaces (public transport, markets, places of worship, etc.), after touching any surfaces outside the house can prevent the spread of virus like SARS-CoV-2, which has led to pandemic and other infectious diseases. In certain cases, hand washing with ash is also prevalent but that bears the risk of contracting soil-transmitted pathogens and exposure to heavy metals. Hence, handwashing with soap is preferred over handwashing with ash, but the latter can be promoted as a last resort.[2] It may be noted that in 21.7% of the surveyed households, there was no hand washing facility while only 21.7% households had fixed hand washing facilities either within the premises (20.4%) or outside (1.3%) as shown in Graph 1.8. In 68.1% of the

Graph 1.8: Type of hand washing facility available in the households



households, all the members washed their hands with soap after toilet use while in 17.3% of the households, some of the members always used soap for washing hands after toilet use.

2.17 The association of schooling of household head, income as well as social category with the availability of hand washing facility at household, found to be significant at 1% level. It has also been found that the association of schooling of household head with handwashing using soap after the toilet use, is statistically significant at 5% level whereas it is significant at 1%

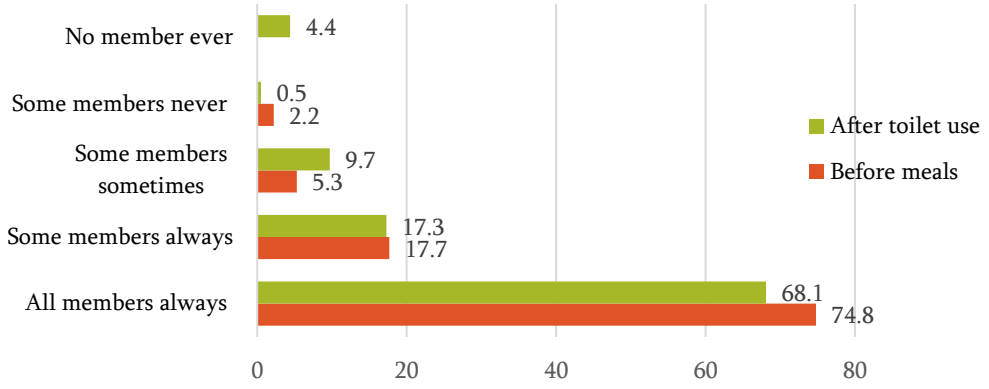
[2] COVID-19 Emergency Response, UNICEF Hygiene Programming Guidance Note, 10 March 2020

level with respect to social and income category of household. However, association of sex of the household head with availability of hand washing facility in household as well as washing of hands with soap after the toilet-use are not significant at 5% level. This finding has significant implication in identifying the target group to be covered under IEC/SBCC related to hand washing.

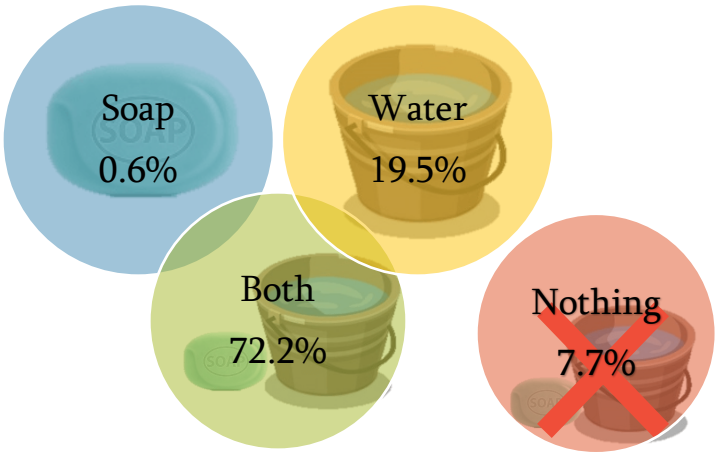
Hand washing before meals and with soap after toilet use

2.18 Handwashing with soap at critical times - including before eating or preparing food and after using the toilet – can reduce the incidence of diarrhoea by 47%[3] and child mortality. In 74.8% households, hand washing before meals and in 68.1% households, hand washing with soap after toilet use was practiced while in 4.4% households, none of the members washed their hands with soap after toilet use.

Graph 1.9: Hand washing before meals



2.19 In 72.2% households, both soap and water were available near the toilet during the survey. On the other hand, only water was available in 19.5% households and only soap was available near the toilet of 0.6% households during the survey. 7.7% households, did not have soap or water near the toilet.



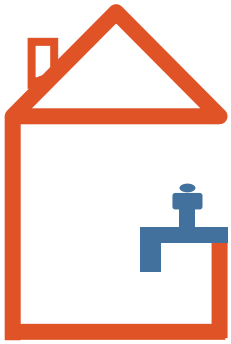
Availability of soap and water near the toilet

2.20 Children of 6.3% households suffered from diarrhoea in last fifteen days prior to the survey. In 13.3%

[3] Cartis V & Cairncross S (2003): Effect of washing hands with soap on diarrhoea risk in the community: a systematic review. Published in Lancet Infect Dis. 2003 May;3(5):275-81, accessed from https://www.ncbi.nlm.nih.gov/pubmed/12726975

households, there was at least one member in the family who had suffered from some vector borne diseases like Malaria, Dengue, Chikungunya etc. in last fifteen days prior to the survey.

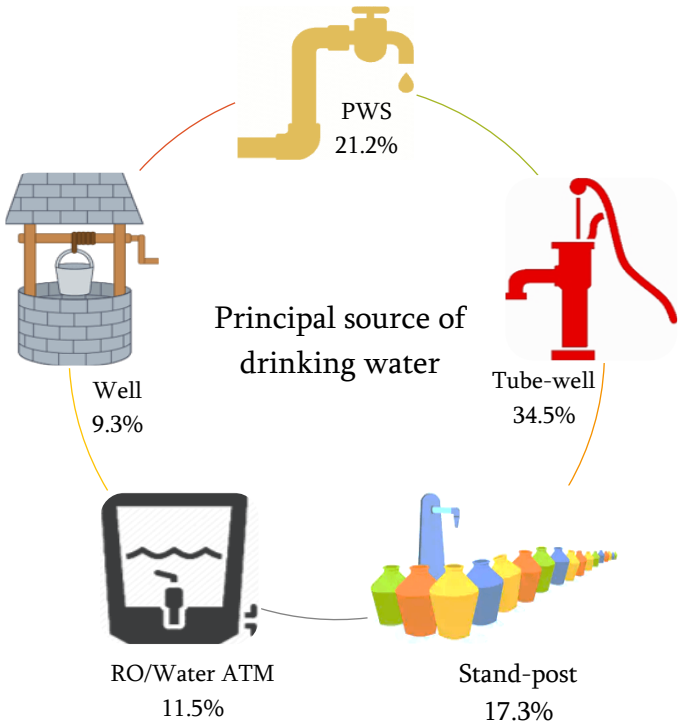
ACCESS TO WATER



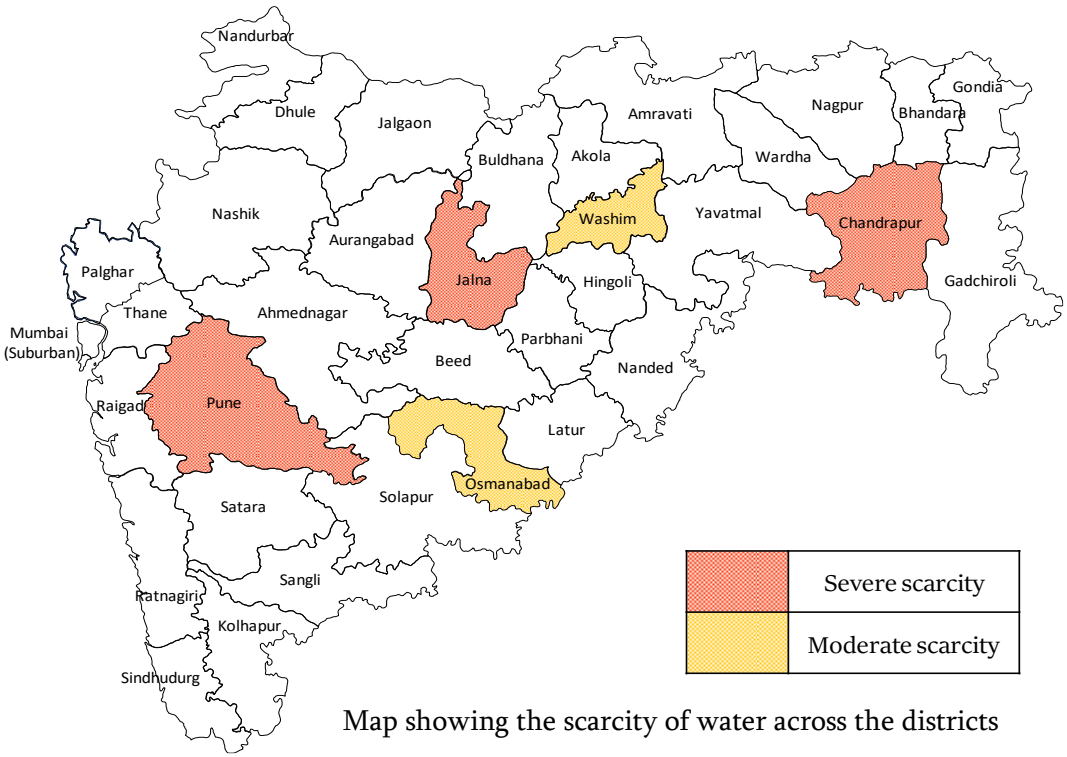
2.21 The health and hygiene of an individual is largely dependent on adequate availability of safe drinking water, access to improved sanitation and better hygienic practices. Water and sanitation-related diseases, despite being preventable, still remains one of the most significant child health problems in the developing countries and reasons for malnutrition. Government of India has launched the Jal Jeevan Mission (JJM) to ensure supply of at least 55 LPCD potable water through Functional Household Tap Connection (FHTC) by the year 2024. Also, the 15th Finance Commission, in their interim recommendation for the year 2020-21 that 50% of the grants to the local governments are to be spent on water and sanitation only as tied fund. Thus, there is both a challenge to meet JJM norms as well as opportunity of getting extra funds to meet the challenge. The status of drinking water supply in the surveyed villages is presented below.

Principal source of drinking water

2.22 Drinking water was piped into the premises in 21.2% households while 34.5% households used the water from tube-well (14.6% with electric pump and 19.9% with hand pump) for drinking. In 17.3% households, the principal source was stand posts or public tap. 11.5% of the households used the water from GP or community RO plant or Water ATM for drinking while 9.3% preferred the water from the well (5.3% of the wells were uncovered and 4% were covered). The data from ODF verification app shows that 57.2% of the households from VSTF villages had PWS connection.



2.23 59% of the households responded that water was available from stand posts for 3 days per week for 42 minutes on an average, another 2.5% responded of water availability for 5 days per week for 1 hour while remaining 38.5% households received water for all the 7 days in a week for 3.6 hours on an average. Therefore, improving the quality of water supply arrangement is a big challenge in many villages. The following map shows the variation of scarcity of water across the districts.

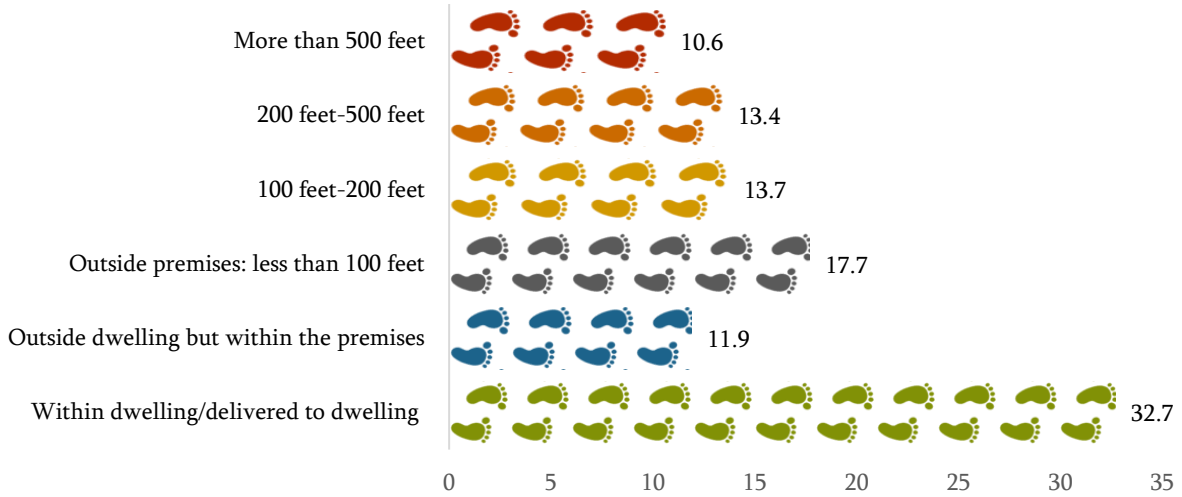


Map showing the scarcity of water across the districts

Distance to the principal source of drinking water

2.24 In 44.6% households, the source of drinking water was either within the dwelling or within the premises while for 17.7% households, the distance was less than 100 feet. 27.1% of

Graph 1.10: Distance to the principal source of drinking water



the households fetched drinking water from a source which was 100 to 500 feet away from the premises and 10.6% households had to travel more than 500 feet to collect drinking water.

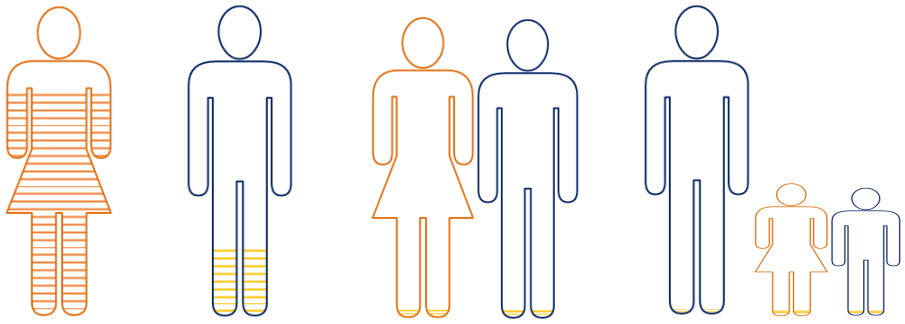
2.25 The association with social category of the household with the principal source of drinking water as well as with the distance of the source are statistically accepted respectively with 99% and 95% confidence. In other words, it may be inferred that the all social categories of households are not equally enjoying the facility of having principal source of drinking water nearby. It is observed that 20.8% of the SC households are collecting drinking water from

principal source covering more than 500 feet whereas none of the household from STs and LLLs are covering such long distance for collecting drinking water from the principal source.

2.26 Availability of water was enough throughout the year for 72.1% households while 27.4% faced crisis during the summer months but could manage somehow. For 0.4% households, the available water was not enough throughout the year. 24.4% of the households of Deogaon village Jalna received water from tanker twice a day during the summer months when scarcity was severe.

Gender equality in carrying water from outside

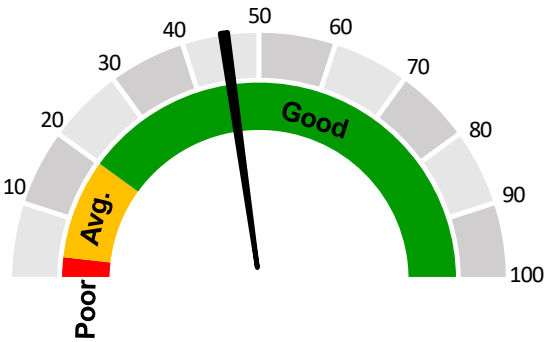
2.27 There is high gender inequality in collection of water. In 74.1% of the cases it has been found that only the women folk carried water from outside whereas in 23.8% HHs, the men folk carryied water from outside. In 1.4% households, the men joined the women for carrying water while in 0.7% households, both men and children carried water from outside.

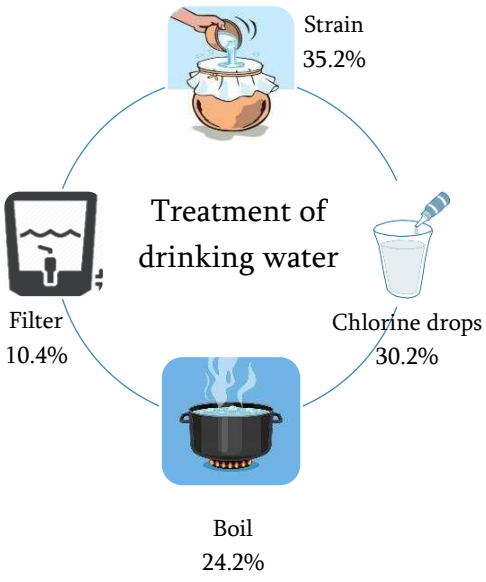


Gender disparity in carrying water

Safety and security of drinking water

2.28 83.2% of the households claimed that the water they consumed was completely safe and the quality was acceptable although a few households mentioned that sometime there was turbidity and pungent smell in the water. According to 16.4% households, the water was not so safe and sometime there was pungent smell in the water. Another 0.4% households mentioned that the water was not at all safe for health.





2.29 Water was treated before consumption by 80.5% of the households. 35.2% households

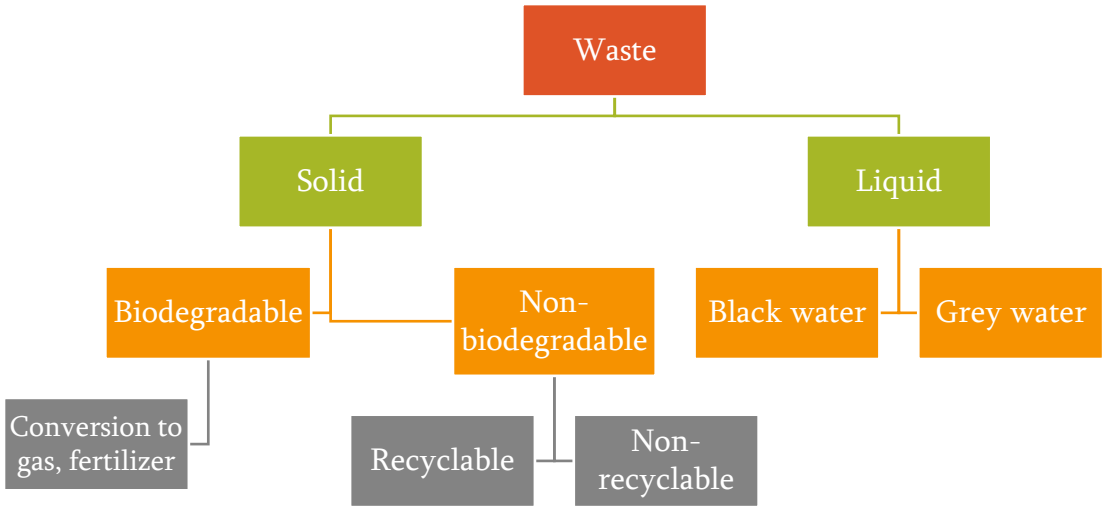
strained the water through a cloth, 30.2% either used chlorine drops or alum to purify the water, 24.2% boiled the water and 10.4% used filter (6.9% electric and 3.2% non-electric).

2.30 68.1% of the households used glass for taking the water out from the storage vessel while 17.3% households stored water in vessels fitted with tap. The remaining 14.6% used vessels with long handle to take water out from storage.

SOLID AND LIQUID WASTE MANAGEMENT

2.31 Solid and Liquid Waste Management (SLWM) is one of the key components of post ODF activities under SBM-G. It is the collection, transportation, processing, recycling, treatment, and disposal of waste material in a scientific manner. The Union Cabinet has approved the Phase II of the SBM-G till 2024-25, which will focus on Open Defecation Free Plus (ODF Plus), which includes ODF sustainability and SLWM. The objective is to bring improvement in cleanliness, hygiene and the general quality of life in rural areas.

2.32 The SLWM component of ODF Plus will be monitored on the basis of output-outcome indicators for four key areas: plastic waste management, bio-degradable solid waste management (including animal waste management), greywater management and faecal sludge management. Solid waste management has to cover the segregation of waste (bio-degradable and non-biodegradable) at source, collection, transportation, processing to recover usable resources from the waste, recycling, treatment, and disposal of waste material in a scientific manner. Liquid waste management is proper treatment of waste water, which are classified as black water which contains pathogen and grey water which is generally the used water other than from toilets and, therefore, are not likely to have pathogen. The management of entire waste is shown diagrammatically below.

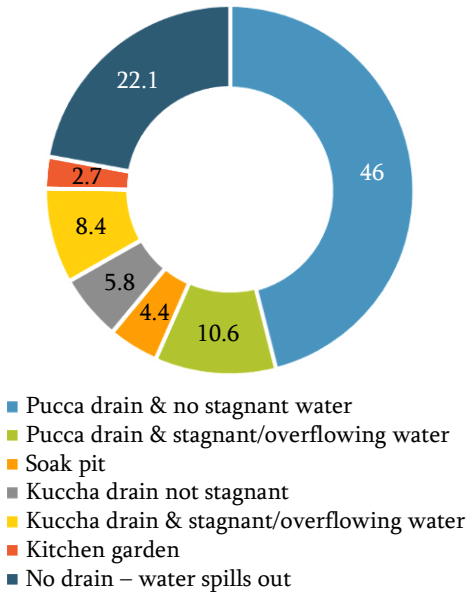


Management of waste water

2.33 According to the SLWM guidelines of GoI, focus should be on maximum reuse of liquid waste for agriculture purposes with least operation and maintenance costs. For collection of

waste water, low cost drainage/ small bore system, soak pit may be adopted. The study data shows that 2.7% of the households had kitchen garden for reusing the waste water while 4.4% households had soak pits. 22% of the households did not have any drainage system and water was found to be spilling out in the premises. In 46% of the households there were pucca drains. Although in another 10.6% households having pucca drains, there was overflowing or stagnant water during the survey. 14.2% of the households had kuccha drains. During the survey in 32.7% households, grey water was overflowing within the premises.

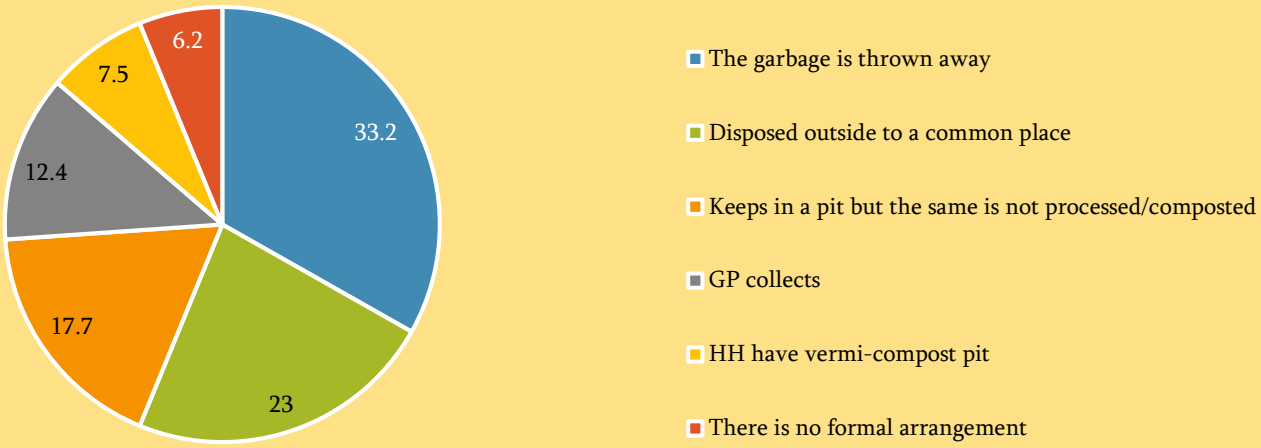
Graph 1.11: Discharge of waste water



Management of solid waste

2.34 In rural areas, solid wastes include wastes from kitchens, gardens, cattle sheds, agriculture, and materials such as metal, paper, plastic, cloth, and so on. Most household waste in rural areas is organic, with little inorganic material and thus composting of bio-degradable waste is a highly suitable method of waste management in rural areas for which segregation of waste at source is essential. However, only 12.8% of the households practiced waste segregation. 7.5% households had vermi-compost pits while the waste was collected by the GP in 12.4% cases. In 56.2% households the garbage was thrown away either to a common place

Graph 1.12: Disposal of solid waste



or anywhere. 17.7% households were found to dump the garbage in a common pit but that was not composted. 6.2% households did not have any formal arrangement of waste disposal. The households which mentioned that the GP collects the waste, also mentioned that in 64.3%

cases the collection was twice a week and in 35.7% cases, waste collection was daily. Pedal tricycle was used in 89.3% cases and mechanised vehicle was used in 10.7% cases for collection of waste from the households. 10.7% households mentioned that the average monthly cost incurred by them for solid waste management was Rs. 50.

2.35 60.2% households mentioned that there was no arrangement by the GP to clean the roads and drains while 35.4% households mentioned of occasional cleaning. Another 4.4% households mentioned that the roads were cleaned weekly.

IEC/IPC ACTIVITIES

Awareness on open defecation

2.36 Behaviour change has been the key differentiator of SBM-G and therefore much emphasis is given on Social Behaviour Change Communication (SBCC). SBCC is not a 'stand-alone' separate activity but is to be taken up as a 'component' of SBM-G for mobilising and nudging communities into adopting safe and sustainable sanitation practices through effective communication. Explaining the people, the risk of not following sanitary practices has gained tremendous importance in the current pandemic caused by the COVID-19. There is also need for the community to accept the new social norms for sanitation and exert community pressure for everyone to follow the same. However, 76.1% of the households mentioned that they knew at least one person in the village who practiced open defecation. Out of them, 58.1% preferred to ignore the issue while 27.5% objected the practice. Another 8.5% informed the community member to prevent such practice while 6.6% informed the GP. So, community action to prevent open defecation was lacking and the same needs to be put in place through appropriate SBCC including triggering of the community. The first round of triggering was to accept every person to stop open defecation and to adopt sanitary practices. There is now need for triggering for the community not to tolerate any open defecation and to take community action for achieving that and adopting other sanitary practices like hand washing with soap. The SBCC needs to be strengthened towards that end.

Activities taken up by the GP/community to sustain ODF status

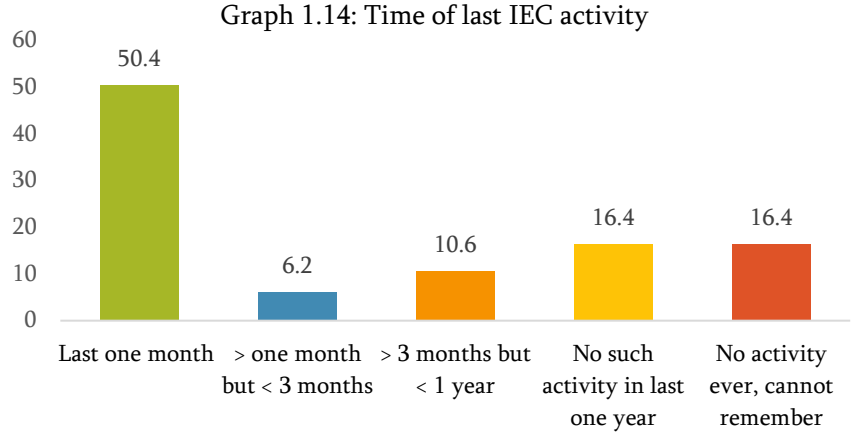
2.37 To sustain the ODF status and move a step ahead, ODF Plus activities are to be taken up as a part of Swachh Bharat through SBM-G or in convergence with other schemes. SBM-G Phase-II will also be implemented from 2020-21 to 2024-25 in a mission mode with a total outlay of Rs. 1,40,881 crores. This will be a novel model of convergence between different verticals of financing. Of this Rs.52,497 crore will be allocated from the budget of D/o Drinking Water and Sanitation while the remaining amount will be dovetailed from the funds being released under 15th Finance Commission, MGNREGS and revenue generation models particularly for solid and liquid waste management.

2.38 97.3% of the respondents mentioned of some IEC activities that have been taken up in their villages. Graph 1.13 shows the activities that have been carried out in the village.

Graph 1.13: Activities taken up to sustain ODF status

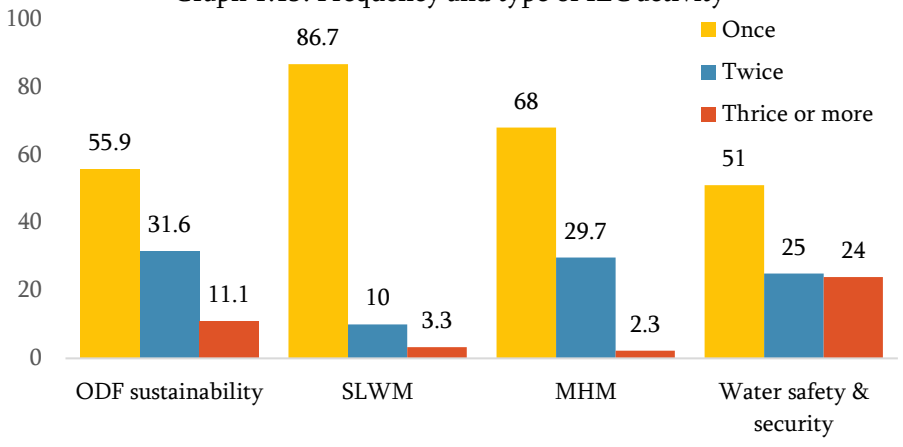
2.39 50.4% of the respondents mentioned that IEC activities on ODF-S have been taken up in the last one month prior to the survey while 16.4% could not remember of any such activity ever, as shown in Graph 1.14.

Graph 1.14: Time of last IEC activity



2.40 According to the respondents, majority of the IEC activities have been conducted once while some have been conducted thrice also. Details of the frequency of activities have been shown in Graph 1.15.

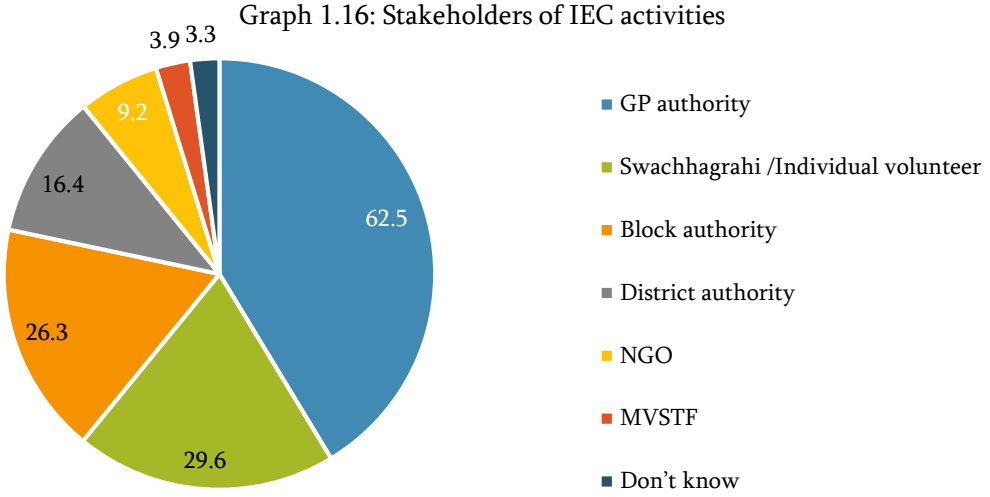
Graph 1.15: Frequency and type of IEC activity



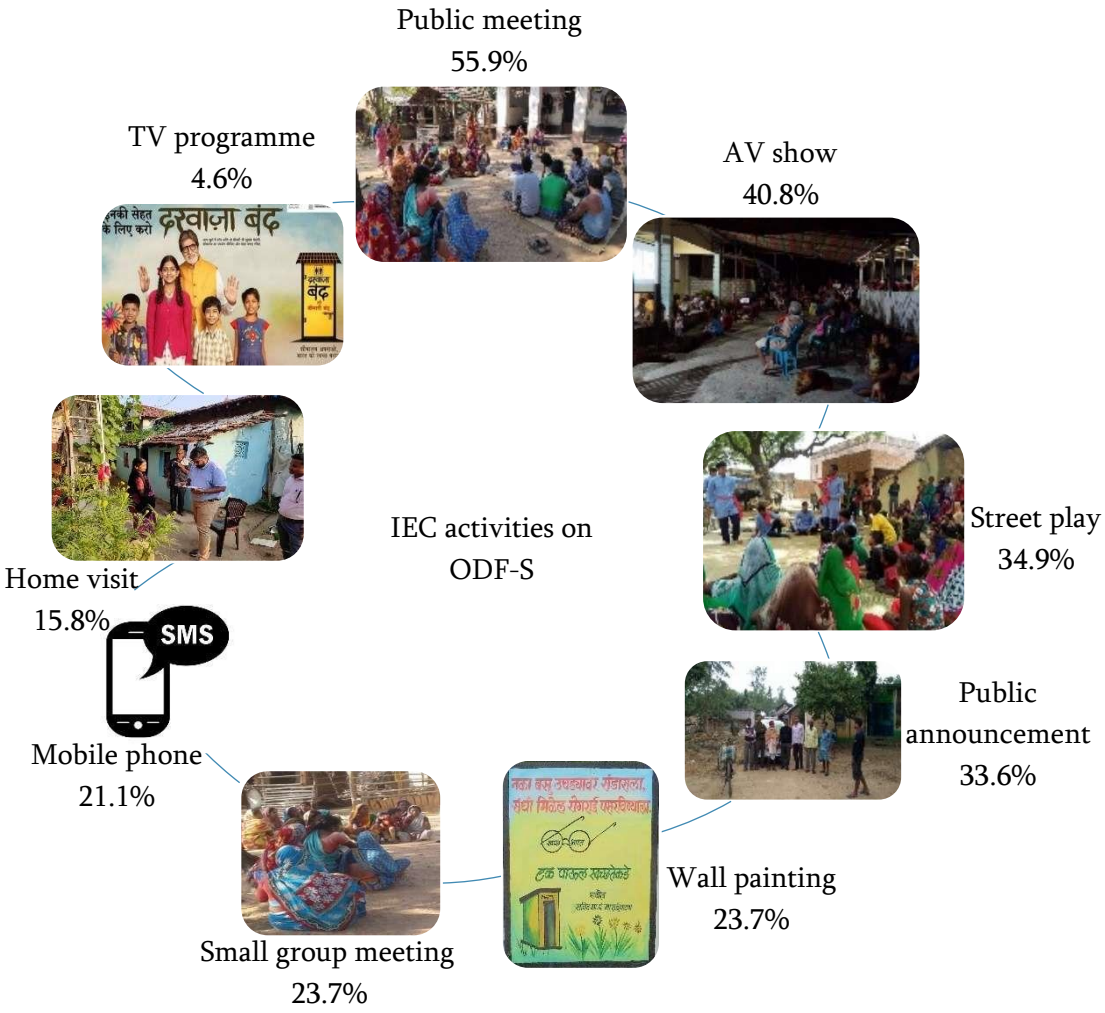
2.41 In 62.5% cases, the GP

conducted the IEC activities which involved Swachhagrahis or individual volunteer. Support was also received from block officials in 26.3% cases and district officials in 16.4% cases.

Graph 1.16: Stakeholders of IEC activities



2.42 Public meetings (55.9%) were the most common type of IEC conducted followed by AV shows (40.8%) and street plays (34.9%). Popularity of TV/radio shows were less as only 4.6% households mentioned of such activity being broadcasted followed by home visits (15.8%).



2.43 48.2% of the respondents could remember a Gram Sabha in which WASH related interventions were discussed and planned. In 79.8% cases, issues on post-ODF activities like construction of toilets by any new households to essentially self-construct their toilet were discussed. 38.9% of the households responded that Swachhagrahis were functional.

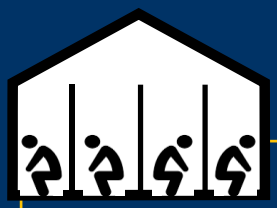
KEY FINDINGS ON WASH IN ANGANWADI CENTRES

78.9 %

AWCs had access to toilets

21.1 %

Children of AWCs practiced open defecation



21.1 %

Children used nearby HH /school toilet

84.2 %

Toilets were functional and in use

47.4 %

PWS coverage

52.7 %

AWCs with hand washing facility

50%

Safe disposal of child excreta

26.3 %

Segregation of waste

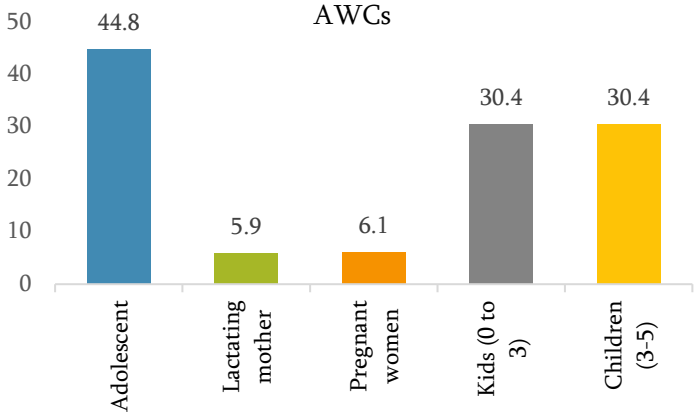
WASH STATUS OF THE ANGANWADI CENTRES

ACCESS TO TOILET, USAGE AND SUSTAINABILITY

General Information

3.1 Out of the 19 Anganwadi Centres (AWCs) visited by the team of SIGMA Foundation, in 63.2% AWCs both Anganwadi worker and helper were available while in 21.1% only worker was available and in 15.7% only helper was available. On an average, the number of boys enrolled in each AWC was 24.7, the range varying from 5 to 69 while the average number of girls was 23.6 and the range varied from 5 to 57. The average number of beneficiaries in each AWC varied widely as shown in Graph 2.1. The number of adolescent beneficiaries varied from 15 to 104, lactating mother 2 to 11, pregnant women 3 to 12, kids of age 0-3 years 10 to 67 and children of age 3-5 years 9 to 68.

Graph 2.1: Average number of beneficiaries of the AWCs

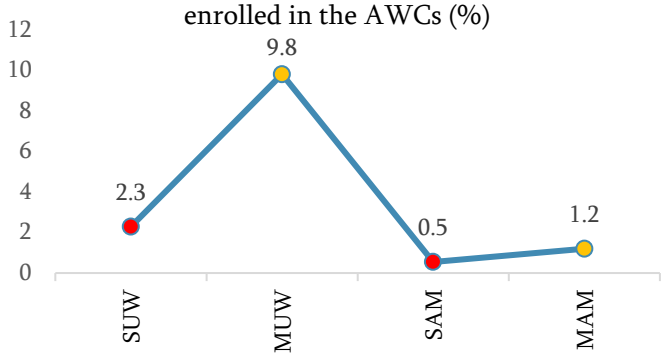


3.2 84.2% of the AWCs had own building while the remaining AWCs functioned either in school buildings or in community centre.

Nutritional and health status of the children

3.3 There were total 21 SUW children, 90 MUW children, 5 SAM children and 11 MAM children enrolled in the AWCs. Moreover, only one child of the age group of 0-36 months had suffered from diarrhoea within the last two weeks prior to the survey.

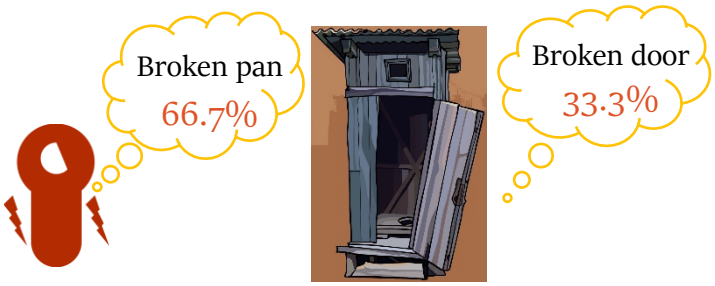
Graph 2.2: Nutritional status of the children enrolled in the AWCs (%)



Availability, functionality and usage of toilets

3.4 78.9% of the AWCs had own toilet facilities within the premises. Out of these, 20% were defunct while one toilet remained locked and was never used and another one was under construction.

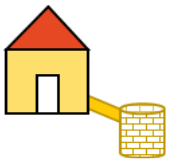
3.5 The reasons for not having a toilet were mainly lack of space, lack of funds and hired premises with owner unwilling to construct toilet. Broken door and broken pan were the main reasons for three toilets being defunct.



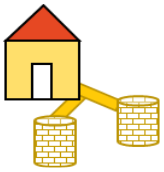
3.6 Only 6.7% of the AWC toilets were baby-friendly having baby pan and half door.

Type of toilet facility

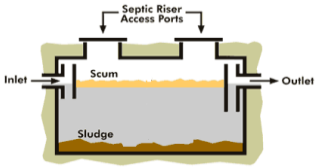
3.7 53.3% of the toilets had single pits having both on-pit (13.3%) and off-pit (40%) squatting arrangements. Although 26.6% of the toilets had twin pits, half of those, i.e., 13.3% did not have any junction chamber. 13.4% of the toilets had septic tanks but only 6.7% were connected to soak pits. 6.7% of the toilets were connected to sewer.



Single pit
53.3%



Twin pit
26.6%



Septic tank
13.4%

Connected to sewer
6.7%

Cleanliness of toilets

3.8 Cleanliness of the toilets of 26.7% AWCs was found to be good, that for 40% was average and 33.3% was poor. In 80% AWCs, the toilet was cleaned by the Anganwadi worker or helper while in 13.3% the toilet was never cleaned. One toilet (6.7%) was not in use.

3.9 In 90% cases, the toilets were cleaned with chemical cleaning agents while 10% toilets were cleaned only with water. In 60% of the AWCs, toilet cleaning materials were found out of which in 44.4% cases only chemical agents were available while in another 55.6% cases both broom and chemical agents were available. 50% of the toilets were cleaned twice a week, 20% daily, 20% once a week and 10% on alternate days.

3.10 The average monthly expenditure for buying soap and cleaning materials was Rs. 157.8 which varied from Rs. 70 to Rs. 250 while the average monthly expenditure for remuneration was Rs. 180 which varied from Rs. 100 to Rs. 250. In 80% cases, fund of WCD/Social Welfare Department was received by the AWC while in 20% cases, funds were provided by GP, VHSNC and sometime the Zilla Parishad. The WASH facilities of four AWCs were repaired in last one year prior to the survey at an average expenditure of Rs. 16,000 which ranged from Rs. 4,000 to Rs. 35,000.

Availability of water for toilet use

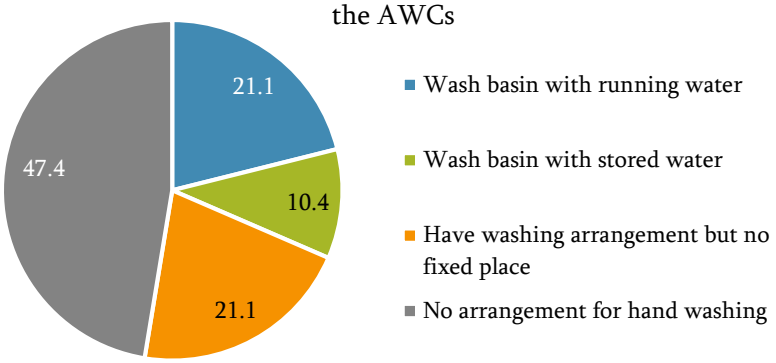
3.11 In 46.7% AWCs, piped water inside the toilets were available while in 20% AWCs, water was carried from a source within the AWC premises and stored inside the toilet. In 6.7% AWCs, water was available at a distance of less than 25 metres from the toilet and had to be carried for toilet usage. In 13.3% cases, water was available at a distance of 25 metre to 50 metre from the toilet and was carried inside the toilet each time the toilet was used while in another 13.3% cases, water was not available within the premises. In 66.7% of the AWCs, water was available throughout the year while in 26.7% AWCs, water scarcity was faced during the summer months. 6.7% AWCs did not have any water supply throughout the year.

HANDWASHING AND OVERALL HYGIENE

Hand washing facility available in the AWC

3.12 In 47.4% of the AWCs, there was no arrangement for hand washing while 21.1% AWCs had wash basin with running water. Another 21.1% did not have any fixed arrangement while 10.4% had wash basin with stored water.

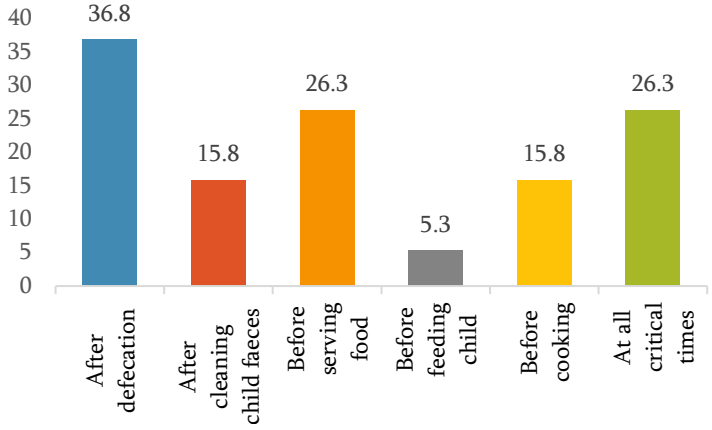
Graph 2.3: Type of hand washing facility available in the AWCs



Occasions of hand washing with soap

3.13 Only 26.3% of the workers/helpers of the AWCs washed their hands with soap at all the critical times while 36.8% washed only after defecation. 26.3% used soap for washing hands before serving food while 15.8% washed their hands with soap after cleaning child faeces and before cooking. 5.3% washed their hands with soap only before feeding the child. In all the AWCs, the AWW and AWH washed their hands before serving food to the kids. Children of 68.4% AWCs always washed their hands with soap before having their food while in 10.5% cases, they sometime washed their hands. In 21.1% cases, the children did not wash their hands with soap before having their food. Hand washing

Graph 2.4: Occasions of hand washing with soap



practice of the children was mainly monitored by the AWW (60%) and AWH (53.3%) while in 13.3% AWCs no one monitored such practice.

3.14 In 26.3% AWCs, both the AWW and AWH had received training on ODF sustainability/SLWM/MHM/HWWS and food hygiene activities while in 36.9% AWCS any one of them had been trained. In 36.8% cases, none of the AWW or AWH had received any training on such issues.

3.15 In 73.7% and 15.8% cases, the AWH and AWW cleaned the child after defecation respectively while in 10.5% cases, the child was sent back to their home. In 63.2% cases, soap was used by the AWW/AWH to wash their hands after cleaning the child excreta while in 36.8% cases only water was used.

3.16 Soap for washing hands near/inside the toilet was available in 66.7% of the AWCs during the survey. 90% of the AWCs received the supply of soap from their own fund while in 10% AWCs, soap was arranged by the AWWs.

Disposal of child's excreta

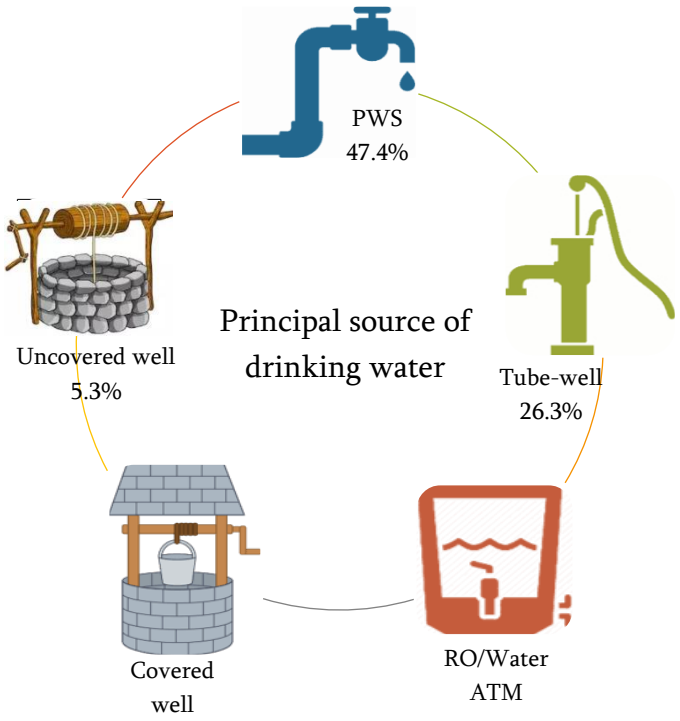
3.17 It was found from the study that in 50% cases, the child's faeces were thrown into some bush or open area outside the AWC premises while in 8.3% cases, the excreta were thrown in some garbage dump. Safe disposal was noticed in 50% cases where the child either uses the toilet (16.7%) or the faecal matter was put in a hole on the ground and covered (33.3%). 84.2% of the respondents were aware of the spread of disease through faecal-oral transmission.

ACCESS TO WATER

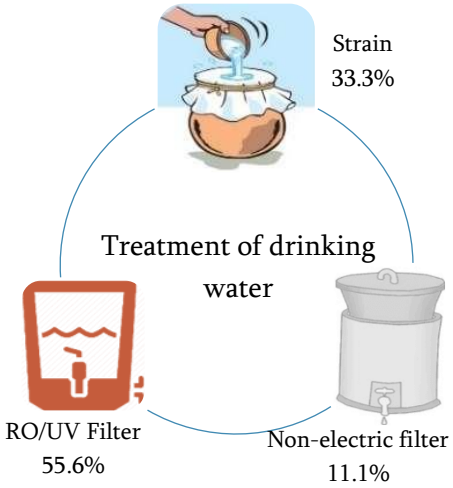
Principal source of drinking water

3.18 In 47.4% of the AWCs, water was piped within the premises while 26.3% AWCs had tube-wells with hand pump. Of the 10.6% AWCs having wells, 5.3% each were covered and uncovered respectively. 15.8% AWCs fetched water either from the Panchayat or Community RO plant or water ATM.

3.19 Out of all the AWCs which had piped water supply within the premises, 77.8% had overhead reservoir for storing water which was filled by electric pump while 22.2% did not have any reservoir.



3.20 In 52.6% of the AWCs water was carried from outside mainly by the AWH (70%) and sometime by the AWW (30%). It was observed during the survey that the carried water was stored in a container with lid and tap to collect water (40%) or in a container without lid (30%). In 20% cases, water was stored in a container with lid and taken with a pot having long handle (20%) or without any handle (10%).



Safety and security of drinking water

3.21 According to the respondents of 78.9% AWCs, the source of drinking water had been tested and in all the cases, the water source was marked as safe.

3.22 In 94.7% AWCs water was treated before consumption. 55.6% AWCs used RO or UV filter while in 33.3% AWCs, water was strained through a cloth. In 11.1% AWCs, non-electric filter was used.

SOLID AND LIQUID WASTE MANAGEMENT

Management of solid waste

3.23 Garbage bins were found in 63.2% AWCs during the survey while 26.3% responded that solid wastes were being segregated. In 57.9% of the AWCs, the garbage was thrown away while in 31.6% cases, it was disposed of to a common place. 10.5% AWCs reported that there was some arrangement by the GP to collect the waste either daily or once a week using mechanised vehicle or hand-cart.

IEC/IPC ACTIVITIES

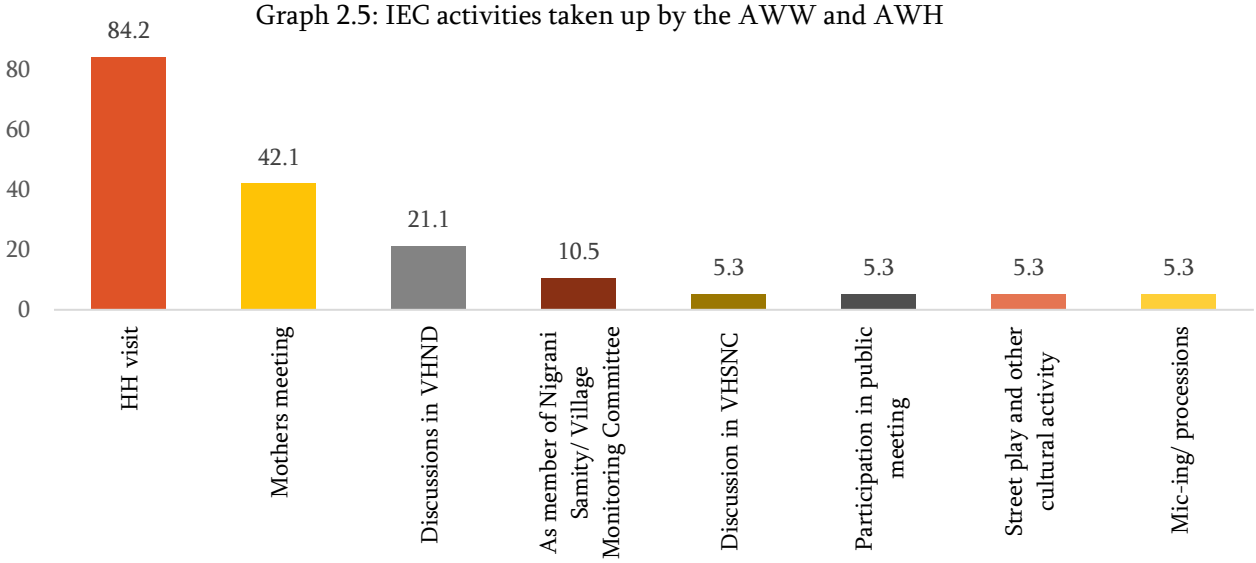
Awareness on ODF-S

3.24 In 57.9% AWCs, IEC material on WASH was available within the premises which were mainly wall painting (72.7%) and poster, banners or stickers (36.4%). 52.6% of the AWW and AWH were aware of ODF sustainability. 57.9% respondents had participated once in some IEC activities which were held in last three months prior to the survey while 42.1% respondents had participated more than once in such activities.

3.25 21.1% of the respondents were aware of the guidelines for communication to change behaviour of the people (IEC/SBCC) related to ODF sustainability. The officials from the block (75%), GP (75%) and VHSNC (25%) were responsible in communicating such messages.

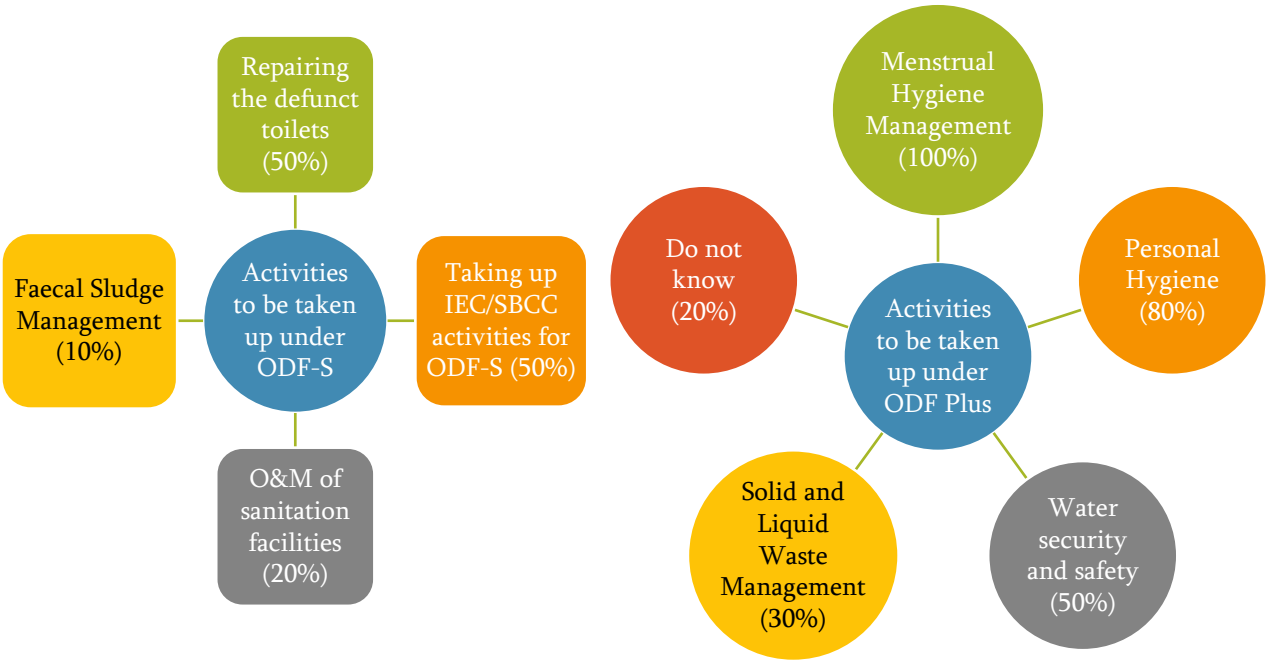
3.26 The different types of activities in which the AWW and AWH participated have been shown in the following graph. Household visit was the most common activity followed by mothers meeting and discussions in VHND. 78.9% of the respondents were aware of VHND and had participated in it while 15.8% were aware but did not participate. 5.3% of the respondents were not aware at all.

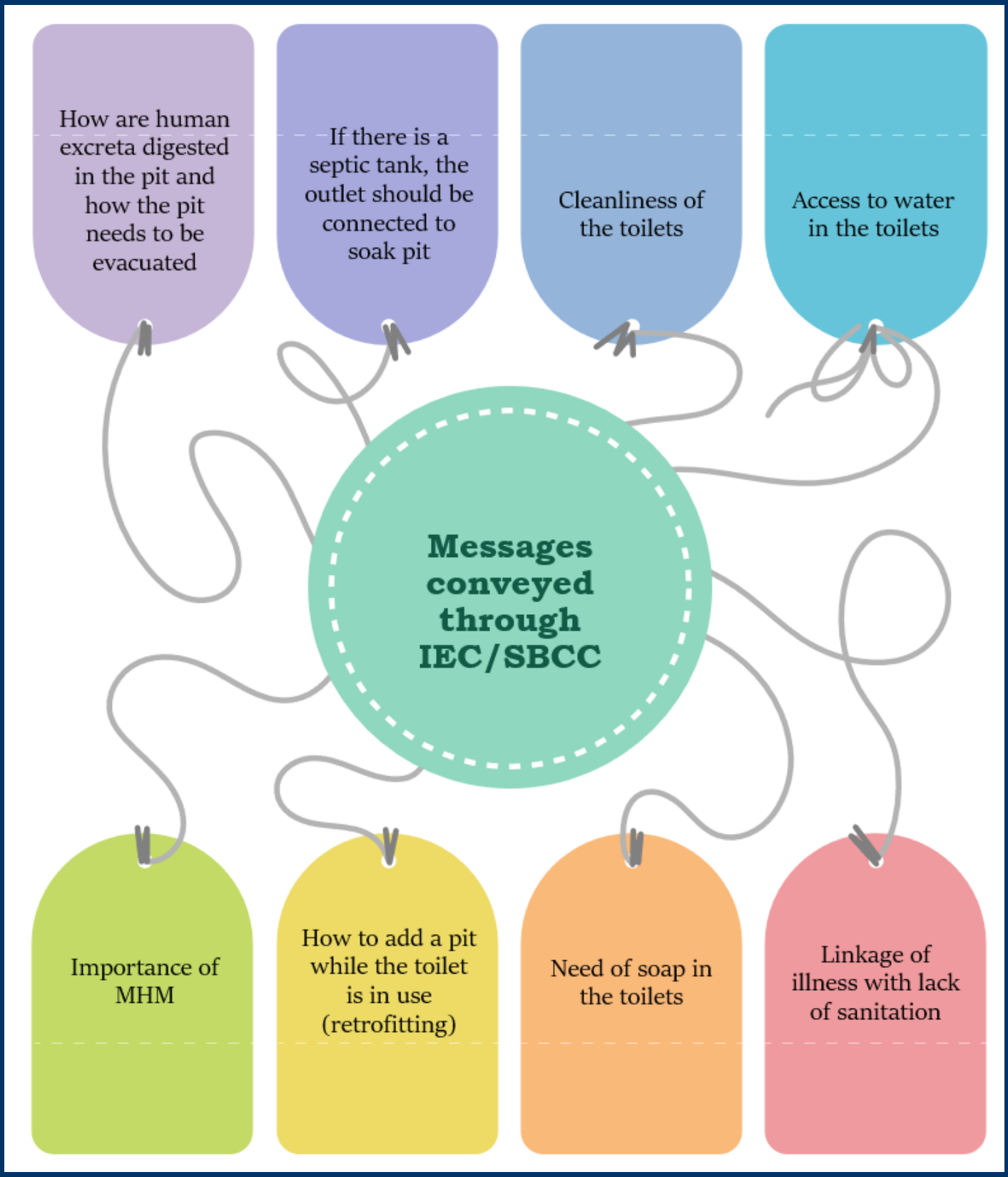
Graph 2.5: IEC activities taken up by the AWW and AWH



Activities taken up by the GP/community to sustain ODF status

3.27 According to the respondents of 31.6% AWCs, there were some IEC/SBCC activities organised during the last 3 months prior to the survey which mainly focused on sanitation, health and hygiene. These activities were conducted within the GP by Block/District/agency engaged by the government/any NGO with their own effort. The type of messages that was used to change the behaviour of the common people in context of ODF-S has been shown in the diagrams below.




How are human excreta digested in the pit and how the pit needs to be evacuated
If there is a septic tank, the outlet should be connected to soak pit
Cleanliness of the toilets
Access to water in the toilets
Messages conveyed through IEC/SBCC
Importance of MHM
How to add a pit while the toilet is in use (retrofitting)
Need of soap in the toilets
Linkage of illness with lack of sanitation

KEY FINDINGS ON WASH IN SCHOOLS

100%

Schools had access to toilets

88.9 %

Schools had separate girls' and boys' toilet

55.6 %

PWS coverage

55.6 %

Schools with hand washing facility

15.8 %

Segregation of waste

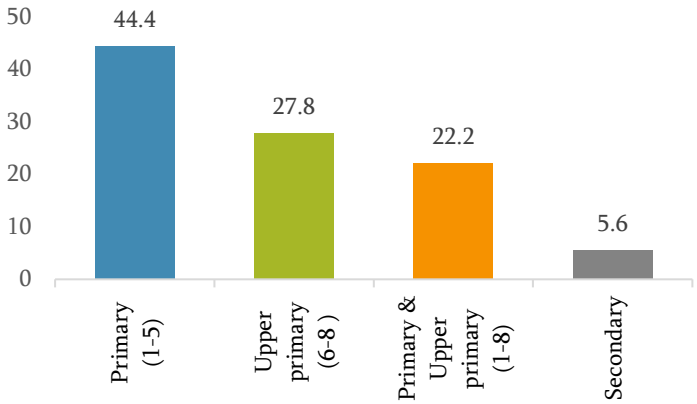
WASH STATUS OF THE SCHOOLS

ACCESS TO TOILET, USAGE AND SUSTAINABILITY

General Information

4.1 The study covered 18 schools and the category of those schools is shown in Graph 3.1. Out of the 18 schools visited by the team of SIGMA Foundation, in 88.9% schools the respondent was the Principal or Head Master while in 11.1% cases, the Primary Teacher and Assistant Teacher were the respondents. On an average, the number of boys enrolled in each school was 41.7, the range varying from 4 to 87 while the average number of girls was 44.4 and the range varied from 6 to 114. There were 30 differently abled students enrolled in 9 schools i.e., 3.3 students per school on an average and the range varied from 1 to 9. On an average there were 3.2 male teacher and 1.1 female teacher per school while the ranges varied from 1 to 6 and 0 to 3 respectively. The Right to Education Act (RTE) mandates an optimal student teacher ratio of 30:1 for all Indian Schools while the study shows that the ratio was 20.5:1 in the surveyed schools of the selected villages.

Graph 3.1: Category of surveyed schools (%)



4.2 As per the Swachh Bharat Swachh Vidyalaya Guidelines, each school should have separate toilets for boys and girls, with one unit generally having one toilet (water closet or WC) plus 3 urinals. The ratio to be maintained is preferably one unit for every 40 students.

Availability of toilets

4.3 All the 18 schools that were surveyed had separate toilets for girls and boys except in one upper primary school there was no girls' toilet. In 8 schools (44.4%), there were either separate toilets for Divyang students or the toilets were provided with special arrangements like hand rail or ramp to make to accessible to the students with special needs. The average number of girls using one toilet was 38.1 while the range varied from 6 to 114 and the average number of boy's using one toilet was 35.7 while the range varied from 4 to 87. In 94.4% schools, the teachers and staffs used the same toilets meant for students while in 5.6% schools, there was one separate toilet to be used by teachers and staff.

4.4 47.1% schools did not feel the need for constructing more toilets or urinals while the remaining 52.9% schools faced some barriers in constructing more toilets or urinals which

were mainly financial constraints (35.3%), unavailability of land (11.8%) and managerial issues (5.9%).

Functionality and usage of toilets

4.5 16 toilets in 10 schools were found to be defunct. 19% of the girl's toilets and 42.9% of the boy's toilets were defunct i.e., 31.4% of the school toilets were defunct. All the functional toilets were being used excepting one girl's toilet which had a broken door.

4.6 The reasons for which the school toilets were defunct were mainly broken pan or squatting arrangement (56.3%), clogged/blocked outlet (31.3%) and broken door (12.5%). In

Broken pan (56.3%)

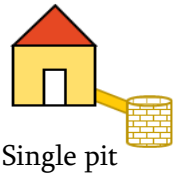
Clogged outlet (31.3%)

Broken door (2.5%)

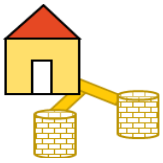
one school, the toilet was under construction. On the other hand, there were three school toilets which were functional but not being used mainly due to either non-availability of water or the toilet remained locked.

Type of toilet facility

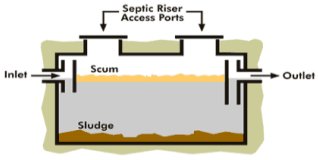
4.7 61.1% of the toilets had single pits, 16.7% had twin pits and 22.2% of the toilets had septic tanks.



Single pit
61.1%



Twin pit
16.7%



Septic tank
22.2%

4.8 The contents of 11.1% septic tanks were discharged to open grounds, 5.6% were discharged to some open water bodies while another 5.6% were connected to sewer.

Availability of water for toilet use

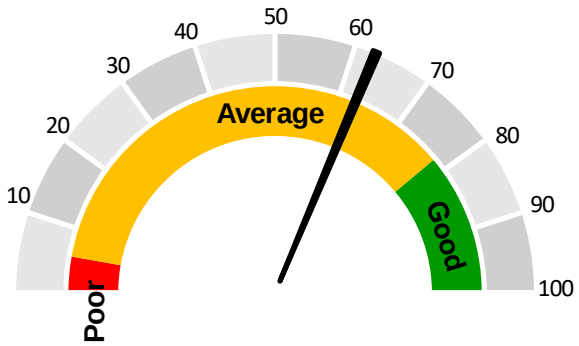
4.9 44.4% of the schools had piped water supply inside the toilet while in 22.2% schools, water was manually stored inside the toilets. In 27.8% schools, water was available near the toilet and had to be carried in buckets for use. Water was available away from toilet but within school premises and to be carried in bucket inside the toilet of the remaining 5.6% schools.

Availability of soap inside the toilet for use after defecation

4.10 Soap was available for all the toilets in 50% of the schools while in 5.6% schools, some of the toilet seats had soap. On the other hand, in 44.4% schools there was no soap available in any of the toilet seats.

Cleanliness of toilets and urinals

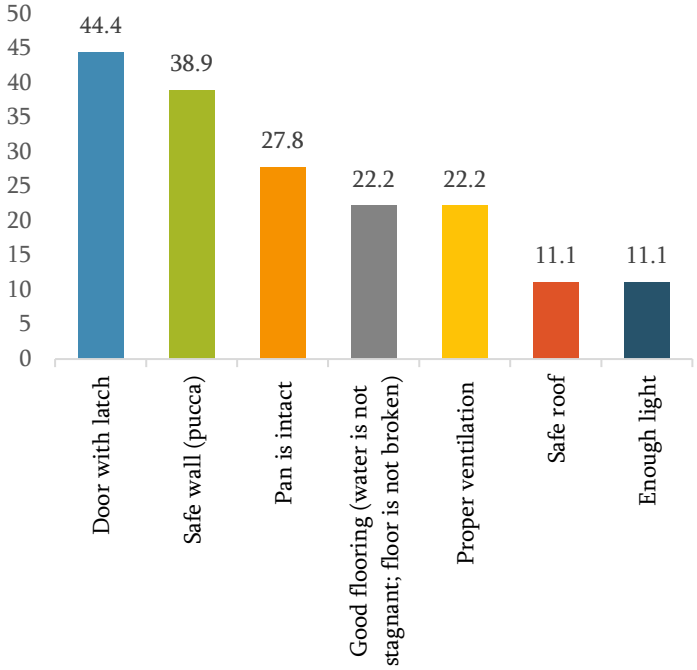
4.11 Cleanliness of the toilets of 72.2% schools was found to be good, 22.2% was average and 5.6% was poor. In 61.1% of the schools, toilet cleaning materials were found of which in 55.6% cases both chemical agents and broom were available while in another 38.9% cases nothing was available. There was moderate foul smell in the toilets of 50% schools while the smell was strong in 16.7% school toilets. There was no odour in 33.3% of the school toilets.



Quality of construction of the latrines, convenience, safety and privacy

4.12 The various aspects of the quality of toilet construction has been shown in Graph 3.2. In 88.9% schools, separate toilets for girls and boys were available. In 18.8% of the schools there was very little or no privacy i.e., doors cannot be locked, windows broken, the interior of the toilet can be viewed from outside, etc.

Graph 3.2: Quality of toilet construction (%)



4.13 In 25% of the schools, the girl's toilet was away from the public view and not adjoining to the boy's toilet block while in 50% of the schools, the girl's toilet was away from the public view but adjoining to the boy's toilet block. In 6.3% of the schools, the outsiders can view the entry of the girl's toilet. On the other hand, in 16.7% schools, the toilet doors did not have latches while none of the school toilets had hooks for hanging cloth.

Operation & Maintenance of the toilets

4.14 In 16.7% schools, the toilets were cleaned only with water while in 66.7% schools, some toilet cleaning protocols were being followed. In 30% schools, the teachers were solely responsible for cleaning the toilets while in 20% schools, the students shared the responsibility with the teachers. In 10% schools, the toilets were cleaned by the students. 40% schools had engaged workers from outside or had employed cleaners in their pay roll for cleaning the toilets.

4.15 Only in 8.3% of the schools, the toilets were cleaned daily. In 66.7% schools, the toilets were cleaned either once or twice a week. In 25% schools, there were no fixed interval of cleaning the toilets.

4.16 The average monthly expenditure for purchasing toilet cleaning materials was Rs. 490 and the monthly remuneration for toilet cleaning was Rs. 742.9 while the range for both varied from Rs. 100 to Rs. 2,000.

4.17 Only three schools (25%) had incurred some expenditure for repairing the WASH facility during last one year, the average expenditure for which was Rs. 30,0000 and the range varied from Rs. 10,000 to Rs. 60,000. The average amount of school contingent fund during the last year was Rs. 1,24,109 while the range varied from Rs. 350 to Rs. 20 lakhs as reported by ten schools while eight schools did not spend any fund for such purpose.

4.18 In 42.1% schools, the funds for the O&M of the WASH facilities was sourced from the Education Department while the School Management Committee funded for 21.1% schools. In 21% schools, the GP funded for the O&M activities while in 15.8% schools, the Zilla Parishad released the funds. 10.5% schools used the funds from VSTF and CSR for the O&M of the WASH facilities.

4.19 The major barriers in O&M of the toilets were financial constraints (50%), unavailability of skilled persons (5.6%) and managerial issues (5.6%) while 44.4% schools did not feel the need for O&M of the toilets.

4.20 In 72.2% schools, the teachers, staff and child cabinet members supervised the cleaning and maintenance of the toilets in the school.

Menstrual hygiene management

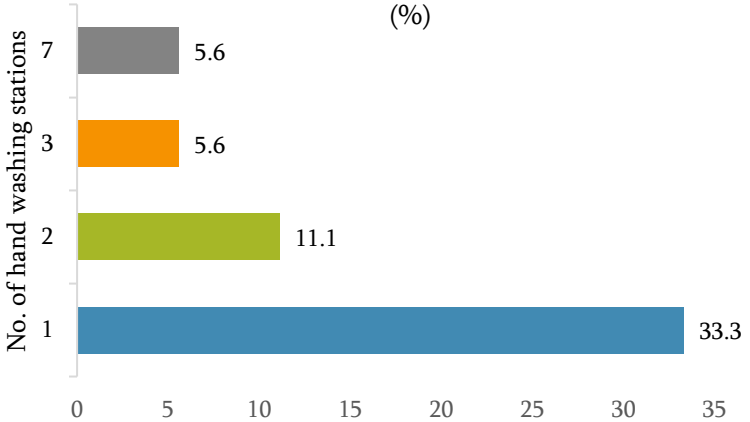
4.21 None of the high schools had facilities to manage menstrual hygiene needs in the girls' toilet i.e., there was no covered bins and/or water and soap. None of the girls' school had vending machine for sanitary napkins while the used napkins were disposed in a non-eco-friendly mechanism.

HANDWASHING AND OVERALL HYGIENE

Hand washing facility available in the school

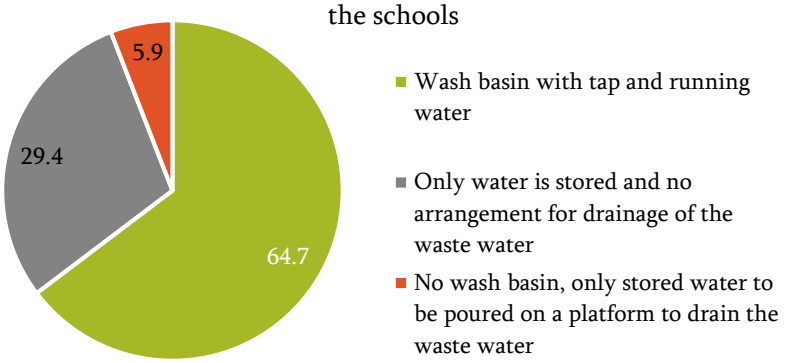
4.22 In 38.9% of the schools, there was no fixed hand washing station while in one school (5.6%), the hand washing station was under construction. In the remaining schools, the number of facilities varied from one to seven. In 33.3% schools, there was only one hand washing station as shown in Graph 3.3. The

Graph 3.3: No. of hand washing stations in schools (%)



average number of students using the hand wash station varies from 36 to 175 and the average was 97. In 5.6% schools there were seven hand washing stations for 169 students. The average number of students using one hand wash station was 24. In 90.9% cases, the height of the handwashing facilities was suitable for children of all age groups in the school.

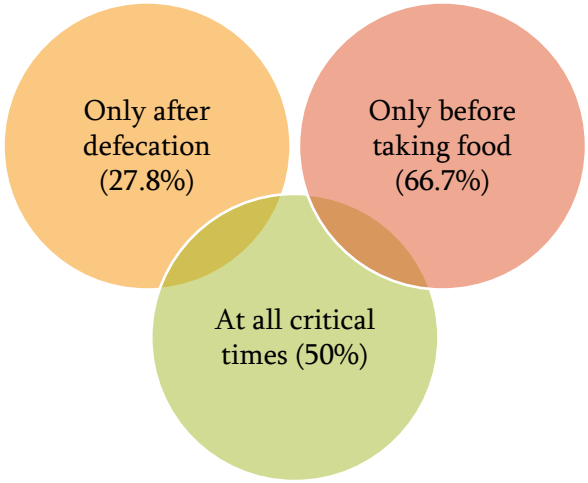
Graph 3.4: Type of hand washing facility available in the schools



4.23 Graph 3.4 shows the type of hand washing facilities available in schools. In 64.7% schools, there were wash basin and tap with running water while in 29.4% schools, although water was stored but there was no arrangement for drainage of the waste water. In 5.9% schools, there was no wash basin but stored water was found and there was a platform to drain the waste water. In 9.1% schools, all the taps of the hand washing station/s were not functional due to lack of maintenance.

Occasions of hand washing with soap

4.24 Students of 27.8% schools washed their hands with soap only after defecation while students of 66.7% schools washed hands with soap before eating only. Students of 50% schools washed hands with soap at all the critical times.



Occasions of hand washing with soap

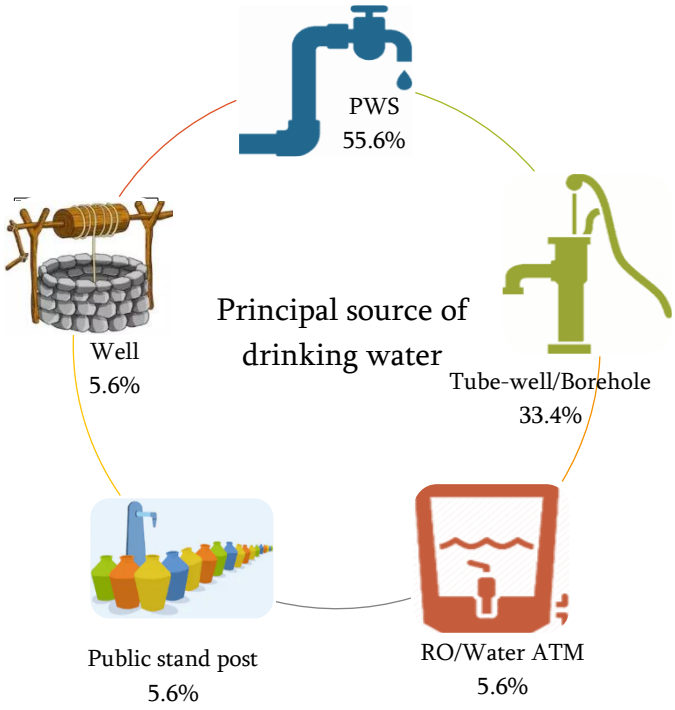
4.25 Soap for washing hands was found in all the hand washing stations of 41.2% schools, in some of the hand washing stations of 23.5% schools and not available in 35.3% schools. 45.5% of the schools got the supply of soap from the school funds and 27.3% schools from government. In each of 9.1% schools, soap was purchased either from fund raised by teacher or contribution by guardian/students or GP or VSTF.

4.26 In 88.9% schools, the practice of daily handwashing with soap by students and cooks before Mid-Day Meal (MDM) or lunch was supervised by the teachers or staff members (77.8%) or by a dedicated team of teachers/staff members and child cabinet members (11.1%).

ACCESS TO WATER

Principal source of drinking water

4.27 In 50% of the schools, water was piped within the premises and stored in a reservoir while in 5.6% school, although there was piped water within premises but there was no storage facility. 22.3% schools fetched water from boreholes with electric or solar pumps, 5.6% from wells and another 16.7% schools fetched water from hand pumps either within or outside the premises. 5.6% schools fetched water from water ATM.



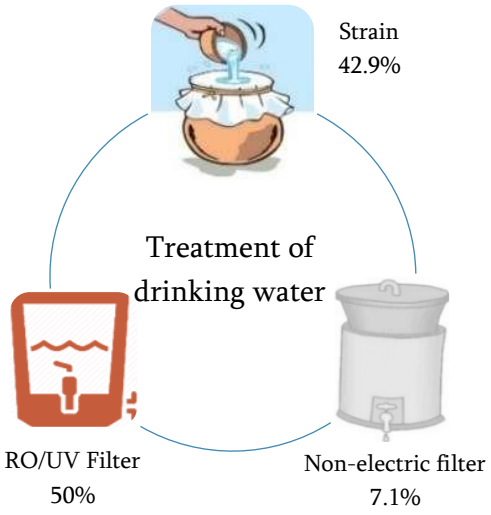
4.28 In three schools (16.7%) water was carried from outside and that was used for toilet purposes as well. The carried water was stored in an overhead reservoir in one school while in the other two schools, containers, drums or barrels were used.

4.29 The overhead reservoirs had been cleaned a month ago prior to the survey or had been newly constructed and never cleaned.

Safety and security of drinking water

4.30 In 55.6% schools, the source of drinking water had been tested and in 70% of those cases, the water source was marked as safe while 10% was unsafe. Respondents of another 20% schools were not aware of the results.

4.31 In 77.8% schools, water was treated before consumption. 50% schools used RO filter while in 42.9% schools, water was strained through a cloth. In 7.1% schools, non-electric filter was used.



4.32 The barriers in providing safe drinking water in the schools were lack of nearby source of drinking water (16.7%), financial constraints (11.1%), absence of technically skilled persons (5.6%) while 66.7% schools did not feel the need for the same.

SOLID AND LIQUID WASTE MANAGEMENT

Management of solid waste

4.33 The average number of garbage bins found in the schools was 4 while the range varied from 1 to 9. In 73.7% of the schools, no specific measure was taken to dispose the solid wastes while waste segregation was done in 15.8% schools. In 5.3% schools, the waste was thrown in some pit or municipal/community bins while another 5.3% schools burnt everything, including plastics, and used the ashes as fertilizer. In 5.6% of the schools, there was no dustbin for collection of waste.

Management of liquid waste

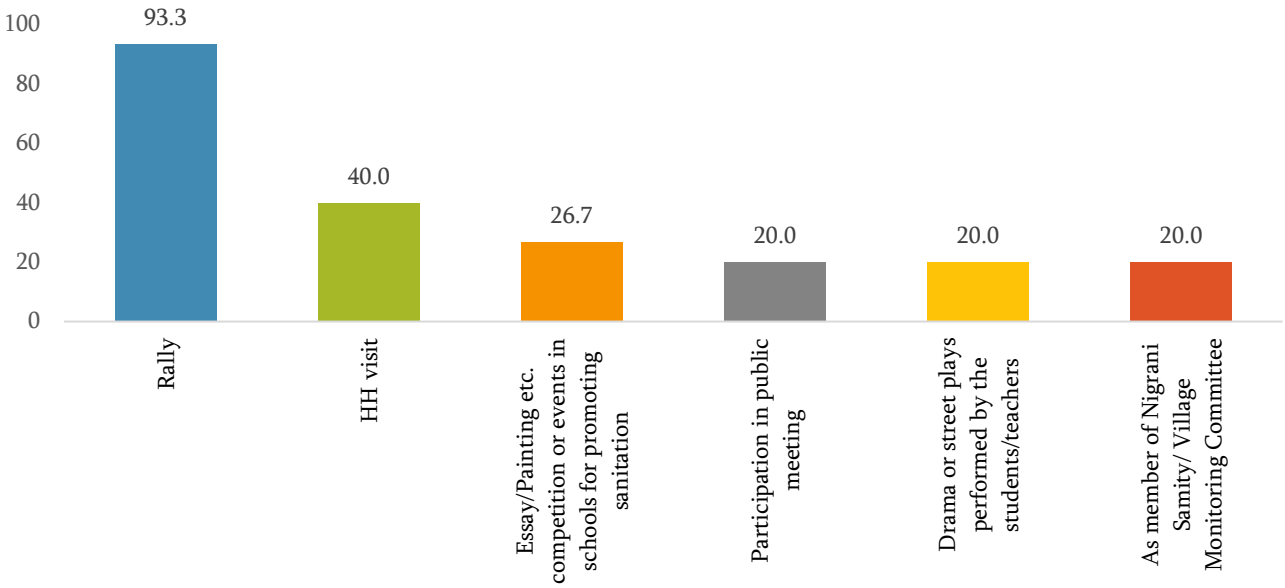
4.34 In 44.4% of the schools, the grey water was used for watering the plants of kitchen garden. In 22.2% schools, there was kuccha drain while in 5.6% schools, grey water from the kuccha drains were either stagnant or over-flowing. In 16.7% schools, there were pucca drains with no stagnant water. In 11.1% schools, the grey water drained to soak pits while in 5.6% schools, there was no drain.

IEC/IPC ACTIVITIES

Awareness on ODF-S

4.35 In 66.7% schools, IEC material on WASH was available within the premises which were mainly wall painting (66.7%), poster, banners or stickers (33.3%) and hoardings (16.7%). In 41.7% cases, the IEC materials were put up 6 months prior to the survey while in 25% schools, the materials were placed within one month before the visit. The IEC messages were placed three months and one year before the survey in 16.7% schools each respectively. Respondents of 44.4% schools had received some training on WASH. Only 44.4% schools displayed and used WASH related posters and materials for promoting hygiene education.

Graph 3.5: IEC activities taken up by the teachers

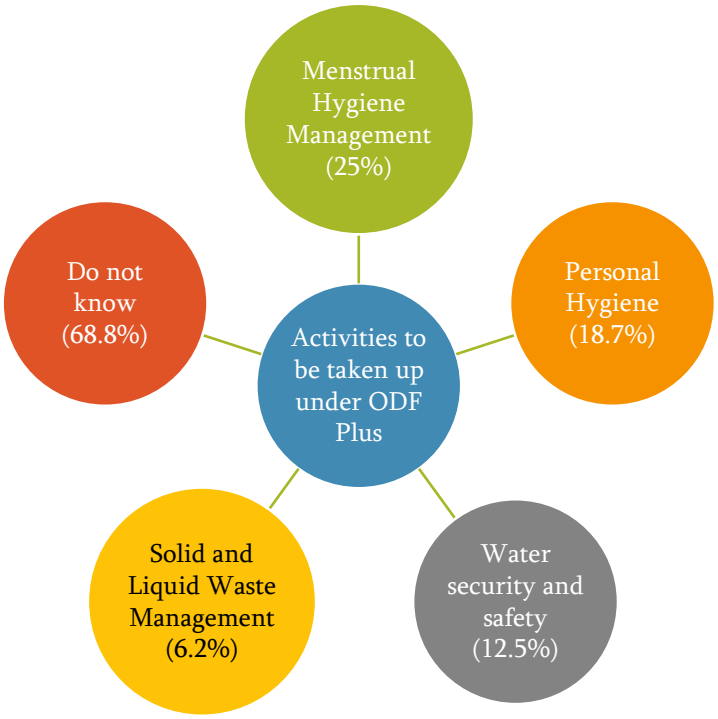


4.36 In 27.8% schools, the teachers had participated once in some IEC activities which were held in last three months prior to the survey while in 55.6% schools, the teachers had participated more than once in such activities. The various kinds of activities taken up by the school teachers has been shown in Graph 3.5.

4.37 All the schools had organised some kind of IEC/SBCC activities (including games/ rallies) related to WASH in Schools (WinS) involving the students. The activities were organised one month, three months and six months prior to the survey in 72.2%, 16.7% and 11.1% schools respectively. All the schools had organised rallies apart from 33.3% schools which had also organised drama or street plays performed by the students/teachers or essay/painting competition or events in schools for promoting sanitation.

4.38 In 72.2% schools, the teachers took up those activities and funded for the activity, if any cost was incurred for conducting the activity. In 11.1% cases, either the GPs provided funds while or the block sponsored the activities that were conducted by the school students. In 16.7% schools, the activities were jointly conducted by the GPs and teachers.

4.39 75% of the teachers had no idea on what are the key activities for ODF sustainability. The respondents of 25% schools mentioned that construction and sustained use of sanitation facilities and O&M of constructed sanitation facilities were the major activities to be taken up under ODF-S. One teacher of only one school had received training on ODF sustainability. The activities to be taken up under ODF Plus, as mentioned by the respondents, have been shown in the adjacent diagram.



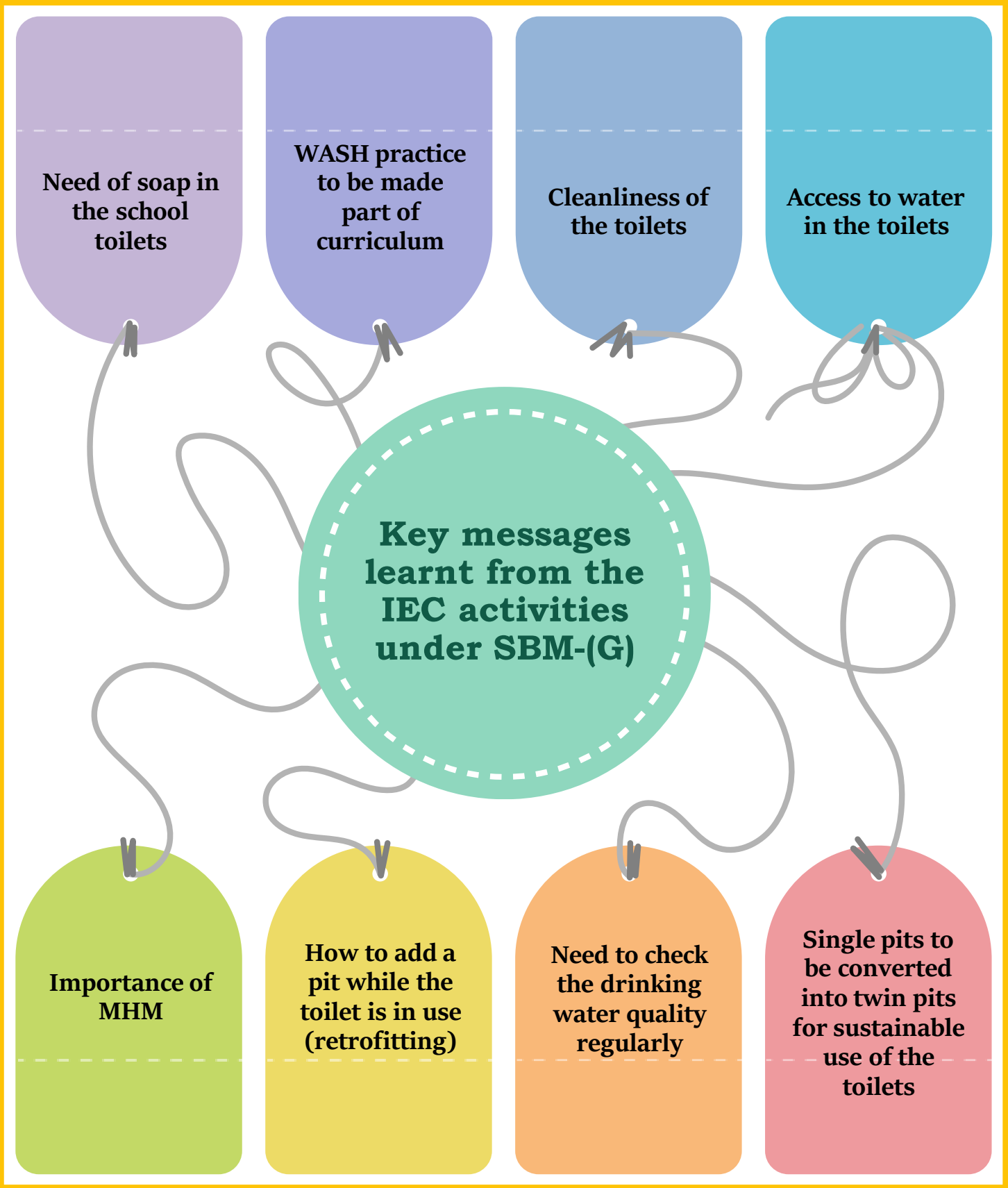
4.40 In 72.2% schools, the respondents learnt the key messages through the IEC activities under SBM-G from Gram Sabha, 22.2% from trainings, 11.1% from the internet and 5.6% from TV or newspaper. 73.3% respondents acquired such knowledge regularly while 26.7% acquired the knowledge within last one year prior to the survey. Respondents of only 61.1% schools were aware that the materials emptied from the leach pit, if kept unused for more than a year is safe to handle and can be used as a manure and all of them were willing to use that as manure for the purpose of gardening in the school premises.

4.41 72.2% schools had girl students in upper primary and high school out of which only 46.1% schools had lady teachers who were trained on Menstrual Hygiene Management or were earmarked to counsel the girl students. In 53.8% schools, menstrual hygiene

management was not discussed with the girl students while in 23.1% schools, it is discussed at least once every month. In 23.1% schools, MHM was discussed at least once in two to three months.

4.42 38.9% schools had at least 2 teachers trained in sanitation and hygiene education and a child cabinet (Bal Sansad) that takes an active role in promoting sanitation and hygiene practices.

IEC paintings on walls related to SBM in Gadchiroli


Need of soap in the school toilets
WASH practice to be made part of curriculum
Cleanliness of the toilets
Access to water in the toilets
Key messages learnt from the IEC activities under SBM-(G)
Importance of MHM
How to add a pit while the toilet is in use (retrofitting)
Need to check the drinking water quality regularly
Single pits to be converted into twin pits for sustainable use of the toilets

KEY FINDINGS ON WASH IN HEALTH CARE FACILITIES

100%

HCFs had access to toilets

52.9 %

Toilets were functional and in use

57.1 %

PWS coverage

100%

Safe source of drinking water

71.4 %

Drinking water is safely stored

85.7 %

Soap and water for hand washing was available near the toilets

50%

Protocol for cleaning available

57.1 %

Segregation of bio-medical waste

WASH STATUS OF THE HEALTH CARE FACILITIES

General Information

5.1 All the 7 Health Care Facilities (HCFs) visited by the team of SIGMA Foundation were sub-centres. The average number of health care workers (including doctors and other workers) was 4.4 and the range varied from2 to 9. The average number of outdoor patients per day was 8.4 while the range varied from 2 to 22. In two HCFs there were 1 and 10 in-patients respectively.

ACCESS TO TOILET, USAGE AND SUSTAINABILITY

Availability, functionality, usage and accessibility of toilets

5.2 There was one toilet in 3 out of 7 HCFs (42.8%) for the in-patients out of which the toilet of only one HCF was functional and in use. In each of the 7 HCFs there was one toilet for the out-patients out of which the toilets of 2 HCFs (28.6%) were defunct. The remaining 5 toilets were functional and in use. None of the HCFs had separate toilet for the male and female patients. All the 7 HCFs had separate toilets for the staffs and patients out of which toilets of only 3 HCFs (42.9%) were functional and in use. In 2 HCFs there was at least one toilet which was accessible to the people with special needs.

5.3 Only 28.6% of the latrines were adequately lit and had proper ventilation, and suitable for use at night while in 57.1% HCFs although infrastructure for lighting existed but those were not functional. Toilets of 14.3% HCFs were not adequately lit due to lack of proper infrastructure.

Type of toilet facility

5.4 42.9% of the toilets had twin pits with junction chamber while 57.1% of the toilets had septic tanks out of which 66.7% were connected to soak pits and 33.3% of the septic tank toilets were connected to sewer.

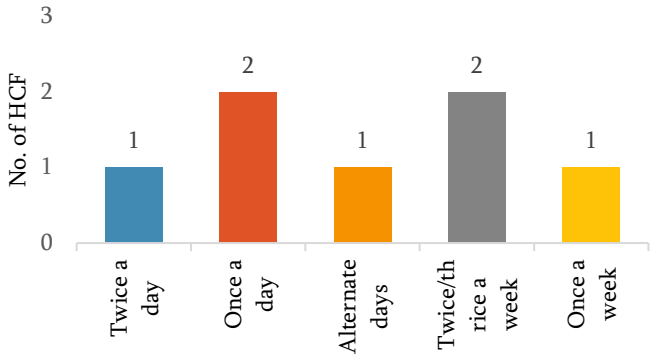
5.5 The septic tanks were desludged when needed and the sludge was removed mechanically.

O&M of WASH facilities

5.6 All the HCFs had protocols for cleaning of floor, sink, spillage of blood or bodily fluid and the cleaning schedules were also available. In 71.4% HCFs, all the staffs responsible for

cleaning toilets had received training while in 28.6% HCFs, only some of them were trained. The frequency of cleaning the toilets has been shown in Graph 4.1.

Graph 4.1: Frequency of cleaning the toilets



5.7 The average monthly expenditure for purchasing soap and other cleaning materials was Rs. 271.4 while the range varied from Rs. 100 to Rs. 500 and the average monthly remuneration was Rs. 240 while the range varied from Rs. 100 to Rs. 500.

5.8 Record of cleaning toilets which was maintained and signed by the cleaners each day was available in 42.9% HCFs while in another 42.9% HCF although the toilets were cleaned by the cleaners but that was not recorded. In the remaining 14.3% HCF, no record was maintained since the toilets were cleaned less than once a day.

5.9 Appropriate and well-maintained materials for cleaning (i.e. detergent, mops, buckets, etc.) were available in 85.7% HCF while in 14.3% HCF the cleaning materials were available but those were not maintained properly. In all the HCFs there was some mechanism to track supply of Personal Protective Equipment (PPE) (such as gloves and other protective equipment) to identify stock-outs. Adequate cleaners and WASH maintenance staff were available in 28.6% HCFs while 57.1% HCFs had cleaners but either the number was not adequate or they were not skilled or motivated. In 14.3% HCFs there were no cleaner or respective staff.

5.10 A protocol for operation and maintenance, including procurement of WASH supplies was visible, legible and implemented in 57.1% HCFs while although there was some protocol but that was not implemented in 42.9% HCFs.

5.11 On an average, the HCFs had spent Rs. 4,000 on maintenance of the toilets during last year while the range varied from Rs. 1,000 to Rs. 7,000.

Menstrual Hygiene Management

5.12 In 71.4% HCFs, there was at least one toilet which had facilities to manage menstrual hygiene needs i.e., covered bin, hooks/hanger and/or water and soap.

HANDWASHING AND OVERALL HYGIENE

Availability of hand washing facility

5.13 In 42.9% of the HCFs, functional wash basins were available at all points of care while in another 42.9% HCF, although the basin was available but there was no water and/or soap or alcohol hand-rub solution. In 14.3% HCF there was no wash basin in all the points of care.

5.14 Functional wash basins were available in waste disposal areas of 42.9% HCFs while in the remaining 57.1% HCFs there was no water and/or soap or alcohol hand-rub solution near the wash basin.

5.15 In 57.1% HCF there were functional elbow tap with water supply and soap were available in the operation theatres while in 14.3% cases, although tap was there but soap was not available and in the remaining 28.6% HCFs there was no such arrangement.

5.16 In 42.9% HCFs functional elbow tap with water supply and soap were available in the labour rooms while in 14.3% cases, functional ordinary tap and soap were available. The labour room of 14.3% HCFs did not have soap while in 28.6% HCFs there was no such arrangement.

5.17 Soap and water for hand washing was available within 5 metres of the toilets of 85.7% HCFs while in 14.3% HCFs there was no such facility.

5.18 Hand hygiene compliance activities were undertaken regularly in 71.4% HCFs.

ACCESS TO WATER

Principal source of drinking water

5.19 In 57.1% of the HCFs, water was piped within the premises while 42.9% HCFs had tube-well or borehole. In 85.7% HCF the water source was within the premises while in 14.3% HCF the source was at a distance within 100 metres from the premises.

5.20 In all the HCFs sufficient quantity of water was available throughout the day and could be used by all. Water services were available throughout the year (i.e. not affected by seasonality, climate change-related extreme events or other constraints) in 85.7% HCFs while one HCF faced water shortage for 3 months or more.

5.21 A reliable drinking-water station was present and accessible for staff, patients and care givers at all times and in all locations/wards of 57.1% HCFs while no such arrangement was available in 14.3% HCFs. In 8.6% HCFs, drinking water was either available in some places or not available for all users.

Safety and security of drinking water

5.22 Water was treated regularly for drinking with a proven technology that meets WHO performance standards in 42.9% HCFs while the system was not regular in 42.9% HCFs. There was no such arrangement in 14.3% HCFs.

5.23 Drinking water was safely stored in a clean bucket or tank with cover and tap in all the HCFs. The source of drinking water had been tested in all the HCFs and the results were safe.

5.24 Respondents of all the HCFs informed that they had been communicated some message on water quality/ how water could be handled safely.

BIO-MEDICAL AND LIQUID WASTE MANAGEMENT

Management of bio-medical waste

5.25 In 71.4% HCFs a trained person was responsible for the management of health care waste while in 28.6% HCFs no such person was appointed.

5.26 Bio-medical wastes were segregated in 57.1% HCF and coloured bins were available in those HCFs during the visit.

5.27 85.7% HCF were situated within 75 km radius of Common Bio-Medical Waste Treatment Facility out of which 66.7% had formal agreement with the CBMWTF for final treatment and disposal of the bio-medical waste.

5.28 57.1% HCFs ensured pre-treating the waste at the health facilities as per BMW Rules before handing over the same to CBMWTF or before the final disposal.

5.29 The sharp wastes were either autoclaved (57.1%), incinerated (14.3%), burnt in protected pit (14.3%) or disposed with general waste without any treatment (14.3%) while the infectious wastes were incinerated (42.9%), autoclaved (14.3%), burnt in protected pit (14.3%), buried in lined, protected pit without any treatment (14.3%) or disposed with general waste without any treatment (14.3%). In 14.3% HCFs, the incinerator or alternative treatment technology for the treatment of infectious and sharp waste was either not functional or had insufficient capacity.

5.30 Waste was correctly segregated at all waste generation points in 57.1% HCFs while in 42.9% HCFs either some sorting was done but no protocol was correctly followed or not practiced throughout the facility. In 42.9% HCFs hazardous and non-hazardous wastes were stored separately before being treated/disposed of or moved off site. Anatomical or pathological waste was put in a dedicated pathological waste/placenta pit or burnt in a crematory or buried in a cemetery in 57.1% HCFs.

5.31 Functional burial pit or fenced waste dump was available for disposal of non-infectious wastes in 28.6% HCFs while in 14.3% HCFs there was a pit in the facility premises but that was either of insufficient dimensions or over filled or not fenced and locked. In 57.1% HCFs there was no such pits.

5.32 Protocol or standard operating procedure (SOP) for safe management of health care waste was clearly visible and legible in 28.6% HCFs while it was not available or implemented in 71.4% HCFs.

5.33 Appropriate protective equipment for all staff in charge of waste treatment and disposal was available in 71.4% HCFs. There was a committee to monitor the activities of BMW management in 42.9% HCFs out of which 28.6% organised monthly meeting and 14.3% conducted a meeting twice a year.

Management of liquid waste

5.34 Waste water was safely managed through on-site treatment (i.e. septic tank followed by drainage pit) or sent to a functioning sewer system in 57.1% HCFs while the waste water management system was non-functional in 28.6% HCFs and 14.3% HCFs did not have such system.

5.35 Grey water (waste water) drainage system that diverted water away from the facility (i.e. no stagnant water) was in place in 42.9% HCF while the system was not functioning in 57.1% HCF.

5.36 On an average the frequency of cleaning the drains was once a month while the range varied from once a week (28.6%) to once a year (14.3%).

HYGIENE KNOWLEDGE, PRACTICE AND ORIENTATION ON WASH

Awareness on WASH

5.37 Hand hygiene promoting materials were clearly visible and understandable at key places in 57.1% HCFs.

5.38 Health care staff of 57.1% HCFs were trained on WASH/IPC each year while in 42.9% HCFs either the staff were trained but not every year or only some staff(s) were trained.

5.39 Only 42.9% HCFs had a dedicated WASH or IPC focal person who was active while in 57.1% HCFs the focal point did not have sufficient time, resources or motivation to carry out his/her duties.

5.40 Although 57.1% HCFs had participated in Kayakalp award competition but the score was not known to any of the respondents.

KEY FINDINGS ON WASH IN GRAM PANCHAYATS

89.3 %

HHs had own toilets

86.4 %

HHs were using IHHLs

4.1 %

HHs were using shared/community toilets

2.8 %

IHHLs were defunct

86.7 %

PWS coverage

6.7%

HHs had fully pucca and covered drains

40%

GPs had solid waste collection system

33.3 %

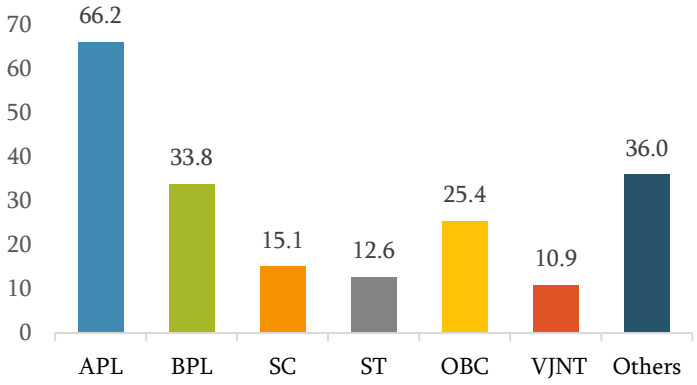
Segregation of waste

WASH STATUS OF THE GRAM PANCHAYATS

General Information

6.1 Out of the 15 Gram Panchayats (GPs) visited by the team of SIGMA Foundation, 13.3% were PESA. 66.7% of the GPs were single village GP. The total number of households in the visited GPs was 5,950 and the average number of households per GP was 396.7. The total number of Left Out of Baseline (LOB) households was 783. Various attributes of the population of the GPs are shown in Graph 5.1. The share of APL and BPL households in the GP was 66.2% and 33.8% respectively. The average number of APL households in the GP was 262.6 while that of BPL households was 134.1. The socio-economic composition of the households has been shown in Graph 5.1.

Graph 5.1: Socio-economic composition of the households in the GP



ACCESS TO TOILET, USAGE AND SUSTAINABILITY

Availability, functionality and usage of toilets

6.2 As per records of the GP, 89.3% of the households in the GP had own toilet facilities while 53.6% of the LOB households were yet to have a toilet. 86.4% of the households having IHHLs were using the same. 3.6% of the households were using shared toilet while 0.5% used community toilets exclusively. 2.8% of the toilets were defunct. Only four GPs had some plan for improving access and use of toilets, repairing or retrofitting the toilets which constituted only 13.7% of the defunct toilets.

6.3 Only two GPs had community toilets while in another GP the community toilet was under construction. The two community toilets had 10 and 13 common seats respectively. In one of the toilets the water source was inside the toilet while in another the same was at a distance of 10 metres. The GP and households were mainly responsible for maintenance of the toilets. One GP had spent Rs. 25,000 for maintenance of community toilet during last year.

6.4 40% of the GPs felt that there was a need for constructing more public toilet and urinals especially for seasonal mass gathering (pilgrimage etc.), near highway/bus route-regular outsiders' access in GP and for migratory population while many households use community toilet which is not sufficient.

WATER SUPPLY IN THE GP

Piped Water Supply Schemes

6.5 86.7% of the GPs were covered under Piped Water Supply Scheme (PWSS) out of which 61.5% schemes were fully functional while 7.7% were non-functional. Out of the

remaining 30.8% schemes, 23.1% were not functional during certain months while another 7.7% were not functional for some of the HHs covered earlier. 1,999 households (39% of all households) across 13 GPs were covered under the PWSS. In two GPs (Nagari of Gadchiroli and Chak Nimbala of Chandrapur), there was no PWS coverage. The main causes of non-functionality of the PWSS were either drying of source (40%) or the scheme was not designed for all households (40%) or the PWSS had broken down (20%). In 73.3% GPs water was available throughout the year while in 20% GPs there was some scarcity which was managed somehow. In 6.7% of the GPs, water was supplied through tanker from outside during the scarcity.

Handpump bore well converted into a tube-well with electric pump in Gadchiroli

Safety and security of drinking water

6.6 93.3% of the drinking water sources within the GPs had been tested out of which 85.7% had been marked as safe. In 66.7% GPs the Village Water Safety and Security plan and O&M (technical, financial and institutional) plan was available. In 53.3% of the GPs, the community had participated in some activity for water conservation/harvesting, etc. like Jal Yukt Shivaar, Shramdaan, construction of dam, nallah deepening, etc.

SOLID AND LIQUID WASTE MANAGEMENT

Management of solid waste

6.7 40% of the GPs had some system of collecting garbage from the households. In 33.3% GPs all the households were covered under this system while in another 33.3% GPs more than 50% households were covered. In each case of 16.7% GPs, more than 25% but less than 50% and less than 25% households were covered respectively. In 66.7% GPs tricycle was used to collect the waste while in 33.3% GPs mechanised vehicle or hand cart were used. In 16.6% GPs waste was segregated at the household while segregation was done post collection in another 16.7% GPs. In 66.7% GPs, waste was not segregated at all.

6.8 In 83.3% of the GPs the collected waste was not treated and dumped directly while in 16.7% GPs the waste was dumped in NADEP composting pits.

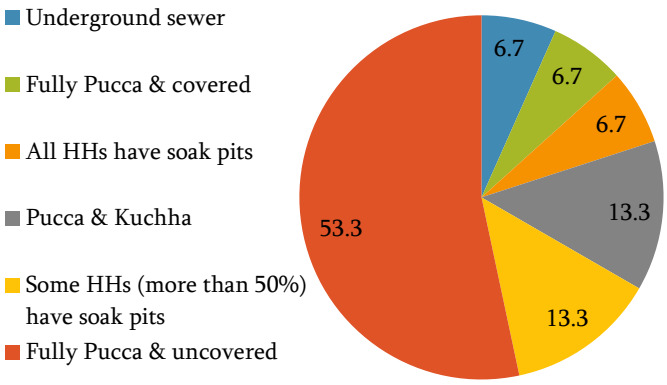
6.9 The total monthly cost of maintenance of the system was Rs. 23,500, the average being Rs. 4,700 and the range varied from Rs. 1,000 to Rs. 12,000. In 20% of the GPs the system was non-functional mainly because the GP was unable to bear the O&M cost.

Management of waste water

6.10 Disposal of waste water is a major public health problem in rural areas. Stagnant waste water smells bad and also acts as breeding place for mosquitoes resulting in spread of diseases like dengue, malaria, filaria etc. Proper disposal and also reuse of waste water wherever possible will help in combating diseases as well as meeting water scarcity. Waste water management may involve reuse/recycling of water after appropriate treatment for a variety of purposes including irrigation, domestic purposes and toilet flushing.

6.11 Only 6.7% GPs had fully *pucca* and covered drains while 53.3% of the GPs had fully *pucca* but uncovered drains. On the other hand, in 13.3% GPs there were both *pucca* and *kuchha* drains. In 13.3% GPs some households had soak pits while in 6.7% GPs all the households had soak pits. 6.7% GPs had underground sewer system. The system of waste management in the surveyed GPs is shown in Graph 5.2.

Graph 5.2: Management of waste water



6.12 In 53.3% GPs there was stagnant water near the drinking water sources while in 26.7% GPs there was spillage of used water (not rain water) on the public road.

REVIEW MEETINGS

Meetings conducted and agenda

6.13 Monthly meeting with all members had been conducted in 53.3% GPs and the resolution had been recorded while in 33.3% GPs, although monthly meeting had been conducted with all the members but no resolution was found to be on record. 13.4% GPs had conducted occasional meeting with the members. On an average, 7.2 GP functionaries and 41.4 villagers were present in the meetings.

6.14 The main agenda of the meetings comprised of mainly access to water (66.7%), SLRM (60%), MHM (46.7%), repair/retrofitting of toilets (33.3%), functioning of the Swachhagrahis (20%), IEC/SBCC (20%), functionality of Nigrani Samity (20%) and personal hygiene (13.3%).

HUMAN RESOURCES

Availability & responsibility

6.15 In 66.7% cases, the Gram Sevak was in charge of two GPs while in 33.3% GPs, he was given the responsibility of only one GP.

6.16 In 60% GPs there was no sanitation worker or sweeper on their pay roll while in each of 20% cases, there were either one or more than one such worker on the pay roll of the GP.

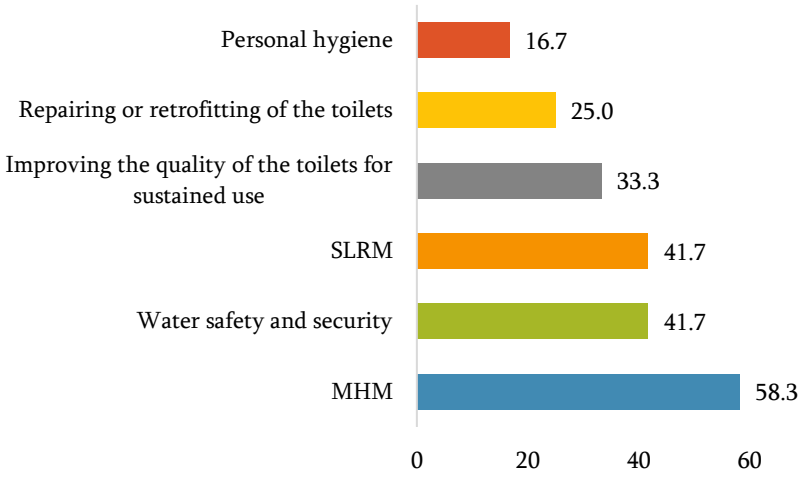
6.17 A total of Rs. 1,57,500 was spent by the GPs per year on such workers while the range varied from Rs. 2,500 to Rs. 62,000 and the average was Rs. 26,250.

TRAINING

Training received and further need

6.18 In 46.7% GPs, the Gram Sevak or Sarpanch had been trained within last one year prior to the visit while the functionaries were trained either within one year or more than that prior to the survey in 26.7% GPs each. In 66.7% cases, the subject of the training mainly focused on improving the quality of toilets for sustained use followed by retrofitting or repair of the toilets and SLRM (53.3% in each case). In 46.7% GPs the training also comprised of water safety and security, MHM (33.3%) and personal hygiene (26.7%) while in 13.3% GPs the respondents could not recollect the subject matter of the training.

Graph 5.3: Training need



6.19 In 80% GPs the respondents felt that there was need for further training. The training need components has been shown in Graph 5.3.

INTEGRATION WITH GPDP

GPDP and utilization of fund

6.20 The total annual plan size for GPDP during 2019-20 for all the surveyed GP was Rs. 8.75 crore i.e., on an average the plan size of each GP was Rs. 58.3 lakhs while the range varied from Rs. 6.2 lakhs to Rs. 3.1 crores. The proposed expenditure on WASH on an average as per the plan was of Rs. 9.9 lakhs which varied from Rs. 96 thousand to Rs. 41 lakhs i.e., 16.9% of the total plan was earmarked for WASH related activities while the range varied from 8.7% to 45.7% across the GPs. Toilet construction for AWC and GP office, construction of community toilets, repairing LOB toilets, maintenance and repair of the AWC toilet, installation of handpumps, construction of overhead reservoir, maintenance of PWS scheme, water conservation, purchasing tricycle and maintaining the SLRM system including payment of wages of the sanitation workers, construction and deepening of drainage system were some of the activities planned under WASH expenditure. 5 GPs had spent the entire expenditure that was planned while 2 GPs had spent more than the planned expenditure. In the remaining GPs 50% to 97.6% of the funds had been utilised for WASH related activities.

6.21 The 15th Finance Commission has recommended that 50% of the grants to every local government will be tied for being spent on water supply and sanitation on equal proportion. The GPs need to be guided and capacitated to plan for interventions for improving WASH and utilize the funds to be made available on time to be eligible to receive funds for the next year. They should also be trained on how to analyse the need and to move up the ladder based on guidelines of the Jal Jeevan Mission and that of the SBM (Phase II). There has been craze to have RO plant even at places where water was safe. Technical knowhow of the GPs needs to be increased for making the right choice for deciding on whether to establish a RO plant.

COMMUNITY INVOLVEMENT

Community involvement in ODF sustainability

6.22 86.7% of the GPs had VWSC and the last meeting was held a month ago prior to the survey. 73.3% GPs had Nigrani Samiti while Swachhagrahis were available in 93.3% GPs i.e., 25 Swachhagrahis were available in 14 GPs out of which only 64.3% were trained after ODF declaration. In 64.3% GPs all the Swachhagrahis were functional while in the remaining 35.7% GPs some of them were functional.

6.23 66.7% of the GPs had an ODF sustainability plan although in 73.3% GPs the ZP/Block had informed the GP to prepare such plan. In 63.6% GPs they were fully briefed while in 27.7% GPs although they were briefed, it was not understood. In 9.1% GPs the briefing was partial.

6.24 Only 6.7% GPs had received some IEC material /other support from CSR fund for ODF sustainability while 13.3% GPs received a total of Rs. 12 lakhs for ODF plus activities.

6.25 26.7% of the GPs had not spent any fund for IEC/IPC out of GP's own fund while remaining 73.3% GPs had spent a total of Rs. 2.7 lakhs for such activities (the range varied from Rs. 3,000 to Rs. 10 lakhs).

6.26 In 80% GPs there was some arrangement for monitoring ODF sustainability/ODF plus activity. In 91.7% GPs the Gram Sevak or Sarpanch either individually or jointly monitored the entire process while in 8.3% GPs the process was monitored by the BRCs.

AWARENESS ON VSTF

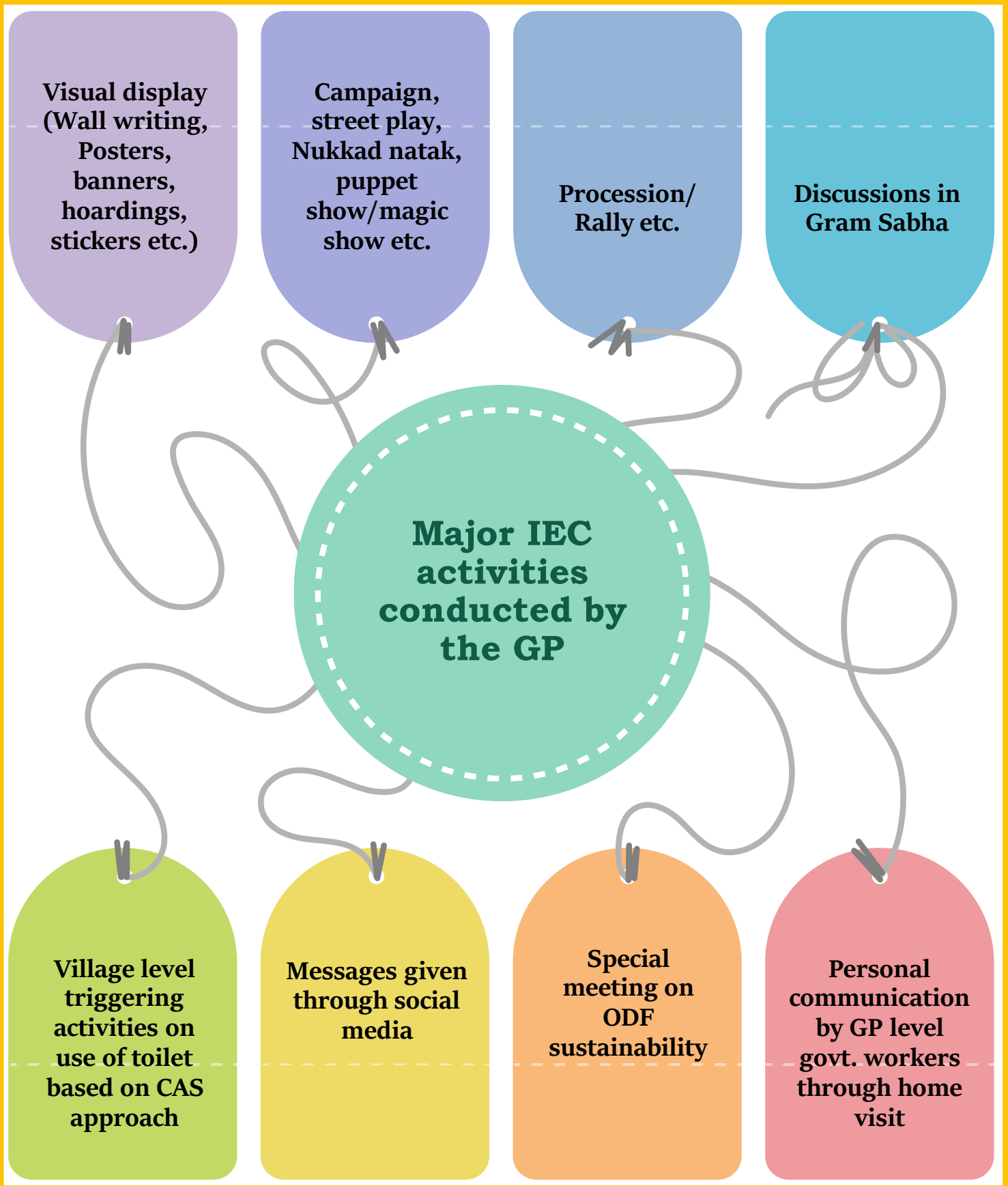
Role of VSTF Fellows

6.27 55.8% of the GPs were fully aware of the role of the VSTF Fellows while in the remaining GPs, the functionaries were partly aware. In 50% of the GPs information about the Fellows were briefed in a meeting but details were not known while in 35.7% GPs, the functionaries were fully briefed about the role of the Fellow and the support that had to be provided by the GPs. In 14.3% GPs the functionaries were not briefed about the role but they had some idea from different sources including interaction with the Fellow. In 73.3% GPs the Fellows always worked in convergence with the GPs while in the remaining GPs the Fellows sometimes worked in convergence with the GPs or independently.

IEC/IPC ACTIVITIES

Awareness on ODF-S

6.28 IEC activities had been conducted after ODF declaration for the community in all the GPs while in 60% GPs the activities had been conducted only once and in remaining 40% GPs the same had been carried out more than once. In 53.3% GPs, IEC activities had not been held within 3 months prior to the survey while in 33.3% GPs the same had been carried out a month ago and 13.3% GPs had conducted IEC activities within one week prior to the survey. 46.7% GPs had received some IEC/SBCC material from the district or block in the form of Posters or leaflets, paintings drawn and publicly visible, slogans to be painted and video/audio materials. 7 GPs had spent a total of Rs. 2.97 lakhs, the range varied from Rs. 3,000 to Rs. 1 lakh 30 thousand, for conducting such activities in last one year while 8 GPs had not spent any fund for such activity. During 2017-18, four GPs had received a total amount of Rs. 45,000 while in 2018-19, six GPs had received Rs. 1 lakh 20 thousand for conducting IEC activities. Only one GP had spent Rs. 12,000 during 2017-18 while two GPs had spent Rs. 1 lakh 20 thousand during 2018-19 for conducting IEC activities. The activities taken up by the GP has been shown in the following diagram.


Visual display (Wall writing, Posters, banners, hoardings, stickers etc.)
Campaign, street play, Nukkad natak, puppet show/magic show etc.
Procession/ Rally etc.
Discussions in Gram Sabha
Major IEC activities conducted by the GP
Village level triggering activities on use of toilet based on CAS approach
Messages given through social media
Special meeting on ODF sustainability
Personal communication by GP level govt. workers through home visit

RECOMMENDATIONS

HOUSEHOLDS

Access to toilets and their sustainable use

7.1 For sustaining ODF status, toilets should be constructed for those HHs who are yet to own toilet, which has been assessed to be 10.6%. The defunct toilets, which is as high as 6.2% of total, need to be made functional. There were barriers at the HH/individual level in not being able to construct toilet, in not retrofitting the defunct toilets and not maintaining the toilets well. All these need to be addressed. HHs which were sharing other's toilet also need to be motivated to construct their own toilet.

A toilet being used as a wood storage while the infant urinates just outside it

7.2 There is need to identify villages facing crisis of water in using toilet. The solution lies in improving access to water with priority and adopting toilet technology requiring less water.

7.3 While the best option is to construct twin leach pit toilet in the rural areas but only 26.8% IHHLs were of that type. There should be strong advocacy to construct only twin pit toilets by the HHs as well as all the village level institutions. 39.2% HHs have single pit toilet, which needs to be upgraded to twin pit toilet for sustained use. Households with twin pit toilets without junction chambers are to be advocated to add the junction chamber. Large share of the toilets (32.5%) were septic tank type mostly with open overflow pipe and those need to be connected with soak pits and the same should be enforced by the GP.

Cleanliness of toilets

7.4 The toilets of only 47.4% HHs were clean. Toilets should be cleaned and disinfected at least once a day. Regular household soap or detergent should be used for cleaning the toilets followed by regular household disinfectant.

Hand hygiene and prevention of community transmission of diseases

7.5 Hand hygiene needs to be promoted as a special drive. In the context of the pandemic caused by the corona virus SARS-CoV-2, there has been higher threat perception from poor hand hygiene. This is the right opportunity to launch an intensive and sustained campaign for

improving hand hygiene as a social norm with focus on the harm one may cause to the community in not following hygiene. Correct technique for washing hand with soap also needs to be demonstrated in a massive manner. There should also be awareness on coughing etiquette to avoid community transmission of some of the diseases.

7.6 The focus should not be on construction of hand washing station but explaining the need for following proper hand washing practice within their means. Those who can afford may be advised to have proper hand washing station with proper drainage.

Access to drinking water and water safety

7.7 Every household needs proper access to safe water as per JJM norms for which there has to be GP/habitation-wise plan for water safety and security as has been elaborated under the Gram Panchayat section.

7.8 There is urgent need for building awareness on water quality and adopting a community approach in improving that. The steps will include following prescribes surveillance of each sources for water quality, protection of water sources, treating water at the point of distribution, collection and consumption through empowering the community and the GP. It is also necessary to ensure that treated water is safely stored at home, the container is covered and regularly cleaned. The GPs may be encouraged to test water quality using field kits to cover more sources and refer suitable samples from sources found unsatisfactory. They should also test the residual chlorine content of the piped water using chlorometer, which is not costly. There should be also dissemination of the results of tests conducted by the GP and the laboratory for generating awareness and taking precautions by the community. Quality of water may worsen during the time of water scarcity and people may be forced to use unsafe sources and, therefore, treatment of water at home including home chlorination should be emphasized.

Solid Waste Management

7.9 Only 12.8% of the households practiced waste segregation which has to be increased from the current level to 100%. The segregated waste should be regularly collected by the GP for scientific disposal and recovering biogas and fertilizer. This is to be done by generating awareness to sort out waste at the household level by keeping bio degradable and non-biodegradable waste in separate coloured bins. Refusal, reduction and reuse of plastic and other wastes should be encouraged and single-use plastic needs to be banned. The reusable plastics, which could be contaminated, need to be disinfected with 0.5% chlorine solution to get rid of the pathogens.

Waste Water Management

7.10 People should be made aware of the need for managing both black water and grey water being generated at the HH and community water points. It recommended that the domestic grey water should be managed with construction of soak pits, which is available with

only 2.7% HHs or taking that to the kitchen garden, if possible, along with a grease trap. Leach pits may be constructed for the community water points as another possible measure.

SCHOOLS

Access to toilets and their sustained use

7.11 The students and teachers of all schools must have access to an adequate number of toilets (separately for girls and boys) as per guidelines issued by the Ministry of Home Affairs, GOI along with availability of water and soap (soap was available in only 44.4% of the school toilets). The schools with adverse ratios (which were as bad as 114 girl students and 87 boys' students) are to be identified for adding more toilets. The toilets should be accessible to divyang students.

Urinals for Girls & Boys in School of Gadchiroli

7.12 Allowing high share of defunct toilets (it was found to be 31.4%) in schools while there is inadequacy of toilet is to be stopped by putting in place a system for maintenance of the toilets and monitoring functionality by the Panchayats and the Education Department. The toilets should also be cleaned daily.

7.13 There is urgent need to upgrade the single pit toilets (as high as 61.1% school toilets were of that type) of the schools to twin pit toilets, to have soak pits with all the septic tank type toilets to ensure that overflow of the toilet does not flow to the open ground or water.

Water safety, security and convenience for use

7.14 Adequate quantity of water should be piped into all schools (observed coverage was 56.5% only) for (i) drinking, (ii) use in toilets, to be preferably available inside the toilet, (iii) hand washing and (iv) regular cleaning and disinfection purposes etc. There should be availability of running water by having overhead storage tank(s).

A well maintained Handwash Station

7.15 There should be enough number of drinking water stations with pedal-operated taps, whenever possible, to minimize hand contact and reduce the risk of infection; in most cases though, where standard taps are in use, to ensure taps are regularly disinfected together with regular handwashing.

7.16 Water being consumed in schools need to be covered through 100% surveillance (that was being done in 55.6% schools) for testing water quality by the GP/ state government. The test results should be shared with the students, teachers and non- teaching staff. They should be trained on the safe management of drinking water points to avoid any chemical and bacteriological contamination. Water received through pipelines by the schools should be tested for residual chlorine to ensure residual concentration of free chlorine of ≥ 0.5 mg/l. There should be sanitary inspection of the water supply infrastructure to reduce chance of contamination.

7.17 In 77.8% schools, water was treated before consumption. 50% schools used RO filter while in 42.9% schools, water was strained through a cloth. In 7.1% schools, non-electric filter was used. All the schools should improve water safety with safe storage and proper treatment of water and covered containers are used where running water is not available.

Personal hygiene and MHM

7.18 Proper hand washing in all critical occasions by everyone in 100% school (found to be observed in 50% schools only) should be ensured to not only improve hygiene of the students but to use the children as ambassadors of proper hand washing practices. Hand washing stations suitable for children of different heights with running water are to be provided near door of toilet-bathroom, near the place where mid-day meal is served, main school entrance, etc. There should be school level monitoring through participation of the teachers, child cabinet members, Panchayat members and even guardians would be welcome in such monitoring.

7.19 The toilets used by the adolescent girls must have adequate facility for MHM. This needs to be emphasised adequately since none of the high schools had facilities to meet menstrual hygiene needs in the girls' toilet. Availability of vending machine for supply of sanitary napkins and incinerator will help the girl students in improving MHM.

Proper cleaning arrangement

7.20 Proper system for cleaning and disinfection should be established for each school and required cleaning materials and tools should be available in adequate quantity (In 16.7% schools, the toilets were cleaned only with water). All the toilets are to be cleaned daily, which requires orientation of the School Management Committee (SMC) and the teachers since only 8.3% schools were being cleaned every day. Mopping up classroom and washing bathroom-toilets with commercial detergent and disinfectant should be encouraged. Cleaning staff must be equipped with basic Personal Protective Equipment (boots, gloves, masks) and trained on safe toilets disinfection practices.

Waste management

7.21 In 73.7% of the schools, no specific measure was taken to dispose the solid wastes. Proper collection, storage and transfer for processing or disposal of waste, particularly collecting and elimination of menstrual hygiene materials, used cleaning materials, etc in

schools is to be in place. Whenever possible, pedal-operated waste collection bins with liners should be available at point of use in schools (only 5.6% of the schools had waste bins). In the absence of pedal-operated waste bins, otherwise, open waste containers are better than those which require physical opening/covering by hands as this will expose students, teachers and non-teaching staff to infection. MHM waste should be properly disposed of in bins located in girls and lady teachers' toilets, collected and eliminated safely on-site or transported for disposal with the support of the GP. The GP should also collect wet and dry waste from the schools for scientific disposal

7.22 Status of school WASH needs to be monitored by the Inspectors of Schools and they need to be oriented for both monitoring and systematic follow up for improvement. The SMC and the GPs are also to be associated with the monitoring process.

HEALTH CARE FACILITIES

7.23 Proper WASH facilities in health care settings are important for providing adequate care for patients and protecting patients, staff, caregivers and visitors from infection risks and minimizing chances for reducing anti-microbial resistance. The facilities should ensure safe management of excreta (faeces and urine) and medical waste, including ensuring that no one comes into contact with those and those are treated and disposed of correctly. The health care workers should engage in frequent hand hygiene using appropriate techniques. Regular cleaning and disinfection practices should be implemented. Safety should be maintained while managing health care waste.

7.24 Other important measures include providing safe drinking-water to staff, caregivers, patients and visitors; regularly laundering bedsheets and patients' clothing; providing adequate and accessible toilets and keeping those clean.

Hand hygiene practices

7.25 Cleaning hands with soap and water or an alcohol-based hand rub should be given priority. Hand hygiene procedures should be performed at all critical moments, including before putting on PPE and after removing it, when changing gloves, after contact with any respiratory secretions, before eating, and after using the toilet. Functional hand hygiene facilities should be present for all health care workers at all points of care and in areas where PPE is put on or taken off. In addition, functional hand hygiene facilities should be available for all patients, family members, and visitors.

Sanitation

7.26 The toilets should be cleaned and disinfected at least twice daily by a trained cleaner wearing PPE (gown, gloves, boots, mask, and a face shield or goggles). Further, and consistent with existing guidance, staff and health care workers should have toilet facilities that are separate from those used by all patients.

7.27 WHO recommends the use of standard, well-maintained plumbing, such as sealed bathroom drains, and backflow valves on sprayers and faucets to prevent aerosolized faecal

matter from entering the plumbing or ventilation system, together with standard wastewater treatment.

7.28 Twin-pit latrines may be the preferred option for health sub-centres. Standard precautions should be taken to prevent contamination of the environment by excreta. These precautions include ensuring that at least 1.5 m exists between the bottom of the pit and the groundwater table (more space should be allowed in coarse sands, gravels, and fissured formations) and that the latrines are located at least 30 m horizontally from any groundwater source (including both shallow wells and boreholes). If there is a high groundwater table or a lack of space to dig pits, excreta should be retained in impermeable storage containers and left for as long as feasible to allow for a reduction in virus levels before moving it off-site for additional treatment or safe disposal, or both.

7.29 If health care facilities are connected to sewers, a risk assessment should be conducted to confirm that the wastewater system does not leak before its arrival at a functioning treatment or disposal site, or both.

7.30 In all health care settings, faeces must be treated as a biohazard and handled as little as possible.

7.31 It is important that grey water is disposed of in drains connected to a septic system or sewer or in a soak pit. If greywater is disposed of in a soak pit, the pit should be fenced off within the health facility grounds to prevent tampering and to avoid possible exposure in the case of overflow.

Management of health care waste

7.32 Best practices for safely managing health care waste should be followed, including assigning responsibility and sufficient human and material resources to dispose of such waste safely. There should be regular third party audit for assessing the status of WASH in all health facilities, identifying the risks and taking steps for plugging the loopholes. The healthcare personnel needs to be oriented based on the findings and the recommendations.

GRAM PANCHAYATS

Access to toilets and attainment of truly ODF community

7.33 The most urgent task towards universal access to toilet is to construct toilets for the left out HHs, 53.6% of whom were yet to be covered. Government of Maharashtra is conducting a fresh survey by each GP to precisely know who are not having toilet and the reason behind that, which toilet are defunct and who practices open defecation and why. Based on the findings, steps need to be taken for preparing an ODF-sustainability plan by each GP and its proper implementation in a time-bound manner for ensuring 100% access to toilets.

7.34 Funding for sanitation related construction is going to be challenge. Access to institutional credit as well as credit

A defunct toilet being used as a bathroom

from micro-finance organizations as well as SHG Federations needs to be emphasised along with funds from CSRs for assisting those who face financial constraint for new construction/upgradation of the sanitation facilities. GP is to mediate the same effectively for which they need to be oriented.

Water supply, water security and safety

7.35 All GPs are to have their own water supply schemes to cover all the HHs to attain JJM targets in terms of access, quantity and quality of water. That requires covering GPs without PWSSs (13.3% GPs did not have any PWSS) and strengthening the system for covering all HHs with piped connection. The O&M system of the existing PWSSs needs substantial improvement since only 61.5% PWSSs were fully functional. There is need for improving capacity of the GPs and the workers handling the piped water supply system for proper O&M practices. In PWSSs where there has been loss of capacity/loss of coverage, there is need for system strengthening so that the goals set under the JJM are reached on time.

7.36 Every GP should also have a water security plan which will also include steps for source sustainability through water harvesting, stoppage wastage and irrational use of water. The GPs need to be supported for preparation and implementation of the plans.

The protocol issued by the GOI for water quality surveillance and monitoring is to be followed by all GPs (6.7% sources were not monitored). Also, proper action for the unsafe sources (14.3% sources were found unsafe) are to be taken promptly. Every GP should address the issues of source water quality, treatment process efficacy and the quality of distributed water. For that purpose, the capacity of the GPs for disinfecting water and monitoring quality needs to be enhanced. For effective centralized disinfection of water, the protocol for chlorination should be properly followed to ensure that there is a residual concentration of free chlorine of ≥0.5 mg/litre throughout the distribution system.[4] GP should be associated with monitoring of water quality and improving awareness of the people on water safety.

7.37 There has been a craze to put RO Plant by the GPs to provide safe water. Such plants were installed even in places where water was safe or establishment of RO plant is not recommended from consideration of turbidity. The state government may issue a suitable guideline to help the GPs deciding on whether to put RO plant or not.

Management of faecal sludge and waste water

7.38 The Gram Panchayat has the responsibility to address both the issues of FSM and waste water. The latter is going to increase once all households start receiving desired quantity of water as envisaged under the JJM. FSM is critical area requiring immediate attention since improvement of public health is critically linked to proper faecal sludge management. Recent research has shown that even Corona virus can stay in human excreta for many days[5]. It is, therefore, suggested that there should be proper guidance and capacity building of the local

[4] WHO/2019-nCoV/IPC_WASH/2020.2

[5] Lancet Gastroenterol Hepatol (2020): Prolonged presence of SARS-CoV-2 viral RNA in faecal samples, Published Online March 19, 2020 https://doi.org/10.1016/ S2468-1253(20)30083-2.

bodies and adopting a cluster approach for proper FSM with a common infrastructure covering all the local bodies, both rural and urban.

7.39 The GPs should be guided to gradually cover the entire residential area with pucca and covered drain (only 6.7% GPs had fully pucca and covered drains while 6.7% GPs had underground sewer system). The objective is to keep the entire residential area free from spillage of used water (In 53.3% GPs there was stagnant water near the drinking water sources while in 26.7% GPs there was spillage of used water (not rain water) on the public road). As part of an integrated public health policy, wastewater carried in sewerage systems should be treated in well-designed and well-managed centralized wastewater treatment works. Each stage of treatment (as well as retention time and dilution) results in a further reduction of pathogens. A waste stabilization pond (an oxidation pond or lagoon) is generally considered a practical and simple wastewater treatment technology particularly well suited to destroying pathogens, as relatively long retention times (20 days or longer) combined with sunlight, elevated pH levels, biological activity, and other factors serve to accelerate pathogen destruction. A final disinfection step may be considered if existing wastewater treatment plants are not optimized to remove micro-organisms.

Solid Waste Management

7.40 Every GP should treat their solid waste as per various Acts in force to provide safe and pollution free environment to their people. The present situation is very poor (40% of the GPs had some system of collecting garbage, in 16.6% GPs waste was segregated at the household level while segregation was done post collection in another 16.7% GPs though in 83.3% cases the waste was not being treated) and that needs to be changed fast. Waste management should primarily be focused on segregation of waste at the source and collection by the GP as the local government for scientific disposal. If possible, adjoining GPs and urban local bodies may join together for economy in operation of the waste treatment plant. They also need to be guided for adoption of appropriate technology and processes to be followed. Joint initiative of adjoining local bodies may be encouraged for that also and the state government may issue a guideline to encourage both rural and urban local bodies for joining hands to dispose waste. The people should be made aware not to burn the non-degradable waste. The recyclable materials like plastic, glass, rubber, leather, cardboard, paper etc. should be recovered and the rest inert materials should be used for land fill.

Capacity Building of the GPs

7.41 Building capacity of all the implementers including PRIs and particularly the GP functionaries about various technology options for taking up activities related to the second phase of the SBM and attaining the goals set under the JJM by 2024 is a critical need. GPs should have capacity to prepare village-based action plan with the involvement of local community and to implement those efficiently to attain the goals. A huge gap was observed (46.7% GPs, the Gram Sevak or Sarpanch had been trained within last one year prior to the visit). That should also be targeted to enhance utilization of the 15th FC funds which have been

tied for WASH. There is need for assessment of the training need and to come out with a capacity building plan.

Planning and funding for strengthening WASH

7.42 The 15th Finance Commission in its interim recommendation for the year 2020-21 has suggested that 50% of the grants to all local governments is to be tied and are to be spent on improving water supply and sanitation including conservancy in equal proportion. The study found that the GPs were not spending enough in the WASH sectors. There is need to issues appropriate instructions to the GPs for assessing current status of water supply and sanitation for identifying the gaps for reaching national goals and to come up with a plan for achieving those. They should also be indicated the amount of fund they would receive so that they may prepare a perspective plan to not only put in place required infrastructures but also arrange for proper maintenance utilizing 15th FC grants. There should be also emphasis on recovering the cost of services as user charge for financial sustainability. There will also be need for improving the accounting system so that the GP can quantify their earning and expenditure for providing WASH services and ensure that the cost is recovered as well as the same is shared with the people for transparency.

IEC/SBCC

7.43 IEC/SBCC is a critical need cutting across all the sectors of WASH is generation of awareness and intensifying behaviour change communication among the people and building related capacity of the GP. The IEC activities being taken up at present is highly inadequate (in 60% GPs the activities had been conducted only once in last one year). The vibrancy of the communication activities in the pre-ODF phase needs to be revived and due priority is to be assigned by the supervising officials. The state government may consider to have a communication strategy for WASH to be followed by all Panchayats. The GPs are to be encouraged to spend their own fund in organizing IEC/IPC activities, which some of the GPs were found to be doing. The progress needs to be monitored by the GP and higher tiers of the government as well as through third party assessment. Appropriate follow up actions need to be taken and the same should be reviewed regularly at the highest level.

Monitoring

7.44 There is need to strengthen monitoring of progress of the status of WASH and delivery of WASH services for which the first tier of monitoring will be the GP. There has to be a proper monitoring framework so that monitoring does not stop at mere uploading of data for use by the higher tiers of government. The data needs to be analysed at ZP and Block level for identifying week GPs and handholding them appropriately. Regular monthly review on WASH is another critical need. There should also be third party monitoring to validate the data and to have understanding of the quality of the WASH services.

BEST PRACTICES

In Georai GP of Jalna, the schools and AWC (both are in the same premise) have taken the initiative of rainwater harvesting. The borewell fitted with hand pump in the school and AWC premise becomes dry after February and water problem is faced by both the institutions. On this issue, the Fellow suggested the GP to plan rainwater harvesting as an activity out of the fund from VSTF for improving the water level of the borewell. After getting positive result from this, the GP decided to take up rainwater harvesting in all other Govt. buildings like GP office, Samaj Mandir etc. in the GP and make the GP '*Sujalam Sufalam*' in the coming years.

Rain-water harvesting

Construction of soak pits

The most prominent best practice observed in Wadvi GP of Washim was construction of soak pits in convergence of VSTF with the 14th Finance Commission grants. There was spillage of waste water on the public roads. The estimated cost of constructing one soak pit was Rs. 2,250 out of which the cost of constructing the tank was Rs 800. The tank was constructed with the fund of VSTF and the remaining expense was met out of the 14th Finance Commission grants. Almost 40 soak pits were constructed in the GP under this project. Such interventions have a high impact and can have a positive and long-lasting effect on the community.

Water conservation

In Shevti Mandva GP of Washim, there was no village water safety and security plan available but the village has taken part in water conservation activities and made some recharge shafts in the stream as they were aware of water conservation.

Vector control

The Sub-Center of Jepra GP of Gadchiroli harvested guppy fish with the help of VSTF to avoid the epidemics caused by mosquitoes specifically malaria and dengue.

ANNEX I: LIST OF VILLAGES VISITED BY THE TEAM OF SIGMA FOUNDATION

District Name	Block Name	GP Name	Village Name
Pune	Junnar	Kalwadi	Kalwadi (Belekar Pati)
Jalna	Mantha	Deogaon Khavane	Deogaon
Washim	Karanja	Kinkhed	Kinkhed
Pune	Junnar	VadgaonKandali	Vadgaon
Gadchiroli	Gadchiroli	Jepra	Jepra
Chandrapur	Jiwati	Marai Patan	Marai Patan
Jalna	Mantha	Georai	Georai
Chandrapur	Mul	Kosambi	Kosambi
Chandrapur	Chandrapur	Chak Nimbala	Chak Nimbala
Gadchiroli	Gadchiroli	Nagari	Nagari
Washim	Karanja	Sevti	Sevti
Washim	Karanja	Sevti	Mandva
Washim	Kaanja	Wadvi	Wadvi
Washim	Karanja	Lohara	Lohara
Washim	Karanja	Lohara	Kiannagar
Osmanabad	Osmanabad	Dudgaon	Dudgaon
Osmanabad	Osmanabad	Dudgaon	Chavan Wasti
Osmanabad	Osmanabad	Bukanwadi	Bukanwadi
Osmanabad	Osmanabad	Bukanwadi	Pardhi padi
Osmanabad	Osmanabad	Bukanwadi	Kolekarwadi

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