



Survey Protocol

National Annual Rural Sanitation Survey

(Sampling Design, Survey Questionnaire, Quality Assurance, Data Collection, analysis, reporting, Roles of Stakeholders)

Ministry of Drinking Water and Sanitation

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Survey Protocol National Annual Rural Sanitation Survey (NARSS)

1- Introduction

The Government of India launched Swachh Bharat Mission (SBM) (Clean India Mission) on October 2, 2014 to accelerate efforts to achieve universal sanitation coverage, improve cleanliness and eliminate open defecation in India by 2019.

The program is considered India's biggest drive to improve sanitation, hygiene and cleanliness. The effectiveness of the program is predicated upon generating demand for toilets leading to their construction, and sustained use by all the household members. It also aims to promote better hygiene behaviour amongst the population and improve cleanliness by initiating Solid and Liquid Waste Management (SLWM) projects in the villages, towns and cities of the country. There is a strong emphasis on behaviour change, including a focus on interpersonal communication; strengthening implementation and delivery mechanisms down to the GP level; and giving States flexibility to design delivery mechanisms that take into account local cultures, practices, sensibilities and demands. In addition, the program focuses on capacity building at state, district and GP level.

The vision for SBM-G is to accelerate rural sanitation coverage to achieve Swachh Bharat by 2019. The estimated budget for SBM-G is US\$22 billion over five years. The objectives of SBM-G are to:

- bring about an improvement in the general quality of life in the rural areas, by promoting cleanliness, hygiene and eliminating open defecation;
- accelerate sanitation coverage in rural areas to achieve the vision of Swachh Bharat by October 2, 2019;
- motivate communities and Panchayati Raj Institutions (PRIs local governments)
- to adopt sustainable sanitation practices and facilities through awareness creation and health education:
- encourage cost-effective and appropriate technologies for ecologically safe and sustainable sanitation; and
- Develop, wherever required, community-managed sanitation systems focusing on scientific solid and liquid waste management systems for overall cleanliness in the rural areas.

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2. The Bank's Program (PforR)

The Bank Program (PforR component of the Operation) supports the entire national SBM-G program by channelling US\$1.475 billion through the incentive grant window of SBM-G in support of the national program's objective of recognizing and rewarding the performance of states on achieving key sanitation outcomes -that is reducing open defecation, sustaining ODF and rural population with Solid and Liquid Waste Management (SLWM). Program funds will be disbursed to MDWS on achievement of Disbursement Linked Indicators (DLIs) and MDWS will release grant funds to states, based on their performance.

The World Bank through the 'Swachh Bharat Mission Support Operation' supports following two categories of activities:

- (a) Performance incentives for sanitation improvement in rural areas;
- (b) Technical Assistance for strengthening institutional capacities on program management, advocacy, and communications, and implementing a credible and robust monitoring & evaluation system to measure results of SBM-G.

According to the World Bank support project design, SBM-G performance of the states against the disbursement linked indicators (DLI) is to be measured through conducting national annual rural sanitation survey (NARSS). Distribution of financial incentives to states would be proportional to the actual performance of the states. The four DLIs identified for this purpose are:

DLI #1: Reduction in the prevalence of Open Defecation

DLI #2: Sustaining ODF Status in villages

DLI #3: Increase in population with Solid Liquid Waste Management practices

DLI #4: Operationalization of Performance Incentive Grant Scheme by MDWS

MDWS had already issued guidelines in October 2016 to states on the performance linked incentive grant scheme initiative of performance linked incentive scheme based on NARSS results. A copy of guidelines is annexed for reference (Annexure 1).

3. Constitution of 'Expert Working Group'

To oversee and support the entire NARSS process, an Expert Working Group has been constituted under the Chairmanship of Prof. Amitabh Kundu with members from MDWS, World Bank, UNICEF, BGMF, Water Aid India, RICE, Ministry of Statistics and programme Implementation (MOSPI). So far, the group met five times. While the fourth meeting was conducted under the chairmanship of Prof. Kundu in October 2016, the fifth meeting occurred on 06 June 2017, under the chairmanship of Sh. N.C. Saxena, Ex-Secretary, Ministry of Rural Development, who was inducted as Co-Chair of the EWG, as Prof. Kundu was out of country for few months. Minutes of the Meeting (MoM) of last two meetings are annexed for reference (Annexures 2 & 3).

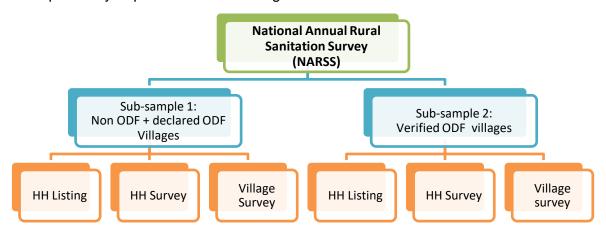
4. Selection of Independent Verification Agency (IVA)

According to the World Bank project appraisal document, the National Annual Rural Sanitation Survey (NARSS) is to be conducted by an Independent Verification Agency (IVA) for ensuring credibility and objectivity of survey results. An EOI was released and through a competitive bidding process, IPE Global (in Joint Venture with Hindustan Thompson Ltd represented by Kantar Public) was selected for undertaking the NARSS across the country. Contract has been signed with the IVA in May 2017. Sampling design (Annexure 4) and verification protocols (Annexure 5) have been discussed and finalized by the EWG and shared with the IVA. Preparatory work is currently underway to pretest the tools and to initiate training of field data collection teams. The data collection would begin in October 2017 and will be completed in about 10 weeks' time, by December 2017. The survey protocol, instruments and results will be shared with all states and also put on the website of the MDWS.

The IVA would be submitting the inception report with details of the state level data collection teams and field movement plans to facilitate the participation of MDWS and EWG member teams in the field trainings as well as be in the field to oversee the data collection process to ensure data quality.

5. Study Design:

Each of the five annual rounds of the NARSS shall be conducted by using the cross sectional research design. The first round will be a baseline round and it shall be subsequently followed by four more annual rounds. Different components of NARSS have been pictorially depicted in the below figure:



In order to collect the data from the selected samples of the rural households (HHs), in each of the NARSS rounds, quantitative techniques of data collection using the CAPI (Computer Assisted Personal Interviewing) platform would be adopted. In both the categories viz. Sub-sample 1 and Sub-sample 2, village-level information regarding safe disposal mechanisms being followed in context to the solid and liquid waste management at the village/household level will also be collected. DLI 1 and DLI 3 will consider both sub samples together and DLI 2 will consider only subsample 2.

6. NARSS Survey Protocol

6.1 Sampling Procedures (Design and Methodology)

NARSS sampling framework covers all 29 States and 3 UTs (A&N Islands, D&N Haveli and Puducherry). The total sample size at the national level will be 6136 villages covering 92,040 households and a three stage sampling procedure is applied to select study sample. There would be two sample streams viz., ODF (verified) and non-ODF (including ODF declared but not verified). In first stage, total numbers of villages are first distributed across states/UTs proportionate to the percentage of rural population. In second stage, this state sample is further distributed into Verified ODF and Non-ODF categories proportionately based on the percentage of rural households in ODF verified villages in a given state/UT. In the third stage, 15 households per village/primary sampling unit is to be covered besides AWW, school, public/community toilets and open spaces in the same village. Minimum sample size ensured at the State level and in ODF stream would be 20 villages with 300 households in those states where proportion of rural households is lesser resulting in selection of fewer PSUs as sample to provide estimates with 95% level of significance and 5% margin of error. The number of PSUs have been enhanced to maintain margin of error below 5 % in few states particularly in UTs and NE States. A buffer of 3 Household would be kept in case there is denial or the HH is locked to ensure completion of survey of 15 HH in a village. Sample from Non-ODF stream will be chosen in proportion to the rural population in pre-defined NSS regions in each State/UT. A detailed state wise sampling plan is appended (Annexure 4). Following sections provide the details of sampling for different components:

6.2 COMPONENT- HOUSEHOLD SURVEY

The following diagram and the subsequent description, explains the proposed three-staged sampling methodology which shall be adopted in each round of the study. The steps to be followed in the sampling methodology have been updated in line with (i) "Addendum" to RFP and (ii) the minutes of the meeting held with MDWS (meeting # 5 dated- 6th June 2017), thereby representing changes vis-a-vis original technical proposal submitted by IPE Global and Kantar Public.

Overall, the design will remain same across both the sub-samples of the survey namely 'Non ODF' and 'ODF(verified) villages'. However there would be variations within each of the components, as could be understood from the ensuing paragraphs.



Step 1: Allocation of the samples to the States and UTs

As a first step, total study target sample size (92,040 HHs) has been allocated to each state/UT based on the rural population proportions of the state and UT.

The state wise sample size ensures allocation of minimum sample size of 20 ODF Villages to each state/UT at state level. In case the number of ODF villages is less than 10 then the entire sample of 20 villages would be selected from the Non-ODF group of villages. Further, in each selected village, a total 18 HH will be listed, keeping 3 in buffer, of which 15 HHs will be covered in this study. The below table (Table 1) provide detail of state wise final adjusted villages and sample HHs to be covered in each state/UT covered under the study.

Table: 1 State level sample distribution provided by MDWS GOI

| , India/State/ Union | | | Census -2011 | | | IVA - NARSS | |
|----------------------|----------------------|-------------------|---------------------------|---------------------------|----------------------|-----------------------|--|
| # | Territory Union | Total Villages | Total rural Population | Total rural Households | # of sample villages | # of sample HHs | |
| | INDIA | 5,97,350 | 83,29,40,878 | 16,84,63,318 | 6136 | 92040 | |
| 1. | ANDAMAN & NICOBAR | 396 | 2,37,093 | 58,530 | 27 | 405 | |
| 2. | ANDHRA PRADESH | 16,158 | 3,47,76,389 | 90,11,144 | 321 | 4815 | |
| 3. | ARUNACHAL PRADESH | 5,258 | 10,66,358 | 2,00,210 | 20 | 300 | |
| 4. | ASSAM | 25,372 | 2,68,07,034 | 54,20,877 | 193 | 2895 | |
| 5. | BIHAR | 39,073 | 9,23,41,436 | 1,68,62,940 | 590 | 8850 | |
| 6. | CHHATTISGARH | 19,567 | 1,96,07,961 | 43,65,568 | 155 | 2325 | |
| 7. | DADRA & NAGAR HAVELI | 65 | 1,83,114 | 36,094 | 20 | 300 | |
| 8. | GOA | 320 | 5,51,731 | 1,28,208 | 20 | 300 | |
| 9. | GUJARAT | 17,843 | 3,46,94,609 | 67,73,558 | 241 | 3615 | |
| 10. | HARYANA | 6,642 | 1,65,09,359 | 30,43,756 | 108 | 1620 | |
| 11. | HIMACHAL PRADESH | 17,882 | 61,76,050 | 13,12,510 | 47 | 705 | |
| 12. | JAMMU & KASHMIR | 6,337 | 91,08,060 | 15,53,433 | 55 | 825 | |
| 13. | JHARKHAND | 29,492 | 2,50,55,073 | 47,29,369 | 168 | 2520 | |
| 14. | KARNATAKA | 27,397 | 3,74,69,335 | 79,46,657 | 283 | 4245 | |
| 15. | KERALA | 1,017 | 1,74,71,135 | 41,49,641 | 148 | 2220 | |
| 16. | MADHYA PRADESH | 51,929 | 5,25,57,404 | 1,10,80,278 | 395 | 5925 | |
| 17. | MAHARASHTRA | 40,959 | 6,15,56,074 | 1,32,14,738 | 471 | 7065 | |
| 18. | MANIPUR | 2,379 | 17,36,236 | 3,38,109 | 27 | 405 | |
| 19. | MEGHALAYA | 6,459 | 23,71,439 | 4,30,573 | 20 | 300 | |
| 20. | MIZORAM | 704 | 5,25,435 | 1,05,812 | 20 | 300 | |
| 21. | NAGALAND | 1,400 | 14,07,536 | 2,77,491 | 27 | 405 | |
| 22. | ODISHA | 47,677 | 3,49,70,562 | 80,89,987 | 288 | 4320 | |
| 23. | PUDUCHERRY | 90 | 3,95,200 | 95,018 | 20 | 300 | |
| 24. | PUNJAB | 12,168 | 1,73,44,192 | 33,58,113 | 120 | 1800 | |
| 25. | RAJASTHAN | 43,264 | 5,15,00,352 | 94,94,903 | 338 | 5070 | |
| 26. | SIKKIM | 425 | 4,56,999 | 93,288 | 20 | 300 | |

| | India/State/ Union | Census -2 | 011 | IVA - NAR | NARSS | |
|-----|--------------------|-------------------|---------------------------|---------------------------|----------------------|-----------------------|
| # | Territory | Total Villages | Total rural Population | Total rural Households | # of sample villages | # of sample HHs |
| 27. | TAMIL NADU | 15,049 | 3,72,29,590 | 95,28,495 | 339 | 5085 |
| 28. | TELANGANA | 10,128 | 2,15,85,313 | 52,23,243 | 186 | 2790 |
| 29. | TRIPURA | 863 | 27,12,464 | 6,16,582 | 22 | 330 |
| 30. | UTTAR PRADESH | 97,814 | 15,53,17,278 | 2,56,85,942 | 904 | 13560 |
| 31. | UTTARAKHAND | 15,745 | 70,36,954 | 14,25,086 | 51 | 765 |
| 32. | WEST BENGAL | 37,478 | 6,21,83,113 | 1,38,13,165 | 492 | 7380 |

^{*}Name of states/UTs wherein adjustment was done has been highlighted in orange colour

Since the status of ODF / Non-ODFs keep changing every year, the sample allocation will be revised based on the same principles above, and Margins of Error will be recalculated every year and allocation revised, such that Margin of Error is less than 5% both overall as well as sub-sample streams.

Step 2: Village selection

As a second step, allocated samples to each state/UT (as shown in table-1) will be further proportionately distributed between ODF and Non-ODF components within state/UT based on proportion of ODF verified HHs and Non-ODF HHs. MIS data from MDWS (updated till 6th June, 2017 as suggested by EWG) has been utilized for allocation of samples between ODF and Non-ODF components. The reason for taking 6th June 2017 as cut-off date is to ensure that we have adequate number of ODF verified villages. For the first year the data collection would commence from the month of October. However to keep consistency in data collection cycle, the data would be collected during the same period for the coming years and the cut-off date in IMIS for village selection would be kept as 6th June. Sampling would be done independently using this database available at the given point of time, whereas the overall numbers of PSUs would remain the same. The below table provide distribution of villages between ODF and Non-ODF villages within state. Considering that study has been designed to provide a statistically significant estimate for ODF and Non-ODF separately, wherever required sample sizes would need to adjusted to provide estimate at 95% confidence interval (CI) and below 5% margin of error (MOE) in ODF category. This will be done by increasing the number of villages for few States, which has higher MoE. In some of the large states, ODF verified HH proportion is quite less; hence an adjustment will have to be done to keep the margin of error below five percent in sub-samples. (e.g. Andhra Pradesh, Telangana, Assam, Bihar, Karnataka, Tamil Nadu, Orrisa, MP)

Finally, for the States where total rural HH proportion is less (both verified and Non ODF) it could be difficult to maintain margin of error below 5% in sub samples. In such cases, the margin of error would be maintained at the overall level (A&N Islands, NE States) as given in Table 2 below. This is consistent to the general approach adopted for large scale surveys such as NSSOs.

Table: 2 Sample distributions within state by ODF & Non-ODF Villages

| | India/State/ Union Territory | TOTA L- PSU | TOTAL -HH | TOTAL -MOE | ODF- PSU | ODF- HH | ODF- MOE | NON- ODF- PSU | NON- ODF- HH | NON- ODF- MOE |
|----------|------------------------------------|--------------------|-----------------|------------------------|--------------------|-----------------|------------------------|---------------------|--------------------|---------------------|
| S.N O | INDIA | samp le size | sampl e size | % | samp le size | sampl e size | % | sample size | sampl e size | % |
| | | n | N | Margi n of error | n | N | Margi n of error | n | n | Margin of error |
| | 1 | 2 | 3 | 4 | 5 | 6 | 7 | 8 | 9 | 10 |
| | India | 6,136 | 92,040 | | 1,243 | 18,645 | | 4,893 | 73,395 | |
| 1. | ANDAMAN & NICOBAR | 27 | 405 | 4.845 | 0 | 0 | NA | 27 | 405 | 4.845 |
| 2. | ANDHRA PRADESH | 321 | 4,815 | 1.412 | 27 | 405 | 4.870 | 294 | 4,410 | 1.476 |
| 3. | ARUNACHA L PRADESH | 20 | 300 | 4.056 | 0 | 0 | NA | 20 | 300 | 4.056 |
| 4. | ASSAM | 193 | 2,895 | 1.685 | 27 | 405 | 4.504 | 166 | 2,490 | 1.817 |
| 5. | BIHAR | 590 | 8,850 | 0.945 | 27 | 405 | 4.419 | 563 | 8,445 | 0.968 |
| 6. | CHHATTISG ARH | 155 | 2,325 | 1.711 | 64 | 960 | 2.662 | 91 | 1,365 | 2.233 |
| 7. | DADRA & NAGAR HAVELI | 20 | 300 | 4.714 | 0 | 0 | NA | 20 | 300 | 4.714 |
| 8. | GOA | 20 | 300 | 4.056 | 0 | 0 | NA | 20 | 300 | 4.056 |
| 9. | GUJARAT | 241 | 3,615 | 0.832 | 193 | 2,895 | 0.929 | 48 | 720 | 1.864 |
| 10. | HARYANA | 108 | 1,620 | 1.242 | 66 | 990 | 1.589 | 42 | 630 | 1.992 |
| 11. | HIMACHAL PRADESH | 47 | 705 | 0.734 | 47 | 705 | 0.734 | 0 | 0 | NA |
| 12. | JAMMU & KASHMIR | 55 | 825 | 3.096 | 0 | 0 | NA | 55 | 825 | 3.096 |
| 13. | JHARKHAN D | 168 | 2,520 | 1.951 | 27 | 405 | 4.866 | 141 | 2,115 | 2.129 |
| 14. | KARNATAK A | 283 | 4,245 | 1.620 | 30 | 450 | 4.976 | 253 | 3,795 | 1.713 |
| 15. | KERALA | 148 | 2,220 | 2.927 | 148 | 2,220 | 2.927 | 0 | 0 | NA |
| 16. | MADHYA PRADESH | 395 | 5,925 | 1.267 | 27 | 405 | 4.845 | 368 | 5,520 | 1.312 |

| 17. | MAHARASH TRA | 471 | 7,065 | 0.996 | 108 | 1,620 | 2.080 | 363 | 5,445 | 1.134 |
|-----|------------------|-----|------------|-------|-----|-------|-------|-----|------------|-------|
| 18. | MANIPUR | 27 | 405 | 4.543 | 0 | 0 | NA | 27 | 405 | 4.543 |
| 19. | MEGHALAY A | 20 | 300 | 4.526 | 0 | 0 | NA | 20 | 300 | 4.526 |
| 20. | MIZORAM | 20 | 300 | 4.430 | 0 | 0 | NA | 20 | 300 | 4.430 |
| 21. | NAGALAND | 27 | 405 | 4.324 | 0 | 0 | NA | 27 | 405 | 4.324 |
| 22. | ODISHA | 288 | 4,320 | 1.461 | 27 | 405 | 4.771 | 261 | 3,915 | 1.535 |
| 23. | PUDUCHER RY | 20 | 300 | 4.740 | 0 | 0 | NA | 20 | 300 | 4.740 |
| 24. | PUNJAB | 120 | 1,800 | 1.848 | 20 | 300 | 4.526 | 100 | 1,500 | 2.024 |
| 25. | RAJASTHAN | 338 | 5,070 | 1.176 | 94 | 1,410 | 2.229 | 244 | 3,660 | 1.384 |
| 26. | SIKKIM | 20 | 300 | 0.000 | 20 | 300 | 0.000 | 0 | 0 | NA |
| 27. | TAMIL NADU | 339 | 5,085 | 1.247 | 27 | 405 | 4.419 | 312 | 4,680 | 1.300 |
| 28. | TELANGANA | 186 | 2,790 | 1.846 | 27 | 405 | 4.845 | 159 | 2,385 | 1.997 |
| 29. | TRIPURA | 22 | 330 | 4.944 | 0 | 0 | NA | 22 | 330 | 4.944 |
| 30. | UTTAR PRADESH | 904 | 13,56 0 | 0.833 | 27 | 405 | 4.822 | 877 | 13,15 5 | 0.846 |
| 31. | UTTARAKH AND | 51 | 765 | 0.705 | 20 | 300 | 1.126 | 31 | 465 | 0.904 |
| 32. | WEST BENGAL | 492 | 7,380 | 0.815 | 190 | 2,850 | 1.311 | 302 | 4,530 | 1.040 |

Process of village selection

The process of village selection has been explained below for ODF and Non-ODF component separately.

(Non-ODF villages & Not verified ODF Villages)

The following shall be the key steps involved in the sampling methodology for the sub-component 1 i.e. 'Non-ODF village':

- Generation of the sampling frame based on the list of the Non-ODF villages as per MIS data by each of the selected state/UT
- 2. Determining the NSS regions in each of the selected state/UT.
- 3. (The National Sample Survey Organisation (NSSO), now known as National Sample Survey, stratifies Indian states into different regions. This sampling stratification shall be used during sampling of non-ODF villages)
- 4. Proportionate distribution of the allocated sample in each of the NSS region with in state/UT
- 5. Selection of the required Non-ODF villages within each region through the PPS sampling technique

ODF villages

The following shall be the key steps involved in the sampling methodology for the sub-component 2 i.e. 'ODF village':

Generation of the sampling frame based on the list of the ODF verified villages as per MIS data by each of the selected state/UT.

Selection of the required ODF verified villages (refer Table-2) through the PPS (Probability Proportion to Size) sampling technique:

Steps involved in PPS sampling

- 1) Arranging of the state-wise list of ODF villages in the ascending order of village HHs (after excluding the villages having less than 50 HHs) and calculating the cumulative sum of the HH sizes
- 2) Computing a sampling interval (SI) by dividing the cumulative HHs with the total number of ODF verified villages to be sampled in the state
- 3) Choosing a random number between 1 and the sampling interval from a random table. This would serve as the Random start (RS) or in other words, is the first selected village
- 4) Next, the SI is added to the RS to identify the second selected village. In a similar manner, the SI gets added to each of the previous number to identify the villages till the required number of villages are selected

Steps involved in PPS sampling

- Arranging of the NSS region-wise list of Non-ODF villages in the ascending order of village HHs (after excluding the villages having less than 50 HHs) and calculating the cumulative sum of the HH sizes
- 2. Computing a sampling interval (SI) by dividing the cumulative HHs with the total number of Non-ODF villages to be sampled in the each NSS region
- 3. Choosing a random number between 1 and the sampling interval from a random table. This would serve as the Random start (RS) or in other words, is the first selected village

4. Next, the SI is added to the RS to identify the second selected village. In a similar manner, the SI gets added to each of the previous number to identify the villages till the required number of villages are selected

Step 3: Household selection

In each of the selected villages (sub sample-1 and sub sample-2), a detailed listing of the households shall precede the process of HH selection for the main interviews. The quality check reference of the listed HH would be Census 2011. The number of households and population at village level would not be less than the data of Census 2011. As mentioned earlier, a total of 18 HH will be randomly selected from the listed HH through CAPI. Though the first 15 HH would be surveyed but a buffer of 3 HH has been kept to address the cases of denial/ unavailability for survey by the HH.

As a part of the HH listing, team will list out and map all the types of settlement in the identified villages. This shall cover the village geographically (main village/ hamlets/ satellite settlements etc.) and socially (clusters of HHs by different caste, tribe etc.)

Segmentation of village (before listing exercise)

Since village size varies considerably with in each state and to have uniformity in operational/implementation of data collection, segmentation exercise will be used. In current study, if sample villages have less than or equal to 200 households, a complete household listing shall be done. The process of **segmentation** will be carried out only in the large PSUs i.e. in the ones which have more than 200 households.

Under such scenario, the survey team shall create equal segments of about 100 households and the two segments will be selected randomly by using a CAPI application.

6.3 COMPONENT- VILLAGE SURVEY

The village level survey pertaining to prevalence of open defecation will also be conducted in the both sub-sample -1 (Non ODF Villages) and sub-sample-2 (Verified ODF villages). This component will be conducted in public/community institutions, notably schools, Anganwadi Centres (AWC) (one each in a village) and public toilets to ascertain whether there is proper usage and safe confinement of excreta in accordance with the ODF definition and verification guidelines. All the AWC and the schools would be listed and one each would be randomly selected through CAPI. The government institutions would be prioritized over private institutions. In addition to that, observation of open spaces use/used for open defecation will also be undertaken.

6.4 Handling of Seasonal Variations & Cut-off date for sampling of ODF villages

Since ground realities will be subject to seasonal variants and to avoid this survey would be carried out during the same period (October to December) every year across the states. As mentioned earlier, for the first year, as suggested by EWG the sampling of villages has been done with a cut-off date of 6th June. For the consecutive years of NAARS database

till 6th June only would be used for sampling. Since the sub sample includes only verified ODF villages as ODF, the ODF sustenance would be taken care.

1. Survey Questionnaire

The NARSS would primarily focus on access, functionality, and usage of toilets by individuals (instead of household level) besides verifying the solid and liquid waste management practices. Head of the household or any available adult member of the family would be interviewed for administering household schedule. Family roaster would be used to verify the OD practice of individual family member. Besides, village level schedules to verify ODF incidence covering AWC, Schools, public/community toilets, and open spaces would also be covered. Geotagged pictures of the facilities observed would be captured. CAPI would also have the inbuilt start time and end time of the survey to assess the average duration taken to complete the interview. These features would be used for Quality control of the survey as average time taken by a surveyor would provide an indication of the quality of survey. It should be too quick or too time taking than the estimated time of the survey and the average time that would reflect for each of the surveyor for each questionnaire. Advantage of Global positioning systems (GPS) would be taken in the validation of results and plot the area of coverage by the field surveyor. It would provide specific details on respondents in each location. This would help in quality control by providing check on where and what time updates to the data are made and would also help in filed back-checks of survey on a sample basis. Final version of the verification tools is annexed (Annexure 5).

Pilot Survey

Post completion of the translation of tools, pre-tests would be conducted in a manner similar to the main fieldwork. The translation of the questionnaire would be done by the agency but the cross validation of the translation would be taken by this ministry from the States.

The aim of pre-testing shall be to mainly gather information around:

- 1. Clarity on the workability and flow of the research tools
 - Whether all the questions are comprehensible to the investigators
 - Whether the questions are sequenced properly
 - o Whether any change is required in the questionnaire
- 2. Observation gathering in relation to the questions where the respondents are anticipated to face problems or difficulty in comprehension and understanding
 - o Difficulties which respondent have in understanding the questions
 - o Completeness in coverage of the range of issues
 - Relevance of issues/ response options
- **3.** Gauging the impact of socio-cultural factors on the response to questions related to core indicators and any changes required therein
 - o Identifying any questions which needed a modification as per the local dialect

- Checking the terminologies being used
- **4.** Capturing the time duration required in completion of interviews and also to take note of issues related to sampling of the target groups
 - o Ease in administering the questionnaire
 - Time taken for the interview
 - o Problems encountered in approaching the survey population

Based on the findings, Questionnaire will be modified and finalized with the inputs and approval of EWG.

2. Survey Quality Assurance Protocols

To ensure quality assurance over the overall survey process and to ensure continuous feedback a detailed Quality control and feedback mechanism has been designed at the levels of IVA and MDWS. These include:

Ensuring collection of good quality data, that is, reliable and valid shall be a responsibility of IVA. Quality assurance steps shall be taken at each stage of survey to ensure that high-quality data is generated and processed. IVA will create mechanisms to track the surveyors visit to field and provide evidence to MDWS on key aspects like time taken in completion of a survey, geocoding of location and pictures etc. The CAPI would be capturing this information.

A three stage monitoring structure will be implemented for proposed survey. The quality control plan envisages quality check mechanisms at following stages:

- a. Inputs Stage
- b. Data collection Stage
- c. Data validation Stage

IVA will conduct quality check of a minimum of 25% of the total main household samples. This will be ensured by concurrent and back check methods.

The quality checks would be placed over all the key-activities of the project viz. recruitments, field trainings, data collection, team movement, data compilation etc. Any malpractice noticed by any team member would be interrogated and action would be taken against the people involved which may even lead to their termination from the project.

Inputs Stage

Recruitment: The recruitment and engagement of teams would be the key focus during preparatory stage to ensure the field teams are adequately skilled and the field teams would be deployed only if they are found eligible during trainings. **A second level of**

screening and final selection of teams would be done in consultation with MDWS and the final list of teams would be shared to MDWS by IVA. Operational team engaged by IVA involved in survey shall be central to quality assurance during the recruitments.

CAPI application testing: To get a clear understanding on logistics, pre-testing would be conducted in a way similar to the actual survey, primarily aimed to check the functionality of CAPI application. A detailed report on findings from the pre-test exercise will be prepared and shared with MDWS. All the state teams engaged by IVA shall work together to ensure quality adherence in the designing and finalization of the CAPI application, which would be shared with MDWS for review & finalization. The field practice of survey with CAPI would be part of the training of surveyors, which would be conducted under observation of MDWS. Any emerging issues and observations during the field practice or technical aspects of CAPI would be accordingly addressed.

Standardization of trainings: Since the trainings are being proposed in phases hence standardisation of the training content becomes critical. IVA would provide a training module, content and structure and will conduct a training of trainers (TOT) at Delhi covering all 22 state coordinators of IVA who would be leading data collection teams in each state. This will be followed by regional trainings in local language covering state level field teams. Considering this, all the training would be organized by proposed study team ensuring the standardization and consistency during the field trainings. Routing through them, communication of same set of protocol/guidelines shall be ensured in all the field trainings.

Training and field data collection

The IVA will conduct a training of Trainers (TOT) in Delhi to familiarize them with the data collection tools, technical concepts and definitions as well as using the data collection devices with loaded CAPI (computer aided personal interviews) modules in regional languages. The Training of Trainers would be followed by regional training of the surveyors by dividing states into 5 Zones and collective training of the States in the given zone at a decided place. To ensure the quality and uniformity of messages in the training, members of MDWS team would also participate in all these trainings.

Along with MDWS technical team members, available and willing EWG members also would participate in these trainings at national/regional levels. Instructional manual will be prepared to clarify technical aspects with pictorial representation for easy understanding of technical aspects and accurate data collection by the field teams.

Data Collection Stage

Data would be collected for five modules agreed with EWG

- 1- Household
- 2- Aanganwadi
- 3- School
- 4- Public toilet and

5- Public Spaces

The definition of Household will be as defined and used for National Sample Survey and would also be included in the training manual for clear understanding of the surveyors. Unique Numeric identification code to each questionnaire and surveyor/supervisors would be inbuilt in CAPI. During the data collection period IVA will submit weekly progress reports to MDWS on aspects of the total progress against plans, back check results, challenges encountered, deviations if any., and how they were addressed.

The quality at data collection stage is primarily determined by following key aspects in each of the phases of data collection.

Listing Phase

- **a.** Coverage of selected Primary Sampling Unit (PSU)
- b. Complete listing of all the settlement/selected segment
- c. Correctness of information captured pertaining to listed HHs

Main Survey Phase

- **a.** Coverage of selected HHs
- **b.** Correctness of information captured
- c. Adherence to ethical protocol & instructions
- **d.** Regularity of data upload

Village Level Survey Phase

- a. Completeness in identified School /Anganwadi
- b. Correctness of information captured pertaining to selected Headmaster/School, Anganwadi worker/ASHA, Sarpanch/GP Secretary or other prominent people in the village
- **c.** Ensuring geo-tagged photographs for each of sampled villages, households covered and all type of village study schedules ODF

Quality control in these aspects would be done by concurrent field monitoring applying checks and balances. At the ground level, the data collection exercise is to be done by utilizing the CAPI application which will contain all the logical and scrutiny checks inbuilt. However at initial stage of data collection, team supervisor shall closely observe two interviews of each team members (a total 4 member under each supervisor) managed by him to check the correctness of information being captured, way of administrating questions & probing and in turn he shall debrief his/her team members to ensure quality of data being collected throughout the period. The same process will continue till the end of data collection and it shall be ensured that at least 15 percent of interviews of each team member shall be accompanied by supervisor.

In addition to this, supervisor will undertake 5% back check through back check module on CAPI for each of the interviewer working under him/her. Back check refers to returning to respondent and verifying selected responses.

Other than supervisor back-check and accompaniment, either state coordinator or ACQA team would conduct additional 5% back check and accompaniment to ensure quality of field data collection. All the finding during back-check and accompaniments are shared with research team for formal feedback note generation and to provide feedback to all the teams on improvement of quality.

Simultaneously, MDWS Team would also conduct 5% verification (Random check in 2% of Villages along with interested and available EWG members and 3% telephonic back-check)

On a daily basis, the field teams shall sync all the completed interviews to the study server. However, supervisor shall also maintain record of all the completed interviews in his **log sheet.** The state coordinator would closely monitor the coverage, quality and logistical aspects of the data collection activity by back check of 5% of sample during surprise field visits and by regularly checking the data on the server. In addition to this, surprise visits will also be made by zonal coordinator/ National team on random basis. The quality **monitoring** during the course of data collection would follow the protocol given below.

| Quality Control | Data collection quality checks | | | | | |
|---------------------------------|---|--|--|--|--|--|
| Team Supervisor | All PSUs to be checked; ensure proper listing and main data collection, timely submission of all collected data 15% accompaniments of each interviewers during main interviews | | | | | |
| | 5% back check of each interviewers during main interviews | | | | | |
| | Monitoring field plan and progress report | | | | | |
| 0 | Overall quality and coordination at state level | | | | | |
| State Coordinator and ACQA team | 5 % back check and accompaniments | | | | | |
| ACQA (Calli | - Smooth implementation of the study in the state | | | | | |
| | Overall quality at zone level | | | | | |
| Zonal Manager | Planning and execution of debrief session | | | | | |
| | Random scrutiny and surprise field visits | | | | | |
| National team | - 3% telephonic verification and back check | | | | | |
| Hational team | Field visit to 2% of PSUs | | | | | |

Back check will be undertaken by using CAPI application which will have a functionality of capturing the GPS, name of the interviewer/ supervisor and date of the back check etc. The study server shall provide a coverage report of accompaniment/back check on real time basis and back check data will also be available at server as similar with other segments.

In addition to above, following steps shall also be constantly followed as a part of quality control and monitoring process:

 Attending weekly meetings IVA core team via Skype or teleconference with MDWS;

- Following all standard operating procedures developed by MDWS for the project;
 and
- The visits of MDWS officials along with interested and available EWG members would be facilitated through real time information of field Movement of teams as well as filling of schedules physically during random visits. The feedback/ issues communicated by them or by any other official post field visit would be reviewed and the corrective action would be undertaken immediately. The preventive action plan for systematic errors/ mistakes would be prepared and shall be communicated frequently to all the field teams for maintaining a standardization of data collection process. Also, office space shall be provided as and when needed for meeting/ discussion purpose.

All the MDWS queries about data quality shall be responded within 2- 3 business days of the query being raised including the following points:

- (1) Steps taken to corroborate data in the field,
- (2) Outcome of data quality investigation, and
- (3) Corrective action taken to address problems identified.

IVA would conduct periodic review for the quality of fieldwork through meetings with quality control team of MDWS and feedback for improvement.

Following are the proposed parameters which may be used as evaluation criteria which shall be further discussed with MDWS and mutually agreed upon:

- 1. Quality of the data collected
- 2. Efficiency of the training, trainers and field management
- 3. Efficiency and skills of the manpower after the trainings
- 4. Overall responsiveness of the project teams
- 5. Transparency and flexibility
- 6. Timelines of activity completion

The above can be used as feedback by IVA to improve services as the work *progresses between the stages and components of the survey.*

Other Quality Assurance

Beside above measures MDWS would form an internal quality control team to oversee compliance of above quality assurance protocols. This team would also review raw data and reports shared by IVA, analyze the same and would take necessary action to issues triggered through dashboard. This team would share the updates and feedback with EWG members on a concurrent basis. The quality control team would be headed by Joint Secretary, SBM (G) MDWS and would include the following members:

- 1- DDG. MDWS
- 2- Dy Secretary, SBM (G), MDWS
- 3- 3 Representatives from PMC

Adequate protocol would be developed for archiving data on server, data back-up and firewall settings by the IVA. The IVA would provide appropriate system for user permission protocols to govern interaction with system at different user level and change management facilities. The NARSS field data would steadily migrate to NIC servers of the Ministry over a period of time

Survey evidences would be provided by IVA by ensuring that the date stamp and Geo coordinates gets water marked in the image itself. The surveyors would use GPS enabled device to capture the accurate geo coordinates. User location features would also be added in the CAPI. The mobiles used for data collection would have features to capture and store information in offline mode which would get submitted once the device is online. CAPI would also be structured to provide unique numeric identification code to each of the questionnaire and interviewers. IVA would also provide raw data of survey to MDWS and EWG members.

Data Validation Stage

Apart from quality controls at data collection level, IVA will also ensure that the data is compiled and integrated without any scope of error. IVA will place a robust data monitoring and validation system at various levels to ensure quality of data being collected throughout assignment.

- **Every day**, interviewer shall transfer all the completed interviews to the server post receiving a confirmation from team's supervisor. At the same time, supervisor will also update his/her status log sheet.
- To check the quality of the data being collected by the field teams, supervisor shall accompany at least 15 percent of interviews of each of the team members managed by him. In case any issue observed related to data quality, at immediate level, debriefing session shall be organized and he shall clear all the doubts of his team member.
- To check the quality of the data being collected by the field teams, supervisor shall
 administer the supervisory module among 5% of respondents covered by each of
 the team members throughout the survey and in continuum basis collected data would
 be synced to study server.
- Access to status report and key indicators on study server would have various levels
 of filter (State level, District level, Block level and PSU level) which would help
 monitoring at various levels.
- On a regular basis, state coordinators would check the progress of field work based on synchronized data, dashboard and would seek clarification from the team supervisors, if required. In case of discrepancies, they would also visit field for verifications and would undertake one debriefing session with the field teams to train them on avoiding such mistakes in future.
- IT manager shall maintain all the field data collected on a central server connected through network of servers across country and would regularly take backup of the uploaded data. Apart from this, server team shall also be responsible for checking and generation of the variance report (mismatch between data collected by

- interviewers and data collected by supervisor) and would share the results with project teams. As an immediate step, state coordinator shall review the variance report and would debrief the field teams accordingly. Variance reports would be reviewed by internal quality control team of MDWS to monitor the quality of field data collection.
- Project team shall validate recurrently all the key dash board indicators with trusted databases like, Census 2011, Swachh Sarvekshan 2016 AHS, NFHS and DLHS surveys As suggested by EWG, a review meeting will be conducted after completion of half of the field work (after 5 weeks of data collection) to review the top findings of the survey and triangulate the same with other available sources such as NSSO report, QCI, NLM surveys etc. After completion of the survey, server team would convert verified field data into SPSS format with value and variable level and shall share it with project team. After receiving the SPSS data, project team shall check data and would submit it to the MDWS besides processing data for analysis and reporting purposes. Along with cleaned data, raw data sets will also be shared with MDWS.

6.5 Data Processing and analysis systems

Data Management and Reporting

NARSS field data collected through CAPI modules will be safely stored on IVA servers with access to MDWS team through VPN client mechanism. Results dashboard indicating the survey progress as well as the tentative top line findings would be placed on the MDWS website (Annexure 6). The results dashboard would include indicators related to: survey progress both in terms of % coverage of sample PSUs and households, findings related to DLIs such as % HH with access to toilet, % individuals practicing OD, % HH without any litter around the house, % HH without any stagnant water around the house, % AWC having functional toilets, % Schools having functional toilets, Students- Toilet Seat ratio etc. These parameters would be regularly reviewed by internal quality control team of MDWS. Periodic access to dashboard would be provided to the EWG. The data thus collected through NARSS field surveys will be stored on IVA servers in a secured manner with a restricted multi-level security mechanism. Monthly updates will be provided to the World Bank and the EWG members on the progress of the NARSS. All the survey instruments, survey schedule, survey protocols etc. will be shared with all the State Governments before the start of the survey.

The NARSS field data would steadily be migrated to NIC servers of the Ministry over a period of time. All the data will be transferred to MDWS over a 3 months' time after the completion of the survey. Four rounds of survey other than the baseline are planned. Annual reports of NARSS study findings indicating the status of DLIs at state and national levels, including progress over years, each year and over years for comparative picture would be submitted by IVA to MDWS. These results will be reviewed and synthesis of the reports and summary results will be published on the Ministry's website. The report would entail information on Objectives and Scope of the study, research methodology, sampling design, findings and performance against Disbursement Kinked Indicators etc.

Disbursements of DLI Incentive Grant to States

The first round of NARSS data collection during 2017 is considered as baseline to set benchmarks against the three DLIs related to the sanitation outcomes. DLI#4 would be effective in 2017-18 after the NARSS is complete and results are published and shared with the states.

Second round in next year would assess the state and national level progress in terms of:

- a) Reduction in ODF Incidence,
- b) Sustainability of ODF status, and
- c) Increase in proportion of rural population with safe SLWM management practices, against the baseline benchmarks.

Funds to states would be released based on the actual performance as established by NARSS results generated year on year, which will form the basis for release of performance incentives to the states. A prototype would be developed and put in place to effectively and efficiently manage the NARSS results generation as well as DLI based incentive release to states. Ministry plans to develop a DLI module in its IMIS to gather data from the Survey.

Calculation of achievements against DLIs and Disbursement Calculations

The achievements against the DLIs at the state level needs to be calculated in two steps. First, in each survey round, the percent of population that practices OD will be estimated from the household survey, using appropriate sample weights that reflect the sampling design of the survey. This will be multiplied by the estimated rural population in the state during the survey year to calculate the absolute number of people who practice OD in the state. The population estimate for each state will be based on population projections by the Registrar General of India and rural-urban break-up estimated by the Ministry of Statistics and Programme Implementation. The detailed formulae have been worked out together with World Bank. A matrix of questions responding to respective DLIs from each of the questionnaire is annexed (Annexure 7)

Sampling Weightage

Besides, based on the actual sample covered sampling weights would be applied in each round to compute the DLIs. The basic objective of weighting sample data is to try and maximize the representativeness of the sample in terms of the size, distribution, and characteristics of the study population. When sample units have been selected with differing probabilities, it is common to weight the results inversely proportional to the unit selection probabilities, i.e., the design weight, so as to reflect the actual situation in the population.

The theoretical procedure to be adopted for the proposed weighing is as under: During the sampling process, a multi staged sampling methodology has been utilized as shown below:

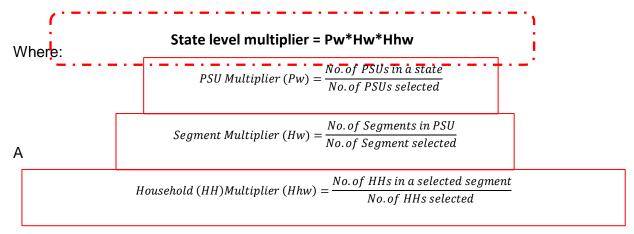
ODF villages (In case of Non-ODF, region level multiplier will also be added)

Stage 1: Selection of PSUs

Stage 2: Selection of segments within each PSU

Stage 3: Selection of household from each of the selected segments

Thus, the estimation process would follow a method in which the sample is projected to the universe in each stage of sampling. The following figure depicts the weighing process



sample calculation has been provided in the table below. However, detail calculation would be worked out.

Selection probabilities and sampling weights: The ODF and non-ODF portions of India's 32 states are the NARSS sampling strata. Since villages are selected with PPS within each stratum, the probability p_{hi} of selecting village hi in stratum h (1 $\leq h \leq$ 64) is given by

$$p_{hi} = \frac{k_h n_{hi}}{N_h} \tag{1}$$

where

 k_h is the number of villages chosen in stratum h,

 n_{hi} is the size of village hi, and N_h is the size of stratum h

(with both n_{hi} and N_h expressed in the measure of size chosen for the PPS selection – either the population or the number of households).

The probability p_{hij} of selecting household hij in village hi of stratum h, if the village is listed without segmentation, is given by

$$p_{hij} = p_{hi} \frac{m_{hi}}{M_{hi}} \tag{2.1}$$

where

 p_{hi} is the probability of selected in the village (given by Formula [1] above),

 m_{hi} is the number of households selected in the village (normatively always 15), and

 M_{hi} is the total number of households listed in the village.

If the village requires segmentation and two segments are selected and listed – one purposely and another randomly from among the remaining segments, p_{hij} is given by

$$p_{hij} = \begin{cases} p_{hi} \frac{m'_{hi}}{M''_{hi}} & \text{for households in the purposely selected segment} \\ p_{hi} \frac{1}{(s_{hi}-1)} \frac{m''_{hi}}{M''_{hi}} & \text{for households in the randomly selected segment} \end{cases}$$
 [2.2]

6.6. Roles and Responsibilities:

Following are the roles and responsibilities of IVA, EWG and MDWS:

| | Roles and Responsibilities | | | | | | |
|------------------------------------|--|---|--|--|--|--|--|
| Areas | IVA | EWG | MDWS | | | | |
| NAARS Protocol | Conduct a baseline rural sanitation survey to provide statistically rural representative estimates for all States/UT for key rural sanitation performance indicators under SBM-G | Approve the protocol for NARSS to ensure uniform and consistent approach to survey | Provide comments and support finalization of uniform and systematic approach for NARSS | | | | |
| Inception Report & Work Plan | NARSS Inception Stage Work-Plan and Sampling Plan | | Review and approve Inception Report and Work Plan Inception | | | | |
| | Responsible for measurement of selected rural sanitation performance indicators under SBM-G achieved by States and UTs | Provide guidance and approval on measurement protocol, survey methodology, structure of reports and operational protocol | Provide support and guidance to IVA for a uniform and consistent approach to NARSS | | | | |

| Monitoring and review | Operational implementation of the survey protocol as approved by MDWS ensuring consistent approach | Periodic review of progress and provide advice and suggestions as needed | Monitor implementation of the survey protocol as approved |
|---|--|--|--|
| | Day to day monitoring , supervision and management of NARSS | | Provide advice and guidance as needed on effective conduct and management of NARSS |
| Data collection, analysis & quality control | Hiring, Deployment and Training of Survey Team | | Approve the Staffing and staffing plan as proposed by IVA |
| | Finalize Data Collection Instruments | Approve the data collection instruments | Review the use and efficacy of data collection instruments |
| | Development of Manuals and training on it | | Review and approve the manuals developed for NARSS |
| | Data Processing and Analysis systems | Review periodic reports submitted by MDWS to EWG | Review and approve the data processing and analysis protocol |
| | Quality Control and quality assurance and undertake sample checks | Participate in quality control and quality assurance through field visits, spot checks | Ensure quality control and quality assurance and undertake sample checks |
| | Independent Verification Reports to MDWS as per agreed protocol | Approve the report structure | Review, comment and approve the reports submitted by IVA |
| DLIs Disbursement | Linking NARSS outcomes to DLIs | Review of the model proposed for linking NARSS outcomes to DLIs | Approval of model to link NARSS outcomes to DLIs |
| | Any other action needed for proper conduct of NARSS | | Provide timely notice on any additional actions needed |

Annexures

Annexure 1: MDWS Circular on Performance linked incentive scheme in Oct. 2016

No. S-11011/5/2016-SBM
Government of India
Ministry of Drinking Water and Sanitation
Swachh Bharat Mission (Gramin)

12th Floor, Paryavaran Bhawan CGO Complex, Lodhi Road New Delhi-110 003 Dated 04.08.2016

То

The Principal Secretary/ Secretary, in-charge of Rural Sanitation, All States/UTs

Subject: - Guidelines for World Bank Support to Swachh Bharat Mission (Gramin) - Introduction of Performance-based Incentive Grant Scheme - regarding.

Madam/Sir,

You are aware that the Government has approved a project of World Bank Support to Swachh Bharat Mission (Gramin), comprising incentivisation of States on the basis of performance against outcomes of SBM (G). Accordingly, guidelines for 'Performance-based Incentive grant scheme' have been drawn up and annexed with this letter.

 The State/UT Governments are requested to implement the Performance based Incentive Grant Scheme in accordance with these guidelines. These guidelines be demand as part of SBM (G) guidelines.

Encl. As above

Yours faithfully,

ader Secretory (CDM)

Under Secretary (SBM) Ph: - 011-2436 9654

Copy to: - 1) SBM (G) State coordinator, all States 2) TD (NIC) for hosting in website Hindi version will follow

Guidelines for World Bank Support to Swachh Bharat Mission (Gramin) – Introduction of Performance-based Incentive Grant Scheme.

Background

The Swachh Bharat Mission (Gramin) [SBM (G)] was launched on 2nd October 2014 as the new rural sanitation scheme, with a goal to achieve Swachh Bharat by 2nd October, 2019. The Mission emphasizes behaviour change intervention; strengthening implementation and delivery mechanisms down to the village level; and giving States flexibility to take into account local cultures, practices, sensibilities and demands. The SBM (G) also provides for incentivization of States on the basis of their performance. Besides outputs, outcomes are to be measured and rewarded.

- 2. An incentive framework was required to reorient the SBM (G) efforts towards achievement of desirable outputs and outcomes of SBM (G), such as reduction in open defecation, sustainable achievement of open defecation free (ODF) villages and improvement in solid and liquid waste management (SLWM). Further, these outcomes have to be reliably measured through an independent and credible verification agency. There was also a need to further strengthen the implementation capacities in terms of inter alia strengthening of behaviour change communication, capacity building and programme management etc.
- 3. In this background, Government of India has approved the project of 'World Bank Support to Swachh Bharat Mission' (called "Project" hereafter) for incentivising States on the basis of their performance in the ongoing SBM-G. The performance is to be gauged through certain performance indicators, to be called the Disbursement-Linked Indicators (DLIs).
- 4. These guidelines explain in detail the Project design, the DLIs and the incentive funding mechanism. These guidelines will be part of the SBM(G) guidelines.

Project design

- 5. The World Bank Support Project is to put in place a mechanism for incentivizing States on the basis of certain specific outcomes of SBM (G) programme, to be measured through the DLIs, as detailed below. In other words, 'Performance-based Incentive Grant Scheme', as part of SBM (G), is proposed to be launched through this Project. The proposed Project is, therefore, not a new scheme, but part of the existing SBM (G) and provides part-funding to SBM (G) as Externally Aided Project (EAP) credit to support incentivisation of States. The World Bank Support is being provided through a performance-based funding using 'Program for Results' financing instrument.
- 6. The total World Bank Project Support is to the tune of US \$ 1500 million (Rs. 9000 crore @ US \$ 1=Rs. 60), of which US \$ 1475 million (Rs 8850 crore) is for providing incentive grant to the States and US\$ 25 million (Rs 150 crore) is for providing programme management and capacity support.

- 7. The overall Project objective is to reduce open defecation in rural areas and to strengthen capacity towards SBM (G) implementation. The specific objectives of the Project are:
 - i. Reduced open defecation in rural areas
 - ii. Open defecation free villages
 - iii. Improved solid and liquid waste management
 - iv. Strengthened implementation capacity
- 8. The proposed duration of the Project is five years i.e. from April 2016 to April 2021.
- 9. The Project will cover rural areas of all the States/UTs, where SBM (G) programme is being implemented.

Disbursement Linked Indicators (DLIs)

- 10. The Project envisages introduction of certain Disbursement Linked Indicators (DLIs).
- 11. The three DLIs, on the basis of which incentive grants will be released to the States are as follows:
- i. Reduction in the prevalence of open defecation: The funds under this result area shall be released to the States on the basis of reduction in prevalence of open defecation amongst rural households in the State, compared to the previous year. This is a household level indicator. The prevalence of open defecation will be measured based on household level questions on access, usage and safety of toilets.
- ii. Sustaining ODF status in Villages: The funds under this result area, shall be released on the basis of estimated population residing in ODF villages in a given year. This will include the villages that attained the ODF status in previous years and have sustained the ODF status.
- iii. Rural population served by SLWM: The funds under this DLI will be based on the basis of population served with acceptable level of SLWM services.
- 12. The details of the DLIs are given below

National Annual Rural Sanitation Survey (NARSS)

- 13. There will be a National Annual Rural Sanitation Survey conducted every year to measure the performance of the States/UTs in respect of the above three DLIs. Each round of survey will have components that will generate information on open defecation, sustaining ODF status, and on solid and liquid waste management (SLWM). This will be a third-party sample survey carried out by the MDWS, through an Independent Verification Agency (IVA), as per the guidelines of the Ministry of Statistics & Programme Implementation (MoSPI) dated 31.10.2011, regarding conduct of statistical surveys.
- The first NARSS will provide baseline values for the DLIs.

Incentive grant

- 15. The incentive grant to the States will be in addition to the funds released to States for the Annual Implementation Plans (AIP) and will be in the form of 100% grant from the Centre to the States.
- 16. The Government of India will release the incentive amount to the States for the first year on the basis of baseline results. From the second year onwards, the funds will be released to the States on the basis of progress against the three DLIs mentioned in para 11 above.
- 17. The States/UTs will pass on a substantial portion (more than 95 percent) of the Performance Incentive Grant Funds received from the MDWS, to the appropriate implementing levels of districts, Blocks, GPs etc. It is important that the States/UTs pass on the incentives to the right level of implementation to provide incentive for sustaining behaviour change at the village level. Since, DLI2 incentivises sustainability of ODF status at the village level, the States/UTs will ensure that the incentive grant received against this DLI reaches the respective villages and are spent in accordance with the decision at the village level.
- 18. The States will have flexibility to utilise incentive funds for activities pertaining to sanitation sector, such as making the villages open defecation-free through individual household latrines, community sanitary complexes, school/anganwadi toilets, rural sanitary marts and IEC/capacity building/triggering, providing water for sanitation, solid and liquid waste management activities including collection, segregation and safe disposal of household garbage, decentralised systems like household composting and biogas plants, safe disposal of menstrual waste, low cost drainage, soak pits etc. The incentive grant cannot be used as corresponding State share for SBM (G) or SBM (Urban) or any other Centrally Sponsored Scheme.

Accountability for spending Incentive grant

- 19. The Project will be covered by the audit requirements (CAG audit and audit by empanelled Chartered Accountant of the CAG) as provided under the SBM (G) scheme. The revised formats for audit will be provided to the States by the MDWS.
- 20. The States will maintain details of the projects/activities undertaken at the State/district/block/village level out of Incentive grants and certify that these grants are utilised only for activities permissible/suggested as per these guidelines. The projects/activities undertaken will also be captured in the Integrated Management Information System of SBM (G).

Disbursement Linked Indicators (DLIs)

The World Bank Support Project entails certain Disbursement Linked Indicators (DLIs). These are meant to trigger disbursement of incentive grants from the World Bank to the Ministry of Drinking Water and Sanitation (MDWS) and from the MDWS to the States.

- 2. As far as disbursement from the MDWS to the States is concerned, there are three DLIs.
 - i. DLI 1: Reduction in the prevalence of open defecation
 - ii. DLI 2: Sustaining Open Defecation Free (ODF) status in Villages
 - iii. DLI 3: Percentage of rural population served by SLWM
- 3. For disbursement from the World Bank to the MDWS, however, in addition to these three DLIs, there is a fourth DLI called 'Operationalization of the Performance Based Incentive Grant Scheme.'
- 4. The three DLIs to trigger disbursement of incentive grants to the States are detailed below.

DLI 1: Reduction in the prevalence of open defecation

- 5. The funds under this DLI shall be released to the States on the basis of reduction in prevalence of open defecation amongst rural households in the State, compared to the previous year. The open defecation will be measured based on household level questions on access, usage and safety of toilets.
- 6. The National Annual Rural Sanitation Survey will report on this prevalence based on a household level questionnaire. A household will be considered as practicing open defecation unless all the members of that household use the toilet 100% of the times.
- 7. The States will be divided into two categories for the purpose of incentivisation. The States which register a reduction of 0-3 percent in OD prevalence will be incentivised @ Rs. 360 per capita reduction. For States reporting more than 3 percent reduction in OD prevalence, an incentive of Rs. 540 per capita reduction will be provided.

DLI 2: Sustaining ODF status in Villages

- 8. The funds under this result area, shall be released on the basis of estimated population residing in ODF (open defecation free) villages.
- 9. The assessment of ODF will be based on the definition of ODF provided by the MDWS, which is as follows:

"ODF is the termination of faecal-oral transmission, defined by

- a) no visible faeces found in the environment/village; and
- b) every household as well as public/community institutions using safe technology option for disposal of faeces
- (Tip: Safe technology option means no contamination of surface soil, ground water or surface water; excreta inaccessible to flies or animals; no handling of fresh excreta; and freedom from odour and unsightly condition)"
- 10. The incentive amount will be calculated on the basis of rural population residing in ODF villages in the States, multiplied by Rs. 240 per capita.

DLI 3: Percentage of rural population served by SLWM

- 11. Based on the National Annual Rural Sanitation Survey, for each State/UT, the population served with acceptable level of SLWM services, shall be estimated and rewarded.
- 12. The incentive amount will be calculated on the basis of rural population residing in villages with acceptable level of SLWM, multiplied by Rs. 30 per capita.
- 13. The above mentioned three DLIs have a fixed per capita amount. The disbursement will however, be dependent on actual performanceachieved as shown by the National Annual Rural Sanitation survey.

DLI 4: Operationalization of the Performance Incentive Grant Scheme

14. The baseline data pertaining to the above mentioned three DLIs will be captured through the first National Annual Rural Sanitation Survey. In order to trigger disbursement from the World Bank to the MDWS in the first year, there will be a fourth DLI 4, which will be operationalization of the 'Performance-based Incentive Grant Scheme'. This will be applicable only for the first year to set in motion those actions that make the incentive scheme possible and credible.

| | Abbreviations |
|--------|---|
| MDWS | Ministry of Drinking Water and Sanitation |
| SBM(G) | Swachh Bharat Mission (Gramin) |
| ODF | Open Defecation Free |
| OD | Open Defecation |
| SLWM | Solid Liquid Waste Management |
| NARSS | National Annual Rural Sanitation Survey |
| DLI | Disbursement Linked Indicator |
| /A | Independent Verification Agency |

Annexure 2: EWG MoM # 4

NARSS Expert Working Group: Meeting No 4

Venue: MDWS, Paryavaran Bhawan, New Delhi

Minutes of the Meeting

The 4th meeting of the Expert Working Group(EWG), constituted by MDWS for the National Annual Rural Sanitation Survey (NARSS, under the World Bank-supported Swachh Bharat Mission Support Operation), was convened on October 18th, 2016, under the Chairmanship of Dr. Amitabh Kundu.

The meeting was attended by:

- 1. Shri Saraswati Prasad, Additional Secy, MDWS
- 2. Shri Arun Baroka, Joint Secy, MDWS
- 3. Dr. Hiranya Borah, DDG(Stats), MDWS
- 4. Shri Nipun Vinayak, Director, MDWS
- 5. Sm. Sandhya Singh, Director (Stats), MDWS (Convenor)
- 6. Dr. R. Mohanan (Retd. DDG, MOSPI) (Special Invitee)
- 7. Shri Pachanan Das, DDG,SSD, MOSPI (Special Invitee)
- 8. Shri Sujoy Mozumdar (UNICEF)
- 9. Shri Anil Das (World Bank SBM Team)

I. Key Discussions and Proceedings

The following points were discussed in the meeting:

- i. As has been discussed in the last meeting, Additional Secretary, MoDWS briefed the gathering of the sample size and its selection procedure. This has been worked out as per the discussions held in the last EWG meeting. All the members agreed to it. The copy of the samplings procedure adopted and thus worked out statewise samples are placed at Annexure-A.
- ii. After the selection of the agency for conducting the survey, for finalisation of the Questionnaire the agency need to do the pilot survey. The findings of the pilot survey be discussed in the EWG. The EWG will discuss questionnaire in light of the findings of the pilot and modifications would be done, if required, in the survey Questionnaire for final rollout of the survey. The EWG will take minimum 15 days to review and further clarify the issues for further roll out of the survey. This will further minimize the samplings / non sampling errors and help in getting the more robust results.
- iii. During the pilot survey all the instruments of the survey needs to be checked thoroughly.

- iv. The trainings would be imparted to the survey field staff. The trainings would be done in two levels. The training of the trainers would be done in Delhi. The members of the committee may make them self-available for the trainings of the trainers at Delhi. The 2nd level of trainings would be done at the regional level. While doing the regional level trainings due care would be taken in communicating the questions in the regional language.
- v. The translation of the questionnaire would be done by the agency but the cross validation of the translation would be taken by this ministry from the States.
- vi. It is also suggested that at least one member of the committee should be part of or be present in the regional level training as well.
- vii. Since the duration of the field survey is very short and therefore intervention by the ministry or the EWG for quality improvement purposes would not be possible. But in order to check the quality of the field data at the time of data collection, the data would be cross checked by the ministry too and gross errors may be corrected at that time itself.
- viii. For overseeing the field work A committee would be constituted within the ministry of Drinking water and Sanitation under the chairmanship of Additional Secretary, MoDWS. The committee would deliberate on day to filed work and brief the EWG in the meetings.
 - ix. The questionnaire to be canvassed in the survey has been discussed in length.
 - The meeting ended with a vote of thanks to and from the chair.

Annexure 3: NARSS Expert Working Group: Meeting No. 5

Venue: MDWS, Pt. Deendayal Antyodaya Bhawan, New Delhi

Minutes of the Meeting

The 5th meeting of the Expert Working Group (EWG), constituted by MDWS for the purpose of supporting National Annual Rural Sanitation Survey (NARSS) (under the World Banksupported Swachh Bharat Mission Support Operation) was convened on 6th June, 2017, under the Chairmanship of Shri N.C. Saxena Ex-Secretary, Ministry of Rural Development & Co-Chair, EWG

The meeting was attended by:

- 1. Shri N.C. Saxena, Ex-Secretary, Ministry of Rural Development & Co-Chair, EWG
- 2. Shri Arun Baroka, Joint Secy, MDWS
- 3. Shri Hiranya Borah, DDG(Stats), MDWS
- 4. Shri Mahesh Thakur, Dy. Secretary, MDWS
- 5. Shri VK Madhavan, WaterAid
- 6. Ms. Sangita Vyas, RICE
- 7. Shri K. Venugopal, Kantar Public (IVA)
- 8. Shri Saptarshi Gupta, Kantar Public (IVA)
- 9. Shri Trilok Singh Sisodiya, Kantar Public (IVA)
- 10. Shri P. Thiagarajan, IPE Global
- 11. Smt. Promila Bishnoi, IPE Global
- 12. Ms. Meike Van Ginneken, World Bank
- 13. Mr. Mathews Mullackal, World Bank
- 14. Ms. Priyanka Thompson, BMGF
- 15. Ms. Sakshi Guwani, BMGF
- 16. Ms. Amita Baghel, Director, MoSPI
- 17. Shri Rakesh Maurya, Director, MoSPI
- 18. Prof. Amit Choudhury, Dept. of Statistics

Key Discussions and Proceedings

At the outset, Shri Arun Baroka, JS (SBMG) welcomed all the members of EWG and introduced Shri N.C. Saxena, Ex-Secretary, Ministry of Rural Development, the newly appointed co-chairman, to the EWG members. After brief introduction by all the participant members, Shri Arun Baroka updated the group on the proposed agenda points for discussion. A power point presentation was jointly presented by the IVA and MDWS to update the group on the current status of NARSS.

The following points were discussed and agreed in the meeting.

i. Minutes of the last EWG meeting held on 18th October, 2016 were approved and actions taken upon were updated, including the selection of M/s IPE Global in association with Hindustan Thompson Associates Private Limited [represented by KANTAR PUBLIC (A specialist unit of HTA Pvt ltd /IMRB International division) as the Independent Verification Agency (IVA) selected

- through a competitive bidding process under the Swachh Bharat Mission Support operation.
- ii. The contract for NARSS was signed on 19th May 2017. Sampling design and questionnaire as approved in the last EWG meeting were provided to IVA, to receive an inception report and the work plan in line with the TOR. The proposal of the agency submitted include details on the sampling design, quality assurance mechanisms and field implementation plans to complete the baseline survey work in 20 weeks period.
- iii. Total sample size agreed across 29 states and 3 union territories was 6,136 Primary Sampling Units (PSUs) covering 92,040 rural households selected through systematic sampling method at village level. This is based on the suggestions made by the EWG members. It was agreed that the minimum sample size for small states would be 20 villages with 300 households.
- iv. Status of MDWS database of IMIS as on 31st May 2017 would be the basis for selection of sample villages. For purposes of consistency, both ODF and non-ODF sample villages will be selected from a single database. Further, as the ODF verified villages have more credibility than those declared but not verified, only verified ODF villages will be considered as a sampling frame. MDWS will provide these details as an excel database to IVA to facilitate the sampling process and to draw an independent sample objectively.
- v. For villages with less than 200 households, listing of the entire village would be done while for larger villages having a population greater than 200 households, segmentation methodology as mentioned in the Sampling design be used.
- vi. A 20% buffer of villages as well as households would be additionally sampled to use them as substitute sample (without replacement) in case of exigency related to either inaccessibility of a PSU or a sampled household.
- vii. The survey tool for household as agreed in the earlier EWG meeting (no.4) would be considered final with minor modifications, particularly with regard to the toilet usage at individual member/ instead of household level. Some suggestions on observational questions and SLWM would also be incorporated.
- viii. Consent would be obtained from the respondents for administering the schedules and for geotagging of the toilet facilities as part of the field survey.
- ix. The IVA shall carry out the pilot survey in 4 non-sampled locations (2 ODF and 2 non-ODF villages) verifying both household and village level schedules and would submit the results to EWG for the final tool approval based on which CAPI module development would be undertaken by the IVA. As both the chairman and the co-chairman of EWG would be out of country in June/July 2017, the approval for pilot test, results and final tools would be obtained through E-mail.

- x. Quality of training of field teams was emphasised upon to make the field data collectors sensitive to the issue of open defecation and not expressing any disapproval of the same through their behaviour and body language. EWG members agreed to be part of these field trainings as well as during the data collection phase.
- xi. Concepts / Definitions of the technical terms used in the survey questionnaire would be included in the instruction manual for easy reference and common understanding of the same. Pictorial depictions, wherever needed will be included in the instruction manual.
- xii. Translated questionnaire in the regional language shall be used by the field collector. in the CAPI module. However, field data would be captured on server in English language for easy reference at national level.
- xiii. Permission letters for facilitating field data collection would be issued by the Ministry intimating the states and district administration about the NARSS field data collection plans.
- xiv. While quality assurance protocols would be followed by the IVA, field inspection teams would be formed at the Ministry level including EWG members, who are willing and available, to ensure a collection of good quality of field data.
- xv. Together 30% of the sample would be subjected to field verification by different parties using different means viz. IVA will cross-check 25% sample (15% accompaniments during survey, 5% back checks with accompaniments, and 5% random back checks) and MDWS along with own staff, EWG members and development partners will cross-check 5% sample (2% random back checks and 3% telephonic checks using a standard checklist). Summary details are given below.

NARSS-Field Survey- Field data Sample verification protocol

| Done by | Methodology | % verification | Remarks |
|-------------|------------------|----------------|----------------------------|
| | | (approx. nos.) | |
| | | | |
| IVA-Team | Supervisory back | 15% (13,800) | Done by field supervisors |
| supervisor | checks | | |
| IVA- State | Back checks and | 5% (4,600) | Done by State Coordinators |
| Coordinator | accompaniment | | · |

| IVA- ACQA (Kantar | Random back checks | 5% (4,600) | Done by internal QA team of |
|-------------------|---------------------|---------------|-------------------------------|
| QA team) | of completed | | IVA |
| | interviews | | |
| MDWS- Internal | Random back checks | 2% households | Done by MDWS internal |
| Inspection Teams | of completed | (1,840) | teams formed for this |
| (IIT) | interviews through | | purpose. Could include |
| | field visits | | available members of EWG |
| | | | and development partners |
| MDWS- telephonic | Desk job verifying | 3% households | This could be done internally |
| verifications | factual information | (2,760) | or outsourced with MDWS |
| | using a structured | | oversight. |
| | checklist | | |
| Total % sample | | 30% (27,600) | |
| verified | | | |

The meeting ended with a vote of thanks by the JS (SBMG) to the chair and participants.

Annexure 4: Sampling Design for NARSS Survey

1. A sample of around 92,040 rural households in 6,136 villages (primary sampling units) spreading all over India will be covered for data collection for National Annual Rural Sanitation Survey (NARSS) in India.

2. Allocation of Samples to the States and UTs

The sampled rural households shall be proportionately allocated to 29 States and 3 Union Territories. These villages at state level will be further distributed proportionately to ODF and Non-ODF categories based on the percentage of households in the ODF verified and Non-ODF villages, including those which are declared but not verified, ensuring at least 20 ODF villages for smaller states.

3. Allocation of State Sample to Verified ODF and non-ODF (including declared but not verified) villages

In both ODF and non-ODF villages, a total of 18 households shall be selected following systematic random sampling procedure, out of which first 15 households will be canvassed subject to the availability of reliable informant in those households, and remaining 3 will be used as a substitute sample, if necessary.

Necessary adjustment has been made to sampling methodology to ensure State-wise margin of error to be less than 5%. This was done by increasing the number of villages for few States, which had higher MoE. In some of the large states, ODF verified HH proportion was quite less, hence an adjustment is done in order to keep margin of errors below five percent in sub-samples. The states coming under category are Andhra Pradesh, Telangana, Assam, Bihar, Karnataka, Tamil Nadu, Orrisa and MP. For the rest of the states no adjustment is necessary to contain the margin of error within the limit of five percent for both the sub-samples.

However, for those smaller States where total rural HH population for the whole universe is less (both verified and Non ODF) it is almost impossible to maintain margin of error below 5 in sub samples. Therefore, for these small states margin of error was maintained at the overall level only.

This sampling methodology is consistent to the general approach adopted for large scale surveys such as NSSOs.

4. Allocation of Sample within village for larger villages

If a village is having more than 200 households, the field research team shall first list out and map all types of settlements in terms of geographical (hamlets/satellite settlements etc.) and social (clusters of households by different caste, tribe etc.) for village segmentation. The first hamlet to be selected should contain the main part of the village (where majority of the population is residing) and other hamlet should be selected randomly from the rest of hamlets/groups to prepare household listing. However, as far as possible, sample households shall be selected in such a way to

represent each of socio economic groups, especially vulnerable households in the village.

State wise distribution of NARSS sample number of villages by ODF and Non-ODF streams is given below.

| | India/State/ Union Territory | | MIS Data from MDWS Sampled Villages** | | | | Adju Sam Villag | pled | |
|-----|---------------------------------|------------|---------------------------------------|--------------|---------------------|-----------|-----------------------|------|---------------|
| # | | Verified (| ODF number of | Non-OD | F* number of | | Non | | No |
| | INDIA | Villages | Households (HHs) | Villages | Households (HHs) | ODF | - OD F | ODF | n- OD F |
| | 1 | 2 | 3 | 4 | 5 | 6 | 7 | 8 | 9 |
| | India | 94,207 | 281,06,989 | 5,11,48 3 | 1409,44,016 | 1,07 8 | 5,0 58 | | |
| 1. | ANDAMAN & NICOBAR | - | - | 323 | 42,680 | - | 27 | - | 27 |
| 2. | ANDHRA PRADESH | 653 | 2,47,351 | 18,289 | 69,68,333 | 12 | 309 | 27 | 29 4 |
| 3. | ARUNACHAL PRADESH | - | - | 5,528 | 1,83,886 | - | 20 | - | 20 |
| 4. | ASSAM | 164 | 35,388 | 27,104 | 54,91,148 | 2 | 191 | 27 | 16 6 |
| 5. | BIHAR | 63 | 43,768 | 38,652 | 201,28,403 | 2 | 598 | 27 | 56 3 |
| 6. | CHHATTISGARH | 7,806 | 18,09,688 | 11,842 | 25,90,782 | 64 | 91 | 64 | 91 |
| 7. | DADRA & NAGAR HAVELI | - | - | 69 | 18,512 | - | 20 | - | 20 |
| 8. | GOA | - | - | 375 | 1,83,310 | - | 20 | - | 20 |
| 9. | GUJARAT | 14,341 | 40,49,050 | 4,024 | 10,30,564 | 193 | 48 | 193 | 48 |
| 10. | HARYANA | 4,109 | 15,81,911 | 2,630 | 10,17,077 | 66 | 42 | 66 | 42 |
| 11. | HIMACHAL PRADESH | 15,978 | 14,33,706 | | | 47 | 0 | 47 | 0 |
| 12. | JAMMU & KASHMIR | 3 | 1,080 | 7,446 | 14,91,094 | | 55 | 0 | 55 |
| 13. | JHARKHAND | 797 | 1,71,974 | 28,899 | 45,54,127 | 7 | 161 | 27 | 14 1 |
| 14. | KARNATAKA | 2,383 | 7,06,900 | 25,229 | 68,18,752 | 27 | 256 | 30 | 25 3 |
| 15. | KERALA | 2,033 | 46,83,084 | - | - | 148 | - | 148 | 0 |
| 16. | MADHYA PRADESH | 571 | 1,46,549 | 50,775 | 107,43,298 | 6 | 389 | 27 | 36 8 |
| 17. | MAHARASHTRA | 9,553 | 25,88,280 | 30,970 | 87,15,890 | 108 | 363 | 108 | 36 3 |

| 18. | MANIPUR | 61 | 5,514 | 2,787 | 4,42,275 | 2 | 0 | 0 | 27 |
|-----|---------------|--------|-----------|--------|------------|-----|-----|-----|---------|
| 19. | MEGHALAYA | 2,405 | 1,83,313 | 4,368 | 2,61,152 | 2 | 0 | 0 | 20 |
| 20. | MIZORAM | 175 | 32,049 | 529 | 89,477 | 20 | | 0 | 20 |
| 21. | NAGALAND | 302 | 58,914 | 1,149 | 1,93,483 | 2 | 0 | 0 | 27 |
| 22. | ODISHA | 258 | 57,608 | 47,016 | 89,11,046 | 2 | 286 | 27 | 26 1 |
| 23. | PUDUCHERRY | - | - | 265 | 89,873 | - | 20 | - | 20 |
| 24. | PUNJAB | 944 | 1,79,738 | 11,462 | 27,51,677 | 8 | 112 | 20 | 10 0 |
| 25. | RAJASTHAN | 10,238 | 30,56,474 | 31,271 | 79,38,172 | 94 | 244 | 94 | 24 4 |
| 26. | SIKKIM | 441 | 55,313 | - | - | 20 | - | 20 | 0 |
| 27. | TAMIL NADU | 848 | 4,84,915 | 11,694 | 89,04,641 | 18 | 321 | 27 | 31 2 |
| 28. | TELANGANA | 675 | 3,02,760 | 10,362 | 41,38,216 | 13 | 173 | 27 | 15 9 |
| 29. | TRIPURA | - | - | 1,033 | 6,98,874 | - | 22 | - | 22 |
| 30. | UTTAR PRADESH | 798 | 2,52,779 | 98,451 | 270,34,636 | 9 | 906 | 27 | 87 7 |
| 31. | UTTARAKHAND | 7,025 | 5,84,457 | 8,448 | 9,30,091 | 20 | 31 | 20 | 31 |
| 32. | WEST BENGAL | 11,583 | 53,54,426 | 30,491 | 85,82,547 | 190 | 302 | 190 | 30 2 |

| Annexure 5: NARSS Questionnaire |
|--|
| NATIONAL ANNUAL RURAL SANITATION SURVEY (NARSS) – ROUND 1 |
| QUESTIONNAIRE - HOUSEHOLD |
| Conventions used in this document: |
| Interviewer instructions are in red, bold, font. |
| Programmed items are in green font. Additionally all skip would be automated |
| Observation related questions are in bold Blue font |

| | IDENTIFICATION | |
|------|--|-----------------|
| l.1 | Please select the name and code of the State/Union Territory (UT) Dropdown menu containing the names and codes of the sampled states/UTs | |
| 1.2 | Please select the name and code of the district Dropdown menu containing the names and codes of the sampled district within the selected state/UT | |
| I.2A | Please select the name and code of the Block Dropdown menu containing the names and codes of the sampled sub district within the selected district | |
| 1.3 | Please select the name and code of the village Dropdown menu containing the names and codes of the sampled villages within the selected district suffix with code & original/additional | |
| 1.4 | Type of Village – (Auto code) | ODF 1 Non ODF 2 |
| 1.5 | Structure Number (alpha numeric) | |
| 1.6 | HH Number (numeric) | |
| 1.7 | Please write the interviewer name and code | |
| 1.8 | Please write the supervisor name and code | |
| 1.9 | Please write the name of Head of Household | |
| I.10 | Please write the name of the respondent | |
| 1.11 | Please write the mobile number of the respondent | |

| | Write '99999999' if respondent doesn't provides the phone number | |
|------|--|--|
| 1.12 | To be auto computed (not to be displayed) | |
| 1.13 | Interview start time To be auto computed (not to be displayed) | |

| Consent |
|--|
| Introduction: |
| Greetings! |
| My name is, and I am working as an interviewer with Kantar Public, a leading research organization. At present, we are conducting a survey under Swachh Bharat Mission (SBM) for MoDWS (Ministry of Drinking Water and Sanitation), Government of India to assess the sanitation behaviour of the population. We wish to know about you, your family, and your village, and would like to spend about 15 minutes with you. We are talking to several people in this and other villages. Talking to us or not is your decision. |
| Confidentiality: |
| The information that is collected during the interview will be kept private. If you talk to us, then you will help us complete our study |
| Contact Information: |
| The project team is willing to answer any questions you may have concerning the procedures described or the research. If you need more information on the survey, please contact the following person: |
| Dr Anoop Tripathi, PMC, Ministry of Drinking Water and Sanitation, Contact Number-9934302546 Pushpendra Mishra/Saptarshi Guha, KANTAR PUBLIC, Contact Number-011-42697800 |
| Respondent has given consent for both interview and clicking the picture of toilet - Yes- 1 No-2 |

| SECTION A: ACCESSIBILITY & FUNCTIONAL STATUS OF TOILET | | | | | | |
|--|----------|------------------|-------|------|--|--|
| Q | Question | Response Options | Codes | Skip | | |
| No. | | | | | | |
| | | | | | | |

| Q1 | Whether you and your family members have access to a toilet, if yes what kind of Toilet facility? | Yes- We have access to toilet Exclusively used by our family | 1 | |
|----|---|---|---|--------------|
| | SINGLE CODING | Yes- We have access to toilet used by multiple families (Shared toilet facility) | 2 | |
| | | Yes- We have access to a Public toilet facility (toilet is open to the general public) | 3 | Go to Q 6 |
| | | No- Our family doesn't have access to any toilet (family members usually defecates in the bush, fields, or other locations) | 4 | Go to Q 6 |

If coded 4 in Q 1 then interviewer should reconfirm once more before moving to next question & check that HH do not have any toilet facility & skip to Q7

If coded 1 & 2 in Q 1, then Application should open camera for clicking the picture of toilet, please take 3 photo of toilet from different direction, front side with structure, inside & back side of the toilet

| Q 2 | Observe the functionality of toilet | | Yes | No | |
|-----|---|--|-------|-----|---|
| | | Pan is completely broken | 1 | 2 | |
| | | Pan is choked | 1 | 2 | |
| | | Pits/tanks are completely covered | 1 | 2 | |
| | | Pipes are broken or open | 1 | 2 | |
| Q3 | Do you have/bring water for Toilet usage from outside OR you have water source inside your house/premises? SINGLE CODING | Yes –within the house/ premises Yes – from outside | | | |
| | (Observe evidence of water availability in the household –piped water supply in the toilet, or small water turf/tank next to the toilet, or bucket of water kept next to the toilet, or well in the | premises | | 2 | |
| | house premises or hand-pump, or any other water source. | No- Water is not available for toilet usage | , | 2 2 | |
| Q 4 | Can you please tell me where the human waste/excreta get drained from | Toilet drains waste directly | into | | |
| | the toilet? | Open Drain/Nallah | | 1 | |
| | SINGLE CODING | Open pit | | 2 | |
| | | Pond or river or stream or a water body etc. | ny | 3 | |
| | | Septic tank without soak pit | - | 4 | |
| | | Septic tank with a soak Pit | | 5 | |
| | | Single leach pit toilet | | 6 | - |
| | | double leach pit toilet | | 7 | • |
| | | A closed drain with Sewer s | ystem | 8 | • |
| | | Don't Know | | 9 | |

| Q 5 | In this question, various aspects are checked to access the hygienic situation | | | | | | | Yes | 5 | No | | |
|---------|--|--------------------------------|-----------------|---|--------------------------------------|---------------------------------------|---------|--|------------|---|--|-----------------------------|
| | toilet. Read each of the option one by or select 'Yes' or 'No' as applicable. Pleas that this is an 'observation only' question it should not be asked to the responden | ne and e note on and | A | a ta | let is con ink/pit o ver syste | r to a | d to | 1 | | 2 | | |
| | OBSERVATION ONLY: Observe hygienic situation in the toilet. | the | В | • | proof se ater trap | | | 1 | | 2 | | |
| | | | С | exc | ether hu reta visil atting ar | ole in t | he | 1 | | 2 | | |
| SECTION | B : USAGE OF TOILET | | | | | | | | | | | |
| Q. No. | Question | | sponse tions | 2 | Codes | | | Skip | | | | |
| | Can you please tell me total mer last 6 months in this household, practice of all your household m | also te | ell me | | | _ | - | | | ng for | | |
| Q6 | Name (Prepare complete Family Roaster for members aged 3 years or more and ask about their Defecation practice) Start with elder member | A. Sex of the (nam e) | | B. Age of the (nam e) in comp leted years | | C. Does (nam e) use latrin e alway s? | | (nam e) use latrin e alway | | D. If coded in Q.no Did (nam use latrir often, ra and never last 15 days? | | o. C me) ine arely |
| | | | | | | | | | - | | | |
| | | М | F | | | Yes | No | Ofte n | Rarel y | Nev er | | |
| 1 | | M 1 | F 2 | | rears | Yes 1 | No 0 | | | | | |
| 2 | | | | у | | | | n | У | er | | |
| | | 1 | 2 | | ears | 1 | 0 | n 1 | у 2 | er O | | |
| 2 | | 1 | 2 | | rears rears | 1 | 0 | 1 1 | y 2 2 | 0 0 | | |

| Q 7 | Are there any children aged less than 3 years in your family? | Total children | | If coded '0' go to Q 9 |
|-----|---|----------------------|---|------------------------------|
| | | Male Female | | |
| Q 8 | How is child faeces disposed mostly? (SINGLE CODING) This | Put into Toilet | 1 | |
| | question would be asked for less than 3 years of child has | Buried in the ground | 2 | |
| | reported in Q 7 | Thrown in open area | 3 | |
| | | Thrown into garbage | 4 | |
| | | Don't Know/Can't Say | 9 | |

| SECTION | C : SOLID & LIQUID WASTE DISPOSAL P | RACTICE | | | |
|-----------|--|--|-----|--------|----------------|
| Q 9 | OBSERVATION ONLY: Is there any garbage or litter piled | Yes | 1 | | |
| | up or dumped within the premise of the house? (Please take GPS enabled photograph) SINGLE CODING (Litter would mean – solid waste (in rural areas, examples of solid waste include wastes from kitchens, gardens, cattle sheds, agriculture, and materials such as metal, paper, plastic, cloth, and so on. They are organic and inorganic materials with no remaining economic value to the owner produced by homes). It will not include properly stored garbage in covered bins for disposal, properly collected cattle dung within the premises of the house for agricultural and other uses.) | No | 2 | | |
| If Yes co | ded in Q 9 then Application should ope up area, take o | | | e dump | area of dumped |
| Q 10 | How is the solid waste of HH disposed mostly? | Indiscrimina is no formal arrangemen | • | 1 | |
| | | Safely dispos within the household | sed | 2 | |
| | | disposed Ou a common sy | | 3 | |
| Q 11 | OBSERVATION ONLY: Is there stagnant waste water | Yes | | 1 | |
| | within the premise of the house? (Please take GPS enabled photograph) | No | | 2 | |
| | SINGLE CODING | | | | |

| | (Waste water means –grey water generated by households stagnant at the time of survey. It would not include accumulated rain water or permanent homestead ponds within the house premises.) | | | |
|----------|---|----------------------------|------------|----------------|
| f Yes co | ded in Q 11 then Application should op | | he stagnan | t waste water, |
| | take one | photograph | | |
| Q 12 | Where is the HH waste water disposed | Indiscriminate | 1 | |
| | uisposeu | Flows into a common system | 2 | |
| | | Kitchen Garden | 3 | |
| | | Soak Pit | 4 | |
| | | Any others (specify) | 9 | |

| D.1 | What is the religion of Head of the | Hindu | 1 |
|----------------------|--|--|---|
| | Household? | Muslim | 2 |
| | | Christian | 3 |
| | | Sikh | 4 |
| | | Other (specify) | 7 |
| | | APL | 1 |
| 0.2 | Which economic category does the household belong to | BPL | 2 |
| industrial serong to | Don't Know | 9 | |
| | Which caste category does the Head of household belong to? SINGLE | Other Backward Caste | 1 |
| D.3 | RESPONSE ONLY (Interviewer may obtain a quick list of caste category for the hhs living in this village from the opinion leader if necessary) | Scheduled Caste | 2 |
| | | Scheduled Tribe | 3 |
| | | General Caste | 4 |
| | | Don't Know/Can't Say | 9 |
| | Which category head of the | SC | A |
| | Household belong to | ST | В |
| | multiple answer possible If coded 2 in D.3, auto code option A in D.4. | Landless (No homestead land or agriculture land) having less than or equal to 0.005 acres of land. | С |
| D.4 | If coded 3 in D.3, auto code option B in D.4. | Small & Marginal Farmers (who owns more than 0.005 acre but less than or equal to 4 acre of land. | D |
| | | Labourers with only Homestead land (No agriculture land) | E |
| | | Physically handicapped | F |

| Women Headed HH | G | |
|--------------------------|---|--|
| None of These/Don't Know | Н | |

Thank the respondent

| NATIONAL ANNUAL RURAL SANITATION SURVEY (NARSS) – ROUND 1 |
|--|
| DRAFT QUESTIONNAIRE - SCHOOL SCHEDULE |
| |
| |
| NATIONAL ANNUAL RURAL SANITATION SURVEY (NARSS) – ROUND 1 |
| QUESTIONNAIRE - SCHOOL |
| |
| |
| Conventions used in this document: |
| |
| Interviewer instructions are in red, bold, font. |
| Programmed items are in green font. Additionally all skip would be automated |
| Observation related questions are in bold Blue font |

| | IDENTIFICATION | |
|------|--|---|
| l.1 | Please select the name and code of the state/Union Territory (UT) Dropdown menu containing the names and codes of the sampled states/UTs | |
| 1.2 | Please select the name and code of the district Dropdown menu containing the names and codes of the sampled district within the selected state/UT | |
| I.2A | Please select the name and code of the sub-district Dropdown menu containing the names and codes of the samples sub district within the selected district | |
| 1.3 | Please select the name and code of the village Dropdown menu containing the names and codes of the sampled villages within the selected district | |
| 1.4 | Type of Village – (Auto code) | ODF 1 Non ODF 2 |
| 1.5 | Please write the School name | |
| 1.6 | Please write the Interviewer/supervisor name and code | |
| 1.7 | Please write the name of the respondent | Head Master/Mistress/Principal- 1 Teacher other than HM/Principal - 2 |

| | | Administrator/Non-Teaching Staff- |
|------|--|-----------------------------------|
| | | 3 |
| | | |
| | Please write the mobile number of the respondent | |
| 1.8 | Write '99999999' if respondent doesn't provides | |
| | the phone number | |
| | the phone number | |
| | Date of the interview | |
| 1.9 | | |
| | To be auto computed (not to be displayed) | |
| | Interview start time | |
| 1.10 | The view start time | |
| | To be auto computed (not to be displayed) | |
| | | |

| Consent |
|--|
| Introduction: |
| |
| Greetings! |
| My name is, and I am working as an interviewer with Kantar Public, a leading research organization. At present, we are conducting a survey under Swachh Bharat Mission (SBM) for MoDWS (Ministry of Drinking Water and Sanitation), Government of India to assess the sanitation behaviour of the population. We wish to know about sanitation facility in your school, and would like to spend about 15 minutes with you. We are talking to several people in this and other villages. Talking to us or not is your decision. |
| Confidentiality: |
| The information that is collected during the interview will be kept private. If you talk to us, then you will help us complete our study |
| Contact Information: |
| The project team is willing to answer any questions you may have concerning the procedures described or the research. If you need more information on the survey, please contact the following person: |
| 1. Dr Anoop Tripathi, PMC, Ministry of Drinking Water and Sanitation, Contact Number-9934302546 |
| Pushpendra Mishra/Saptarshi Guha , KANTAR PUBLIC , Contact Number-011- 42697800 |
| |
| |
| |

| Q. No. | Question | Response Options | Codes | Skip |
|-----------|---|--|-------|--|
| Q1 | Please select the type of the school | Boys school | 1 | |
| | | Girls school | 2 | |
| | | Co-educational school | 3 | |
| Q 2 | Number of Students | Boys | | |
| | | | NA-9 | |
| | | Girl | | |
| | | | NA-9 | |
| Q 3 | Education level of School | Primary (Grade 1-5) | 1 | |
| | (Single Coding)(Record the highest level of education level in case of multiple) | Lower Secondary/Elementary (Grades 6-8) | 2 | |
| | | Secondary (Grades 9-10) | 3 | |
| | | Higher Secondary (Grades 10-12) | 4 | |
| Q 4 | Does the school have access to any toilet facility? | Yes, school has an access to a toilet facility | 1 | |
| | SINGLE CODING | School do not have access to a toilet facility | 2 | END |
| Q 5 | Are there separate toilets for boys and girls in the school? SINGLE CODING | Yes, there are separate toilets | 1 | |
| | | No, there are no separate toilets | 2 | |
| | nterviewer should request the respondent to sho | Not applicable | 3 | Auto coded in case ans is 1 or 2 in Q1 |

Interviewer should request the respondent to show the toilet facility if option 1 is selected in Q4. If respondent has given consent for clicking the picture.

| Q. No. | Question | Response Options | | | Co | odes | Skip |
|-----------|--|-----------------------------------|-----------------|----------|---------|-------------------|------|
| Q 6 | Will you allow us to click the photographs | Yes | | | | 1 | |
| | of the toilet facility which is accessible to this school? | No | 1 | | | 2 | |
| If co | ded 1 in Q 6 application should open came two photographs mus | | | - | toilet, | GPS end | bled |
| Q 7 | Please specify the total number of toilet seats available in the school | Во | ys | | | | |
| | If coded 2 in Q 5 application should not accept any response in Boys or in Girls only accept in common | Giı | ·ls | | | | |
| | | Со | mmon | | | | |
| Q 8 | Please specify the total number of toilet seats functional in the school | Во | ys | | | | |
| | If coded 2 in Q 5 application should not accept any response in Boys or in Girls only accept in common | Giı | ·ls | | | | |
| | | Со | mmon | | | | |
| Q 9 | Observe the functionality of toilet | | Functional | ity | Yes | No | |
| | | Pa | n is completely | broken | 1 | 2 | |
| | | Pa | n is choked | | 1 | 2 | |
| | | Pits/tanks are completely covered | | npletely | 1 | 2 | |
| | | Pip | es are broken | or open | 1 | 2 | |
| | | Toilet is locked | | 1 | | Skip to Q12 | |
| Q 10 | OBSERVATION ONLY: | | | | Yes | No | |
| | Observe the usage of the toilet. | А | Toilet appears | | 1 | 2 | |

| Q. No. | Question | Re | sponse Options | Codes | | Skip |
|-----------|---|-----|--|---------|----|----------|
| | What is the usage status of the toilet? | | use with water inside or nearby | | | |
| Q 11 | In this question, various aspects are being checked to access the hygienic situation of the toilet. Read | | | Ye | S | No |
| | each of the option one by one and select 'Yes' or 'No' as applicable. Please note that this is an 'observation only' question and it should not be asked to the respondent. | A | Toilet is connected to a tank/pit or to a sewer system | 1 | | 2 |
| | OBSERVATION ONLY: Observe the hygienic situation in the toilet. | В | Fly proof seal available (Water trap/lid/other) | 1 | | 2 |
| | | С | Whether human excreta visible in the squatting area | 1 | | 2 |
| Q 12 | Observe evidence of handwashing practice after use of toilet | | Only Water available near the toilet or water point | | | |
| | | | ap available near the let or water point | 2 | | |
| | | ava | th water & soap ailable near the toilet or ter point | 3 | | |
| | | | ither soap nor water ailable near the toilet | 4 | | |
| Q 13 | Can you please tell me where the human | Toi | ilet discharges waste dire | ctly in | to | |
| | waste/excreta get discharged from the toilet? | Ор | en Drain/Nallah | | 1 | |
| | SINGLE CODING | Ор | en pit | | 2 | - |
| | | | nd or river or stream or an ter body etc. | ny | 3 | |
| | | Sep | otic tank without soak pit | | 4 | - |
| | | Sep | otic tank with a soak Pit | | 5 | - |
| | | Sin | gle leach pit toilet | | 6 | - |
| | | Do | uble leach pit toilet | | 7 | <u> </u> |

| Q. No. | Question | Response Options | Codes | Skip |
|-----------|----------|----------------------------------|-------|------|
| | | A closed drain with Sewer system | 8 | |
| | | Don't Know | 9 | |

| NATIONAL ANNUAL RURAL SANITATION SURVEY (| NARSS) – ROUND 1 |
|---|------------------|
|---|------------------|

QUESTIONNAIRE - ANGANWADI CENTRE

Conventions used in this document:

Interviewer instructions are in red, bold, font.

Programmed items are in green font. Additionally all skip would be automated

Observation related questions are in bold Blue font

| | IDENTIFICATION | |
|------|--|-----------------|
| I.1 | Please select the name and code of the state/Union Territory (UT) Dropdown menu containing the names and codes of the sampled states/UTs | |
| 1.2 | Please select the name and code of the district Dropdown menu containing the names and codes of the sampled district within the selected state/UT | |
| I.2A | Please select the name and code of the sub-district Dropdown menu containing the names and codes of the sampled sub district within the selected district | |
| 1.3 | Please select the name and code of the village Dropdown menu containing the names and codes of the sampled villages within the selected district suffix with code & original/additional | |
| 1.4 | Type of Village – (Auto code) | ODF 1 Non ODF 2 |
| 1.5 | Please write the name of the Anganwadi Worker/Helper | |
| 1.6 | Please write the interviewer/Supervisor name and code | |
| 1.7 | Please write the mobile number of the respondent Write '99999999' if respondent doesn't provides the phone number | |
| 1.8 | Date of the interview To be auto computed (not to be displayed) | |
| 1.9 | Interview start time To be auto computed (not to be displayed) | |

| <u>Consent</u> |
|---|
| Introduction: |
| Greetings! |
| My name is, and I am working as an interviewer with Kantar Public, a leading research organization. At present, we are conducting a survey under Swachh Bharat Mission (SBM) for MoDWS (Ministry of Drinking Water and Sanitation), Government of India to assess the sanitation behaviour of the population. We wish to know about the sanitation facilities in your anganwadi centre and would like to spend about 15 minutes with you. We are talking to several people in this and other villages. Talking to us or not is your decision. |

Confidentiality:

The information that is collected during the interview will be kept private. If you talk to us, then you will help us complete our study

Contact Information:

The project team is willing to answer any questions you may have concerning the procedures described or the research. If you need more information on the survey, please contact the following person:

- 1. Dr Anoop Tripathi, PMC, Ministry of Drinking Water and Sanitation , Contact Number-9934302546
- 2. Pushpendra Mishra/Saptarshi Guha, KANTAR PUBLIC, Contact Number-011- 42697800

| Q. No. | Question | Response Options | Codes | Skip |
|------------|--|---|--------------|--------------------|
| Q 1 | Does the AWC have its own building? | Yes, has its own building | 1 | |
| | | No , running in Private building/house | 2 | |
| Q 2 | Does the AWC have access to any toilet facility? | Yes, AWC has a toilet in own premises | 1 | Q3 |
| | SINGLE CODING | AWC uses the toilet of the Household in case of center happens in a private building | 2 | Q3 |
| | | AWC do not have access a toilet facility | 3 | Q 10 |
| | or should request the respondent to show the toile consent for clicking the picture. | t facility if option 1 is selected | in Q2. If re | spondent |
| Q 3 | Will you allow us to click the photographs of the toilet facility which is accessible to | Yes | 1 | |
| | this AWC? | No | 2 | |
| If coded : | 1 in Q 3 application should open camera for photographs must be taken of the toilet | | | bled two |
| Q 4 | Observe the functionality of toilet | Y | es No | |
| | | Pan is completely broken | . 2 | |
| | | Pan is choked 1 | . 2 | |
| | | Pits/Tanks are completely covered | . 2 | |
| | | Pipes are broken or open | . 2 | |
| | | Toilet is locked 1 | | Skip to Q 10 |
| Q 5 | | Yes | 1 | |

| Q. No. | Question | Response Options | Codes | Skip |
|--------|--|--|-------|------|
| Q 1 | Does the AWC have its own building? | Yes, has its own building | g 1 | |
| | | No , running in Private building/house | 2 | |
| | OBSERVATION ONLY: Observe the presence of water near the toilet. Is there a provision of water for use of the toilet? SINGLE CODING | | | |
| | (Observe evidence of water availability in the AWC –piped water supply in the toilet, or small water turf/tank next to the toilet, or bucket of water kept next to the toilet, or well in the house premises or hand-pump, or any other water source, plus cleanliness of the toilet.) | No | 2 | |

| Q 6 | In this question, various aspects are being checked to access the hygienic situation of the toilet. Read each of the option | | | Yes | No |
|-----|--|---|--|----------|----|
| | one by one and select 'Yes' or 'No' as applicable. Please note that this is an 'observation only' question and it should not be asked to the respondent. | а | Toilet is connected to a tank/pit or to a sewer system | 1 | 2 |
| | OBSERVATION ONLY: Observe the hygienic situation in the toilet. | b | Fly proof seal available (Water trap/lid/other) | 1 | 2 |
| | | С | Whether human excreta visible in the squatting area | 1 | 2 |
| Q 7 | Can you please tell me where do excreta get | Toi | ilet discharges waste direc | tly into | |
| | discharge from the toilet? | Ор | en Drain/Nallah | | 1 |
| | SINGLE CODING | Ор | en pit | | 2 |
| | | Pond or river or stream or any water body etc. | | 3 | |
| | | Sep | otic tank without soak pit | | 4 |
| | | Sep | otic tank with a soak Pit | | 5 |
| | | Sin | gle leach pit toilet | | 6 |
| | | Do | uble leach pit toilet | | 7 |
| | | | losed drain with Sewer tem | | 8 |
| | | Do | n't Know | | 9 |
| Q 8 | OBSERVATION ONLY: Observe usage of the toilet. | | | Yes | No |
| | What is the usage status of the toilet? | Α | Toilet appears to be well kept, in regular use with water inside or nearby | 1 | 2 |
| Q 9 | OBSERVATION ONLY Whether water is available for handwashing after | Only Water available near the toilet or water point | | 1 | |
| | the usage of toilet | Soap available near the toilet or the water point | | 2 | |

| | | Both water & soap available near the toilet or water point | 3 | |
|------|--|--|---|--|
| | | Neither soap nor water available near the toilet | 4 | |
| Q 10 | If no toilet in Anganwadi Center then where do | Nearby Public Toilet | 1 | |
| | the children go to defecate? | School Toilet | 2 | |
| | | Own House | 3 | |
| | | Open | 4 | |

NATIONAL ANNUAL RURAL SANITATION SURVEY (NARSS) – ROUND 1

QUESTIONNAIRE – PUBLIC/COMMUNITY TOILET

| Conventions | used | in this | document: |
|--------------------|------|-----------|-----------|
| COLLACTICIONS | useu | 111 (1113 | uocument. |

Interviewer instructions are in red, bold, font.

Programmed items are in green font. Additionally all skip would be automated

Observation related questions are in bold Blue font

| | IDENTIFICATION | |
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| I.2A | Please select the name and code of the sub-district Dropdown menu containing the names and codes of the sampled sub district within the selected district | |
| 1.3 | Please select the name and code of the village Dropdown menu containing the names and codes of the sampled villages within the selected district | |
| 1.4 | Type of Village – (Auto code) | ODF 1 Non ODF 2 |
| 1.5 | Mention the land mark of the Community Toilet | |
| 1.6 | Please write the interviewer/supervisor name and code | |
| 1.7 | Please write the name of the respondent | |
| 1.8 | Please write the mobile number of the respondent Write '99999999' if respondent doesn't provides the phone number | |
| 1.9 | Date of the interview To be auto computed (not to be displayed) | |
| I.10 | Interview start time | |

| To be auto computed (not to be displayed) | |
|---|--|

| Consent |
|---|
| Introduction: |
| |
| Greetings! |
| My name is, and I am working as an interviewer with Kantar Public, a leading research organization. At present, we are conducting a survey under Swachh Bharat Mission (SBM) for MoDWS (Ministry of Drinking Water and Sanitation), Government of India to assess the sanitation behaviour of the population. We wish to know about the sanitation facility in this public toilet located in your village, and would like to spend about 15 minutes with you. We are talking to several people in this and other villages. Talking to us or not is your decision. |
| Confidentiality: |
| The information that is collected during the interview will be kept private. If you talk to us, then you will help us complete our study |
| Contact Information: |
| The project team is willing to answer any questions you may have concerning the procedures described or the research. If you need more information on the survey, please contact the following person: |
| 1. Dr Anoop Tripathi, PMC, Ministry of Drinking Water and Sanitation, Contact Number- |
| 9934302546 2. Pushpendra Mishra/Saptarshi Guha , KANTAR PUBLIC , Contact Number-011- 42697800 |
| |
| |
| |

| Q. | Question | Response Options | (| Codes | Skip |
|--|--|---|-----|-------|--------------------|
| No. | | | | | |
| Q 1 | Are there any public toilets located in the village? | Yes | | 1 | |
| | | No | | 2 | END |
| | SINGLE CODING | | | 2 | END |
| Q 2 | How many public toilet facilities are there | | • | | |
| | in the village? | | | | |
| | SINGLE CODING | | | | |
| Interviewer should request the respondent to show the toilet facility. If respondent has given consent for | | | | | |
| clicking the picture. | | | | | |
| Q3 | Will you allow us to click the photographs of this public toilet facility? | Yes | | 1 | |
| | | No | | 2 | |
| If coded 1 in Q 3 application should open camera for clicking the picture of toilet, GPS enabled | | | | | |
| two photographs must be taken of the toilet. | | | | | |
| Q 4 | Are there separate sections for men and women in the toilet? SINGLE CODING | Yes, there are separate | | 1 | |
| | | sections | | - | |
| | | No, there are no separate sections | | 2 | |
| | | | | - | |
| Q 5 | Observe the functionality of toilet | | Yes | No | |
| | | Pan is completely broken | 1 | 2 | |
| | | Pan is choked | 1 | 2 | |
| | | Pits/Tanks are completely covered | 1 | 2 | |
| | | Pipes are broken or open | 1 | 2 | |
| | | The toilet is locked/not in use | 1 | 2 | Skip to Q 10 |
| Q6 | Is water available for use in the toilets | Yes | 1 | | |
| | | No | 2 | | |
| Q 7 | Observe evidence of handwashing practice after use of toilet | Only Water available near the toilet or water point | 1 | | |

| Q. No. | Question | Re | sponse Options | | Co | odes | Skip |
|-----------|--|-----|--|------|------|------|------|
| | | | ap available near the let or water point | 2 | | | |
| | | ava | th water & soap ailable near the toilet or ter point | 3 | | | |
| | | | ither soap nor water ailable near the toilet | 4 | | | |
| Q 8 | OBSERVATION ONLY: Observe the usage of the toilet. | | | Ye | es | No | |
| | What is the usage status of the toilet? | А | Toilet appears to be well kept, in regular use with water inside or nearby | 1 | | 2 | |
| Q 9 | Can you please tell me where the human waste/excreta get discharged from the | То | ilet discharges waste dire | ctly | into | 0 | |
| | toilet? | Ор | en Drain/Nallah | | | 1 | |
| | SINGLE CODING | Ор | en pit | | | 2 | |
| | | | nd or river or stream or ar ter body etc. | ny | | 3 | |
| | | Se | otic tank without soak pit | | | 4 | |
| | | Se | otic tank with a soak Pit | | | 5 | |
| | | Sin | gle leach pit toilet | | | 6 | |
| | | Do | uble leach pit toilet | | | 7 | |
| | | | closed drain with Sewer stem | | | 8 | |
| | | Do | n't Know | | | 9 | |
| Q 10 | Is there a user charge for use of the toilet | Yes | S | | | 1 | |
| | | No | 1 | | | 2 | |

| NATIONAL ANNUAL RURAL SANITATION SURVEY (NARSS) – ROUND 1 |
|--|
| QUESTIONNAIRE-PUBLIC SPACES SANITATION SCHEDULE |
| |
| |
| |
| |
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| Programmed items are in green font. Additionally all skip would be automated |
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| | IDENTIFICATION | | | | | |
|-----------|---|----------|-----------------|---------------|--------------------------|------|
| I.1 | Please select the name and code of the state/Union Ter Dropdown menu containing the names and codes of the states/UTs | , . | • | | | |
| 1.2 | Please select the name and code of the district Dropdown menu containing the names and codes of the within the selected state/UT | ne samp | led o | listrict | | |
| I.2A | Please select the name and code of the Block Dropdown menu containing the names and codes of the district within the selected state/UT | ne samp | led s | ub | | |
| 1.3 | Please select the name and code of the village Dropdown menu containing the names and codes of the within the selected district | ne samp | led v | illages | | |
| 1.4 | Type of Village – (Auto code) | | | | ODF 1 Non ODI 2 | F |
| 1.5 | Please write the supervisor name and code | | | | | |
| 1.6 | Date of the interviewTo be auto computed (not to be d | isplayed | d) | | | |
| 1.7 | Interview start timeTo be auto computed (not to be dis | splayed) | | | | |
| Q. No. | Question | | | ponse ions | Codes | Skip |
| Q1 | Area that are/were used for open defecation in the past | | Fou | | 1 | |
| | | | faed | ces not nd | 2 | |
| Q2 | A. Places having instances for Open Defecation | B. Level | evel of Instanc | | | |

| | A. Important Public Places or locations | | Avai in Th Villa | | Visible faeces Found | faeces not found | |
|----|---|--|------------------------|--------------------|----------------------------|------------------------|-------|
| | | | Yes | No | | | |
| | & | Hospitals/Public Health Centre | 1 | 2 | 1 | 2 | |
| | | Schools | 1 | 2 | 1 | 2 | |
| | B . Instances of people | Panchayat Bhawan | 1 | 2 | 1 | 2 | |
| | defecating in | Community Centres/Halls | 1 | 2 | 1 | 2 | |
| | the open or visible faeces on ground | Places of Worship- Temple/Gurdwara/Masjid/Church | 1 | 2 | 1 | 2 | |
| | | Bus stand/Railway Station/Market Places | 1 | 2 | 1 | 2 | |
| | | Public/Govt Offices | 1 | 2 | 1 | 2 | |
| | | Public Drinking Water Sources(Well/Hand pump/Stand post/Fountains/Springs/Community Tanks | 1 | 2 | 1 | 2 | |
| | | Others(Specify) | 1 | 2 | 1 | 2 | |
| | For every place | s If coded 1 in Q 2B then application s | hould | camer | a for taki | ng photog | graph |
| Q3 | Open ground/fie | lds | | Visi fae Fou | ces | 1 | |
| | | | | fae fou | ces not nd | 2 | |
| | If code | ed 1 in Q 3 then application should car | mera f | or taki | ng photo | graph | L |
| Q4 | Roads alongside | the village | | Visi fae Fou | ces | 1 | |
| | | | | fae fou | ces not nd | 2 | |
| | If code | ed 1 in Q 4 then application should car | mera f | or taki | ng photo | graph | |

| Q5 | Any infamous places | | Visible | _ | | | | | | |
|-----|--|-------------------------------------|--|---|--|--|--|--|--|--|
| | | | faeces Found | 1 | | | | | | |
| | | | faeces not found | 2 | | | | | | |
| | If coded 1 in Q 5 then application sl | should camera for taking photograph | | | | | | | | |
| Q 6 | Is the Village performing safe disposal of Solid waste | No trea | atment of solid waste | 1 | | | | | | |
| | Solid Waste | Open b | urning | 2 | | | | | | |
| | | Dumpe bodies | d in river/ water | 3 | | | | | | |
| | | arrange | unity level composting ement(/Vermicompostetc) | 4 | | | | | | |
| | | | unity level waste on arrangements | 5 | | | | | | |
| | | | ated waste collected, ely managed | 6 | | | | | | |
| Q 7 | How is the waste water disposed of? (Multiple response possible) | No dra | inage system/ soak pit | 1 | | | | | | |
| | (Widthple response possible) | Drainin body/r | g in open water iver | 2 | | | | | | |
| | | Flows i | n a some kind of safe | 3 | | | | | | |
| | | into dra | ind of treatment (ain/ kitchen /soak pit) | 4 | | | | | | |
| Q 8 | Public places show minimal level of littering | Yes | | 1 | | | | | | |
| | OBSERVATION ONLY: Observe the whole village public places and record | No | | 2 | | | | | | |
| Q 9 | Public places show minimal level of water logging | Yes | | 1 | | | | | | |
| | OBSERVATION ONLY: Observe the whole village public places and record | No | | 2 | | | | | | |

Annexure 6: DASH Board Design & Layout

National Annual Rural Sanitation Survey (NARSS)

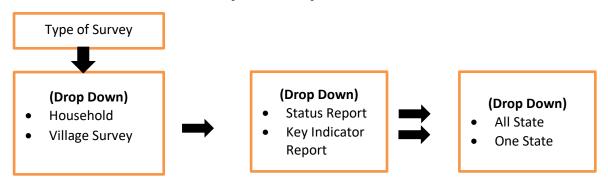
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|----------|--|
| Password | |

NARSS -At a glance **HH Surveyed** State wise Coverage Status-Bar Chart (HH) Coverage Count (in %) **AWC Surveyed** State wise Coverage Status-Bar Chart (AWC) Coverage (in Count **School Surveyed** State wise Coverage Status- Bar Chart (School) Coverage (in Count **Public Toilet Surveyed** State wise Coverage Status-Bar Chart (Public Coverage Toilet) Count (in %)

State Report (Please click on State Name in the below map)



National Annual Rural Sanitation Survey (NARSS)



HH-All State

| | | | O | DF | | | Non ODF | | | | | | | | |
|-------|------------|---------------|--------------|------------|---------------|--------------|------------|---------------|--------------|------------|---------------|--------------|--|--|--|
| State | | PSUs | | HHs | | | | PSUs | | HHs | | | | | |
| Name | Tar get | Comp leted | Cove rage | | | |
| Α | | | | | | | | | | | | | | | |
| В | | | | | | | | | | | | | | | |

HH-One State

| | | | | OI | DF | | | Non ODF | | | | | | | | |
|----------|--|------------|---------------|--------------|------------|---------------|--------------|------------|---------------|--------------|------------|---------------|--------------|--|--|--|
| District | | | PSUs | | | HHs | | | PSUs | | HHs | | | | | |
| Name | | Tar get | Comp leted | Cove rage | | | |
| А | | | | | | | | | | | | | | | | |
| В | | | | | | | | | | | | | | | | |
| С | | · | | | | | | | | | | | | | | |
| | | | | | | | | | | | | | | | | |

(Select the district for PSU wise Report)

HH-PSU

| DCII NI. | | ODF | | Non ODF | | | | | | |
|----------|--------|-----------|----------|---------|-----------|----------|--|--|--|--|
| PSU Name | Target | Completed | Coverage | Target | Completed | Coverage | | | | |
| Α | | | | | | | | | | |
| В | | | | | | | | | | |
| С | | | | | | | | | | |

National Annual Rural Sanitation Survey (NARSS)

Village Survey-All State

| | Vindge Survey An State | | | | | | | | | | | | | | | | | |
|-----------|------------------------|-----|-----|--------|-----|-----|------------------|-----|---------|-----|-----|-------|-----|------------------|-----|-----|--|--|
| | | | | (| ODF | | | | Non ODF | | | | | | | | | |
| Stat e | | AWC | | School | | | Public Toilet | | AWC | | | Schoo | I | Public Toilet | | | | |
| Na | Т | Co | Со | Т | Co | Со | Со | Со | Т | Со | Со | Т | Со | Со | Со | Co | | |
| me | ar | mpl | ver | ar | mpl | ver | mpl | ver | ar | mpl | ver | ar | mpl | ver | mpl | ver | | |
| | ge | ete | ag | ge | ete | ag | ete | ag | ge | ete | ag | ge | ete | ag | ete | ag | | |
| | t | d | е | t | d | е | d | е | t | d | е | t | d | е | d | е | | |
| Α | | | | | | | | | | | | | | | | | | |
| В | | | | | | | | | | | | | | | | | | |

Village Survey -One State

| | | | | (| ODF | | | | Non ODF | | | | | | | | | |
|-----------------|--------------------|-----------------------|----------------------|--------------------|-----------------------|----------------------|-----------------------|----------------------|--------------------|-----------------------|----------------------|--------------------|-----------------------|----------------------|-----------------------|----------------------|--|--|
| Distr | | AWC | | School | | | Public Toilet | | AWC | | | | Schoo | l | Public Toilet | | | |
| ict Nam e | T ar g et | Co mpl ete d | Co ver ag e | T ar g et | Co mpl ete d | Co ver ag e | Co mpl ete d | Co ver ag e | T ar g et | Co mpl ete d | Co ver ag e | T ar g et | Co mpl ete d | Co ver ag e | Co mpl ete d | Co ver ag e | | |
| Α | | | | | | | | | | | | | | | | | | |
| В | | | | | | | | | | | | | | | | | | |

Village Survey -PSU

| | | | | (| DDF | | | | Non ODF | | | | | | | | |
|----------|----------------|-----------------------|----------------------|----------------|-----------------------|----------------------|-----------------------|----------------------|----------------|-----------------------|----------------------|----------------|-----------------------|----------------------|-----------------------|----------------------|--|
| PS UN | | AWC | | School | | | Public Toilet | | | AWC | | | Schoo | I | Public Toilet | | |
| am e | Ta rg et | Co mpl ete d | Co ver ag e | Ta rg et | Co mpl ete d | Co ver ag e | Co mpl ete d | Co ver ag e | Ta rg et | Co mpl ete d | Co ver ag e | Ta rg et | Co mpl ete d | Co ver ag e | Co mpl ete d | Co ver ag e | |
| Α | | | | | | | | | | | | | | | | | |
| В | | | | | | | | | | | | | | | | | |

KEY INDICATOR REPORT

| ODF | Non-ODF | | | | | | |
|-----|---------|--|--|--|--|--|--|

| State | Number of HH who do not have access toilet (If coded 4 in Q No -1) | Number of HH defecate in open place in last one month (if coded any number in Q No. 8 B) | Number of HH who do not have access toilet (If coded 4 in Q No -1) | Number of HH defecate in open place in last one month (if coded any number in Q No. 8 B) |
|-------|--|---|--|---|
| Α | | | | |
| В | | | | |
| С | | | | |

HH-One State

| | 0 | DF | Non-ODF | | |
|-----------|--|---|--|---|--|
| Districts | Number of HH who do not have access toilet (If coded 4 in Q No -1) | Number of HH defecate in open place in last one month (if coded any number in Q No. 8 B) | Number of HH who do not have access toilet (If coded 4 in Q No -1) | Number of HH defecate in open place in last one month (if coded any number in Q No. 8 B) | |
| Α | | | | | |
| В | | | | | |
| С | | | | | |

HH-Village

| | Ol | DF | Non-ODF | | |
|-----------------|--|---|--|---|--|
| Village Name | Number of HH who do not have access toilet (If coded 4 in Q No -1) | Number of HH defecate in open place in last one month (if coded any number in Q No. 8 B) | Number of HH who do not have access toilet (If coded 4 in Q No -1) | Number of HH defecate in open place in last one month (if coded any number in Q No. 8 B) | |
| Α | | | | | |
| В | | | | | |
| С | | | | | |

Annexure 7: Question and DLIs Matrix

For DLI 1

| SNO | Type of Schedule | Question No | Question | Option indicating No OD incidence | Criteria (clearly spelled out as Positive statements) |
|-----|---------------------|----------------|---|--|--|
| 1 | HH Schedule | 1 | Toilet facility is accessible to you and your family members? | 1, 2, or 3 | Accessibility to toilet |

| 2 | 2 | Observe for functionality - Pan is completely broken -Pan is choked - Pits/tanks are completely covered - Pipes are broken or open | 2 2 1 2 | functional Toilets |
|---|---|--|---------------------------|---|
| 3 | 4 | where the human waste/excreta get disposed from the toilet? | 5,6,7,8 | Safe discharge of Human excreta from toilet |
| 4 | 5 | Hygiene situation of toilet | A - 1 B-1 C- 2 | hygienic toilet (Oro-fecal route broken) |
| 5 | 6 | complete Family Roaster and ask about their Defecation practice | Number of $C-1$ responses | % of Member Using toilet always |
| 6 | 8 | Dispose the child faeces (only if Q 7 is Yes) | 1,2 | Safe disposal of child faeces |

For DLI 2:

| SN O | Type of Schedul e | Questio n No | Question | Option indicatin g ODF | Criteria (clearly spelled out as Positive statement s) |
|---------|-------------------------|-----------------|--|------------------------|--|
| 1 | | 1 | toilet facility is accessible to you and your family members? | 1, 2, or 3 | Accessibilit y to toilet |
| 2 | | 2 | Observe for functionality - Pan is completely broken -Pan is choked - Pits/tanks are completely covered - Pipes are broken or open | 2 2 1 2 | functional Toilets |
| 3 | HH Schedule | 4 | where the human waste/excreta get disposed from the toilet? | 5,6,7,8 | Safe discharge of Human excreta from toilet |
| 4 | | 5 | Hygine situation of toilet | A - 1 B-1 C- 2 | hygienic toilet (Oro- fecal route broken) |
| 5 | | 6 | complete Family Roaster and ask about their Defecation practice | C-1 responses | % of Member |

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| | | | | | facility for defecation |
|----|------------------|---|--|------------------|---|
| 19 | Public Toilet | 5 | Observe for functionality - Pan is completely broken -Pan is choked - Pits/tanks are completely covered - Pipes are broken or open | 2 2 1 2 | functional Toilets |
| 20 | | 6 | Is water available for use in the toilets | 1 | Water available to ensure usage and cleanliness |
| 21 | | 8 | What is usage status of toilet | 1 | Toilet used |
| 22 | | 9 | where the human waste/excreta get disposed from the toilet? | 5,6,7,8 | Safe discharge of Human excreta from toilet |
| 19 | | 1 | Area that are/were used for open defecation in the past | 2 | Visible feaces not found |
| 20 | | 2 | All Important public places (only if ans for A is 1) | 2 | Visible feaces not found |
| 21 | Public Spaces | 3 | Open ground/fields | 2 | Visible feaces not found |
| 22 | | 4 | Roads alongside the village | 2 | Visible feaces not found |
| 23 | | 5 | Any infamous places | 2 | Visible feaces not found |

For DLI 3:

| SNO | Type of Schedule | Question No | Question | Option indicating some SLWM | Criteria (clearly spelled out as Positive statements) |
|-----|---------------------|----------------|---------------------------|--------------------------------------|--|
| 1 | | 9 | Is there any garbage or | 2 | No Garbage or |
| | НН | | litter piled up or dumped | | Litter piled up in |
| | Schedule | | within the premise of the | | the premise of the |
| | | | house | | house |

| 2 | | 10 | how is the solid waste of HH disposed of? | 2, 3 | Some mechanism of safe disposal of solid waste |
|---|-----------------------------|----|---|---------|--|
| 3 | | 11 | Is there stagnant waste water within the premise of the house | 2 | No Stagnant water in the premise of the house |
| 4 | | 12 | Where is the HH waste water disposed | 2,3,4 | Some mechanism for safe disposal of waste water |
| 5 | | 6 | Is the Village performing safe disposal of Solid waste | 4,5 & 6 | Community level arrangement for safe management of solid waste |
| 6 | Public space schedule | 7 | How is the waste water disposed of | 3 & 4 | Some safe system of Disposal/treatment |
| 7 | | 8 | Public places show minimal level of littering | 1 | minimal littering |
| 8 | | 9 | Public places show minimal level of water logging | 1 | minimal water logging |