E4842

Environmental and Social Systems Assessment (ESSA)

Swachh Bharat Mission - Gramin

FINAL REPORT

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Prepared by The World Bank

Contents

List of Abbreviations

APL	Above Poverty Line
BPL	Below Poverty Line
CLTS	Community Led Total Sanitation
CRSP	Central Rural Sanitation Program
ESSA	Environmental and Social Systems Assessment
GoI	Government of India
GP	Gram Panchayat
IHHL	Individual Household Latrine
KRC	Key Resource Centre
MDWS	Ministry of Drinking Water and Sanitation
NBA	Nirmal Bharat Abhyan
NGP	Nirmal Gram Puraskar
NRC	National Resource Centre
NRLM	National Rural Livelihood Mission
OBC	Other Backward Classes
OD	Open Defecation
ODF	Open Defecation Free
PDO	Program Development Objective
PHED	Public Health Engineering Department
PRI	Panchayati Raj Institution
RSM	Rural Sanitary Mart
SBM	Swachh Bharat Mission
SBM-G	Swachh Bharat Mission – Gramin
SC	Scheduled Caste
SHG	Self Help Group
SLWM	Solid and Liquid Waste Management
ST	Scheduled Tribe
TSC	Total Sanitation Campaign
WBG	World Bank Group

Executive Summary

1.   Government of India (GoI) has recently launched Swachh Bharat Mission-Gramin (SBM-G) campaign and program to accelerate efforts to achieve universal sanitation coverage, improve cleanliness and eliminate open defecation in rural India by 2019. The proposed World Bank support to the program will enable GoI's Ministry of Drinking Water and Sanitation (MDWS), in collaboration with State governments, to achieve the goals of SBM-G. The program development objective (PDO) is *to reduce open defecation in rural areas, and strengthen MDWS's capacity to manage the national program.*

2.   The World Bank support will concentrate on (i) increased access to safe and functional sanitation facilities; (ii) sustaining community-wide ODF status; (iii) Increased population with Solid and Liquid Waste Management (SLWM); and (iv) Strengthened MDWS capacity in program management, advocacy, monitoring and evaluation.

The ESSA Scope and Methodology

3.   An Environmental and Social Systems Assessment (ESSA) of the proposed Operation was undertaken by the World Bank to understand the environmental and social risks, benefits, impacts and opportunities of the existing sanitary policy and practices on the ground. The assessment is also part of the World Bank's preparation in line with the requirements of OP/BP 9.00. The assessments were carried out through a comprehensive review of relevant government policies, legislation, institutional roles, program procedures, assessment study of earlier national programs in five states and an analysis of the extent to which these are consistent with Bank OP/BP 9.00. Further, actions to address gaps to enhance risk mitigation were identified and detailed. The ESSA methodology included analysis of information/data on GoI's SBM-G Program, field reviews, and consultations with all key stakeholders at the level of the five state governments and the national government.

4.   The key findings of this assessment are based on surveys and consultations carried out in the five states of Rajasthan, Madhya Pradesh, Chhattisgarh, West Bengal and Odisha. The States with high incidence of open defecation in rural areas and high density of population were selected based on analysis of information/data available from MDWS. The status as observed in the States are reflective of the performance of the predecessor programs of SBM-G and many of those gaps have now been addressed by the SBM-G guidelines, as launched in 2015. The current SBM-G guidelines have been taken into account while proposing the action and implementation plan under this Operation.

Environmental Systems

5.   The risk screening suggests that the overall environmental impact of the Operation is likely to be positive. Reduction in open defecation will reduce the risk of transmission of disease through the fecal-oral route. Similarly, improved SLWM will also have a positive impact on water quality and human health. Well designed, executed and managed systems and structures will result in overall human and environmental wellbeing and reduce risks of water contamination and environmental degradation.

The SBM-G program primarily comprises of motivating the communities to construct their toilets and guide them on technologies for safe disposal. However, environmental risks could arise in some places during implementation due to improper location, planning, execution and management of schemes, especially in areas subject to climate vulnerability and disasters like

drought, high ground water table, areas prone to cyclones, and proximity to protected natural areas and monuments. The risks likely to arise are: (i) contamination of groundwater supplies due to poorly designed/managed sanitation facilities, (ii) incomplete technical and O&M knowledge and guidance to PRIs and GP/village level implementing institutions about the domestic, institutional sanitation facilities and SLWM systems may pose general environmental and health problems, (iii) potential impacts on natural construction resources, and natural and cultural heritage sites located nearby, (iv) potential occupational and public safety risks for sanitation workers in the GPs.

Social Systems

6.   The assessment reviewed the social policies and procedures (both at National and State level) and found them to be adequate. The assessment finds an enabling policy and legal framework that will promote: decentralized planning, implementation and monitoring, active participation and safeguarding the interests of vulnerable sections (women, scheduled caste and scheduled tribe communities) be it through targeting or membership in local governance institutions or in community level groups. However, challenges were observed at the level of implementation though impact of the identified social benefits overweighs the program related social risks. Most of these risks are manageable and can be mitigated through proper implementation, better local oversight and accountability.

Key Findings

Environmental Issues

7.   The key findings of ESSA on environmental systems are:
   a. The national and states governments have a well-developed environment legislations. However, the implementation setup to address environmental challenges of SBM-G Program needs to be further strengthened.
   b. IHHL designs for safe excreta disposal in different onsite conditions have been promoted through GoI guidelines. Non-adherence to guidelines during planning and implementation of the IHHLs resulted in significant environmental risks and vulnerability in the past. Therefore, the States need to ensure that designs being implemented are demand responsive and suitable across all socio-economic strata and appropriate for onsite conditions.
   c. The past approach mainly focused towards toilet construction to improve coverage and access. The SBM-G recognizes it and the focus has shifted on usage of toilets and behavioral change. The ODF definition brought out by GoI includes safe disposal of excreta. This needs to be adhered to in implementation.
   d. Although, GoI's guidelines include Solid Liquid Waste Management (SLWM) as a part of the Program, the success level of such schemes at village level has been variable due to different geographical size, population density and cultures in villages. Accumulation of grey and black water in low lying areas, burning of solid waste and dumping of solid waste in common land or water bodies creates health risks, contaminates water resources and risks local flooding during rains.
   e. Inadequate planning and technology selection may affect groundwater quality, Program sustainability and infrastructure usability.
   f. The Program's existing institutional systems needs further strengthening for environmental management along with a framework for environmental monitoring.

Social Issues

8.   The key findings on social systems are:

   a. **Policy:** The National Acts[1] applicable to developmental work related to sanitation along with the corresponding State Acts articulates the "processes" to be followed for decentralized planning, social inclusion, participation, transparency and accountability. Additionally, right to Fair Compensation and Transparency in Land Acquisition and Rehabilitation and Resettlement Act of 2013 ensure that in case of land diversion/acquisition related matters do not marginalize the vulnerable.

   b. **Institutional mechanisms:** The five tier institutional structure ensures that institutional structure is available for planning, monitoring, and implementation of SBM at national, state, district, block and GP level[2]. The corresponding key units are assisted, supported and guided by a whole range of other units/institutions like Program Monitoring Unit & Sanitation Support Organization, Capacity and Communication Development Unit, Support Organizations, Technical Support Units/Cells, Resource Groups, Gram Panchayat, Gram Sabha and Ward Sabha. However, there are gaps in staffing on social expertise at some levels in the sample states. Such staffing gaps needs to be addressed to ensure decentralized planning, social inclusion, participation, transparency etc.

   c. **Procedures and Processes:**

   - **Capacity:** The key functionaries responsible for implementing SBM have limited perspective on social aspects of SBM. Also there are huge challenges especially at the village level as the coverage and targets are high but staff for social mobilization, decentralized planning, transparency, accountability is extremely limited.

   - **Land management: SBM is not a land intensive program and currently no land related** disputes were observed as the focus in on IHHL for which families use their existing land or Panchayat diverts its land for the landless. However, as the progression moves to community complexes, public toilets and village level SLWM, local laws related to ownership/management should be followed if land is needed and documented via the monitoring.

   - **Decentralized Planning:** The GP level planning needs to be further strengthened to enhance inclusive participatory process.

   - **Social inclusion, participation, transparency and accountability:** In principle, the SBM has macro-level mandate with a community saturation approach, whereby everyone within the village gets coverage. This ensures that the program covers everyone irrespective of a households' vulnerability status (i.e. with respect to caste, gender, disability etc.). However, historical and baseline data shows that despite the past sanitation programs of the government, vulnerable BPL and APL households still lack access to toilet facilities at an alarming rate (47% and 44% respectively). This is seen to be 20

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[1] 73rd Constitutional Amendment Act of 1993, Panchayat Extension to Scheduled Areas (PESA) Act of 1996, Scheduled Tribes and Other Traditional Forest Dwellers (Recognition of Forest Rights) Act of 2006, Right to Information Act 2005; National Rural Employment Guarantee Act 2005.

[2] The SBM has a 5-tier structure at the National/State/District/Block/Village level- with National Swachh Bharat Mission (G) – NSBM (G) at the centre; the overall planning and implementation is the prerogative of State Water and Sanitation Mission (SWSM), District Water and Sanitation Mission (DWSM), Block Water Mission and Block Sanitation Mission (BSM) and Village Health Water and Sanitation Committee at the respective levels.

percentage point lower than access rates for non-vulnerable APL households. Therefore, to ensure that SBM's saturation approach bridges that gap in practice, sound systems of social accountability and monitoring requires further strengthening.

- **Monitoring**: As was observed during the surveys, apart from physical and financial progress, the monthly Progress Report had provisions for tracking SC/ST/BPL beneficiaries. Most of these concerns have been taken care of by the new SBM-G guidelines. SBM-G has provisions for ODF verification, social audits, overall progress (physical and financial) etc. These provisions can be further strengthened to ensure SBM-G's sound principles are carried out in action during implementation.
- **Grievance redressal**: The existing grievance management system is inaccessible for economically vulnerable and those living in remote areas where access to both mobile and internet services is limited. This is mainly because the system is only available in English and there is lack of awareness. The existing system needs to be strengthened to make it more responsive and approachable for all sections of the population.
- **Operation and maintenance**: The survey and consultations found instances where O&M of IHHL reinforces traditional cultural practices that increases the work load of women. Responsibility for Community assets such as sanitary complexes, SLWM projects and overall cleanliness of the village come under VWSC/panchayat but continues to be seen as job to be done by specific communities at some places. While SBM-G clearly lays out that O&M responsibilities (particularly pertaining to community toilets) are collective responsibility of the community, there remains a need for community sensitization and monitoring of maintenance and usage to ensure that caste or gender based discrimination are not prevailing.

Key Operation Actions

9. Key actions agreed with GoI to address the environmental and social risks and gaps identified in ESSA, though PforR component of the Operation, mainly encompasses:

Capacity Building: Strengthening capacity for environment and social management, as required
   a. **Environment**: Strengthening of guidelines, communications and monitoring framework for improved environmental management of the program
   b. **Social:** Strengthen systems to enhance inclusion, participation, transparency and monitoring. To achieve the same strengthening of monitoring and grievance redressal systems (including innovative tools like ICT),tracking access and usage across social groups, undertaking thematic audits to understand progress and gather citizen feedback and undertake staffing, training and sensitization of human resources.

10. *Detailed Environmental Operation Actions:*
   a. **Exclusion of high-risk interventions**: Criteria to exclude certain interventions from the Operation that may impact ecologically sensitive/important/notified wetlands, and protected monuments;
   b. **Strengthening the existing GoI system for environmental management.** The Operation Action Plan focuses on strengthening GoI's procedures and capacity

including strengthening/preparing guidelines for technical options for variable socio-economic, onsite conditions and disasters, and integrating environmental management of the Program with these guidelines.

c. **Building institutional capacity** to address environmental issues for monitoring and due diligence.

11.   The proposed Action Plan under the Operation shall strengthen the existing guidelines with sustainable technological options for onsite sanitation and SLWM, thereby reducing the risk of contamination of water resources and improving the current sanitation conditions in rural areas. Any water extracted from the water sources for construction activities and for maintenance of infrastructure constructed under the Operation is not envisaged to be significant to adversely affect any riparian's possible water use. Therefore, considering the Operation's focus on reduction in open defecation and overall rural village sanitation, it is the Team's assessment that the activities under the proposed Operation shall (i) not adversely change the quality and quantity of water flows to the other riparian, and (ii) not be adversely affected by other riparian's possible water use.

12.   *Detailed Social Operation Actions:*
a. **Inclusive Planning**: SBM in principle addresses the risk of social exclusion through its tenet of Community Saturation and emphasizes on collective action – thus ensuring coverage to everyone irrespective of vulnerability status. In order to maximize the benefit of this tenet and to ensure that the planning process is demand driven, community participation and ownership needs to be emphasized upon.

b. **Monitoring:** Analysis of baseline data for 2012 shows that despite the government's past efforts to "target" vulnerable households and provide them access to IHHL, significant gaps still exist. Only 44% and 47% of vulnerable APL and BPL households have access to IHHL respectively. This is in contrast to a 64% (on average) access rate for non-vulnerable APL households. The SBM has adequate scope of addressing the existing gaps via its Community Saturation principle, provided its implementation is effectively tracked. In this context, it is important to enhance the national government's existing monitoring system to ensure that social indicators related to sanitation - like inclusion of the vulnerable in plans and design, usage of toilets by different social groups (based on age, gender, class); tracking citizen's feedback, grievance management, land management issues covered and documented as required. Monitoring system will also be further strengthened to track the reduced incidence of open defecation across different vulnerable groups as well as expenditure on inclusion of different social groups.

c. **Citizen's Feedback:** Thematic Social Audits to be conducted with focus on inclusion, participation, transparency, expenditure tracking and quality control. Role and functioning of VWSCs and local groups not to be surpassed and support to be provided by committees at block, district and state level. Results from the same will be used for mid-term remedial actions if required.

d. **Grievance Redressal:** Considering the scale and targets of SBM, there is a need for specific, approachable and responsive grievance redressal mechanisms for timely and efficient redressal.

Implementation Support – Environment and Social

13.   Successful completion of the key Operation actions pertaining to Environment and Social aspects will be facilitated by the IPF component of the Operation. This will mainly assist all Operation management and capacity building needs.

Implementation Support for Environmental Aspects

14.   **Development of implementation support tools**: To support implementation that ensures environmentally appropriate actions, appropriate guidance for Program implementation would need to be developed. This may include an Operation Manual that has checklists, standard operating procedures (SOPs) and other guidance to ensure adherence to good environmental practices and existing environmental legislation.

15.   Culturally appropriate demand creation and awareness strategies and material for both onsite sanitation and SLWM is required. Guidelines for strengthening existing IEC/BCC material focusing on improving skills and awareness of beneficiaries and GPs for planning, monitoring and management.

16.   **Capacity Building of Implementing Authorities**: MDWS has a capacity building plan into which environmental management may also be added. Capacities need to be created across the institutional setup. MDWS would need to create environmental focal points/nodal persons to ensure Program related environmental actions and impacts are appropriately addressed in the Program. The nodal officers will also ensure Program actions comply with existing environmental regulatory environment. To ensure required capacity is built at the various levels, a suggested list of capacity building actions is given below.

Table 1: Capacity Building for Environmental Aspects

Broad areas	Topics	Building Capacities for
Awareness on guidelines and legislation	Government of India and state environmental guidelines, safeguards and legislation, and project guidelines.	All key project stakeholders, at National, State and district (implementing officials) and other agencies implementing various project components.
Environmental impacts and mitigation	Identification of environmental impacts from construction, location and design issues of onsite sanitation and SLWM actions, possible mitigation actions	Key stakeholders implementing project – including district implementing agency, and environment nodal points
SLWM system development	Identification of SLWM concerns in GP/villages, actions and appropriate options, including technological options for management and disposal	Key stakeholders involved in project design
Construction supervision	Environment issues during construction and material sourcing, construction site management, public and worker safety concerns, disposal of construction waste	Stakeholders involved in construction supervision, including district staff and GP members
Toilet management	Management of toilets to keep clean and use, including disposal of waste once pit cleaned, identification of issues of leakages, breakages etc.	People (Beneficiaries)

Broad areas	Topics	Building Capacities for
Management of sanitary complex, SLWM systems	Management of sanitary complex, levying of fee, cleaning and waste disposal, SLWM systems cleaning, management and waste disposal	Stakeholders identified for system management in GP

17. **Monitoring and surveillance mechanisms[3]**: A mechanism to ensure major environmental parameters are addressed under SBM-G needs to be developed. This should include water quality and management of developed systems. This may include convergence with other departments monitoring water quality.

18. Environmental monitoring to ensure compliance of environmental policies and procedures shall be undertaken. Results shall be used for mid-term remedial actions, if required.

19. In order to implement identified actions discussed in this section, implementing actions and a plan has been identified to be implemented by MDWS. This is given in the table below.

Table 2: Implementation Plan for Environment Actions

Sub-action description	Deadline	Completion measurement
Strengthen environmental management through technical modules for adopting environmentally safe sanitation practices during planning, technology selection, and O&M.	Identification of and plan developed in the first year, implementation ongoing throughout program period	Operations Manual developed and formally endorsed by nodal department and implementing agencies. Institutional structure for implementation of environmental action at GP level identified and recognized.
Communication packages on sanitation and SLWM incorporate environmental aspects.	Identification of and plan developed by December 2016.	Detailed training calendar, modules and material developed. Training undertaken as per calendar.

Implementation Support for Social Aspects

20. **Capacity Building:** MDWS has a capacity building plan into which social management may be integrated. Across the 5 levels of institutional set-up, enhancement of capacity is envisaged. Need based increment of positions and specialists (social) in planning, social mobilization for collective behavioural change towards achieving ODF status is required. A capacity development plan (detailed in the Operation Manual and in the Community Operational Manual) has to be devised for key implementing institutions (PMU, WSSO, Water and Sanitation Units at all three tiers, Technical support units) that regularly updates their skills, perspectives on community led sanitation, gender sensitization, decentralized decision making, transparency, and accountability.

21. The capacity building plan for social aspects will target three broad areas – Perspective level, Skill level and Mobilization and Behaviour change. The perspective level

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[3] Environmental monitoring and surveillance shall be in line with and to achieve the Operation DLIs.

trainings will be catered to administrators, elected officials, representatives of technical and support units and will cover topics of Cultural practices; sensitivity to habits; existing class, caste and gender hierarchies in sanitation practices. Skill training will cater to Staff at district, block and GP level as well as elected representatives and will cover topics on planning, monitoring, targeting, inclusion, participation, grievance redressal. Behavioural trainings will be targeted at Beneficiaries, GP representatives, SHGs, Anganwadis and implementation staff at the village level and will discuss Campaigns and information dissemination.

22.   The capacity building component will also be used to train the relevant GoI counterparts on ICT tools and modules that can be seamlessly integrated with GoI's existing monitoring system and used for effective tracking of program implementation progress.

23.   **Development and Implementation of Program Manuals, Guidelines:** Assist development of detailed checklists, standard operating procedures, guidelines etc. to ensure adequate social inclusion, fair land diversion (when public land is not available), transparency and accountability pertaining to all identified social aspects of the project.

24.   In order to successfully implement the identified programmatic and IPF actions in this section, the following Action Plan has been identified to be implemented by MDWS:

Table 3: Implementation Plan for Social Actions

Sub-action description	Building Capacities for	Completion measurement	Deadline
Implement strengthened social systems to enhance the guiding principles - inclusion, participation, transparency, accountability and grievance management	Enhance perspective and skill levels of administration, elected representatives, technical and support units	Formal endorsement of strengthened social management rules and procedures included in the Operation Manual and Community Operational Manual	Formal endorsement by appraisal; Implementation starting in First Year
Capacities Augmented on Social Management (Enhance institutional and individual capacities within the program, mainstreaming social issues in IEC/BCC/formal trainings)	Enhance skill levels of administration, elected representatives, technical and support units	Finalization of the Organigram for SBM support and its approval by appropriate sanctioning committee. Formal communication from hiring unit confirming hiring of specialists and support agency to facilitate implementation of social management rules and procedures.	Staffing recruitment by State govt. at the end of the first year; On-going, starting in First Year
Strengthening social component of formal Trainings strategies/plans Impart training to all stakeholders for	Enhance skill levels of district, block and GP level administration as well as elected	Training on the basis of a detailed training calendar. Different set of training designs in place for different set of stakeholders; Training	On-going, starting in First Year

Sub-action description	Building Capacities for	Completion measurement	Deadline
strengthening institutions to deliver the program that is grounded in the "guiding principles." Enhancement in institutional capacity of key State Training Institutes	representatives	modules finalized incorporating social issues; Key STIs/ enlisted institutions have acquired necessary capacities to deliver quality trainings that address social management issues.	
Strengthens citizen-feedback mechanisms of SBM-G program Enhance existing Grievance Management systems for efficient and timely redressal	Enhance skill levels of district, block and GP level administration, implementers and familiarize beneficiaries	Assess and identify areas for improvement in the existing systems. Enhance systems using innovative tools and extensively disseminate information about the same to beneficiaries	Assessment in First Year. Roll out over program period.
Manuals, resources and experts to be made available for assisting and facilitating the above.			

25.   A separate Integrated Safeguards Data Sheet (ISDS) has been prepared for the TA (project) component. The TA Component consists primarily of consultancy services, evaluation studies and capacity building to ensure efficient implementation of the identified Environment and Social Action Plans. Therefore no significant, long term or adverse environment or social issues are anticipated from the proposed interventions/activities.

26.   Social safeguard issues, including any significant, long term or adverse impacts or risks are not anticipated due to activities/interventions proposed under this TA component. OP 4.12 is not triggered as no resettlement is envisaged due to the implementation of the activities under the TA Component. OP 4.10 is not triggered as no adverse impact on tribal communities are envisaged.

Environmental and Social Risk Ratings

27.   Given the scope of the Operation, its types and scale of investment, geographic focus, and previous experience with Bank projects of the central and state Governments, the risk rating is 'moderate' from the environmental and social risk perspective.

Stakeholder Consultations

28.   Consultations with officials from the sample states (at state HQ, district level and two blocks per district and 4-6 GPs per block) in each of 5 states of Rajasthan, Madhya Pradesh, Chhattisgarh, West Bengal and Odisha were undertaken as part of Environmental and Social Systems Assessment (ESSA). 79 consultations involving 288 key stakeholders across select districts/GPs in the five States were undertaken. The consultations discussed issues pertaining to technology, SLWM, O&M, community involvement and gaps leading to sustenance of OD. Issues identified and discussed in these consultation have been thoroughly used in nuancing the ESSA recommendations as per ground needs.

29.   On October 1, 2015, national level stakeholder consultation was organized where the ESSA was discussed. The meeting was attended by MDWS and the States. The meeting was chaired by the Deputy Secretary, MDWS and attended by thirteen other representatives from the Ministry. High level officials from fifteen states[4] attended the meeting. The stakeholders broadly endorsed the ESSA and its findings. There was consensus on concerns raised by the assessment on technological options, existing scope for improvement in SLWM and need for greater community participation for sustainability. Accordingly, the proposed action points were agreed upon.

Disclosure

30.   The World Bank and MDWS have disclosed draft ESSA in Infoshop and on their website, respectively. The final ESSA, incorporating comments from stakeholder consultation has also been disclosed by the Ministry and The World Bank in Infoshop.

Conclusion

31.   Overall, the ESSA shows that the state's Environmental and Social systems are adequate for the Program implementation, and implementation of the identified actions to address the gaps and to enhance performance during implementation.

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[4] The participating States included: Assam, Tripura, Odisha, Uttarakhand, Andhra Pradesh, Telengana, Punjab, Haryana, Chattisgarh, Sikkim, Gujarat, Jharkhand, Tamil Nadu, Uttarakhand and West Bengal.

1.   Introduction

1.   India has performed well in extending coverage for rural water supply, but rural sanitation has lagged behind. According to 2015 estimates by the WHO and UNICEF's Joint Monitoring Program (JMP), only 28.5 percent of rural households in India have access to improved sanitation (compared to approximately 93 percent for water). India's large population also means that it shoulders most of the global sanitation challenge. Of the 2.4 billion people lacking sanitation across the world, over 770 million live in India. Nearly 60 percent of the global population practicing open defecation (946 million) live in India.

2.   Rural sanitation is a state subject in India, but central government provides the bulk of the investments in the sub-sector. The large investments from the Government of India (GoI) in the sector started during the Seventh Five-Year Plan period (1985-90). Investments increased significantly thereafter from the Ninth Plan (1997-2002) onwards. Over the 1999-2013 period, GoI and States reported to have expended INR 150 billion[5] (US$ 2.4 billion) on rural sanitation, of which State governments contributed about 20-25 percent, and were responsible for implementation of sanitation programs. The Ministry of Drinking Water and Sanitation (MDWS) is the nodal National ministry responsible for overall policy, planning, funding and coordination of programs for rural drinking water and sanitation in the country.

3.   Institutional arrangements for sanitation service delivery vary across states, but the national flagship rural sanitation programs have focused on districts as units for planning and implementation under the guidance of State Governments. The 73rd constitutional amendment (1993) provided for the devolution of both water and sanitation services to the three-tier Panchayat Raj Institutions[6] (rural local governments - PRIs) by conferring them constitutional status, and mandating the transfer of 29 subjects to the PRIs, including water supply and sanitation. GoI continues to push this decentralization agenda through its rural water and sanitation program guidelines. While GoI assisted states in achieving near universal access to drinking water, the focus has now shifted to supporting states to achieve higher levels of service, improved sanitation coverage, ending open defecation and achieving a standard of cleanliness.

1.1   Program

1.1.1   Swachh Bharat Mission

4.   The GoI has recently launched an ambitious campaign and program to accelerate efforts to achieve universal sanitation coverage, improve cleanliness and eliminate open defecation in India by 2019. The flagship program called "Swachh Bharat Mission" (Clean India Mission) was launched on October 2, 2014 by the Honorable Prime Minister of India. The program is considered India's biggest drive to improve sanitation and cleanliness in the country. The program targets both rural and urban areas. For rural areas , the objectives are to (i) bring about improvement in the general quality of life in the rural areas by promoting cleanliness, hygiene and eliminating open defecation; (ii) accelerate sanitation coverage in rural areas to achieve the vision of Swachh Bharat by 02 October, 2019; (iii) motivate communities and Panchayati Raj Institutions (PRIs – local governments) to adopt sustainable

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[5] MDWS, 2014
[6] The three-tier PRIs comprise Zilla Parishads (district councils), Panchayat Samitis (block councils) and Gram Panchayats (village councils). All these levels of rural local governments have an elected body and an administrative wing.

sanitation practices and facilities through awareness creation and health education; (iv) encourage cost effective and appropriate technologies for ecologically safe and sustainable sanitation; (v) develop wherever required, community managed sanitation systems focusing on scientific solid and liquid waste management systems for overall cleanliness in the rural areas; and (vi) incentivize good performing states which achieve the program goals.

5.   Previous national rural sanitation programs have fallen short of achieving the goal of a clean and ODF India, despite decades of investments and central government support. The first national program for sanitation – the Central Rural Sanitation Program (CRSP) – which ran from 1986 to 1999 interpreted sanitation as construction of household toilets, and focused on promoting a single technology for household sanitation (double pit, pour-flush toilets) with the provision of household subsidies for construction. Toilet coverage increased from 10 percent to 20 percent during that period. In 1999, the GoI launched the Total Sanitation Campaign (TSC) and introduced the concept of a "demand-driven, community-led approach to total sanitation", but with an equally strong drive to build toilets in a supply driven manner. Alongside, GoI introduced the Nirmal Gram Puraskar (NGP – clean village awards), which incentivized the achievement of total sanitation at the Gram Panchayats (GP - village) level. During the implementation of the TSC (1999-2012), toilet coverage increased from 20 percent to 32 percent, but actual usage remained low; a large number of the toilets became defunct and open defecation continued. In 2013, the TSC was rebranded as Nirmal Bharat Abhiyan (NBA) with the objective to accelerate coverage through a 'saturation' approach. Despite all these efforts, toilet coverage at present is estimated to be about 40 percent (only 32 percent are considered functional[7]).

6.   The GoI recognizes that previous sanitation flagship programs have faced many challenges inhibiting effective implementation and sustained momentum. Effectiveness was predicated upon generating demand for toilets leading to their construction and sustained use by household members. This was to be bolstered with adequate implementation capacities in terms of trained personnel, financial incentives and systems and procedures for planning and monitoring. However, in many districts constructing toilets became the focus of the programs rather than the overall package of demand-responsive construction, behavior change and usage. The incentivization of ODF achievement by GPs through the Nirmal Gram Puraskar could not ensure sustained ODF outcomes. Thus, although more than 20,000 GPs achieved ODF over the 2005-2014 period, studies indicate significant (more than 90 percent according to a Water and Sanitation Program sample survey) slip-back (reversion) of ODF achievement. The continued use of toilets constructed as a program management performance metric for districts did not reflect actual outcomes.

7.   The Government has committed to doing things differently under the new program. The Swachh Bharat Mission-Gramin (SBM-G) represents a new thrust to rural sanitation issues in India. This new program represents significant restructuring of the previous NBA to address some of the core implementation challenges highlighted above. The new program has strong political leadership at the highest level; it is time-bound with a stronger results-orientation and improved monitoring of both outputs (access to sanitation) and outcomes (usage). The emphasis is on strengthening implementation and delivery mechanisms down to the GP level; a stronger focus on behaviour change intervention including interpersonal communication; and giving states the flexibility to design delivery mechanisms that take into account local cultures, practices, sensibilities and demands. The proposed World Bank support to the program will focus on strengthening existing institutions, service delivery and

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[7] Government of India, Ministry of Drinking Water and Sanitation (MDWS), Baseline Survey, 2013

implementation mechanisms to achieve the SBM-G goals. This support seeks to ensure that improvements are sustained beyond the mission horizon and will forge a broader perspective through improvements in market supply chains and financial intermediation channels to ensure access for the poorest households.

8.   The World Bank Group (WBG) continues to be one of the key partners to GoI in advancing the policy dialogue and providing technical assistance to support the rural sanitation agenda at the national level and in a number of states over the last decade. Various Bank-supported rural water supply and sanitation projects and WSP supported technical assistance to a number of states have demonstrated emerging models for tackling rural sanitation within the project universe, however there has not been a sufficiently extensive and transformational Bank-supported operation to date which focuses solely on tackling widespread open defecation, improving sanitation and hygiene behavior change in the rural areas of the country.

9.   GoI financial commitment for capacity building and information, education and communication (IEC) activities under previous sanitation initiatives, support to states has not always translated into universal coverage and lasting changes in sanitation behavior at the local level. Explanations for this are varied, but the most widely accepted view is that there are limitations in the capacity of sector institutions which manifests into: (a) weak implementation and delivery mechanisms; (b) weak planning and monitoring and evaluation (M&E) systems; and (c) ineffective and poorly designed behaviour change communication programs. These institutional factors undermine the achievement of lasting outcomes at the local level.

10.   The practice of open defecation is not universal across India; some states are performing better than others. For example, in the state of Jharkhand 92 percent of the population practice OD, whereas in the state of Kerala it is only 6 percent of the population. The overall experience of the past national sanitation programs offer several lessons. First, eliminating OD will not be achieved through a top-down approach of *constructing toilets*. Instead, it needs to be driven by *changing behavior* at the community level. This requires "soft" interventions. Second, the implementation of SBM-G is being conducted by the States, and therefore the role of MDWS is limited to allocation of funds and incentives for achievement of programs goals and objectives. This role is proposed to be expanded to provide additional capacity building and technical support to the implementing institutions in the states to enhance implementation. Third, *by incentivizing good performance to states and strengthening decentralized institutions*, especially GPs, *fiscal programs* should intelligently provide *incentives* to leverage local administrations which are key facilitators in achieving and sustaining success of SBM-G.

11.   In order to implement an operation of national scale, a hybrid operation is proposed using two lending instruments: a) PforR – for results orientation and supporting the incentive component of the national program, and b) IPF – for program management and capacity building at the national level.

12.   The proposed World Bank engagement will help to address the above bottlenecks, incorporate the emerging lessons and good practices and strengthen implementation and delivery mechanisms. As there is considerable emphasis on accelerated implementation to achieve the SBM-G goals by 2019, GoI wants to leverage Bank funds in new innovative ways to support its program and enhance the chances of success in selected states. There is also strong commitment and support at the highest levels of Government for the need to

achieve sustainable outcomes (in terms of clean and open defecation free villages) from the SBM-G program, given decades of previous national programs that have barely made a dent in the rural sanitation challenge. Bank involvement must be designed in a way that it incentivizes states and their districts and GPs to be razor-focused on ultimate results, and not individual transactions, and have the flexibility to innovate and develop new delivery models.

1.1.2 Operation Description

13. The overall objective of SBM-G is to accelerate efforts to achieve universal sanitation coverage, enhance cleanliness and eliminate open defecation in rural areas. Both the GoI and the state governments have demonstrated commitment to these objectives, and are updating policies and guidelines for program implementation, allocating requisite financial resources and putting in place systems and procedures to strengthen program implementation. The scope of the Bank supported Operation consists of two categories of activities: (a) performance incentives for sanitation improvement in rural areas (PforR); and (b) technical assistance (TA) for strengthening institutional capacities on program management, advocacy, and communications, and implementing a credible and robust monitoring and evaluation system to measure results of SBM-G (IPF).

14. The proposed Operation will support the national SBM-G program over a five year period (2016-2020); coinciding with the timeframe of the national program[8]. MDWS intends to leverage Bank funds to incentivize performance of States to achieve SBM-G goals; thereby signaling a strong results orientation of the program implementation. To this effect the Operation will contribute to (i) GP wide reduction of open defecation and sustained usage of sanitation facilities; (ii) improved hygiene and sanitation behaviors; (iii) ensuring that all sanitation facilities at household, community and institutional levels (schools and anganwadis) remain functional with sustained usage and appropriate operation and maintenance systems at the local level; (iv) increased coverage of solid waste and liquid waste management practices at the village level. Alongside, building capacity at the national level with enhanced institutional and financial arrangements and implementing a credible and robust monitoring and independent performance assessment system to measure results of SBM-G will be critical.

15. The projected investment of the national program is US$22 billion over the five year period. The Bank will finance US$1.5 billion, as IBRD loan accounting for about seven percent seven percent of the total estimated program expenditure.

16. The World Bank support will concentrate on (i) increasing access to safe and functional sanitation facilities; (ii) sustaining community-wide ODF status; (iii) increasing population with Solid and Liquid Waste Management (SLWM); and (iv) Strengthened MDWS capacity in program management, advocacy, monitoring and evaluation..

Operation Development Objective

17. The development objective for the Operation (hereinafter referred to as the "Program Development Objective or "PDO" is stated as follows*: to reduce open defecation in rural areas, and strengthen MDWS's capacity to manage the national SBM-G program.*

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[8] While the National program has set targets to achieve a clean India by October 2nd, 2019, the program is expected to be effective till the end of the financial year, i.e. March 31st 2020.

18.   PDO indicators: The following outcome indicators will be used to measure achievement of the PDO:
  a. PDO Indicator 1: Reduction in the prevalence of open defecation;
  b. PDO Indicator 2: National annual sanitation survey conducted and results published.

1.1.3   Scope, Activities and Boundaries of Operation Support

19.   The proposed Operation will focus on accelerating SBM-G program implementation and delivery and strengthening implementation capacities that are directly linked to the underlying weaknesses of the rural sanitation sector. The indicative set of activities to be supported under these categories are summarized below.
  - *Category 1: Performance incentives for sanitation improvements in rural areas (PforR)*
  - *Category 2: Strengthening institutional and implementing capacities on program management, advocacy, monitoring and evaluation by MDWS. (IPF)*

PforR Component (USD 1.475 billion)

20.   The Program will finance performance based incentive grants to states based on the state's reduction in the population practicing open defecation, populations residing in villages that sustain ODF status, the rural population with SLWM. The indicative list of activities to be supported under this category are summarized below:
  (a) Construction and use of safe and functional individual household latrines
  (b) Construction and use of functional community sanitary complexes
  (c) Use and maintenance of school, anganwadi and public sanitation
  (d) Construction of liquid waste management facilities and systems
  (e) Establishment of solid waste management facilities and services
  (f) Behavior change communication activities

IPF Component (USD 0.25 billion)

21.   A well calibrated parallel and structured IPF to support operations at the National level will be provided. MDWS will be supported for (a) strengthening of the existing Program Management Unit (PMU) with key experts and enhance the overall management and role of MDWS; (b) policy development, capacity building, communication strategies, M&E activities; and (c) introduce and strengthen the process of third party verification assessment of achievement of DLIs in the Program. This PMU will provide technical inputs and have the technical responsibility and oversight over the execution and performance of the consultancies.

22.   The indicative list of activities to be supported under this category are summarized below:
  (a) Strengthening of the PMU, engaging a Program Management Consultant (PMC) within the PMU of MDWS
  (b) Strengthening program M&E system at the national level
  (c) National third party annual sanitation surveys to cover all states and union territories
  (d) Establishment of a robust and credible verification mechanism for program results
  (e) Capacity building and trainings on thematic areas
  (f) Strengthening program governance and accountability systems

(g) National level advocacy and behavior change communication activities

(h) Learning and knowledge transfer

1.2   Purpose of ESSA

23.   The ESSA provides a comprehensive review of relevant government systems and procedures that address environmental and social issues associated with the Program. The ESSA describes the extent to which the applicable government environmental and social policies, legislations, program procedures and institutional systems are consistent with the six 'core principles' of OP/BP 9.00 and recommends actions to address the gaps and to enhance performance during Program implementation. The core principles are:

a. Promote environmental and social sustainability in the Program design; avoid, minimize, or mitigate adverse impacts, and promote informed decision-making relating to the Program's environmental and social impacts;

b. Avoid, minimize, or mitigate adverse impacts on natural habitats and physical cultural resources resulting from the Program;

c. Protect public and worker safety against the potential risks associated with: (i) construction and/or operations of facilities or other operational practices under the Program; (ii) exposure to toxic chemicals, hazardous wastes, and other dangerous materials under the Program; and, (iii) reconstruction or rehabilitation of infrastructure located in areas prone to natural hazards;

d. Manage land acquisition and loss of access to natural resources in a way that avoids or minimizes displacement, and assist the affected people in improving, or at the minimum restoring, their livelihoods and living standards;

e. Give due consideration to the cultural appropriateness of, and equitable access to, Program benefits, giving special attention to the rights and interests of the Indigenous Peoples and to the needs or concerns of vulnerable groups;

f. Avoid exacerbating social conflict, especially in fragile states, post-conflict areas, or areas subject to territorial disputes.

24.   Specific objectives of ESSA are as follows:

a. to identify the potential environmental and social impacts/risks applicable to the Program interventions,

b. to review the policy and legal framework related to management of environmental and social impacts of the Program interventions,

c. to assess the institutional capacity for environmental and social impact management within the Program system,

d. to assess the Program system performance with respect to the core principles of the PforR instrument and identify gaps in the Program's performance,

e. to include assessment of M&E systems for environment and social issues,

f. to describe actions to fill the gaps that will input into the Operation Action Plan in order to strengthen the Program's performance with respect to the core principles of the PforR instrument.

1.3   Methodology of ESSA

25.   The focus of this assessment has been to understand the social and environmental risks, benefits, impacts and opportunities of the existing sanitation policy and practices on the ground. The study looks at the social and environmental checks and balances that exist in the policy and guidelines; map the risks and gaps; and suggest the possibilities for

implementation strengthening. It reviews the appropriateness of existing and planned infrastructure design, technologies as well as institutional mechanisms for planning and monitoring for human, cultural and natural environments. Looking at the community and institutional mechanisms, issues of technology, overall sanitation and hygiene, mechanisms of inclusion, participation, diverse needs and usage, cultural aspects, issues of accountability, transparency and grievance redressal have been covered. Basically an understanding of the environmental and social nuances that affect the viability and sustainability of any mission on the ground will be looked at. Community perceptions, social and environmental vulnerabilities, challenges of accessibility, operational and management issues linked to social stratification are a part of the study.

26.   From November 2014 to January 2015, pan India and state wise secondary literature review as well as primary research was carried out in five states namely Rajasthan, Madhya Pradesh, Chhattisgarh, West Bengal and Odisha. The States with high incidence of open defecation in rural areas and high density of population were selected based on analysis of information/data available from MDWS. The key issues identified relate to construction related technology awareness, water quality, ground water pollution and solid and liquid waste management; and land requirement for community toilets, targeting socially excluded groups, weak participatory planning, transparency, social accountability and grievance management. Secondary literature review at national level and other states like Uttar Pradesh, Bihar, Jharkhand, Assam, etc. was also done.

1.3.1   Secondary Research

27.   Secondary research at national level looked at literature like research studies, policy papers, legislations and evaluations on sanitation examining the evolution of policy. The current guidelines of Swachh Bharat Mission were also scanned. Secondary research undertaken for the state assessment involved analysis of key socio-economic and human development indicators of the state, review of past evaluations and studies on the implementation of sanitation programs, national and state level program guidelines, related legislations, government orders, communications, policy briefs, minutes of important meetings; discussions were also held at the state, district, block and village level with various stakeholders involved with managing the program, including donors, NGOs and civil society.

28.   Consultations were done with government and non-government institutions mandated to work in the state on social and environmental issues. Understanding was also developed on the current approach and future strategies being planned for taking the objectives of Swachh Bharat Mission forward. A detailed state level mapping of the legal-political narrative within which the program operates was also done.

1.3.2   Primary Research

29.   The fieldwork or primary research will be carried out at the state, district, block and Gram Panchayat level to understand the local policy and institutional mechanisms, implementation challenges and practical realities that can facilitate or debilitate the vision of SBM including visible and prospective risks. Primary research was undertaken on a sample basis in two districts of each state for understanding the existing mechanism of planning, implementation and monitoring, the district and sub-district level institutional set-up and its functioning, the roles and capacities of different stakeholders, assess the social, environmental and programmatic impact of governments sanitation related interventions and also identify risks and gaps that need to be overcome through the project design.

1.3.3 Data collection instruments

30. A series of checklists and structured questionnaires prepared by the ESSA team were used to guide discussions and data collection at various levels - state, district, block and Gram Panchayat (GP). These instruments were used to understand the program status, key institutions/ strategies at that level, stakeholder's perspective about social and environmental aspects of the program and the feedback mechanisms in place based on which to assess the social and environmental risks and impacts.

31. The methodology for data collection included visit to individual household, school, anaganwadi centres, community health centres and Panchayat office. Key informant interviews and informal discussions with functionaries, members of implementation and support units, community members from different groups, elected representatives and Focus Group Discussions with especially those facing social, economic and ecological vulnerabilities were organized.

1.3.4 Sample selection

32. Sample selection of districts in each state was done using the following criteria:
   • Performance in terms of sanitation (using Performance benchmarking carried out by WSP in 2011 on the basis of GoI criteria of Nirmal Gram)
   • Vulnerability indicators in terms of - poverty, SC/ST/minority population, drought and disaster prone
   • Another criteria is assessing the uniqueness/specificity/peculiarity that a state may present which needs to be studied in order to enrich and nuance the assessment and look at prospective risks in implementation of SBM
   • Finally, the distance of the districts should also be conducive to the proposed travel time

33. The selected districts were communicated to the state officials for their suggestions and accordingly contacts at district level were established. The blocks and GPs were selected in consultation with district and block level officials and elected representatives to ensure that there was a diversity in the sample in terms of performance as well as social and environmental vulnerability indicators. (See State wise Sample Selection and field site details in Annexure 1)

1.3.5 Analysis

34. The ESSA analysis essentially follows Strengths, Weaknesses, Opportunities and Threats (SWOT) approach. The following sections provide further information: details of Program activities, institutions involved and the implementing agency's experience in the sector, the potential environmental and social benefits, risks/impacts of the Program, the existing environmental and social management systems used in the sector, assessment of the adequacy of the existing systems and identification of gaps. Based on this analysis, actions to address the identified risks and gaps are identified.

1.4 Environmental and Social Risk Ratings

35. Given the scope of the Operation, its types and scale of investment, geographic focus, and previous experience with Bank projects of the central and state Governments, the risk rating is 'moderate' from the environmental and social risk perspective.

1.5   Stakeholder Consultations and Disclosure

36.   ***Stakeholder Consultations:*** Consultations with states officials (at state Headquarters, district level and two blocks per district and 4-6 GPs per block) and communities in the 5 states of Rajasthan, Madhya Pradesh, Chhattisgarh, West Bengal and Odisha, as a strategic sample, were undertaken as part of Environmental and Social Systems Assessment (ESSA). 79 consultations involving 288 key stakeholders across select districts/GPs in the five States were undertaken. The consultations discussed existing issues pertaining to technology, SLWM, O&M, community involvement and gaps leading to sustenance of OD. Issues identified and discussed in these consultation have been thoroughly used in nuancing the ESSA recommendations as per ground needs.

37.   On October 1, 2015 national level stakeholder consultation was organized where the ESSA was discussed. The meeting was attended by MDWS and the States. The meeting was chaired by the Deputy Secretary, MDWS, and attended by thirteen other representatives from the Ministry. High level officials from fifteen States[9] attended the meeting. The stakeholders broadly endorsed the ESSA and its findings. There was consensus on concerns raised by the assessment on technological options, existing scope for improvement in SLWM and need for greater community participation for sustainability. Accordingly, the proposed action points were agreed upon.

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[9] The participating States included: Assam, Tripura, Odisha, Uttarakhand, Andhra Pradesh, Telengana, Punjab, Haryana, Chattisgarh, Sikkim, Gujarat, Jharkhand, Tamil Nadu, Uttarakhand and West Bengal.

2. Sanitation Programs in India: Activities, Institutions and their Experience

1.   National average according to the 2011 census suggests that only about 30% of the country's rural population has access to toilets. The best performer continues to be Lakshadweep at 1.9% without latrines, which is interestingly a higher coverage than for urban Lakshadweep at 2.3%. The other good performer – where coverage is more than 90% is Kerala (93.2). In both these cases the urban and rural sanitation coverage is nearly the same too. The worst performers with less than 20% coverage are Jharkhand (7.6), Madhya Pradesh (13.1), Odisha (14.1), Chhattisgarh (14.5), Bihar (17.6) and Rajasthan (19.6). As can be seen four of the worst performing states are a part of the ESSA. The fifth, West Bengal is performing comparatively better with 46.6% rural sanitation coverage[10].

2.   On one hand, India represents one of the fastest growing economies and on the other, its poor social development indicators puts serious questions to the model of development. In fact from an economic perspective, if the economic losses linked to poor sanitation are monetized, the results are staggering: in Purchasing Power Parity (PPP) terms, the adverse economic impacts of inadequate sanitation in India are US$161 billion, or US$144 per person. This is the equivalent of 6.4% of Gross Domestic Product or INR 2.4 trillion in 2006. Poverty, malnutrition, poor access to health, education and sanitation have been identified as significantly impacting capabilities of the population of India. Rural sanitation crisis has a profound effect on the health and well-being of India's population and on the overall economic development of India. Problems like diarrhea accounting for 1 in every 20 deaths; highest child under-nutrition in the world; stunted children; and negative cognitive impacts in population have been identified to have linkages with poor hygiene and sanitation. Poor sanitation and the resultant illnesses causes loss of productivity of the family members. The adult members of households have to either forego productive labor, or become weak to fully realize their productive potential or have to stay home away from work to take care of sick members of the household. This leads to loss of wages, which leads to them getting trapped in the vicious cycle of poverty. Similarly studies have also shown that access to sanitation and hygiene has positive impact on human capital.

3.   Swachh Bharat Mission (SBM) aims to address some of these challenges taking district as a unit of implementation running with key components of Individual household latrines (IHHL), School Sanitation, Community Sanitary Complex & Anganwadis supported by Rural Sanitary Marts (RSM) and Production Centres (PCs). It aims to achieve Universal coverage by 2019 covering all schools and anganwadis with toilets; eliminate manual scavenging; eradicate the practice of open defecation; ensure a clean environment and improve the general quality of life in rural areas.

4.   SBM gives strong emphasis on community processes and collective behavior change approach.

2.1   Evolution of Sanitation programs in India

5.   Rural sanitation did not feature on the investment horizon during the first five plan periods of India as reflected in its negligible funding share. However, it received prominence from the Sixth Plan (1980-85) onwards amid the launch of the International Drinking Water

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[10] Government of India, 2011. Census of India 2011.

Supply and Sanitation Decade in 1980. From 1986 to 1999, the Rural Development Department initiated India's first national program on rural sanitation, the Central Rural Sanitation Program (CRSP) using a conventional approach of focussing on the construction of household toilets. Although more than INR 660 crore were invested and over 90 lakh latrines constructed, rural sanitation could grow at just 1 percent annually throughout the 1990s. Realizing that toilet construction does not automatically translate into usage and linkage of health outcomes with the entire community adopting safe sanitation, the Government of India restructured the program, leading to the launch of the Total Sanitation Campaign (TSC) in the year 1999 based on a "demand-driven, community-led approach to total sanitation". This was further strengthened with the introduction of the NGP in the year 2003, which incentivised the achievement of collective outcomes in terms of 100 percent achievement of total sanitation by a Panchayati Raj Institution (PRI). Individual household latrine coverage nearly tripled from just 21.9% at national level as reported by the Census in 2001 to around 68% in 2010.

6. TSC looked at a whole range of institutional mechanisms at national[11], state[12] and local[13] levels for collective achievement of total sanitation. Focus on Information, Education and Communication (IEC) to mobilise and motivate; Provision of revolving funds; Flexible menu of technology options; Development of a supply chain; and Fiscal incentive in the form of a cash prize (Nirmal Gram Puraskar). Even role of NGOs, private (small and large) companies and setting up of Rural Sanitary Mart to provide materials, services and guidance needed for constructing different types of latrines and other sanitary facilities, which are technologically and financially suitable to the area was envisaged. TSC revised the incentive provided for one unit of IHHL to Below Poverty Line (BPL) in 2007, and raised it from INR 625 to INR 2200, with a maximum amount upto INR 2500. A revolving fund was created for above poverty line (APL) households to provide them low interest based finance for toilet construction. Nirmal Gram Puraskar (NGP) was introduced in 2003 to reward cash incentive to those Gram Panchayats (GPs) that became Open Defecation Free (ODF).

7. However, the performance of rural sanitation across States and Districts was variable- whereas some states have achieved full coverage in IHHL, some others were too far from achieving such progress. Similarly, there were significant variations across states in the proportion of Panchayats becoming "Nirmal" (Clean). In spite of incentives at individual as well as community level, the poorest households' ownership and/or access to safe sanitation had not shown the expected improvements. Since operational performance on ground was dependent on a host of local factors, it required tracking of goals and achievements at State, District and local Government levels; needed development of differentiated strategies to deal with varied terrains, environments, social and economic groups as well as respond to the population growth. Management of solid and liquid waste leading to environmental cleanliness was an issue to handle in the wake of growing population and use of non-biodegradable products. Scaling up and accelerating sanitation programs therefore remained a formidable challenge.

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[11] Department of Drinking Water and Sanitation (DDWS) to facilitate, develop and effectively achieve the goals.
[12] State Water and Sanitation Mission (SWSM) to develop strategies for the State and prioritize community led approaches. Also, setting up of a nodal agency, Communication and Capacity Development Unit (CCDU) for institutional and community capacity building and set up monitoring systems to track progress.
[13] Formation of District Water and Sanitation Mission (DWSM); District Sanitation Cell (DSC); Block Resource Centres (BRC); Village Water and Sanitation Committees (VWSC); preparation of Village Sanitation Plans at the Gram Panchayat level.

8.   TSC renamed Nirmal Bharat Abhiyan (NBA) in 2012. NBA adopted a convergence model by merging TSC and National Rural Employment Guarantee Act (NREGA). A baseline survey was conducted in 2012 to assess the sanitation coverage in the state. NBA further strengthened the Community led approach and IEC. A comprehensive IEC communication strategy was developed that included Inter Personal Communication (IPC). NBA involved village functionaries such as Accredited Social Health Activist (ASHA) and anganwadi workers, rojgar sevak, school teachers and Self-Help Group (SHG) members in IEC activities. Swachhata Doots (sanitation messengers) were recruited villages to work as dedicated sanitation motivators. In addition to BPL, Identified Above Poverty Level (IAPL) households (IAPL has six categories –Schedule Caste (SC) Schedule Tribe (ST), landless with homestead land, small and marginal farmer, women headed household and physically disabled) were provided post-construction incentive as cash/ construction material. NBA revised the incentive amount and structure. Of the total INR 10,000 provided to one unit of IHHL, INR 4,600 was given as cash/ construction material, INR 900 beneficiary contribution through cash or labor and the remaining amount was provided as labor cost through MGNREGA.

9.   Swachh Bharat Mission (SBM), launched in 2014, is a comprehensive program to ensure sanitation facilities with a broader goal to eradicate the practice of open defecation by 2019. The key components are: Individual household latrines (IHHL), School Sanitation, Community Sanitary Complexes & Anganwadis supported by Rural Sanitary Marts (RSM) and Production Centres (PCs). The programs has a total target of one lakh thirty four thousand crore rupees to be spent for construction of about 11 crore 11 lakh toilets in the country (Source: PIB). SBM gives strong emphasis on Information, Education and Communication (IEC), Capacity Building and Hygiene Education for effective behavior change with involvement of Panchayati Raj Institutions (PRIs) and Non-Government Organizations etc.

10.   The funding model of the mission is a 75:25 cost sharing ratio between the Centre and state. Budgetary provisions are provided in the demand for Grant of the Ministries of Drinking Water and Sanitation (for Rural). The enhanced cost the Individual Household Latrine (IHHL) has been raised from Rs. 10,000 to Rs. 12,000 in order to ensure water availability which would include provision for storing, hand-washing and cleaning of toilets. The Central government's share for these IHHLs will be Rs. 9,000 (75 per cent) from Swachh Bharat Mission while the State share is pegged at Rs. 3,000 (25 per cent). Additional contributions from other sources will be permitted. Administrative costs of the program are 2 per cent and will also be shared in the same ratio. Some components of SBM include:

*   Technological options are available like Twin pit technology, and the conventional Septic tank technology, the new Bio digester technology developed by DRDO have been suggested (other new technologies may be experimented with). A menu of accredited technology options for toilets and SLWM projects have been made available to the States under previous sanitation programs. The Mission will provide a list of minimal acceptable technologies.
*   Creating a demand for Toilets through Behaviour change: The strategy of implementation focuses on behaviour change by incentivising the use of toilets in order to trigger behaviour change and usage of toilets by communities. The top priority is to ensure increased demand, which is purported to increase the use of assets created. Technology and the media shall be used to communicate the message of the benefits of safe sanitation and hygiene. Eminent public figures have been identified for this purpose.

- Delinking from MNREGA: The incentives for toilet construction that were previously given under the MNREGA have been delinked from the program and the funds have been made available to the mission.
- Communication and Behaviour Change: Provision for Information, Education and Communication (IEC) has been made at 8 per cent of total project cost, with 3 per cent to be utilised at the Central level and 5 per cent at State level.
- School Sanitation funding: Transfer of the responsibility of construction of all School toilets to the Department of School Education and Literacy and of Anganwadi toilets to the Ministry of Women and Child Development.
- Scope of Public Private Partnership (PPP) and Community Sanitary Complex (CSC): All other components of the earlier Nirmal Bharat Abhiyan such as Solid Liquid Waste Management (SLWM) and CSCs will behave been retained. SLWM funding is 75:25 sharing pattern. For CSCs it is 60:30:10 (Centre: State: Community). CSCs are constructed only when the Gram Panchayat takes the responsibility of ownership and a sustainable operation and maintenance system is assured. CSCs include public toilets in markets/bus stands/ peri-urban areas/census towns etc., wherever ownership and operation and maintenance is assured. CSCs/public toilets will also be considered under Public Private Partnership (PPP)/Viability Gap Funding mode.

2.2 Sanitation Coverage

11.   Census 2011 has reported that sanitation coverage in rural India has reached 32.70% taking into consideration the increased population. Census 2011 has also reported an increase in 2.96 crore households in rural areas as compared to census 2001. The NSSO-2012 report has estimated that 40.6% of rural households have sanitation facilities. Against a cumulative Project objective under TSC/NBA, of 12.57 crore Individual Household Latrines (IHHL), States have reported on the Online Monitoring System that, sanitation facilities for 9.45 crore individual households has been achieved as on December 2013. In addition to the above 27,151 Community Sanitary Complexes, a total of 13.25 lakh school toilet units and 4,63,057 Anganwadi toilets have been reported to be constructed as of December 2013. Table below shows the state wise reported construction achievements as of Dec 2013.

Table 4: State wise reported construction achievements as of December 2013

S.N	State	IHHL (BPL)	IHHL (APL)	IHHL Total	Sanitary Comp	School Toilets	Anganwadi Toilets
1	Andhra Pradesh	194944	5401	200345	13	3377	1930
2	Assam	71066	17991	89057	0	436	113
3	Bihar	80805	47428	128233	21	4274	1243
4	Chattisgarh	21764	14684	36448	5	0	18
5	D & N Haveli	0	0	0	0	0	0
6	Goa	0	0	0	0	0	0
7	Gujarat	16126	81490	97616	1	812	321
8	Haryana	27485	57088	84573	4	206	124
9	Himacal Pradesh	1499	5719	7218	57	206	16
10	Jharkhand	27142	15591	42733	11	290	71
11	Karnataka	204714	75180	279894	35	341	455
12	Kerala	13455	300	13755	18	172	32
13	Madhya Pradesh	137594	117248	254842	65	58	351
14	Maharashtra	94811	177426	272237	161	20	307
15	Manipur	15685	8864	24369	12	0	0
16	Meghalaya	7166	773	7939	6	635	103
17	Mizoram	3529	584	4113	13	481	28
18	Nagaland	19868	0	19868	12	508	258
19	Orissa	17002	3989	20991	18	303	26
20	Puducherry	0	0	0	0	0	0
21	Punjab	1597	2315	3912	0	0	0
22	Rajasthan	55530	92590	148120	62	6175	4396
23	Sikkim	3389	54	3443	192	166	100
24	Tamil Nadu	94939	34116	129055	46	448	430
25	Tripura	4985	43	5028	44	65	871
26	Uttar Pradesh	144897	379320	524217	7	30	17
27	Uttarakhand	18431	40858	59289	3	121	13
28	West Bengal	228292	174648	402940	110	5246	3483
	Total	1545498	1362965	2908463	958	24658	14816

http://www.mdws.gov.in/sites/upload_files/ddws/files/pdf/Drinking_Water_Annual_Report_2013_14_English.pdf

12.   Despite this, 581,614,730 people have no toilets within their residential premises. The targets foreseen include 68,439,786 IHHL; 114,313 Community Sanitation Complexes and 2,50,000 GPs to have SLWM

Table 5: Rural population without latrine (2011)

	Population with no toilet within the premises (2011)[14]	Reduction in population with no toilet within premises
India	577,921,262	3,693,468
Uttar Pradesh	120,508,330	-13,068,063
Bihar	76,354,825	-11,127,712
Madhya Pradesh	45,747,429	-4,702,794
Rajasthan	41,332,529	-3,873,412
Andhra Pradesh	37,845,929	7,346,986
Maharashtra	37,338,013	7,259,129
West Bengal	32,861,719	8,850,577
Odisha	29,986,430	-535,013
Tamil Nadu	28,506,640	1,194,229
Karnataka	26,416,171	2,071,783
Gujarat	23,136,569	1,345,255
Jharkhand	22,887,822	-3,032,670
Chhattisgarh	16,719,885	-572,299
Assam	10,723,495	-1,332,487
Haryana	7,058,146	3,264,700
Punjab	5,064,840	4,349,175
Uttaranchal	3,175,631	1,162,552
Himachal Pradesh	2,050,829	1,959,637

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[14]   Census 2011 Census 2001 Coverage 2001 & 2011:www.censusindia.gov.in

	Population with no toilet within the premises (2011)[14]	Reduction in population with no toilet within premises
Kerala	1,163,870	3,167,623
Meghalaya	1,069,575	30,283
Tripura	491,579	93,433
Nagaland	440,400	142,751
Manipur	336,325	48,328

13.   Five states (Uttar Pradesh, Bihar, Madhya Pradesh, Rajasthan, and Andhra Pradesh) represent 62% of India's rural sanitation problem, that is, 322 million people with no toilet. When the next five States are included 83% of India's rural sanitation problem is covered. In addition, the table shows that in absolute terms the number of people defecating in the open only decreased by 3.6 million people while in a number of States (Uttar Pradesh, Bihar, etc.) the number of people defecating in the open actually increased.

2.3   Key Implementing Agencies and Partners

14.   Under the new guidelines, four key Ministries have a role to play in implementing the sanitation mission at the **national level**:
   (a) Ministry of Drinking Water and Sanitation for overall coordination which includes the National Resource Centre (National Swachh Bharat Mission Gramin, Communication Cell and M & E Cell)
   (b) Ministry of Human Resource Development (Department of School Education and Literacy) for school toilets
   (c) Ministry of Women and Child Development (ICDS) for anganwadi toilets
   (d) Ministry of Rural Development for individual HH latrines

15.   While in some states PHED was the nodal agency for implementation of Sanitation programs, with Swachh Bharat Mission guidelines, the mandate and overall responsibility is of the **Department of Rural Development**. Public Health Engineering Department (PHED) works in coordination with Rural Development Department in the districts for provisioning of rural piped water supply to the panchayats.

16.   The SBM has a 5-tier structure at the National/State/District/Block/Village level- with National Swachh Bharat Mission – Gramin (SBM-G) at the center; the overall planning and implementation is the prerogative of State Water and Sanitation Mission (SWSM), District Water and Sanitation Mission (DWSM), Block Water Mission and Block Sanitation Mission (BSM) and Village Water and Sanitation Committee at the respective levels. But these units are assisted, supported and guided by a whole range of other units/institutions like Program Monitoring Unit & Sanitation Support Organization, Capacity and Communication Development Unit, Support Organizations, Technical Support Units/Cells, Resource Groups, Gram Panchayat, Gram Sabha and Ward Sabha.

17.   Sanitation is a state subject so SBM provides flexibility to states to evolve their own mechanisms based on national frameworks. Conceptually, the PRI's are primarily responsible for planning, implementing and managing services - at the district level, Zila Panchayat (ZPs); at the sub-district level, Blocks/Taluka; and at the village level, Gram Panchayat (GPs). While the decentralized institutional set up is in line with the Indian constitution, there

is a large capacity gap in terms of skills, number of professionals and performance management systems, which the Program is aiming to address across the states.

2.4   Institutional Framework for SBM-G Implementation

18.   The establishment of the Swachh Bharat Mission – Gramin is to be accompanied by increasing the number of staff and strengthening administration/management capacity at the national, state and district level:

- **National**: The National SBM-G in the MDWS is the nodal agency for implementing the Program. The Secretary of the MDWS, Govt. of India, is the Mission Director for the National SBM-G, assisted by Additional and Joint Secretaries, Directors, and Technical Advisors and consultants. The National Mission supported by 3 units – M&E, Communications and National Resource Center.
- **State**: Under the nodal Department (PR&RD or RD or PHED), there is a State Water and Sanitation Mission (a registered body under Society Registration Act responsible for overall planning and implementation). Different states have different models of SWSM. SWSM may have separate Governing Body and the Executive Body. It may consist of an Apex Committee, Executive Committee, Communication and Capacity Development Unit, Program Monitoring Unit & Sanitation Support Organization, Technical Cell, State Sanitation Cell etc. depending upon how the state has designed the institutional structure and divided responsibilities.
- **District:** District Water and Sanitation Mission (DWSM) is the overall in charge of implementation. The District Water and Sanitation Committee has representation from Integrated Child Development Scheme (ICDS), PHED and Departments of Education, Health and Water Resources. Some states have a District Sanitation Cell or a Water and sanitation Support Organization to develop district action plan; undertake IEC and CB activities; and support implementation.
- **Block:** The Block Water Sanitation Committees plan, implement and monitor the program. In some states they have support of a Block Resource Centre, in others there may be Block Coordinator & Cluster Coordinator- WSSO for support.
- **Village level**: Gram Panchayat is responsible for overall service delivery, through sub-committee like Village Health Water and Sanitation Committee (VHWSC) responsible for developing plans in consultation with community, execute them and taking care of O&M. Gram Sabha (village assembly) is to discuss and approve all decisions & plans.

19.   SBM guidelines also provide for other mechanisms to seek institutional support, be it through NGOs, CSOs, CBOs, private sector, CSR, and cadre of consultants and field level volunteers.

3. Program Impact, Benefits, Risks, Gaps and Opportunities

1.   This section presents the environmental and social impacts, benefits, risks and opportunities of the Program. The risks have been identified by looking at existing and possible vulnerabilities in the environmental and social context, the Program strategy and sustainability, the institutional complexity and capacity.   The risks associated can be mitigated through capacity building of implementing partners to enhance inclusion, participation, and strengthening mechanisms on accountability and grievance redressal.

3.1   Environmental impact and effects

2.   An overall improvement in rural sanitation, that includes construction and use of toilets and improved Solid and Liquid Waste Management (SLWM), will have a positive impact on human health. It is expected to reduce the disease burden germinating from helminthes, waterborne, water washed and other water vector diseases. Equally, it is likely to reduce environmental toxicity and degradation that is an outcome of open defecation and poor management of solid and liquid waste.

3.2   Environmental benefits

3.   **Sanitation and its linkages to technology**: Improved sanitation facilities, implementation of SLWM and reduced OD, that includes better management of constructed systems, will improve the surface and ground water quality as well as provide overall health benefits. These actions shall be undertaken under the separate allocations for construction of toilets and SLWM as outlined in SBM-G guidelines. Past experiences on implementation of SLWM schemes will be an important starting point in this regard.

4.   **Climate vulnerability and disasters:** Onsite sanitation and SLWM system designs adapted for climate and disaster will reduce vulnerability and create resilient societies with less health risks due to dysfunctional systems.

5.   **Policy and implementation:** Environment legislations and standards already exist, and therefore an overall guidance is available for most actions under this project. However, the roles and responsibilities at each tier of the governance and implementation ladder need to be defined in greater detail.

3.3   Environmental risks

6.   **Sanitation and its linkages to technology**: Efforts have been made towards research and development of new sanitation technologies and IHHL designs are being promoted for different onsite conditions. However the states need to develop and implement solutions that are tailored to specific onsite conditions such as areas with high groundwater tables, high soil-water transmissivity and water stressed areas, etc. Location, design and construction of IHHLs needs to be as per the prescribed guidelines since improper site evaluation and monitoring during planning and implementation, can possibly lead to significant environmental risks and vulnerability. Additionally, the post construction management for IHHLs and black water is not well understood by the implementing agencies. Risks emerge from improper handling of inadequately decomposed waste removed from leach pits, overflowing and badly managed leach pits, and black water coming out of the leach pits. Wastewater, both grey and black water, is allowed to accumulate in low lying areas near the

villages which become a breeding ground for pests. Poorly managed solid waste disposal either by burning or by dumping on available common lands or in low-lying areas and in waterbodies, contaminates the soil and water, and creates a risk of local flooding during rains. Most of these issues become more important since there is little understanding and information on the part of the general public on the health impact of SLWM.

7.   Inadequate construction related guidelines and construction supervision might result in bypassing regulations while sourcing construction material, such as sand and clay for brick construction, and result in poorly constructed infrastructure. A large quantum of material is required to ensure reduced OD targets. This will create tremendous pressure on natural resources like sand, boulders and clay, and natural habitats and forests. Without adequate precautions in place it could lead to environmental degradation. During construction chance findings may be unearthed and risked being damaged. Known archaeological sites may also be at risk during material procurement and the disposal of construction waste without appropriate guidelines to protect them.

8.   **Climate vulnerability and disasters:** The availability of water for onsite sanitation (usage and infrastructure development) may reduce owing to the expected water stress resulting from climate change in certain parts of the country, this could result in IHHLs becoming disused. Inappropriate design, and increased frequency and intensity of storms will create temporary saturation of unsaturated soil zone leading to surface flooding and rapid transportation of pollutants into aquifers. Thus, there is a need to build in a design component that makes the IHHL design climate proof and resilient to disasters such as floods, cyclones, earthquakes and landslides. It is also essential to improve the ventilation and lighting facilities in the superstructure design of the IHHLs.

9.   **Policy and implementation:** Large number of environmental legislation exists, but are not decoded for rural sanitation. Inadequate understanding of these legislations results in their non-compliance by implementing agencies. Equally, conflicts may occur with local plans and guidelines without sufficient local authority consultation and checklists to guide actions (such as along protected wetlands and coasts). Furthermore, there is no environmental focal point that may be able to ensure environmentally appropriate actions are implemented as a part of Program. The 2019 target of reducing OD has created an overload of work for government officials and insufficient time for supervision and monitoring of construction activities. SBM-G implementation in a few states presently focuses on construction with inadequate beneficiary involvement, resulting in areas where there is little interest or ownership by beneficiaries. Poor construction or low ownership may reduce usability of infrastructure and structures may become defunct early. Without adequate attention to local ecosystems during project implementation may result in excess vegetation clearance or tree cutting, or replantation activities may be incorrect for the areas, or biochemical measures may result in adverse impacts on local biodiversity.

3.4   Environmental opportunities

10.   There are a number of opportunities for the SBM-G to support improvement of the environment due to its nationwide implementation scope. Overall improved sanitation, considering the local situations, is likely to have a very beneficial impact on human health and the overall quality of life of the state's rural population. Furthermore, this Program presents an opportunity to create a cadre of sanitation officers across the institutional setup with good understanding and implementation of sound environmental actions for rural sanitation.

11.   **Sanitation and links to technology**: Development of a suite of technological options for rural onsite sanitation construction that are locally appropriate, low cost and easy to maintain while also ensuring cultural appropriateness and are within applicable legislation and standards. This could be built on the existing work the Ministry has already undertaken and similar experiences of the World Bank. This Program provides opportunities to (i) develop suite of technologies and practices for different types of IHHL and SLWM, (ii) improve procedures for construction management that ensures compliance to existing legislation, (iii) identifying good practices for construction, material procurement and waste management, (iii) suggested local material choices, and (iv) create capacities of local implementing partners like RSMs and GPs.

12.   **Climate variability and disasters**: Improved management of SLWM is likely to result in reduced silting of the waterbodies and flood risks to adjoining settlements. Improved SLWM will reduce disease vector habitats that may otherwise proliferate with climate change predictions of temperature and rainfall variability. To address issues of climate and disaster related sanitation vulnerabilities, the project can develop and undertake IEC activities and awareness creation to address cultural issues to ensure implementation of technically appropriate designs. Improved sanitation (including solid, liquid waste and onsite sanitation) uptake is likely to result in reduced conflict with the environment and wildlife such as degradation of wetlands or coastal zones known for turtle breeding.

13.   **Policy and implementation**: This Program creates an opportunity to develop appropriate checklists and guidelines that take into account existing environment legislation in order to strengthen the existing Program guidelines.
   (a) Strengthen capacity of implementing agencies for implementing SBM-G for implementing environmental sound actions and improving participation of beneficiaries in project design, implementation and management.
   (b) The Program also provides opportunities to improve monitoring and surveillance activities to address slippage, non-functional latrines and appropriate standards.
   (c) SBM-G provides a scope for value addition and livelihood opportunities from the management of solid waste. This includes composting of organic waste and recycling of plastics and other waste. This can be considered as a means to manage waste while also creating livelihood opportunities in rural areas.

3.5   Social impact and effects

14.   Considering that 'lack of sanitation' in India accounts for significant developmental gaps and challenges, it would be fair to say that any scheme/mission that targets improving access to sanitation is likely to positively impact the country, its social indicators and people at large. Despite sanitation being a basic right and necessity, a significant proportion of India's population lacks access to the same. This not only deprives them a respectable quality of life but also has negative implications at the larger societal level − across the realms of social, economic, environmental and health. Analysis of the existing baseline data of 2012 shows that on average only about 48% of households have access to IHHL. Of them, average access rate for vulnerable APL and BPL households stands at around 44% and 47% only, respectively. In contrast, access rate for non-vulnerable APL households is on average 64% - reflecting an almost 20 percentage point difference in access rates. Further details of this analysis is provided in Annexure 3.

15.   Given this huge gap in access to IHHL, it is understood that, any scheme that targets improving access to sanitation is likely to have a long standing positive impact on the society. This is even more applicable for a program like SBM which relies on a Community saturation approach. The success of such a program at the implementation level is however contingent on maximization of program benefits via sustained minimization of risks and tapping in to all existing opportunities.

3.6   Social benefits

16.   **Inclusive planning:** Due to clear role of local governments as well as emphasis on community lead sanitation, there is increased scope of decentralized service delivery based on real demands of people. Role of Water and Sanitation Committees, Gram Sabhas, possibility of involving SHGs and other local groups can contribute in enhancing participation, inclusion, transparency and accountability. SBM-G guidelines emphasizes on Community Action thereby providing the policy framework to ensure community participation and demand-driven planning.

17.   **Social Inclusion:** The Program envisages access to toilets across class, caste and communities making sanitation a service available to the society at large, thereby providing safety and dignity in everyday life to all.

18.   **Impact on Overall Social Development Indicators:** As sanitation has been linked with other development indicators like health and education, the program is likely to impact the health indicators particularly of children and women; reduce school drop-out especially of adolescent girls and improve overall efficiency and capability of the population. Sanitation and gender based violence have increasingly been recognized as linked phenomenon as many cases of sexual violation against women and girls have taken place when they were out in the fields relieving themselves. While gender justice and violence against women has deeper causes nevertheless, access to safe sanitation (private, nearby and closed door) can address specific vulnerabilities and risks and bring down 'particular' cases and incidents of harassment against women.

3.7   Social risks

19.   **Decentralized planning and implementation**: Prioritization and pressure of achieving ODF targets shows that for the implementing agencies at some places, the approach may be supply and construction driven which risks that real demands of people will not get articulated, community participation in implementation of scheme may not happen leading to poor ownership, use, maintenance and sustainability of the infrastructures created.

20.   **Exclusion**:
  a. Though the program aims at universal coverage using community saturation and collective behavioural change approach, its implementation plans does not explicitly acknowledge the diverse needs and usage patterns as per age, gender, class, and other social, cultural and physical factors, it is likely to run the risk of poor implementation and sustainability. Even the areas that have received ODF status can trail back to open defecation.
  b. Lack of customized strategy for different social groups and cultural practices can risk that the scheme does not reach or does not get acceptance, receptivity thereby poor implementation.

c. There is a risk of the scheme not being able to reach to areas which are inaccessible due to **difficult geographic terrains** and lack of connectivity.

d. **Exclusion of the landless** in certain circumstances: In extremely densely populated areas, where commons are either absent or common land parcels very small, those who cannot accommodate individual toilets in their existing land holdings coupled with absence of scheme resources for purchasing private land in GPs could create risks of exclusion.

e. **Exclusion of the floating population, nomadic tribes** if the focus remains IHHL and efforts to create public conveniences are not simultaneously addressed.

f. Risks of burdening the vulnerable or simply excluding those who lack access financial resources as well as access to credit facilities.

21. **Community monitoring and social accountability** mechanisms need to be strengthened to avoid control by a few dominant political and or economic groups

22. **Grievance redressal** system needs to be strengthened and made more approachable. A strongly built system will help avoid avoid misuse of funds and backlog of grievances which can people's participation, pace and overall effectiveness of implementation.

23. Due to limited focus on O&M plus stress on new construction, there **are risks of side-lining crucial issues like repair and restoration** of old, defunct as well as cleanliness of upcoming toilet complexes.

24. **Regressive cultural practices** like cleanliness of HH toilets would remain women's responsibility[15] and add to their household burden including if water for toilets has to be fetched. Or cleanliness of community toilets would get relegated to persons from lower castes[16]. Or Risk of the use of manual scavenging (and hence services of specific marginalized communities) as low-cost option to mechanized sludge disposal and treatment.

25. **National and state coordination**: At the national level, targets and volume is a huge challenge and striking a balance between support to the states as well as vigilant monitoring can affect the pace and outcomes. Communication between center and state, state and local level is crucial but has to be two way instead of top down such that feedback from the implementing stakeholders can inform the planners to make necessary amendments and provide adequate support.

3.8 Social Gaps

26. Program has a clear vision, mandate, time frame and resources covering multiple dimensions related to overall rural sanitation including three important phases necessary for the Program: Planning Phase; Implementation Phase; and Sustainability Phase. However, the focus remains on construction and implementation phase. There are gaps related to overall sanitation plans as well as time spent on planning and sustainability.

27. All States are to develop a detailed implementation strategy and plans based on, but not limited to, the components mentioned below to ensure inclusion and sustainability: Start-Up Activities; IEC Activities; Capacity Building; Construction of Individual Household Latrines; Provision of Revolving Fund in the District; Micro Financing of Construction of

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[15] E.g. during the assessment many women shared that toilets are useful but add to their drudgery of daily chores
[16] e.g. It was observed that children from scavenger communities who were enrolled as students being asked to clean school toilets

Toilets; Community Sanitary Complex; Equity and inclusion; Solid and Liquid Waste Management; Administrative Charges. However, the assessment shows that the focus remains on Construction of Individual Household Latrines followed by Community Sanitary Complex while the rest of the activities may remain a weak link.

28.   There are capacity gaps at certain levels and in some states: these include gaps at the level of expertise including in social aspects but it also includes gaps in terms limited number of positions available under the scheme as well as existing position not being filled.

29.   Efforts towards IEC for both demand creation, maintenance and sustainability are limited evident from the under-utilization of budgets for the same.

3.9   Social opportunities

30.   Sanitation being a state subject gives the autonomy to states to design its own plan taking into consideration the context, realities, challenges, specific needs and usage patterns. States can design strategies for all three phases: planning, implementation and sustainability. States can also take initiative for institutional collaborations with civil society and private agencies for funding, expertise and support in implementation. Provisions for capacity development of existing implementing agencies/institutions/staff/elected representatives are ensured through CCDU and SIRD as well as provision to hire more staff, technical experts and consultants are also made available. States can hire experts on social aspects like decentralized planning, inclusion, social accountability, behavioral change etc.

31.   Strong legal framework, policies and institutional framework for land management, decentralized planning and social inclusion provides opportunities to create formal and informal mechanisms at the grassroots to ensure that processes for demand responsive planning, community participation, rights of the vulnerable, accountability and transparency are facilitated

32.   Provision of Rural Sanitary Marts and procurement centers to be strengthened to ensure supply chain for construction material and control of costs.

33.   IEC and BCC and communication strategy are a crucial part of the program recognizing the need to create individual and collective awareness about sanitation leading to behavior change and real time demand for toilets.

4. Environmental and Social Policy, Institutions and Management System in SBM-G Program

1.   This section describes the existing environmental and social management system of the five states. It first provides an overview of the policy and legal framework. This is followed by a profile of the key institutions and their role with respect to management of environmental and social aspects. Details of the state's environment and social management procedures for and finally, drawing upon all of this information, the consistency of the Program system with the six core principles of OP 9.00 is analyzed.

4.1   Policy and Legal Framework

2.   OP/BP 9.00 requires that all PforR operations 'Operate within an adequate legal and regulatory framework to guide environmental and social impact assessment at the Program level'. This section provides an overview of GoI and five state government's the policy and regulatory framework for the environmental and social aspects of Sanitation sector.

4.1.1   Environmental Policy and Legal Framework

3.   This section discusses relevant environmental national legislation for SBM-G. Apart from the national legislation discussed below, there are a number of state level environment regulations and would also need to be considered prior to implementing activities in any state. Equally, during the implementation of this project, the national and state governments may enact other environment related legislation, therefore it would also be important to refer to the National and State environment, forest and pollution control departments and agencies during implementation. The discussion below gives a list of the most relevant environment legislations and their relevance to sanitation. Further details of the legislations are available in Annexure-

Table 6: Environmental Legislations

Legislation	Extract	Relevance to SBM-G	Responsible Department
National Water Policy, 2012	A general guidance policy on management of water resources	Mentions improved rural sanitation will have positive impact on human health	All responsible for implementing water related actions
National Environment Policy, 2006	Overall guidance on environment management	Mentions poor sanitation creates environmental degradation	All responsible for activities that impact the environment
The Environmental (Protection) Act, 1986	Overall protection of environment under which number of legislations enacted	Banning of river sand and clay mining - infrastructure construction	Ministry of Environment, Forests and Climate Change (MoEF)
EIA Notification 2006	Lists projects and procedures for EIAs	Unlikely EIAs required for SBM-G interventions	MoEF
Coastal Regulatory Notification, 2011	Relevant for any activity in coastal zone	On coasts, activities to follow coastal plans and take clearance if EIA Notification 2006 not applicable	MoEF
Water (Prevention and Control of Pollution)	Enforce water quality and effluent discharge standards	Discharge of effluents and waste from systems and during	Central and State Pollution Control

Legislation	Extract	Relevance to SBM-G	Responsible Department
Act, 1974		construction	Boards (CPCB /SPCB)
Air (Prevention and Control of Pollution) Act, 1981	Air quality standards, including diesel generators	Energy generation by generators - construction and system management	CPCB/SPCB
Indian Forest Act 1927, and Forest Conservation Act, 1980	On activities that involve forest areas	In forests permission for quarrying and passing through them, activities according to forest management plans only	Forest Department/MoEF
Scheduled Tribes and Other Traditional Forest Dwellers (Recognition of Forest Rights) Act, 2006	Defines rights of traditional forest dwellers in forests they depend upon	Forest produce required for construction only for self-consumption allowed	Forest Department/MoEF
Wildlife (Protection) Act, 1972	Protection of wildlife from any activity	Waste disposal, material procurement, bio-remedial and plantation	Forest Department/MoEF
Biological Diversity Act, 2002.	Damage to nation's biodiversity	Vegetation clearance and plantation activities	Forest Department/MoEF
Wetland (Conservation and Management) Rules 2010	Protection and management of wetlands	Waste dumping, material sourcing and construction in and near wetlands	Forest Department/MoEF/ wetland authority
Ancient Monuments and Archaeological Sites and Remains Act 1958	Excavation of and protection of ancient monuments	Permit for activity near ancient/protected monuments, chance findings	National and state archeology departments
Bio-Medical Waste (Management and Handling) Rules 1998, Hazardous Waste (Management, Handling and Transboundary Movement) Rules, 2008	Management of various types of waste	Permits and standards for the management of various types of waste that may be a part of Program activities	MoEF and other relevant departments
Mines and Minerals (Development and Regulation)Act, 1957	Permits, license etc. for quarrying and mining	Raw material procurement license and fee	Ministry and mining departments, District Commissioner
73rd Constitutional Amendment	Decentralization of management of systems to GP	Capacity and resources for management of community systems under Program	PRI and GP
Provisions of the Panchayats (Extension to the Scheduled Areas) Act, 1996	All plans to be approved by GP, minor waterbody management with GP	Capacity building for decision-making and management of waterbodies	PRI, GP, Department implementing SBM-G
Sixth Schedule, Article 244(2) and 275(1) of the Indian Constitution	In identified areas Regional/District council manage non-reserved forests, public health and sanitation	Capacity creation of agencies for management of planned systems under SBM-G	PRI , Department implementing SBM-G and other relevant agencies
Disaster Management Act, 2005	Disaster prone areas codes of construction, disaster	Codes for construction under SBM-G in disaster prone areas,	Relief Commissioner, National Disaster

Legislation	Extract	Relevance to SBM-G	Responsible Department
	relief codes and relief and rehabilitation	rehabilitation of system possible source of finance	Management Authority, SBM-G

4.1.2 Social Policy and Legal Framework

4. **Land Management: Right to Fair Compensation and Transparency in Land Acquisition, Rehabilitation and Resettlement Act, 2013**: This Act regulates the process of acquisition of land for any public purpose and lays down a humane, participatory, informed consultative and transparent process for such land acquisitions. The Act provides land for land subject to its available in the vicinity (or alternatively, fair compensation), housing unit in case a dwelling unit is lost in the acquisition and allocation of land along with compensation where land has been acquired for urbanization. The Act also recognizes and provides due compensation to all landless and people living in the area, whose livelihoods is negatively impacted (directly or indirectly) as a result of this acquisition. The Act also provides for a compulsory social impact assessment (with representation from Gram Sabha/GP) and its public hearing in each affected Gram Sabha for ensuring due transparency. *Most states have corresponding state Acts like MP Land Revenue Code 1959 or Odisha Scheduled Area Transfer of Immovable Properties (by STs) Regulation 1956. However, specific Land Acquisition is still a Bill and not passed as an Act in most states.*

5. **Local level planning and governance (inclusion, participation, transparency and accountability)**:
   a. **73rd Constitutional Amendment Act, 1993**: The amendment transfers powers and functions **for managing water bodies/ water supplies and sanitation**. The Act also gives roles and responsibilities to Gram Panchayats for local level planning to ensure economic development and social justice including for sanitation. Representation of different socio-economic groups in the elected bodies, provides opportunities for their voice and demands to be included. Quarterly Gram Sabhas (village meeting) are mandated to ensure sharing of local plans, budgets, development programs, achievements, bottlenecks for transparency and accountability. MDWS has prepared a handbook[17] laying out a clear step-by-step role of GPs in planning and implementation of sanitation program. *All states have corresponding State Panchayati Raj Acts for local level planning, inclusion, participation, transparency and accountability.*
   b. **Panchayat Extension to Scheduled Areas (PESA) Act, 1996**: The Act accords special powers to the PRIs, specifically the Gram Sabhas, in predominantly tribal areas notified under Schedule V of the Constitution. It empowers the people to decide for their development in terms of construction, diversion of land- the consent of local population has to be sought. Gram Panchayat is the competent authority to safeguard the traditions and customs of people and their cultural identity; and Gram Sabha is to approve development plans/projects and scrutinize the activities of various agencies including panchayats, government departments and corporate bodies working in its jurisdiction through a system of social audit.
   c. **Scheduled Tribes and Other Traditional Forest Dwellers (Recognition of Forest Rights) Act, 2006**: This Act recognises the traditional rights of forest dwellers, scheduled tribes, and Particularly Vulnerable Tribal Groups (PVTGs) to

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[17] http://www.mdws.gov.in/sites/upload_files/ddws/files/pdf/GPHandbook.pdf

access services and create structures required for their use and can include individual and community sanitation infrastructure.

d. **Right of Children to Free and Compulsory Education (RTE) Act, 2009**: The Model Rules notified under the RTE Act lay down norms for separate toilet for boys and girls and drinking water facility in all school buildings. The Act also makes state government /local authorities responsible for ensuring that children belonging to weaker sections /disadvantaged groups are not segregated or discriminated against in the classroom, in the use of common drinking water and toilet facilities and in cleaning of toilets.

e. **Mahatma Gandhi National Rural Employment Guarantee Act, 2005:** The entire implementation of MGNREGA where demand generation, consolidation of local needs, community processes, role of local governments in planning, implementation and monitoring, social audits, grievance redressal and strong online information tracking provides a solid reference/base for SBM to adapt, customize and implement in the context of sanitation.

f. **Right to Information Act, 2005:** Provides opportunity to all citizens to keep a necessary vigil on the instruments of governance and make the government more accountable thereby promoting transparency and accountability in the working of government programs including sanitation.

g. **The Employment of Manual Scavengers and Construction of Dry Latrines (Prohibition) Act, 1993 and the Prohibition of Employment as Manual Scavengers and their Rehabilitation Act 2013 or M.S. Act 2013:** These Acts provide impetus to construction of hygienic and well managed latrines in place of dry latrines so that manual scavenging[18] can be abolished and people belonging to lower caste who have been engaged in this occupation get rehabilitated.

6. **Grievance Redressal:** The MDWS and Department of Administrative Reforms & Public Grievances have developed on-line citizen feedback and grievance redressal systems. However**, Right to Public Services Act has been enacted since 2010**, Madhya Pradesh being the first state followed by Bihar, Delhi, Punjab, Jharkhand, UP, Kerala, Uttarakhand and Haryana. By this Act the state provides legally enforceable public services to its citizens through a system of grievance redressal in case services are not provided within agreed timelines. While the scope of the Act is expanding, it currently only covers rural water supply, specifically repair and maintenance of hand-pumps by PHED. Sanitation has yet to be brought under its ambit.

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[18] Manual scavenging involves the removal of human excreta using brooms and tin plates. The excreta are piled into baskets which scavengers carry on their heads to locations sometimes several kilometres from the latrines. It is a caste-based occupation and the vast majority of workers involved are lower caste women. According to the official statistics, there are about 340,000 people who work as manual scavengers in India

4.2 Key Institutional Responsibilities related to Environmental and Social Systems

7. As per the National and State policies/guidelines and the Model Activity Mapping matrix[19] prepared by the Ministry of Drinking Water and Sanitation, these are the general and specific roles (social and environmental management) of institutions involved in the implementation of Swachh Bharat Mission:

Table 7: Existing Institutional Responsibilities for Environmental and Social Systems

Institution	Role in SBM/Rural Sanitation	Role in Environment management	Role in Social Management
National Swachh Bharat Mission (G) which includes National Resource Centre and M&E Unit			
National Swachh Bharat Mission (G)	Overall monitoring & supervision of the Program; Releasing the funds to the States & districts; Finalization of Operation Manual & Annual Implementation Plan (AIP) of each state. Developed software for on line financial & physical progress- Monitor outcomes & performance of projects sanctioned & completed. Preparing guidelines[20] for construction of community toilets, Institutional Toilets, individual household latrines, SLWM etc.; for IEC; Swachhata Doot; Institutional arrangements like District Support units & BRCs.	Research and development for technological options to meet beneficiary preferences and location specific needs, with support of MDWS. Handbooks for Technological options for on-site sanitation; Hand book on Scaling up Solid & Liquid Waste Management (SLWM) in Rural Areas developed through the MDWS. Advise water quality monitoring unit under National Rural Drinking Water Program and research and development for water quality improvement through MoDWS.	Preparation of guidelines for behavioral change and addressing traditional cultural practices of open defecation. Provide inputs, resources, guidelines on capacity development of all implementing stakeholders including on social management aspects like mobilization, participation and sustainability.
M&E Cell	Carry out annual or biannual Monitoring exercises of the implementation of the SBM (G) in	Design a robust monitoring system for village open defecation and SLWM	Design monitoring of Toilet usage of ODF Communities. Eventually, upgrade the MIS to enable reporting of creation of ODF

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[19] http://www.mdws.gov.in/sites/upload_files/ddws/files/pdf/Activity_Mapping_NBA_0.pdf

[20] Currently there are 48 guidelines or handbooks available and promoted by MDWS covering a range of themes and issues under sanitation like SLWM, sustainability, IEC, role of local governments, role of state and district level missions/cells etc.

Institution	Role in SBM/Rural Sanitation	Role in Environment management	Role in Social Management
	States; Monitor the reports and publications being brought out by various agencies and organizations; regarding the changing sanitation situation in the country; Monitoring the activities of all other Ministries of Government of India and individual States / UTs with respect to the Swachh Bharat Mission; Develop the SBM (G)-MIS of the Ministry in coordination with the NIC.	projects.	communities and their sustenance.
National Resource Centre (NRC))/ Key Resource Centers (KRCs)	A group of experts in various aspects of sanitation and water supply to provide technical assistance. Presently exist for rural water supply, and suggested by SBM-G guidelines for Program	Existing resource centers to upgrade skills of program implementers including capacity building agency for planning, implementation, operation and management of systems that includes technical and sustainability issues.	Existing resource centers to upgrade skills of program implementers including capacity building agency for planning, implementation, operation and management of systems that includes technical and sustainability issues.
State Water Sanitation Committee/ Mission (SWSC/SWSM)	Overall responsibility for implementation of rural sanitation programs in the state. Prepare State Annual Implementation Plan on rural sanitation. Provide necessary support to district bodies, coordinate with other departments & Water & Sanitation Support Organization. Management support for financial management, development of strategies for IEC, implementation, social mobilization, M&E & capacity building. Act as the "Center of Information & Resource". Ensure documentation of successful cases or initiatives taken by the State	Support and give direction and strategy for Program implementation in states. Monitor Program implementation and ensure compliance with required environmental legislation and procedures for program implementation. Identify state specific onsite sanitation and SLWM guidelines and technical options. Identify Program related unforeseen environmental impacts through M&E system and identify appropriate management actions. Expected to guide districts in the ensuring environmental management of the program - In most SWSC/M no or Environmental	Support & monitor guidelines for village/beneficiary selection to ensure due access of all vulnerable communities in the program & affirmative action for greater inclusion. Lead communication & capacity building across the state & support ZPs for local actions. Guide the implementing agencies in adoption of Social Management Rules & Procedures & monitor the same. Expected to environmental management of the program - In most SWSC/M no Social Development/ Gender specialist were found.

Institution	Role in SBM/Rural Sanitation	Role in Environment management	Role in Social Management
	/Implementing Units.	nodal positions were found.	
Some states have separate Apex Bodies for water & sanitation, some have specific Sanitation Cells & some also have Program Support Units, each one having environmental & social roles to support SWSC/M.			
Water & Sanitation Support Organization (WSSO)	Notionally works under State Water & Sanitation Mission as the lead agency for rural water supply, housed within PHED. Guided primarily by NRDWP & manage all IEC, human resource related to implementation of rural drinking. Role includes technical feasibility of schemes & then provisioning, water quality monitoring, setting up water testing labs, evaluation of rural water supply schemes.	Support and monitor activities related to water quality management and adoption of environmental management rules and procedures for the Program. Provide guidance for Program implementation. And create capacity for appropriate management of schemes	Preparation of guidelines to districts for on village water supply schemes with an inclusive approach. Provide support to GPs in developing projects & handhold/capacitate them on O & M before transferring the schemes to the GPs.
CCDU (Capacity & Communication Development Unit), State Institute of Rural Development (SIRD) and other state level training institutes	Training of elected representatives & government functionaries on government policies & processes for implementation	Undertake capacity building and awareness creation for SBM implementation for officials at state, district and block level. Undertake capacity building and activities for PRI officials and implementers in GP.	Provide guidance to the on looking after social development aspects, track social impact & access of the program. Undertake capacity building of stakeholders on social issues, including designing & implementing IEC strategies that increase enhance social outreach of the communication.
Zila Panchayat/ District Water & Sanitation Mission/Committee (DWSC)	Zila Panchayat functions as DWSM in the district & formulates, manages, approves & monitors all rural sanitation & water supply schemes submitted by the GP/BWSC/other agencies. The DWSM/DWSC prepares & submits its Annual Implementation Plan to SWSM, selects agencies for implementing district	Approval of the district AIP. Support monitoring and compliance to existing environment legislation. Inter-departmental coordination for planning, monitoring and reporting.	Approval of the district AIP after ensuring that all requisite social concerns of the district have been addressed. Provide inputs to AIP on targeting socially vulnerable communities or giving priority to remote/neglected pockets of the district that have low sanitation coverage.

Institution	Role in SBM/Rural Sanitation	Role in Environment management	Role in Social Management
	level strategies for IEC/BCC, capacity building, social mobilization & coordinates with various line departments in the districts as well as with the SWSM/WSSO.		
Some states have District Support Units (DSU) while others have District Sanitation Cell within the Zilla Panchayat (ZP) administrators to provide technical support to GPs & specific support in the environment & social front (promote RSMs; enforcement of design, location & usage according to SBM guidelines & other environment related checklists; Promote the participatory decision making & promote the processes that will ensure 'inclusion' & avoid 'elite capture'.			
Block Water & Sanitation Committee (BWSC)	The committee works at block level & coordinates with DWSC & VWSC for implementation & monitoring of projects & programs on water security & rural sanitation.	Acts as mediator between GP & DWSC. Technical support for Program implementation, awareness creation and social mobilization. Training of village level functionaries. Ensuring compliance and monitoring work. Review of SBM-G implementation, and monitor implementation	It acts as a mediator between GP & DWSC, has role in ensuring proper GP selection, implementation support, monitoring of implementation.
Some states have bodies like Block Water Mission & Block Sanitation Mission & Block Resource Group to Provide technical support to GPs/VWHSC on water quality; provide support on inclusion of economically weaker sections & other vulnerable groups; guide GPs/VWHSC on avoiding social risks.			
Gram Panchayat (GPs)	Responsible for planning, implementation, & maintenance of rural sanitation/water supply schemes including source strengthening necessary for sustaining toilet usage. GPs coordinate /guide VWSCs in executing schemes. Plays an important role in overall village sanitation, program strengthening by converging works supported by WSSO, PHED, SWSM. WCD & SSA. It arranges community/ panchayat contributions to capital & operating costs for community sanitation facilities & also has a role in	Implementing SBM-G implementing environmental guidelines, support beneficiary selection, site selection, and, monitor implementation including construction activities, ensure compliance to legislation, monitor and manage systems handed over to GP. Awareness and demand creation for SBM-G activities.	GPs facilitate decision making by the community, manage program funds & ensure their accountability. Responsible for providing equal access to all & take affirmative steps to ensure economic & social inclusion in rural sanitation programs, including availability of land to landless for toilet construction & access of all in school/AWC/community toilets. Be accountable to community & conduct periodic social audit of all GP works for transparency.

Institution	Role in SBM/Rural Sanitation	Role in Environment management	Role in Social Management
	beneficiary/site selection, monitoring of program & accountable for sustainability & overall village sanitation. Also responsible for O & M of school/AWC/Community toilets.		
Village Water & Sanitation Committee	An ad-hoc committee of the Gram Sabha- nodal for rural sanitation. It ensures community participation & decision making in all scheme related activities & responsible for motivating village to move towards safe sanitation habits. Responsible for recommending site/beneficiaries to GP & supervise the construction work related to RWS & sanitation. In addition it also ensures operation of IEC /BCC activities & looks after O& M of water & sanitation work.	Assist GP to implement environmental rules, awareness creation and demand generation, ensuring compliance to existing legislation, monitoring construction. Also involved with management of identified infrastructure. In some states, like Rajasthan, VWSC may be responsible for source sustainability of water sources.	VWSC is accountable to Gram sabha for program implementation & quality assurance. Responsible for inclusion & mobilization of all social groups including marginalized groups & women. Support IEC/BCC activities in all hamlets/habitations of the village & mobilize community contributions for Community complexes. Maintain oversight, prevent elite capture of the program & recommend sanitation solutions for landless families.

4.3   Management Procedures for Sanitation

8.   This section provides an overview of the procedures in place at the national and the state levels on environment and social management for addressing the anticipated environmental and social risks/impacts. It describes the procedures for addressing the environmental aspects of sustainability, impacts on natural and cultural heritage sites, and scheme-specific environmental management. Procedures for addressing the social aspects of management of land requirement, promotion of participation, inclusion and social accountability, and, systems for grievance redress are described.

4.3.1   Environment Management Procedures

Sanitation and its Linkages to Technology

9.   There are various GoI programs which undertake monitoring of water quality. The two most prominent are the Water Monitoring and Surveillance Program (WQMS) under the National Rural Drinking Water Program (NRDWP) of the Ministry of Drinking Water and Sanitation (MDWS) the assesses rural drinking water quality, and the Central Ground Water Board (CGWB). Under WQMS all drinking water sources are to be tested semi-annually for bacteriological contamination and once a year for chemical contamination. Both field-testing kits and district and state laboratories test drinking water quality. However, often due to insufficient resources, with laboratories not having adequate staff or equipment/chemicals testing may not be possible. At the State level, the department that undertakes rural drinking water quality monitoring may be different from the department implementing the schemes under NRDWP.

10.   The Central Ground Water Board (CGWB), which is under the Ministry of Water Resources, River Development and Ganga Rejuvenation monitors groundwater levels and quality through a network of observation wells throughout the country. The CGWB has been constituted under EPA 1986 for the management of India's water resources.

11.   However, there are no guidelines to streamline the monitoring the quality and quantity of water resources under various programs.

12.   Presently there are no specific guidelines or legislation that guide the management of rural SLWM activities. However, programs such as the Block level Concrete Cement Roads and Drains programs and the Agriculture Ministry's Composting Activities in Rural Areas address some of these issues. These models can be adopted for the current program to improve the current implementation and monitoring practices.

13.   The MDWS has detailed technical options for onsite sanitation (Handbook on Technical Options for On-Site Sanitation) and for SLWM (Solid and Liquid Waste Management in Rural Areas) which need to be strengthened for better environmental management. All states have the option for identifying the most suitable options for both onsite sanitation and SLWM.

14.   Presently, there are no guidelines available and construction management or material procurement to support project implementation.

Climate Variability and Disasters

15.   The National Disaster Management Authority has guidelines for construction of structures resistant to various types of disasters. However, there is very little material on developing water efficient and climate proof structures. The current program could potentially invest in developing these design, especially for the climatically vulnerable areas of the country (example coastal belt).

Policy and Implementation

16.   EPA 1986 has set out some guidance; for instance under the National Green Tribunal, for sourcing of sand and river clay. The Eco-sensitive Guidelines, 2011 and the Wetland (Conservation and Management) Rules, 2010 give guidance on material sourcing and construction activities in and around these areas respectively. The air and water pollution acts also provide guidance on discharge and pollution, which is applicable for construction activities and discharge of effluents. Similarly, the Indian Forest Act 1921 and the FCA 1980 give certain rights and restrictions that may guide material sourcing from protected forest areas. However, the actual monitoring of implementation of these regulations, which is to be overseen by the National and State environment ministries and departments and CPCB and SPCB, needs to be strengthened for sanitation.

4.3.2   Social Management Procedure

Management of land requirement

17.   The requirement of land under SBM is minimal but crucial as out of the six components[21] of SBM, four require land[22] (IHHL for existing households that encroach on government lands, Community and Public Toilets as well as for SLWM). Keeping in mind the twin pit latrines promoted across India, the size of the toilet ranges from 750 mm x 900 mm x 1900mm; or 800 mm x 1000 mm x 1900 mm; or 900 mm x 1050 mm x 1900 mm and the **land requirement for that is 40 Sq. ft. -60 Sq. ft**. (subject to location of superstructure and distance between two pits). This requirement increases as the size of toilets or number of latrines increase depending upon the population the toilets is catering too. Also, provisions for **urinals, wash basins requires additional space** and therefore, land. For liquid waste, soak pit is the simplest method of construction and use for grey water having **length, breadth and depth of 1 m each**. For high volume of waste water, clay or black soakage soil pit may be required but at the HH level such space may not be available. For solid waste, composting is the most suitable, sustainable and environment friendly traditional method. Here a range of systematic and scientific methods are available[23] listed by MDWS which on an average require **5 square feet of area next to the household**. So far no efforts for village level SWLM have been observed which if initiated would require large area of land depending upon the number of households that will be covered.

18.   The targeting under SBM towards IHHL is individual land and for community/public toilets is towards government or panchayat land. In case family is landless, there are provision for allocating individual plots or to construct community toilets for group of families. For both cases, it is the Panchayat land that is diverted for which a resolution is passed in the Gram Sabha and Revenue Department is intimated. The preferred method is to

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[21] 6 component of SBM are: IHHL, community toilets, public toilets, SLWM, IEC and Capacity building
[22] http://nswaienvis.nic.in/PDF/Guidelines%20for%20Swaccha%20Bharat%20Mission.pdf
[23] http://www.indiaenvironmentportal.org.in/files/file/Solid_Liquid_Waste_Management.pdf

identify public land that is free from encumbrances. Also, in case it is necessary to use privately owned land, GPs are to negotiate the rate with the seller and directly purchase the land at 'replacement cost'. The latter will be guided by standardized set of rules and obligations to be laid down in the Operation Manual and available in local languages.

Systems for promotion of local planning, participation, inclusion and transparency

19.   As per the SBM guidelines, Gram Panchayats must prepare implementation plans, which will be consolidated into Block Implementation Plans. These Block Implementation Plans will further be consolidated into District Implementation Plans. Finally, District Implementation Plans will be consolidated in a State Implementation Plan by the State Swachh Bharat Mission (Gramin). A Plan Approval Committee in Ministry of Drinking Water and Sanitation will review the State Implementation Plans. The final State Implementation Plan will be prepared by states based on the allocation of funds, and then approved by National Scheme Sanctioning Committee of the Ministry.

20.   Those who are socially and economically marginalized, those who are unable to use sanitation facilities constructed with standard designs, women, adolescent girls, children, people of certain castes, faiths and ethnicities, older people, pregnant women, people with disabilities, geographically marginalized populations in remote areas, as well as those living in areas where it is difficult to construct simple toilets due to high water tables, sandy soils or hard rock may be given priority while planning for coverage. Incentive as provided under the Mission for the construction of IHHL is available for all BPL Households and APL Households restricted to SCs/STs, small and marginal farmers, landless laborers with homestead, physically handicapped and women headed households. States and districts are also encouraged to access banks, recognized financial institutions or through livelihood programs for micro-financing of toilet construction. There is a provision of revolving fund which the states may use to aid families out of the incentive coverage or to provide credit support to the poorest of the poor or incentivize cluster of HH where community processes have been duly followed.

Systems for social accountability and grievances redressal

21.   GoI recognizes that no administration can claim to be accountable, responsive and user-friendly unless it has established an efficient and effective grievance redress mechanism. It also states that grievance redress mechanism of an organization is the gauge to measure its efficiency and effectiveness as it provides important feedback on the working of the administration. In terms of the systems available:

22.   MDWS has an online system called Citizen Information/Grievance Redressal where any citizen can register to get current status and automatic update in his village related to rural water supply & sanitation. (http://indiawater.gov.in/ISC/Entry/frm_Register.aspx)

23.   Department of Administrative Reforms & Public Grievances promotes three systems:
   a. Formulation and effective implementation of Citizen's Charters;
   b. Setting up and effective operationalisation of Information Facilitation Counters; and
   c. On Line Registration of Grievances by promoting 'Public Grievance Redress and Monitoring System' (PGRAMS) software. The Department made available an online compliant system and the grievances received are forwarded to the concerned Ministries/Departments/State Governments/UTs for redress under

intimation to the complainant (http://pgportal.gov.in/). The steps to grievance redressal and answers to procedures are also made available by the Department. (See http://pgportal.gov.in/FlowChart.aspx; http://pgportal.gov.in/FAQ-PGPORTAL.pdf)

    i. SBM-G has provision for monitoring and social audits as well ODF verification

    ii. Right to Information procedures in the state are well laid and encourage citizens to seek /get information on all public works and decisions, and are an instrument for seeking redressal of grievances. It covers all public programs/schemes, including sanitation.

24. There are no specific and dedicated grievance redressal systems for Sanitation.

Systems for reporting and monitoring:

25. As per the SBM guidelines, an effective monitoring mechanism[24] is to be put in place for monitoring both – outputs (Toilet Construction) and of Outcomes (Toilet usage) suitably which could inter-alia be in the monitoring of open defecation in the GP. To ensure that Monitoring and Evaluation activities are carried out in the States, 5% of all the funds available at the State level for administrative expenditure are allocated for monitoring and Evaluation studies related to the program, concurrent monitoring and social audits, third party independent evaluations and impact studies. Currently, the reporting is on the progress made by the State at annual and concurrent levels. The MDWS has developed an online monitoring system for SBM (G). Household level data with respect to sanitation facilities of all Gram Panchayats in the Country are to be made available on the MIS by States on the basis of the Baseline Survey 2012-13. The MIS is to be reporting of creation of ODF communities and their sustenance. Monitoring efforts will also track vulnerability group-wise expenditure on sanitary facilities by each GP – essentially to track level of inclusion.

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[24] As per the SBM (G) guidelines, monitoring has to be on the following lines: summary of district level plans; monthly and quarterly targets and progress; IEC/IPC/Triggering; Toilets actually constructed; Constructed Toilets are being used; ODF communities created; Monitoring against the objectives of SBM(G) during the previous year against the AIP objectives - reasons and comments for variation, if any. Also at state level, write ups of success stories, best practices, innovations introduced, new technologies used are to be made available.

5. Assessment of SBM-G Program System Consistency with Core Principle of OP 9.00

1.   This section assesses the arrangements for managing environmental and social risks and benefits associated with the program in a manner consistent with the operational Policy/Bank Procedure (OP/BP) 9.00, *Program for Results Financing*. These principles are intended to guide comprehensive assessment of existing borrower Program systems as well as their capacity to plan and implement effective measures for environmental and social risk management. The section assesses the Strengths, Gaps, Opportunities and Risks with respect to the policy and legal framework, the institutional context, and existing environment and social management procedures against these core principles.

Core Principle # 1

Environmental and social management procedures and processes are designed to (a) promote environmental and social sustainability in the program design; (b) avoid, minimize, or mitigate against adverse impacts; and (c) promote informed decision-making relating to a program's environmental and social effects

Strengths:

2.   The existing policies at national and state level ensure that the legal framework for social inclusion are in place. Overall improved sanitation, considering the local situations, is likely to have a very beneficial impact on human health and the overall quality of life of the rural population.

3.   Environmental legislation at the national and state level for the conservation and management of the environment and on pollution management are in place as is the institutional structure for the management of the environment. Therefore, procedures and clearances required for environmental protection are well defined. Existing legislation also help minimize or mitigate possible adverse impacts on the natural habitats, archaeological sites and cultural resources.

4.   New location of the SBM-G program in the Department of PR&RD in some states assure decentralized governance of the program that will create opportunities and spaces for socio-economically vulnerable groups' participation in planning and decision making. Some states like Madhya Pradesh[25] have guidelines to look at social issues by targeting villages that have a high incidence of diarrheal diseases and malnutrition, prioritizing the environmentally vulnerable areas, provisioning of toilets for girls in schools improves access of girl-child to education.

5.   In terms of the institutional structure[26] and management procedures at all tiers have defined responsibilities. The IEC strategy dwells on creating awareness about health-

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[25] For instance, Maryada guidelines, Madhya Pradesh or Water quality assessment data in PHED system under NRDWP's WQSP component in West Bengal which provides a support mechanism to minimize the possibilities of any contamination to water bodies and timely diagnosis of faecal contaminations as an indicator for detection of open defecations or any design related or operational management issues in sanitation or ISLWM infrastructure.
[26]   For instance Odisha WSSO has a well-defined implementation structure and officials in the field to support implementation.

hygiene–sanitation linkage and stresses on behavioral change as well as community processes.

Gaps:

6.   Decoding, wherever required, of environment regulations to support SBM-G is presently missing. Similarly, despite a number of technical options available and states free to select suitable onsite sanitation actions, only one design is predominantly implemented, which may not be suitable for all areas or may not be disaster resilient. Environmentally sound technical guidelines for implementation and O&M of sanitation activities need to be developed.

7.   The existing SBM-G implementation is yet to identify appropriate mechanisms to handle defunct IHHLs which may have become unusable due to poor design or because they were culturally inappropriate. For designated agencies, clear indicators and benchmarking of post construction management, health, hygiene and other benefits needs to be put in place. Behavioral change is thought as the most effective method to promote sustainability but other factors like inadequate superstructure, water supply, viable technology are equally significant and need to be addressed. Similarly cultural aspects which affect toilet use need to be understood and engaged with more effectively to ensure sustainability.

8.   Although MDWS has laid out technical guidelines for SLWM which provides technological options for different socio-economic and site conditions, the states lack the capacity to implement SLWM activities and manage them. As a result not many schemes have been grounded successfully in the past across India.

Opportunities:

9.   Development of appropriate guidelines, checklists, technical options and manual to ensure compliance to environment legislation under SBM-G. The program also offers an opportunity to learn from other areas on providing sustainable and cost effective rural sanitation in disaster prone areas like cyclones and create greater climate change resilience among the rural poor.

10.   Stronger representation of agencies looking at social management in the state and district missions will help in better mainstreaming of these concerns in design and implementation. Clear delineation of roles of different institutions in the implementation - WCD for anganwadi toilets, HRD for school toilets and Panchayats for IHHL and SLWM will ensure greater accountability, help in building environmental and social issues in the implementation and bring sustainability to the program.

Risks:

11.   Poor implementation or mainstreaming of existing social management regulations in program guidelines is a possible risk like all family members not using toilets; poor and vulnerable getting left out and migrant population not having access to toilets in areas claiming or identified as ODF. Poorly designed, located, constructed or managed onsite sanitation structures and inadequate attention to SLWM is likely to result in a number of social and environmental risks such as vector diseases and solid and water contamination.

Core Principle # 2

Environmental and social management procedures and processes are designed to avoid, minimize, or mitigate adverse impacts on natural habitats and physical cultural resources resulting from the Program

Strengths:

12. Onsite sanitation and SLWM infrastructure construction are expected to be small schemes and therefore unlikely to severely disturb natural habitats or environmentally sensitive zones or require their rehabilitation. There are well defined legislation at the national and state level for the conservation, management, impact minimization and mitigation of any environment issue identified and for pollution management, including an institutional structure defining authority in-charge of various activities and conservation areas. Existing legislation and institutional systems also help minimize or mitigate possible adverse impacts on cultural resources (as described in Chapter 4).

Gaps:

13. Although there are well defined environmental regulations and systems in place, existing legislation does not clearly define sanitation related environmental concerns, existing monitoring mechanisms are weak, and guidelines for environmental sound decision-making still need to be strengthened. Environment specific capacity building activities is presently insufficient and nodal environmental officers to ensure compliance to required environmental standards with the implementing agency are not there.

Opportunities:

14. The Program provides an opportunity to develop and strengthen appropriate guidance through manuals and checklists for improved sanitation and SLWM. This will have a major positive outcome on human health with reduced disease burdens and for some sensitive environments and water quality. Suitable guidelines for management and conservation of natural habitats and physical cultural resources can also be developed for implementing sanitation and SLWM works through sustainable practices and without causing irreversible damage to the environment. Strengthening the capacity of PRIs, especially at the GP level, for environmental management in the Program, will help ensure overall improved rural environment.

Risks:

15. Lack of awareness among implementing agencies on existing environmental regulations or poor capacities of implementing agencies at the State, District and GP level, may lead to possible adverse impacts on human health and degradation of water resources, natural habitats and physical and cultural resources. Similarly, without sufficient attention to ancillary needs such as availability of sufficient quantity of water for cleaning and maintenance there is a risk of (i) systems getting defunct, and (ii) slippage in use due to impracticality of use.

Core Principle # 3

Environmental and social management procedures and processes are designed to protect public and worker safety against the potential risks associated with: (i) construction and/or operations of facilities or other operational practices under the Program; (ii) exposure to toxic chemicals, hazardous wastes, and other dangerous materials under the Program; and, (iii) reconstruction or rehabilitation of infrastructure located in areas prone to natural hazard

Strengths:

16.   Most activities are small scale and IHHLs are being constructed by the users themselves. In such areas there is likely to be limited large scale movement of construction worker. This is likely to minimize risks associated with large scale construction, especially at construction sites. Furthermore, construction of latrines and SLWM systems is unlikely to create any serious risk for those involved in the construction activities.

Gaps:

17.   The guidelines for material procurement site management, construction site management, type of construction material to use or construction waste disposal are inadequate and needs to be strengthened. Construction requires material to be procured and will include creation of borrow pits, use of river sand and collection of boulders from surrounding areas. Depending upon the material procurement sites, risk to those procuring them may exist. Guidelines or requirements for post construction rehabilitation or rehabilitation of material procurement sites too needs to adhere to standards. Guidance for safe handling of fecal sludge, solid and liquid waste are lacking and requires strengthening.

Opportunities:

18.   The project provides opportunities to strengthening capacities of sector institutions and PRIs for planning, implementation, monitoring and safe management of village level and regional sanitation and SLWM systems, minimizing the risk of workers safety, and those involved in rehabilitation of defunct systems. There are also opportunities to strengthen guidelines to address safe management and disposal of fecal sludge and solid/liquid waste, and create capacities at the GP and village level for the management of such waste. This project also provides an opportunity to create good procedures for (i) construction site management, (ii) post construction site rehabilitation, and (iii) post material procurement site rehabilitation, as required. States could also encourage greater use of recyclable/ non-hazardous material in the development of rural sanitation infrastructure in ensuring better compliance with the regulatory provisions/state guidelines.

Risks:

19.   Presently, at some places, there is limited involvement of the community or the panchayat in program implementation, this could result in haphazard construction or waste management, risk of accidents during material transportation or poor post construction clean up and post construction waste management. With the lack of proactive involvement of PRIs, construction quality supervision, usage and post construction surveillance may result in increase of air, water and soil contamination and health risks. Improper management of onsite sanitation facilities, solid and liquid waste can pose serious health risks if institutional capacity and outreach to the community is lacking.

Core Principle # 4

Land acquisition and loss of access to natural resources are managed in a way that avoids or minimizes displacement, and affected people are assisted in improving, or at least restoring, their livelihoods and living standards.

Strengths:

20.   Land requirement is crucial but minimal for individual household level for IHHL and Panchayat land is to be diverted for community/public toilets. The procedures for diverting or acquiring land ensures that the decisions are transparent (resolution in Gram Sabha) and rehabilitation policies protect people from displacement or any negative impact on the livelihoods if land is acquired for public sanitation (toilets or SLWM).

Gaps:

21.   The construction of gullies for channeling liquid waste within the village and selection of dumping sites/ garbage bins for solid waste dumping will always be contested, since it will negatively impact some habitations. Empowerment of GP/GS in the program will be important for ensuring that such decision making happens with minimal conflict and decisions are owned by the entire village. Difficulties will come in acquiring land for toilet construction for the landless, where there is no surplus panchayat land, no private land donations are forthcoming or GP doesn't have financial resources to buy private land to create IHHL/CSC for economically vulnerable communities. Land productivity may be temporarily affected in places adjoining the toilet site, due to dumping of construction material.

Opportunities:

22.   In practice, land is not 'acquired' rather preference is to provide government land free from encumbrances, or purchase at negotiated rates, or through land donation by the Panchayat or the individuals. Land acquisition will mainly happen for marginalized households or for setting up CSC/SLWM sites, which will be based on collective decision of the GS. A strong social oversight mechanism created for the program (social audit) will ensure that decisions and site selection are fair, participatory and non-discriminatory. It is highly likely that all the households in a village will get toilets either within the house premises or closer to their habitat without getting displaced.

Risks:

23.   There is a possibility that surplus land for IHHL may not be available in some GPs for acquisition/ allotment, making access to sanitation for some marginalized groups difficult.

Core Principle # 5

Due consideration is given to cultural appropriateness of, and equitable access to, program benefits giving special attention to rights and interests of Indigenous Peoples and to the needs or concerns of vulnerable groups

Strength:

24.   Equitable access to rural sanitation facilities is assured by the program design and gives preference/ financial incentives to people belonging to Scheduled Tribes-irrespective of whether they are APL or BPL. Financial incentives are provided for individual toilet

construction to vulnerable groups like SC (APL-BPL), ST (APL-BPL), Other Backward Classes (OBCs), small & marginal farmers, women-headed households and people with disabilities. Safeguards for Scheduled Tribes, forest dwellers, SCs, tribal communities exist in state policies. The program implementation modality provides flexibility to households regarding location of the IHHL within the homestead, considering the strong '*purity*' related concerns associated with toilets among many communities. Manual Scavenging Act is in place to prevent manual removal of fecal sludge from toilets.

Gaps:

25.   Weak capacity to disseminate information for behavioral change, promote social accountability and address grievances at village level. Those beneficiaries who have once availed subsidy are not included in the current plan even if they do not have functional toilets which may deprive poor households of incentives and may also create barriers in achieving ODF status.

Opportunities:

26.   States can use the available discretion and budgets to design effective IEC/BCC campaigns; research on innovative designs which serve diverse user needs; hire social and environmental experts; provide more staff, support capacities to GPs in micro-planning, inclusion, transparency and accountability. On the one hand, some funds are being made available for operation and maintenance as well as rehabilitation of defunct toilets, on the other hand, states may access funds from other sources such as corporate funds, etc.

Risks:

27.   Unless there are steps taken to involve people in technology selection, quality control of both materials used as well as the design, infrastructure may not be used or used selectively. Cultural sensitivity that relate to gender (for example, women often do not use toilets that do not have proper walls and door or are close to the living space for reasons of privacy) or purity and pollution (toilet located close to kitchen or places of worship are considered polluting) are shrugged off as 'backwardness' and remedy is sought through IEC and behavior change. It is to be understood that the issues of privacy and purity-pollution are ingrained in culture. Therefore, culturally sensitive behavioral change approach as well as seeking engagement in the choice of physical location of toilet are required.

Core Principle # 6

Avoid exacerbating social conflict, especially in fragile states, post-conflict areas, or areas subject to territorial disputes.

Strengths:

28.   SBM is a household-based short duration construction project with a community approach. Infrastructure constructed under SBM are for local use and are located within the village. So minimal risks in terms of conflict were observed.

Gaps:

29.   Though SBM's coverage is in principle "universal", the program has to be community led.

Opportunities:

30.   The community approach needs to be strengthened along with an easily accessible and speedy grievance Redressal mechanism.

Risks:

31.   The districts could get left out if it is assumed that they cannot be covered.

6. SBM-G Program Implementation Assessment

1. This section analyses the implementation related performance of key implementing institutions associated with the environmental and social legal -regulatory framework for the state's program under Swachh Bharat Mission. The section also highlights the challenges of this institutional framework along with an assessment of their current capacities. The section then goes on to analyze the processes of planning monitoring and decision making in the program, the IEC strategy adopted by the state and the current grievance redress systems in place- all from an environmental and social perspective.
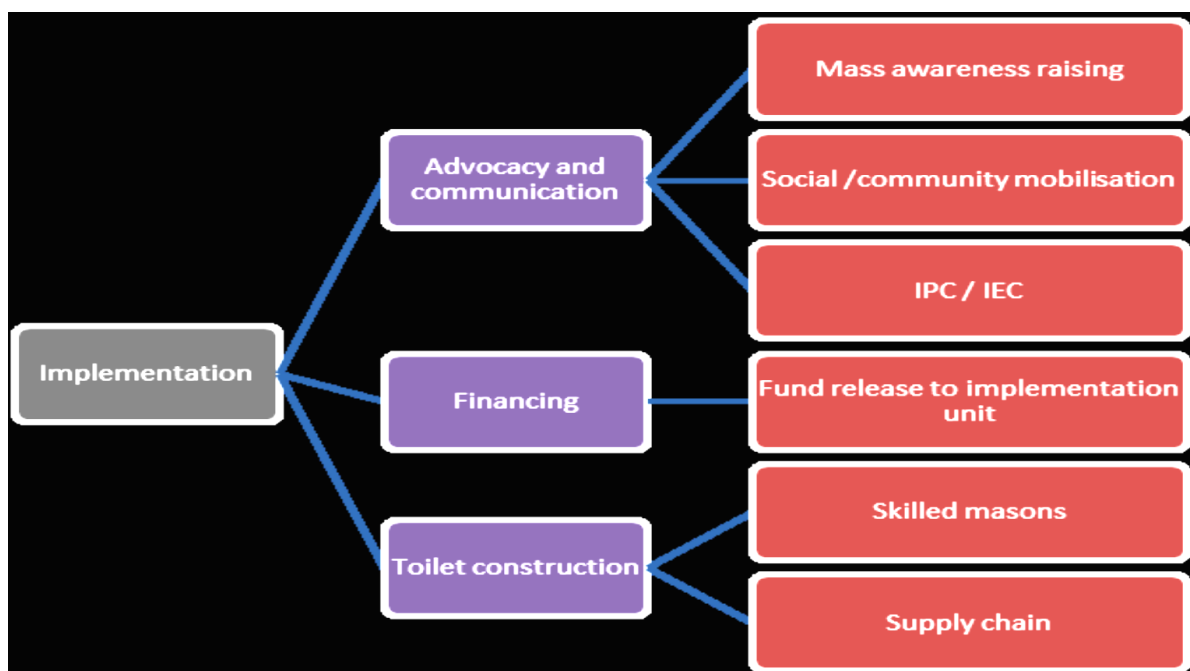
2. SBM is divided into three phases: Planning, Implementation and sustainability. The key components of the implementation of SBM-G includes: (i) start up activities including preparation of state plans, (ii) IEC activities, (iii) capacity building of functionaries, (iv) construction of household toilets, (v) construction of community sanitary complexes, (vi) a revolving fund at the district level to assist Self Help Groups and others in providing cheap finance to their members (vii) funds for rural sanitary marts, where materials for the construction of toilets, etc., may be purchased, and (viii) solid and liquid waste management.

6.1 Performance of Implementing Agencies on Legal and Regulatory Framework

6.1.1. Performance on Environmental Aspects

3. **Sanitation and its linkages to technology:** Rural water supply agencies test water sources developed by them, therefore leaving out other sources that may be used for domestic purposes. However, in villages multiple sources are used for procuring domestic water, which may not be monitored or tested for fecal contamination. There are also other staff and resource constraints which hamper water quality monitoring and are discussed in the next subsection. The Central Ground Water Board (CGWB) only monitors its observation wells and restricted to a few chemical parameters like salinity and other chemical contaminants.

The CPCB and SPCB mainly focus on industries, special study areas and areas that may be declared as critically polluted.

4.   While presently activities under SBM-G for liquid waste management, both grey and black water, are yet to be scaled up, basic activities like organizing collection of solid waste by the GP which may be either dumped or burnt outside the village is presently undertaken in a limited way under the Program. As already mentioned there is limited capacity in the States for undertaking SLWM under the Program.

5.   The community/individual is guided about safe toilet technology. Adequate attention needs to be given to design of superstructure and substructure by the implementing agencies. Due attention needs to be given while planning and constructing superstructure in order to ensure ventilation and lighting. At some places, there is limited involvement, understanding and therefore interest of beneficiaries in design and planning to identify appropriate actions for superstructure design. Also, adequate consideration should be given to the substructure design in order to avoid ground water contamination through fecal sludge, especially in high ground water table areas, and proper handling of fecal sludge.

6.   **Climate variability and disasters:** The IHHL designs need to address issues of disasters. In the field, officials acknowledge the need for alternate and more disaster resilient designs. Past experience also indicates that similar structures built previously have not been resilient to disasters and resulted in return to open defecation after damage and destruction of the structures.

7.   **Policy and implementation:** Capacity building through the CCDU and other identified state level agencies exist. However, capacity building activities are presently limited, and include training for decision-makers and field staff to implement assigned roles, and also undertake specific courses on IHHL construction[27]. Capacity building to identify and address environment related actions, or infrastructure sustainability needs to be further strengthened.

8.   The SBM-G guidelines provide for National Resource Centre/Key Resource Centers to support and/or create capacity of implementing agencies, in line with the existing NRC/KRCs for water supply. Enhancing capacities of these KRCs in addressing sanitation related environment issues, would be a good way to address capacity and skills on the issue for SBM-G implementation.

6.1.2. Performance on Social Aspects

9.   While the policy framework is in place, due to inadequate human resource, lack of expert capacities, pressure of targets as well as lack of clearly laid management systems, the implementation remains weak in some places.

10.   **Land management:** The responsibility of land management lies with the Panchayat as it is the Panchayat land that has to be diverted (only diversion not acquisition) in case landless families have to be provided land for toilets or land has to be made available for community, public toilets as well as village level SLWM. The assessment showed that there were no conflicts. Local bodies are well aware of the legal procedures which are being duly followed to ensure that vulnerable can avail sanitation facilities and decision to divert land

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[27] There is an endeavour to expand trainings through KRCs and also strengthening their skills.

are passed in the Gram Sabha after which Revenue Department is informed to make changes in the land records.

11. **Decentralized planning:** The national and state policies create an enabling environment for 'decentralized decision making', be it the 73rd Amendment Act, PESA or FRA. There are also institutional structures in place like elected bodies with representatives from marginal groups, local institutions like VWSCs to support demand generation, local planning and monitoring. The SBM (G) also provides for role of PRIs. However, at some places, due to capacity constraint, there is little understanding of the core principles of decentralized planning or micro-planning at GP/ward level.

12. **Participation, inclusion, transparency and accountability:** Some risks as observed in this regard are – diverse needs like those of aged, small children and adolescent girls. Secondly, for the extremely poor households, it is difficult to avail the benefits as they do not have financial liquidity or credit worthiness to construct toilets and wait for the compensation to arrive later. Despite provision of revolving funds, Panchayats are reluctant to provide credit in advance because of past experiences of lapse, poor construction and practical difficulty in monitoring so extremely poor families fail to avail the scheme[28].

13. **Grievance redressal:** Most of the grievance management systems are technology-based and their use is a function of access to technology. Hence most of these systems are inaccessible for economically vulnerable and those living in remote areas where access to both mobile and internet services is limited. There is no clarity how individual grievances related to construction of IHHL under SBM are redressed. It was observed during the assessment that at some places many families had constructed toilets, submitted photographs but not yet received the compensation under the scheme despite submitting complaints to the GP, Block and District. This becomes a deterrent for financially weak families to take the initiative and avail the scheme.

14. **Monitoring:** MDWS has an online monitoring system where annual and concurrent physical and financial progress is reported against targets. Under this system the accountability is upward- from GP to Block to District to State to Centre. No community led monitoring processes were seen during the sample state visits of ESSA. SBM-G has provisions for ODF verification, social audits etc. which needs to be strengthened for effective monitoring.

6.2 Adequacy of Institutional Organization and Capacity

15. As mentioned in Section 2.3 and 2.4, there is a clear five tier institutional structure for planning, implementation and monitoring of SBM (G). The guidelines have the provision to engage additional units and staff[29] (permanent or temporary) as required across the institutional set up of the Program.

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[28] These issues are now being addressed due to emphasis of the program on community involvement and collective behavior change.

[29] For instance, at district level, one coordinator, one assistant coordinator, five consultants (one each for IEC/Equity/Social and Behavioural Change Communication; HRD/Capacity Building; M & E cum MIS; Technical expert -Sanitation & Hygiene; SLWM), one accountant and two data entry operators. At the block level, a full time Block Sanitation Officer (BSO) assisted by a Block Coordinator and a Data Entry Operator engaged on contract plus Social Mobilisers to assist village level workers also called Swachhata Sena. At the GP level, Swachhata Doot, village motivator, is selected who could be the ASHA worker, Anganwadi worker, or someone from the village through common consent. They do not get a monthly salary; they are paid per toilet - sum of INR 150, that is, if a toilet is used for three months after construction.

6.2.1 Adequacy of Institutional Organization and Capacity on Environmental Aspects

16. **Sanitation and its linkages to technology:** The capacity to understand, monitor and implement actions that ensure compliance to existing environmental legislation and appropriate environmental standards requires to be strengthened in the SBM-G program.

17. Technical capacity to comprehensively plan and implement onsite sanitation and SLWM, while establishing cross-linkages between technical, water, sanitation and environmental requirements, in order to ensure safe and functional systems need to be strengthened across the institutional setup.

18. Water quality monitoring though the NRDWP is variable across the country. Resources for field sample collection and testing, such as chemicals for testing and incubators for microbiological contamination testing, are inadequate. Microbiological contamination is only tested through the H2S vial test at the GP level and undertaken by the gram sevak, which is insufficient to identify fecal contamination, and can only inform on bacteriological contamination.

19. Other proxy measures for determining the extent of fecal contamination may exist – such as diarrheal disease burden through IDSP data and information at public health centers. However, as diarrheal diseases are usually under-reported, this presently may not be a strong enough indicator for measuring water quality. Equally, with little convergence between the rural sanitation and health departments, disease burden data is not used to identify concerns of fecal contamination of water systems.

20. As already mentioned staff implementing in the field are over-stretched and capacities are inadequate to monitor program implementation; compliance to environmental regulations and standards and implementation of SLWM actions.

21. **Climate variability and disasters:** Onsite sanitation structures promoted presently does not consider parameters of resilience to know disasters. While implementing staff may be aware of disaster concerns in their area, their capacity to suggest reinforcing structures or identification of alternate s or modifications to existing structure is limited.

22. **Policy and Implementation**: While the SBM-G guidelines suggest a robust monitoring system that includes onsite sanitation and SLWM activities, presently monitoring is focused on construction of IHHLs and funds disbursed by the Ministry[30]. Compliance to required environmental legislation, ensuring environmentally appropriate implementation such as appropriate IHHL design, compliance to required legislation, post construction management of systems and proper disposal of waste and wastewater are presently not included in monitoring actions and will be further strengthened.

23. All states undertake regular capacity building activities for their staff. However, this should also include environment related components and their integration with technical aspects of design, implementation and management of sanitation and SLWM facilities. Capacity building activities should include both implementing staff and PRI officials involved in planning and implementation, and beneficiaries and others involved in post construction management of developed systems.

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[30] However, the monitoring system is currently being further strengthened and monitoring of other social/environmental parameters will be included.

6.2.2 Adequacy of Institutional Organization and Capacity on Social Aspects

24.   There are different types of inadequacy that affects the implementation- one relates to **inadequate number of trained staff/specialists available**[31] to implement the program and **limited perspective and skills of the existing implementers** (elected leaders and functionaries). While general competencies do exist for addressing social issues, specialized competencies are required to strengthen existing guidelines and implementation modalities on social issues. And finally the dearth of enough support at the last mile of implementation[32]-village and GP level has been articulated in several past evaluations as well as observed under ESSA.

25.   **Land management:** No challenges at the implementation observed. However, challenges can be foreseen if Panchayat land would not be available and has to be acquired as powers for that do not lie with the GPs[33].

26.   **Decentralized planning, Participation, inclusion, transparency and accountability:** While there is desirability for community processes, it is clear that the skills to mobilize, motivate, prepare participatory plans and ensure inclusion are not there at present, particularly at the GP level. A clear need for training at all levels is required in participatory planning, inclusion of vulnerable groups/communities, transparent and accountable systems of functioning and program sustainability is required. Particularly members of Gram Panchayat, VWSC need to be trained in participatory planning, social monitoring and social mobilization since these local bodies will have the ultimate responsibility for program sustainability and motivating the community to move up the sanitation ladder. Also, training for implementing stakeholders on these issues is important to build a perspective so that they can prioritize and provide impetus to such social processes. Augmenting capacities for designing and training on context specific, inclusive and sustainable technology which address diverse user needs, respond to available resources and are simple to implement. With importance being given in the current program to social audit, it will be important to strengthen the state-wide processes on social audit, including re-orientation of the resource persons/ social audit facilitators on SBM.

27.   **Grievance redressal:** The first challenge is to institutionalize systems of grievance redressal as right now as it is not accessible to vulnerable communities, is not in local languages and there is not enough sensitization around the availability of such a system. This is to be followed by clear roles, orientation of the staff responsible and easily available information for citizens on how to avail the systems.

28.   **Monitoring:** The existing reporting and monitoring processes need to be complimented through better analysis which can feedback into the process of planning, targeting and improving implementation. For instance, if the reports show that SC/ST coverage is poor then efforts to counter such gaps need to be made which require capacities

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[31] An ESSA observation from Chhattisgarh to elaborate this further: Both DSUs and BRCs visited by the team have inadequate staff. Though there is provision for one District Coordinator and one District Program Coordinator district coordinators, Durg has only one District Coordinator who is responsible for planning, coordination and reporting about the entire district. One block coordinator is given responsibility for all the GPs in a block and one cluster coordinator is usually responsible for 70,000 people. Similarly in Rajasthan, Dausa district, it was observed that there the Panchayat Secretary has a support staff of two but had to manage filing and paperwork for over 50 schemes including SBM.

[32] The provision for Swachhata Doots/Sena is there in SBM guidelines to carry out the multiple formalities and communication that needs to be completed in the course of triggering of demand and subsequent toilet construction like identification of a beneficiary, assisting in the IEC, maintaining records and tracking progress at GP level.

[33] It is envisaged that such occasions will be rare, given the little space required for toilet construction and focus on community processes.

and initiative at the state and national level. This will require corresponding training and orientation.

29. **Others:**
    a. **Rural masons** have a major role in the physical creation of toilets and their current trainings are on scheme information, negative impacts of open defecation, design options and simple techniques for SLWM. Training of rural masons on participatory design selection and their sensitization on special needs of children, old and physically challenged will help in making the program more inclusive.
    b. **Since behaviour change and IEC** are important components of the program which affect its sustainability, capacities to make strategies, design campaigns at all levels, provide trainings to implementers and monitor impact.
    c. Filling positions, retaining the recruited people and motivation[34] of **existing consultants or field workers** (like Swachhata Doot and Swachhata Preraks) is a concern especially because they are not permanent staff and remuneration is also low.

6.3   Additional institutional and human resource support

30.   SBM guidelines also provide for other mechanisms to seek institutional support, be it through NGOs, CSOs, CBOs, private sector, CSR, and cadre of consultants and field level volunteers. Decisions about their payment are left to the State or District usually taken from the IEC component of the budget. This becomes particularly significant to seek some expert support and results in the environment and social aspects:

    a. **Corporate Social Responsibility Projects**: MDWS provides Guidelines on Corporate Social Responsibility and Sustainability[35] GoI provides direction to collaborate with Corporates supposed to be spending a certain earmarked fund each year in creating and sustaining socially beneficial projects which may include making villages ODF, construction of individual and community toilets and decentralized Solid and Liquid Waste Management projects, Menstrual Hygiene projects, Environmental Sustainability projects, rain water harvesting, water recycling, software activities such as triggering, IEC etc. and any other related activities. In Rajasthan, for instance, CSR agencies were earlier also constructing toilets but because of varying quality and technical standards this led to conflicts in the community and it was decided to restrict their involvement to mobilization, communication and IEC activities like field level trainings and workshops to begin the 'triggering' for community led action for sanitation; organizing 'Garv Yatras' to celebrate the successful ODF status of a GP. In Madhya Pradesh, for school sanitation the school education department is in discussions with the Central as well as State Public Sector Units for encouraging them to use their CSR funds for toilet construction and their O&M[36]. Some public and private banks have also shown interest in investing their CSR funds in this.
    b. **Private Sector**: Where private sector supplies do not penetrate rural areas, Rural Sanitation Marts (RSM) and Production Centers (PC) are opened. RSMs provide material hardware, designs for construction of latrines, soakage pits, washing platforms, filters and so on. PCs produce traps, pans of various materials and other hardware. Now, under the SBM (G), support of private entrepreneurs may also be

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[34] This is not a permanent cadre, SHGS/CBOs/ANM/ASHA workers can be given additional responsibility of Swachhata Doot. There should be an appropriate incentive mechanism focussing on outputs and outcomes.
[35] http://mdws.gov.in/sites/upload_files/ddws/files/pdfs/Guide_Line_Sanitation_CSR.pdf
[36] This is currently being done across the country through Ministry of HRD.

taken for ensuring an effective supply chain. District makes an interest free loan to each RSM or PC up to INR 5 lakh out of a revolving fund to be paid back in one year.

c. **Civil Society Organizations** (national and international): In order to facilitate collaborations, the MDWS has formulated guidelines and identified/empaneled 33 organizations[37]. So far, international partners in the sanitation effort include: UNICEF (that has programs in the majority of the States), Global Sanitation Fund (Assam, Bihar and Jharkhand), Bill and Melinda Gates Foundation (Uttar Pradesh and Bihar). International NGOs involved in sanitation include WaterAid and PLAN India. Among the many Indian NGOs involved in sanitation, are: Sulabh International, Gramalaya, Environmental Sanitation Institute. Many states have evolved local mechanisms to address the sanitation challenges and targets like the Maryada Abhiyaan in Madhya Pradesh (2012), taking support of key development agencies working (like DFID and UNICEF) to simultaneously pilot different CLTS approaches. Here the state plans to involve NGOs and private players for setting up and managing SLWMs in the first phase and the task of DPR preparation for the GPs covered in the first phase was developed by selected NGOs. Similarly, West Bengal government launched the Intensive Sanitation Program (ISP) of Medinipur, a key strategy was the partnership of the government of West Bengal with the Ramakrishna Mission Lokashiksha Parishad, strengthened further with the participation of UNICEF, implemented in close coordination with the district administration and the local panchayats, taking motivators from the pool of 'literacy workers'. ISP followed the strategy of activating the market of sanitary facilities by way of awareness building and demand generation, identification, training and deployment of Rural Sanitatry Marts (Guchchha Samities) for supply of hardware as well as reaching out to the community with messages on hygiene and sanitation. Registered NGO have been appointed as Block level RSM's in the initial stages of the program and were provided from the revolving fund Rs. 1.5 lakh. The RSM's run by SHG's and NGO's have become instrumental in expediting the construction activities.

d. **Community Based Organizations**: The outreach and ground level connect that such organisations have are expected to be tapped into for the Program to achieve positive results. They can also be considered for active involvement in the IEC activities including (a) Triggering, leading to demand generation and sustained use of the facilities, (b) Capacity building, (c) assistance in construction and ensuring sustained use of sanitation facilities. Ideally every GP should have one Support Organization (SO) associated with it for assisting in furthering the sanitation program. In some states a role for SHGs under NRLM has been envisaged but nationally, there are no clear guidelines on it.

6.4 Planning, Decision Making, Reporting and Monitoring Processes and Procedures

6.4.1 Processes and Procedures Related to Environmental Management

31. Overall strategies to ensure ODF by 2019 differs between the states, though challenges are similar. Issues related to environmental management, are discussed in this section.

32. **Sanitation and its linkages to technology:** Water quality testing is not undertaken for construction of sanitation infrastructure. For example, in areas such as parts of District

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[37] http://mdws.gov.in/sites/upload_files/ddws/files/Implementation_of_CSR_Projects.pdf

Pali in Rajasthan, excessive salinity in the locally available water is a concern for construction activities. Discussions in Madhya Pradesh also noted, that in areas with high iron content villages were reluctant to use the water due to its discoloring properties. These and other water quality issues need to be comprehensively addressed.

33.   The onsite sanitation technical options guidelines mention the need to ensure that there is no soil or water contamination. However, at the implementation level, depending upon the capacity of the existing officials it may be possible to tackle some of these issues; for instance, distance from a water source. In practical terms this may not be easy to handle in all instances, given the preference to construct IHHLs within the homestead, in areas with numerous water sources or surface waterbodies it may be a challenge.

34.   Decisions on material use and interpretations of IHHL design takes place locally. However this decision-making without adequate awareness on good environmental practices, may result in variations that may have an adverse impact on the environment. For example, while the design suggests a pit depth of about 4 feet, due to concerns of filling up, the pit may be extended beyond 10 feet at some places but not below the water table may be taken.

35.   **Climate variability and disasters:** Beneficiary selection to address defunct IHHL due to technical and other design faults or post disaster damage is presently a challenge. Those who have already availed government subsidies for IHHLs are automatically disqualified from receiving support under SBM-G, though in some areas the private sector is used to address this issue[38]. Implementation strategy at the state level to address availability of water for onsite sanitation is variable.

36.   **Policy and implementation:** Initiatives as a part of SBM-G activities on SLWM are based on understanding and interest of the district implementing teams and may not be responsive to the demands of the communities. This may result in inadequate attention to address local environment concerns – such as disposal of plastics through burning, due to the lack of capacity to address issues. Equally, in order to support implementation of SLWM activities the implementing agencies need to be strengthened.

37.   Presently, IEC activities for demand creation for onsite sanitation and SLWM or for creating and awareness on possible onsite sanitation actions and impacts at the GP and village level is not adequately addressed. Therefore, appropriateness of systems and structure based on village level discussions, or simple beneficiary lead activities for onsite sanitation or SLWM needs to be improved.

6.4.2   Processes and Procedures Related to Social Management

38.   **Land management:** Firstly, the assessment showed that land requirement is crucial but minimal and no cases of conflict or people being adversely affected in the process were reported or observed. For IHHL, it is private space that the family has to provide within the premises. For small holdings or landless families, Gram Panchayat has the power to provide space for individual or common toilets by diverting common land after passing a resolution in Gram Sabha and informing the Revenue Department. For schools, community toilets have to be constructed within the premises and land is available or land is Panchayat land is diverted[39]. For Anganwadis there is a challenge as most of them are located in rented

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[38] This is currently being addressed through other sources such Swachh Bharat Kosh, motivation to construct own toilets etc.

[39] There are policies to safeguard interests of people using or dependent on that land.

premises where construction is not permissible. For public toilets and SLWM[40] at village level, there could be challenges if Panchayat land is not available and commons cannot be diverted if they provide a source of livelihood to certain sections of population. Also, sites chosen could be an issue of they are next to In such cases either while the preferred method is seek private donation through a transparent process of disclosure where either the land is voluntarily given by a family as donation or it is voluntarily given in exchange for due compensation.   However, some examples are emerging good practices of land management through community mobilization.

39.   **Decentralized Planning:** At some places, planning for the program in the state may be done independent of panchayat institutions by the program functionaries at the district level, then targets are given to the block and GPs. At the district level, the AIP is prepared which contains the possible outputs, activities to be undertaken and estimated budget. Based on that demands from GPs and Blocks are collated and fund allocation for different components on the program is done. At the village level, the focus is on identification of beneficiaries and processing of application. In places where community processes are not yet adopted, village level data on coverage and issues is taken from the Panchayat secretary, a formal approval taken from Gram Panchayat and submitted to the block. Priorities are decided by block level functionaries in consultation with the block CEO as per criteria provided by the district/state which could be based on NGP guidelines (Rajasthan) or focused on areas which have piped water supply (Madhya Pradesh).

40.   **Participation, transparency and accountability**: A clear role of Gram Panchayats, Gram Sabha and VWSCs to ensure participation of citizens in planning, monitoring and management, inclusion and participation of women, minorities, lower castes, tribes are given in the guidelines. Gram Sabhas are established as spaces where demands can be articulated, status of developmental programs is shared, budgets and expenditures are disclosed and accountability can be sought. However, the assessment shows that capacities of local bodies (official and elected) are limited in terms of number and expertise to facilitate such processes. Finally, the targets of toilet coverage are high due to which social management processes may not be prioritized.

41.   **Grievance redressal:** MDWS has an online system called Citizen Information/Grievance Redressal where any citizen can register to get current status and automatic update in his village related to rural water supply & sanitation. Secondly, Department of Administrative Reforms & Public Grievances promotes three systems: Formulation and effective implementation of Citizen's Charters; Setting up and effective operationalization of Information Facilitation Counters; and On Line Registration of Grievances by promoting 'Public Grievance Redress and Monitoring System' (PGRAMS) software. Thirdly, most states have well laid out systems of complaint related to rural development schemes including sanitation. Most of the grievance management systems are technology-based and their use is a function of access to technology. Hence most of these systems are inaccessible for economically vulnerable and those living in remote areas where access to both mobile and internet services is limited. There is no clarity how individual grievances related to construction of IHHL under SBM are redressed. It was observed during the assessment that in some places many families had constructed toilets, submitted photographs but not yet received the compensation under the scheme despite submitting complaints to the GP, Block and District. This becomes a deterrent for financially weak families to take the initiative and avail the scheme.

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[40] Since the approach is phased, right now the land requirement and stress on SLWM is also minimal.

42.   **Monitoring:** Reporting and monitoring, which mostly require progress of physical construction and completion against resource allocation, are done through IMIS and an online entry system that provide quantitative information on fund spent, constructions completed as well as ODF and NGP status. Reporting follows the same line from panchayat to block and from block to district. The existing monitoring systems track progress on parameters including geographical coverage and social profile of beneficiaries accessing the scheme. There is no provision of maintaining the Age, gender, class segregated data in planning and monitoring processes to ascertain the problem shooting on such aspects or to gauze the relative progression. The state has a reporting system in place to track progress against the district AIP. Block and cluster coordinators play a significant role in physical verification of work by visiting the villages. Apart from physical and financial progress, the Monthly Progress Report also tracks SC/ST/BPL beneficiaries, type of IEC activities undertaken, number of trainings conducted, people trained, demand received and the status of Rural Sanitation Marts (RSM)/ Production Centres.

6.5   IEC for Behaviour Change

43.   Effective behavior change is vital to the success and sustainability of all water, sanitation and hygiene interventions. One of the reasons cited for low sanitation coverage in previous years has been the lack of suitable strategies for community awareness regarding sanitation and hygiene practices. Moreover, previous schemes were mostly focused on construction rather than on behavior change and participation. SBM calls for community-wise behavioral change in households, institutions and in SLWM. The NBA/SBM strategy has been to stimulate everyone to make the first steps towards improved sanitation before incentivized or subsidized construction. Demand creation for toilets would start with creating the *intention* to stop open defecation. Thus, the IEC activities are meant to strategically organize in conjunction with the hardware program and sequenced to build on each other systematically. Experience has shown that districts that have adhered to these principles the sanitation effort has achieved more.[41] As the SBM (G) guidelines emphasize, IEC methods should be process oriented rather than event-based.[42]

44.   The IEC strategy in the past had a strong hardware focus with emphasis on wall writings, pamphlet/poster distribution, placement of banners, meetings, *nukkad nataks* and video screenings and less emphasis was placed on people-to-people contact and inter-personal communication. But now states are emphasizing on use of interpersonal communication and collective behavior change as the key to its future IEC approach.

45.   MDWS has collated 33 Training materials on Sanitation which can be used to design and implement IEC campaigns at the grassroots. Television and Radio messages are broadcasted regularly and strategy to use Swachhata Preraks and Swachhata Doots as well as other institutional support from Private companies, CSR, CSOs, NGOs and CBOs is also envisioned and stated in various guidelines.

46.   ESSA shows that on the one had there is lack of expertise at the grassroots to spearhead IEC campaigns, on the other, in many GPs there was little or no support or inputs for mobilization, community participation and information dissemination from higher tiers. Therefore, only on occasions such as Gram Sabhas and Annual Days, were messages given

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[41]   See, for example, presentations on sanitation programs in Bundi, Kangra and Bikaner districts of Rajasthan at the Knowledge Sharing Forum: what works at scale? Distilling the critical success factors for scaling up rural sanitation. In Jaipur, 2014. WSP, 2014.
[42]   SBM-G (2014) Guidelines, p. 10

during speeches but no structured and consistent IEC, BCC support existed either for demand generation or for sustainability of ODF status[43].

6.6   Operation and Management

47.   The maintenance individual, community or public toilets is very essential for sustenance of reduced OD[44]. SBM (G) guideline state that Gram Panchayat should own the ultimate responsibility of maintaining community sanitary complexes. In case of complexes specifically meant for households, the user families may be asked to contribute a reasonable monthly user charge for cleaning & maintenance. For complexes in places of community congregation, pay-and-use model may be encouraged. States are to issue suitable Operation and Maintenance and Monitoring guidelines to ensure proper maintenance of the complex. ESSA shows implementation challenges for O&M at many levels:

   a) At the Central, State and District levels, the priority has been on achieving targets on construction of individual toilets. Adequate priority needs to be given to O&M of community toilets.
   b) At the village level, budgets available for O&M are not sufficient. For school toilet complexes, only 10,000 INR for a year is budgeted towards cleaning material and workers.
   c) At the household level, it was observed that women continue to shoulder the responsibility of cleaning and fetching water for the toilets.
   d) Similarly cleanliness of community and public toilets continues to be seen as a low paid job or unpaid responsibility of lower caste.
   e) Access to water remains an essential component to maintain cleanliness. Often toilets become unusable if this access is limited.
   f) Another indicator of poor O&M is a series of defunct toilets while the focus remains on construction of new ones (often adjacent to the old defunct ones).

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[43] A massive IEC campaign is therefore being undertaken by MDWS. There is also a renewed focus on capacity building of States, so that they can roll out further capacity building in district/sub-district level.

[44] The Ministry has issued a Handbook on Establishment and Management of Community Sanitary complexes

(http://www.mdws.gov.in/sites/upload_files/ddws/files/pdfs/CommunitySanitaryComplexes_2Jun2011_PRESS.Pdf)

7.   Suggestions and Recommendations

1.   Previous sections of the report have looked at various actual/ potential social and environmental risks and challenges confronting the program, their likely impacts and benefits within the existing legal and policy framework and then assessed the consistency of the program with the core design principles under OP 9.00. It then went on to assess the capacities and adequacy of the existing institutions to successfully handle these likely risks and also look at their capacities to take up the social and environmental management within the program. The current section sums up the assessment of the previous sections and uses it to draw up specific social and environmental actions required for mitigating/minimizing those risks and challenges.

7.1   Environment

2.   The environmental assessment reviewed the environmental policies and procedures and found them to be adequate. GoI provides a number of guidelines, procedures and policies on environment – WQMS of NRDWP, ground water monitoring of CGWB, guidelines on onsite sanitation and SLWM by MDWS, etc. The risk screening suggests that the overall environmental impact of the program is likely to be positive, owing to benefits such as improved access to sanitation. Well planned and managed sanitation interventions can lead to several positive impacts like: (i) improvement village sanitation levels and environment (ii) reduced contamination of water sources (iii) improvement in personal hygiene and overall health of the communities covered under the project.

3.   However, potential risks can arise during implementation at some places due to improper planning, execution and management of the program. These are: (i) contamination of groundwater supplies due to poorly designed/managed sanitation facilities (ii) incomplete technical and O&M knowledge and guidance to PRIs and GP/village level implementing institutions about the domestic, institutional sanitation facilities and SLWM systems may pose general environmental and health problems, (iii) potential impacts on natural resources, and natural and cultural heritage sites located nearby, (iv) potential occupational and public safety risks for sanitation workers in the villages. The challenge is implementation of the environment related policies and taking a holistic view of these policies along with technical design, execution of works and O&M.

7.2   Social

4.   The assessment reviewed the social policies and procedures (both at National and State level) and found them to be adequate for the Program. The assessment finds an enabling policy and legal framework that will promote: decentralized planning, implementation and monitoring, active participation and safeguarding the interests of vulnerable sections (women, scheduled caste and scheduled tribe communities) be it through targeting or membership in local governance institutions or in community level groups. However, challenges were observed at the level of implementation in some places though impact of the identified social benefits overweighs the program related social risks. Most of these risks are manageable and can be mitigated through proper implementation, better local oversight and accountability.

7.3 Key Operation Actions

5.   Key actions agreed with GoI to address the environmental and social risks and gaps identified in ESSA, through PforR component of the Operation, mainly encompasses:

Capacity Building: Strengthening capacity for environment and social management, as required

    a. **Environment**: Strengthening of guidelines, communications and monitoring framework for improved environmental management of the program

    b. **Social**: Strengthen systems to enhance inclusion, participation, transparency and monitoring. To achieve the same strengthening of monitoring and grievance redressal systems (including innovative tools like ICT) ,tracking access and usage across social groups, undertaking thematic audits to understand progress and gather citizen feedback and undertake staffing, training and sensitization of human resources.

7.3.1 Detailed Environmental Action Plan

6.   This section provides guidance to implement actions identified earlier in the document. Issues discussed are related to identified gaps, risks and opportunities to minimize environmental and social impacts from project activities and ensure long term system sustainability. In order to ensure environmentally appropriate actions are taken up, a systematic approach to address domestic and institutional sanitation and SLWM activities is required. Discussed below are steps required for appropriate management of identified environmental concerns.

    a. **Exclusion of high risk interventions:** Any interventions from the Operation that may impact ecologically sensitive/important/notified wetlands, and protected monuments shall not be undertaken under the Operation.

    b. **Actions to address issues of sanitation and technology:** Issues dealing with environmental sanitation, design, technology and construction can be addressed by developing technical manuals, guidance material and other support material, wherever required. These include (i) Dissemination of the improved technical options manual for onsite sanitation; (ii) Appropriate implementation of solutions and technical options manual for SLWM; (iii) decoded guidelines of existing environmental legislation for SBM-G, which will help fix accountability within the existing system; (iv) Appropriate checklists, standard operating procedures (SOPs) and other support material as required to address program design, implementation and management.

    c. **Strengthening institutions and building capacity**: To ensure environmental sound decision making, capacity needs to be strengthened for agencies and staff implementing SBM-G and at the Gram Panchayat and village level. There is both inadequate staff and skills in existing staff to handle environment related actions. Therefore, capacity creation needs to be undertaken to handle environment concerns for the project. This would have to be followed up with a sustained program for culturally appropriate demand creation and awareness strategies and material for both onsite sanitation and SLWM. Existing IEC/BCC material could be reviewed and refined and skills and awareness of beneficiaries and GPs improved for planning, monitoring and management[45]. These initiatives will help address the policy and implementation gaps in the current program.

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[45] The MDWS/States are already undertaking capacity building for the program. The environmental aspects may be strengthened therein.

d. **Supporting monitoring and surveillance systems**: While there is some information on slippage of ODF status and non-functional latrines, there is very limited information on SLWM. Comprehensively Program implementation monitoring, to ensure major environmental parameters are addressed for SBM-G needs to be developed. This may be linked with water quality, health and management of developed systems. Since there already are number of different databases with various government departments, it may be possible to first assess if convergence with other existing monitoring programs can be undertaken and a joint monitoring database used. Additionally a robust monitoring system would help identify the issues emerging from slippage in the use of IHHL. This action will provide the program the much needed feedback loop which will help identify, analyze and address issues emerging at various stages of the project[46].

e. **Addressing issues emerging from climate vulnerability and disasters**: The uncertain nature of climate change and disasters make this a challenging set of issues to address. However, it is expected that the program design would factor in these uncertainties when planning infrastructure (i.e. IHHL and SLWM) in vulnerable areas (coastal areas, mountains, regions prone to earthquakes, flood and droughts).

7.   The proposed Operation shall strengthen the existing guidelines wherever required with sustainable technological options for onsite sanitation and SLWM, and strengthen institutional capacity for M&E, planning and program delivery, thereby reducing the risk of contamination of water resources and improving the current sanitation conditions in rural areas. Any water extracted from the water sources for construction activities and for maintenance of infrastructure constructed under the Operation is not envisaged to be significant to adversely affect any riparian's possible water use. Therefore, considering the Operations' focus on reduction in open defecation and overall rural village sanitation, it is the Team's assessment that the activities under the proposed Operation shall (i) not adversely change the quality and quantity of water flows to the other riparian, and (ii) not be adversely affected by other riparian's possible water use.

7.3.2 Detailed Social Action Plan

8.   This section provides guidance to implement actions pertaining to social issues identified earlier in the document. The actions intend to address identified gaps and risks to minimize any adverse social impact from project activities and ensure long term sustainability.

a. **Inclusive Planning**: SBM in principle addresses the risk of social exclusion through its tenet of Community Saturation and emphasis on collective action – thus ensuring coverage to everyone irrespective of vulnerability status. In order to maximize the benefit of this tenet and to ensure that the planning process is demand driven, community participation and ownership needs to be further emphasized upon. Monitoring systems will be strengthened to track inclusion indicators during planning and implementation and this will also be covered by the IPF component.

b. **Monitoring:** Analysis of baseline data for 2012 shows that despite the government's past efforts to "target" vulnerable households and provide them access to IHHL, significant gaps still exist. Only 44% and 47% of vulnerable APL and BPL households have access to IHHL respectively. This is in contrast to a

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[46] The MDWS is already undertaking strengthening of M&E system, including third party evaluation.

64% (on average) access rate for non-vulnerable APL households. Annexure 3 documents the detailed analysis.

c. The SBM has adequate scope of addressing the existing gaps via its Community Saturation principle, provided its implementation is effectively tracked. In this context, it is important to enhance the national/State government's existing monitoring system to ensure that social indicators related to sanitation - like inclusion of the vulnerable in plans and design, usage of toilets by different social groups (based on age, gender, caste); tracking citizen's feedback, grievance management, land management issues covered and documented as required. Monitoring system will also be strengthened to track the reduced incidence of open defecation across different vulnerable groups as well as expenditure on inclusion of different social groups.

d. **Citizen's Feedback**: Thematic Social Audits to be conducted with focus on inclusion, participation, transparency, expenditure tracking and quality control. Role and functioning of VWSCs and local groups not to be surpassed and support to be provided by committees at block, district and state level. Results from the same will be used for mid-term remedial actions if required[47].

e. **Grievance Redressal**: There is an existing grievance Redressal system which would need further strengthening given the scale and goals of SBM. The strengthened Redressal system would cater to the need for specific, approachable and responsive mechanisms for timely and efficient redressal.

7.4   Implementation Support – Environment and Social

9.   Successful completion of the key Operation actions will be facilitated by the IPF component of the Operation. This will mainly assist all program management and capacity building needs pertaining to both environment and social aspects at the national level.

7.4.1. Implementation Support for Environmental Aspects

Development of appropriate support tools

10.   To support implementation that ensures environmentally appropriate actions, appropriate guidance for Program implementation would need to be developed. This may include an Operation Manual that has checklists, standard operating procedures (SOPs) and other guidance to ensure adherence to good environmental practices and existing environmental legislation.

11.   Another area of action that needs to be addressed is the issue of implementation of appropriate technologies for onsite sanitation and SLWM[48]. The existing technological options for onsite sanitation may be developed further to cater to environmental management. Implementing agencies need to develop and implement technologies that are best suited to local needs, and should include concerns of disaster, water stressed areas and other varied locational requirements. A technical manual for SLWM that educates decision makers, and communities on the various set of technological options to develop an improved SLWM system should be developed.

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[47] The SBM (G) also has provisions for the same that may be strengthened as required.
[48] The SBM (G) guidelines provide for adoption of safe technologies. There are appropriate technology manuals also. Further an expert committee has been constituted under Dr. R. A. Mashelkar to examine new innovative technologies. A quarterly exhibition of such technologies – Indovation – is also organized to propagate new and safe technologies.

12.   *System management:* Once local sanitation infrastructure is developed, institutional mechanisms for its management and upkeep. Community infrastructure will need to include (i) identification of financing mechanisms, and (ii) cleaning, management and disposal of waste of systems.

13.   For individual household infrastructure, beneficiaries need to own and manage personal infrastructure and capacities for the same need to be created. For IHHLs, identification and development of appropriate system for leach pit management once they are filled needs to be included as a part of project design. This should be discussed in the gram sabha, and awareness created to ensure appropriate management to system.

Creation of monitoring and surveillance mechanisms[49]

14.   A mechanism to ensure major environmental parameters are addressed under SBM-G needs to be developed. This should include water quality and management of developed systems. This may include convergence with other departments monitoring water quality.

15.   Environmental monitoring to ensure compliance of environmental policies and procedures shall be undertaken. Results shall be used for mid-term remedial actions, if required.

Capacity Building of Implementing Authorities

16.   MDWS is already implementing capacity development as part of SBM (G). This may be further strengthened for environmental management. Capacities need to be created at all levels of implementation. SBM-G would need to create environmental focal points/nodal persons to ensure Program related environmental actions and impacts are appropriately addressed. The nodal officers will also ensure Program actions comply with existing environmental regulatory environment. Capacity building would also need to be undertaken for national and state level decision-makers to ensure sufficient understanding of decision-making teams on required environment related actions from the overall Program. Field implementing officers, GP members and village functionaries and beneficiaries need capacity creation to ensure environmentally sound planning, implementation and management of systems.

17.   To ensure required capacity is built at the various levels, a suggested list of capacity building actions is given below. However, a detailed capacity assessment exercise may be required to tailor suitable capacity building activities at national and state, and as required and a course curriculum developed.

Table 8: Suggestive Topics for Capacity Building on Environmental Aspects

Broad areas	Topics	Building Capacities for
Awareness on guidelines and legislation	Government of India and state environmental guidelines, safeguards and legislation, and project guidelines.	All key project stakeholders, at National, State and district (implementing officials) and other agencies implementing various project components.
Environmental impacts and	Identification of environmental impacts from construction, location	Key stakeholders implementing project – including district

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[49] Environmental monitoring and surveillance shall be in line with and to achieve the Operation DLIs.

Broad areas	Topics	Building Capacities for
mitigation	and design issues of onsite sanitation and SLWM actions, possible mitigation actions	implementing agency, and environment nodal points
SLWM system development	Identification of SLWM concerns in GP/villages, actions and appropriate options, including technological options for management and disposal	Key stakeholders involved in project design
Construction supervision	Environment issues during construction and material sourcing, construction site management, public and worker safety concerns, disposal of construction waste	Stakeholders involved in construction supervision, including district staff and GP members
Toilet management	Management of toilets to keep clean and use, including disposal of waste once pit cleaned, identification of issues of leakages, breakages etc.	Beneficiaries
Management of sanitary complex, SLWM systems	Management of sanitary complex, levying of fee, cleaning and waste disposal, SLWM systems cleaning, management and waste disposal	Stakeholders identified for system management in GP

18.	To ensure the appropriate implementation of the suggested activities for managing identified environmental impacts, actions have been identified and are listed below. As can be seen from this table, a number of actions are required to be taken up at the state level, as the states would be the implementing level for actions. However, consultations with the MDWS for technical support would help improve implementation actions. Consultations with national government could also result in cross learning with the states.

Table 9: Implementation Plan for Environmental Actions

Sub-action description	Timeline	Completion measurement
Strengthen environmental management through technical modules for adopting environmentally safe sanitation practices during planning, technology selection, and O&M.	Identification of and plan developed in the first year, implementation ongoing throughout program period	Operations Manual developed and formally endorsed by nodal department and implementing agencies. Institutional structure for implementation of environmental action at GP level identified and recognized.
Communication packages on sanitation and SLWM incorporate environmental aspects.	Identification of and plan developed in the first year (by Dec'16), implementation ongoing throughout program period	Detailed training calendar, modules and material developed. Training undertaken as per calendar.

7.4.2. Implementation Support for Social Aspects

Capacity Building

19. MDWS capacity building plan has been rolled out and strengthening of capacities of KRCs and States is envisaged. This needs to be further strengthened for social management. Across the 5 levels of institutional set-up, enhancement of capacity is envisaged. Need based increment of positions and specialists (social) in planning and social mobilization for collective behavioral change towards achieving ODF status is required. A capacity development plan (detailed in the Operation Manual and in the Community Operational Manual) has to be devised for key implementing institutions (PMU, WSSO, Water and Sanitation Units at all three tiers, Technical support units) that regularly updates their skills, perspectives on community led sanitation, gender sensitization, decentralized decision making, transparency, and accountability.

20. The capacity building plan for social aspects will target three broad areas – Perspective level, Skill level and Mobilization and Behavior change. The perspective level trainings will be catered to administrators, elected officials, representatives of technical and support units and will cover topics of Cultural practices; sensitivity to habits; existing class, caste and gender hierarchies in sanitation practices. Skill training will cater to Staff at district, block and GP level as well as elected representatives and will cover topics on planning, monitoring, targeting, inclusion, participation, grievance redressal. Behavioral trainings will be targeted at Beneficiaries, GP representatives, SHGs, Anganwadis and implementation staff at the village level and will discuss Campaigns and information dissemination.

21. The capacity building component will also be used to train the relevant GoI counterparts on ICT tools and modules that can be seamlessly integrated with GoI's existing monitoring system and used for effective tracking of program progress.

Development and Implementation of Operation Manual

22. Assist development of detailed checklists, standard operating procedures, guidelines etc., to ensure adequate social inclusion, fair land diversion (when public land is not available), transparency and accountability pertaining to all identified social aspects of the project. Also, Community Manuals and Thematic Social Audit Manuals should be made available to implementers and communities in local languages.

23. In order to successfully implement the identified programmatic and IPF support actions in this section, the following Action Plan has been identified to be considered for implementation by MDWS:

Table 10: Implementation Plan for Social Actions[50]

Sub-action description	Building Capacities for	Completion measurement	Timeline
Implement strengthened social systems to enhance the guiding principles - inclusion, participation, transparency, accountability and	Enhance perspective and skill levels of administration, elected representatives, technical and	Formal endorsement of strengthened social management rules and procedures included in the Operation Manual and Community Operational	Formal endorsement by appraisal; Implementation starting in First Year

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[50] This Action Plan will be implemented as part of the ongoing capacity building/IEC plans of the SBM (G) program and there will be no duplication.

Sub-action description	Building Capacities for	Completion measurement	Timeline
grievance management	support units	Manual	
Capacities Augmented on Social Management (Enhance institutional and individual capacities within the program, mainstreaming social issues in IEC/BCC/formal trainings)	Enhance skill levels of administration, elected representatives, technical and support units	Review of the Organigram for SBM support and its approval by appropriate sanctioning committee. Formal communication from hiring unit confirming hiring of specialists and support agency to facilitate implementation of social management rules and procedures.	Staffing recruitment by State govt. at the end of the first year; On-going, starting in First Year
Strengthening social component of formal Trainings strategies/plans Impart training to all stakeholders for strengthening institutions to deliver the program that is grounded in the "guiding principles." Enhancement in institutional capacity of key State Training Institutes	Enhance skill levels of district, block and GP level administration as well as elected representatives	Training on the basis of a detailed training calendar. Different set of training designs in place for different set of stakeholders; Training modules finalized incorporating social issues; Key STIs/ enlisted institutions have acquired necessary capacities to deliver quality trainings that address social management issues.	On-going, starting in First Year
Strengthens citizen-feedback mechanisms of SBM-G program Enhance existing Grievance Management systems for efficient and timely redressal	Enhance skill levels of district, block and GP level administration, implementers and familiarize beneficiaries	Assess and identify areas for improvement in the existing systems. Enhance systems using innovative tools and extensively disseminate information about the same to beneficiaries	. Assessment in First Year. Roll out over program period.
Manuals, resources and experts to be made available for assisting and facilitating the above			

24.   A separate Integrated Safeguards Data Sheet (ISDS) has been prepared for the IPF component. The TA Component consists primarily of consultancy services, evaluation studies and capacity building to ensure efficient implementation of the identified Environment and Social Action Plans. Therefore no significant, long term or adverse environment or social issues are anticipated from the proposed interventions/activities. The activities proposed under the TA component are not likely to have any adverse or significant environmental impact.

25.   Social safeguard issues, including any significant, long term or adverse impacts or risks are not anticipated due to activities/interventions proposed under this IPF component. OP 4.12 is not triggered as no resettlement is envisaged due to the implementation of the activities under the IPF Component. OP 4.10 is not triggered as no adverse impact on tribal communities are envisaged.

7.5   Consultations and Disclosure

26.   **Stakeholder Consultations:** Consultations with states officials (at state Headquarters, district level and two blocks per district and 4-6 GPs per block) and communities in the 5 states of Rajasthan, Madhya Pradesh, Chhattisgarh, West Bengal and Odisha, as a strategic sample, were undertaken as part of Environmental and Social Systems Assessment (ESSA). 79 consultations involving 288 key stakeholders across select districts/GPs in the five States were undertaken. The consultations discussed existing issues pertaining to technology, SLWM, O&M, community involvement and gaps leading to sustenance of OD. Issues identified and discussed in these consultation have been thoroughly used in nuancing the ESSA recommendations as per ground needs.

27.   On October 1, 2015 national level stakeholder consultation was organized where the ESSA was discussed. The meeting was attended by MDWS and the States. The meeting was chaired by the Deputy Secretary, MDWS and attended by thirteen other representatives from the Ministry. High level officials from fifteen States[51] attended the meeting. The stakeholders broadly endorsed the ESSA and its findings. There was consensus on concerns raised by the assessment on technological options, existing scope for improvement in SLWM and need for greater community participation for sustainability. Accordingly, the proposed action points were agreed upon.

28.   **Disclosure:** The World Bank and MDWS have disclosed draft ESSA in Infoshop and on their website, respectively. The final ESSA, incorporating comments from stakeholder consultation has also been disclosed by the Ministry and The World Bank in Infoshop.

7.6   Risks and Management

29.   As analyzed and presented in the previous chapters of the report, the scale of individual interventions within the program will be so small so as not to create any negative social or environmental impacts. Most of the risks and gaps identified by the ESSA can be mitigated by appropriate program strategies and are hence manageable. As such there are no high risk activities within the existing program frame that need to be excluded.

7.6.1   Environmental Risks and Management

Table 11: Environmental Risks and Management

Environmental Risks	Risk Management
Environmental sanitation and pollution	
Inadequate water quality monitoring resulting low detection of problems from onsite sanitation and SLWM systems and in increased waterborne disease morbidity	Strengthen water quality testing infrastructure and human resources, involve PRI in water quality testing, identify appropriate monitoring, surveillance and management mechanisms
Inadequate attention to SLWM, leaving out essential component of SBM-G and resultant poor environmental sanitation	Create demand for SLWM and implement identified/required SLWM activities , including finding appropriate local management actions
Inadequate attention to and poor design and management to of sullage and gray water,	Develop and implement appropriate design options and strengthen guidelines for liquid waste

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[51] The participating States included: Assam, Tripura, Odisha, Uttarakhand, Andhra Pradesh, Telengana, Punjab, Haryana, Chattisgarh, Sikkim, Gujarat, Jharkhand, Tamil Nadu, Uttarakhand and West Bengal.

Environmental Risks	Risk Management
resulting in water pollution, poor environmental sanitation in village, or tree clearance	management, create capacities to manage systems, minimize tree/vegetation clearance, undertake replantation
Inadequate attention to and poor design and management of solid waste resulting in water pollution, poor environmental sanitation in village	Develop design options and guidelines for solid waste management and appropriate action for GP level actions for management, and develop appropriate manage systems
Technology and construction management	
Inappropriate IHHL design not suitable resulting in contamination of ground and surface water	Develop comprehensive design options manual, identify appropriate alternate designs for different areas within reasonable cost, identify appropriate water sources for IHHL management
Poor siting , local design changes and management of IHHL resulting in soil and groundwater contamination	Build capacity, undertake IEC/BCC and involve beneficiaries in design and system management, develop appropriate checklists and guidance to support location and local design requirements
Poor construction management resulting in accidents, unusable infrastructure, vector habitats and poor waste disposal	Identify appropriate construction management systems, their local monitoring actions, and build capacity to ensure adequate monitoring
Damage to local archaeological or cultural sites due to poor design of SLWM, inadequate identification of archaeologically and culturally important sites at time of construction, chance findings	Identify appropriate designs in consultation with GP, in gram sabha and involve residents of the area, identify sites before starting work and ensure no disturbance, develop protocols for change findings and create awareness for those involved in construction for chance findings
Climate variability and disasters	
Inappropriate IHHL design not resilient to disasters, or water stressed areas, poor superstructure design	Develop and disseminate appropriate design options that address disaster and water stress areas, ensure superstructure appropriate for area
Program and implementation	
Inadequate information on legislative needs resulting in required environment legislation not followed while designing and locating structures and systems	Create checklists for legislative needs, as required, and comply with identified legislation from checklist, consult other departments as required, take required permit and include additional cost in program design
Unsustainable and environmentally unfriendly methods for quarrying and natural resource extraction for infrastructure construction, including excess tree and vegetation clearance, quarrying in river beds for stones etc., inadequate regard to legislation on quarrying	Identify appropriate and sustainable amount and method for material abstraction, rehabilitate site after abstraction including replantation activities, ensure all sites follow legal norms for sites, monitor construction and material procurement activities, ensure legislative clearances taken, do not undertake quarrying around special habitats

7.6.2 Social Risks and Management

Table 12: Social Risks and Management

Social Risks	Risk Management
Social Exclusion: • Since nature of demand and usage of sanitation facilities varies on the basis of age, gender, class, and other social, cultural and physical factors, bypassing them means risk of exclusion either due to non-construction or non-usage of toilets	**Inclusion mechanisms:** • Continual focus on collective behavior change • Affirmative action and financial support in policy for the vulnerable, as envisaged in SBM (G) • Availability of multiple/customized design

Imbalance between creating infrastructure and following social processes:
 	
• Supply and target driven scheme runs the risk of poor ownership at the local level, followed by poor use and maintenance of the infrastructures created
 	
• Weak capacities, lack of priority to participation and transparency, and limited avenues for grievance redressal and social accountability would lead to corruption, poor implementation and exclusion of the vulnerable.
	Participation, Transparency and accountability:
	
	• Operation manual to provide inputs for:
	
	   ○ Institutionalizing community participation, strengthening decentralized decision making in planning, monitoring and management of assets.
	
	   ○ Clear role and complimentary human resource support for all three tiers of Panchayat bodies related to planning, mobilization, operation and maintenance and social audit.
	
	• Capacity building of implementing partners. Community Operations Manual and Social Audit Manuals to be made available in local language

30. The new SBM-G guidelines provide for various measures of risk management. The challenge lies in implementation and actual dissemination of the guidelines, which needs to be focused upon.

Annexure 1: State wise district selection for fieldwork

Rajasthan

1.   Dausa and Pali districts were covered as part of ESSA.

	WSP Scorecard (2010)[52]	ST percentage*	SC Percentage*	Agro-climatic zone	Region
Dausa	10	26.5	21.7	Semi-arid	north-east
Pali	29	7.1	19.5	Desert	west

* State average for SC population is 17.8 percent and ST population is 13.5 percent[53]

2.   Pali has a low ST population. However, the SC population is higher than the State's average SC population. Importantly, Pali lies in the desert region, yet also has a unique topography of both hilly as well as desert terrain. Socially and culturally the desert region is known to be extremely orthodox, with rigid and rather unequally defined caste and gender relations.

3.   Dausa has a high ST population. The district lies in the north-east region and has a different social structure. The middle/peasant castes control land and hence define the agrarian structure. In some small pockets chronic malnutrition has been witnessed among tribal population due to severed entitlements.

4.   Dausa fares poorly on WSP ranking, while Pali is now one of the better performing districts in Rajasthan.

Madhya Pradesh

5.   Districts of Damoh and Umaria with distinct environment and social characteristics were selected. Socially, Damoh has a high SC population when compared to the state average, while Umaria is predominantly tribal in nature with almost half its population belonging to the Scheduled Tribe and more than 50 percent of its population being vulnerable (56 percent ST-SC combined).

6.   Damoh district is positioned poorly on WSP Performance Benchmark (2010) and is included in Category-A, while Umaria fares average in terms of the range of sanitation indicators captured by the WSP scorecard and falls in Category-B. Both are predominantly rural districts. Culturally, Damoh comes in the Bundelkhand region which is feudal in nature while Umaria falls in Baghelkhand region which has both feudal and tribal societies. In terms of poverty, as per estimates of MP State Planning Commission, incidence of rural poverty is much higher in Umaria as compared to Damoh.

District	WSP Performance Benchmark 2010	Schedule Tribe %*	Schedule Caste %*	Agro-climatic zone	NSSO Region
Damoh	18 (below avg.)	13.2	19.5	Vindhyan	Central
Umaria	31 (avg. performance)	46.6	9.0	Kymore Hills	Eastern

*State average for SC and ST population is 15.6 % and 21.1 % respectively

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[52] A Decade of the Total Sanitation Campaign: Rapid Assessment of Processes and Outcomes: WSP
[53] http://www.rajcensus.gov.in/PCA_2011_FINAL_DATA/PCA_chapter_2.pdf

7.   From the environmental perspective, both districts fall in different Agro-Climatic Zones- with Umaria having a hilly and undulated topography and Damoh largely characterized by flatlands. Umaria district is highly forested with a forest cover of 49.85 percent, much higher than 35.65 percent of Damoh and the state average of 25.15 percent (*FSI, 2013*) and has a rich bio-diversity. In terms of water availability both the districts are drought prone with 2 blocks of Umaria and 3 of Damoh covered under DPAP.

Chhattisgarh

8.   Districts Bastar (Jagdalpur) and Durg were selected as part of ESSA study. WSP report 2011 gives Bastar a total score 52, an above average performance. Bastar is predominantly inhabited by the tribal people. The district is one of the most economically backward districts in Chhatisgarh. It comes under the climatic zone 'Bastar Plateau'. It is heavily forested. Bastar is largely rural and agricultural is the main source of livelihood.

9.   WSP report 2011 gives Durg a total score 20 which is below average performance. Durg is one of the densely populated districts of Chhattisgarh. It has mixed population – STs SCs and others. The district comes under the agro climatic zone of "Plains of Chhattisgarh". The district is relatively prosperous and its economic profile is enhanced due to its industrial nature; Bhilai Steel Plant is situated in the twin city of Bhilai. Though sizable population is urban 11, 04, 542 (total population 17, 21,726), there are 267 GPs and 388 villages spread across three blocks – Dhamdha, Durg and Patan. The rural-urban dynamics make this an interesting case for study as it is assumed that people from rural areas will be commuting and working in the cities while having families in villages.

10.   Durg is in Mahanadi river basin of closely connected tributaries of "Seonath River" with almost plain terrain all over the district. Chhatisgarh has mostly fertile plains in central section of the state, which could be represented by Durg. However, Bastar has rolling or hilly terrain in some of its parts, which could represent the diversity in physiography. Bastar has some land dedicated to reserved forest and protected forest, whereas Durg has all arable land with a small piece of land in Southern Durg dedicated to reserved forest. Most of the population is still using dug well for water, which could affect water usage in sanitation. Number of wells are less in western part of Bastar implying lesser usage of wells and hand pumps. This area has good supply of natural water as Lower Mahanadi river and Kotri river in district Bastar. But there is a drawback that no known National park and sanctuary have been covered in Bastar and Durg though the land use of Protected and reserved forest has already been addressed in Bastar. Durg has some pockets of 2m - 5m depth to ground water table (GWT), which might be concern for designing sanitation pits as the level is quite low and ground water pollution becomes a concern, whereas, Bastar has depth to GWT by about 5m - 10m which is adequate for a normal sanitation design.

West Bengal

11.   Districts Nadia and Jalpaiguri were selected as part of ESSA study.

	WSP Scorecard (2010)	ST percentage*	SC Percentage*	Agro-climatic zone	Region
Nadia	75 (>75 Superior)	2.4	29	New Alluvial Zone (WB-4) Old Alluvial Zone (WB-3)	Central WB, Eastern India
Jalpaiguri	43 (Average)	18.87	36.71	Terai Zone (WB-2) New Alluvial Zone (WB-4)	North WB, Eastern India

* State average for SC population is 1.01 percent and ST population is 5.7% percent[54]

12.   Due to its rich irrigation facilities in the southern portion of this district, agriculture is the principal occupation of the inhabitants here. Nadia district remains evergreen with seasonal field crops throughout the year for its plenty of underground water and soil type (new alluvium). Almost all the important crops are profitably grown in this district the economy of which depends mainly on agriculture. Farmers of this district are progressive in mind to adopt new technology for development of agriculture. Population explosion of the district was due to its proximity to Bangladesh border and uninterrupted influx of refugees from that country during the last three decades. As a result, the socio-economic pattern of this district has thoroughly changed during this period giving rise to a wide ranging social tension. Major environmental issue in the district is that all the 17 blocks of this district have arsenic problems. PHED tested 10% of Public Tube-Wells and arranged for sinking of arsenic-free Tube-Well in all populated villages in collaboration with Nadia Zilla Parishad. Considering the education as a primary factor controlling the awareness on sanitation and hygiene, there are several areas where not all children have access to primary school due to physical distance or geographical barrier.

13.   However, Jalpaiguri district is very different from Nadia in terms of social and environment. Jalpaiguri classified under the Himalayan region (Uttarbhanga) with rich biodiversity. The entire topography is criss-crossed with rivulets, rivers and hills. The district is primarily rural with more than 80% of rural population. The HDR states that this region has a high concentration of both SC & ST populations. The ST populations are largely landless (and the out migration from the area has been higher than the state average). Relatively sizeable population resides in Tea Gardens and Forest villages, which are isolated and mostly inaccessible. Having high percentage of migrated population different cultural groups (Ranjbanshi, Ravas, Totos, Metch, Santhals, Madasia and Oraons) have created a unique cultural harmony which is rarely seen in other districts of West Bengal.

Odisha

14.   Given the diversity of the state, a number of social and environmental factors have been considered to create diversity in the sample, and provide as appropriate as possible representation for the ESSA while selecting districts in Odisha. These two districts identified through the quick look at literature are Koraput and Kendrapara. The short description below gives some of the major reasons for this selection.

[54] http://www.data.gov.in/catalog/state-and-district-wise-scheduled-caste-and-schedule-tribe-population-each-caste-and-tribe#web_catalog_tabs_block_10

District	WSP score	ST (%)*	SC (%)*	Agro-climatic zone	Region
Koraput	28 (average)	49.62	13.03	Eastern Ghat Highland	South Western
Kendrapara	22 (below average)	0.52%	20.52	Eastern and South Eastern Coastal Plains	Eastern

* as percent of total population of district, 2001 Census of India statistics. Note: at the state level the statistics are – ST 22.13%, SC 16.53%.

15.   Social diversity: As is seen from the table above, Koraput is a district with very high tribal population compared to the negligible tribal population in Kendrapara. Considering the need to look at different community needs and culturally appropriate systems to ensure India achieves ODF status by 2019, selection of the two districts will bring social diversity to the assessment.

16.   Agro-climate and forests: Similarly, the two districts also fall under two different agro-climatic zones and regions of the state, naturally resulting in varied differences in the ecological and climatic implications. This is also reflected in the forest types, while according to 2006 data both Kendrapara and Koraput have protected and reserved forests; in Kendrapara this is mainly in the form of mangroves and in Koraput the forests include tropical deciduous, semi-evergreen and dry mixed deciduous. This too creates very different ecological zones.

17.   Water resources: In terms of water resources, Kendrapara is at the mouth of the Mahanadi, a river notorious for flooding. Also, in Kendrapara the Mahanadi shows signs of branching out and the formation of a delta, making it likely to have a high water table, and sluggish drainage. On the other hand in Koraput, although the Sabari and Indravati flow through it, it does not have any similar river patterns.

18.   Development indices: Disparities in the levels of development can be seen between the two districts on a number of counts, but only a few are briefly mentioned here. While Kendrapara could be considered a district with easy access and mainstream, Koraput is remote, difficult to access and tribal. According to the State Development Report, based on development of infrastructure, one of the more developed districts is Kendrapara while Koraput is one of the marginally backward states. This is of importance, as overall Odisha is considered to be low on infrastructure development in India. Disparities are also noted in various other fields. While the literacy rate in Kendrapara is 77%, in Koraput it is only 32%. Given the State average of 64%, Kendrapara is well above the average while Koraput is below average. Similarly, looking at one of the most revealing statistics, Infant Mortality Rate (IMR), Kendrapara was at 77 as compared to Koraput at a rather high136 (1999 data). Overall, Odisha's IMR stood at 97. This will give a good comparison for mainstream and backward districts in the state, given the sample size of only 2 district. Also, within Odisha Koraput, which is part of the Kahahandi-Balangir-Korapat (KBK) region, is designated as one of the most backward regions.

19.   Natural Disasters: Kendrapara, located on the eastern Indian coast is very vulnerable to cyclones and is also a flood hazard zone. In fact Kendrapara is considered, by National Disaster Management Authority (NDMA) criteria, to be very high on the risks of cyclones. Although some areas of KBK region face floods, generally it is a very drought prone region. While Odisha is overall considered to be a state with high rainfall, regional and local disparities and geographical peculiarities result in some areas being subjected to droughts every few years. This is an important classification as, and discussed in the meeting in

Surajkund, a concern for Odisha was achieving an ODF status, was natural disasters. Of these floods and cyclones were identified as the most important. Droughts, too are an important concern for achieving ODF status, as this could risk creating redundancy of sanitation infrastructure given water scarcity.

20.   Although this is a very brief analysis of the two districts, the distinct differences, as are highlighted in this discussion make the two districts very varied and good examples for an assessment. They show a clear difference between them in terms of social, ecological, and other factors. Moreover, an important issue of disasters is also well covered through this selection. Through the examination of Kendrapara and Koraput, the assessment is able to cover a very wide variety of criteria.

21.   The following table outlines the consultation details (sites visited, number of consultations organized, number of stakeholders who were consulted and key issues discussed):

|	State	Districts	Blocks	GPs	No. of Consultations	Issues Discussed
(i)	Rajasthan	Dausa	Dausa and Lal Souk	Saintha, Hingotia, Bhandarej Bicchi, and Dayalpura	5 (122 participants)	Sanitation issues and planning in schools (specifically for SC/STs), Existing sanitation issues of OD and non-usage (general and SC communities), Program implementation and institutional challenges
		Pali	Pali and Bali	Boya, Barwa, Dyalpura, Skeadra		
(ii)	Madhya Pradesh	Damroh	Tendukheda and Batiyagarh	Jhalon, Pura Karaundi, Tejgarh, Gadaula khade, and Pathariya	35 (52 participants)	Implementation issues, Technology options, M&E approach and indicators, Tracking challenges, Anganwadi and school sanitation, Program implementation and institutional challenges, Challenges of inclusion and targeting in remote areas, Community mobilization and IEC strategies, Capacity building issues. GP level discussions mainly covered – social composition, natural and water resources, coverage, gap, challenges support from district/block, ODF
		Umaria	Manpur, Karkeli and Paali	Pathaari, Nipaniya, Mudariya, Tala, and Bijauri		
(iii)	Chhattisgarh	Bastar	Bastar and Tukapal	Singhampur, Karanchi, Deengarpal, Ghotiya and Turpura	22 (44 participants)	Sanitation issues and planning in schools

		Durg	Durg and Patan	Kokari, Kotani, Hanaudha, Achanakpur and Ageysara		(specifically for SC/STs), Existing sanitation issues of OD and non-usage (general and SC communities), Program implementation and institutional challenges
(iv)	West Bengal	Nadia	Kaliganj and Horingatha	Palitbegia, Gobra, Birohi-I and Birohi-II	1(15) participants	Causes and prevention of vector borne diseases; Cure for under-weight babies; Standardizing birth and death notifications; Sanitation and ODF prevention; Development of Village Health Committee.
		Jalpaiguri	Malbazar and Sadar	Rungamuttee, Rejadanga, Belacoba, South beru bari, Nagar beru bari and Kharija beru badi-1		
(v)	Odisha	Koratpur	Pattamundai and Rajnagar	Bachehera, Aradapalli and Niginpur	16 (55 participants)	Program implementation and institutional challenges, Social mobilization. Pollution management, Capacity building and training, Staffing needs, Existing sanitation issues of OD and non-usage (especially in cyclone affected villages)
		Kendrapara	Semiliguda, Koraput and Boiparaguda	Bandaguda, Legikundi, Panasput, Mohanpara and Siribeda		

Annexure 2: State of Sanitation in India- Brief Literature review

Toilet facilities and Coverage

1.   Overall India has seen a decrease in the number of people practicing open defecation which has accounted for 19% of the world's total decrease between 1990 and 2012. However, the country still has the dubious distinction of having the largest number and proportion of people practicing open defecation with nearly 60% of the world's total. WHO-UNICEF Joint Monitoring Program (JMP) for Water Supply and Sanitation Statistics for 2012 on open defecation, suggest that 48% of India follows the practice, this figure goes up to 65% for rural India. Equally, only 25% of the country's rural population have access to improved sanitation systems.

2.   The 2011 Census of India also suggest a similar figure with the overall sanitation coverage to be 47%, and is an increase from 37% in 2001. However, inter-state disparities suggest a very wide range of variations, and only a few states with less than 10% of their population without access to latrines. These are Lakshwdeep, Kerala, and Mizoram at 2.2, 4.8 and 8.1 percent respectively. At the other end five states have more than 70% of their population practicing open defecation. These are Jharkhand and Odisha at 78%, Bihar, at 76.9%, Chhattisgarh at 75.4% and Madhya Pradesh at 71.2%. As can be seen from figure below, most the states that are a part of the ESSA are perform poorly in comparison to the national average. To this, West Bengal is an exception; which while not performing very well against other states in this assessment, is well below the national average of open defecation.[55]
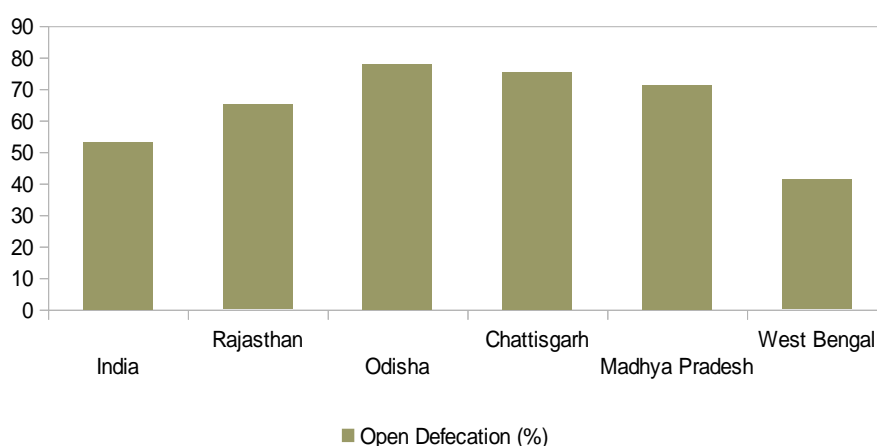
Figure 1: Open Defecation in States where direct fieldwork was conducted

Rural Sanitation Coverage

3.   When considering only rural sanitation, percent of population with access to latrines goes down considerably. National average according to the 2011 census suggests that only about 30% of the country's rural population has access to toilets. The best performer continues to be Lakshwdeep at 1.9% without latrines, which is interestingly a higher

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55   Government of India, 2011. Census of India 2011.

coverage than for urban Lakshwdeep at 2.3%. The other good performer – where coverage is more than 90% is Kerala (93.2). In both these cases the urban and rural sanitation coverage is nearly the same too. The worst performers with less than 20% coverage are Jharkhand (7.6), Madhya Pradesh (13.1), Odisha (14.1), Chattisgarh (14.5), Bihar (17.6) and Rajasthan (19.6). As can be seen four of the worst performing states are a part of this P for R project, and are presently also a part of the ESSA. The fifth, West Bengal is performing comparatively better with 46.6% rural sanitation coverage.[56]

4.   National figures based on the Swachh Bharat Mission 2012 baseline survey suggest slightly higher coverage, with 40% of the population having toilets. Similarly data on the states a part of this assessment also show figures varying from those of the 2011 Census report. The worst performer of the 5 states is Madhya Pradesh with 26% coverage, it is followed by Rajasthan (27%), Odisha (29%), Chattisgarh (40%) and West Bengal (55%).[57]

States reviewed under ESSA:

5.   ESSA sample study was undertaken in 5 states of Rajasthan, Madhya Pradesh, Chhattisgarh, West Bengal and Odisha.

State	Sanitation coverage	Challenge
Rajasthan (ODF target for 2017)	Toilets were constructed in almost 40% of the rural households 80% of the schools have separate toilet facilities for boys and girls, 60% anganwadis in the State has access to sanitation facilities.	Low levels of knowledge on the effects of open defecation and linkages between safe hygiene practices, health and economic benefits of sanitation, 80 percent (Census 2011) of households do not use toilets, Percentage of people accessing latrines is less than 18%, 3% of total GPs rewarded Nirmal Grams of which some relapsed back to practices of open defecation
MP (ODF target for 2018)	Census 2011 showed that the rural sanitation coverage in the state was 13.60 percent – Till March 2014 the state has been awarded 2703 NGPs, one-tenth of the total GPs of the state. Since 2011 nearly one lakh school toilets have been created, which is officially 90 percent school coverage. About 40,000 out of the one lakh toilets have incinerators for handling menstrual waste. The state constructed 389 complexes in the past-mostly by the PHED before 2009.	Very slow increase from the Census 2001 rural coverage of 8.94 percent and much lower than the average national coverage 32.70 percent. Toilets in anganwadis not child friendly. Gap of nearly 45,000 school toilets in the state. Teachers and students have not been trained in use of menstrual incinerators. 45,000 anganwadis in the state still don't have toilets. State would need to construct more than 90 lakh toilets in the next few years and find a solution for beneficiaries of earlier schemes but either due to disuse, lack of ownership, poor quality or inefficient implementation- they are ineligible for new toilets
Chhattisgarh (ODF target for 2018)	39% of households have toilets (NBA 2012, baseline). 85 % of community sanitary complexes functional. Many villages have got their own inbuilt solid waste management system like 'Guruwa' pit system	2676670 households are without toilets, and 1031760 households have defunct toilets. 50% anganwadis lack toilet facility. Anganwadis located in rented buildings do not have toilets. There is no funds allocated to drainage system at village level.

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[56] Government of India, 2011. Census of India 2011.
[57] http://tsc.gov.in/tsc/Report/PanchayatReport/RptStateWiseBaseLineServeyData_net.aspx?id=GP accessed 28 December, 2014

State	Sanitation coverage	Challenge
WB (ODF target for 2017)	Toilet coverage: 48% Establishment of rural sanitary marts cum Production Centres in each of its 341 community development blocks.	67.78 lakh households to be covered with individual household sanitary latrines, 4740 schools requiring school toilet blocks and nearly 50000 Anganwadi centres still lacking the basic sanitation facilities. 1.4 million households without appropriate sanitation facilities existed within the already declared 'Nirmal' Grams (baseline survey 2012).
Odisha (ODF target for 2019)	54% of households have functional toilets. Government anganwadi's with latrines in Odisha is an estimated 48% of total. On school latrine coverage for government and private schools indicate a relatively high coverage with 80 and 85 percent coverage respectively. (baseline survey 2012)	Largest percent of population practising open defecation - 78% population does not have access to sanitation; 86% of the State is without access to IHHLs. Only 39% of anganwadis have adequate water available.

Community Sanitation: School and Anganwadis

6.   Using the SBM data on government school and anganwadi coverage the national figures of coverage show a more encouraging sign. While government schools without toilet facilities are only 7% of total, for anganwadis about 25% do not have toilet facilities presently. Among the assessment states West Bengal seems to be performing well in school sanitation, and is at par with the national figures. Other states performances based on percent of government schools without toilet facilities Rajasthan (2), Chhattisgarh (3), Madhya Pradesh (7) and Odisha (31). In terms of anganwadis without sanitation facilities the best performer is Madhya Pradesh with only 17% of anganwadis without toilet facilities. The percent of anganwadis without toilets in other assessment states are Chhattisgarh (30), West Bengal (35), Rajasthan (39) and Odisha (40). As is seen from the baseline information, Odisha is the laggard state in both government school and anganwadi sanitation. However, these figures cannot revile issues of quality, functionality and separate facilities for girls and boys, or availability of toilets in schools other than those belonging to the government. Such information is also required to get a more holistic picture of the sanitation situation.[58]

7.   According to a UNICEF report on school sanitation on India, 84% of schools in 2011 had toilets. Rural schools with toilet facilities was 79% of total schools in 2009-10. When considering functionality, only 60% of school have functional toilets, with the Annual Status of Education Report 2010 suggesting that although 90% of rural schools have toilet facilities, only 50% of existing facilities are functional. Among all states the best performances in terms of rural schools with functional toilets are Punjab (95%), Maharashtra (94%), Tamil Nadu (93%) and Sikkim (92%). The worst performers include the assessment states of Odisha (57%) and Chhattisgarh (68%). Percent wise functional rural school toilets in the other three states is Rajasthan at 86 and West Bengal and Madhya Pradesh at 83.[59]

8.   Overall, only 62% schools had separate facilities for girls and boys. While the worst performer is Manipur where 91% of schools do not have girl's toilets, the best performers are

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[58] http://tsc.gov.in/tsc/Report/PanchayatReport/RptStateWiseBaseLineServeyData_net.aspx?id=GP accessed 28 December, 2014

[59] UNICEF, 2012. An Overview of Status of Drinking Water and Sanitation in Schools in India. Total Sanitation Mission, Mid-Day Meal Scheme, Sarva Shiksha Abhayan and UNICEF.

Puducherry and Punjab where only 11% schools do not have separate facilities for girls. For the assessment states, percent of schools without girls toilets are, Chhattisgarh, Madhya Pradesh, Odisha, West Bengal and Rajasthan at 70, 69, 73, 56 and 12 respectively.[60]

Drainage and solid waste management:

9.   In terms of drainage and garbage disposal, the NSSO 2013 survey provides state level figures for rural India. Overall about 32% of rural India has access to improved drainage facilities[61]. This is an improvement by nearly 6% from the previous survey of 2008-09. The best performers – with more than 80% coverage are Chandigarh, Delhi and Haryana at 95, 91 and 85 percent respectively. The lowest coverage, of less than 10% access to improved drainage are, Assam, Mizoram, Odisha, Tripura and West Bengal at approximately, 4, 5, 9, 1 and 8 percent access respectively. Of the worst performer Odisha and West Bengal are a part of this project. Access to improved drainage facilities in rural areas in other project states is Chhattisgarh (18%) and Madhya Pradesh (20%). Rajasthan was not a part of this survey. As can be clearly seen, project states have performed poorly in terms of access to rural improved drainage facilities.[62]

10.   At the national level in rural India access to garbage disposal[63] suggests a coverage in 2012 of 32%, again about a 6% increase from the 2008-09 survey. At the state level, the best performers are Chandigarh (98%), Delhi (78%) and Haryana (76%). The worst performer is Tripura at 7% garbage disposal systems in place. There are however a number of very poorly performing states where garbage disposal is between 10 and 20 percent. Percentage wise these are West Bengal (11), Kerala and Sikkim (12), Bihar (13), Jharkhand (14), Odisha (16), Jammu and Kashmir and Dadra and Nagar Haveli (19). Of these two project states; West Bengal and Odisha are performing very poorly. In comparison garbage disposal is slightly better in Madhya Pradesh at about 21% and in Chhattisgarh at about 64%. Once again there is no data on Rajasthan. In terms of garbage disposal however, the removal and relocation waste elsewhere does not necessary suggest appropriate disposal systems and only the removal of garbage from the rural settlement.[64]

The Persistent Sanitation Challenge

11.   *Policy and Implementation:* Rural sanitation did not feature on the investment horizon during the first five plan periods as reflected in its negligible funding share. However, it received prominence from the Sixth Plan (1980-85) onwards amid the launch of the International Drinking Water Supply and Sanitation Decade in 1980. From 1986 to 1999, the Rural Development Department initiated India's first national program on rural sanitation, the Central Rural Sanitation Program (CRSP) using a conventional approach of focussing on the

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[60] UNICEF, 2012. An Overview of Status of Drinking Water and Sanitation in Schools in India. Total Sanitation Mission, Mid-Day Meal Scheme, Sarva Shiksha Abhayan and UNICEF.
[61] Improved drainage has been defied to include drainage systems like 'underground', 'covered pucca' and 'open pucca' by this NSSO survey.
[62] GoI, 2013. Key Indicators of Drinking Water, Sanitation, Hygiene and Housing Conditions in India. NSS 69th Round, July 2012 – December 2012. National Sample Survey Office, Ministry of Statistics and Program Implementation, Government of India, Delhi, India.
[63] Garbage disposal in this survey has been defined as arrangement to carry away the refuse and waste of households to some dumping place away from the residential areas.
[64] GoI, 2013. Key Indicators of Drinking Water, Sanitation, Hygiene and Housing Conditions in India. NSS 69th Round, July 2012 – December 2012. National Sample Survey Office, Ministry of Statistics and Program Implementation, Government of India, Delhi, India.

construction of household toilets. Although more than INR 660 crore were invested and over 90 lakh latrines constructed, rural sanitation could grow at just 1 percent annually throughout the 1990s. Realizing that toilet construction does not automatically translate into usage and linkage of health outcomes with the entire community adopting safe sanitation, the Government of India restructured the program, leading to the launch of the Total Sanitation Campaign (TSC) in the year 1999 based on a "demand-driven, community-led approach to total sanitation". This was further strengthened with the introduction of the NGP in the year 2003, which incentivised the achievement of collective outcomes in terms of 100 percent achievement of total sanitation by a Panchayati Raj Institution (PRI). Individual household latrine coverage nearly tripled from just 21.9% at national level as reported by the Census in 2001 to around 68% in 2010.

12.   TSC looked at a whole range of institutional mechanisms at national[65], state[66] and local[67] levels for collective achievement of total sanitation. Focus on Information, Education and Communication (IEC) to mobilise and motivate; Provision of revolving funds; Flexible menu of technology options; Development of a supply chain; and Fiscal incentive in the form of a cash Prize (Nirmal Gram Puruskar). Even role of NGOs, private (small and large) companies and setting up of Rural Sanitary Mart to provide materials, services and guidance needed for constructing different types of latrines and other sanitary facilities, which are technologically and financially suitable to the area was envisaged.

13.   However, the performance of rural sanitation across States and Districts was variable-whereas some states have achieved full coverage in IHHL, some others were too far from achieving such progress. Similarly, there were significant variations across states in the proportion of Panchayats becoming "Nirmal" (Clean). In spite of incentives at individual as well as community level, the poorest households' ownership and/or access to safe sanitation had not shown the expected improvements. Since operational performance on ground was dependent on a host of local factors, it required tracking of goals and achievements at State, District and local Government levels; needed development of differentiated strategies to deal with varied terrains, environments, social and economic groups as well as respond to the population growth. Management of solid and liquid waste leading to environmental cleanliness was an issue to handle in the wake of growing population and use of non-biodegradable products. Scaling up and accelerating sanitation programs therefore has been a formidable challenge.

14.   *Sustainability of programs:* Sustainability implies that latrines continue to be used, thereby providing continuing health benefits.   While progress in improvements is commendable, there are major difficulties in sustaining results in rural areas in terms of sustaining the habit and changed sanitary behaviours leading to realizing health and environmental benefits. On the one hand, there are data discrepancies with respect to operational latrines, on the other hand, survey of Gram Panchayats that won the Nirmal Gram Puraskar (conducted by Water Sanitation Program of the World Bank) reveals that only 10% of the surveyed Gram Panchayats were open defecation free.

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[65] Department of Drinking Water and Sanitation (DDWS) to facilitate, develop and effectively achieve the goals.
[66] State Water and Sanitation Mission (SWSM) to develop strategies for the State and prioritize community led approaches. Also, setting up of a nodal agency, Communication and Capacity Development Unit (CCDU) for institutional and community capacity building and set up monitoring systems to track progress.
[67] Formation of District Water and Sanitation Mission (DWSM); District Sanitation Cell (DSC); Block Resource Centres (BRC); Village Water and Sanitation Committees (VWSC); preparation of Village Sanitation Plans at the Gram Panchayat level.

15.   The sustainability challenge for India includes behaviour change and toilet usage, handling the variable performance across states and districts, addressing the uncovered areas as well as population growth, improving targeting of the poorest households, addressing solid and liquid waste management, improving accountability for performance, and improving data-collection systems and reconciling different estimates of coverage and behaviour change.

16.   *Practice and Behaviour:* Lack of priority to safe confinement and disposal of human excreta poses significant health risks facing the nation today. Open defecation though reduced in scale continues to be a socially and culturally accepted traditional behaviour at large as evident from the fact that 67% of rural Indian households in the 2011 census reported defecating in the open.

17.   The 2014 Squat Report[68] prepared on the basis of observing sanitation behaviour in Bihar, Haryana, Madhya Pradesh, Rajasthan, and Uttar Pradesh shows key results that explain the sanitation challenge:

- People in rural India have an expensive concept of an acceptable latrine[69], and do not use simple, affordable latrines which are very commonly used in other countries.
- Patterns of use vary according to village size, location of the HH, sex, age, caste and religion clearly linked to social roles and ranks.
- People living in households with latrine access nevertheless defecate in the open
- Respondents' state a clear preference70 for open defecation backed by accepted and deep rooted beliefs about latrine use.
- People do not see open defecation as a threat to health or its linkages to rampant diarrhoea and other infectious/bacterial diseases.
- Households which choose to build their own latrine are the most likely to use one as generally they have larger pits in comparison to government supported which have smaller pits.
- Decisions and practices for latrine use have far more linkages to socio-economic status in comparison to access to water.
- The social distance and fragmentation within many villages suggest that shared latrines may be unlikely to be a large part of a sanitation policy solution rural India.

18.   It is argued that building latrines could be part of a successful policy package, but latrine construction is not enough. Instead, if the Government is to achieve its goal of eliminating open defecation by 2019, it must concentrate on building demand for latrine use and focus on behavioural change.

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[68] http://squatreport.in/wp-content/uploads/2014/06/SQUAT-research-paper.pdf
[69] Many international sanitation professionals and experts describe a ―sanitation ladder‖ : ranging from open defecation up to flush toilets with a piped sewer where populations progress from open pit latrines to pit latrines with a slab to pour-flush toilets that connect to a septic tank or even a sewer. However, the sanitation ladder in India appears to be missing its middle rungs, with no intermediate steps on which households climb gradually up from open defecation.
[70] People indicated that it was comfortable, pleasurable, and convenient, provides them an opportunity to take a morning walk, see their fields, and take in the fresh air, it's a habit hard to break, its tradition.

# Annexure 3: Analysing the Current Status of Access to IHHL and Social Inclusion

1.   The Swacch Bharat Mission – Gramin (SBM – G) aims to bring about an improvement in the general quality of life in the rural areas, by promoting cleanliness, hygiene and eliminating open defecation by October 2nd 2019. To achieve this goal the program has adopted a Community led and Community Saturation approach focusing heavily on collective behavioral change. Therefore unlike its precursors, the SBM does not adopt a "targeting" approach, but aims at universal coverage at a macro level, thus leaving no scope for exclusion "in principle".

2.   To understand the importance of this particular key principle of the SBM, particularly pertaining to access to toilet and social inclusion, we look at existing data on access to toilet at the household level across Indian states in the past years.

3.   For purpose of this analysis, we define "vulnerable" households to include Schedule Caste (SC) and Scheduled Tribe (ST) communities, women headed households and households with physically challenged member(s).

4.   On average, only about 48% of households across states have access to individual household level toilets (IHHL). The state-wise breakdown is provided in the graph below. This implies that a significant 52% of the population did not have access to IHHL in the baseline year and this includes people beyond the BPL category. It is safe to deduce that apart from the BPL households, the ones with no access to IHHL are the vulnerable communities who lie above the poverty line – including Scheduled Caste (SC) and Scheduled Tribe (ST) households, Female headed households etc.

Figure 2: Statewise Share of Households with IHHL Facility
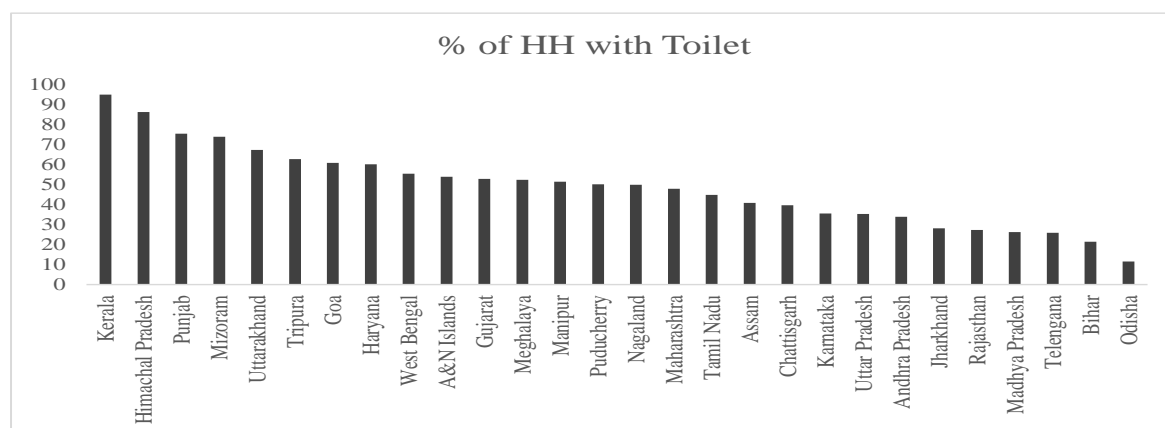

5.   Baseline data for 2012 across Indian states shows the presence of a significant share of BPL households – on average 45% at a pan-India level. This implies the presence of a significant proportion of vulnerable communities across Indian states who lack access to basic amenities – including concrete housing, food, clothing, education, healthcare, electricity, safe drinking water and toilets.

6.   At this point it is important to note that while it is easier to identify and monitor improvement in the quality of life of people below the stipulated Poverty Line, it is more

difficult to monitor the same for those who lie above the stipulated Poverty Line. These people are presumed to be not poor, though they might be rather marginally better off in terms of their quality of life and access to basic amenities. Another factor that exacerbates the vulnerability quotient, apart from poverty, are the societal discriminations in terms of caste and gender (and even religion in cases).

7.   According to time series data, the government has shown a steady improvement in enhancing access to IHHL for the Scheduled Caste (SC) and Scheduled Tribe (ST) communities in the BPL category.

Figure 3: Access to IHHL for SCs and STs in BPL category – Over Time
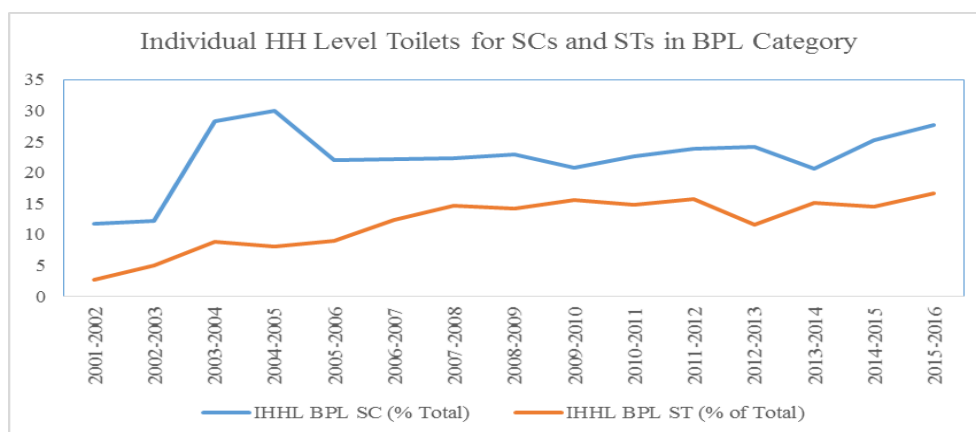

8.   A comparison of the share of households with access to IHHL between non-vulnerable APL (i.e general category) vis-à-vis vulnerable households (APL and BPL) is shown in the graph below:

Figure 4: State-wise Access to IHHL for General APL Vs Vulnerable BPL Households (%)
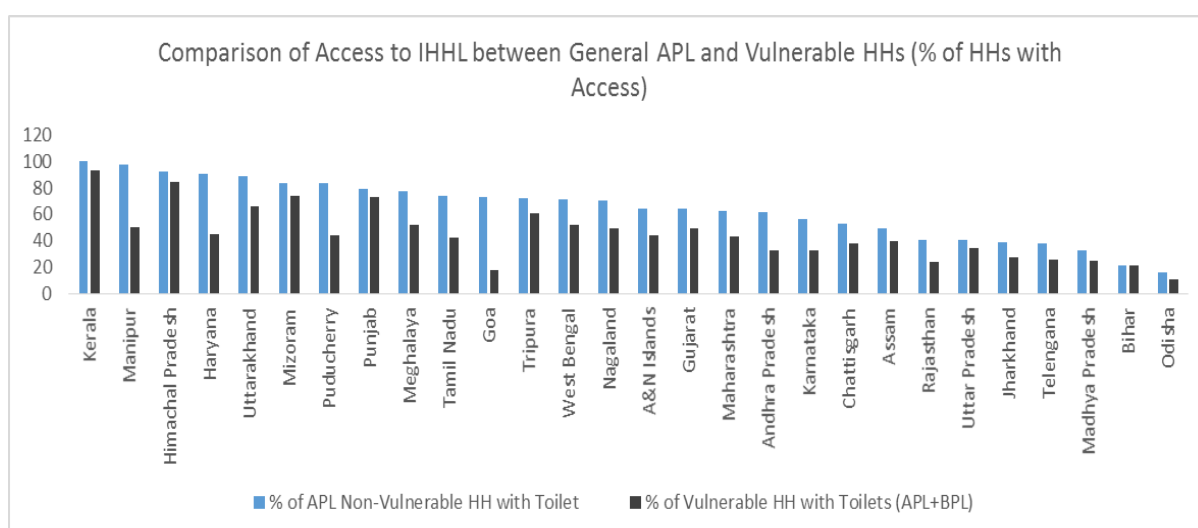
9.   The figures above reveal that on average share of general APL households with access to IHHL is 20 percentage point higher than that of vulnerable households (APL and BPL).

Figure 5: Statewise Percentage Point Difference in Access to IHHL for General APL Vs Vulnerable BPL Households
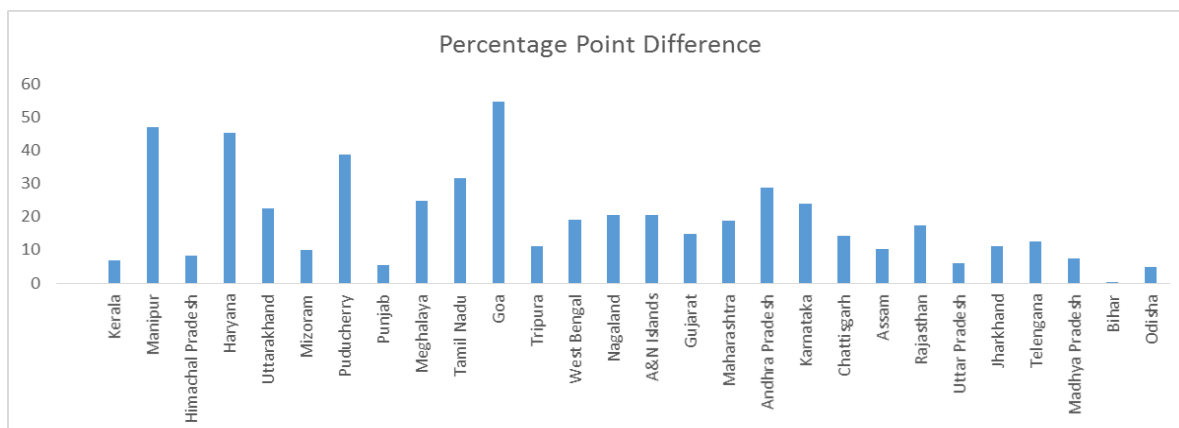

10.   It is important to note here that a low percentage point difference does not automatically imply good performance. What it implies in turn is that the difference between the shares of the two categories of households is low.

11.   It is important to note here that though the percentage point difference is seen to be low for Kerala and Punjab as also for UP, MP, Bihar and Orissa, the reason and interpretation is not the same. Kerala and Punjab and well performing states and hence their overall access to IHHL rate is very high – irrespective of vulnerability of households. Hence the percentage point difference is low. Whereas the other states (as mentioned here) are ill-performing and household share of access to IHHL is low irrespective of household vulnerability profile, and hence the percentage point difference is low.

12.   Within the vulnerable households, a further breakdown between APL and BPL category is shown below.

Figure 6: State wise Access to IHHL for Vulnerable APL Versus BPL Households (%)
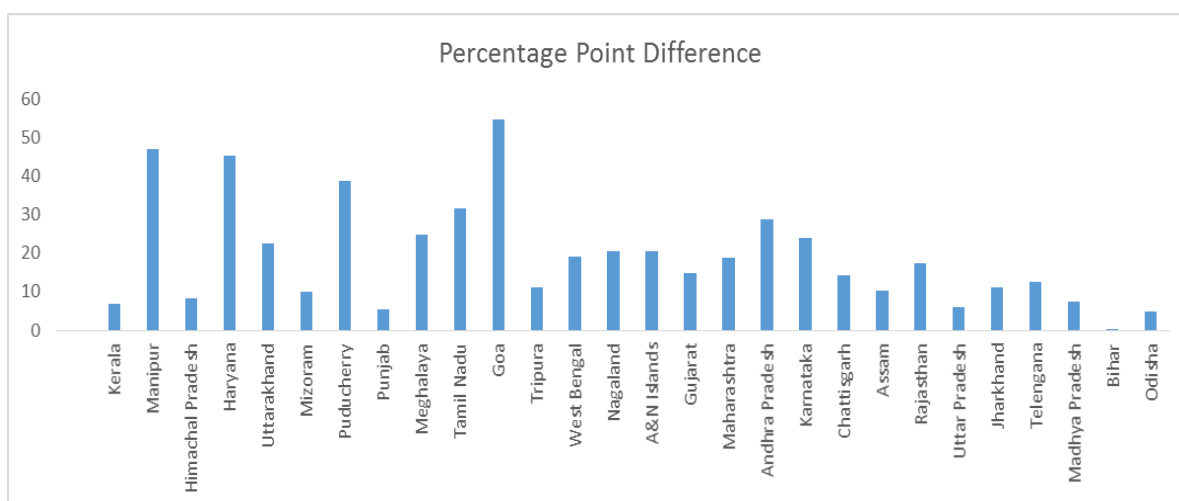
13.   On average, across states, about 44% of the vulnerable APL households and 47% of the vulnerable BPL households have access to toilets. Thus on average, share of vulnerable

BPL households with access to IHHL is 3 percentage points higher than that of vulnerable APL households. The state-wise difference in percentage points is given below.

Figure 7: Statewise Percentage Point Difference in Access to IHHL for Vulnerable APL Vs BPL Households
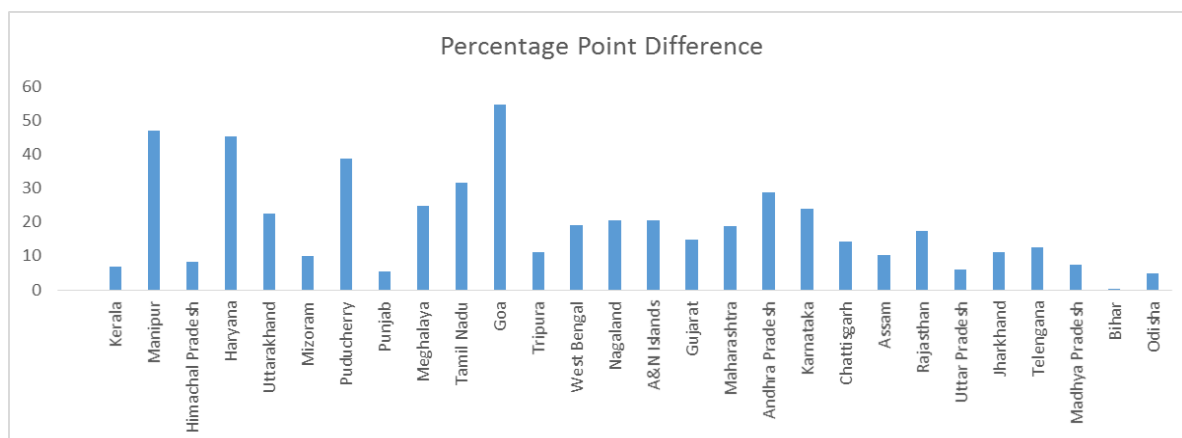
14.   The above graph eludes to the fact that access conditions at the baseline are better for the vulnerable BPL households relative to the vulnerable APL households – reiterating the point discussed before that it is easier to target BPL families than vulnerable households in the APL category, who lie at the margin of the economy.

Summarizing the Key Points

1. Overall, only about 48% households in India have access to IHHL (in the baseline year of 2012). **(Ref: Figure 1)**
2. Of those who belong to the APL category, 64% of the general non-vulnerable household have access to IHHL **(Ref: Figure 3)**
3. On average, access to IHHL for general APL households is 20 percentage point higher than vulnerable (APL and BPL) households **(Ref: Figure 4)**
4. Only 45% of the vulnerable households (APL and BPL) have access to IHHL **(Ref: Figure 5)**
   a. 44% of APL vulnerable households have access
   b. 47% of BPL vulnerable households have access
5. Overall, over time, there has been a steady progress in terms of targeting SC and ST households and enhancing their access to IHHL **(Ref: Figure 2)**
6. However, from a broader perspective, targeting of vulnerable APL families lags behind that of targeting vulnerable BPL families **(Ref: Figures 5 and 6)**

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15.   Importance of the Findings in the Context of Inclusion and SBM
   a. The brief analysis as presented above brings out some key points in the context of the current tenets of SBM. As seen from the baseline data, while overall access to IHHL is lacking, the lack of access is more evident for vulnerable households.
   b. Though past sanitation initiatives by the government had the provision of "targeting" vulnerable households while providing access, gaps still exist.
   c. Thus, the universal coverage mandate of the SBM can be expected to address the inter-group differences for vulnerable households, in terms of access to IHHL. SBM's saturation policy holds promise in terms of eradicating the BPL versus non-BPL vulnerable households' accessibility to basic IHHL facilities.

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d. While this remains embedded "in principle", it will be key to monitor the same translate into "practice" via efficient monitoring and collecting detail information across vulnerability factors (poverty, caste, gender etc.).

a. It will be interesting if the GIS information to be collected as part of the "monitoring" exercise also collects geographic terrain information –such that it is easier for authorities to locate areas where construction of toilet facilities is being hindered due to terrain conditions.

b. Further, as identified in the ESSA, for the BPL population, it is understandable that many will not have adequate space within the household to accommodate a toilet and thus might have to rely on the provision of public toilets. In such cases, exclusion in the name of caste, gender, religion etc. can be gauged only with meticulous monitoring of usage of such facilities at each household level.

Annexure 4: Environment Policies and Regulations

1.   **National Water Policy, 2012:** Focusing on integrated water management that includes quality and quantity; it recognizes that access to water for sanitation and hygiene is a serious problem; inadequate sanitation and lack of sewage treatment are polluting water sources (both surface and ground water) and therefore safe water for drinking and sanitation should be considered as preemptive measures for ensuring human health. It calls for improved water supply in rural areas with proper sewerage facilities and creation of least water intensive sanitation and decentralized sewerage systems in rural areas. Activities under SBM-G, if well planned and managed are likely to be complementary to suggestions of the National Water Policy.

2.   **National Environment Policy, 2006:** The overall direction, perspective and commitment of India for the management of its natural resources and the environment sustainability comes from the National Environment Policy (NEP), 2006. Acknowledging the role of natural resources and ecosystem services as life support and livelihoods systems it suggests the need to recognize biophysical limits and therefore seeks to mainstream environment issues in the development agenda. It also recognizes the impact of poor sanitation on environmental degradation and discusses the need to address sanitation concerns for ensuring health ecosystems and those dependent on the degrading resources. With reference to environmentally sensitive zones[71], the policy mentions that such zones will be identified so that they can be conserved and their resources be enhanced as required, it also mentions that they will be given legal status and appropriate regulations will be put in place to ensure their appropriate management. On wetlands, the NEP suggests the need for integrated wetland conservation, and mentions the need to identify unique wetlands with incomparable value status, which are managed though specific strategies for them. Considering the pan-India perspective for the present project, these directives will be relevant as there are likely to be a number environmentally sensitive zones and wetlands which would be relevant from the conservation perspective and adjoining or in project areas.

3.   **The Environmental (Protection) Act, 1986:** The Environmental (Protection) Act (EPA) gives the right to the central government, and mentions the need to work in coordination with state governments, to take necessary steps to protect the environment, including laying standards for the emission and discharge of environmental pollutants, including prevention and control of environmental pollutants. In order to implement the EPA there are a number of legislations to protect the natural environment and natural resources or the abatement or control of pollution. Relevant legislations are discussed in this section. The EPA also provides for the protection of the natural environment, under which brick kilns within 200 mts of the river are not permissible. Similarly, the National Green Tribunal has ordered for a ban on river sand mining without a permit and an environmental clearance in view of the damage done to riverine systems[72]. Both of these issues are of relevance to the project, as a number of brick kilns were observed along the river and are the source of construction material in areas where local agencies are constructing IHHLs. Equally, sand that is used for any construction needs to be with required environmental clearances and permits.

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71   The NEP defines environmentally sensitive zones as areas with identified environmental resources having "Incomparable Values" which require special attention for their conservation
72   http://timesofindia.indiatimes.com/city/bhubaneswar/Brick-kilns-on-river-beds-raise-erosion-concern/articleshow/45334578.cms;   http://timesofindia.indiatimes.com/city/jaipur/Govt-plans-to-wriggle-out-of-tribunal-ban-on-sand-mining/articleshow/22150277.cms

4.   **EIA Notification 2006:** The Environmental Impact Assessment (EIA) notification is under the EPA1986 and discusses the need for environmental clearances under the Act for a number of activities, either by the central or state governments. It is unlikely that any activity of SBM-G will fall under either category A or B (requiring clearances), given the small size of waste, wastewater and sanitation actions that are envisaged under this project.

5.   **Guidelines for Eco-sensitive zones, 2011:** In order to protect wildlife sanctuaries and national parks, within the radius 10 kms of the protected areas the National Wildlife Board has suggested the need for declaring 'eco-sensitive zone'. This distance rule is more of a general principal and may vary and could also include wildlife corridors etc. While suggested general guidelines exist under this provision, specific guidelines for identified eco-sensitive zones are to be decided based on the area's requirement. From the suggested general list those that could be important for SBM-G are movement of vehicular traffic at night, introduction of exotic species, discharge of effluents and solid waste in natural waterbodies or on land (prohibited), felling of trees (regulated – and possible for sullage and liquid waste management), and air and vehicular pollution.

6.   **Coastal Regulatory Notification, 2011:** The Coastal Regulatory Zone (CRZ) notification, issued under the EPA, 1986 is applicable to all coastal areas of India except for Lakshadweep and Andaman and Nicobar Islands (and Mumbai). It has identified a number of restrictions for activities within 500 meters of high tide line (HTL) as noted in a spring tide, and on the landward side on the sea front. It is also applicable along creeks facing high tide and tidal influenced water bodies that are connected to the sea.

7.   This notification prohibits the setting up of units or mechanisms to discharge waste or effluents except for human settlements. However, it also mentions the need for implementing schemes for management of discharge of untreated effluents from settlements within two years from the date of issue of the notification. Dumping of waste, including construction debris is also not allowed in the CRZ area. The project would therefore need to ensure that any construction debris is removed from the CRZ and proper construction waste management procedures are in place before the construction takes place, in cases required. There would also be a need for ensuring that graywater from settlements are properly managed and no waste - either liquid or solid are discharged or dumped in the notified area. As required, discussions with the Coastal Zone Management Authority (CZMA) should be undertaken, and all efforts should be made to ensure that any activities identified are within the plans of CRZ of the CZMA.

8.   On natural resource extraction, the notification clearly notes that the mining of sand is not allowed in the CRZ. Also, water resources extraction is only allowed for use by local communities within the area for areas within 200 mts HTL. However, there could be additional restrictions where the aquifers are facing sea water intrusion. Considering that there is likely to be a need for sand and other material for construction, which may be procured locally; the project would need to ensure that material procurement is outside the notified zones. Equally, in case of aquifers facing salinity ingress, alternate water sources for management of the IHHLs and other sanitary complexes must also be considered.

9.   Clearances under the CRZ are required for any activity not mentioned under the EIA 2006 notification, and therefore is likely to be applicable for SBM-G. The 2011 notification also gives a list of documents and processes for the clearance under the notification. Clearances are also required for, laying of pipelines, conveyance systems, generation of power by non-conventional sources or demolition or re-modelling of buildings of

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archaeological, historical or heritage importance or those for public use. Based on the CRZ notification, it is likely that most coastal areas under the SBM-G activities will come under CRZ III category. Therefore, construction activities would need to follow guidelines under this category, and as required permissions taken.

10.   This apart, the CRZ notification has also identified a number of areas for conservation and protection. Any activities in such areas would have to consult the local conservation regulations and the CZR plans. This includes mangroves and sand dunes, turtle breeding sites, horseshoe crab habitats, marine parks, bird nesting grounds, sea grass beds and coral reefs and marine parks.

11.   **Water (Prevention and Control of Pollution) Act, 1974:** This Act empowers the Central Pollution Control Board (CPCB) and State Pollution Control Boards (SPCB) to identify water quality standards for all waterbodies, including flow characteristics and use. Depending on use and needs the same waterbody, such as a stream may have more than one standard in different areas. Standards for surface inland waterbodies, flowing rivers and streams, sea and tidal waters and also aquifers. It also lays down standards for sewage and effluent treatment prior to their discharge.

12.   This Act mentions that the discharge of noxious or polluting substances into any water system that may either pollute it or cause impediments in its flow, or discharge sewage or waste into any water system is not permitted. The CPCB, under this Act is also to develop suitable standards for the utilization of effluents for agriculture. The CPCB has also identified water quality standards for various purposes such as drinking, bathing, wildlife etc. Depending upon the classification of a water system and its use, these standards need to be adhered to. In case under this project any effluent or treated sewage discharge into a waterbody is planned, permission from the SPCB or as the case might be will be needed. In case of any accidental discharge, the SPCB would need to be informed immediately and appropriate remedial actions taken. Also, in case of pollution, this Act gives the power to the CPCB and SPCB to prosecute the polluter for not adhering to identified standards.

13.   The identified standards would be important as a guidance to ensure that there is no pollution from project activities, and identified standards for SLWM and reuse of gray water are adhered to. Presently, SLWM in villages is weak and disposal and discharge is mainly onto open grounds and in surface waterbodies. The project can therefore support to execution of the legislative requirements through identification of appropriate systems for the management of waste.

14.   **Air (Prevention and Control of Pollution) Act, 1981, its Rules and amendments:** Under this Act, the CPCB and SPCB has set ambient air quality standards for industrial, residential and ecologically sensitive areas. This will be important during the construction phase, where there is likely to be use of diesel generators for provision of energy and other activities that may result in air pollution. Also, based upon the area the project activities are underway, the standards, as defined by the Act are to be adhered to. In case diesel generators are used for provision of energy for management of the systems, standards as defined in the act must be adhered to.

15.   **Indian Forest Act 1927, and Forest Conservation Act, 1980:** Based on these Acts, tree and forest clearances and quarrying including and the removal of any forest products are not permitted in reserved forests, unless with the written permit of the Forest Officer or State government, as the appropriate authority for the case may be. Rights to reserved forests could

be assignment in reserved forest to villagers by State government, though the management and protection of the forests will be based on the rules identified at the time of allocation of the forest lands to the village. Similarly, for protected forests the state government can make rules for its protection and can also give licenses for the use of forest products from the forest, and regulate any movement of forest produce in the forest. The State government also has the right to levy a duty on any forest produce that may be taken from it.

16.   In case forest land is required for any non-forest activity, permission would need to be taken under this Act. While the Forest Conservation Act (FCA) does not restrict the recorded rights of local people from use of forest produce, care needs to be taken to ensure that breaking up of forest or forest floors to extract forest produce including stones and minerals does not occur. Furthermore, the FCA also mentions that all extraction activities have to be done manually and no mechanized vehicles can be used for transportation of goods, with exception to exceptional circumstances where permission has been granted by the forest officer. For any forest clearance reforestation activities would need to be undertaken and would be guided by the law. For naturally grown trees reforestation would be based on Working Plans or Management Plans.

17.   The FCA will be important for areas where produce from forests may be required, for forest dwellers and for any activity where there is a need to travel through a forest. Also, in areas adjoining a protected forest where project activities are taking place, it should be ensure that there is no adverse impact from project activities that could lead to breaking up of forests – such as quarrying activities that damage the neighboring vegetation. In case of any tree cutting or removal that may be required, permissions as required under these acts, even in private areas would need to be taken.

18.   **The Scheduled Tribes and Other Traditional Forest Dwellers (Recognition of Forest Rights) Act, 2006:** This Act gives certain rights to scheduled tribes and other traditional forest dwellers residing in forests and whose rights had not been recorded till then, and had been dwelling in forests for generations. However, rights in critical wildlife habitats may be modified. The rights include the use of minor forest produce from forests for their personal/domestic consumption but not for trade. The Act also provides the diversion of less than 1 hectare of land, with Gram Sabha permission and according to their conditions, and less than 75 trees per hectare are removed for certain development purposes. The Act also lists 13 activities for which this diversion is permissible. While this includes drinking water supply systems and pipelines, anganwadis, schools, it does not mention sanitation or SLWM system.

19.   Through India, there are a number of traditional forest dwellers. While implementing the project in these areas, local materials identified as minor forest produce may be procure from the forest itself, providing undertaken sustainably and with required permits. However, all such produce will only be for individual's personal consumption, as mentioned in this Act. While this law clearly provides for development of basic infrastructure in the forest dwellings through the diversion of some land, given both from the concerns of sustainable forest management and the fact that sanitation and SLWM is not mentioned in the list of activities, it would be most appropriate to ensure that all SBM-G activities and system are developed within the village boundaries. Equally, as required other forest laws must also be adhered to during planning, design and implementation of the SBM-G activities.

20.   **Wildlife (Protection) Act, 1972:** This Act is to protect wild animals, birds and plants, prohibits damaging, hunting or picking of wild animal or plants. Also, in case of a need to

enter a protected area, as required under the law permission would need to be taken. This law could be of relevance to the project due to the pan-India extent of the Program. This includes not only agricultural settings, but also coastal zones, forests and villages near protected and conservation areas. Therefore, interactions with species and impact on protected and fragile areas could occur. For example, along India's eastern coast, are host to the Olive Ridley Turtle with breeding grounds near villages. Therefore, any sanitation or SLWM activity or systems or collection of material would need to consider possible impacts in such areas. Similarly, in case of disposal of waste or gray water management, including the use of bio-remedial measures for wastewater treatment would need to ensure that the local habitats are not adversely impacted. Any plantation activities that may be considered such as bio-remedial methods for gray water, would also need to consider impacts on local fauna or flora. Inappropriate plantation activities could change the local environment or micro-climate or introduced alien species may encroach up the area in the long run.

21.   **The Biological Diversity Act, 2002:** This Act is to protect the country's biodiversity, and as required protection action is to be taken up by the central and state governments through various strategies and plans. Biodiversity includes plants, animals and their genetic material and by-products with both actual and potential use of value (but not human genetic material). Overall for this project, there is also a need to ensure that any plantation activities that may be carried out are not in contradiction to the requirements of this Act. This may be important for any vegetation clearance activity for quarrying or plantation actions required under SBM-G.

22.   **Wetland (Conservation and Management) Rules 2010:** These rules are for the protection and management of wetlands, and as required they are to identify protected wetlands and apply regulations for their management, and have identified a number of categories of wetlands for protection. The Rule also frames guidelines of activities which are not allowed in or adjoining a wetland. Amongst others this includes, prohibition for dumping of solid waste, discharge of untreated wastes from human settlements, any permanent construction (outside boat jetties) within 50 meters of mean high flood level of last 10 years, or any activity that could adversely impact the wetland's ecosystem. Some activities are allowed only after approval of the State government and include withdrawal of water from the local catchment of the wetland ecosystem, harvesting of resources, discharge of treated effluents within the SPCB limits from human settlements, activities within the wetland's area of influence that could directly impact the wetland ecosystem, and any other activity that may be identified by the authority managing the wetland. In protected areas wetlands would be governed by the protected area regulations. This rule would be applicable for sourcing of material, construction of sanitation and SLWM systems, discharge of effluents and waste disposal – both in terms of construction waste and village waste disposal and temporary location. `

23.   **The Ancient Monuments and Archaeological Sites and Remains Act 1958:** According to this Act nobody, including the owner or occupier of a protected area, is to construct any building within the protected area or carry on any mining, quarrying, excavating, blasting or any operation of a similar nature in the protected area, or use the whole or part of the area without prior permission of the Central Government. This Act has also identified prohibited areas for activities next to identified monuments under this Act. Considering the large extent of the Project, and raw material sourcing for construction in some areas, archaeologically importance artifacts may exist or be found. In such cases this regulation will be applicable and the provisions of the Act should be followed. SLWM design and management must also consider impacts from design or identified waste disposal

mechanisms on archaeological sites.

24.   **Bio-Medical Waste (Management and Handling) Rules 1998, Hazardous Waste (Management, Handling and Transboundary Movement) Rules, 2008:** The biomedical regulation is applicable for the management of waste from treatment, diagnosis and immunization for both human and animal. According to these Rules, it is the duty of all institutions generating bio-medical waste to handle, manage and dispose the waste according to the steps identified by this regulation, and to ensure that this waste does not create any hazard to human health. These rules will be applicable for any waste generated in rural areas where there are PHCs, private clinics and other human and animal medical facilities. The waste from these areas will need to be disposed as identified in the Rules, and not with other solid waste.

25.   The hazardous waste rules will be applicable for any hazardous waste that may be a part of the solid waste in rural areas. Any person who is engaged in generation, processing, treatment, package, storage, transportation, use, collection, destruction, conversion, offering for sale, transfer or the like of the hazardous waste is required to obtain an authorization from State Pollution Control Board.

26.   **The Mines and Minerals (Development and Regulation) Act, 1957:** This Act defines minor minerals that include clay and sand, which are used for construction purposes. Mining these minerals will require licenses from the State governments. According to this regulation any mining that may result in danger to public health, infrastructure or create damage to the environmental and pollution may result in the termination of the mining lease and closure of the mine. For all mines there will be a royalty and rent, which will need to be paid to the State Governments.

27.   **73rd Constitutional Amendment:** This Amendment to the right to the GP to levy any fee, tax, duties etc. and to set limits for the collection of these monies. The GP is to be an institution of self-governance at the gram sabha level. The GP is also to prepare and implement economic development and social justice plan, and those implementation of actions identified in the 11th Schedule of the Constitution of India (Article 243G)[73]. Amongst other activities this schedule includes minor forest produce, rural housing, drinking water, non-conventional energy sources, sanitation, and maintenance of community assets. This constitution amendment gives the GP the mandate for water and sanitation actions and management of community assets, which may include SLWM activities and any community sanitary complexes. It also gives the GP the right to decide fees and collect it for the management of any such system. This therefore, also clearly shows the need to involve the Panchayat more intensively in SBM-G not just for planning but also the execution and management of systems. In order to ensure that the requirements of this Amendment are possible to implement, there is will be a need to build GPs capacities to manage developed systems, and would need to be considered under SBM-G.

28.   **Provisions of the Panchayats (Extension to the Scheduled Areas) Act, 1996:** According to this Act, all plans, programs and projects taken up at the village level in Scheduled Areas for implementation need to be approved by the Gram Sabha prior to their implementation. Under this Act, the planning and management of minor waterbodies lies

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[73] http://www.constitution.org/cons/india/shed11.htm

with the panchayat. Therefore, there is a need for consultation with the Gram Sabha prior to undertaking development activity. This should not just for shortlisting and prioritizing beneficiaries for the IHHLs; consultations and awareness creation to ensure understanding and improve design quality and project implementation for SLWM must be undertaken. Since the panchayat is also in-charge of managing minor waterbodies, creating capacities to ensure that the GPs have the capacity to manage them and ensure that waste and grey water is not discharged into them needs to be created. There are a number of scheduled areas in India, and this regulation will be applicable in all such areas.

29. **Sixth Schedule, Article 244(2) and 275(1) of the Indian Constitution:** This Schedule is applicable to tribal areas of Assam, Meghalaya, Mizoram and Tripura. However, the areas under this Schedule may change from time to time. All identified areas are to have District Councils, and each region is to have a Regional Council. These councils are in-charge of administration of their regions, as identified under this schedule. Some relevant activities are the management of forests that are not reserved forests and matters that include public health and sanitation. Therefore, in such areas the local autonomous councils will need to be consulted for any activities carried out under SBM-G to ensure it is according to local legislation. Equally, identified administration of these areas would need to be considered for capacity building to ensure the proper implementation of onsite sanitation and SLWM activities.

30. **Disaster Management Act, 2005:** According to the Act the policies, plans and guidelines laid down by national authority in-charge of disasters are to be followed by the state governments when developing their own disaster policies and plans. They are also to recommend funds for provision of disaster mitigation[74]. The national authorities is also to lay down guidelines to be followed by other ministries to integrate disaster prevention or mitigation measures in its activities. The national authority is to provide minimum standards required for relief in relief camps. This minimum standard in relief camps includes shelter, drinking water and sanitation. This Act also says that it is the responsibility of every GoI ministry or department to take measures to prevent, mitigate, prepare and create capacity for disasters according to the national authority guidelines, including in their plans and projects, including in state development plans. Based upon this Act it is clear that, Mitigation can include ensuring appropriate sanitation – as that would reduce risk, impact and effect of disasters on the disaster hit population. This should be a part of mitigation actions, given a major post risk is to health and poor sanitation condition whether already prevalent at the time a disaster strikes or due to the disaster. Department activities for state implementing departments to ensure disaster resilience for project activities, should consider resilience in their design for sanitation structures; to the extent possible, depending upon the type of disaster risk to an area.

31. The manual for administration of state and national disaster funds[75] has been developed to assist state governments and union territories to develop proposals to access the state and national disaster response funds. This manual clearly identifies a number of disasters eligible for access to these funds, and mentions droughts, cyclones, floods, landslides, earthquakes and tsunamis amongst others. According to this manual the infrastructure sectors eligible for funding include drinking water supply works and community assets owned by panchayats, but does not mention sanitation. Nonetheless, as

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[74] Mitigation is defined by the Act as: measures to reduce the risk, impacts and effects of a disaster or threatening disaster situation.

[75] Manual on administration of state disaster response funds and national disaster response funds. Ministry of Home Affairs, Government of India, 2013 Revision.

assistance for damaged housing exists, as a part of the house it could be possible to consider sanitation to tackle post disaster slippage issues; through this would need to be clarified with the state disaster management authorities. Equally, there are a number of guidelines and codes for construction in varying disasters developed by the National Disaster Management Authority (NDMA) and could be referred to for SBM-G construction activities.

Annexure 5: State wise grievance redressal mechanisms

State	Existing mechanisms	Gaps
Rajasthan	Samadhan. It is a single point grievance redressal system for all departments under the Government of Rajasthan. An Additional Chief Secretary heads the department and is assisted by three nodal officers. At District level, the Public Grievance Redressal Department is headed by the District Collector and at sub-divisional level by the Additional District Collector. This is an established an E-portal system. The state portal E-portal is linked with the Government of India's grievance portal which leads to greater sharing and transparency of information exchange/sharing at the national/GoI level. The information about the portal and the grievance system are available at the district and Sub- Division in both Hindi and English. At district and sub-division, the District Commissioner and sub-division officers are directed to have at least a half hour session twice a week to monitor the grievance applications.	The department has the all the different government departments grievances clubbed together At the Gram Panchayat level no such system observed by the ESSA team There is need to disseminate the information about this facility more extensively Segregation of the data on lines of issues and department to enable further review to understand the most persistent problems and issues raised
Madhya Pradesh	2 dedicated departments to look at citizens grievances on regarding public services (Department of Public Services Management and Department of Public Grievance redressal), and 2 voice /internet based grievance management systems (Samadhan Online and CM Helpline 181) for fixing accountability for grievance redress and ensuring time-bound relief to the complainant. Jan Sunwai where District Collector, Ministers and Chief Minister of the state periodically meet the general public to discuss their grievances which have not been addressed through the formal delivery In order to expand the outreach of its public services under the Act, the state has established 334 Lok Seva Kendras (Public Service Centers) that provide single window for receiving applications, getting them processed by concerned departments and providing the final service to the citizen/applicant. The state is in the process of mobilizing a loan from the World Bank for system strengthening of SarvSeva- its service guarantee initiative, and for expanding the scope of legislation from 48 to 102 public services.	Jan Sunvai is an informal system that doesn't have a tracking/follow-up mechanism to ensure accountability. It also involves a high transaction cost for citizens who have to travel distances to attend these public meetings and be heard. Right to Public Services legislation currently does not include delivery of rural sanitation or individual toilets in the list of services guaranteed to its citizens Most of these grievance management systems are technology-based and their use is a function of access to technology. Hence most of these systems are inaccessible for economically vulnerable and those living in remote areas where access to both mobile and internet services is limited. Additionally, for the barely

	CM Helpline system: people put in grievances on a regular basis and functionaries have to ensure either their response or resolution within 7 days	literate it is difficult to handle such technology or remember their unique
Chhattisgarh	There is a designated nodal officer for each village whose responsibility is to report about the progress of all the development schemes in the village. Though the nodal officer is not specifically designated to collect grievances, people can register their problems. The nodal officer sends report to SDM and SDM sends the report to DC. Panchayat is the institutional space available to people for grievance redressal. Panchayat Sachiv sends weekly activity report to the block. The grievances are part of this report. Only those grievances that cannot be addressed at the block level are sent to the district. The DC holds the Jan Samasya Nibaran Samiti (grievance redressal camp) at block level once in every three month. The DC also holds a public meeting every Thursday where people can directly interact and discuss their grievances.	While several and well placed mechanisms exist for grievance redressal, these are inclusive of all developmental schemes operating at the village level of which SBM is one , and not specific to SBM. There is no clarity how individual grievances related to construction of IHHL are redressed.
West Bengal	The ESSA team found no signs or discussion of any formal grievance redressal systems at the state, district, block and GP level.	The GoWB and in particular DoP&RD needs to develop a Grievance Redressal policy and system. The DoP&RD should also develop an e-portal and a linked call center, which will ensure all grievances, can be tracked and accelerated according to nature and urgency. Also, there is a need for a mechanism at the GP, block and district level, which will enable people to put in complaints physically.
Odisha	There are well defined mechanisms to address grievances right from the district to the block level. At the GP level there is a fortnightly meeting held every month on the first and sixteenth of the month. This nodal meeting has all Sanjog partner agency representation from the village level, GP officials and somebody from the block level present. For all grievances the first point of contact is the village level. In case a grievance has not been addressed at the GP level, it is to be take up at the block level, and if the complainant is still not satisfied it can be taken up in the District Collector meeting. Any grievance pertaining at the district level is forwarded to the WSSO at the district level. At the block level grievances are held on every Monday between 10 am and 5 pm. The District Collector holds weekly grievance redressal meetings on the Mondays.	So far the grievances pertaining to SBM-G received by WSSO are on clarity on beneficiary selection. There is a lot of confusion on how beneficiaries are being selected, especially among those where previous programs had provided funds for IHHL construction, but presently the toilets are defunct. The emphasis of SBM-G is on construction targets for IHHLs. Therefore, it gives an idea that all actions are related to the construction of IHHLs. Also, any concerns that may exist on the location, design, availability of water or being culturally appropriate for

	The block and cluster coordinators visit villages regularly, where they interact with villages and also inspect the construction activities under SBM. Therefore it is possible to access officials through the coordinators and some basic issues can be addressed right at the village/GP itself and would not need a long process before being addressed.	community or on post construction O&M is not clearly identified. While there is a formal system to address grievances, this system is unlikely to work in areas where the GP level systems presently are dysfunctional, as was seen in two villages Pentha and Siribeda. Also, both these villages were noted to be remote villages and therefore for such villages there may be little alternate systems available

Annexure 6: State wise IEC efforts

State	Existing mechanisms	Gaps and Needs
Rajasthan	Absence of a holistic state communication plan has meant ad-hoc plans by districts with no clear indicators for measuring toilet use at state level. Only 33% of approved state IEC budget for NBA has been utilized. *(ddws.nic.in on 12.08.2012)*	There is an insufficient pool of adequately skilled persons for promoting behavior change for sanitation and hygiene. The ESSA team found that there was little or no support or inputs for mobilization, community participation and information dissemination. Only on occasions such as Gram Sabhas and Annual Days, were messages are given during speeches but no structured and consistent IEC, BCC support existed. There is an urgent need to develop a state-wide IEC behavior change manual and strategy towards sustainable toilet usage.
Madhya Pradesh	The state's IEC strategy in the past had a strong hardware focus with emphasis on wall writings, pamphlet/poster distribution, placement of banners, meetings, *nukkad nataks* and video screenings and less emphasis was placed on people-to-people contact and inter-personal communication. This is however set to change, with the state emphasizing on use of interpersonal communication and collective behavior change as the key to its future IEC approach. Alternate IEC strategies like SHACS are being tested in select districts and could be taken up on scale in future.	The BCC interventions will need to be complemented with effective School Sanitation and Health Education (SSHE) of the school children with inclusion of these both in the curriculum of students as well as teachers
Chhattisgarh	Most widely used IEC methods are wall writing, door to door campaign by village motivators, children's rally, documentary/ films, hygiene lessons in schools and anaganwadis, hygiene awareness to women and young girls. Audio-visual, kala jathha and nukkad natak have been useful in tribal areas and among illiterate and semi-literate.	Individual awareness and social mobilization created through IEC are visible as there is demand for toilet. To a certain extent, IEC has resulted in usage of toilets. However, post-ODF villages are excluded from IEC.
West Bengal	The ESSA team found that there was little or no support or inputs for mobilization, community participation and information dissemination As of now, only on occasions such as Gram Sabhas and Annual Days, were messages given during speeches but no structured and	The DoP&RD proposes to engage with civil society organizations (CSOs) for capacity building, facilitation, communication and intensive monitoring of activities in the field There is a proposal to engage facilitators to work at every level starting from the Gram Panchayat and up to the district level The State Institute for Panchayat & Rural Development (SIPRD) (presently located in

State	Existing mechanisms	Gaps and Needs
	consistent IEC, BCC support existed.	Nadia district) the key capacity building institution under DoP&RD will be shifted to state capital in order to closely strategize and implement the training and capacity building activities pertaining to social and environmental aspects of sanitation.
Odisha	IEC activities include wall writings, pamphlet distribution, posters, door to door / inter personal communication, rallies, sanitation chariots and fairs, songs, jingles and, theater/street plays. IEC activities target behavior change through influencing personal habits such as toilet use and hand washing and through health and hygiene lessons that talk about disease, fecal oral infection, and clean drinking water, methods of solid waste management, drainage and grey water management. WSSO conceptualizes and designs IEC material keeping in focus specific needs such literacy and language. They also get national and state IEC material through the OSWSM. A cadre of village motivators such as ASHA and anaganwadi worker, Swachhta Doot, SHG members, panchayat elected representative and gram sathi are responsible for IEC activities and social mobilization in the village. They are supported by cluster, block and district coordinators	Presently, the OSWSM is developing its State Communication Strategy for Sanitation and Hygiene. It plans to use a number of communication channels. It also plans to involve the private sector through public private partnerships to leverage funds and experiences for sanitation, and facilitate umbrella NGOs with significant experience in conducting awareness campaigns. It aims at covering: • safe hygiene and sanitation behavior and practice at household level through IPC and community mobilization • Construction and use of toilets • Generate media interest to promote visibility and public opinion • Convince elected officials and policy makers to advocate for improved sanitation and hygiene standards • Improve public demand for quality sanitation services

Disclaimer

The key findings of this assessment are based on surveys and consultations carried out in the five states of Rajasthan, Madhya Pradesh, Chhattisgarh, West Bengal and Odisha. The status as observed in the states are reflective of the performance of the predecessor programs of SBM-G and many of those gaps are now been addressed by the SBM-G guidelines, launched in 2014.