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Environmental and Social Systems Assessment (ESSA)

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# The Maharashtra Rural Water Supply and Sanitation Program

## Environmental and Social Systems Assessment

### Executive Summary

#### 1. The PforR Program

1. The Government of Maharashtra (GoM) has fully aligned its state rural water supply and sanitation (RWSS) programs with the Government of India's National Rural Drinking Water Program (NRDWP) for water supply, and Nirmal Bharat Abhiyan (NBA) for sanitation. The overall objective of GoM's RWSS program, spanning over the next 10 years, is to increase access to safe drinking water and sanitation services to rural communities at an affordable cost and in an environmentally sustainable manner. The proposed PforR Program focuses on certain critical areas within the NRDWP in Maharashtra: i) capacity building for planning and monitoring across the State, and ii) testing and demonstrating feasible methods of sustainable service delivery to peri-urban areas, and in water-stressed and water-quality affected areas in selected representative districts across Maharashtra, based on transparent, pre-defined, demand driven selection criteria. The Program will be implemented by the Water Supply and Sanitation Department (WSSD) of GoM.

2. The PforR Program is designed to focus on four Key Result Areas:

R1 - Strengthened planning and monitoring in the sector;

R2 - Improved capacity for program implementation and sustainability;

R3 - Improved access to quality and sustainable water and sanitation services in peri-urban areas;

R4 - Improved access to safe drinking water in water-stressed and water-quality affected areas.

3. The key Program supported activities are listed below:

a) Technical Assistance and Institutional Strengthening (software) extended to the whole of the state.

b) Physical Investments (hardware) including water supply and sullage management investments in peri-urban areas, scaling up of sustainable ground water management practices in critically exploited aquifers, improving water service in selected small villages through rehabilitation measures, water quality improvement measures and rain water harvesting measures. The Program will not include large scale regional schemes that are likely to present significant environment and social risks. But, there could be a possibility of including peri-urban villages from more than one Gram Panchayat, in a few cases, when it is technically and financially advantageous. The hardware activities are limited to select districts (at up to 12) in the state.

4. The key implementing agency, WSSD, is supported by Water Supply and Sanitation Support Organization (WSSO), which is the monitoring and support organization at the state level. Local Governments at the district level (Zilla Parishad) and village level (Gram Panchayat) are primarily responsible for planning, implementing and managing RWSS services, costing up to INR 50 million. At the sub-district level (Block), there is a Block-Resource Centre (BRC) created and staffed by WSSD already, to facilitate support and monitoring activities to the Gram

Panchayats. Maharashtra Jeevan Pradhikaran (MJP, state water board), is responsible for implementing large technically complex water supply schemes (costing more than INR 50 million) and waste water schemes. After completion, MJP hands over the schemes to GPs for operations and maintenance. The Groundwater Surveys and Development Agency (GSDA) is responsible for ground water monitoring and providing technical assistance to implementing agencies (MJP, ZPs, GPs) on groundwater conservation and protection measures. The Public Health Department (PHD) supports WSSD in water quality testing and surveillance through laboratories at district and block levels.

## **2. The ESSA Scope and Methodology**

5. An Environmental and Social Systems Assessment (ESSA) was undertaken by the Bank team for the Program as per the requirement of the Bank's Operational Policy/Bank Procedure (OP/BP) 9.00. The assessments were carried out through a comprehensive review of relevant government policies, legislations, institutional roles, program procedures and an analysis of the extent these are consistent with Bank's OP/ BP 9.00. Further, actions to address gaps to enhance risk mitigation were identified and detailed. The methodology of the ESSA included analysis of information/ data on GoM's RWSS programs, field reviews, and consultations with all key stakeholders. The public disclosure of the draft ESSA has been done prior to appraisal on the Bank's country website (InfoShop) and through the Public Information Centre (PIC). The Executive Summary of the ESSA has been disclosed in the native language (Marathi) on the WSSD website. After a two week comment period, the final ESSA will be disclosed again on the Bank's country website (InfoShop), the PIC and on the WSSD website.

## **3. Environmental System**

6. 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 safe water, enhanced availability of water, etc., due to investments in water supply systems, sullage management, groundwater management, water harvesting, etc. However, a few environmental risks could arise due to improper location, planning, execution and management of schemes, especially in hotspot areas. Hotspot areas are characterized by: extent of groundwater withdrawal (overexploited and critical groundwater status), poor groundwater quality, poor surface water quality, drought proneness and proximity to protected natural areas and monuments. The risks could be: source unsustainability, poor water quality, contamination from poorly designed/managed sullage management systems and specific water quality treatment units, impacts on natural and cultural heritage sites, occupational and public safety risks, dam safety in certain cases, and, water wastage.

### **3.1 Key Findings**

7. The key findings of the ESSA on the environmental system are:
- a) The state has well-defined legal/regulatory systems for safeguarding water resources and ecologically significant areas from pollution, for protection of groundwater sources from interference, for excluding activities that are likely to have significant adverse impacts on eco-sensitive areas, coastal areas and wetlands. However, the implementation of the existing provisions faces challenges (due to multiple regulations, overstretched regulatory

authorities, etc.). There is a well-defined procedure with respect to schemes that are to be located on forest lands (including protected areas) that involves seeking permission from the Forest Department. The procedure with respect to schemes in the proximity of sites with historical or archaeological value (protected monuments) is also clear and involves seeking permission from the Archaeological Survey of India. However, monitoring of the implementation of these procedures at the state level WSSD needs to be strengthened.

- b) The state's approach for enhancing source sustainability in scheme planning includes source selection based on technical assessment and community consultation, source strengthening through recharge measures, and, integration of elements for water conservation into scheme planning. There is a need for mainstreaming this approach of sustainability planning in all schemes. There is also a regulation for protection of groundwater sources from interference from other wells in vicinity.
- c) The state's systems for safeguarding drinking water quality includes certification of water quality for all new schemes by GSDA/District Public Health Laboratory (DPHL) for groundwater based schemes and by DPHL/SDL for surface water based schemes. The system of water quality monitoring includes periodic testing, surveillance and information management and there is a need to strengthen this system, especially for water quality hotspot areas.
- d) The state has experience of integrating rules and procedures for environmental management in single village RWS schemes – for example, in the Bank supported Jalswarajya I project (2003-2009). Strengthened environmental management rules and procedures have been developed by GoM to be rolled out through the Program (details on these are provided in the subsequent sections).
- e) The key sector organizations that are responsible for the environmental management aspects of the RWSS schemes are: MJP, GSDA, local governments, and the PHD. Addressing the environmental management needs in the Program, which mainly focuses on peri-urban villages, requires strengthening of the existing capacity of these key organizations.

### 3.2 Key Program Actions

8. The key actions agreed with the GoM to address the identified environmental risks and gaps, which are also referred to in the Program Agreement and Financing Agreement, are:

- a) *Exclusion of high-risk interventions*: The physical investments that are not to be supported under the Program are: Schemes that involve construction or rehabilitation of dams which are at  $\geq 10$  meters in height; Groundwater-based schemes in overexploited and critical watersheds that do not integrate source sustainability measures; and Schemes involving highly polluted surface water sources.
- b) *Strengthening the existing GoM system for environmental management*: The Program Action Plan focuses on strengthening the GoM's procedures and capacity for environmental management of the Program. This action is – 'Implement strengthened environmental management rules and procedures for the Program, supported by necessary capacity building measures to the sector institutions'. The following are the implementation modalities of this action:

### 3.3 Implementation of Program Actions

#### 3.3.1 Implement Strengthened Environmental Management Rules and Procedures for the Program

9. The WSSD has developed a manual describing strengthened procedures and providing technical guidance for environmental management of RWSS interventions (this has been included as part of the Program Operational Manual) for the Program. The key elements of the strengthened environmental rules and procedures are described below:

- a) Exclusion list of high-risk interventions from the Program
- b) A Compliance Checklist to ensure that activities that are not legally permissible are not undertaken and that requisite permissions are taken before any scheme/intervention is financed.
- c) Environmental Due Diligence Plan (EDDP), which is a systematic process of identifying potential impacts and mitigation plan for schemes/interventions that pose environmental risk by virtue of their location, scale or nature. The schemes identified as requiring an EDDP<sup>1</sup> include:
- d) Schemes/Interventions involving forest land, Eco Sensitive Zones, Coastal Regulation Zone, ecologically sensitive/important/notified wetlands, and, protected monuments.
- e) Water supply schemes in water scarcity and quality hot spots.
- f) Sullage management interventions in peri-urban areas.
- g) Schemes/Interventions that involve construction and/or rehabilitation of dams<sup>2</sup> that are 5-10 meters in height.
- h) Water supply schemes that involve laying or replacement of Asbestos-Cement pipes.
- i) Technical guidelines on good environment management practices concerning siting, design, operation, maintenance, etc., of schemes/interventions.
- j) Monitoring arrangements on environmental management that include internal and third-party monitoring of the environmental performance of the Program (with additional emphasis on the identified environmental hotspots) twice during the Program duration. The key indicators on environmental management to be tracked through the monitoring are:
- k) Indicator 1: Number of schemes/interventions for which EDDPs have been prepared and integrated into the detailed scheme reports/plans and contract documents as a percentage of schemes/interventions identified as requiring the same.
- l) Indicator 2: Percentage of schemes/interventions that are in compliance with the legal/regulatory requirements on environment.

10. The environmental laws and regulations of the government (GoI/GoM) will apply to the entire RWSS program of the GoM. The manual describes the strengthened procedures and the technical guidance for the RWSS interventions for the Program. The process of development of the manual includes a technical review and formal endorsement by the WSSD. The application of manual will start from the first year of the Program.

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<sup>1</sup> Rural Water Supply and Sanitation projects do not require prior environmental clearance from the Centre or the State as per the Environmental Impact Assessment Notification, 2006. The EDDP being proposed here is not an EIA.

<sup>2</sup> The EDDPs for Dams will include a screening process that will determine if a detailed environmental impact assessment is necessary.

### **3.3.2 Capacity Building of Sector Institutions and PRIs on Environmental Management**

11. Capacity building and technical assistance on environmental management through strengthening of human resources, and through training and IEC is part of the Program Action Plan that includes the following elements:

- a) *Human resources*: The human resources to be positioned in the key sector institutions starting from the first year of the Program are:
- b) Environment Management Specialists at the state level in Program Management Unit (PMU), MJP, GSDA<sup>3</sup>.
- c) Environment Management Specialists at the district level in MJP and GSDA.
- d) Positions to support sector-wide capacity building: Environment Management Resource Person at the state level in Maharashtra Environmental Engineering Training and Research Academy (MEETRA); Water Quality Specialist in WSSO.
- e) Training and IEC: As part of Technical Assistance and Institutional Capacity building, training programmes on environmental management rules and procedures, source sustainability, water quality monitoring & surveillance, and water treatment technologies will be organized for staff of the state technical institutions and PRIs. IEC activities will also be organized for the community on these aspects. The implementation will be on the basis of a detailed training/IEC calendar starting from the first year of the Program.

## **4. Social System**

12. The ESSA reveals that the social impact of the Program is likely to be positive – owing to benefits such as savings in time spent in water collection for women and girls, improved health and personal hygiene, effective information dissemination, enhanced community participation, creation of accountable arrangements for service delivery and social audits to promote good governance mechanisms. However, there are a few potential social risks such as: issues associated with selection of districts and Gram Panchayats, possible requirement of Land and its acquisition process, elite and male capture of community institutions, conflicts between VWSC and GP, higher tariffs making services burdensome, community contributions not forthcoming, weak participatory decision making, lack of transparency and poor conflict management.

### **4.1 Key Findings**

13. The key findings of the ESSA on social aspects are:

- a) The state follows an established legal system which includes assistance to affected people without legal rights, purchase of land through consent award, assistance for livelihood support, provision for grievance redressal, special powers to tribal communities, recognition of rights of forest dwellers, empowering communities to manage their RWSS affairs, subsidizing capital cost contribution for vulnerable groups, subsidies towards

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<sup>3</sup> Both MJP and GSDA are technical agencies with qualified civil engineers, environmental engineers, geologists etc. Some of the existing staff with appropriate qualifications (environmental engineering/hydrogeology) will be trained on adopting the strengthened environmental management rules and procedures described in the environmental manual and program manuals. This applies to the staff from MJP and GSDA working at state level and also district level.

cost of individual toilets, decentralized service delivery and safeguarding the interest of the vulnerable people.

- b) Land requirements are minimal as the schemes under the Program are mostly rehabilitation/ augmentation of existing schemes, with limited extensions to un-served areas. Land requirement for sullage management investments would be in the range of 1 to 2 hectare, largely depending on the size of scheme and technology. The legal/regulatory system and Policy in the state includes provisions for compensating for loss of assets at replacement cost and rehabilitation of adversely affected people. The state's approach to land procurement for RWSS schemes is: (i) first option is to use available public land under GP (ii) second option is that GPs buy required land at a negotiated price, and (iii) last option is to seek voluntary donation of land. Under the present Program, it is the responsibility of the GPs to provide land for the project and will follow the sequence of options mentioned above. Preferred method is to identify public land that is free from encumbrances. In case of private land, GPs will purchase the land at 'replacement cost'. For 'voluntary donation' of land, procedures developed will be followed. Land owned by vulnerable groups will not be considered.
- c) The national and state policies and laws offer an enabling environment for decentralised decision making. But, implementation remains weak as systems are not fully developed and implementing agencies lack capacity in terms of resources. For the Program, objective, transparent, pre-defined and demand driven criteria have been developed for selection of districts and GPs. To ensure community participation and inclusion of all sections of community for decentralized decision making preparation ward level plans and their collation at GP level is initiated, for the peri-urban areas. Gram Sabha (village assembly) ratifies all decisions after discussions at GP level. To ensure active women's participation at all levels, Mahila Gram Sabha (women assembly) discusses all scheme related activities and decisions and put them up to the Gram Sabha for approval.

#### 4.2 Key Program Actions

- 14. The key actions agreed with the GoM to address the identified social risks and gaps are:
  - a) Decentralized Planning: ZP/MJP will implement the schemes as per the plans ratified by Gram Sabha and in collaboration with the GP/VWSC. Support organisations will implement the software component. Post-Implementation, the schemes will be handed over to GPs, and an effective O&M arrangement will be developed, with the support from ZP/MJP. This will ensure adequate ownership at the village level and sustainable O&M.
  - b) Social Accountability: The existing Social Audit, a social accountability mechanism, will be strengthened under the Program and will be conducted by the Social Audit Committee. The social audit focuses on inclusion, participation, transparency and expenditure tracking and quality control through the sub-project scheme cycle as detailed out in Program Manual. The committee will continue to function through post-implementation period to audit the performance of O&M. The findings of the Committee will be shared in Gram Sabha and corrective measures will be taken to improve transparency.
  - c) Grievance Redressal: The existing system for grievance redressal provides opportunity to file complaints online through the e-Paani system. These complaints are then forwarded to respective Executive Engineers for necessary action. The process of e-paani system

will be strengthened by facilitating registration of claims through a Call centre. If complaints are not solved at the village level, it is proposed that the Block Resource Centre files it in e-pani and provides the citizen with a case number.

- d) *Demand Responsive Service Delivery and Vulnerables*: The legal/ regulatory system is robust to promote demand responsive service delivery, decentralized planning, projects implementation and social accountability. In addition, special provisions exist to safeguard the interest of the vulnerable and provision of subsidies to the Schedule Caste and Tribe for assets. Due to the weak capacity to implement, a comprehensive communication program is developed for dissemination of information which covers strategy, IEC material and community operational manual that details out step by step activities to be implemented, roles and responsibilities of all implementing partners.
- e) *Transparency and Accountability*: Strengthened transparency and accountability includes display of information of all activities including cost, at prominent and public places in the wards, form social audit committee that is representative of all wards and women, develop simple formats for reporting findings at planning, implementation and post-implementation. Grievance Redress system will be established and support provided for conflict management at village level. Capacity Building will include hiring staff and conducting training according to the annual plans. These are detailed in the Program Manual and Community Operational Manual.
- f) *Capacity Building*: Key institutions responsible for social management aspects under the Program are WSSO, MJP, ZPs and BRCs. They are to ensure that the decentralized decision making, transparency and accountability are institutionalized to enhance sustainability of schemes. Capacity of these institutions needs to be built to ensure this, on a long term. In the Program villages Support Agency (usually a local capacitated NGO) will be hired for training and capacity building of GPs/ VWSC/ Ward level Committees and Social audit committees, as required. Social Specialists are hired to work with the support agency and the Social specialist will coordinate training plan at block and GP level. Block Development Officer is overall responsible and is supported by Block Resource Centres (BRC). However, the support agency hired at the district level, will focus on strengthening the communication program through IEC on 'rules of engagement' to access the program by GPs. Support Agency will support the GPs/Ward/ VWSCs to enhance decentralised decision making process which is inclusive, creates an enabling environment to purchase land required on negotiated settlement, improves conflict management, and carries out social audit.

### **4.3 Implementation of Program Actions**

#### ***4.3.1 Implement Strengthened Social Management Rules and Procedures for the Program***

15. The overall risks associated with social aspects are low. The agreed actions to mitigate/ manage identified social risks are as follows:

- a) *The Program Manual* will include a section on social aspects to inform Program implementing organizations about key aspects of social aspects such as: social inclusion processes and procedures, roles and responsibilities of all stakeholders and sub-project cycle to facilitate planning, implementation and post implementation. This will be further detailed in Community Operations Manual prepared in local language, Marathi, to enable

the community understand these issues.

- b) *Establish systems to promote social accountability.* Social audit committees will be formed at GP level to audit plans to ensure that they are in compliance on inclusion, community consultations, land acquisition, if any, and services to vulnerable groups. At implementation stage, expenditure tracking to civil works will be undertaken. Finally at post-commissioning stage, the audit will be on service levels, maintenance and cost recovery.
- c) *Develop Grievances Redressal Mechanism* at GP level, for conflict management and operational guidelines to improve the conflict resolution and properly track and document all grievances.

#### **4.3.2 Capacity Building of Sector Institutions and PRIs on Social Management**

- 16. Develop capacity building plan for the Program which will entail;
  - a) *Strengthening communication program for dissemination of information.* The IEC program will be revised to prepare a comprehensive communication strategy and community operational manual (under preparation) to disseminate complete information about the program, implementation and post implementation to enable GPs to take informed decisions.
  - b) *Deepening decentralized decisions making process.* Support Organizations (SOs) will be hired to support GP/VWSC to facilitate implementation of community operational manual, mobilize and prepare plans at Ward level and consolidate at GP level. In addition, the SOs will further assist to ensure that free, prior, and informed consultation are organized for proposed investments in GPs that has dominant tribal communities. It is mandatory to have the Mahila Gram Sabha to review the GP plan to ensure that their needs are addressed before ratification by general Gram Sabha. The Gram Sabha will ratify/approve all decisions of the scheme after due discussions at GP level.
  - c) *Strengthening transparency.* In order to improve transparency and accountability of implementing organizations, a set of selection criteria for inclusion of Districts and GPs in the Program is developed. Display information of all activities including cost, at prominent and public places in the wards will be undertaken. All the planning including procurement, implementation and post-implementation (O&M and withdrawal) will be agreed upon with the VWSC and ratified by general Gram Sabha.
  - d) *Monitoring the progress on implementation* of strengthened social management rules and procedures for the Program including review of the land requirement and practice and procedure adopted to ensure availability of land.
  - e) *Social Development and Communication specialist* at state level with PMU to ensure that the social management procedures and processes are fully complied with for planned investments. In addition, a comprehensive training plan and modules will be developed for different implementing partners including GPs and strengthen capacity of MEETRA to provide training on social management as centre of excellence.

## **5. Conclusion**

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

## 1. Background

### 1.1 The Program

1. The Government of Maharashtra (GoM) has fully aligned its state rural water supply and sanitation (RWSS) programs with those of the Government of India's National Rural Drinking Water Program (NRDWP) for water supply, and Nirmal Bharat Abhiyan (NBA) for sanitation. The overall objective of GoM's RWSS program spanning over the next 10 years, based on the GoM's vision of Sujal Nirmal Maharashtra (SNM) - clean water, clean Maharashtra –, is to increase access to safe drinking water and sanitation services to rural communities at an affordable cost and in an environmentally sustainable manner.

2. Within this broad agenda, the GoM has agreed with the World Bank that the proposed PforR Program of the Bank should focus on certain critical areas of NRDWP in Maharashtra. The support under the Bank Program focuses on two areas of GoM's program: i) capacity building for planning, monitoring, implementation and promoting sustainability of sector interventions across the State and ii) testing and demonstrating feasible methods of sustainable service delivery to peri-urban areas, and in water-stressed and water-quality affected areas in selected representative districts<sup>4</sup> across Maharashtra, based on transparent, pre-defined, demand driven selection criteria. The Program will be implemented by the Water Supply and Sanitation Department (WSSD) of Maharashtra.

3. The Bank supported Program is designed to focus on four Key Result Areas as shown below.

- a) **Result Area 1:** Strengthened planning and monitoring in the sector;
- b) **Result Area 2:** Improved capacity for program implementation and sustainability;
- c) **Result Area 3:** Improved access to quality and sustainable water and sanitation services in peri-urban areas; and
- d) **Result Area 4:** Improved access to safe drinking water in water-stressed and water-quality affected areas.

4. **Program Boundaries:** The four results areas fully reflect the underlying challenges in the sector as per the findings of the technical assessment. GoM is looking forward to an across the sector performance improvement on institutional capacity building (results areas R1 and R2), by partnering with the Bank programmatically, given that this is the third intervention for the Bank in the sector over two decades of engagement<sup>5</sup>.

5. With respect to service delivery outcomes under the Program, the boundary of Bank's support is reflected in results areas R3 and R4, and is defined taking into account (i) additional support needed to address technical and implementation complexities; (ii) delivery practicality by limiting the geographical reach; and (iii) GoM's desire to leverage Bank expertise in tackling the institutional, technical, environmental, social and service delivery challenges posed by peri-urban areas; and in water quality affected and scarcity affected villages/habitations. The choice

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<sup>4</sup> There are six administrative regions in Maharashtra – and, at least two districts per region will qualify to be part of the Program.

<sup>5</sup> There were two Bank supported projects in Maharashtra in the sector earlier: Maharashtra Rural Water Supply and Environmental Sanitation Project (1991-98) and Jalswarajya I (2003-09).

of Program boundary in this regard is largely driven by the need to balance technical and implementation complexity with geographic reach, and the need to limit GoM's risk exposure under the PforR.

## **1.2. Program Development Objective**

6. Based on the above Program definition the Program Development Objective (PDO) for the World Bank assisted Program (which is called by GoM as Jalswarajya-II) would be:

The development objective for the Program (hereinafter referred to as the "Program Development Objective" or "PDO") is stated as follows: *to improve the performance of Maharashtra's sector institutions in planning, implementation and monitoring of its Rural Water Supply and Sanitation program and to improve access to quality and sustainable services in peri-urban villages, and in water-stressed and water quality-affected areas.*

## **1.3. Key Program activities and Boundaries of Program support**

7. The key Program supported activities are listed below:

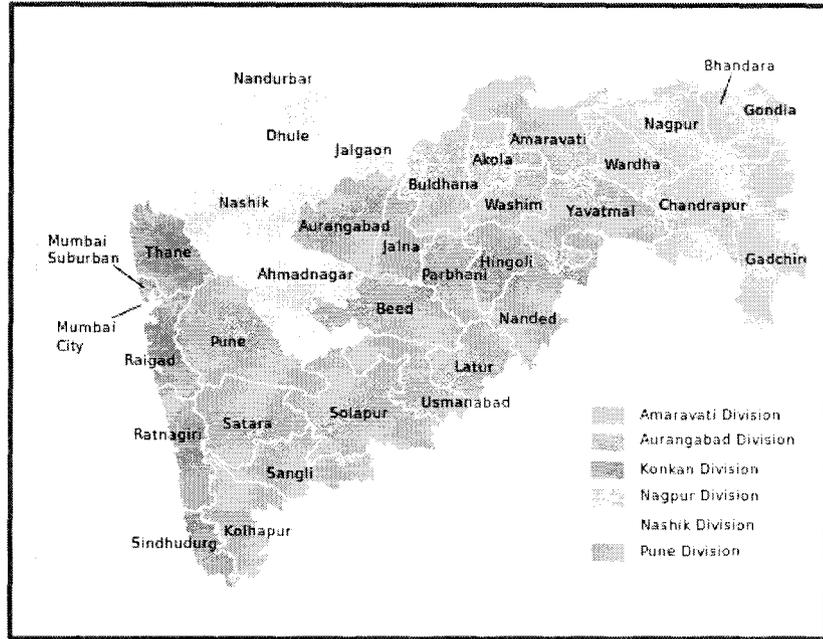
### Technical Assistance and Institutional Strengthening (software)

- a) A comprehensive state wide M&E system across the sector, covering key sector performance indicators, procurement and financial management information, project/scheme implementation, management and monitoring systems;
- b) Improved sector planning, consistent with the GoM's strategic priorities;
- c) Institutional strengthening of sector institutions at various levels (state, district and sub-district (block) levels), through additional human resources, skill building and developing and monitoring their streamlined operations;
- d) Strengthening of District Public Health Laboratories (DPHLs), Sub-division Laboratories (SLs) and MIS systems at state, district and sub-district levels, for undertaking water quality monitoring and surveillance as per Government of India (GoI)/GoM defined protocols, thereby enabling the sector institutions take effective preventive and control measures;
- e) Establishing and operationalizing the existing Maharashtra Environmental Engineering Training and Research Academy (MEETRA) as a premier training institute for the sector;
- f) Strengthening Groundwater Surveys and Development Agency's (GSDA) capacities for comprehensive monitoring of ground water quantity and quality to enable better sector intervention planning;
- g) Strengthening sustainable sanitation initiative by improving NBA program implementation across the State by strengthening institutional capacities within DWSSM cell at district level and BRCs to better support GPs and monitor implementation. Under the Program, NBA will be particularly prioritized in peri-urban areas where improved drinking water supply services are planned for better sanitation outcomes as well.
- h) Supporting the proposed strengthening of the Governance and Accountability systems planned by WSSD.
- i) Impact Assessment activity (on the lines done during the earlier Bank supported project, Jalswarajya-1), to assess impact of the Program and government program initiatives.

*Scope: With respect to the above software activities, the Program support is extended to whole of the state.*

Physical Investments (hardware)

a) Water Supply and Sullage Management investments in peri-urban areas, in selected representative districts in all six regions of the state (about 2 districts per region), based on pre-defined, transparent and demand driven selection criteria. This will help to demonstrate feasible ways of delivering sustainable and improved RWSS services in peri-urban areas, which is a key challenge faced by the state.



- b) Scaling up of community based sustainable ground water management practices in critically exploited aquifers of the state (falling in the selected districts under item (a) above); through the successful Aquifer Management Pilot initiatives taken up under the earlier Bank supported project (Jalswarajya-1). This will help build capacities for integration of planning for ground water management into water service improvement planning in the villages.
- c) Improving water service in selected small villages (in the selected districts under item (a) above), focusing on water quality and water scarcity issues; through rehabilitation measures, water quality improvement measures. Additionally, measures to address water scarcity in summer months, particularly in remote habitations, along with service improvements. . These are selected to demonstrate improved planning and monitoring of implementation processes in order to address the service improvement, water quality and water scarcity issues faced by these small villages and remote habitations, under the strengthened institutional arrangements and M&E framework to be established under the Program, which can then be scaled up by GoM after the Program.

*Scope: With respect to hardware activities, the Program support is limited to select districts (up to 12) represented in all the six administrative divisions of Maharashtra (see Map).*

*Note: Investments on Sanitation are undertaken by WSSD through the national program of NBA (which includes provision of sanitation access to households and institutions – schools and day care centres of children; promotion of Open Defecation Free status in the villages; improving overall sanitation in the villages), and through funding secured from National Bank for*

Agriculture and Rural Development (NABARD)). The Program will be supporting these state sanitation interventions through investments for sullage management in peri-urban areas, strengthening DWSM cell at district level and BRCs at block level for enhanced support to GPs, technical assistance, capacity building activities, and strengthening of Monitoring and Evaluation (M&E) systems.

#### **1.4 Purpose of the ESSA**

8. An Environmental and Social Systems Assessment (ESSA) was conducted by the Bank to assess the key implementing agency, i.e., Water Supply and Sanitation Department's (WSSD) authority and organizational capacity to achieve environmental and social objectives against the range of environmental and social impacts that may be associated with the Program. 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.

9. 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

10. The specific objectives of the ESSA are:

- 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, and
- e) to describe actions to fill the gaps that will input into the Program Action Plan (PAP) in order to strengthen the Program's performance with respect to the core principles of the PforR instrument.

### 1.5 Methodology of the ESSA

11. The methodology of the ESSA included analysis of information and data on the RWSS program of the GoM, legal and regulatory analysis, field reviews and field study to assess environmental and social conditions and institutional capacity, meetings with government agencies and consultations with stakeholders (informal and formal).

12. A multidisciplinary team of Bank staff and consultants with expertise in social development, institution development, environmental engineering, environmental and social safeguards was involved in the ESSA. The WSSD provided support to the ESSA by providing access to documents and data, by organizing the field visits and consultations, by undertaking the field survey on social aspects, and, by reviewing and providing feedback on the output documents<sup>6</sup>.

13. The various steps undertaken in the ESSA process were as follows:

- a) **Baseline Information Collection:** The analysis of information and data covered the environmental and social context of the state, the current status of its RWSS program, the experience of implementation of the previous Bank supported project (Jalswarajya I project) (through a review of aide memoirs, implementation completion report, relevant GoM publications, etc.), etc.
- b) **Field Reviews and Study:** Field reviews on environmental aspects were undertaken in 4 districts (Beed, Jalgaon, Kolhapur and Ratnagiri) in April-May 2012 and in 2 districts (Aurangabad and Jalna) in September 2012. The districts were selected on the basis of criteria that included presence of and peri-urban areas, source sustainability issues, water quality issues and proximity to natural heritage sites. A field study on social aspects was undertaken, covering 60 rural water supply schemes (including 21 Jalswarajya I schemes and 39 non-Jalswarajya schemes; including 10 tribal villages) from different regions of the state. This field study on social aspects was carried out during May-September 2012 in 30 districts (Beed, Ratnagiri, Sindhudurg, Nasik, Dhule, Nandurbar, Jalgaon, Ahmadnagar, Pune, Satara, Sangli, Solapur, Kolhapur, Jalna, Parbani, Hingoli, Nanded, Osmanbad, Latur, Buldhana, Akola, Washim, Amaravati, Yavatmal, Wardha, Bhandara, Gondia, Chandrapur and Gadchiroli). The districts were selected on the basis of criteria that included presence of tribal communities, water quality affected villages and drought affected regions. The field reviews included site visits and formal and

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<sup>6</sup> The output documents of the ESSA include: (a) a more detailed background document on the ESA that provides information and analysis on the environmental status and issues, the potential environmental impacts, and, the Program environmental management system (including the legal/regulatory framework, institutions and procedures) (b) a more detailed background document on the SSA that provides information and analysis on the social context and issues, a detailed stakeholder analysis, their expectations, potential social impacts, risk, and assumptions, various acts and regulations which govern social issues, present practices of the department in handling the social issues and management of identified social issues.

informal consultations with representatives of the Panchayati Raj Institutions<sup>7</sup> (PRIs) (Gram Panchayat (GP), Zilla Parishad (ZP)), community members (including women and tribal communities), relevant technical institutions (Maharashtra Jeevan Pradhikaran (MJP), Groundwater Surveys and Development Agency (GSDA), and non-governmental organizations (NGOs) / support organizations (SOs).

- c) **Consultations:** A formal state level consultation on the draft ESSA was organized on November 2, 2012, with a view to elicit inputs from the key stakeholders. A detailed report on this consultation is annexed to this report (Annex 1). Two regional consultations were conducted; one at Nagpur on 22 March 2013 and another at Nashik on 06 April 2013. Detailed reports of these consultations are also included in Annex 1. Feedback from the key stakeholders in the GoM has been instrumental in identifying the actions that serve as inputs into the Program Action Plan. This feedback was sought both through the formal consultation events as well as through meetings held during the Bank missions.
- d) **Public Disclosure:** The public disclosure of the draft ESSA has been done prior to appraisal on the Bank's country website (InfoShop) and through the Public Information Centre). The Executive Summary of the ESSA has been disclosed in the native language (Marathi) on the WSSD website. After a two week comment period, the final ESSA will be disclosed again on the Bank's country website (InfoShop), the PIC and on the WSSD website.
- e) **Analysis:** 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 (section 2), the potential environmental and social benefits, risks/impacts of the Program (section 3), the existing environmental and social management systems used in the sector (section 4), assessment of the adequacy of the existing systems and identification of gaps (section 5). Based on this analysis, actions to address the identified risks and gaps are identified (section 6).

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<sup>7</sup> PRI is the decentralized form of governance in India, where at the districts, the governance unit is called Zilla Parishad and at the village level it is called Gram Panchayat

## 2. Details on Program Activities, Institutions and their Experience

1. The general description of the Program is given in Section 1 above and more details are in the Project Appraisal Document. Salient extracts are provided below, to enhance the understanding of the ESSA.

### 2.1 Details of physical investments

2. The details of physical investments being supported under the Program are given below:

3. ***Water Supply and Sullage Management investments in peri-urban areas:*** This will include demonstration of higher services (which may include 24/7 water supply), 100% house connections and meters, etc. These interventions are likely to include the following measures (depending on site-specific requirements): augmentation of existing facilities including source strengthening and sustainability measures, development of additional source, construction of storage tanks, construction of water treatment plant, additional pipelines, etc. The intervention may include more than one Gram Panchayat that has common source. The sullage management intervention will include collection, treatment and safe disposal of sullage (this activity does not include sewerage). This intervention is likely to include pipe carriage (Washim Model) and the treatment will involve low cost, decentralized treatment system such as DWATS with final disposal by irrigation.

4. ***Scaling-up Community based Aquifer Water Management initiatives:*** In order to enhance ground water sustainability, the Program will include support for aquifer management. This will build on the earlier successful experience of WSSD in implementation of pilots on Aquifer Management under the Jalswarajya I and the other Bank supported Maharashtra Water Sector Improvement project (in the Irrigation Sector, which is ongoing). The pilots demonstrated a community centered aquifer management initiatives, wherein community institutions were provided technical support to develop Ground Water Management Action Plans that included both supply-side (water harvesting and conservation structures) and demand-side management (water conservation practices) interventions for improving the sustainability of ground water in the aquifer.

5. ***Service Improvements water stressed and quality affected villages:*** Addressing water quality in quality affected regions and addressing water scarcity in remote habitations (those located on hilly terrain), particularly in summer months, are the other key challenges identified under the Technical Assessment. The main water quality problems in Maharashtra are bacteriological contamination and chemical contamination. The number of talukas<sup>8</sup> with more than permissible levels of chemical parameters are: 87 talukas for Nitrate, 29 talukas for Total Hardness, 7 talukas for Fluoride, 6 talukas for TDS and 2 talukas for pH. The challenge is to identify appropriate technically and economically feasible intervention in the water quality affected villages, along with appropriate community intervention, implementation and O&M options. The priority interventions will include dilution through recharge measures, differentiated water usage and, if needed, water treatment. The state also has hilly regions: Sahyadri mountain range on the West, Satpuda hills in the North and Bhamragad-Chiroli-Gaikhuri ranges on the

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<sup>8</sup> Districts are divided into talukas

East. Habitations living in these hilly regions face water scarcity problems, particularly during summer months, due to low water retention potential in the hills, despite good rainfall. The challenge here is to promote appropriate rain water harvesting interventions, involving community, to augment water quantity available for consumption during lean periods. The Program will demonstrate appropriate models in select villages, in the select districts under the Program. The interventions will include storage systems for spring water, rainwater, or, if needed bore/dug wells for use during scarcity periods. The amount of potable water supplied in these villages is defined by GoM norms, which currently stand at 10 LPCD in quality affected villages and 20 LPCD in water stressed villages.

## **2.2 Key Implementing Agencies and Partners**

6. This section provides a snapshot of key implementing agencies involved in the Program. Table-1 in the next page indicates their roles. For specific details, see Section 4.2 below.

7. At the state level, the Water Supply and Sanitation Department (WSSD) of GoM is responsible for both urban and rural water supply and sanitation in the state. This department is the main implementing agency for the Program. Its work is overseen by the State Water and Sanitation Mission (SWSM).

8. WSSD is supported by Water Supply and Sanitation Support Organization (WSSO). This is the technical, monitoring and support organization at the state level, within WSSD.

9. Panchayati Raj Institutions (PRIs) at the district, block (sub-district), and village level (PRIs are outside WSSD, but WSSD has its units in the PRIs at district and block levels, see Table-1) are primarily responsible for planning, implementing and managing RWSS services. Provision of water supply and sanitation is one of their obligatory functions. At the district level, they are called Zilla Parishads (ZPs); at the sub-district level, they are called Blocks; and at the village level, they are called Gram Panchayats (GPs).

10. The Maharashtra Jeevan Pradhikaran (MJP) (state water board) is responsible for implementing large technically complex water supply and waste water schemes. MJP designs and executes all regional water supply schemes and individual village water supply schemes costing more than Rs. 50 million (approx. US\$ 1 million) and the PRIs are responsible for maintenance of such schemes.

11. The Groundwater Surveys and Development Agency (GSDA) is responsible for ground water monitoring and providing technical assistance to implementing agencies (MJP, ZPs, GPs) on groundwater conservation and protection measures.

12. The Public Health Department (PHD) supports WSSD in water quality testing and surveillance through its laboratories at district and sub-district levels.

### 2.2.1. Institutional Framework and Program Implementation

13. The Program implementation is fully embedded within the existing institutional framework of the sector institutions under WSSD, as indicated in Table 1 below, with only limited additions (shown in italics) created within the existing structure, for better monitoring of the Program:

**Table 1 – Institutional Arrangements for Program Implementation**

Level	Through	Responsibility
State	State Water Supply and Sanitation Mission (SWSM)	Overall Program and Policy strategic direction and approval
State	Principal Secretary, WSSD (lead entity for Program delivery)	Overall Program oversight
	Deputy, Secretary and Program Director	Program direction and implementation monitoring
	Program Management Unit	Day to day Program monitoring and coordination between various agencies; Jointly lead with WSSO activities related to capacity building, M&E systems development and sector institutions strengthening Coordinate with Bank Program team and report to Bank
	Water Supply and Sanitation Organization (WSSO)	Overall lead on institutional capacity building activities, technical assistance activities, communication and sector monitoring
	Special Monitoring Cell at Maharashtra Jeevan Pradhikaran (MJP)	Monitor water supply interventions in villages and peri-urban areas activities; Implementation and monitoring of institutional capacity building activities in Maharashtra Environmental Engineering Training and Research Academy (MEETRA) Report and coordinate with PMU for all Program activities;
	Special Monitoring Cell at Ground Water Surveys and Development Agency (GSDA)	Monitoring of Aquifer Management Pilots and GSDA institutional capacity building activities Report and coordinate with PMU for all Program activities
	Special Monitoring Cell at Public Health Department (PHD)	Monitoring of institutional capacity building activities for Public Health Laboratories Report and coordinate with PMU for all Program activities
	Technical Cell	Verify and check the technical aspects of designs and DPRs prepared by MJP and ZPs. They will also review other complex technical designs referred to them by WSSD from time to time.
	State Level Program Coordination Committee	Coordinate plans and activities of the above agencies. Headed by Principal Secretary, WSSD.
Region	Regional Coordination and Monitoring Units (RCMUs)	Coordinate and monitor activities of the sector and Program within the districts in the region

Level	Through	Responsibility
		Resolve any problems faced by Districts in coordination with Regional Commissioner, WSSD and other organizations as necessary.
District	Rural Water Supply (RWS) division and District Water and Sanitation Mission (DWSM) Cell within the Zilla Parishad (ZP) administration	Implementation and adoption of M&E systems, Receive technical assistance in district-level planning, implementation and monitoring Coordinate with MJP and GSDA for Program activities in selected habitations and peri-urban areas Implement and monitor Community Safe Water Schemes (water quality and rain water harvesting interventions) Undertake communication activities, social mobilization and capacity building of Village Water Supply and Sanitation Committee (VWSCs) in coordination with MJP and GSDA Select and appoint a suitable Support Organization (SO) for undertaking community mobilization, communication and capacity building activities in peri-urban GPs,
	MJP District offices	Implement water supply and sullage interventions in peri-urban areas in coordination with DWSM cell, GSDA and others
	GSDA district offices	Implement scaling up of Aquifer Management activities in coordination with DWSM cell, RWS unit and GPs
	District Public Health Labs (DPHL)	Implementation of district lab strengthening activities
	District level Program Coordination Committee	Coordinate plans and activities of the above organizations at district level. Headed by Chief Executive Officer of ZP.
Block	Block Resource Centres (BRCs)	Receive technical Assistance, training Provide support to the GPs and habitation for rain water harvesting structures.
Village	Gram Panchayats (GPs)	Responsible for overall WSS service delivery, through sub-committees that has representation of ward members to facilitate ward level plans, implementation and O&M
	Gram Sabha (village assembly)	Discuss and approve all investment decisions, plans and user fees.
	Village Water Supply and Sanitation Committee (VWSC)	A sub-committee of GP to develop schemes in consultation with community, execute them and take care of O&M
	Social Audit Committee (SAC)	Another sub-committee of GP to oversee inclusion, participation and transparency in scheme's plans, execution and service delivery and also check quality of works and expenditure.

14. 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 state.

### **2.3 Description of Borrower's Past Experience in the Sector**

15. In Maharashtra, the Ministry of Water Supply and Sanitation along with the Department of Water Supply and Sanitation was created in 1996 to exclusively concentrate on access to these essential services in both urban and rural areas. At present, about 50 percent of rural households have piped water (either within premises or a public stand post) as against the national average of 31 per cent and close to half of the rural households (56 percent) practice open defecation, as against the national average of 67 percent. Maharashtra is a leading state in the country in adopting sector reforms that promote decentralization of the sector management with strong elements of community participation. The state faces sector challenges in the form of moving from coverage to service delivery, addressing needs of large and peri-urban villages, managing drinking water quality, eliminating the practice of open defecation, managing liquid waste and solid waste in larger villages and sustaining groundwater for ensuring water security.

16. The GoM's past experience in the RWSS sector with Bank partnership involves two projects: (i) Maharashtra Rural Water Supply and Environmental Sanitation Project (MRWSES) implemented during the period 1991-98; and (ii) Jalswarajya I, implemented during the period 2003-09 in 26 of the 33 districts. In addition, the GoM has implemented the Aple Pani project on RWSS with support from KfW during 2004 to 2011 in two phases. In the RWSS sector, the state currently manages two main programs of Government of India – National Rural Drinking Water Program (NRDWP) for water, and Nirmal Bharat Abhiyan (NBA) for sanitation; receiving on an average about US\$ 355 million per annum.

### **3. Potential Environmental and Social Benefits, Risks and Impacts of the Program**

1. This section presents the environmental and social benefits, risks and impacts of the Program. The risks have been identified using the Environmental and Social Risk Screening Worksheet and cover the likely environmental and social effects, the environmental and social context, the Program strategy and sustainability, the institutional complexity and capacity, and the reputational and political risk (for details see Annex 2).

#### **3.1 Environmental Benefits, Risks and Impacts**

2. The risk screening (please see ‘Assessment’ in Annex 2) suggests that the overall environmental impact of the Program is likely to be positive – owing to benefits such as improved access to safe water, enhanced availability of water, better sanitation, etc., due to investments in water supply systems, groundwater management, water harvesting, etc. However there are risks of potential adverse effects emerging due to improper location, planning, execution and management of schemes. These are generally well known and typical of RWSS investments. The environmental risks identified through ESSA pertaining to the proposed Program activities are:

- a) Source unsustainability especially in areas with overexploited or critical groundwater status;
- b) Poor quality of ground and surface water sources in certain areas;
- c) Contamination from poorly designed/managed specific water quality treatment units;
- d) Contamination from poorly designed/managed sullage management units;
- e) Impacts on natural heritage sites (protected forests, Coastal Regulation Zone, etc.) and cultural heritage sites (archaeological monuments) located in proximity of water supply and sanitation structures;
- f) Occupational and public safety risks (safety gear for workers, Asbestos-Cement pipes, uncovered open wells, etc.);
- g) Dam safety in cases where water source development involves construction/rehabilitation of large<sup>9</sup> dams; and
- h) Water wastage from poorly designed/maintained water supply facilities.

3. The hotspots for environmental management are 10 talukas having overexploited and critical groundwater status, 7 talukas having poor groundwater quality, and, 30 river sites with poor surface water quality. Also of significance are 90 talukas that are chronically drought prone and areas in proximity of protected natural areas and monuments. A detailed list of these hotspots is provided in Annex 3.

4. The identified environmental risks are typical of RWSS investments, they are manageable, and can be mitigated through strengthening implementation of existing legal/regulatory provisions and Program procedures, sound technical design and engineering practice, supported by enhanced capacity (further details on this are provided in sections 6 and Annex 2). The state has experience and expertise in these areas that can be leveraged and built upon (further details on this are provided in section 4.3).

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<sup>9</sup> Large dams are 15 meters or more in height. Dams that are between 10 and 15 meters in height are treated as large dams if they present special design complexities.

5. In addition, certain activities that could potentially cause significant adverse environmental impacts have been excluded from the Program (further details on this are provided in section 6). The Program will not include large scale regional schemes that are likely to present significant environment and social risks. But, there could be a possibility of including peri-urban villages from more than one Gram Panchayat, in a few cases, when it is technically and financially advantageous.

### **3.2 Social Benefits, Risks and Impacts**

6. The findings of the ESSA suggest that the overall social impact of the Program is likely to be positive – owing to benefits such as savings in time spent in water collection for women and girls, improved health and personal hygiene, effective information dissemination, enhanced community participation, creation of accountable arrangements for service delivery, and social audits to promote good governance mechanisms. The social risks pertaining to the proposed program activities identified through the ESSA are:

- a) Selection of districts and Gram Panchayats can be politicized;
- b) Land may be required for the various physical investments. Under the Program, the existing water infrastructure will be rehabilitated and/or augmented; hence the land requirement will be minimal. Land requirement for sullage management investments may be in the range of 1 to 2 hectares, depending on the size of the scheme and type of technology used. The WSSD and MJP are for decentralized, low-cost, minimal operation and maintenance and community managed sullage treatment technologies which require considerably small land parcels. The exact land requirement will depend on nature of investment and type of technology used and can be worked out only after identification of schemes;
- c) The community stakeholders perceive the risk of elite and male capture of institutions such as the Village Water and Sanitation Committee (VWSC) and GP, the risk of the VWSC side-lining the GP, higher tariffs making services burdensome for the poor and vulnerable and making community contributions a challenge; and
- d) The community stakeholders perceive weak participatory decision making, lack of transparency and accountability and poor conflict management.

7. The risks associated can be mitigated through capacity building of implementing partners to enhance inclusion, participation, and strengthening mechanisms on accountability and grievance redress (see section 6 and Annex 2 for details).

#### **4. Description of the Program Environmental and Social Management System**

1. This section describes the existing environmental and social management system of the state's RWSS. It first provides an overview of the policy and legal framework (section 4.1). This is followed by a profile of the key institutions in the RWSS and their role with respect to management of environmental and social aspects of RWSS (section 4.2). Details of the state's environment and social management procedures for RWSS are then provided (section 4.3). Finally, drawing upon all of this information, the consistency of the Program system with the six core principles of OP 9.00 is analysed (section 4.4).

##### **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 GoM's the policy and regulatory framework for the environmental and social aspects of RWSS sector.

##### **4.1.1 Environmental Policy and Legal Framework**

3. Maharashtra is a leading state in India in terms of creating state level policies and legal instruments to manage the overall environment, particularly the water resources (surface water and ground water) in conjunction with the national policy and legal frameworks. The legal/regulatory framework for the Program includes the following environmental policies and acts:

##### ***National***

- a) *The National Water Policy (draft, 2012)*: Some of the key features of this policy update of the earlier National Water Policy 2003 are: integrated management of water quality and quantity consistent with broader environmental management approaches; improved water supply and sewerage facilities in rural areas; piped surface water to rural areas with endemic groundwater quality problems; due regard to environmental hazards of sludge disposal for treatment systems; framing a National Legal Framework for water.
- b) *The Water (Prevention and Control of Pollution) Act, 1974*: The main purpose of this act is to enable prevention and control of pollution of water and the maintaining or restoring of wholesomeness of water, through establishment and empowerment of Boards, at National and State levels.
- c) *The Forest Conservation Act, 1980*: As per the provisions of this Act, prior approval of the Central Government is required for use of any forest land for any non-forest purpose. If a project involves forest as well as non-forest land, work should not be started on non-forest land till approval of the Central Government for release of forest land has been given. Activities involving clearing of forest areas for laying of pipe lines, use of water bodies within the declared forest areas, etc., require clear approvals from the Forest Department.
- d) *The Scheduled Tribes and Other Traditional Forest Dwellers (Recognition of Forest Rights) Act, 2006*: This Act provides for diversion of forest land for certain facilities managed by the Government – including drinking water supply and water pipelines,

tanks and other minor water bodies, water or rain water harvesting structures – which involve felling of trees not exceeding seventy-five trees per hectare, provided that the forest land to be diverted is less than one hectare and is recommended by the Gram Sabha. The procedure for seeking prior approval for such diversion of forest land is defined.

- e) *The Environment (Protection) Act, 1986*: This Act has enabled the formulation of several regulations on environmental conservation. These include the following:
- f) Environmental Impact Assessment Notification, 2006: Rural water supply and sanitation projects do not feature in the specified projects/activities that require prior environmental clearance from the Centre or the State as per this notification.
- g) Regulations concerning Eco Sensitive Zones: In these zones, the following apply: Discharge of untreated effluents is prohibited, local authorities are required to segregate and manage solid wastes, burning or incineration of solid wastes is prohibited, steps to prevent contamination or pollution of water are to be taken.
- h) Coastal Regulation Zone (CRZ) Notification, 2011: The activities prohibited in the CRZ include discharging of untreated waste water and sewerage. The activities regulated in the CRZ include drawal of groundwater, discharge of treated effluents, storm water drains, discharge of solid wastes, sewage, etc. The activities permitted in the coastal zone in rural areas include construction of community toilets, provision of facilities for water supply, drainage, sewerage.

#### **State**

- a) *Maharashtra State Water Policy, 2003*: The key features of this policy include: according first priority for domestic water use; development of rules and regulations for water audits, quality management and groundwater management; recognizing the role of communities in managing water and sanitation services.
- b) *Maharashtra Groundwater (Development and Management) Act, 2009*: This Act provides for notification of areas that need to be regulated for groundwater extraction by the Groundwater Authority (Maharashtra Water Resources Regulatory Authority); establishment of district and watershed level committees for preparation and implementation of plans for watershed development and management including aquifer recharge; measures to protect drinking water quality; regulation on pumping water from more than 60 metres in notified areas.
- c) *Maharashtra Zilla Parishads and Panchayat Samities Act, 1961*: The Act empowers the Zilla Parishads to undertake necessary planning and actions to ensure safe and adequate water supply and sanitation facilities to rural citizens. The Act also delegates powers and duties to the ZP with regard to: sources of water supply; setting apart public springs, tanks, wells, etc. for purposes to promote health, cleanliness, comfort, convenience; enclosing of places for disposal of dead that become injurious to health; and, notifying places for washing and disinfecting articles exposed to infection.
- d) *Mumbai/ Bombay Village Panchayat Act, 1958*: As per this Act the responsibility for managing water supply and sanitation services is given to the Gram Panchayats. The Act specifies the constitution of a development committee for managing the water supply and sanitation activities. This committee is currently called as the Village Health, Nutrition, Water Supply and Sanitation Committee (VHNWSSC – referred to as VWSC in this document) and has the responsibility for planning, implementation and maintenance of water supply schemes including source strengthening and water conservation works.

4. Thus, the state has well-defined legal/regulatory systems for safeguarding water resources and ecologically significant areas from pollution, for protection of groundwater sources from interference, for protection of natural and cultural heritage sites, and for excluding activities that are likely to have significant adverse impacts on eco-sensitive areas, coastal areas and wetlands.

#### **4.1.2 Social Policy and Legal Framework**

5. The legal/regulatory framework for the Program includes the following social policies and acts that are relevant to an extent to the Program:

##### ***National***

- a) *National Policy on Resettlement and Rehabilitation for Project Affected Families, 2007*: The provisions of this policy include mandatory social impact assessment for projects involving displacement (of 400 or more families in plain areas and 200 or more families in tribal or hilly areas), consultations with affected people and disclosure at various stages of resettlement planning, assistance to affected people without legal rights (landless agricultural workers, forest dwellers, tenants, artisans), purchase of land through consent award, compensation of land in lieu of land acquired, assistance for livelihood support, and provision for grievance redressal.
- b) *Land Acquisition Act, 1984*: This Act governs the acquisition of land for any public purpose. Expropriation of and compensation for land, houses and other immovable assets are carried out under the Act. The procedures set out include notification, enquiry and award, and, possession. The Act does not contain any provision for resettlement including income restoration. It does not allow for compensation (except for houses) for landless labourers, artisans and those sharing the use of land but not having legal rights to it and for loss of common property resources. The method of valuation of land considers only the market price of land at the date of notification but ignores any increase in the value of land at a subsequent date.
- c) *Panchayat Extension to Scheduled Areas (PESA) Act, 1996*: The 73rd and 74th Constitutional Amendments of 1992, according special powers to PRIs, were later extended, with separate provisions to the Scheduled Areas as well through the Panchayat (Extension to the Scheduled Areas) Act of 1996.
- d) *The Scheduled Tribes and Other Traditional Forest Dwellers (Recognition of Forest Rights) Act, 2006*: This is an act to recognize and vest the forest rights and occupation in forest land in forest dwelling scheduled tribes and other traditional forest dwellers who have been residing in such forests for generations but whose rights could not be recorded. It provides for a framework for recording the forest rights so vested and the nature of evidence required for such recognition and vesting.

##### ***State***

- a) *Maharashtra Project Affected Persons Rehabilitation Act, 1999*: This act deals with provisions and procedures related to rehabilitation and resettlement of project affected persons. It applies to all irrigation projects, of which the area of the affected zone exceeds 50 hectares, or the area of the benefited zone exceeds 200 hectares or a Gaothan (village

habitation) is affected. The Government may also apply it to other projects in the public interest.

- b) *Maharashtra Panchayat Act (Amendment) 1996*: Empower the communities to manage their WSS affairs. It is imperative to devolve responsibility for service delivery to the Panchayati Raj Institutions as per the 73rd Constitutional Amendment. Devolution involves transferring the '3 Fs'- functions, functionaries and finances- to the PRIs. This includes the amendment to the Bombay Village Panchayat Act -- to make VWSCs a sub-committee of GPs, empowering the Gram Sabha (village assembly) to nominate members to committees that look after RWSS services in the village. The purpose is to empower the rural communities, especially the poor and the vulnerable; to identify, plan and manage water and sanitation resources and assets so as to facilitate better access to 'adequate/appropriate standards' of service delivery in a sustainable, equitable and just manner.
- c) *Maharashtra Government Orders to subsidies capital cost contribution by vulnerable groups and cost of individual toilets to ensure access to benefits*. These include - assistance for individual water connection and individual toilet through ZPs & GPs; INR 4000 for water connection & INR 11000 for toilets; 5 percent Public Contribution – three cash and 2 percent kind; group connections with water meters in case of non-availability of space for individual connections; public toilets if individual toilets are not feasible; rainwater harvesting arrangements in Public Toilets; and Solar lamps for public toilets etc.

6. Thus, the state provides an enabling policy and legal framework to promote decentralized service delivery, and safeguard the interest of the vulnerable. Special provisions exist to ensure that the Scheduled Caste and Scheduled Tribe communities receive targeted support and are not excluded. The Program supports the goal of GoM and is designed in a manner to enhance decentralization, promoting participation, inclusion, transparency and accountability. The provisions of some of these acts have limited relevance in context of the Program as land will not be acquired and no one will lose livelihood and/or face displacement.

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#### 4.2 Key Institutional Responsibilities as relates to Environmental and Social Systems

7. The following Table 2 gives details about the roles of key institutions in managing the Environmental and Social aspects under the Program.

**Table 2 – Key Institutions and Role in Management of Environmental and Social Aspects under the Program**

<b>Institution</b>	<b>Role in RWSS</b>	<b>Role in Environmental Management under the Program</b>	<b>Role in Management of Social Aspects under the Program</b>
Water and Sanitation Support Organization (WSSO) at the state level,  Program Management Unit (PMU)	WSSO's role includes: Liaise and co-ordinate with WSSD, MJP, GSDA and ZPs for NRDWP, NBA and Program Assist in development of Water Security Plans for ZPs and VWSCs; implementation, operation and maintenance of water supply schemes based on such plans Undertake communications and capacity building activities across the state Monitor and review progress of NRDWP, NBA and Program Develop and implement state wide mapping and performance monitoring systems Undertake evaluations, impact assessment, research and development and support WSSD in refining program approaches and/or policies and programmes	The Program Management Unit (PMU), working with WSSO, will support and monitor activities related to source sustainability, water quality management, and adoption of environmental management rules and procedures for the Program. WSSO will also undertake research and development activities on issues related to water quality, water treatment, sullage treatment, etc., in coordination with reputed technical agencies, for which required technical assistance will be provided.	The PMU, working with WSSO will monitor implementation of the guidelines for GP selection, land procurement, community management of water and sanitation infrastructure. WSSO will also lead communication and capacity building across the state and support ZPs for local actions. WSSO will guide the implementing agencies in adoption of Social Management Rules and Procedures and monitor the same.
Maharashtra Jeevan Pradhikaran (MJP)	MJP's activities include: Prepare, execute, promote technically large/complex water supply and sewerage/sanitation schemes; Draft State Plans for water supply and sewerage; Establish state standards for water supply and sewerage services; Operate, run and maintain any water works and sewerage/sanitation system as directed by the State Government; Assess the requirement of manpower and training in relation to water supply and sewerage services in the state. MJP is involved in design and execution of rural	MJP's district units will implement the water supply and sullage management schemes in peri-urban areas. In doing so, they are responsible for ensuring sustainable water service that meets prescribed quality standards, through technically optimal planning and implementation of large/technically complex water supply schemes and on-demand O&M of them on behalf of GPs/ZPs.	Provides technical support to GPs, creates awareness on technical aspects among communities. Support Organisations hired by DWSM will provide software support to GPs/VWSCs, Blocks/ZPs; ensures synergetic management of community intervention and technical aspects during planning, implementation and O&M; extends support in technical areas related to Operation and

<b>Institution</b>	<b>Role in RWSS</b>	<b>Role in Environmental Management under the Program</b>	<b>Role in Management of Social Aspects under the Program</b>
	single village water supply schemes on requests from concerned Zilla Parishad/Gram Panchayats and/or when the rural scheme cost is equivalent or above Rs. 50 million (approx. US\$ 1 million). It is responsible for design and execution of all regional rural water supply schemes.	MJP is also responsible for ensuring compliance of its schemes with the applicable laws and regulations. MJP's state level cell is responsible for monitoring of Program implementation, working with its district units. This cell also monitors and ensures capacity building of MJP and staff of GPs/Blocks/ZPs on technical and managerial aspects of water supply.	Maintenance; ensure smooth handing over of schemes to the community after implementation for O&M; capacity building of GPs/ VWSC/ZPs in these areas.
Groundwater Surveys and Development Agency (GSDA)	GSDA's activities include ground water assessment (every 3 years) including monitoring quantity and quality and trends through a system of observation wells. Certification of drinking water sources, undertaking scarcity mitigation and source sustainability measures, GSDA also undertakes research and development of innovative technologies and approaches for extracting and conserving groundwater.	GSDA compiles information on groundwater resources through periodic groundwater assessments. It facilitates source sustainability through providing technical support to implementing agencies (GP, ZP, MJP) on source selection and water harvesting /recharge /source strengthening measures. GSDA is responsible for monitoring ground water quality trends. It also undertakes need based R&D on conventional and non-conventional techniques of water harvesting and artificial recharge, community based water resources management at aquifer level, etc.	Informs the communities, i.e., GPs/ VWSCs, in collaboration with Support Organisations about the water quality of the sources and creates awareness about water budgeting. Provides technical support and in collaboration with BRC members build awareness in maintaining the water harvesting and recharge structures. Creates awareness on community based water resources management at aquifer level and advises community (GP/ VSWC) on managing the groundwater resources. Provides advice on groundwater quality enhancement measures to community. Helps the community implement ground water recharge measures and for water budgeting, as part of overall aquifer water management.
Zilla Parishad	The ZP's key responsibilities are: Planning, management and monitoring of rural water	Under the Program, ZPs are mainly responsible for implementing the	ZPs are responsible for ensuring compliance with legislation, policies

Institution	Role in RWSS	Role in Environmental Management under the Program	Role in Management of Social Aspects under the Program
	<p>supply (of value up to Rs. 50 million), source security and sanitation programs in the district; Scrutiny and approval of proposals received from GPs; Community mobilisation, communications project management, capacity building activities in the district; Convergence and collaborations with other programs such as health, education, forest, agriculture, etc.; Liaise and co-ordinate with WSSD, State Government; implement relatively less technical intensive and smaller schemes (individual piped water supply and multi-village scheme costing up to Rs. 50 million). ZP also undertakes water supply coverage assessments in villages and leads the development of annual plan in the district in collaboration with GSDA and MJP.</p> <p>At the district level the committee headed by the ZP CEO coordinates all activities of the sector (ZP, CEO may delegate some powers to the Additional CEO of the district as per district specific requirements).</p> <p>The powers and duties of the ZP's CEO<sup>10</sup> include:</p> <p>Directing entities having control over water supply sources to ensure that they are protected from pollution, and, that sources unfit for drinking are not used.</p> <p>Setting apart public springs, tanks, wells, etc., for domestic water use.</p> <p>Directing owners of any stagnant/foul water bodies/channels to cleanse/fill up/drain/remove the same.</p>	<p>single village schemes in water quality affected and water scarce villages / habitations. ZPs are responsible for ensuring sustainable supply of water that meets prescribed quality standards.</p> <p>ZP is also responsible for planning, management and monitoring of source security and benefit from the capacity building programs on sanitation in the district.</p> <p>ZPs will also undertake capacity building and IEC.</p> <p>The ZP will also facilitate convergence between programs on forest, agriculture, employment guarantee, watershed development, etc., with RWSS as relevant.</p> <p>ZP is also responsible for ensuring compliance of its schemes with the applicable laws and regulations.</p>	<p>and regulations. ZPs play a major role in the Grievance and complaint redressal mechanism as an agency at district level in addressing the grievances and complaints. ZPs facilitate deepening of decentralised service delivery and ensure that the GPs get the required technical support during planning, implementation and Operation and Maintenance of the infrastructure created.</p>

<sup>10</sup>The Maharashtra Zilla Parishads and Panchayat Samitis Act, 1961.

Institution	Role in RWSS	Role in Environmental Management under the Program	Role in Management of Social Aspects under the Program
Gram Panchayat	Gram Panchayat has the primary responsibility for planning, implementation and maintenance of water supply schemes including source strengthening and water conservation works. In delivery of this responsibility, GP may delegate its responsibility to Village Water Supply and Sanitation Committee (VWSC), a sub-committee under it that has representation of ward members. GPs are empowered to plan and execute water supply schemes up to Rs. 5 million, with plans and designs provided by ZP in consultation with GP. Procurement and project execution is done by the GP. Source strengthening measures are also executed by GPs with technical support from GSDA (planning and designing) and ZP (funds and monitoring). Operation and maintenance responsibilities are with GPs.	GPs are responsible for ensuring sustainable supply of water that meets prescribed quality standards. GP's are also responsible for planning, implementation and maintenance of source strengthening and water conservation works. The GPs are also responsible for ensuring compliance of its schemes with the applicable laws and regulations.	Gram Sabha (village assembly) - is the supreme body to decide on various aspects at the village level. Gram Sabha will provide opportunity for participatory decision making, providing guidelines on policy and implementation of projects; overall monitoring and evaluation, selection of committee members. Gram Sabha will also ensure 'inclusion' and avoid 'elite capture'. Mahila Gram Sabha is another forum for women to come together and make decisions. The decisions taken by women here are ratified in the Gram Sabha and included in the latter's decision making process. GP is primarily responsible to ensure that plans are prepared at Ward level and collated into one plan for the village and that land is available for the planned investments. The preference is to provide government land free from encumbrances, or purchase and lastly adopt transparent mechanism for donation of land. Gram Panchayat facilitates the decision making by the community; facilitates the flow of funds and ensuring accountability. VWSC is nominated by and accountable to the Gram sabha. VWSC will look after implementation of schemes, quality control, financial management, O&M of projects

Institution	Role in RWSS	Role in Environmental Management under the Program	Role in Management of Social Aspects under the Program
			completed. Social Audit Committee is another committee at the village level which does self-audit of social, technical, financial performance of projects.

### 4.3 State's Environment and Social Management Procedures for Rural WSS

8. This section provides an overview of the procedures in place in the state on environment and social management for addressing the anticipated environmental and social risks/impacts. It describes the procedures for addressing the environmental aspects of source sustainability, water quality, 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 State's Environment Management Procedures for Rural WSS

##### 4.3.1.1 Procedures for Strengthening Source Sustainability

9. **Existing:** The state's approach for enhancing source sustainability in scheme planning includes source selection based on technical assessment and community consultation; regulations for protection of groundwater sources from interference; source strengthening through recharge measures; and integration of elements for water conservation into scheme planning. In case the source is dug well or bore well, the GSDA certifies the source (both the water quality as well as source sustainability) after a technical assessment (hydro-geological and geophysical surveys, use of aerial photos/remote sensing data, etc.), does participatory appraisal with the community, and pump tests. In cases where there is a need for strengthening source sustainability, appropriate measures (bunds, rainwater harvesting, horizontal bores, hydro fracturing, etc.) are recommended by GSDA for inclusion in the scheme. However, there is a need for strengthening the mainstreaming of sustainability planning with community involvement into scheme planning. A three pronged approach is followed across all water supply schemes for protection of sources which involves: selecting new sources away from village to protect from pollution due to bad sanitary conditions, maintaining a safe distance of 500 m from nearby wells to protect from well interference (as per Ground Water Act 1993 no new wells are allowed within this distance), and opting for rain water harvesting for dilution in saline and fluoride affected districts. The state is also creating district wise water security plans – which have scope for further strengthening – to enable planning of sustainable water supply schemes.

10. **Strengthened Provisions:** The Program provides Technical Assistance and Institutional Capacity building support to GSDA to enhance their capacity for monitoring of ground water quantity and quality trends. The Program also supports ground water management initiatives at aquifer level, to increase sustainability of ground water for drinking purposes. Further, as mentioned in section 6.1.1, groundwater-based schemes in overexploited and critical watersheds that do not integrate source sustainability measures are not to be supported by the Program. Also, the strengthened environmental procedures developed by WSSD to be rolled out through the Program (detailed in section 6.1.2) focus on mainstreaming of sustainability planning with community involvement into scheme planning especially for schemes in water scarcity hotspots.

#### **4.3.1.2 Procedures for Ensuring Water Quality**

11. **Existing:** For new water supply schemes based on groundwater, the source is certified for quality fitness by GSDA/District Public Health Laboratory (DPHL), and for surface water based schemes the safety of the water is certified by MJP/DPHL. The guidelines issued by the Government for implementation of water supply schemes in peri-urban areas include identification/mapping of all polluted sources. The state's system of water quality monitoring includes periodic testing, surveillance and information management and is organized along the lines recommended by the National Rural Water Quality Monitoring & Surveillance (WQM&S) Programme which is part of the NRDWP. All drinking water sources are required to be tested at least four times a year for bacteriological contamination and twice a year for chemical contamination. The testing is done at the sub-divisional labs/Primary Health Centre (PHC) labs (at sub-district level), DPHLs (30% of samples), State Public Health Labs (SPHL) (10% of samples), and at GSDA divisional labs (confirmatory tests for chemical contamination). Monitoring is done by entering the test results of all sources tested by the designated labs on the Integrated MIS – an on-line database of Ministry of Drinking Water and Sanitation, Government of India. There is a three tier arrangement for surveillance and initiating action on the water quality reports involving state, district and block level committees. In addition, GPs undertake regular water quality testing for primary detection of chemical and biological contamination of all of the drinking water sources in the villages using field kits. The GPs are expected to furnish reports to the DPHLs once every 3 months. The Sarpanch (head at GP level) and Gram Sevaks (Village Secretary) at the village level are responsible for undertaking remedial measures for contaminated sources. These measures include regular disinfection and even abandoning highly contaminated sources. Water Quality Surveillance at the GP level is undertaken by the Primary Health Centres (PHC) based on participatory sanitary surveys conducted twice in a year. There is a need to strengthen the existing water quality monitoring system in areas that have known susceptibilities to quality problems (water quality hotspots).

12. **Strengthened Provisions:** The Program provides technical assistance support for Water Quality Monitoring and Surveillance. Strategic interventions to address water quality issues in quality affected villages and habitations is another priority, for which, the Program provides investment support to demonstrate feasible approaches. Strengthening the capacity of Public Health Department labs is another requirement, which is also supported under the Program. Strengthened environmental management rules and procedures have been developed by WSSD to be rolled out through the Program. The specific areas of strengthening include (as mentioned in section 6.1.2) monitoring with additional emphasis on the identified water quality hotspots.

#### **4.3.1.3 Procedures Concerning Natural and Cultural Heritage Sites**

13. **Existing:** There exists a well-defined system in the state with respect to schemes that are located on forest lands (including protected areas such as wildlife sanctuaries and national parks) that involves seeking permission from the Forest Department. However, monitoring of the implementation of this system at the state level WSSD needs to be strengthened. The legal and regulatory system in the state has provisions in place to exclude activities that are likely to have significant adverse impacts on eco-sensitive areas, coastal areas and wetlands. There is a need to facilitate the application of these provisions in the Program by capacity strengthening measures.

There also exists a well-defined system in the state with respect to schemes that are located in the proximity of sites with historical or archaeological value (protected monuments) that involves seeking permission from the Archaeological Survey of India. However, monitoring of its implementation at the state level WSSD needs to be strengthened.

14. **Strengthened Provisions:** Strengthened environmental management rules and procedures have been developed by WSSD to be rolled out through the Program. The specific areas of strengthening include (as mentioned in section 6.1.2) monitoring with additional emphasis on the identified environmental hotspots including natural and cultural heritage sites.

#### **4.3.1.4 Procedures for Scheme-specific Environmental Management**

15. **Existing:** The state has experience of integrating a system for environmental management in individual RWSS schemes – for example, in the Jalswarajya I and Aple Pani Projects. An Environmental Checklist (Filter) is used for every scheme to ensure selection of environmentally safe technology options. It allows communities to identify environmental impacts, indicate compliance with central and state sector regulations on groundwater extraction, and indicate mitigation measures. The Filter gives references to the Manual for Environmentally Safe Technology options, Sanitation Manual and Technical Manual, etc., developed by the WSSD. The inclusion of the environmental checklist in the Village Action Plan is necessary for the release of funds to the VWSC.

16. **Strengthened Provisions:** Strengthened environmental management rules and procedures have been developed by WSSD to be rolled out through the Program (these have been included as part of the Program Operational Manual). The specific areas of strengthening (as mentioned in section 6.1.2) include: (i) a Compliance Checklist to ensure that all Program supported schemes are in compliance with the relevant environmental laws and regulations (e.g., in cases involving forest land, protected monuments, ground water, etc.); (ii) detailed environmental due diligence plans for riskier schemes (e.g., schemes in environmental hotspot areas); (iii) updating of technical guidelines on good environmental management practices; (iv) strengthening of monitoring arrangements including provision of third party monitoring.

#### **4.3.2 State's Social Management Procedures for Rural WSS**

##### **4.3.2.1 Management of land requirement**

17. **Existing:** In case land is required for public purpose development projects, generally the Government acquires the land under the provisions of The Land Acquisition Act 1894. For certain large development projects, if any family is affected in case of land acquisition, the family is rehabilitated under the Maharashtra Project Affected Persons Rehabilitation Act 1999. However, assessments of RWSS sector activities of WSSD brought out the fact that land requirement is minimal and no one was adversely affected. In case needed, the practice is to give preference to select public land. In the absence of such land, privately owned land was considered which was either taken for the scheme through voluntary donation or purchased at negotiated rate by the GP. The land was made available in about half year in most cases where direct purchase or voluntary donation was used. The affected persons were generally limited to

about ten. No rehabilitation assistance was paid to the affected persons, as there was neither displacement nor loss of livelihoods.

18. **Strengthened Provisions:** Under the present Program, it is the responsibility of the GPs to provide required land. The Program will support augmentation of existing schemes to ensure improved water supply service (including 24x7 supply) in large and peri-urban villages and aquifer management. Almost all villages do have an existing water supply system and the Program intervention include improving/ rehabilitating/ augmenting the existing supplies which means land requirement may be limited. Land requirement for sullage management investments may be in the range of 1 to 2 hectares, depending on the size of the scheme and type of technology used. The WSSD and MJP are for decentralized, low-cost, minimal operation and maintenance and community managed sullage treatment technologies which require considerably small land parcels. In case of peri-urban areas, getting land may be challenging. Of course, land owned by vulnerable groups will not be considered for any investment. Since the onus to provide land rests with GPs, the preferred method will be to identify public land that is free from encumbrances. In case it is necessary to use privately owned land, GPs will negotiate the rate with the seller and directly purchase the land at 'replacement cost'. To ensure that transparent process is followed in situation for 'voluntary donation' of land, the process to be followed is developed and attached at Annex 4, which will be required to be completed and included in GP plans. Moreover, availability of land is one of the key selection criteria of the GP.

#### **4.3.2.2 Systems for promotion of Participation, Inclusion and Social Accountability**

19. **Existing:** The National and state policies and laws create an enabling environment for 'decentralised decision making' (refer section 4.1.2 for details). However, its implementation remains weak as systems are not fully developed and implementing agencies lack capacity in terms of resources.

20. **Strengthened Provisions:** For the Program, in order to ensure that selection of GPs is based on objectivity, transparent, pre-defined, demand driven criteria have been developed (Annex 5). Deepening the decentralized service delivery is a core principle of the Program. Community participation and inclusion of all sections of community for decentralized decision making will include ward level planning. These ward level plans will be collated into one GP level plan. It is mandatory for the Gram Sabha to ratify/ approve all decisions after due discussions at GP level. Further to ensure participation of women (and other vulnerable groups as well) at all levels, in particular at grass roots level, it is mandatory to have the Mahila Sabha (equivalent of Gram Sabha for women), discuss all scheme related activities and decisions and put them up to Gram Sabha for ratification/approval.

21. MJP will implement the schemes as per the plans ratified by Gram Sabha and in collaboration with the GP/VWSC. A project cycle for Program supported schemes in /peri-urban areas, based on the experiences has been developed, which will ensure collaboration between MJP and GP/VWSC. Post-Implementation, the schemes will be handed over to GPs, and an effective O&M arrangement will be developed, with the support from MJP. This will ensure adequate ownership at the village level.

22. The Social Audit, a social accountability mechanism, will be strengthened under the Program and will be conducted by the Social Audit Committee. The social audit focuses on inclusion, participation, transparency, expenditure tracking and quality control throughout the sub-project scheme cycle as detailed out in Program Manual. The committee will continue to function through post-implementation period to audit the performance of O&M. The findings of the Committee will be shared in Gram Sabha and corrective measures will be taken to improve transparency.

#### **4.3.2.3 Systems for grievances redress**

23. **Existing:** The existing system provides opportunity to file complaint online. This complaint is then forwarded to respective Executive Engineer for necessary action.

24. **Strengthened Provisions:** The process of e-paani system (existing grievance redress system) will be strengthened by facilitating registration of claims through a Call centre. If complaints are not solved at the village level, it is proposed that the Block Resource Centre files it in e-pani and provides the citizen with a case number.

#### **4.4 Assessment of Program System Consistency with Core Principles of OP 9.00**

25. Drawing on the information and analysis presented in the preceding sections, including a detailed analysis of the environmental and social benefits and risks associated with the Program, assessment of program capacity and performance with respect to the policy and legal framework, the institutional context, and the existing environment and social management procedures, the analysis presented here on the Program systems' consistency with each of the six Core Principles outlined in OP 9.00, is organized through a synthesis of the main findings using the SWOT (Strengths-Weaknesses-Opportunities-Threats) approach. The SWOT is adapted and applied to the Program and PforR context in the following way:

- a) Strengths of the system, or where it functions effectively and efficiently and is consistent with OP 9.00;
- b) Gaps in the system with respect to the OP 9.00 principles;
- c) Opportunities to strengthen the existing system;
- d) Risks that, if unaddressed, may undermine the effective implementation of the opportunities to strengthen the system.

26. **Analysis of Program Environment/Social System Consistency:** Overall, the existing system in the state is consistent with the core principles of OP 9.00. However, implementation needs to be strengthened.

**Core Principle # 1:** 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

#### **Strengths:**

- a) Informed decision making relating to the environmental issues in the RWSS sector is evident in the GoM's policies and programs. The Maharashtra State Water Policy (2003)

focuses on sustainable development, efficient management and optimal use of scarce water resources.

- b) The state has well-defined legal/regulatory systems for safeguarding water resources and ecologically significant areas from pollution, for protection of groundwater sources from interference, for excluding activities that are likely to have significant adverse impacts on eco-sensitive areas, coastal areas and wetlands.
- c) The state's approach for enhancing source sustainability in RWSS scheme planning includes source selection based on technical assessment and community consultation, source strengthening through recharge measures, and integration of elements for water conservation into scheme planning. The state is also creating district wise water security plans to enable planning of sustainable water supply schemes.
- d) The state's systems for safeguarding drinking water quality includes certification of water quality for all new schemes by GSDA/DPHL (for groundwater based schemes) and by MJP/DPHL (for surface water based schemes). The system of water quality monitoring includes periodic testing, surveillance and information management. There is a three tier arrangement for surveillance and action on the water quality reports involving state, district and block level committees.

*Gaps:*

- a) The implementation of the existing legal/regulatory provisions faces challenges (due to multiple regulations, overstretched regulatory authorities, weak monitoring etc.).
- b) There is need for mainstreaming the approach to sustainability planning with community involvement into all Program schemes.
- c) There is a need to strengthen the existing water quality monitoring system – especially in water quality hotspots.

*Opportunities:*

- a) The state has experience of integrating rules and procedures for environmental and social management in individual RWSS schemes – for example, in the Jalswarajya I and Aple Pani Projects. Strengthened environmental and social management rules and procedures have been developed by GoM to be rolled out through the Program.

*Risks:*

- a) Addressing the environmental management needs in the emerging complex sector challenges (improved service delivery in peri-urban areas, water quality treatment, rainwater harvesting, etc.) depends on capacity building of the key sector organizations both in terms of human resources and training, and strong monitoring.
- b) Poor implementation of the strengthened environmental and social management rules and procedures is a possible risk.

**Core Principle # 2:** Avoid, minimize, or mitigate adverse impacts on natural habitats and physical cultural resources resulting from the Program

*Strengths:*

- a) There is a well-defined procedure with respect to schemes that are to be located on forest lands (including protected areas such as wildlife sanctuaries and national parks) that involves seeking permission from the Ministry of Environment and Forests (through the State Forest Department).

- b) The procedure with respect to schemes in the proximity of sites with historical or archaeological value (protected monuments) is also clear and involves seeking permission from the Archaeological Survey of India (through the State Department of Archaeology).

*Gaps:*

- a) Monitoring of the implementation of these procedures at the state level WSSD needs to be strengthened.

*Opportunities:*

- a) Strengthened environmental management rules and procedures have been developed by the GoM, to be rolled out through the Program. These integrate the procedures to be followed in the case of schemes involving natural habitats and physical cultural resources. They also integrate monitoring of the implementation of prescribed procedures concerning natural habitats and physical cultural resources in RWSS schemes at the state level WSSD.

*Risks:*

- a) Systematic implementation of these procedures requires enhancing awareness in the key sector organizations on the existing legal and regulatory provisions concerning natural habitats and physical cultural resources.

**Core Principle # 3:** 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

*Strengths:*

- a) The MJP's contract conditions for contractors include provisions for public and worker safety (for example, regulations on use of explosives, provision of barricades at construction site, use of personal protection gear by workers, disposal of construction debris and waste water, preventing creation of conditions conducive to disease vectors, etc.).
- b) The state has also issued guidelines/regulations on aspects concerning public and worker safety risks from construction/operation of facilities from time to time – these include encasing of PVC pipes, provision of handrails for larger ESRs, etc.
- c) The legal/regulatory system in the state includes provisions for safeguarding water resources and ecologically significant areas from pollution and is thus applicable to regulating the disposal of toxic chemicals, hazardous wastes, etc.

*Gaps:*

- a) Implementation capacities need to be strengthened for areas such as management of sludge from water treatment plants, minimizing exposure of workers to contamination, minimizing exposure risk in rehabilitation works on old schemes involving Asbestos-Cement pipes, etc.

*Opportunities:*

- a) The Environment Manual developed by the GoM (integrated into Program Operational Manual), to be rolled out through the Program, includes references to technical guidelines on public and worker safety relevant to RWSS.

*Risks:*

- a) Systematic implementation of these provisions requires enhancing awareness in the key sector organizations and strengthened monitoring.

**Core Principle # 4:** 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.

*Strengths:*

- a) The land requirements are minimal as the schemes under the Program are mostly rehabilitation/ augmentation of existing schemes, with extensions in uncovered areas. The legal/regulatory system and Policy in the state includes provisions for compensating for loss of assets and rehabilitation of adversely affected people. 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.

*Gaps:*

- a) There is no established system to support and verify the three practices.

*Opportunities:*

- a) The sub-project cycle for each investment includes processes to be followed and documented for land requirement which will be audited by Social Audit Committee and findings shared in regular meetings of Gram Sabha. This is further detailed in Program Manual and Community Operational Manual.

*Risks:*

- a) There is scope to misuse the practice of voluntary donation.

**Core Principle # 5:** 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

*Strengths:*

- a) The legal/ regulatory system is robust to promote demand responsive service delivery, decentralized planning, implementation and social accountability. In addition, special provisions exist to safeguard the interest of the vulnerable and provision of subsidies to the Schedule Caste and Tribe for assets.

*Gaps:*

- a) Weak capacity to implement provision of the legal, policy and regulatory provisions and lack of system to disseminate information, promote social accountability and address grievances at village level.

*Opportunities:*

- a) A comprehensive communication program is developed for dissemination of information which covers strategy, Information, Education and Communication (IEC) material (print, electronic and local tools) and community operational manual that details out step by step activities to be implemented, roles and responsibilities of all implementing partners. To deepen decentralized decisions making process – social mobilization at ward level, mobilization of women, facilitate preparation, implementation and post implementation of GP investment plans.

- b) Strengthened transparency and accountability includes display information of all activities including cost, at prominent and public places in the wards, form social audit committee that is representative of all ward and women, develop simple formats for reporting findings at planning, implementation and post-implementation. Grievance Redress system will be established and support provided for conflict management at village level. Capacity Building will include hiring staff and conduct training according to the annual plans. Details are included in the Program Manual and Community Operational Manual.

*Risks:*

- a) Elite capture.

***Core Principle # 6:*** Avoid exacerbating social conflict, especially in fragile states, post-conflict areas, or areas subject to territorial disputes

The area in question is not a conflict area; neither there is a conflict nor is it a fragile state. There are no conflicts or territorial disputes in the project area.

## 5. Program Capacity and Performance—Assessment of Adequacy and Identification of Gaps

1 The previous section described the existing environmental and social management system of the state's RWSS sector including the policy and legal framework, the key sector institutions and the state's environment and social management procedures. This section analyses the performance of the key institutions with regard to the provisions of the legal and regulatory framework and highlights the challenges therein. It also describes the challenges and needs with respect to the capacities of the key sector institutions.

### 5.1 Performance of implementing agencies with regard to provisions of legal and regulatory framework

#### 5.1.1 Performance with regard to legal and regulatory framework on environmental aspects

2. The Legal and Regulatory framework governing the RWSS sector is strong in terms of the provisions enlisted for safeguarding water sources from pollution and unsustainable exploitation. Maharashtra also legally recognized the role of local governments (ZPs/GPs) and local communities (water user associations, village water and sanitation committees etc.) in managing and conserving the water resources, water supply and sanitation service delivery. However, the implementation of the existing legal and regulatory provisions faces some challenges:

- a) **Complying with Multiple Regulations on Environment:** There are multiple regulatory agencies dealing with the management of environmental issues relevant to the RWSS sector in the state. The Maharashtra Pollution Control Board (MPCB) is mandated to implement various environmental legislations in the state. The Maharashtra Coastal Zone Management Authority (MCZMA) deals with environmental issues relating to the Coastal Regulation Zone. The Forest Department is concerned with issues related to diversion/activities in forest land. The Maharashtra Water Resource Regulatory Authority (MWRRA) is the designated Ground Water Authority under the new Maharashtra Groundwater (Development and Management) Act, 2009. Coordination with these multiple agencies for the purpose of ensuring compliance of RWSS schemes with the relevant regulatory requirements is a likely challenge for the WSSD. While RWSS sector institutions in the past have demonstrated compliance with the existing regulations, the Program interventions such as water supply and sullage management for peri-urban areas, and water quality interventions require strengthening of the capacity of the implementing agencies to comply with the relevant regulations.
- b) **Overstretched Regulatory Authorities:** The Maharashtra Pollution Control Board (MPCB) is mandated to implement various environmental legislations in the state of Maharashtra, mainly including Water (Prevention and Control of Pollution) Act, 1974; Air (Prevention and Control of Pollution) Act, 1981; Water (Cess) Act, 1977 and some of the provisions under the Environment (Protection) Act, 1986 and the rules framed under like, Biomedical Waste (M&H) Rules, 1998; Hazardous Waste (M&H) Rules, 2000; Municipal Waste Rules, 2000; etc. While the MPCB has a well spread out network of 10 Regional Offices and 37 Sub-Regional Offices, considering its broad mandate and the

intensive industrial activity in the state (86,188 industrial units with 10,587 units in the Red category<sup>11</sup>) – the enforcement of regulations is a major challenge. This means that monitoring of pollution risks to water bodies (which may be sources for water supply schemes), is at times challenging. Similar challenges also face the other regulatory agencies: The MCZMA deals with a coastline that is about 720 km long, the Forest Department manages 61,939 sq. km of forest area while the MWRRA is responsible for regulating groundwater use in 1531 watersheds across the state.

- c) **Political Economy and Governance Issues:** Maharashtra is the most industrialized state in the country and contributes about 14.9 per cent of the GDP<sup>12</sup> (Gross Domestic Product) (2010-11). The contribution from industry and services sector to the GSDP (Gross State Domestic Product) is about 87%. The state economy has been growing at a rapid pace over the last few years – and balancing the demands of economic growth with the needs of natural resource conservation is a challenge. Political and governance issues further challenge the regulatory authority's capacity to safeguard water resources.

### 5.1.2 Performance with regard to legal and regulatory framework on social aspects

3. The implementation of the existing legal and regulatory provisions on social aspects faces the following challenges:

- a) **Misuse of voluntary donation of land:** As voluntary donation is one of the options for land procurement, there is an opportunity for overuse/ misuse of this provision unless the process of voluntary donation is meticulously documented at all levels to avoid confusions, misunderstandings, litigations, etc. at a later stage. Based on the experience of Jalswarajya-I and upon review of the situation in the RWSS sector, it indicates that the process of voluntary donation was not coercive and donors were well aware of the provisions under the project for land procurement. The donors were briefed by the GPs/ VWSCs about the project and the provisions for land procurement including direct purchase, but the donors chose to donate land. As per the records, none became marginalised after donation of land for the project. However, there could be scope for misuse/ overuse of the same to ensure transparency in the process, hence some guidelines are proposed to streamline the procedures for voluntary donation of land and purchase of land (Annex 4)
- b) **Limited information flow affecting inclusion, decentralized decision making and accountability:** While the legal framework is robust, the implementation of the regulations related to vulnerable groups including Schedule Caste and Tribe, information disclosure and participation at local level is not consistent with the policy. Experience of non-Jalswarajaya schemes indicates that there is a lack of capacity to focus on information flowing to communities. Participation of vulnerable groups, including organising Mahila Gram Sabha in decision making remains limited.
- c) **Social Accountability systems:** Despite the provision of social audit committees to enhance accountability, measures have not been fully developed to facilitate its functioning.

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<sup>11</sup> Viewed at <http://mpcb.gov.in/indstat/categorywise2009.php> on 9 October 2012

<sup>12</sup> *Economic Survey of Maharashtra 2011-12*. Directorate of Economics and Statistics. Planning Department, Government of Maharashtra.

## 5.2 Adequacy of institutional organization and capacity

### 5.2.1 Adequacy of institutional organization and capacity on environmental aspects under the Program

4. As detailed in section 3.2, the key sector organizations that are responsible for the management of the RWSS sector, including environmental and social aspects, are: WSSD and its technical wings – MJP and GSDA, Zilla Parishads and Gram Panchayats. Besides, Public Health Department plays a vital role through water quality surveillance. The state adopted a paradigm shift in the institutional approach from the year 2000 and devolved most of the sector management functions to local governments, mainly to ZPs and GPs. While the overall institutional arrangements and role division is the key strength, institutional capacity poses a challenge. The challenges and capacity building needs are described below.

- a) **Challenges of managing environmental aspects related to service delivery peri-urban areas, water quality affected and water stressed villages:** The Program addresses key challenges of water service delivery and sullage management in peri-urban areas, and in water quality affected and water stressed villages/ habitations. These interventions present a unique set of potential challenges with respect to environmental management (as described in section 3.1). While the sector institutions have demonstrated the ability to address similar challenges (as described in section 4.3.1), there needs to be a systematic approach to this supported by capacity building.
- b) **Capacity building needs of WSSO/PMU:** At PMU, Environment Management Specialists are required to coordinate and monitor implementation of activities, to facilitate implementation of strengthened environmental rules and procedures, to coordinate capacity building inputs to the state technical institutions and PRIs, and, to oversee the third-party monitoring. The other area identified for capacity strengthening of WSSO is water quality (focussing on water treatment technology). The Program Action Plan includes an action to respond to this need (detailed in section 6.1.3.2).
- c) **Capacity building needs of MJP:** MJP has no existing system for environmental management that includes screening of schemes, development of site-specific environmental management plans where required, and, monitoring the implementation of these plans. Building on WSSD's earlier experience, the strengthened environmental rules and procedures need to be integrated into the systems of MJP to ensure that development of appropriate environmental due diligence plans are undertaken for certain schemes that present environmental risks in view of their location in hotspot areas or other risk factors. MJP already has staff with relevant qualifications (post-graduate degree in environmental engineering) to anchor the responsibility of environmental management at the state and district levels, who will be trained for managing environmental aspects under the Program. The training institute MEETRA needs to have key resource persons on Environmental Management.
- d) **Capacity building needs of GSDA:** The strengthened environmental rules and procedures need to be integrated into the systems of GSDA to ensure that development of appropriate environmental due diligence plans are undertaken for specific interventions that present environmental risks in view of their location in hotspot areas or other risk factors. GSDA already has staff with relevant qualifications (post-graduate degree in hydrogeology) and experience (as detailed in section 4.3.1.1) to anchor the responsibility

of environmental management at the state and district levels for the aquifer management interventions.

- e) The other areas identified for capacity strengthening of GSDA are: (a) enhancing the number of groundwater observation points in order to monitor more precisely the groundwater dynamics (b) enhancing the capacity of its labs to become certified by the National Accreditation Board for Laboratories (NABL) and/or International Organization for Standardization (ISO) and, (c) enhancing its capacity to develop aquifer maps for all the watersheds in the state over the next few years
- f) **Capacity building needs of ZPs/BRCs/GPs:** Under the Program, the ZPs mainly help GPs in implementing the schemes to address the issues of water quality and water stress. The WSSD already has plans to strengthen the institutions at ZPs/BRCs/GPs with sufficient staff to address environmental aspects across the sector. These include recruitment of engineers; strengthening the DWSM Support Cell through recruitment of a Program Manager and water quality monitoring/management; and strengthening of the BRCs with required staff including a BRC Coordinator.

5. The Program Action Plan includes addressing the capacity building needs (both in terms of human resources and training) of the sector institutions on environmental management. Moreover, the Program Action Plan also includes review of human resource policies to enable better functioning of staff at various levels, definition of operational protocols, etc. With these measures, the institutional capacity will be adequately built to address the environment management needs of the Program.

### 5.2.2 Adequacy of institutional organization and capacity on social aspects

6. The challenge for the sector institutions on social management aspects under the Program is to ensure that the decentralized decision making, transparency and accountability is institutionalised to enhance sustainability of schemes. This will require capacity building of all the stakeholders under the PRI system as below:

- a) **District Level** - For training and capacity building of various stakeholders, the technical team is supported by State level training institute MEETRA. However, given the geographical spread and to take forward the decentralised agenda, support agency will be hired for software component which will focus on training and capacity Building of GPs/ VWSC/ Ward level Committees and Social audit committee on (a) information dissemination; (b) sub-project cycle; (c) participatory planning, (d) group mobilisation at various levels; (e) systems to ensure transparency and (f) implementation and monitoring of sub-projects. Social Specialists are hired to work with the support agency and the Social specialist will coordinate training plan at block and GP level to ensure (i) choice of technologies suited to rural communities, (ii) technical support to VWSCs in program planning and implementation, (iii) provide assistance in dovetailing other programs particularly for benefiting communities, (iv) coordinate with other line departments particularly with revenue department on land procurement
- b) **Block level:** Block Development Officer is overall responsible and is supported by Block Resource Centres (BRC). However, given the weak capacity to facilitate the implementation of decentralised program, the support agency hired at the district level,

will focus on strengthening the communication program through IEC on 'rules of engagement' to access the program by GPs. In addition, it will cover review of GP plans on (a) land requirement and (b) access to benefits by vulnerable groups.

- c) ***Village level:*** The Support Agency will support the GPs/Ward/ VWSCs to enhance decentralised decision making process which is inclusive, creates an enabling environment to purchase land required on negotiated settlement, improves conflict management, and carries out social audit.

## 6. Actions to Address Identified Risks and Gaps

The previous sections describe the environmental and social risks/impacts of the Program (section 3) and the challenges/gaps with regard to the environmental and social system concerning the Program in the state. The assessment of Program system consistency with core principles of OP 9.00 (section 4.4) clearly brings out the gaps and the opportunities to strengthen the system. The section 5 identifies the gaps/challenges with respect to the implementation of the provisions of the legal and regulatory framework. It also identifies the capacity building needs of the key sector institutions with respect to environmental and social management. Overall, the ESSA shows that the state's Environmental and Social systems are adequate for the Program implementation, with implementation of actions to address the gaps and to enhance performance during implementation. Drawing upon this background, this section identifies the specific actions that are to be implemented in order to address the identified risks, gaps/challenges and needs.

### 6.1 Actions to Address Identified Environmental Risks and Gaps

1. **Summary of key environmental impacts, risks and gaps:** The key environmental impacts, risks and gaps identified in the preceding sections (3, 4 and 5) are summarized below:

- a) Potential Negative Impacts: Source unsustainability, poor water quality, impacts on natural and cultural heritage sites, occupational health and public safety risks, dam safety (in cases involving large dams) and water wastage. Certain hotspot areas are likely to present more risk with respect to these impacts.
- b) Challenges in implementation of the existing legal/regulatory provisions due to multiple regulations, overstretched regulatory authorities, etc., requiring strengthening of the capacity of the implementing agencies to comply with the relevant regulations and stronger monitoring of the implementation of procedures at the state level WSSD.
- c) Need for mainstreaming the approach to sustainability planning with community involvement into all Program schemes.
- d) Need to strengthen the existing water quality monitoring system – especially in water quality hotspots.
- e) Need for strengthening implementation capacities for the following areas: environmental management for RWSS interventions (including water supply, sillage management, and aquifer management), water quality, and public and worker safety.

2. **Identified Actions:** In order to address the identified environmental impacts, risks and gaps the following key actions have been identified:

- a) Exclusion of high risk activities from the Program
- b) Strengthening the existing GoM system for environmental management. This is captured under the Program Action Plan.

#### 6.1.1 Exclusion of High Risk Activities from the Program

3. Section 3 identified the risk of potential adverse effects emerging due to improper location, planning, execution and management of schemes. Most of the identified environmental risks are typical of RWSS investments and are manageable. However, there is a need to exclude certain activities that present the possibility of potentially *significant, adverse* environmental

impacts. These activities have been identified for exclusion from the Program and have also been mentioned in the Program Agreement and the Financing Agreement. It must also be noted here that the Program will not include large scale regional schemes that are likely to present significant environment and social risks. But, there could be a possibility of including peri-urban villages from more than one Gram Panchayat, in a few cases, when it is technically and financially advantageous.

4. **Excluded Activities:** The physical investments that are not to be supported under the Program are as follows:

- a) Schemes that involve construction or rehabilitation of dams which are at  $\geq 10$  meters in height.
- b) Groundwater-based schemes in overexploited and critical watersheds that do not integrate source sustainability measures.
- c) Schemes involving highly polluted surface water sources<sup>13</sup>.

**Table 3: Details of High Risk Activities Excluded from the Program**

<i>Activity Excluded from the Program</i>	<i>Rationale for Exclusion</i>	<i>Impact of Exclusion</i>
Schemes that involve construction or rehabilitation of dams which are at $\geq 10$ meters in height.	Construction or rehabilitation of dams which are at $\geq 10$ meters in height could potentially cause significant adverse environmental impacts (dams that are 15 meters or more in height and those between 10-15 meters in height with special design complexities are treated as large dams and generally require environmental impact assessment).	The exclusion is likely to impact a very limited set of schemes. While exact figures are not available, less than 5% of the RRWS schemes that have source as dams are likely to involve dams that were built or are managed by the MJP. While 32% of the larger (regional) water supply schemes have dams as their sources, most of these dams are medium or minor irrigation dams managed by the Rural Development and Water Conservation and Irrigation departments.
Groundwater-based schemes in overexploited and critical watersheds that do not integrate source sustainability measures.	The goal of the WSSD is providing safe, convenient and sustainable water supply. The sustainability of a water supply scheme that depends on a groundwater source in an over-exploited or critical groundwater watershed is at high risk if the scheme plan does not integrate source sustainability measures. This exclusion criterion is to ensure that all groundwater-based schemes in overexploited and critical watersheds will integrate source sustainability measures.	The exclusion is likely to impact a very limited set of schemes, only in case the source strengthening measures are not integrated in scheme planning and implementation in overexploited and critical watersheds. Of the 353 talukas in the state, 9 talukas (2.5%) have overexploited groundwater status and 1 taluka (0.3%) has critical groundwater status. Of the 1531 watersheds in the state, 66 watersheds (4%) have overexploited groundwater status and 3 watersheds (0.2%) have critical groundwater status.

<sup>13</sup> These are defined in the Program Manual.

<i>Activity Excluded from the Program</i>	<i>Rationale for Exclusion</i>	<i>Impact of Exclusion</i>
Schemes involving highly polluted surface water sources	The goal of the WSSD is providing safe, convenient and sustainable water supply. Poor quality of water can have a significant adverse impact on the health of the community. This exclusion criterion is to ensure that the Program does not include schemes where there is a high risk of such impacts.	The exclusion is likely to impact a limited set of schemes. Of the 248 water quality monitoring sites on 59 rivers in the state, 30 sites (12%) have recorded very bad water quality. It is unlikely that these river stretches are potential sources for water supply schemes.

### 6.1.2 Program Action Plan

5. The Program Action Plan identifies strengthening the GoM's procedures and capacity for environmental management of the Program. The identified action is – '***Implement strengthened environmental and social management rules and procedures for the Program, supported by necessary capacity building measures to the sector institutions***'. The next section describes implementation modalities of this action.

### 6.1.3 Implementation of the Program Action Plan – Environmental

#### 6.1.3.1 Implement strengthened Environmental Management Rules and Procedures for the Program

6. The WSSD has developed a manual describing strengthened procedures and providing technical guidance for environmental management of RWSS interventions (this has been included as part of the Program Manual) for the Program. The Program Agreement and the Financing Agreement also specify that the Program will be carried out in accordance with the institutional and administrative arrangements, and, procedures set forth in the Program Manual.

7. The key elements of the strengthened environmental rules and procedures are described below:

- a) *Exclusion of high-risk interventions from the Program.* The Exclusion List includes schemes that are likely to post significant, adverse environmental risk and are therefore not to be supported under the Program (for details, see section 6.1.1).
- b) *A Compliance Checklist* to ensure that activities that are not legally permissible (e.g., discharge of untreated effluent in ecologically sensitive areas) are not undertaken and that requisite permissions are taken (e.g., in cases involving forest land, protected monuments, etc.) before any scheme/intervention is financed.
- c) *An Environmental Due Diligence Plan (EDDP)*, which is a systematic process of identifying potential impacts and mitigation plan for schemes/interventions that pose environmental risk by virtue of their location, scale or nature. The schemes identified as requiring an EDDP<sup>14</sup> include:

<sup>14</sup> Rural Water Supply and Sanitation projects do not require prior environmental clearance from the Centre or the State as per the Environmental Impact Assessment Notification, 2006. The EDDP being proposed here is not an EIA.

- i. Schemes/Interventions involving forest land, Eco Sensitive Zones, Coastal Regulation Zone, ecologically sensitive/important/notified wetlands, and, protected monuments.
  - ii. Water supply schemes in the identified water scarcity and quality hot spots (for details see Annex 3).
  - iii. Sullage management interventions in peri-urban areas.
  - iv. Schemes/Interventions that involve construction and/or rehabilitation of dams<sup>15</sup> that are 5-10 meters in height.
  - v. Water supply schemes that involve laying or replacement of Asbestos-Cement pipes.
- d) *Technical guidelines* on good environment management practices concerning siting, design, O&M, etc., of schemes/interventions.
- e) *Monitoring arrangements on environmental management* that include internal and third-party monitoring of the environmental performance of the Program (with additional emphasis on the identified environmental hotspots) twice during the Program duration (for details see Annex 6). The key indicators on environmental management to be tracked through the monitoring are:
- i. Indicator 1: Number of schemes/interventions for which Environmental Due Diligence Plans have been prepared and integrated into the detailed scheme reports/plans and contract documents as a percentage of schemes/interventions identified as requiring the same.
  - ii. Indicator 2: Percentage of schemes/interventions that are in compliance with the legal/regulatory requirements on environment.

8. The environmental laws and regulations will apply to the entire RWSS program of the GoM. The manual recommends adoption of the strengthened procedures (EDDPs) and the technical guidance as good practice for the entire RWSS program of the GoM. The process of development of the manual includes a technical review and formal endorsement by the WSSD, GoM. The application of the strengthened environmental management rules and procedures to the Program will start from the first year of the Program.

#### **6.1.3.2 Capacity building of sector institutions and PRIs on environmental management**

9. This includes capacity building and technical assistance on environmental management through strengthening of human resources, and through training and IEC. The key elements are the following:

- a) *Human resources*: The human resources to be positioned in the key sector institutions starting from the first year of the Program are:
  - Key positions to ensure implementation of strengthened environmental rules and procedures for the Program (physical investments):
  - Environment Management Specialists at the state level in PMU, MJP, GSDA<sup>16</sup>;

<sup>15</sup> The EDDPs for Dams will include a screening process that will determine if a detailed environmental impact assessment is necessary.

<sup>16</sup> Both MJP and GSDA are technical agencies with qualified civil engineers, environmental engineers, geologists etc. Some of the existing staff with appropriate qualifications (environmental engineering/hydrogeology) will be trained on adopting the strengthened environmental management rules and procedures described in the environmental manual and program manuals. This applies to the staff from MJP and GSDA working at state level and also district level.

- Environment Management Specialists at the district level in MJP and GSDA to ensure implementation of strengthened environmental rules and procedures for peri-urban water and sullage management schemes and aquifer management interventions.
  - Positions to support sector-wise capacity building:
  - Environment Management Resource Person at the state level in MEETRA;
  - Water Quality Specialist in WSSO.
- b) *Training and IEC*: As part of Technical Assistance and Institutional Capacity building, training programs on environmental management rules and procedures, source sustainability, water quality monitoring & surveillance, and water treatment technologies will be organized for staff of the state technical institutions and PRIs. IEC activities will also be organized for the community on these aspects. These training programmes and IEC activities are to be implemented on the basis of a detailed training/IEC calendar starting from the first year of the Program. As part of overall sector support, the training programs can also include solid and liquid waste management and sanitation aspects.

#### 6.1.3.3 PAP Implementation

10. The following Table-4 presents the implementation plan of the environmental actions of the PAP with time lines.

**Table 4 – Implementation Plan – Environmental Actions**

Sub-action description (Environment)	Deadline	Responsible party	Completion measurement
Implement strengthened environmental management rules and procedures for the Program.	Formal endorsement by negotiations; Implementation starting in First Year	WSSD, GoM	Formal endorsement <sup>17</sup> of strengthened environmental management rules and procedures (compiled in an Environmental Management Manual) by GoM; Integration of environmental due diligence plans into detailed scheme reports/plans and bid documents of schemes/interventions identified as requiring the same in the Manual.
Strengthening of human resources on environmental management: Environment Management Specialists at the state level in PMU, MJP, GSDA Environment Management Specialists at the district level in MJP and GSDA to ensure implementation of strengthened	Confirmation of the staffing recruitment by GoM at the end of the first year; On-going, starting in First Year	WSSD, GoM	Confirmation by WSSD with the list of specialists appointed at state level; Formal communication from WSSD confirming assignment of environment management specialists as part of the district teams of MJP and GSDA for peri-urban water and sullage schemes and aquifer management interventions.

<sup>17</sup> Formal endorsement refers to: (a) Integration of Environmental Management Manual (EMM) into Program Operations Manual that is approved by the Empowered Committee of the WSSD, GoM (b) Formal communication from the WSSD, GoM to the Bank indicating integration of EMM into Program Operations Manual sent along with copy of EMM.

Sub-action description (Environment)	Deadline	Responsible party	Completion measurement
environmental rules and procedures for peri-urban water and sullage management schemes and aquifer management interventions. In addition the above, GoM has planned to recruit Water Quality Specialist in WSSO, and, Environment Management Resource Person at the state level in MEETRA.			
Provision of training and IEC on environmental management aspects to staff of the state technical institutions, PRIs and community.	On-going, starting in First Year	WSSD, GoM	Training/IEC implemented on the basis of a detailed training/IEC calendar.

## 6.2 Actions to Address Identified Social Risks and Gaps

11. **Summary of key social impacts, risks and gaps:** The overall risks associated with social are low. The assessment identified gaps on social accountability and grievance redress at village level and weaknesses in terms of capacity for effective management of demand responsive approach and accordingly identifies actions to address the gaps, captured in the integrated Program Action Plan along with environmental actions.

### 6.2.1 Program Action Plan

12. The integrated Program Action Plan focuses on strengthening the GoM's procedures and capacity for social management of the Program. The identified action is – '**Implement strengthened environmental and social management rules and procedures for the Program, supported by necessary capacity building measures to the sector institutions**'. The next section describes implementation modalities of this action.

### 6.2.2 Implementation of the Program Action Plan – Social

#### 6.2.2.1 Implement strengthened Social Management Rules and Procedures for the Program

13. The key elements of social management rules and procedures include the following:

- a) *Sub-project Cycle:* The Program Manual will include a section on social and the purpose will be to inform the implementing partners about the strengthened processes and procedures, roles and responsibilities of all stakeholders and sub-project cycle to facilitate planning, implementation and post implementation. The broad elements of the sub-project cycle are:

- a) orientation of implementing partners on the ‘guiding principles’ – inclusion, participation, transparency, and accountability and on their roles and responsibilities;
- b) rapport building and awareness through communication program;
- c) social mobilization to strengthen ward level planning;
- d) social mobilization of women to facilitate prioritization of their needs to be reflected in ward plans;
- e) facilitating gram sabha meetings to consolidated ward plans and prepare GP level plan and approval;
- f) selection and training of VWSC and social audit committees on roles and responsibilities;
- g) establishing grievance collection points;
- h) disseminating information on the findings of social audit committee and settlement of grievances in gram sabha meetings;
- i) facilitating ward level O&M strategy to be consolidated at GP level.

These will be further detailed (scope, objective, implementation arrangement, planning, implementation, post implementation, social accountability, grievance redress, participatory monitoring and learning, etc.) in a Community Operations Manual prepared in local language Marathi.

- a) *Systems to promote social accountability.* Social audit committees will be formed to audit plans to ensure that they are in compliance on inclusion, participatory processes, processes followed to provide land, and access of benefits by the vulnerable groups. At implementation stage, expenditure tracking co-related to civil works will be undertaken. Finally at post-operative stage, the audit will be on service levels, maintenance and cost recovery.
- b) *Grievances Redressal Mechanism at GP level* for conflict management and operational guidelines to improve the conflict resolution and properly track and document all grievances.

#### **6.2.2.2 Capacity building of sector institutions and PRIs on social management**

14. This includes capacity building and technical assistance on social management through strengthening of human resources, and through training and IEC. The key elements are the following:

- a) *Strengthening communication program for dissemination of information.* The IEC program will be revised to prepare a comprehensive communication strategy and community operational manual to disseminate complete information about the program, implementation and post implementation to enable GPs to take informed decisions.
- b) *Deepening decentralized decisions making process.* Support Organizations (SOs) will be hired to support GP/VWSC to facilitate implementation of community operational manual, mobilize and prepare plans at Ward level and consolidate at GP level. In addition, these agencies will further assist to ensure that free, prior, and informed consultations are organized for proposed investments in GPs that has dominant tribal communities. It is mandatory to have the Mahila Gram Sabha (equivalent of Gram Sabha for women) to review the GP plan to ensure that their needs are addressed before

ratification by general Gram Sabha. The general Gram Sabha will ratify/approve all decisions of the scheme after due discussions at GP level.

- c) *Strengthening transparency.* In order to improve the transparency and accountability of implementing organizations, a set of selection criteria for inclusion of Districts and GPs in the Program is developed. Improved transparency would also include display information of all activities including cost, at prominent and public places in the wards. All the planning including procurement, implementation and post-implementation (O&M and withdrawal) will be agreed upon with the VWSC and ratified by general Gram Sabha.
- d) *Monitoring the progress on implementation of strengthened social management rules and procedures* for the Program including review of the land requirement and practice and procedure adopted to ensure availability of land.
- e) *Strengthening of staffing.* This includes Social Development and Communication specialists at state level PMU and at district level to ensure that the social management procedures and processes are fully complied with for planned investments. In addition, a comprehensive training plan and modules will be developed for different implementing partners including GPs and strengthen capacity of MEETRA to provide training on social management as center of excellence.

### 6.2.2.3 PAP Implementation

15. The following Table-5 presents the implementation plan of the social actions of the PAP with time lines.

**Table 5 – Implementation Plan –Social Actions**

<b>Sub-action description (Social)</b>	<b>Deadline</b>	<b>Responsible party</b>	<b>Completion measurement</b>
Implement strengthened social management rules and procedures to enhance the guiding principles - inclusion, participation, transparency, and accountability and grievance management	Formal endorsement by appraisal; Implementation starting in First Year	WSSD, GoM	Formal endorsement of strengthened social management rules and procedures included in the Program Manual and Community Operational Manual
Capacity Building: Social development and communication specialists with PMU Support Organization at the district level to ensure implementation of strengthened Social management rules and procedures for water schemes, sullage schemes and aquifer management interventions. In addition to the above, GoM has Communication and gender Specialist in WSSO.	Confirmation of the staffing recruitment by GoM at the end of the first year; On-going, starting in First Year	WSSD, GoM	Formal communication from WSSD confirming hiring of specialists and support agency to facilitate implementation of social management rules and procedures

<b>Sub-action description (Social)</b>	<b>Deadline</b>	<b>Responsible party</b>	<b>Completion measurement</b>
Develop training plan and modules on social management rules and procedures; communication strategy and IEC material; and impart training to all stakeholders for strengthening institutions to deliver the program that is grounded in the “guiding principles”.	On-going, starting in First Year	WSSD, GoM	Training/IEC implemented on the basis of a detailed training/IEC calendar.

## **Annex 1: Public Consultation Reports**

### **I. State level Public Consultation Report**

#### **Background:**

1. The consultation workshop on Project Design, Environmental and Social issues for the proposed Program was held on 2<sup>nd</sup> November 2012 on 10.30 AM at The Hotel Park, Belapur, Navi Mumbai. The objective of the consultation workshop was to discuss the findings of the Environmental and Social System Assessment (ESSA) among the stakeholders in order to obtain their views and suggestions as per the requirement of the World Bank's OP 9.00.

#### **Participants:**

2. Forty six individuals representing various Government departments/agencies including Maharashtra Jivan Pradhikaran (MJP), Groundwater Survey and Development Agency (GSDA), Public Health Department (PHD), Rural Development Department (RDD), Maharashtra Pollution Control Board (MPCB), Water & Sanitation Support Organization (WSSO) and the Mantralaya participated in the workshop. The workshop also had representation from Gram Panchayats, Key Resource Centers (KRC) and Non-Governmental Organizations (NGO). The list of participants is attached as Appendix 1.

#### **Proceedings:**

3. The Project Director and Dy. Secretary, WSSD welcomed the participants. She explained briefly about the state RWSS sector status, current programs, approaches and the proposed Program. She emphasized that the good practices and lessons learned from Jalswarajya I project will be scaled up under the Program.

4. The Task Team Leader, World Bank explained the purpose of the consultation workshop and requested the various stakeholders to give their feedback on the ESSA findings. He also provided an overview of water coverage, service, quality and sanitation issues – and the need for institutional and system strengthening.

5. The presentation on the Social System Assessment was made by the Senior Social Development Specialist, World Bank. This presentation covered the social context and issues, the stakeholder analysis, potential social impacts, risk, and assumptions, various acts and regulations which govern social issues, present practices of the WSSD in handling the social issues and management of identified social issues.

6. The presentation on the Environmental System Assessment was made by the Environment Consultant, World Bank. This presentation covered the environmental status and issues, the potential environmental impacts, the Program environmental management system (including the legal/regulatory system, the institutional arrangements, and, the existing and proposed procedures for environmental management) and inputs to the Program Action Plan.

7. Following the presentations, the participants contributed significantly during the interaction and discussion sessions. In general the participants were of the opinion that the ESSA study has identified and proposed ways to address all the key environmental and social issues concerning the proposed Program. It has outlined all the important impacts and the possible actions to manage these impacts in the Program through a practical approach.

8. Some of the key feedback points from the participants were:

***On Source Sustainability:***

- a) Mr. Balasaheb Jagtap, CEO, Zilla Parishad, Ratnagiri: The planning for 24/7 and service delivery improvement in water supply schemes must integrate source sustainability measures.
- b) Dr. A.R. Supate, Principal Scientific Officer, MPCB, Mumbai: The existing water supply system can be strengthened only after ensuring that the yield of source is adequate to meet the increasing demand of the community.
- c) Sarpanch, Sindhudurg: In Jalswarajya I, while identifying source for water supply, the technical support for planning for source sustainability was not sufficient. There is a need to make efforts to provide/obtain more hydrogeological inputs in the Program.
- d) On Community Contribution:
- e) Mr. Indrajeet Deshmukh, Project Director, Vasundhara, Pune: The experience in Jalswarajya I has been that the collection of beneficiary contribution is not at all an issue. A strong IEC input will build awareness and ensure that there is willingness to pay for enhanced service delivery. IEC should precede the selection of Gram Panchayats and should continue during implementation to enhance community capacity to take up the scheme effectively. Proper co-ordination with the various political groups in the Gram Panchayat is necessary for the sustainable functioning of the system. The criteria of Gram Sabha attendance may need to be reviewed and reduced.
- f) Mr. Nandkishor Jejurkar, Add. CEO: Capacity building in the field is required to achieve change in mind-set and behaviour in a realistic time frame. Positive attitudes towards community participation and cost-sharing for items of common interest are already prevalent in the village community and can be expected to be strengthened when truly enabled.
- g) Mrs. Manisha Palande, SE, Pune: Public contribution norms need to be revised to make them affordable to people.
- h) Mr. Umalkar, EE: It is important to consider a cut on the per capita ceiling for beneficiary contribution.
- i) Mr. Gavhankar, EE: Public contribution is required but the norms on the same need to be revised – the per capita contribution norm needs to be made flexible.
- j) Sarpanch, Sindhudurg: Public contribution is essential but the amount needs to be revised.

***On Other Aspects:***

- a) Mr. Rajaram Deghe, Add. CEO: The experiences, success and lessons learned from Jalswarajya I will enable the development of the strategy for the Program.

- b) Mrs. Manisha Palande, SE, Pune: Instead of 24/7 schemes we need to concentrate on improvement of service delivery. Capacity building is a continuous process and should be focussed upon for improvement in planning and O&M.
- c) Mr. Narayane, SE, Aurangabad: The per capita norms need to be increased in the case of water supply schemes in peri-urban and big Gram Panchayats.
- d) Mr. Mapuskar, NGO, Pune: Liquid waste management in the Program can be strengthened by special IEC programmes planned for O&M. Source protection measures need to be considered an integral part of the scheme designs.
- e) Mr. Ajay Jagtap, JE, Jalna: IEC can be made effective through using community/folk/local aids and media. Public contribution is essential. For record management Gram Sevak will be secretary of VWSC.
- f) The key responses by the WSSD on the participants' views are given below:
- g) Source sustainability: The existing ground water regulations will be complied with and distribution will be done equitably, giving priority for drinking. IEC will be provided to Gram Panchayats to enhance awareness and avoid conflict. A mechanism for providing Hydrogeological/Technical support at the district level to ensure sustainability of systems and sources will be planned.
- h) Water management: Wastage and over consumption will be discouraged to ensure water security in terms of quantity, quality and reliability of supply as per the approved design. Water metering will help contribute to scientific water management
- i) Water quality monitoring: Water quality testing facilities are planned to be strengthened in the Program. Proper disinfection and appropriate treatment will be provided in all the schemes to ensure water quality. Training will be provided to the concerned staff regarding water quality testing and quality of the reports generated by them will be monitored.

## Appendix 1

### List of Participants

1.	Mrs. A. Shaila	Project Director and Dy. Secretary, WSSD
2.	Mr. Neti Raghava	Task Team Leader, World Bank
3.	Mr. Balasaheb Jagtap	CEO, Ratnagiri
4.	Mr. Sitaram Mukedkar	Add. Director, WSSO
5.	Mr. Indrajeet Deshmukh	Dy. Commissioner, Pune
6.	Mr. N. K. Jejurkar	Add. CEO, Bhandara
7.	Mr. Ganesh Chaudhari	Add. CEO, Raigad
8.	Mr. Arvind More	Director, DRDA, Nashik
9.	Mr. Rajaram Dighe	Add. CEO & Director, Mumbai
10.	Dr. A.R. Supate	Principal Scientific Officer. MPCB, Mumbai
11.	Mr. Milind Deshpande	Dy. Director, GSDA, Pune
12.	Mr. R.S. Narayane	Superintending Engineer, Aurangabad
13.	Mr. Yamgar	Superintending Engineer, Pune
14.	Mrs. Manisha Palande	Superintending Engineer, Pune
15.	Mr. Mahesh Patil	Executive Engineer, MJP, Thane
16.	Mr. Gawankar	Executive Engineer, RWSD, Chandrapur
17.	Mr. Tawar	Executive Engineer, RWSD, Satara
18.	Mr. Umalkar	Executive Engineer, RWSD, Yavatmal
19.	Mr. Kadam	Executive Engineer, RWSD, Jalna
20.	Mrs. Rasika Dongre	Senior Scientific Officer, SPHL, Lab, Pune
21.	Mr. Pramod Dabrase	UNICEF, Mumbai
22.	Mr. Sanjay Ingle	Under Secretary, Housing Dept.
23.	Mr. L.G. Doke	Under Secretary, WS
24.	Mr. R.S. Khadse	Desk Officer, WS
25.	Dr. Satish Umrikar	Hydrogeologist, WSSO
26.	Dr. Umesh Tagde	Water Quality Specialist, WSSO
27.	Dr. Shailesh Kande	Water Quality Specialist, WSSO
28.	Mrs. Kirti Salunke	SDTC, WSSO
29.	Mr. Kumar Khedkar	IEC Specialist, WSSO
30.	Mr. Vijay Bopte	Dy. Engineer, CPDM, MJP, Mumbai
31.	Mr. S. T. Fegde	Dy. Engineer, WSSO

32.	Mr. Lambate	PA to Executive Engineer, Thane
33.	Mr. Ajay Jagtap	Sectional Engineer, RWSD, Jalna
34.	Mr. Balasaheb Gade	Sectional Engineer, RWSD, Nashik
35.	Mr. Ajit Fadnis	Primove, Pune (NGO)
36.	Mr. Saste	Primove, Pune (NGO)
37.	Mr. Sanjay Unhale	Dilasa, Aurangabad (NGO)
38.	Mr. Mapuskar	KRC's Pune
39.	Mrs.	Sarpanch, GP- Parabwada, Sindhudurg
40.	Ms. Mridula Singh	Senior Social Specialist, World Bank
41.	Mr. Murti	Consultant, World Bank
42.	Mrs. Kalyani Kandula	Consultant, World Bank
43.	Mr. B.K.D. Raja	Consultant, World Bank
44.	Mr. S.P. Chankar	US, WS-11, WSSD
45.	Mr. G.B. Bhalerao	EE, WSSD, Preparation Team Leader
46.	Mr. S.E.A. Hashmi	CBS, WSSD, Preparation Team
47.	Mrs. Mrudhul Sambhare	Sr. AO, WSSD, Preparation Team
48.	Mr. Sunil Shrivastav	Dy. Engineer , WSSD, Preparation Team
49.	Mr. Hanif Mujawar	KMS, WSSD, Preparation Team
50.	Mr. Vijay Goregaonkar	Sectional Engineer, WSSD, Preparation Team
51.	Mr. Rahulkar	AAO, WSSD, Preparation Team
52.	Mr. Hariram	PIP Consultant, WSSD, Preparation Team
53.	Mr. Ramanand Jadhav	Environmental Specialist, WSSD, Preparation Team
54.	Mr. Sandip Kamble	MIS Assistant , WSSD, Preparation Team
55.	Mr. Vikaram Varade	Account Assistant WSSD, Preparation Team

## **II. Regional Level Public Consultations Report**

### **Background**

The two Regional Consultation workshops on Environmental and Social System Assessment (ESSA) Study for the proposed Program were held on 22nd March 2013 at Nagpur and on 06th April 2013 at Nasik. The objective of the consultation workshops was to discuss the findings of the Environmental and Social System Assessment (ESSA) among the stakeholders in order to obtain their views and suggestions as per the requirement of the World Bank's OP 9.00.

In the consultation workshops, a total of 171 individuals (76 at Nagpur and 95 at Nasik) representing Panchayat Raj Institutions (Zilla Parishad, Panchayat Samiti, Gram Panchayat) as well as Government departments including Maharashtra Jeevan Pradhikaran (MJP), Groundwater Survey and Development Agency (GSDA), Public Health Lab (PHD), Maharashtra Pollution Control Board (MPCB) and Non-Governmental Organizations (NGO) participated (the lists of participants is attached in Appendix 2).

#### **A) Nagpur Regional Consultation Workshop:**

The Technical Officer, Jalswarajya II welcomed the participants. He explained the purpose of the consultation workshop and requested the various stakeholders for their feedback on the findings and recommendations of the Environmental and Social System Assessment (ESSA).

The Knowledge Management Specialist, Jalswarajya II gave a detailed overview of the proposed Jalswarajya II programme including the activities supported and the technical and administrative arrangements.

The Consultant, World Bank introduced the purpose and methodology of the Environmental and Social System Assessment (ESSA) for the Jalswarajya II.

The Environmental Specialist, Jalswarajya II made a detailed presentation on the 'Environmental System Assessment (ESA) and Proposed System for Environmental Management of Jalswarajya II'. He presented the findings of the ESA study covering details of the potential environmental impacts and the mitigation measures, the relevant legal and regulatory provisions, the institutional system, and the environmental procedures. He also presented details on the proposed actions including application of strengthened environmental rules and procedures for the programme including exclusion of high-risk activities, Environment Due Diligence Plans for medium risk activities, and, Environmental Checklist for all schemes under the Jalswarajya II.

The Knowledge Management Specialist, Jalswarajya II made a detailed presentation on the 'Social System Assessment (ESA) and Proposed System for Social Management of Jalswarajya II'. The presentation covered the roles and responsibilities of stakeholders, mobilization and entry point activities, social audit, capacity building, etc.

The participants unanimously opined that the ESSA was effective in capturing and addressing all the key issues. Following the presentations, the participants contributed significantly during the interaction and discussion sessions. Some of the key feedback points from the participants were:

***On Water Quality:***

- a) Mrs. Sandhya Gotmare, President, ZP, Nagpur: Emphasis must be given to ensuring sustainable water quality in scheme design; Summer storage tanks need regular maintenance to ensure proper water quality.
- b) Mr. Titmare, Member ZP, Nagpur: Water quality management is essential. Rural water supply is affected especially in villages at the periphery of urban areas, river sites, dam sites, etc., due to direct sewage, sullage disposal without treatment. Hence, proper systems for appropriate treatment must be provided in all the water supply schemes.

***On Source Sustainability:***

- a) Mr. Milind Bhende, ZP Member, Wardha: Source sustainability works are essential in case of ground water based schemes.
- b) Mr. Chandrashekhar Chikhle, Vice President, ZP, Nagpur: Source sustainability measures are essential for ground water based schemes.
- c) Mr. Sandeep Marbade, Sectional Engineer, ZP, Bhandara: Recharge shaft is an effective technology for ground water sustainability.
- d) Mr. Nitin Mahajan, Assistant Geologist, ZP, Wardha: While identifying source for water supply, necessary technical support on hydrogeology must be provided. Compliance with the provisions of the Ground Water Act must be ensured. Source protection measures must be integrated into scheme design – especially in drought-prone areas. This will minimize of slip back schemes due to drying up of sources.
- e) Mr. Milind Bhende, ZP Member, Wardha: In per-urban areas, there is need to increase the 40 LPCD water availability per capita norm.
- f) Mr. Milind Bhende, ZP Member, Wardha: Source protection and security, quality monitoring and quick action is essential.

***On VWSC Functioning:***

- a) Mrs. Sandhya Gotmare, President, ZP, Nagpur: There is a need for a Government representative on the VWSC. The VWSC also needs to be accountable to the DWSC.
- b) Mr. P. Pradip, CEO, Nagpur: The VWSC needs assistance and facilitation from the Gram Sevak for effective functioning. It may be worthwhile to consider providing an incentive to the Gram Sevak for providing this support to the VWSC.
- c) Mr. Chandrashekhar Chikhle, Vice President, ZP, Nagpur: The Gram Sevak must be the Secretary of the VWSC.
- d) Mr. Sanjay Kamnapure, Vice president, ZP, Wardha: Gram Sevak should be the secretary of VWSC for proper management of the scheme documents.
- e) Mr. Titmare, Member ZP, Nagpur: Some degree of Government control on the VWSC is necessary.
- f) Mr. Omdev Meshram, Sarpanch GP, Valni, Tahsil Nagbhid, District Chandrapur: The VWSC chairman and Secretary must be the Gram Panchayat Sarpanch and Gram Sevak respectively.
- g) On Public Contribution:
- h) Mr. Sanjay Kamnapure, Vice president, ZP, Wardha: Public contribution must not be part of the proposed Jalswarajya II schemes.

- i) Mr. Milind Bhende, ZP Member, Wardha: Public contribution is essential but norms need to be revised considering the affordability of the people for all schemes.

***On Institutional Systems:***

- a) Mr. P. Pradip, CEO, Nagpur: The district monitoring and evaluation system needs to be strengthened in the Jalswarajya II. The application of IT (provision of appropriate communication/computing devices to field staff) will facilitate better monitoring in the WATSAN sector.
- b) Mr. Chandrashekhar Chikhle, Vice President, ZP, Nagpur: IEC and HRD were the most effective tools for capacity building under Jalswarajya I. The same can also be replicated under Jalswarajya II for effective implementation.
- c) Mr. Santosh Gawankar, EE, ZP, Chandrapur: Registration of plumbers is essential at the tahsil level for proper O&M arrangements. Locally trained plumbers will function effectively as per demand.
- d) Mr. Chandrashekhar Chikhle, Vice President, ZP, Nagpur: In every village, a comprehensive development plan is essential. This must include multiple development activities undertaken under different Government schemes.

***On Capacity Building:***

- a) Mr. Chandrashekhar Chikhle, Vice President, ZP, Nagpur: A proper capacity building plan with an impact evaluation is essential. Capacity building is a continuous process and should focus on improvement in planning and O&M.
- b) Mr. Milind Bhende, ZP Member, Wardha: Focused IEC on water quality, source sustainability, etc., is needed for community sensitization on these issues.
- c) Mr. Shantaram Chukhe, Member ZP, Chandrapur: Training and capacity building of the VWSC is essential.

**B) Nasik Regional Consultation Workshop:**

Mr. Chandrakant Gundewar, Dy. Commissioner, Nasik welcomed all delegates and introduced the purpose of the consultation workshop. He requested the various stakeholders to take part in discussions and to give their feedback on the Environmental and Social System Assessment (ESSA) report.

The Executive Engineer, Jalswarajya II briefly presented the proposed Jalswarajya II programme including the objective, components, activities, types of schemes to be implemented, proposed technical and administrative arrangements, etc.

The Environmental Specialist, Jalswarajya II presented the 'Environmental System Assessment and Proposed System for Environmental Management of Jalswarajya II'. He presented the findings of the ESA study covering details of the potential environmental impacts and the mitigation measures, the relevant legal and regulatory provisions, the institutional system, and the environmental procedures. He also presented details on the proposed actions including application of strengthened environmental rules and procedures for the programme including exclusion of high-risk activities, Environment Due Diligence Plans for medium risk activities, and, Environmental Checklist for all schemes under the Jalswarajya II.

The Knowledge Management Specialist, Jalswarajya II made a detailed presentation on the 'Social System Assessment (ESA) and Proposed System for Social Management of Jalswarajya II'. The presentation covered the roles and responsibilities of stakeholders, mobilization and entry point activities, social audit, capacity building, etc.

Some of the key feedback points from the participants were:

***On Source Sustainability:***

- a) Mr. Wankhede, Dy. Director, GSDA, Nasik: Source sustainability measures are essential for ground water based schemes especially in over exploited watersheds for reducing large quantity of slip back schemes.
- b) Mr. Balasaheb Wagh, Chair Person, Panchayat Samiti, Tahsil Sinnar, Nasik: Source sustainability work is essential for ground water based schemes.
- c) Dr. Bharti Pawar, ZP Member, Nasik: Source selection must be at proper location with technical support from GSDA for slip back reduction
- d) Mr. Arjun Gunde Addl. CEO, Dhule: The focus of any future water supply schemes must be source sustainability – as there are already several schemes in existence.
- e) Mr. Keda Bapu, Sarpanch Kikwari, Nasik: Recharge measures are essential in ground water based schemes.
- f) On VWSC:
- g) Mr. Balasaheb Wagh, Chair Person, Panchayat Samiti, Tahsil Sinnar, Nasik: Gram Sevak must be the VWSC secretary for effective scheme implementation.
- h) Mr. P. V. Bansode, Addl. CEO Nasik: Gram Sevak must be the Secretary of the VWSC.
- i) Mr. Randhir Somvanshi, Dy. CEO (GP), ZP, Nashik: Adoption of Government systems and oversight by DWSM is needed on VWSC activities during implementation.
- j) Mr. P. D. Jadhav, Sectional Engineer, ZP, Nasik: VWSC is the Gram Panchayat's sub-committee which is formed for development works. The VWSC Chairman and Secretary are required to attend the monthly meeting of GP and submit a monthly report.
- k) Mr. Kisanrao Narvekar, Sarpanch GP Takli, District Jalgaon: The Gram Sevak is already overburdened with several responsibilities – hence, the suggestion on additional role as the secretary of VWSC needs to be examined.
- l) Mr. Bhimsen Bansiyale Sarpanch, Renwadi, Ahmadnagar: Renwadi village was part of the German Aided KfW programme and the experience with the existing VWSC system has been good. However, there is a need for a proper monitoring mechanism in this system.
- m) On Institutional Arrangements:
- n) Dr. Bharti Pawar, ZP Member, Nasik: For successful implementation of schemes proper monitoring and evaluation is needed.
- o) Mr. Sunil Gaikwad, Addl. CEO, Jalgaon: The BOD at the Tahsil level is important for monitoring activities.
- p) Mr. Rathod, Executive Engineer, ZP, Nandurbar: There is a need to closely monitor fund utilization by the VWSC (as per GR on 17th March 2010).
- q) Mr. Jain, Executive Engineer, ZP, Nandurbar: There is a need for a clear O&M policy for programme schemes
- r) Mr. Randhir Somvanshi, Dy. CEO (GP), ZP, Nashik: BDO's involvement is essential for proper monitoring of scheme implementation.

- s) Mr. P. D. Jadhav, Sectional Engineer, ZP, Nasik: There is no need for TSP support in the new programme
- t) Mr. Kamlakar Randive, BDO Rahata, Ahmadnagar: Monitoring by BDO and Extension Officers is essential at the time of scheme execution. The scheme grant goes directly from the ZP to VWSC in the proposed programme – there is a need to track/monitor this at the Block level as well.
- u) On Other Aspects:
- v) Mr. Keda Babu, Sarpanch Kikwari, Nasik: Soak pit technology is a cost-effective solution for liquid waste management in some areas.

## Appendix 2

### A) LIST OF PARTICIPANTS AT THE NAGPUR CONSULTATION

JALSWARAJYA-II CONSULTATION (DISCLOSURE) WORKSHOP ON ENVIRONMENTAL AND SOCIAL SYSTEM ASSESSMENT (ESSA) REPORT		
Place:- Hotel Centre point Nagpur		Date:- 22nd March 2013
Time:- 10.30 Am to 05.00 Pm		
1.	Hon'ble Mrs. Sandhya Gotmare	President, ZP, Nagpur
2.	Hon'ble Mr. Santosh Kumbhare	President, ZP, Chandrapur
3.	Hon'ble Mrs. Vandana R. Vanjari	President, ZP, Bhandara
4.	Mr. Pradip P.	CEO, ZP, Nagpur
5.	Mr. Chandrashekhar Chikhale	Vice-President, ZP Nagpur
6.	Mr. Sanjay Kamnapure	Vice President, ZP, Wardha
7.	Mr. Moreshwar Katre	Subject Committee Chairman, ZP, Gondia
8.	Mr. Arvinda M. Bhalghare	Subject Committee Chairman, ZP, Bhandara
9.	Mr. Manoj Titmare	Member, ZP Nagpur
10.	Mr. Shantaram Chukhe	Member, ZP, Chandrapur
11.	Mr. Milind Bhende	Member, ZP, Wardha
12.	Mr. Umakant Dhenge	Member ZP, Gondia
13.	Mr. Ubale	Add. CEO, ZP, Nagpur
14.	Mr. V.B. Bhandarkar	Dy. CEO, ZP, Nagpur
15.	Dr. Kamalkishor Phutane	Dy. CEO, ZP, Nagpur
16.	Mr. Vivek Bopte	Dy. CEO, ZP, Chandrapur
17.	Mr. Milind Chandragade	Executive Engineer, RWSD, ZP, Nagpur
18.	Mr. Taklikar	Executive Engineer, MJP, Nagpur
19.	Mr. Sanjay Wagh	Executive Engineer, RWSD, ZP, Chandrapur
20.	Mr. S.S. Susher	Executive Engineer, RWSD, ZP, Bhandara
21.	Mr. V.B. Jagtare	Executive Engineer, MJP, Wardha
22.	Mr. S.K. Shegaonkar	Executive Engineer, RWSD, ZP, Gondia
23.	Mr. Dashrath Pimpre	Dy. Engineer, RWSD, ZP, Nagpur
24.	Mrs. Kalpana Bhole	Dy. Engineer, PMC, MJP, Nagpur
25.	Mr. B.G. Patre	Dy. Engineer, RWSD, ZP, Bhandara
26.	Mr. Ajay Bele	Dy. Engineer, RWSD, ZP, Wardha
27.	Mr. Ravi Parate	Dy. Engineer, RWSD, ZP, Gadchiroli

28.	Mr. Kalbande	Dy. Engineer, MJP, Wardha
29.	Mr. U.B. Bahadule	Field Officer, MPCB, Bhandara
30.	Mr. Girish Kulkarni	Assist. Geologist, RWSD, ZP, Nagpur
31.	Mr. K.B. Engle	Assist. Geologist, RWSD, ZP, Bhandara
32.	Mr. N.V. Mahajan	Assist. Geologist, RWSD, ZP, Wardha
33.	Mr. Shirish Kulkarni	Assist. Geologist GSDA, Gondia
34.	Mr. Bhupesh Maher	Assist. Engineer, DWSM, Nagpur
35.	Mr. Vinod Zadpe	Sub-divisional Engineer, RWSD, Chandrapur
36.	Mr. V.T. Shende	Sub-divisional Engineer, RWSD, Sindhewadi, Chandrapur
37.	Mr. A.R. Gajlewar	Sectional Engineer, MJP, Chandrapur
38.	Mr. N.V. Jivtode	MJP, Chandrapur
39.	Mr. S.D. Marbade	Sectional Engineer, RWSD, ZP, Bhandara
40.	Mr. S.U. Hivalekar	Sectional Engineer, RWSD, ZP, Wardha
41.	Mr. S. G. Patil	Sectional Engineer Sub-Div. Gondia, ZP, Gondia
42.	Mr. S. B. Haemke	Sub-Divisional Engineer. Sub-Div. Gondia, ZP, Gondia
43.	Mr. Utpal Bhos	Sectional Engineer, Nagpur
44.	Mr. Dinesh Masodkar	IEC, DWSM, Nagpur
45.	Mr. Vishal D. Deshmukh	M&E Cum MIS, Nagpur
46.	Mr. Jogeshwar Khopkar	ADM, RWSM, Nagpur
47.	Mr. B. K. Khobragade	Extension Officer, ZP Nagpur
48.	Mr. Vaman Doma Sahare	Sarpanch, GP- Chop, Tal. Desaiganj (Vadasa), Gadchiroli
49.	Mr. Surendra G. Kharkate	Sarpanch, Kamtha Dist. Gondia
50.	Mr. Khose	Sarpanch, GP-Umari Meghe, Wardha
51.	Mr. Ramesh Nimbate	Sarpanch, GP- Mujambi, ZP, Bhandara
52.	Mr. Homdev Meshram	Sarpanch, GP- Valani, Tal. Nagbhid
53.	Mr. Haribhau Lohe	Village Development Officer, GP Hingna, Nagpur
54.	Mr. P.A. Nakape	Village Development Officer, Nagpur
55.	Mr. Pilevan	Village Development Officer, GP-Girgaon, Tal, Nagbhid
56.	Mr. Jayant Tidke	Village Development Officer,, Dist. Gondia
57.	Mr. Bhosale	Village Development Officer,, GP- Bhivpur, Wardha
58.	Mr. Anand Ganyarpawar	NGO, Om Sai Seva Mandal, Gadchiroli

59.	Mr. Suresh Wasnik	NGO Dist. Gondia
60.	Vishamanav Kalan Mission, Godpimpri	NGO, Jijabai, Punarvasan, ZP, Bhandara
61.	Mr. Prakash Suryabhan Potraje	NGO, President, Sahajivan Rukshavalli Shramsanskar Sanstha, Jambhulghat, Tal. Chimur
62.	Mr. Mohan Satpute	NGO, Ambika Bahuuddeshiya Gram Vikas Sanstha, Chandrapur
63.	Mr. L.B. Chanurvar	Panchayat
64.	Mr. S.D. Badiye	Wardha
65.	Mr. Rahul Chavale	RWSD, Wardha
66.	Mrs. Kalyani Kandula	Consultant, World Bank
67.	Dr. BKD Raja	Consultant, World Bank
68.	Mr. Sunilkumar Shrivastava	Technical Officer , JS-II, Preparation Team
69.	Mr. Hanif Mujawar	KMS, JS-II, Preparation Team
70.	Mr. Ramanand Jadhav	Environmental Specialist, JS-II, Preparation Team
71.	Mr. Mitilesh Deshmukh	PA to Vice President ZP, Nagpur
72.	Mr. Patil	Assistant, JS-II, Preparation Team
73.	Mr. Korve	Peon, JS-II, Preparation Team
74.	Mr. Ras Pandare	Presidents Bodyguard, Chandrapur
75.	Mr. Pankaj Khamode	Photographer, Nagpur

**B) LIST OF PARTICIPANTS AT THE NASHIK CONSULTATION**

WATER SUPPLY AND SANITATION DEPARTMENT, GoM		
JALSWARAJYA-II CONSULTATION (DISCLOSURE) WORKSHOP ON ENVIRONMENTAL AND SOCIAL SYSTEM ASSESSMENT (ESSA) REPORT		
Place:- Planning Hall, Commissioner Office, Nashik		Date:- 6nd April 2013
Time:- 10.30 Am to 03.00 Pm		
1.	Mr. Ranjit Kumar	CEO, ZP, Nasik
2.	Mr. Anil Landge	CEO, ZP, Dhule
3.	Mr. Chandrakant Gundewar	Dy. Commissioner, Nasik
4.	Mr. Atul Dhele	Chair Person, Panchayat Samiti, Nashik
5.	Mr. Balasaheb Wagh	Chair Person, Panchayat Samiti, Sinnar, Nashik
6.	Mr. D. P. Salunke	Chair Person, Panchayat Samiti, Chopda, Jalgaon
7.	Mrs. Vijayshari Chubale	Member, ZP, Nasik
8.	Dr. Mrs. Bharti P. Pawar	Member, ZP, Nasik
9.	Mr. Shailesh Suryawanshi	Member, ZP, Nashik
10.	Mr. Gaikwad Pravin	Member, ZP, Nashik
11.	Mr. Sanjay Vijay Patil	Member, ZP, Jalgaon
12.	Mr. Vilas Niraris	Member, ZP, Dhule
13.	Mr. Tushar Randhe	Member, ZP, Dhule
14.	Mr. P. V. Bansode	Additional CEO, Nashik
15.	Mr. Sunil Gaikwad	Additional CEO, ZP, Jalgaon
16.	Dr. Arjun Gunde	Additional CEO Nandurbar
17.	Mr. K.C. Vankhede	Dy. Director, GSDA, Nasik
18.	Dr. V. M. Kulkarni	Dy. CEO, Nashik
19.	Mr. Randhir Somvanshi	Dy. CEO (GP), ZP, Nashik
20.	Mr. Rajan Patil	Dy. CEO (GP) ZP, Jalgaon
21.	Mr. Tushar Mali	Dy. CEO (GP), ZP, Nandurbar
22.	Mr. Udhav Khandare	Dy. CE, (GP), ZP, Dhule
23.	Mr. Sangle	Assistant Dy. Commissioner, Nasik
24.	Mr. P. R. Nandanware	Executive Engineer, Nashik
25.	Mr. R.S. Jain	Executive Engineer, MJP and RWS, Jalgaon
26.	Mr. B.S. Ranade	Executive Engineer, RWSD Nandurbar
27.	Mr. S.C. Nikam	Executive Engineer, Ahmadnagar
28.	Dr. Uday R. Patankar	Sr. Geologist, GSDA, Nasik

29.	Mr. R. B. Ahire	SRO, MPCB, Nasik
30.	Mr. Ished	SRO, MPCB, Nasik
31.	Mr. Kamlakar Randive	BDO, Rahata, Ahmadnagar
32.	Mr. A.N. Patil	Dy. Engineer, RWS, ZP, Jalgaon
33.	Mr. C. N. Chaudhari	Dy. Engineer, ZP Dhule
34.	Mr. N. D. Patil	Dy. Engineer, Dhule
35.	Mr. P.G. Patil	Dy. Engineer, Sakri, Dhule
36.	Mr. L. B. Patil	Dy. Engineer, RWSD, Nandurbar
37.	Mr. S.S. Chaudhari	Dy. Engineer, RWSD, Sindhkheda Dhule
38.	Mr. S.D. Karale	Dy. Engineer, Ahmadnagar
39.	Dr. V.N. Dekate	ADHO, Nashik
40.	Dr. A.K. Vichurkar	ADHO, Nandurbar
41.	Mr. Sushil Vakchure	ADHO, Dhule
42.	Mr. R. R. Takur	Development Officer, Rahata, Ahmadnagar
43.	Mr. M. P. Bagul	Sectional Engineer, ZP, Nashik
44.	Mr. S.S. Ghase	Sectional Engineer, Ahmadnagar
45.	Mr. B.D. Pardeshi	Sectional Engineer, RWSD, Nandurbar
46.	Mr. R.S. Desale	Sectional Engineer, RWSD, Dhule
47.	Mr. S.D. Dahale	Sectional Engineer, ZP, Jalgaon
48.	Mr. B.D. Patil	Assist. Executive Engineer, Jalgaon
49.	Mr. P.D. Jadhav	Sectional Engineer, ZP, Nashik
50.	Mr. R.P. Suryavanshi	Field Officer, MPCB, Nasik
51.	Mr. G. D. Khadkikar	Field Officer, MPCB, Nasik
52.	Mr. P. B. Deore	Consulting Engineering, Nashik
53.	Mrs. Shamla Chavan	DWSM, HRD Specialist, ZP, Nashik
54.	Mr. A.R. Gholap	Technical Service Provider, Nasik
55.	Mr. Amol Suryavashi	Contractor , Dhule
56.	Mr. Sunil Pawar	Technical Service Provider, Dhule
57.	Mrs. Sanghayati Kirtic	Consulting Engineer, ZP, Nashik
58.	Mr. S.B. Ajvekar	Village Development Officer, Malegaon
59.	Mr. Ravindra R. Pardeshi	Village Development Officer, Malegaon
60.	Mr. S.S. Narkhede	Village Development Officer
61.	Mr. Pradip Chaudhari	Village Development Officer, Shirpur, Dhule
62.	Mr. Chandrakant Pawar	Village Development Officer, Sakri, Dhule
63.	Mr. P.S. Pawar	Village Development Officer, Nandurbar
64.	Mr. D.N. Rajput	Village Development Officer, Nandurbar
65.	Mr. D. S. Bhosale	Village Development Officer, Renwadi, Ahmadnagar
66.	Mr. Raju Ambar Takare	Sarpanch, Kalsai, Tal. Shahada, Nandurbar
67.	Mr. Patil Yogesh Govind	Sarpanch, Shirur, Tal. Shahada, Nandurbar

68.	Mr. Bhimsen Bansiyele	Sarpanch, Renwadi, Ahmadnagar
69.	Mr. Kisanrao Narvekar	Sarpanch, Takali, Jalgaon
70.	Mr. Shamrao D. Date	Sarpanch, Gondigaon Nifad, Nashik
71.	Mr. Keda Babu	Sarpanch Kikwari District Nasik
72.	Mr. Kesha Babu Kakulate	Deputy Sarpanch, Nasik
73.	Mr. Jagan Appa Mahajan	Dy. Sarpanch, Takali, Jalgaon
74.	Mr. Babaji Mauli Shelke	Dy. Sarpanch, Renwadi, Ahmadnagar
75.	Mr. Patil Jeevan Jadhav	Member of Gram Panchayat, Nandurbar
76.	Mr. Patil Nesera Ratipal	Member of Gram Panchayat, Nandurbar
77.	Mr. Kailas Patil	Member GP, Takali, Jalgaon
78.	Mr. Machindra Ratan Patil	Member GP Jalgaon
79.	Mr. Sharad P. Raut	Member GP Jalgaon
80.	Mr. Bhagvan V. Patil	President VWSC, Dhule
81.	Mr. Dilip P. Pawar	Secretary, VWSC Committee, Takali Jalgaon
82.	Mr. Umesh Lagad	NGO, Ahmadnagar
83.	Mr. Ramdas Mohan Gavitt	NGO, President Nashik
84.	Mrs. Mridula Singh	Sr. Social Development Specialist, World Bank
85.	Mrs. Kalyani Kandula	Consultant, World Bank
86.	Dr. BKD Raja	Consultant, World Bank
87.	Mr. J.V.R. Murthy	Consultant, World Bank
88.	Mr. Ganesh Bhalerao	Executive Engineer, JS-II, Preparation Team
89.	Mr. Hanif Mujawar	KMS, JS-II, Preparation Team
90.	Mr. Ramanand Jadhav	Environmental Specialist, JS-II, Preparation Team
91.	Mr. Trivikram Warade	Account Assistant, JS-II, Preparation Team
92.	Mr. Kunchikorve M.G.	JS-II, Preparation Team
93.	Mr. Ravindra Ghoge	Nashik
94.	Mr. Pramod Jadhav	Photographer, Regional Information and Public Relation, Department, GoM, Nasik
95.	Mr. Atul Balde	Cameraman, Regional Information and Public Relation Department, GoM, Nasik

**Annex 2: Environmental and Social Risks and Mitigation**

**Table 1 – Environmental and Social Risks and Mitigation**

<b>Risk</b>	<b>Environmental Assessment and Mitigation</b>	<b>Social Assessment and Mitigation</b>
<p><i>Associated or Likely Social and Environmental Effects (potential benefits, impacts and risks that are likely to be associated with the Program.)</i></p>	<p><b>Assessment:</b> The findings of the ESA suggest that the overall environmental effects of the Program is likely to be beneficial – owing to improvements in access to safe water, improved sanitation, water conservation and harvesting, etc. The environmental impacts and risks pertaining to the proposed Program activities are:</p> <ul style="list-style-type: none"> <li>Source unsustainability especially in areas with overexploited or critical groundwater status</li> <li>Poor water quality of ground and surface water sources in certain areas</li> <li>Contamination from poorly designed/managed specific water quality treatment units;</li> <li>Contamination from poorly designed/managed sullage management units;</li> <li>Impacts on natural heritage sites (protected forests, Coastal Regulation Zone, etc.) and cultural heritage sites (archaeological monuments) located in proximity of water supply and sanitation structures</li> <li>Occupational and public safety risks (safety gear for workers, Asbestos-Cement pipes, uncovered open wells, etc.)</li> <li>Dam safety in cases where water source development involves large dams</li> <li>Water wastage from poorly designed/maintained water supply facilities</li> </ul> <p>The identified environmental risks are typical of RWSS investments, and are manageable.</p> <p><b>Mitigation:</b> Identified high risk interventions have</p>	<p><b>Assessment:</b> Social systems assessment reveals that the overall the impacts of the Program will be positive primarily due to the improvements in access to safe water, improved sanitation, improved health and hygiene and reduced drudgery. The social impacts and risks pertaining to the proposed Program activities are typical of RWSS investments, and are manageable which are:</p> <p><b>Assessment and Risk</b></p> <p>Land procurement and misuse of voluntary land donation process.</p> <p><b>Mitigation:</b> The mitigation plan agreed with the GoM includes action to mitigate the identified risks through:</p> <ul style="list-style-type: none"> <li>Use of available government land which is free from encumbrances</li> <li>Adoption of the direct purchase method for land procurement and improved process for voluntary land donation.</li> </ul>

Risk	Environmental Assessment and Mitigation	Social Assessment and Mitigation
	<p>been excluded from the Program. The Program Action Plan agreed with the GoM includes the following actions to mitigate the identified risks through:</p> <p>Source unsustainability: Exclusion of schemes in overexploited and critical areas that do not integrate source sustainability measures; Environmental Due Diligence Planning (EDDP) for schemes in water scarcity hotspots.</p> <p>Poor water quality: Exclusion of schemes involving high polluted surface water sources; EDDP for schemes in water quality hotspots.</p> <p>Contamination from water quality treatment units: EDDP for schemes in water quality hotspots.</p> <p>Contamination from sullage management units: EDDP for sullage management intervention.</p> <p>Impacts on natural and cultural heritage sites: Compliance Checklist to ensure that requisite permissions are taken; EDDPs for schemes/interventions located in proximity of natural and cultural heritage sites.</p> <p>Occupational and public safety risks: EDDP for schemes involving Asbestos-Cement pipes; Technical guidelines on good environmental management practices including occupational and public safety.</p> <p>Dam safety: Exclusion of schemes involving repair/rehabilitation of large dams; EDDP for schemes involving dams that are 5-10 meters in height.</p> <p>Water wastage: Technical guidelines on good environmental management practices for water</p>	

Risk	Environmental Assessment and Mitigation	Social Assessment and Mitigation
	<p>supply schemes.</p> <p>In addition, strengthened monitoring and capacity building on environmental management are also part of the Program Action Plan.</p>	
<p><b>Environmental and Social Context</b> (geographical coverage and scope of the Program and environmental and social conditions in the Program area that may have significance for Program design and implementation.)</p>	<p><b>Assessment:</b> The hotspots for environmental management in the state – relevant to the Program activities are: 10 talukas/blocks having overexploited and critical groundwater status, 7 talukas having very poor and unsuitable groundwater quality, and, 30 river sites with poor surface water quality. Also of significance are 90 talukas that are chronically drought prone and areas in proximity of protected natural areas and monuments. These areas present greater risks with respect to source unsustainability, poor water quality and impacts on natural and cultural heritage.</p> <p><b>Mitigation:</b> Strengthened application of the state’s environmental management systems.</p>	<p><b>Assessment and Risk</b></p> <p>Elite Capture/ Exclusion of certain groups Exclusion of vulnerable communities including Tribal dominated GPs and communities from benefits</p> <p><b>Mitigation:</b></p> <p>Ensuring implementation of government orders that specifies subsidy for the vulnerable including Tribal in the Plan. Selection criteria developed for identification of GPs gives more weightage to tribal dominant GPs. Thus ensuring that such GPs are included. The implementing agencies have experience of implementation of such policies. Further the Social Management Rules and Procedures has provisions for implementing the Legal Framework and Government Orders which provides for special status and treatment for tribals.</p>
<p><b>Program Strategy and Sustainability</b> (situate the Program, and its environmental and social management systems, within the country’s broader development)</p>	<p><b>Assessment:</b> Maharashtra is a leading state in India in terms of creating state level policies, legal instruments and programs to manage the overall environment, particularly the water resources (surface water and ground water) in conjunction with the national policy, legal, program frameworks. Maharashtra also legally recognized the role of local</p>	<p><b>Assessment and Risk:</b> The state has empowered the PRIs to plan and implement RWSS schemes with local communities to own and manage the assets.</p> <p>Lack of transparency and low accountability</p>

Risk	Environmental Assessment and Mitigation	Social Assessment and Mitigation
<p><i>strategy, with particular emphasis on identification of factors that may impede successful Program management over time.)</i></p>	<p>governments (Panchayati Raj Institutions) and local communities (water user associations, village water and sanitation committees, etc.) in managing and conserving the water resources, water supply and sanitation service delivery. The state has been active in reviewing/refining implementation of its policies and programs to address gaps (power subsidies, water quality management, etc.) and emerging needs (like solid and liquid waste management). Situated in this context, the Program will improve the performance of sector institutions in planning, implementation and sustainability of rural water supply and sanitation services, and will demonstrate feasible ways of delivering improved and sustainable access to rural water supply and sanitation services in peri-urban areas. The investments to be supported include water supply and sullage management schemes for delivering improved services in peri-urban villages, aquifer management, water quality treatment, and rain water harvesting – all involving environmental management objectives. The broader sector development strategy in which the Program is situated is thus conducive to environmental management within the Program and does not present any significant risk.</p> <p><b>Mitigation:</b> The actions agreed with the GoM include actions to strengthen the program’s environmental management through adoption of the strengthened environmental rules and procedures and through capacity building of sector institutions and PRIs.</p>	<p><b>Mitigation:</b> build upon lessons learnt from the previous projects to enhance inclusion, participation and strengthen decentralised decision making and management of assets</p>

<b>Risk</b>	<b>Environmental Assessment and Mitigation</b>	<b>Social Assessment and Mitigation</b>
<p><b><i>Institutional Complexity and Capacity</i></b> (organizational, administrative and regulatory structures and practices, as they relate to environmental and social assessment, planning and management.)</p>	<p><b>Assessment:</b> The Program will be delivered through existing state level water sector institutions and local governments (Panchayat Raj Institutions - PRIs) under the overall leadership of the Water Supply and Sanitation Department (WSSD). The WSSD is the lead sector manager and is responsible for policy making, funds mobilization and allocation, overall sector monitoring, coordinating with GoI and external donors like World Bank. WSSD is supported by WSSO on software issues and sector monitoring. WSSD has conclusively demonstrated its capacity in implementing large scale externally aided projects. Two Bank supported projects in the sector were implemented in Maharashtra: Maharashtra Rural Water Supply and Environmental Sanitation Project (1991-98), and, Jalswarajya I (2003-09). Through Jalswarajya I, the WSSD has had experience in implementing an environmental management framework. The MJP is the lead state level technical agency. Jalswarajya I did not involve the MJP in implementation – whereas it will have a strong role in the Program, implementing a substantial portion of investments (such as 24/7, per-urban areas, etc.). GSDA is the key technical agency for groundwater monitoring and water security planning. As identified in this ESSA there is a need to augment capacity of these institutions for meeting the emerging challenges and for mainstreaming environmental management in scheme planning and implementation.</p>	<p><b>Assessment and risk:</b> Further to the explanation given under environmental section, the social management of the Program will be implemented by the PRI institutions, i.e., Zilla Panchayat, Block level institutions, and ultimately the Gram Panchayat and MJP. Weak capacity of these institutions for participation in planning, social accountability and monitoring.  <b>Mitigation:</b> Adequate technical staff to enhance communication, social mobilization, and strengthen social audit systems. Focus on strengthening the three PRI institutions in areas related to planning, social accountability and operation and maintenance.</p>

Risk	Environmental Assessment and Mitigation	Social Assessment and Mitigation
	<p><b>Mitigation:</b>  The Program will strengthen WSSO in areas related to environmental management and water quality. Capacity building of MJP for environmental management will involve positioning required human resources (Environmental Specialists) at the state and district levels in the MJP and in MEETRA. Capacity building of GSDA for environmental management will involve positioning required human resources (Environmental Specialists) at the state and district levels. The program will also support GSDA's capacity building through strengthening of monitoring equipment, up gradation of water quality monitoring labs, and, supporting the development of aquifer maps. The capacity of the ZPs will also be built through the Program to enhance their human resources and skills in areas related to solid/liquid waste management, water quality monitoring/management.</p>	
<p><b>Reputational and Political Risk Context</b>  <i>(environmental and social issues, trends or other factors that may cause the program, the country, or the Bank to be exposed to significant reputational or political risk.)</i></p>	<p><b>Assessment:</b> Politically, Maharashtra has demonstrated its resolve to address the water supply and sanitation situation in the state. The political commitment started with the preparation of a white paper on the sector in 1990. Based on the white paper the state created a new ministry and a full scale department, the WSSD, to exclusively focus on the sector management. In early 2000s, based on GoI advocacy and the state commissioned Suktankar Committee report, the state has decided to devolve the sector to PRIs and since then has been progressively devolving functions, funds and</p>	<p><b>Assessment and Risk:</b> The state has shown its commitment to devolve the sector, adopted progressive policies to safeguard the interests of vulnerable groups including women. The risks associated with selection of GPs and elite capture is moderate.</p> <p><b>Mitigation:</b> The design of the program from selection to planning, implementation and social accountability measures emphasises on enhancement of inclusion, participation and transparency.</p>

Risk	Environmental Assessment and Mitigation	Social Assessment and Mitigation
	<p>functionaries to various tiers of local governments. The state also initiated performance competitions for local governments in the form of the Sant Gadge Baba Swachata Abhiyan (cleanliness campaign) which has been subsequently adopted by GoI and various state governments as a good practice. Recently the state has declared its intent of providing higher quality of services to its citizens in the form of Sujal Nirmal Abhiyan, which forms the sector vision for the next five to ten years. The devolution in the sector is now deep rooted and does not have any risk of reversal or dilution. Moreover, with the establishment of an independent regulator for water resources in 2005, and revision of act on groundwater management in 2012, the state has demonstrated its political will to tackle the burning issue of regulations head on. All these developments indicate a strong political commitment from the highest level of political leaders. There are however a few areas that pose moderate reputational risk exposure:</p> <p>Seasonal water scarcity due to drying up of drinking water sources and associated issues (management of water supply to villages through tankers) has been a major challenge – both managerial and political – to the GoM in recent times.</p> <p>Pollution of surface water sources due to industrial activity and depletion of groundwater due to agricultural extraction lead to risk of unsustainability of the supported schemes. Political pressures and governance issues sometimes challenge the capacity of regulatory authorities to safeguard the water</p>	

Risk	Environmental Assessment and Mitigation	Social Assessment and Mitigation
	<p>resources.</p> <p><b>Mitigation:</b> Adoption of transparent and pre-defined selection criteria and designated project cycle will mitigate this risk. The strengthened environmental procedures will emphasize adoption of technical guidelines on source sustainability and water quality.</p>	
<p><b>Overall Assessment:</b> (overall risk profile for the Program, based on the team's subjective weighting and aggregation of all factors identified above).</p>	<p><b>Assessment:</b> Given the scope of the program, the type and scale of activities supported, and the state government's experience with Bank projects in the water supply and sanitation sector, the overall environmental risk can be rated as moderate.</p> <p><b>Mitigation:</b> The PAP agreed with the GoM has time-bound actions (integrated into the PAP) identified to mitigate the residual environmental risks identified.</p>	<p><b>Assessment and Risk:</b> Given the scope of the program, the type and scale of activities supported, and the state government's experience with Bank projects in the water supply and sanitation sector, the overall social risk can be rated as moderate.</p> <p><b>Mitigation:</b> The PAP agreed with the GoM has time-bound actions (integrated into the PAP) identified to mitigate the residual social risks identified.</p>

### Annex 3: List of Environmental Hotspots

#### 1) 10 talukas (blocks) having overexploited and critical groundwater status

Source: *Dynamic Groundwater Resources of India* (as on March 2009). Central Ground Water Board, Ministry of Water Resources, Government of India. November 2011.

District	Critical talukas	Over-exploited talukas
Ahmednagar		Rahata
Amravati		Daryapur Morshi Warud Chandur Bazar
Buldhana		Jalgaon
Jalgaon		Raver Yawal
Sangli	Kavathe Mahankal	
Solapur		Malshiras

#### 2) 7 talukas having poor groundwater quality (classified as very poor or unsuitable for drinking)

Source: MPCB, 2012. GSDA, CGWB and MPCB Groundwater Quality Monitoring Program.

District	Very Poor Water	Unsuitable for drinking
Aurangabad	Vaijapur	Paithan
Buldhana		Shegaon
Jalgaon		Amalner
Jalna		Jafrabad
Nashik	Sinnar	
Osmanabad	Kalambh	

#### 3) 30 river sites with poor surface water quality

Source: GSDA-NEERI 2007-2009

River	WQM Station Codes	Locations
Bhima	1189	Upstream of Vithalwadi near Sankar Mandir, Pune Downstream of Bundgarden, Pune
Daman-Ganga	1190	Shindayacha Pada
Ghod	2665	Shirur
Indrayani	2197 2669	Downstream of Alandigaon Upstream of Moshigaon
Kanhan	1909	Downstream of Nagpur
Krishna	HP_KR_10 HP_KR_24	Dattawadi Pimple Gurav
Mithi	2168	Mahim village
Mula-Mutha	2191	Sangam bridge near Ganapathy Ghat

River	WQM Station Codes	Locations
	2192 2193 2194 2677 2678 2679	Mundhawa bridge Aundh bridge Mula river at Harrison bridge near Mula-Pawana Sangam Downstream of Theur Mutha river near Veer Savarkar Bhavan Mutha river at Deccan bridge
Nira	2195	Downstream of Jubilant Organosis, Nimbut
Pawana	2196 2690 100 2691 2693 2694	Sangavigaon Kasarwadi Sangavigaon Dapodi at Pawana-Mula Sangam Chinchwadgaon Pimprigaon
Pedhi	2695	Pedhi river bridge near Padhi village
Tapi	HP_TP_12	Sarangkheda
Titur	HP_UH_3 1093	Manda Upstream of NRC Bunder, Mohane village
Vashishti	HP_VA_2	Pimpali

#### 4) 90 talukas that are chronically drought prone

Source: RSPMU (GSDA- Survey-1/desk-2/File No. 30/2079/08 (02/07/2008))

GoM Approved Drought Prone Tahsils in Maharashtra			
Region	Districts	Sr. No.	Tahsils
Nashik (35)	Nashik (11)	1	Nasik
		2	Dindori
		3	Kalwan
		4	Niphad
		5	Sinnar
		6	Yeola
		7	Chandwad
		8	Malegaon
		9	Baglan
		10	Nandgaon
		11	Igatpuri
	Dhule (03)	12	Dhule
		13	Sakri
		14	Sindhkheda
	Nandurbar (01)	15	Nandurbar
	Jalgaon (07)	16	Muktainagar
		17	Chalisingaon
		18	Pachora
		19	Bhadgaon
		20	Amalner
		21	Parola
		22	Erandol

GoM Approved Drought Prone Tahsils in Maharashtra				
Region	Districts	Sr. No.	Tahsils	
	Ahmednagar (13)	23	Akole	
		24	Sangamner	
		25	Shrirampur	
		26	Kopargaon	
		27	Rahuri	
		28	Newasa	
		29	Shevgaon	
		30	Pathardi	
		31	Parner	
		32	Shrigonda	
		33	Karjat	
		34	Jamkhed	
		Pune (31)	Pune (09)	35
36	Haveli			
37	Baramati			
38	Indapur			
39	Purandar			
40	Daund			
41	Khed			
42	Junnar			
43	Ambegaon			
44	Shirur			
Solapur (11)	Solapur (11)		45	North Solapur
			46	South Solapur
			47	Barshi
			48	Akkalkot
			49	Pandharpur
			50	Malshiras
			51	Sangola
			52	Mangalvedha
			53	Madha
			54	Mohol
			55	Karmala
Sangli (06)	Sangli (06)		56	Miraj
			57	Kavathemahankal
			58	Jath
			59	Tasgaon
			60	Khanapur (Vita)
			61	Atpadi
Satara (05)	Satara (05)		62	Koregaon
			63	Phaltan
			64	Man
			65	Khatav

GoM Approved Drought Prone Tahsils in Maharashtra			
Region	Districts	Sr. No.	Tahsils
		66	Khandala
Aurangabad (22)	Aurangabad (06)	67	Aurangabad
		68	Paithan

		69	Vaijapur
		70	Kannad
		71	Khultabad
		72	Gangapur
	Jalna (02)	73	Ambad
		74	Ghansawangi
	Beed (07)	75	Beed
		76	Gewrai
		77	Patoda
		78	Ashti
		79	Majalgaon
		80	Kaij
		81	Dharur
	Osmanabad (05)	82	Osmanabad
		83	Tuljapur
		84	Bhoom
		85	Kalamb
	Latur (02)	86	Paranda
87		Ahmadpur	
Amravati (02)	Buldhana (02)	88	Chakur
		89	Khamgaon
		90	Malkapur

**5) Areas in proximity of protected natural areas (National Parks – NP, and, Wildlife Sanctuaries – WLS)**

Source: ENVIS Centre on Wildlife & Protected Areas, Wildlife Institute of India, Dehradun. Ministry of Environment and Forests, Government of India.

No.	Name of Protected Area
1	Amba Barwa WLS
2	Andhari WLS
3	Aner Dam WLS
4	Bhamragarh WLS
5	Bhimashankar WLS
6	Bor WLS
7	Chandoli NP
8	Chaprara WLS
9	Deolgaon-Rehkuri WLS

<i>No.</i>	<i>Name of Protected Area</i>
10	Dhyanganga WLS
11	Gautala WLS
12	Great Indian Bustard WLS
13	Gugamal NP
14	Jaikwadi WLS
15	Kalsubai WLS
16	Karanjasohol WLS
17	Karnala WLS
18	Katepurna WLS
19	Koyana WLS
20	Lonar WLS
21	Marine (Malvan) WLS
22	Mayureswar Supe WLS
23	Melghat WLS
24	Nagzira WLS
25	Naigaon Mayur WLS
26	Nandur Madhameshwar WLS
27	Narnala WLS
28	Nawegaon NP
29	Painganga WLS
30	Pench NP
31	Phansad WLS
32	Radhanagari WLS
33	Sagareshwar WLS
34	Sanjay Gandhi (Borivali) NP
35	Tadoba NP
36	Tansa WLS
37	Tipeshwar WLS
38	Tungareshwar WLS
39	Wan WLS
40	Yawal WLS
41	Yedsi Ramlinghat WLS

**6) Areas in proximity of protected monuments**

Refer to the website of the Archaeological Survey of India. Government of India at:  
[http://asi.nic.in/asi\\_monuments.asp](http://asi.nic.in/asi_monuments.asp)

## Annex 4: Options for Land Procurement

### *Introduction*

1. The Program will make all efforts to avoid, if not minimize land acquisition. Further, the VWSCs will be encouraged to interact with the land owners and facilitate voluntary donation of land required for taking up physical works under the project. Under any circumstances, the titleholder/ encroacher will not be subjected to any pressure, directly or indirectly, to part with the land. These actions are expected to minimize adverse impacts on the local population and help in project benefits reaching of the all sections community. As an alternative the GPs will procure land through direct purchase.

### *Direct Purchase*

2. In most of the cases observed earlier through the Social Assessment, where land for water supply schemes was required, it was procured through direct purchase. GoM has purchased private lands directly and got these transferred to the GP/ VWSC. In these cases, the entire transaction of identification of land and purchasing took little time in comparison to land procurement process. This was done on a Willing Buyer and Willing Seller basis. The VWSC has negotiated the price with the titleholder, in a transparent manner, based on the local market rate, and settled the purchase price. Once the rate is settled the land was purchased and transferred to GP/ VWSC. This method is preferred for present program as well, as it is transparent, participatory and faster.

### *Voluntary Donation*

3. As voluntary donation is one of the options for land procurement, there is an opportunity for overuse/ misuse of this provision. Hence the process of voluntary donation of land will be meticulously documented at all level to avoid confusions, misunderstandings, litigations, etc. at a later stage. A format for this purpose is enclosed as Appendix to this Annex-4. This process will be taken up mainly at three levels as described below:

<b>Level</b>	<b>Process</b>	<b>Output</b>	<b>Responsibility</b>
Ward Level/ VWS C/ Village Level	Based on the revenue survey, lands will be identified and the list of titleholders will be prepared. This will be done by Ward Level Committee/ VWSC with the help of Panchayat Secretary. VWSC motivates the title holders (including assignees) for voluntary donation of land required for the project. The JS-II staff will help in this process and will document the willingness to donate land by the titleholders and encroachers in the presence of the VWSC and Panchayat Secretary in the form of a Willingness Letter. The Support Agency will assist in this process. The list of such persons will be displayed at the GP.	Willingness Letters	Ward Level Committees, VWSC, Panchayat Secretary, Gram Panchayat and Titleholder,, Support Agency
Block	Revenue Official surveys the land and demarcates the	Survey map	Tahasildar,

<b>Level</b>	<b>Process</b>	<b>Output</b>	<b>Responsibility</b>
Level	extent of area required. The survey will identify if the land is public, private or encroachment. Based on the survey, maps are prepared. The entire process will be carried out along with VWSC, Sarpanch and Panchayat Secretary. The maps will be signed by VWSC, Panchayat Secretary, Gram Panchayat and Revenue Officer.	signed by relevant persons indicating the extent of land required.	BDO, Surveyor, Panchayat Secretary, Sarpanch Gram Panchayat, VWSC
District Level	Formalize relinquishment of land rights where concerned local people voluntarily donate their private land for the project.	Effect Changes in Land Revenue Records	District Collector, CEO ZP, RDO/ Sub-Collector/ LAO, Tahasildar

4. Original copies of all documentation of voluntary donation of land will be kept with the Tahasildar with copies at VWSC/ GP. Complete documentation along with a copy of the final document will be sent to District Office for records and for inspection at a later date. In order to make this process transparent, the following rules are prescribed:

1. The Titleholder should not belong to the vulnerable sections/ BPL category. The vulnerability shall be assessed by the project and generally The following categories shall be vulnerable groups:
2. BPL households (with a valid proof), as per the State poverty line for rural areas;
3. BPL households without a proof of the same and belonging to the social categories, viz., (i) Women headed households with women as sole earner (ii) Scheduled Caste/Scheduled Tribe and (iii) Handicapped person
4. The project provides for targeted support/ assistance to the vulnerable groups.
5. The person making the voluntary donation should be holding more than the minimum prescribed land, i.e., 1 hectare of wet land and 2 hectares of dry land after donation.
6. The voluntary donation should not be more than 10 percent of the area of that particular holding of the Titleholder in that category of land (dry, wet or commercial/ residential). This should not require any physical relocation of the Titleholder. The land donated should not be more than 1 acre in case of dry land, 0.5 acre in case of wet land and 0.25 acre in case of commercial/ residential.
7. The land must be jointly identified by the Ward Level Committee, VWSC and GP and implementing agencies/ project authorities. However the project technical authorities should ensure that the land is appropriate for sub-project purposes and that the sub-project will not invite any adverse social, health, environmental, safety, etc. related impacts by procuring this land. The project technical team should identify alternative locations in order to comply with these guidelines. .
8. The land in question must be free of encumbrances.
9. Verification of the voluntary nature of land donations must be obtained from each of the persons donating land. This should be in the form of notarized witnessed statements.
10. The land title must be vested in the GP and appropriate guarantees of public access to services must be given by the private titleholder.

## Appendix-1 to Annex-4

### Format for Voluntary Donation of Land

#### Voluntary Donation of Land On a Rs. 10/- Stamp Paper

1. This deed of voluntary donation is made and executed on ..... day of ..... between Sri/Smt .....S/o W/o..... Age..... Occupation ..... resident of ..... herein after called the “Title holder / Encroacher” on one part. This expression shall mean and include his legal representatives, successors – in-interest, heirs, assignees, nominees etc.

AND

Sri. .... S/o ..... Aged..... Designation..... herein after called the “ Recipient” which term denotes to “for and on behalf of Water Supply and Sanitation Department, Government of Maharashtra” on the other part and shall mean and include his successors –in-office, nominees and assignees etc.

2. Whereas, the details of the Location of the, land are given below:

<b>Location Details</b>	
Village	
Gram Panchayat	
Block/ Taluk	
District	
<b>Title Holder/ Encroacher Details</b>	
Name of Title Holder/Encroacher	
Father/ Husband’s Name of Title Holder/Encroacher	
Age occupation Residence	
Gender	
<b>Schedule -Land Details/Structure</b>	
Land in Question	
Area	
Location	
North Boundary	
East Boundary	
West Boundary	
South Boundary	

**Note:** Detailed Map to the scale is appended.

3. Whereas the Title Holder is presently using/ holds the transferable right of the above mentioned piece of land in the village mentioned above. Whereas the Encroacher does not hold any transferable rights of the above mentioned piece of land in the village mentioned above but has been a long standing encroacher dependent on its usufruct hereditarily.

4. Whereas the Title Holder/Encroacher testifies that the land is free of encumbrances and not subject to other claims/ claimants.

5. Whereas the Title Holder/Encroacher hereby voluntarily surrenders the land/structure without any type of pressure, influence or coercion what so ever directly or indirectly and hereby surrender all his/her subsisting rights in the said land with free will and intention.

6. Whereas the Recipient shall construct and develop water supply and sanitation infrastructure and take all possible precautions to avoid damage to adjacent land/structure/other assets.

7. Whereas both the parties agree that the infrastructure so constructed/developed shall be for the public purpose.

8. Whereas the provisions of this agreement will come into force from the date of signing of this agreement.

Signature of Title Holder/Encroacher		Signature of Tahasildar	
Name of Title Holder/Encroacher		Name of Tahasildar	
Date		Date	
Identified by			
1.			
2.			
<b>Witnesses</b>			
Signature of VWSC President			
VWSC President Name			
Signature of Gram Panchayat President			
Gram Panchayat President Name			
Signature of Village Secretary			
Name of Village Secretary			
Signature of NGO Representative			
Name of NGO Representative			
Signature of WSSD Engineer			
Name of WSSD Engineer			

## Annex 5: District and Village Selection Criteria

### District Selection Criteria

Parameter	Criteria	Source of Data
Technical	<i>Large Population settlements</i> (No. of Villages & Census Towns having population between 10000 to 20000)	Census 2001
	<i>Peri-Urban areas</i> (No. of Mun. Councils & Nagar Panchayats)	
	Small habitations below 500 population	Census 2001
	<i>Water Quality affected habitations</i> - Chemical (No. of sources with single chemical contamination - all parameters like Iron, Fluoride, Salinity, Nitrate, Arsenic & Others)	MoDWS data
	<i>Status of Ground Water Exploitation</i> - No of Over exploited, Critical & Semi-Critical Watersheds	GSDA data
Social	<i>Coverage with water service</i> - % of Households covered with tap water	Census 2011
	<i>Coverage with sanitation</i> - % of Households with Individual Household Sanitary Latrines	Census 2011
	<i>Affordability</i> – Ability to bear O&M costs	NBA APL/BPL data
Proactiveness	<i>Water Tariff Collection Efficiency</i>	RDD data
	<i>Nirmal Gram Puraskar GPs</i>	MoDWS data

Note:

1. All the criteria have direct relationship for ranking; which means, more on the criteria, more the marks
2. 2011 census data was not available
3. Tap water coverage means, it can be through public stand post/household connection, as defined in the census 2011

**Village Selection Criteria for Peri urban GPs<sup>18</sup>**

<b>Norm/ Criteria</b>	<b>Max. Marks</b>	<b>Evaluation Process</b>	<b>Allotment of Marks</b>
Percentage of individual household toilets	<b>20</b>	Based on actual percentage	(20 x Toilet %)
Source of existing piped water supply	<b>15</b>	Surface source / Tapping (other than RR scheme)	15
		Other source	0
Per capita availability of water in liters per capita per day (lpcd)	<b>10</b>	31 to 40 lpcd	10
		21 to 30 lpcd	8
		11 to 20 lpcd	6
		0 to 10 lpcd	4
Age of existing scheme (of the latest scheme executed)	<b>15</b>	More than 20 years	15
		16-20 years	12
		11-15 years	9
		5-10 years	6
Affordability (eligible Above Poverty Line population)	<b>10</b>	Population 51 to 100%	10
		Population 26 to 50%	07
		Population 0 to 25%	04
Social Mobilization Indicator e.g., Nirmal Gram Puraskar (NGP), Sant Gadgebaba Award etc. (Only the highest award will be considered.)	<b>10</b>	NGP	10
		Other - National/ State award	08
		Regional award	06
		District award	04
		No Award	00
Tariff Collection	<b>10</b>	100% and above	10
		76%-99%	08
		51-75%	06
		26-50%	04
		0-25%	02
Sanitation Survey (Latest)	<b>10</b>	Green Card	10
		Yellow Card	5
		Red Card	0
<b>Total</b>	<b>100</b>		

**Note: -**

1. Population and household figures shall be as per the latest Census figures available.
2. All figures to be certified by Gramsevak & BDO.
3. The selection of GPs shall be on the basis of the marks obtained.

<sup>18</sup> The criteria and selection will be applied to the peri-urban villages based on techno-economic feasibility considerations.

### Village Selection Criteria for Water-Stressed Villages

Norm/ Criteria	Max. Marks	Evaluation Process	Allotment of Marks
Percentage of individual household toilets	40	Based on percentage	(40 x Toilet %)
Average Rainfall in the block	30	Less than 25% of district average	30
		26 to 50% of district average	25
		51 to 75% of district average	20
		76 to 99% of district average	15
		Equal to district average	10
		More than district average	00
Tanker supply in last 3 years	30	Tanker supply for all 3 years	30
		Tanker supply for any 2 years	20
		Tanker supply in any year	10
		No tanker supply	00
	<b>100</b>		

**Note: -**

1. Population and house hold figures shall be as per Census 2001
2. All figures to be certified by Gramsevak & BDO.
3. Marks obtained by the habitations within the GP shall be averaged.
4. The selection of GPs shall be on the basis of the marks obtained.

## **Annex 6: External Environmental Audit Objectives**

Objectives of external audit are to verify/check the following:

1. To check the compliance with the strengthened environmental rules and procedures.
2. To check the quality of the design, implementation and effectiveness of the Environmental Due Diligence Plans.
3. To assess the effectiveness of internal environmental monitoring.
4. To assess the effectiveness of the capacity building initiatives on environmental management.

### **Frequency**

External audit will be carried out twice during the Program duration – once in the 2<sup>nd</sup> year and once in the 4<sup>th</sup> year. The audit will include both field visits as well as a desk review. The external audit will be done by a technically competent agency (Government agency or external agency) appointed by PMU.

### **Methodology**

*Desk review:* The desk review will focus on reviewing available documents and data with reference to the objectives and indicators.

*Field visits:* Site visits and field level consultations will be organized for a sample of schemes to check (a) the quality of the design, implementation and effectiveness of the Environmental Due Diligence Plans, and, (b) to check the quality of implementation and effectiveness of the environmental mitigation measures. The sample will cover at least 35% of schemes requiring Environmental Due Diligence Plans and 10% of other schemes. The sample will be representative in terms of the nature of the activities supported and will include – water supply schemes, aquifer management, water treatment plants addressing chemical contamination, and, rain water harvesting interventions.

### **Report of Audit**

A detailed report of the external audit must be submitted to the PMU for action. The report must include the following:

1. Description of methodology including details of sampling
2. Review of the following (implementation and issues):
3. Effectiveness of the system and procedures in identifying issues and implementing appropriate mitigation measures
4. Institutional arrangements
5. Capacity building
6. Overall environmental performance of the Program with respect to the performance indicators
7. Recommendations for strengthening the environmental rules and procedures