



Case Study in Project Management

Enlisting Stakeholder Engagement for Successful Project Delivery - The Case of Jalswarajya Project Case A - The Stakeholders and Project Management

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Enlisting Stakeholder Engagement for Successful Project Delivery - The Case of Jalswarajya Project

Case A - The Stakeholders and Project Management

A.1 Background

In 2000, the Government of Maharashtra, India, brought out a government resolution (GR) stating that Maharashtra will operationalize an 'innovative community driven approach' in water management in the rural areas. The responsibility of implementation of the project was assigned to the state's Water Supply and Sanitation Department (WSSD). Until then, the official state arms, namely Maharashtra Jeevan Pradhikaran (MJP) and Zilla Parishad (ZP), had been entrusted with the task of identifying the water and sanitation supply needs of rural communities. According to the GR "Village residents had little say in these matters and were also not required to pay for any of these services."

At that time, 63,298 villages/habitations (73.3 percent) were fully covered with portable water supply services, 21,521 (24.93 percent) were partially covered, and the remaining 1,494 (1.73 percent) were not covered. In spite of spending over Rs. 166,000 million, 26 percent of the rural habitations at the time did not have 'assured' water supply throughout the year. The majority of the habitations received intermittent water supply exacerbated by government's operations and maintenance machinery not being up to the mark. The situation was worse during summer in when water supply dried up and villages depended on water supplied through tankers.

A.2 The Genesis of Jalswarajya

The prevailing problems in rural water supply were in the areas of non-participation and lack of capacity building of communities to own and manage the infrastructure, and lack of standardized engineering designs and technology for water management. This had affected the long-term, sustainable water supply in the villages.

The state government decided to adopt the Government of India's Sector Reform Policy that provided guidelines based upon 1) participation of communities 2) driving of the program through Panchayati Raj Institutions (PRIs), and 3) long-term sustainability of services through technical and management operations by local communities. This was termed and popularly known as the 'demand driven' approach. The project was formally launched in 2003.

A.3 Project Objectives

According to the World Bank that partly funded the project, the development objectives of the Jalswarajya project were (i) increasing rural households' access to improved and sustainable drinking water supply and sanitation services; and (ii) institutionalizing decentralization of rural water supply and sanitation (RWSS) service delivery to rural local governments and communities.

The objectives assumed the need for altered priorities centred on the need to build the community and its ability to understand the project in its entirety. It meant focussing firstly on community development, involvement of women and indigenous people, and their capacity building. It, therefore, required the strengthening of the village panchayat . The second priority involved the construction of the infrastructure for efficient water supply, i.e. strengthening of ground water recharge and water supply schemes (such as digging of wells, provision of taps and tanks) and linking of school and sanitation requirements. The third priority focussed on institutional strengthening such as district level capacity building of the human resource in project management. It also contained the objectives of ensuring free information flows and the establishment of a 'non-confrontational' approach to problem solving. The fourth objective was to ensure sector development and support such as knowledge management, policy support, and water quality measurement. Refer Appendix 3.

Finally, it was deemed necessary to launch the full scale project at the village level only after the successful implementation of a pilot project. The pilot also contained other sub projects in ground water aquifer management and Operations and Maintenance (O&M) management.

A.4 Stakeholder Identification

Important stakeholders that were identified in the project could be classified from the demand and the supply side as follows

The stakeholders from the demand side consisted of:

1. **Women:** Women were deemed the most important stakeholders and their participation was mandatory for the launch and running of the scheme. Their mainstreaming was ensured through the compulsory presence of a minimum 50 percent quorum of women in gram sabha meetings. The women gram sabha preceded every gram sabha. Furthermore, all the key committees such as the Village Water Supply and Sanitation Committee (VWSC), Beneficiary Level Sub Committee (BLSC) and Social Audit Committee (SAC) needed to have at least 50 percent women.
2. **Households and Beneficiaries** were the primary stakeholders. These included the community of village residents drawn from households Below Poverty Line (BPL), backward classes, scheduled tribes, other marginalized sections, women, and children.

The stakeholders from the supply side consisted of:

3. **Government departments and the Government of Maharashtra:** It is a three tiered system which has the village at the bottom, then the zilla parishad, and finally, the government at the state level.
 - a. Village level- panchayat samitis, talathis, gram sevak, anganwadi sevikas, teachers, watermen, and health workers were instrumental in driving the project
 - b. Zilla parishad- comprising of the District Water Management and Sanitation Committee (DWMSC), District Facilitation Team (DFT), District Appraisal and Monitoring Team (DAMT), District Financial Management Team (DFMT), the administration wing, zilla parishad office bearers, and other related departmental heads and functionaries were instrumental in driving the project both at the state and village levels

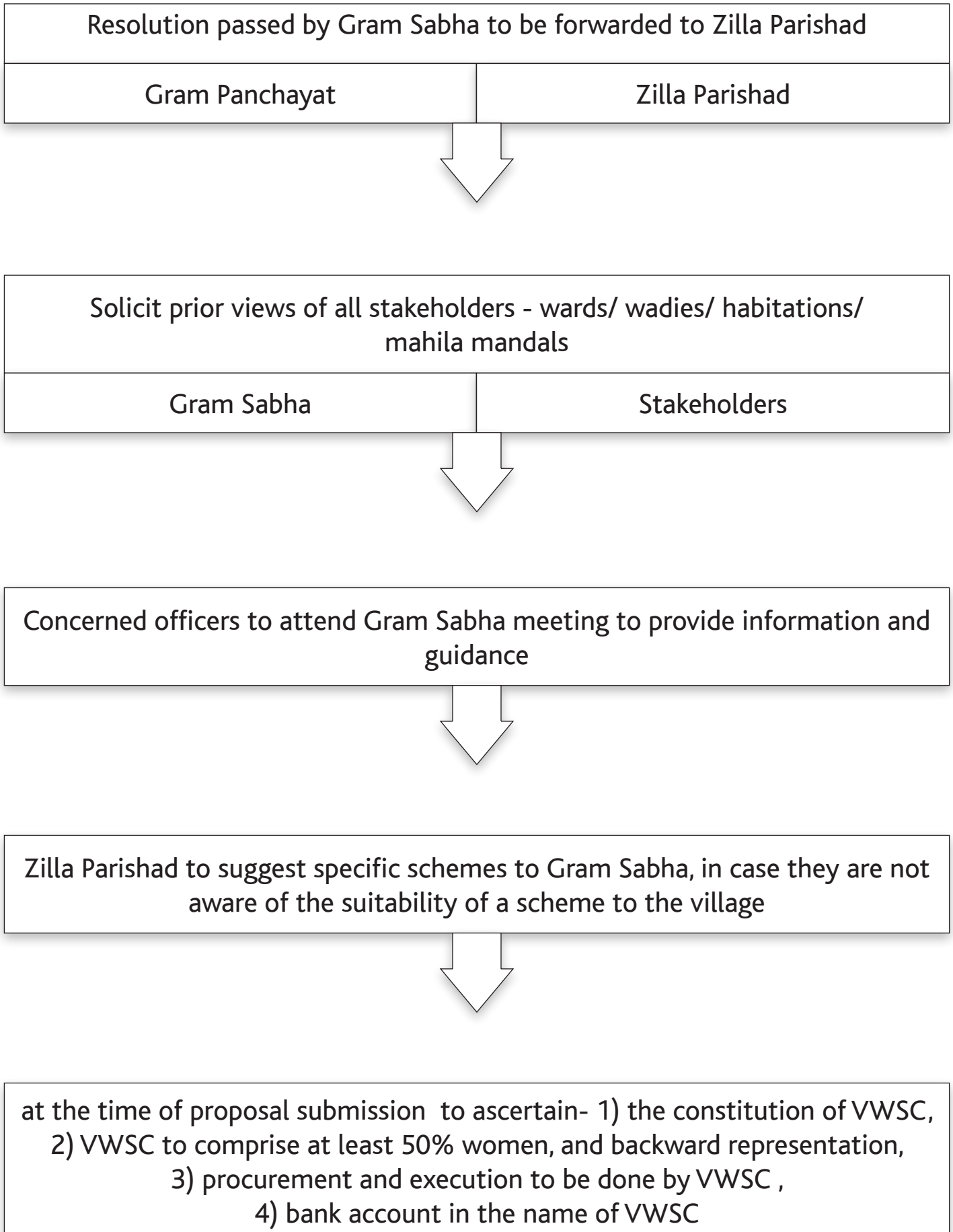
- c. State level- the Operation and Monitoring Team (OMT) was the most important state level agency that was assigned the responsibility of project implementation to ensure that stakeholders from the demand and supply sides work together for project success. The other entities were the state level advisory committee on water resources, WSSD, the Reform Support Monitoring Unit (RSMU), MJP, Groundwater Surveys Development Agency (GSDA), Sector Policy Support Team (SPST), and empowered committee.
4. Community Based Organizations (CBOs), Non Government Organizations (NGOs), Self Help Groups (SHGs): Groups such as mahila mandals (women's organizations), youth mandals (female and male youth clubs), and women's social groups played an active role in community mobilization.
5. Gram sabha and panchayat samiti: While the gram sabha was involved with the cause of participatory decision-making, collective action, and championing the project, the panchayat samiti was responsible for providing secretarial and monitoring assistance to the gram sabha, VWSC, and Social Audit Committee.
6. Funding Agencies: Germany based Kreditanstalt fur Wiederaufbau (KfW), World Bank, Government of India, and International Development Assistance (IDA) contributed Rs. 937.61 crore, and the Government of Maharashtra's contribution was Rs. 377.10 crore. The total project size was Rs. 1395.53 crore. The communities too had to contribute around 5.8 percent of the project cost, amounting to Rs. 80.82 crore.

A.5 Role of Community Participation in Project Implementation

The community initiative remains the cornerstone of all Jalswarajya projects . The project was initiated at the level of the GS after the women gram sabha had discussed and agreed to the Jalswarajya project to be launched in the village. This proposal was then forwarded to the Zilla Parishad (ZP). Officials from the ZP were required to attend the GS meeting and explain to the village communities the details of the project and play an advisory role. They had to ensure that the stipulated criteria stated in Exhibit A.1 had been fulfilled before proposing the project at the state level. These included the formation of the VWSC, as per specifications, its account opening with a bank, and its readiness to procure and execute the project. Exhibit A. 1 illustrates the process to initiate the project in a village.

However, for actual initiation of the Jalswarajya project, the villagers had to demonstrate their capacity, will, and initiative to make their village 'water deficit free' and 'open defecation free'. It was mandatory for every village that wished to launch the project to create a women empowerment fund and a Women Development Committee (WDC) with at least 75 percent participation of women. All women's groups federated at the village level to avail of credit and were, in turn, linked to financial institutions. For the Village Panchayat (VP), which had to play a central role in implementing the project, steps were to be taken to strengthen and enable the VPs to perform their roles efficiently and effectively. They had to undergo coaching in financial management, social audit processes, and hygiene promotion, besides transparent decision-making and strengthening the linkage between CBOs and VPs. The qualifying VPs received Rs. 25000 towards Information, Education, and Communication (IEC) for initial efforts. Technical assistance was provided to improve the viability and effectiveness of the existing and new water supply systems.

Exhibit A.1: Process to Initiate the Jalswarajya Process in a Village



A.6 Selection of District as per Prioritization Criteria at District Level

A system of village selection was proposed from 33 districts, based on factor wise weightage assigned to three major criteria. Villages had to clearly demonstrate their suitability to be considered for selection and subsequent funding. Refer Exhibit A.2.

Exhibit A.2: Prioritization Criteria for Districts

Criteria	Weight/percentage
1) Need for the Project	45
a. Drought proneness of the district	10
b. Number of tankers deployed in the district in the past 3 years	10
c. Number of NC habitations in the district	10
d. Number of habitations with No Safe Sources (NSS)	10
e. Number of BPL or other partially covered inhabitants	05
2) Socio-Economic Characteristics	25
a. Percentage of tribal (indigenous people) population	10
b. Percentage of backward class population	05
c. Number of BPL population of the district	10
3) Potential of District	30
a. Implementation of Sant Gadge Baba Village Sanitation Campaign	10
b. Implementation of Shiv Kalin Water Harvesting Scheme	05
c. Mahatma Phule Jal Bhumi Sandharan	05
d. Yashwant Rural Development Scheme	10

A.7 Stakeholder Communication, Negotiation, Capacity Building Management

Once the initial stages in the application for the project by a village was completed, the district team along held frequent meetings with the villagers to negotiate various issues. A door-to-door, baseline survey was conducted to find out how much water was available and how much water each household consumed. This was followed by the Participatory Rural Appraisal (PRA). The PRA contained the village map, timeline, gradation of water source in the village and so on. The district level teams visited the village with a checklist to decide for three sub-projects that would have to run simultaneously as part of the Jalswarajya project in the village. These sub-projects were. (a) The level of active participation of committees for the formulation of each sub-project, (b) Communicating with villagers through informal and formal discussions about their approach to the different components of the project, and (c) recruiting volunteers from among the villagers and involving gram panchayat officials. The DFT, DMT, NGOs, and the technical team helped villagers form the required committees. The technical service provider was appointed by the village committees (VWSC, WDC) and approved by the gram sabha. In Kalwan village in Nashik district, women came forward and formed a committee with 100 percent women when the minimum stipulation was of 75 percent. These women's committees began learning how to maintain records of water consumed and financial accounting.

A.7.1 Community Stakeholder Communication

Communication with the community stakeholders was a major challenge due to the heterogeneous nature of the village demography. Unusual solutions were used to mobilize villagers and inculcate the appropriate orientation among them. Villagers did not prefer reading material; instead, the team found exposure visits of villagers to other villages where Jalswarajya was in operation and group meetings to be more effective in explaining the project scope. Posters, audio visual tools, wall paintings, and radio talks were also used to sensitize villagers.

A.7.2 Community Negotiation

The responsibility to help the community to formulate the most appropriate communication and negotiation options for the village rested with the various village level project committees, village level volunteers, and gram sabha officials. NGOs that were part of the project conducted a series of discussions and negotiations using checklists drawn up by the district level teams. From time to time, the district teams visited the village to monitor the social processes and public participation in decision-making processes. Their role was also to provide inter-departmental linking support at the district level for the activity.

The village community was heterogeneous. Women and villagers from tribal communities were typically the least empowered sections. The NGOs used various techniques of negotiation to manage internal conflicts and align various village sections to focus on the core objective. Project committee representatives found collaborating (mutual problem solving) and accommodating as the most effective approach for negotiation with beneficiaries of schemes. However, at times a combination of approaches was used to drive project objectives and achieve community agreement.

A.7.3 Community Capacity Building

In order to achieve this level of understanding and commitment, the community's initiation into basic project management principles was necessary. Coaching was aimed at helping the community understand the importance of enlisting the immediate stakeholder support, interfaces with government agencies and departments, and fund planning and deployment. The community's ability to understand the entire project scope, technicalities, financing, and administration arrangements were considered as a prerequisite for project success. Therefore, the components of community capacity building were identified and deployed at project sites. Community capacity building consisted of imparting training to the Village Water Supply and Sanitation Committee (VWSC) and the gram sabha as the monitoring body of VWSC. It meant teaching them how to prepare the Drinking Water and Sanitation Plan, providing technical help in marketing, finance, account keeping, and micro enterprise development. Training also comprised of developing solutions for providing financial support for seed money for BPL families. Capacity building was a time-consuming exercise. However, it helped bring all strata of village society to rally around the project. It resulted in a high level of transparency and a sense of identification with the cause.

A.8 Involving Stakeholders in Managing the Project

After the success of the pilot project in three districts, the Jalswarajya project was launched in 26 districts of Maharashtra. Project management principles were detailed out in a highly comprehensive 400 page document, the Jalswarajya Project Implementation Plan (PIP), brought out by the project sponsor. The that was circulated to all stakeholders in September 2003.

A.8.1 Jalswarajya Project Management Methodology

The Jalswarajya project contained many project management tools and techniques. The project charter, though not termed the same at the time, contained elements like the project scope, objectives, budgets, and implementation. Even though it was a social development project, some of the most important project management principles were elaborated in the Jalswarajya PIP. Refer Appendix 1 for elements of project charter.

The Jalswarajya project charter contained the following elements:

A.8.1(a) Project Objectives:

1. To increase rural households' access to improved and sustainable drinking water and sanitation services.
2. To institutionalize decentralization of rural water supply and sanitation service delivery to rural local governments and committees.

A.8.1 (b) The Project Scope: The project scope was envisaged as a Government of Maharashtra's initiative to operationalize state-wide implementation of the reform agenda in the rural water supply and sanitation sector. The project acknowledged the necessity of a high degree of learning, experimenting, and piloting to institutionalize the new sectoral policies.

The major project components are listed in Exhibit A.3

A.8.1(c) Project Cost: The total cost of the project, including taxes, duties and physical and price contingencies, were estimated at Rs. 13,955.25 million or US\$ 268.60 million equivalent (in 2003). Refer Exhibit A.3 for the project cost estimate.

Exhibit A.3: Component Wise Project Cost Estimate

S. No.	Component Description	Amount in INR million (US\$ million)	Percentage of total base cost
1	Community Development and Infrastructure	Rs. 8203.62 (174.93)	70
2	Institutional Strengthening	Rs. 2372.59 (50.58)	20
3	Rural Water Supply Sector Strengthening	Rs. 197.49 (4.21)	2
4	Pilot Components	Rs. 551.42 (11.76)	5
5	Contingencies/Unallocated	Rs. 2630.13 (27.09)	10
6	Total (+ Point 5)	Rs. 13955.25 (268.57)	100 (+107)

A.9 Jalswarajya's Project Management Principles

The processes covering key principles of project management are described below.

A.9.1 Scope Management:

The project was restricted only to those villages where the quantity and quality of available water and sanitation facilities was below par, high presence of BPL and tribal families, villages with a good track record of paying water dues to the government in earlier state-run schemes, and willing to adhere to the prescribed project rules. The project was designed to benefit about 7.5 million rural inhabitants, rising the number to about 10 million by the end of the project period. The project deliverables were clear: the village folk saved time in collecting water, increased availability of safe water sources, health benefits from access to safe water, and sanitation related benefits. It aimed to help save high capital and O&M costs incurred by existing government schemes. Lastly, it was to promote entrepreneurial activities to increase income of villagers and empower women.

A.9.2 Time Management:

The project was chosen to be launched in a village panchayat that took the initiative on Information, Education and Communication (IEC) activities. The project was to be completed in 18 months. Activities were interdependent and followed a sequence. It contained three major phases under which key outputs were specified. The phases were community planning, community implementation, and operation and maintenance.

Exhibit A.4: Jalswarajya Sub-Project Cycle

Sr.No	Jalswarajya Sub-Project Cycle	Duration
1.	Start up Phase	69 days
2.	Pre-Planning Phase	72 days
3.	Planning Phase	146 days
4.	Finalizing Service Providers	30 days
5.	Executing Works	125 days
6.	Conducting Social Audit	165 days
7.	Publishing Statement of Accounts	5 days

A.9.3 Human Resource Management:

A number of teams worked at different levels, considering the project uniqueness and complexity. It required the devolution of decision-making and the responsibility to manage water and sanitation needs up to the lowest tier of the village community. Communities were given access to finances, ensuring transparency and information sharing, balanced and consistent information flows among stakeholders, and capacity building of all stakeholders. An important long-term aim was to improve the ability of the PRIs and community to handle development programs and activities beyond water supply and sanitation.

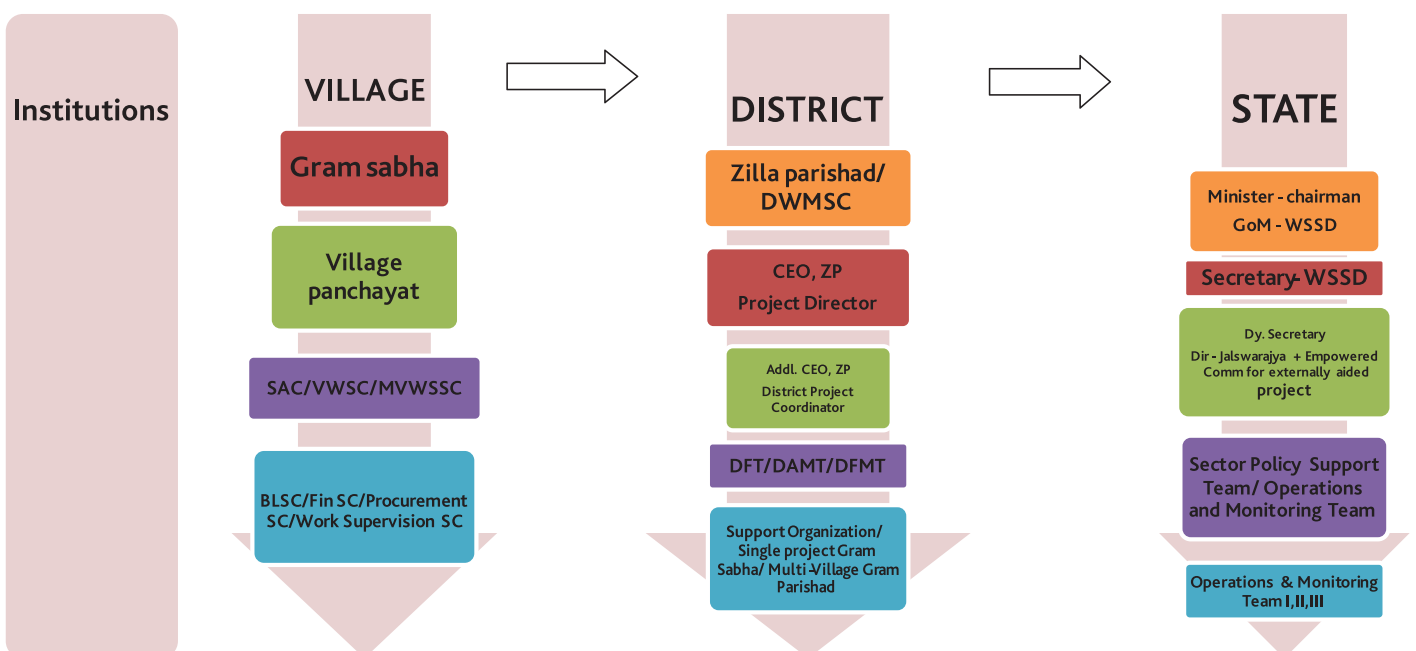
A.9.3 (a) Roles and Responsibilities Chart

One of the major principles of project management is to establish clear interrelationships between functional and project teams to ensure effective implementation of projects. A distinguishing factor of the Jalswarajya project was its meticulously prepared document right at the beginning covering the interrelationships and project implementation structures at three levels - institutional, personnel, and support organizations (which were expected to work at both ends, viz. the government and the community respectively).

A.9.3 (b) Institutional Arrangements and Interrelationships:

As seen in Exhibit A.5, the basic constituents and institutional arrangements are evident with their core functions and roles with intervening hierarchies and reporting arrangements. All the constituents with different capabilities and priorities were required to understand their precise roles and responsibilities in this complex web of actors to ensure smooth project implementation. The major activities were to prepare the community infrastructure, form the women empowerment fund, and carry out the tribal/indigenous people development that was overseen by DFT. The responsibility for institutional strengthening lay with village and state level bodies such as DFT, OMT, DFMT, ZP, MJP/GSDA, mahila mandals, and SAC. They worked on the VP incentive fund, strengthening ZP machinery for project implementation, strengthening state level agencies, and monitoring and learning team building. Mahila mandals were given the primary responsibility for data collection to strengthen knowledge management systems and for policy support.

Exhibit A.5: Three –Tier Project Constituents and Structure for Jalswarajya



A.9.3(c) Project Team

The Operations and Maintenance Team (OMT) was designated as the project implementers and support providers. OMT also monitored the progress and impact of the project. It comprised of specialists with strong operational skills and field experience as mentioned below:

- Project manager
- Environment specialist
- Ground water specialist
- Community development specialist (general)
- Tribal (indigenous people) development specialist
- Gender specialist
- Health and sanitation specialist
- Monitoring and evaluation specialist
- Capacity building specialist
- Development communication specialist
- IT /MIS specialist
- Procurement specialist
- Private sector development specialist
- Senior accounts officer specialist

A.9.4 Quality Management:

The baseline survey and the Participatory Rural Appraisal (PRA) were necessary inputs to gauge the quality of water as it existed in the village chosen to launch the project. Based on the survey, water quantity and quality issues were tackled with the help of community representatives. Water quality was classified under 1) natural contamination such as salinity due to sea ingression, or alluvial parts of the river, and 2) chemical contamination due to fluoride, nitrate, and iron. The project document clarified mitigation measures that could be implemented by the project team in the course of the project execution.

A.9.5 Communication Management:

Communication management was planned at three levels, i.e. state, district, and village. It involved creating a clear network and closed loops among the agencies and teams involved in the project. This complex web of communication was captured by creating a Management Information System (MIS) as a central activity in the monitoring and learning system. The MIS generated reports for internal consumption, which was used for monitoring project inputs, outputs, and activities.

A.9.6 Risk Management:

The project identified major risks which could arise during project implementation. a) Policy level risks arising due to priorities being accorded to other social programs or delays in decision making by higher authorities. b) Institutional risks arising from asynchronous behavior and excessively bureaucratic functioning that could lead to delays. Relations with Support Organizations (SOs) and district level officers could affect project processes and motivation of SOs.

The VWSCs could be misinterpreted as a threat to the VP's powers. c) Process related risks were identified as long gestation period that could lead to a loss of interest in the project in the community, compromises in the process which could hamper informed and participatory decisions and weaken integrity, political interference in the selection of the districts and villages for the project, and decisions by communities related to infrastructure not backed by adequate technical investigations. d) Human resource related risks were the differential levels of understanding of the sector reform and the project by the constituent members which could lead to delays, confusions, and conflicts and also officials of local governance institutions who do not accept reforms and act as barriers. e) Finance related risks were cost overruns, either due to underestimation, additional work, or non-performance by service providers that could lead to delays in the implementation. Other risks identified were financial indiscipline and lack of cost controls at the GP level and mismatch between budgetary provisions with financial demands emerging in projects. f) Technical risks were inadequate groundwater sources, miscalculation of water demand, development of new sources leading to abandoning of existing sources, poor technical designs that did not take into account local realities (electricity supply, source recharge rate etc.), poor quality of constructed works, and miscalculation in the O&M requirements of the proposed and existing assets during technical option selection. g) Natural resources related risks were that the community could draw water in excess of the specified allocation of 40 LPCD, deterioration in the quality of water sources, and digging of irrigation wells in the vicinity of drinking water sources.

A.9.7 Procurement Management:

At the village level, it was guided by the 'Community Participation in Procurement' manual. VPs were empowered to enter into contracts directly with private contractors, NGOs, consultants, and government agencies, and had to procure based on the principles of efficiency, equal opportunity, and transparency in the process. Village communities managed water supply and sanitation facilities, and hired skilled contractors and purchase materials locally. A special Jalswarajya schedule of rates was created and regularly updated. The primary entities engaged in and responsible for village level procurement were the GS, VP, VWSC, procurement, finance and supervision sub-committee, SO, and DFT.

A.9.8 Stakeholder Management:

The Jalswarajya project contains one of the most detailed analysis of the stakeholders in the project and their management as described in considerable detail in the earlier sections.

A.10 Jalswarajya Project and the Five Process Groups of A Guide to Project Management Body of Knowledge (PMBOK® Guide)

The Jalswarajya project included the most important precepts included in PMI's A Guide to Project Management Body of Knowledge (PMBOK® Guide) knowledge and process areas, though they were not clearly enumerated as such. All the five Process Groups of Initiating, Planning, Executing, Monitoring and Controlling, Closing were strictly followed.

A.10.1 Plan Appraisal and Sanction

The village action plan prepared by the community was appraised for conformity with project principles and improvements were suggested during the plan appraisal and sanction phase. Refer Appendix 6. The outcome of this phase was a gram sabha approved comprehensive village action plan complete with scientific, social, economic, and technical appraisal which formed the basis for a memorandum of understanding between the VP and ZP to provide financial assistance to implement the project.

A.10.2 The Project Implementation Process

Implementation was divided into three phases. The first phase targeted the community level. It included preparing village level sanitation report, assessing the situation on site, studying the current status, and developing and obtaining sanction of the village action plan. The next phase covered the community's implementation of water supply and sanitation solutions. The last phase was O&M that ensured sustainable delivery of water supply and sanitation. Refer Appendix 7.

A.10.2 (a) Village Level Planning

Village level planning comprised preparation of the village action plan for community infrastructure. This plan consisted of three parts: (i) water supply, (ii) water recharge and source strengthening, and (iii) environmental sanitation and hygiene promotion. It was based on participatory appraisal methodologies through a search for alternative solutions in terms of sources, facilities, procurement etc. Selection between the explored options was based on key criteria such as (i) affordability by community members, (ii) amenability for continued management by the community, and (iii) environmental considerations to ensure sustainability of facilities and services. Activities during preparation of the plan, responsible actors, and outcome of those activities are shown in Appendix 8.

Information dissemination and aligning differing stakeholder objectives were critical elements of village level planning. Various strategies of information dissemination and the rating of their effectiveness on a scale of 1 to 5 (1-Extremely effective, 5-Extremely Ineffective) as found by a survey of project participants is shown in Exhibit A.6. Exposure visits and meetings were considered most effective.

Exhibit A.6: Effectiveness of Information Dissemination Strategy

Information Dissemination Strategy	Effectiveness
Meetings	1.69
Exposure visits	1.38
Audio/visual tools	2.00
Posters	3.00
Reading material	3.15

Prominent strategies that were used in aligning differing stakeholder objectives along with their effectiveness (1-Extremely Effective, 5-Extremely Ineffective) and frequency of usage (1-Extremely frequently, 5-Never) on a scale of 1-5 as found by a survey are shown in Exhibit A.7. The collaboration (problem-solving) approach was deemed most effective, followed by the competitive approach.

Exhibit A.7: Effectiveness of Negotiation Strategy

Negotiation Strategy	Frequency of usage	Effectiveness
Competing (aggressive)	3.61	2.08
Collaborating (problem solving)	2.77	1.61
Compromising	4.15	2.84
Avoiding	4.67	4.00
Accommodating	3.38	2.15

A.10.3 Community Implementation

Community implementation involved procuring goods and works, contracting services, construction and quality assurance. Activities during implementation, responsible actors, and outcomes are shown in Appendix 9.

A.10.4 Operation and Maintenance

The VWSC operated and maintained the facilities, for which their members received training. They were also entrusted with collection of O&M charges. The critical outcome of O&M activities is geared towards delivering services to the community in a cost-effective manner. Activities during the O&M phase of the project, responsible actors, and outcome of those activities are shown in Appendix 10.

A.11 Overall Outcome and Current Status

The project is in operation and village level responses to the water and sanitation services demonstrate that project's stakeholders were either extremely satisfied (38%) or satisfied (62%) with the project outcome. The same survey found that service delivery was satisfactory, and had no issues in terms of collection of water tax, participation of community in the ongoing activities, or breakdown of service.

Questions for Discussion

- 1) Critically analyse the approach employed in the Jalswarajya project. How is it different from typical infrastructure projects?
- 2) Analyse the stakeholder management exercise in the project.
- 3) Based upon the case contents, support the contention that the primary reason for the Jalswarajya project's success is the application of project management techniques.
- 4) Consider yourself a project dDirector of the Jalswarajya project. Develop the project charter.

Additional Readings

- 1) Download Project Charter Tool from <http://tools.adaptivebms.com/>
- 2) PMBOK® Guide 4th or 5th Edition – Chapter on Project Integration Management- Section on Develop Project Charter

APPENDICES

Appendix 1: Elements of a Project Charter (Adapted from several sources)

- A. Know the project vision: The vision encapsulates the purpose of the project and is the fixed end goal for the project team.
1. Identify your objectives
 2. Determine your scope
- B. Describe the project system: The succeeding step is to identify how the project will be structured by listing the clients, stakeholders, functions, responsibilities, and reporting lines.
1. Customers
 2. Roles
 3. Stakeholders
 4. Structure
- C. Implementation approach: With a fair idea regarding the implementation, a more detailing of the approach consisting of points below requires to be done.
1. Implementation Plan
 2. Milestones
 3. Dependencies
 4. Resource Plan
- D. Risk analysis and management: The last step needed to complete your project charter is to specify some project dangers, issues, premises, and constraints related to the project.

Appendix 2: Note on Water Ladder

Importance of Water Ladder and 'Moving Up' the Water Ladder

In developing countries, the "water ladder" is used to address needs of poverty alleviation through

- 1) Better basic water service provision and
- 2) Promotion of higher levels of development to support economic development and livelihood activities.

Definition of Water Ladder:

The water ladder is a community's progressive ability to reduce its dependence on drinking water, directly collected from surface water (like rivers, ponds, lakes etc.). The incremental rungs describe the communities using "improved" sources, other than piped household connections and finally the uppermost rung of the ladder consisting of those benefiting from household connections inside a dwelling, plot or yard (UNICEF-WHO JMP, 2008). The central and state governments are required to commit funds to improve the water and sanitation condition of the populations as per United Nations Children's Fund (UNICEF) and World Health Organization (WHO) guidelines developed under the Joint Monitoring Program. Around the year 2000, when the Jalswarajya project was launched, the overall progress of India was quite low. The progress made by India is significant at the lower rungs compared to the higher rungs, which has increased only from 20 percent to 30 percent in the period mentioned.

Appendix 3: Mandatory Priorities that Make Jalswarajya Project Work

The government resolution (GR RWS 1099/CR-328/WS-07, dt. Jul 27, 2000) clearly mandated the following preconditions for launch of a Jalswarajya project in the villages

1. Provision of minimum 40 LPCD
2. Selection norms were to be described
3. Priority population – SC/ST, those who received bad quality of water, less than 40 LPCD existing supply, schools and day crèches
4. Community participation – 10 percent in project capital and 100 percent in operations and maintenance etc.
5. Women participation
6. Creation of a district O&M fund
7. Water quality management and surveillance
8. Hydraulic rigs and hydro-fracturing units
9. Human resource development- for training at grassroots level
10. Use of media
11. Monitoring and evaluation
12. Management Information System (MIS)– to monitor local level data
13. Schools to be provided safe drinking water

Appendix 4: Project Non-Negotiables

The project identified certain non-negotiable principles to guide the community and other partners in project implementation.

1. All project related decisions were to be the prerogative of the gram sabha
2. Cost effectiveness, affordability, and manageability were prime considerations for the selection of solutions
3. No hierarchies in the project institutional model. All were to act in the capacity of partners in the community
4. All project related information and project records to be accessible to everyone in the community
5. The project was to meet the minimum water supply requirements of everyone in the village. Direct house connections were to be given only after the 40 LPCD demand of everyone in the village was met.
6. Higher contribution of both capital expenses and O&M expenses for higher service levels – 100% of cost of investment and O&M was to be borne by beneficiaries for service levels above 40 LPCD.
7. Women considered the most important stakeholders of the project. Women gram sabha must precede general gram sabha
8. No extraction of water from the source without recharge and source augmentation actions.
9. All committee members are accountable to Gram Sabha and SAC, monitors all project activities on behalf of GS.
10. VP owns the water supply assets and the community manages it through VWSC.

Appendix 5: Roles and Responsibilities Chart of Project Actors in Jalswarajya

Constituent/Actor	Role	Responsibility
Gram Sabha	Provide the forum for participatory democracy and community decision-making	Formation of VWSC and SAC; participatory appraisal of feasible options; deciding optimal solution; comm. contribution; improving village action plan; conduct social & sustainability audit;
Village Panchayat	Incorporated under local self government is the focal point in project implementation	Initiate inclusion in project; Conducting GS; overall financing agreement; opening and maintaining separate books of accounts; demand estimation; preparing action plan; collect upfront contribution; approve appointment of procurement, finance sub-committee
Village Water Supply and Sanitation Committee	Executive arm of VP, Capacity-building for VWSC and SAC	Mobilize, explore alternative solutions, feasibility, develop detailed village plans, implement the village action plan, plan and implement institutional and behavioral changes, operate and maintain water supply, recommend GS water resources management, constitute approval sub-committees, execute contracts and procure materials and services on behalf of VP. Recommend to the GS creation of BLSC, to implement small water supply facilities covering parts of the village; nominate members to MVWSSC in consultation with VP and approval of GS.
Social Audit Committee (SAC)	The SAC is responsible for the monitoring and control of activities of the VWSC	Self-regulated and internal monitoring mechanism for the GS and the VP on the activities of the VWSC and the sub-committees.
Support Organizations (SO)/Para Professionals		
District Water Management and Sanitation Committee (DWMSC)	Policy making body at the district level. Carry out advocacy, enabling and educative roles at district level	Receive, transact funds under the project on behalf of the ZP through separate account; act as a body to redress grievances and settle disputes of VP level bodies. Accord administrative sanctions to facilities.

District Facilitation Team (DFT)	Dedicated team for facilitating, coordinating, guiding community development and technical activities	Plan and implement the institutional IEC and bring about behavioral change among stakeholders; disseminate information; plan and implement capacity building programs for VWSC, MVWSSCs, VPs, paraprofessionals, SOs etc.; guide in preparing detailed project plans, guide in implementing plans; guide in conducting social audit.
District Appraisal and Monitoring Team (DAMT)	This was to function as "guardian of rules", for ensuring that the project goals and priorities are being adhered to	Appraise and clear the plans prepared by VPs/VWSC; approve, recommend administrative, financial, technical and process sanction of the village action plan; check the quality of works; monitor progress of village action plan implementation and recommend release of instalments to DFMT; conduct performance audit of village action plan implementation on technical, environmental, and social aspects by an external agency
Operations and Maintenance Team (OMT)	Perform project implementation function; monitoring the progress and impacts of project	Operationalize sector reform policy at the field level; coordinate district units for smooth project implementation; develop and communicate operational guidelines; design and implement development communication strategies and plans; monitor progress of project implementation, commission independent studies for impact assessments, design and implement process monitoring systems; design and implement capacity building strategies and action plans; develop and implement the project financial management system including accounting and auditing arrangements and also community procurements
Support Organization	Will act as support and guide to community	Sensitization and awareness activities independently or as an SO to the DFT. Facilitating preparation of PRA, baseline data generation; facilitate participatory planning in VP, VWSC and BLSC

* Please note that the chart is indicative in nature. Only the most crucial and pivotal entities have been retained in the chart.

Appendix 6: Plan Appraisal

Main Activity	Sub-activity	Responsibility	Key output / out come
Desk Appraisal	<p>Verifying completeness of the proposal</p> <p>Checking validity of designs, correctness of the estimates etc.</p> <p>Verifying cost-effectiveness, economics viability</p>	<p>DAMT</p> <p>VWSC</p>	A completed village action plan ready for field appraisal
Field Appraisal	<p>Verifying adequacy and sustainability of water source along with community</p> <p>Verifying the process of planning</p> <p>Checking institutional sustainability</p> <p>Verifying inclusion and equity of benefits to everyone in the village</p> <p>Verifying affordability, easiness in management of the proposed investment</p> <p>Verifying the preparedness for implementation</p> <p>Conducting Gram Sabha meeting to discuss improvement suggested</p>	<p>DAMT,VWSC,VP</p> <p>DAMT,VWSC,VP</p> <p>DAMT,VWSC,VP</p> <p>DAMT,VWSC,VP</p> <p>DAMT,VWSC,VP</p> <p>DAMT</p> <p>DAMT.VWSC,</p> <p>VP, gram sabha</p>	<p>Suggestion of improvements on the village action plan</p> <p>Gram Sabha accepts improvements and VWSC revises proposal</p>
Sanction	<p>Sanctioning the proposal</p> <p>Signing the addendum – II and III to overall financing agreement covering community infrastructure sub-project and women empowerment fund sub-project</p>	<p>DAMT, DWMSC</p> <p>VP,DAMT, DWMSC</p>	<p>The village action plan is approved for implementation</p> <p>Addendum to overall financing agreement signed between VP and ZP</p>

Appendix 7: Project Implementation Process

Phases	Key outputs
<p>Community Planning</p> <ul style="list-style-type: none"> • IEC and community mobilization • Planning • Appraisal and sanction 	<p>Village level sector sanitation report</p> <p>Baseline situation</p> <p>VWSC, SAC and other sub-committees formed</p> <p>Solutions to existing water supply and sanitation problems identified; participatory village action plan developed; village action plan appraised and sanctioned</p>
Community implementation	Solution to water supply and sanitation problems of the village implemented
Operation and maintenance	Sustainable delivery of water supply sanitation services

Appendix 8: Village Level Planning

Main Activity	Sub-activity	Responsibility	Key output / outcome
Preparing Village Action plan on Water Supply	<p>Training VWSC and BLSC members on source selection, surveying, estimating etc.</p> <p>Exploring existing investments for improvement</p> <p>Exploring alternate water sources</p> <p>Preparing menu of available technology options</p> <p>Conducting comparative feasibility analysis</p> <p>Discussing menu of options in Gram Sabha and deciding on feasible option</p> <p>Preparing detailed design, drawings and estimation of most preferred options</p> <p>Conducting social audit</p> <p>Discussing village action plan-water supply with VP</p> <p>Discussing capital cost and contribution, O&M arrangements, costs and user charges with Gram Sabha</p>	<p>SO, DFT</p> <p>VWSC, SO</p> <p>VWSC, SO</p> <p>VWSC, SO</p> <p>VWSC, SO</p> <p>VWSC, VP, gram sabha</p> <p>VWSC, SO</p> <p>SAC, VP, gram sabha</p> <p>VP, VWSC</p> <p>VWSC, VP,</p> <p>Women gram sabha, gram sabha</p>	<p>Most preferred option for water supply selected</p> <p>Village action plan-water supply appraised and approved by the community</p>
Preparing village action plan on environmental sanitation and hygiene promotion	<p>Designing, estimating and drawing for community toilets/school latrines</p> <p>Designing, estimating and drawing for drainage improvement</p> <p>Designing programs of IEC for behavioral change</p> <p>Conducting social audit</p> <p>Discussing village action plan-environmental sanitation and hygiene promotion with VP</p> <p>Discussing capital cost and contribution, O&M arrangements, costs and user charges with Gram Sabha</p>	<p>VWSC, SO</p> <p>VWSC, SO</p> <p>VWSC, SO</p> <p>SAC, VP, gram sabha</p> <p>VWSC, VP</p> <p>VWSC, VP, women gram sabha, gram sabha</p>	<p>The planning process follow project principles</p> <p>Village action plan-environmental sanitation and hygiene promotion appraised and approved by the community</p>
Preparing village action plan - women empowerment fund	<p>Identifying eligible entrepreneurs</p> <p>Forming women development committee</p> <p>Training the WEC and beneficiaries</p> <p>Preparing income generating activity proposals</p> <p>Identifying technical support</p> <p>Conducting social audit</p> <p>Discussing Village action plan-women empowerment fund with VP</p> <p>Discussing village action plan-women empowerment fund with Women Gram Sabha</p> <p>Discussing village action plan-women empowerment fund with Gram Sabha</p>	<p>SO</p> <p>SO, women gram sabha, gram sabha</p> <p>SO, DFT</p> <p>WEC</p> <p>WEC</p> <p>SAC, VP, gram sabha</p> <p>WEC, VP</p> <p>WEC, women gram sabha</p> <p>WEC, VP, gram sabha</p>	<p>WEC formed</p> <p>The planning process follow project principles</p> <p>Village action plan- women empowerment fund appraised and approved by the community</p>

Appendix 9: Community Implementation Process

Main Activity	Sub-activity	Responsibility	Key output / outcome
Procurement	<p>Training VWSC/VP members on procurement and implementation monitoring</p> <p>Mobilizing 50% of the upfront capital contribution in cash</p> <p>Receiving 40% of project funds</p> <p>Procuring materials, works, and other services</p> <p>Maintaining books of accounts</p> <p>Informing gram sabha on progress of procurement</p>	<p>DFT,VWSC,VP,SO</p> <p>VWSC,VP,SO</p> <p>DFMT,VP</p> <p>VWSC, VP, gram sabha, SO</p> <p>VWSC,VP,SO</p> <p>VWSC, VP, gram sabha, SO</p>	The required materials, works, and other services are procured in a cost-effective and transparent manner
Project Execution	<p>Receiving 40 % of project funds</p> <p>Supervising the implementation</p> <p>Mobilizing labor contribution</p> <p>Managing stock and stores of materials</p> <p>Checking measurements and verifying quality of implementation</p> <p>Commissioning facilities</p> <p>Preparing project completion reports</p> <p>Publishing statement of accounts</p> <p>Collecting upfront O&M contribution for 6 months</p> <p>Conducting social audit</p>	<p>DFMT,VP</p> <p>VWSC,VP, SO</p> <p>VWSC,VP, SO</p> <p>VWSC,VP, SO</p> <p>VWSC,VP, SO</p> <p>VWSC,VP, SO</p> <p>VWSC,VP, SO</p> <p>VWSC,VP, SO</p> <p>SAC</p>	<p>The systems and facilities are completed as per plans Project completion report as approved by gram sabha</p> <p>Statement of accounts as approved by gram sabha</p> <p>Gram sabha discuss social audit report and VP initiate actions</p>

Appendix 10: Operation and Maintenance

Main Activity	Sub-activity	Responsibility	Key output / outcome
System Performance	<p>Training VWSC members on operation and maintenance</p> <p>Operating the systems and facilities</p> <p>Maintaining the systems and facilities</p> <p>Working out operation and maintenance cost</p> <p>Collecting user charges</p> <p>Maintaining records</p>	<p>DFT, SO</p> <p>VWSC, VP, SO</p> <p>VWSC,VP, gram sabha</p> <p>VWSC, VP</p> <p>VWSC,VP, SO</p>	Systems and facilities are working with desired performance and services levels and satisfaction of users Reliability of the facilities increased
System Monitoring	<p>Conducting social audit</p> <p>Monitoring user satisfaction</p> <p>Monitoring source performance, quantity and quality</p> <p>Withdrawing external support</p> <p>Resolving conflicts, if any</p>	<p>SAC,VP</p> <p>VWSC,VP</p> <p>VWSC,VP</p> <p>DFT</p> <p>SAC, gram sabha</p>	A sustainable systems and facilities run in transparent manner

Fig A.1: Community Involvement in Project Phase

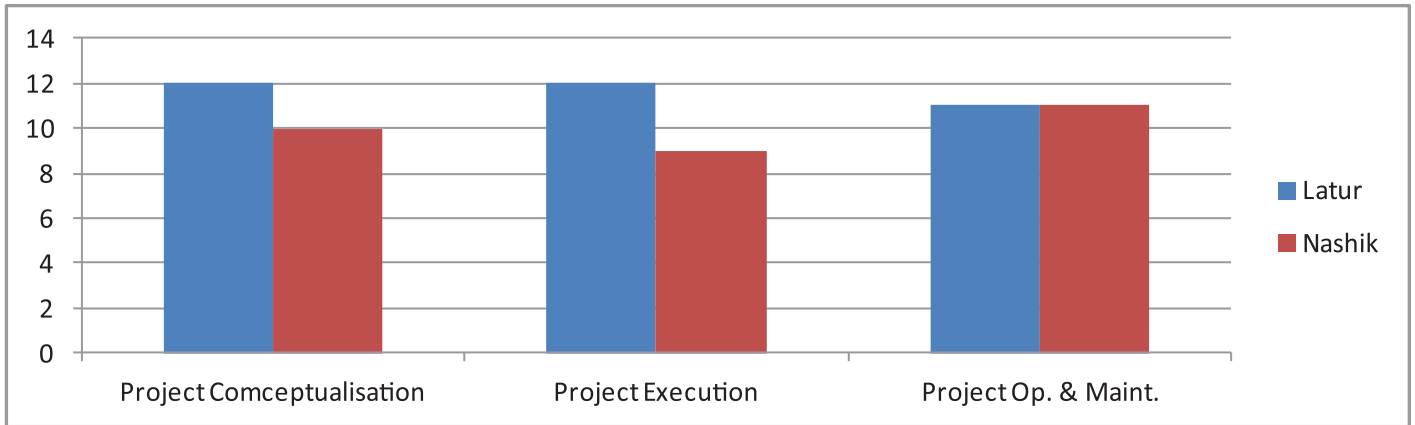


Fig A.2: Satisfaction Level Based on Outcome

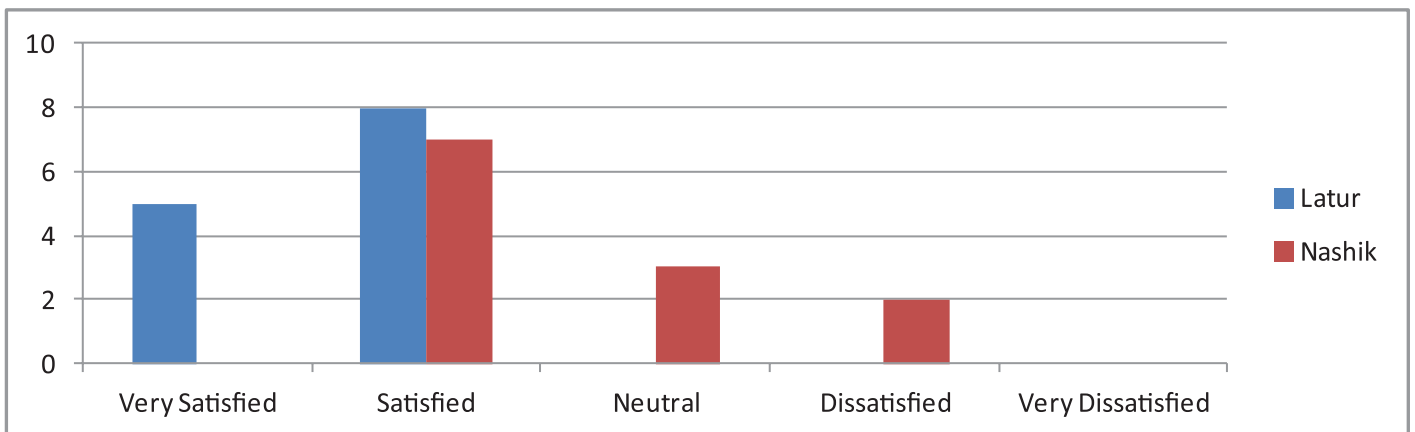


Fig A.3: Present Status of Water Supply Scheme

