

CHAPTER II

WATER SUPPLY AND SANITATION DEPARTMENT

2.1 Performance Review on “Jalswarajya Project in Maharashtra”

Executive Summary

Government of Maharashtra launched (September 2003) community demand driven Maharashtra Rural Water Supply and Sanitation Project (“Jalswarajya”) with World Bank funding. The project was implemented by Government of Maharashtra in 3391 Gram Panchayats in 26 Zilla Parishads to provide 40 litres per capita per day potable water to projected village population. For successful implementation and community participation, process of capacity building, women empowerment etc. were also envisaged in the scheme.

Performance Review on “Jalswarajya Project in Maharashtra” covering the period 2003-10 revealed that as of November 2010, out of 3391 Gram Panchayats selected in the project, 383 Gram Panchayats were deleted from the project for various reasons. The concerned organizations failed to facilitate the formation of inclusive, responsible and skilled, village water supply and sanitation committees and build their capacities so as to empower them to execute the project through participatory process.

The expenditure of ₹ 1.92 crore incurred on community infrastructure became wasteful due to the abandoned works. Unspent grant of ₹ 1.02 crore was not recovered from the 107 Gram Panchayats of two Zilla Parishads though they had completed the projects in all respects. Excess release of grants of ₹ 1.01 crore due to less valuation as stated in the Measurement Books than the grants released was not recovered from 91 Gram Panchayats of two Zilla Parishads. Out of 3008 Gram Panchayats in the project, 617 Gram Panchayats have not yet completed the project cycle or were at incomplete stages. The stipulated period of 18 months was not adhered to. Overall delay in completion ranged from 42 to 77 months beyond stipulated period.

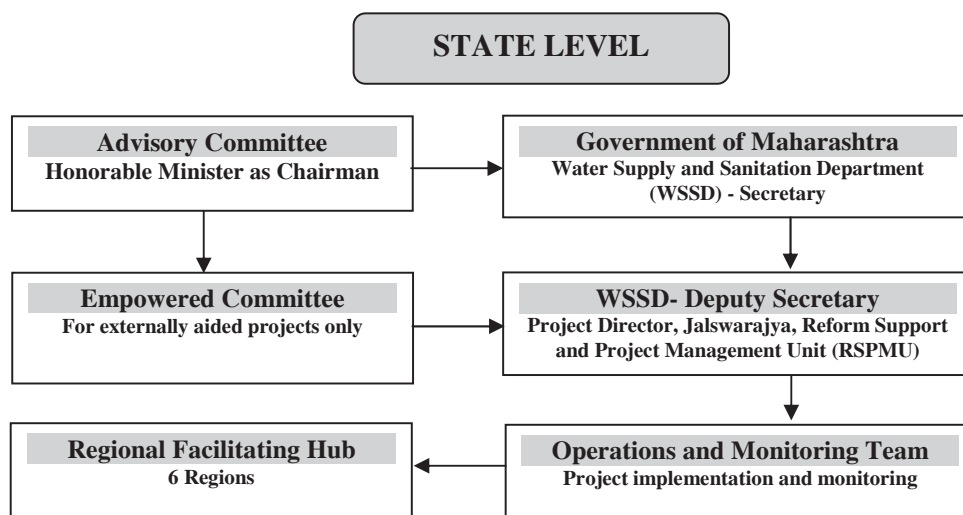
2.1.1 Introduction

Under “National Rural Drinking Water Programme” modified guidelines were issued (April 1999) by Government of India (GOI), to evolve Sector Reform Projects and to involve community in planning, implementation and management of drinking water related scheme. Based on these guidelines, Government of Maharashtra (GOM) launched (September 2003) community demand driven Maharashtra Rural Water Supply and Sanitation Project (MRWSS) (Jalswarajya) with World Bank (WB) funding. The project objective was to improve the access of the rural communities to sustainable drinking water and sanitation services. Out of

33 Zilla Parishads (ZPs) in the State, 26 ZPs¹⁰ were covered under the project excluding those already covered under other drinking water projects funded by GOI and German Development Bank. The project was implemented by GOM from 2003 onwards in 3391 Gram Panchayats (GPs) to provide 40 Litres Per Capita Per Day (lpcd) potable water to projected village population. To ensure community participation 10 per cent Popular Contribution (PC) (five per cent from tribal GPs) was recoverable and balance fund was to be released as per progress of the scheme in installments. For successful implementation and community participation, process of capacity building, women empowerment etc. were also envisaged in the scheme.

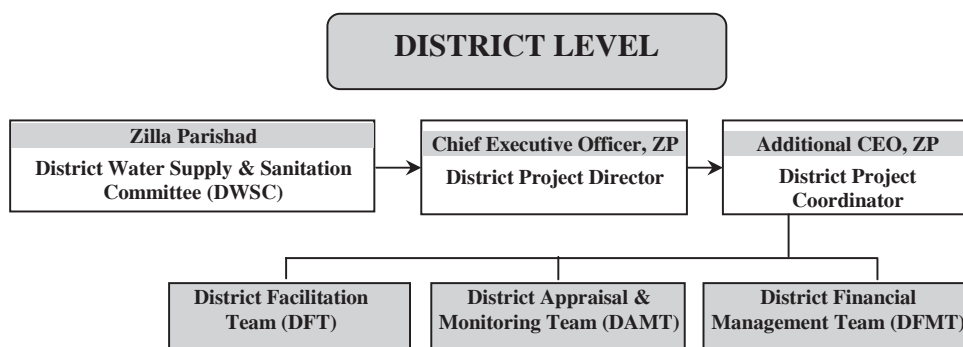
2.1.2 Organisational set up

The organisational set up and the roles and responsibilities at State, District and Village level are depicted as under:

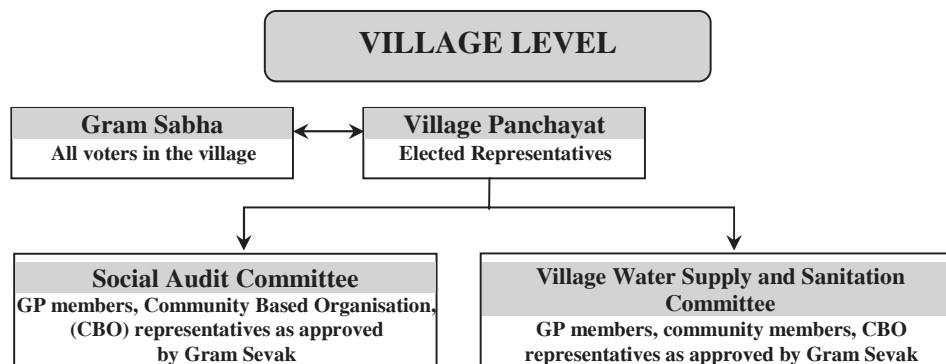


Name of the Functionaries/ Committees/Teams	Roles and responsibilities
Advisory Committee	Advise and recommend measures to the WSSD on strategic and policy issues of the sector
Water Supply and Sanitation Department- Secretary and Deputy Secretary	The Secretary to Government, WSSD, will be in overall charge of the Project. The Deputy Secretary designated as Project Director will manage the day-to-day implementation of the Project
Operations and Monitoring Team	Operationalise the Sector Reforms Policy at the field level and co-ordinate with the district units for smooth Project implementation

¹⁰Akola, Beed, Bhandara, Buldhana, Chandrapur, Gadchiroli, Gondia, Hingoli, Jalgaon, Jalna, Kolhapur, Latur, Nagpur, Nandurbar, Nashik, Osmanabad, Parbhani, Ratnagiri, Sangli, Satara, Sindhudurg, Solapur, Thane, Wardha, Washim and Yavatmal.



Name of the Functionaries/ Committees/Teams	Roles and responsibilities
District Water Management and Sanitation Committee	DWSC will be the policy making body for the Project at the district level.
District Facilitation Team	Disseminate all relevant information to all Project stakeholders. Plan and implement capacity building programmes for Village Water Supply and Sanitation Committees (VWSCs), GPs, Para-professionals, Supporting Organisations (SOs) <i>etc.</i> Monitor the progress as well as the process of Project implementation.
District Appraisal & Monitoring Team	Check the quality of works undertaken, monitor the progress of Village Action Plan (VAP), implementation and conduct of performance audit of VAP, implementation covering technical, social, environmental aspects by engaging an external agency.
District Financial Management Team	Take care of the financial support activities to the district level arrangement and for arranging and co-ordinating the financial audit of Project account of GPs.



Name of the Functionaries/ Committees/Teams	Roles and responsibilities
Village Water Supply and Sanitation Committee	Develop VAP and implement the water supply project as per VAP. Supervise and monitor activities of SOs, consultants and contractors engaged for Project implementation. Prepare documentation on completed water supply and sanitation facilities and hand over the scheme to GP to operate and maintain the water supply and sanitation facilities.
Social Audit Committee	Audit the functioning of the VWSC and its various sub-committees in order to ensure that they carry out their roles and responsibilities in a just and fair manner and not violating the principles of the Project like inclusion, equity, cost-effectiveness, transparency, environmental soundness <i>etc.</i>

2.1.3 Audit Objectives

The Audit objectives were to assess whether:

- the planning of implementation of Jalswarajya Project was adequate and effective;
- the system of allocation, release and utilization of fund was done in efficient manner;
- schemes were implemented economically, efficiently and effectively;
- a system for monitoring and internal control was in place.

2.1.4 Audit criteria

The criteria used for the performance audit were:

- State Project Implementation Plan (PIP) prepared (September 2003) in consultation with WB.
- GOM resolutions/orders issued from time to time in accordance with state wide reform policy in Water Supply and Sanitation sector.
- Community Operational Manual consisting of guidelines for villagers to implement project.
- Project Agreement between International Development Association (IDA) and GOM.
- Environmental Assessment Report dated 15 April 2003
- Financial Management Manual for Operations and Monitoring Team (OMT) for GPs and VWSC.

2.1.5 Audit coverage and audit methodology

Out of 26 ZPs, 10 ZPs¹¹ were selected so as to represent atleast one ZP from each of the six regions¹² in the State where the number of GPs that had completed the project cycle was below 60 *per cent*. Out of 10 ZPs selected, 60 GPs indicated in **Appendix IV**, consisting of one GP which had completed the project cycle, two GPs that had started water supply but had not completed project cycle, two GPs where work was in progress and one GP that was initially selected but dropped from the project were reviewed during August 2010 and February 2011 for the Performance Audit for the period from 2003-04 to 2009-10. The Entry Conference was held with the Deputy Secretary, Project Director and other officers of the RSPMU at Navi Mumbai on 18 November 2010. The Exit Conference was held on 16 May 2011 with the Principal Secretary, WSSD at Mantralaya, Mumbai.

Audit findings

2.1.6 Planning for effective implementation

Before implementation (December 2003) of the project, Osmanabad, Satara and Thane ZPs were selected as pilot ZPs and after obtaining experience it was extended in further six¹³ ZPs. Remaining 17¹⁴ ZPs were included (July 2004) only upon successful performance in previously selected nine ZPs. Keeping in line with the demand driven approach of the project, GPs were included in the project adopting self selection process. For effective planning and implementation of the project, VWSCs, Women Development Committee (WDC) and Social Audit Committee (SAC) in all selected GPs and 9708 sub-committees were formed to assist 3391 VWSCs in carrying out procurement, finance and supervision function.

2.1.6.1 Delay in completion of projects

As of November 2010, out of 3391 GPs, project cycle in 617 GPs had not been completed as brought out in Para 2.1.8.2(i). During test check of GPs it was noticed (July 2010 to September 2010) that the work of the project was delayed due to (i) non-availability of freehold land before execution of work (ii) hindrance from farmers leading to change in alignment, (iii) internal disputes among GP and VWSC and (iv) failure of support organizations like Technical Service Provider (TSP). The District Appraisal and Monitoring Team (DAMT) who appraised and cleared the

¹¹ Chandrapur, Hingoli, Jalgaon, Latur, Nagpur, Osmanabad, Sangli, Thane, Washim and Yavatmal.

¹² Amravati, Aurangabad, Konkan, Nagpur, Nashik and Pune.

¹³ Buldhana, Chandrapur, Nagpur, Nashik, Sangli and Yavatmal

¹⁴ Akola, Beed, Bhandara, Gadchiroli, Gondia, Hingoli, Jalgaon, Jalna, Kolhapur, Latur, Nandurbar, Parbhani, Ratnagiri, Sindhudurg, Solapur, Wardha and Washim

VAP failed to monitor the timely acquisition of freehold land and clearance of hurdles leading to delays in project execution.

2.1.6.2 Deletions due to lack of monitoring

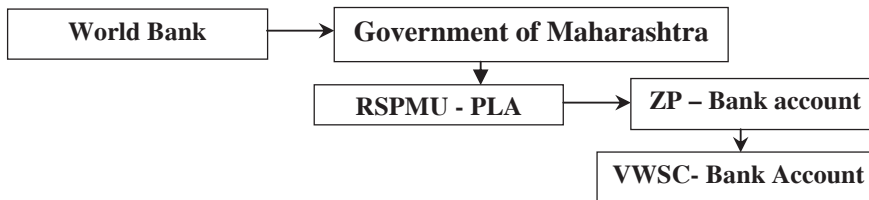
Audit observed that as of November 2010, out of 3391 GPs selected for project, 383 GPs (11.29 per cent) were deleted by the District Project Director. In ZP Jalgaon, out of 145 GPs selected, 45 GPs were deleted (31.03 per cent). The GPs were deleted due to lack of initiative in the local leadership, unwillingness of community to pay PC, internal disputes, unwillingness of VWSC to work as per terms and conditions of the project, execution of works by VWSC against prescribed norms and slow progress of work. Audit observed (November 2010) that expenditure of ₹ 5.28 crore was incurred in these 383 deleted GPs. The expenditure on capacity building of ₹ 3.36 crore was regularized by GOM. Further, expenditure of ₹ 1.92 crore on community infrastructure such as land, source/tube well, rising main, pump house/machinery and Elevated Service Reservoir (ESR) became wasteful as no water supply facility was provided. The expenditure of ₹ 1.92 crore was not recovered from these deleted GPs (May 2011).

The SOs, Para Professionals, TSPs and ZP level organizations failed in these villages to facilitate the formation of inclusive, responsible and skilled VWSCs and build their capacity so as to empower them to execute the project through participatory process.

2.1.7 Financial Management

2.1.7.1 Funding arrangement

The following chart depicts the flow of funds:



2.1.7.2 The cost of project and reimbursement received from WB upto February 2011 was as under:

(₹ in crore)

Source	Estimated as per Project Implementation Plan	Actual Expenditure	Reimbursement received
World Bank	937.61	845.95	845.95
GOM	377.10	279.32	279.32
Beneficiaries PC	80.82	94.34	94.34
Total	1395.53	1219.61	1219.61

(Source: RSPMU office)

The difference of ₹ 91.66 crore (₹ 937.61 – ₹ 845.95 crore) between estimated WB receipt and actual reimbursement was due to foreign exchange rates.

The Financial profile of 10 test checked ZPs as on February 2011 was as under :

(₹ in crore)

Receipt from WB/GOM	Beneficiaries contribution	Total receipt	Total expenditure
440.16	18.59	458.45	455.45

(Source: RSPMU Office)

2.1.7.3 Non-recovery of Unspent Grants

Unspent grant of ₹ 1.02 crore was lying in Bank account of 107 GPs in two ZPs¹⁵ who had completed the project cycle. VWSCs replied (October 2010) that the unspent balance was due to payments to be made to the contractors, TSPs, suppliers and accounts would be closed and the money would be recovered by November 2010. However, no documentary evidence was produced in support of this claim (May 2011).

2.1.7.4 Non-recovery of excess release of Grants

The valuation of work done as per the Measurement Book was less than the amount of the grants that were released by ₹ 1.01 crore in 91 GPs of two ZPs¹⁶ and hence the excess grants were to be recovered. The recovery was under progress (May 2011).

2.1.7.5 Irregular collection of Popular Contribution

For establishing ownership of the project among the users, 10 per cent PC (5 per cent PC for tribal GP) was to be collected from the users. GP shall open a separate Bank account in the nearest nationalized Bank or co-operative Bank.

Following discrepancies were noticed (September and October 2010) in test checked GPs.

Name of ZP	Name of GP	Remarks
Chandrapur	Sagara	The contractor had claimed reimbursement of expenditure inclusive of ₹ 1.60 lakh towards PC paid by him
Chandrapur	Chekthanevasna	Out of PC of ₹ 4.63 lakh collected only ₹ 0.70 lakh was accounted for in PC register
Latur	Dhondhipparaga	The VWSC members confirmed in joint survey report regarding payment of PC and advance Operation and Maintenance contribution by some beneficiaries;

¹⁵ Thane (₹ 93.48 lakh) and Yavatmal (₹ 8.78 lakh)

¹⁶ Chandrapur (₹ 36.67 lakh) and Washim (₹ 64.55 lakh)

		however details of sums paid was not disclosed.
Thane	Ambiste	Out of ₹ 6 lakh paid by VWSC to the contractor for work done, the contractor deposited ₹ One lakh on same day by transfer entry in bank account of VWSC which was considered as receipt as PC.
Thane	Junandurkhi	VWSC had deposited ₹ 5 lakh in their nearest branch bank account through Demand Draft drawn on another bank located at taluka place which was indicative of PC being contributed other than by users of the scheme.
Yavatmal	Savargaon	VWSC had withdrawn ₹ 1.55 lakh in cash on 10 March 2008 and deposited ₹ 1.40 lakh and ₹ 0.15 lakh on same date and 18 March 2008 respectively by diversion of the scheme grant.

In the exit conference (May 2011) it was agreed that RSPMU was aware about the payment of PC by contractors and other than by the users and it was explained that other alternatives were being examined. This would not only go against the spirit of public participation but also had a bearing on the quality of the work executed by the contractors who have paid the PC and got the work allotted to them.

2.1.7.6 Certification by Chartered Accountants

As a demonstration of good practice, each of the GPs implementing the project was required to submit audited statements of expenditure and audit reports for the project within six months after the close of the financial year. Scrutiny (February 2011) of RSPMU office records revealed that though the Chartered Accountant's (CA) reports were due for submission (October 2010), as of January 2011, accounts of only 2197 GPs out of 3008 GPs in the project had been audited by CA for the financial year 2009-10, as 811 GPs had not finalized the accounts. Thus, time schedule prescribed was not adhered to.

2.1.8 Implementation of sub-project

2.1.8.1 Community Development

The Jalswarajya Project was a major shift from the earlier supply driven projects to demand driven mode and hence needed investment in community participation, mobilization and strengthening of GP. In order to achieve the set objectives, community development component was the major aspect. It aimed at mobilization and empowerment of the primary stakeholders of the project *i.e.* rural community; to build their capacity for planning, implementing; monitoring the new scheme and to build the institutional capacity of the GP. Community Development component

aimed at Community Capacity Building (CCB), Women Empowerment Fund (WEF) and Gram Panchayat Strengthening Fund (GPSF).

Following observations were made during audit :

(i) In GP Chekthanevasna, ZP Chandrapur, out of ₹ 2.89 lakh received (December 2004 and 2005) for CCB, only ₹ 1.68 lakh was spent and saving of ₹ 1.21 lakh was refunded to ZP office. Out of the saving, an amount of ₹ 0.69 lakh was due to non-payment to SO who had not extended proper co-operation and guidance for capacity building. This resulted in non-utilisation of fund of CCB fully for the capacity building. In reply VWSC stated (September 2010) that initial source selected by TSP was having hard strata. Due to non-cooperation from TSP, new TSP was appointed and new source was selected by him after revising estimate. Thus, improper guidance by SO for CCB resulted in change of source, estimate and delay in completion of the project.

(ii) In deleted GP Kurwel, ZP Jalgoan, an amount of ₹ 0.37 lakh was released to SO though effective CCB was not done. The bills and vouchers were blank and payment was released without ascertaining the details of expenditure incurred. Recovery of ₹ 0.37 lakh was not made from SO by Committee/President. In absence of valuation of work done, VWSC had incurred expenditure of ₹ 7.42 lakh against ₹ 7.37 lakh released (September 2007) for digging of tube well, purchase and installation of submersible pump, construction of pump house, purchase of starter and construction of open gutters. However, the works remained incomplete. Inadequate CCB by SO/TSP and irregular implementation by VWSC resulted in idle assets which led to unfruitful expenditure of ₹ 7.42 lakh and deletion of GP Kurwel from the project.

(iii) Under Sanitation and Hygiene Promotion Centre Program, GOM sanctioned (November 2009) additional works of ₹ 1.60 lakh to Government Tribal Ashram School, Belda, ZP Nagpur. These works included drinking water facility (Rain Water Harvesting), bathroom facility and other works. Scrutiny of records (August 2010) revealed that ZP Nagpur released (February 2010) ₹ 1.36 lakh being 85 *per cent* first installment and prepared a cheque for remaining amount of ₹ 0.24 lakh to account 100 *per cent* expenditure. Government Tribal Ashram School could complete the work of Rain Water Harvesting only by incurring an expenditure of ₹ 0.37 lakh which was inclusive of ₹ 0.03 lakh paid to TSP. Remaining works were not started and fund of ₹ 0.99 lakh remained blocked with the school (August 2010). DFT, Nagpur replied (August 2010) that even after follow up, the school had not responded to start the remaining work. Therefore, fund of ₹ 0.99 lakh would be recovered.

(iv) In GP Kasegaon, ZP Sangli, the estimate prepared by TSP (M/s Rajarambapu Institute of Technology) was not proper. Vertical pipes for ESR and distribution system for extended area of GP were not taken into account in original VAP. The VAP was revised to include items such as (i) switch room on the banks of Krishna river, pile foundation

proposed for switch room above flood line (ii) rising main D.I. pipes instead of C.I. pipes and (iii) estimate for fencing of ESR and WTP. Proper planning was not made at estimate stage by TSP which resulted in revision of VAP cost from ₹ 1.61 crore to ₹ 1.76 crore and delay in completion by 31 months. Further, works were executed before receipt of sanction of revised VAP. GP stated (August 2010) that through oversight, some sub-works were not included in original estimate. At the time of actual implementation, technical changes were needed resulting in excess expenditure.

(v) In GP Kaudgaon, ZP Osmanabad, 12 borewells were constructed and source of borewells was strengthened by rain water harvesting. However, due to use of sub-standard filter media, the water of borewells got contaminated and hence villagers stopped the rain water harvesting after one year to avoid spreading of water borne diseases. Thus, expenditure of ₹ 1.73 lakh incurred was unfruitful as proper guidance in this regard was not given by SO/TSP. VWSC Kaudgaon stated (September 2010) that VWSC was unaware about technical items.

(vi) As per guidelines of the project, advance O&M charges were to be collected by VWSC before completing the project cycle. It was observed (October 2010) that in GP Hivarapen, ZP Washim, though GP had completed the project cycle, advance O&M charges was not collected by VWSC. In reply VWSC stated (October 2010) that many guidelines were issued by ZP team to GP/VWSC for collection of advance O&M charges, however, non-cooperation of GP strengthened the tendency of beneficiaries towards non-payment of tax.

(vii) Non-execution of components

The project envisaged two complementary pilots comprising of (a) an incentive fund for ZPs for development of market place and (b) an incentive fund for GPs for implementing Village Development Plan (VDP) and Panchayat Development Plan. However, it was observed (November 2010) that the components of ₹ 29.67 crore were not executed as detailed below:

- At the ZP level the pilot incentive fund component was to be implemented in nine ZPs¹⁷ over a period of three years. ZP incentive fund for pilot projects of ₹ 6.92 crore was not utilised due to non-receipt of proposal from ZPs and hence the component was dropped at the midterm review with WB. GOM failed to motivate the ZPs in taking up projects to avail the incentive fund.
- An incentive fund component of ₹ 11.46 crore was estimated to be implemented in 25 selected GPs each in nine initial ZPs (225 GPs) over a period of two years and supported over a period of four years for implementing the component. The GP was to contribute 15 *per cent* of their total cost of the plan as their contribution. GP incentive

¹⁷ Buldhana, Chandrapur, Nagpur, Nashik, Osmanabad, Sangli, Satara, Thane and Yavatmal.

fund was started in nine ZPs (April 2005) and one GP was selected in each block of project ZPs. Orientation workshops were conducted (April to July 2006) and selected GPs were trained at YASHADA, Pune for capacity building (May and June 2006). GOM proposed (2006) to implement the component in 105 GPs in first phase. Audit observed that RSPMU restricted (2008) the implementation to 32 GPs of six¹⁸ ZPs and as of February 2011 fund utilized was ₹ 3.53 crore only. In the exit conference (May 2011) RSPMU clarified that the ZP incentive fund was not implemented as no proposal was received from ZPs and though 105 GPs were selected, finally only 32 GPs implemented the component. Thus, fund of ₹ 7.93 crore remained unspent and the purpose of the component to build the capacity of GPs for effective decentralization and devolution was not achieved in 193 GPs.

- Operation and Maintenance Pilot Fund of ₹ 14.97 crore was estimated to develop an O & M capacity building model for drinking water supply schemes implemented earlier which were outside the purview of project's community infrastructure component and to prepare an action plan for scaling up the model to eventually cover the entire State. Under this component the pilot activities were to be carried out initially in nine ZPs, selecting three to five GPs in each ZP where investment in infrastructure was to be made. Audit observed that the component was not implemented by RSPMU office. Non-implementation of component resulted in depriving funds of ₹ 14.82 crore to 27-45 GPs from initial nine ZPs and 45-75 GPs from 15 ZPs. In the exit conference (May 2011) RSPMU clarified that the component was to be taken up in those GPs where water supply schemes other than Jalswarajya existed and to avoid more burden on RSPMU this component was not implemented.

(viii) Blocking of Women Empowerment Fund

Community Development and Infrastructure Building envisaged the formation of WEF in each participating GP. The WEF activities were implemented through Women Development Committee WDC. The skill development training was to be provided to eligible women members in the community on different vocations so as to enable them to start income generating activities. The fund was to be revolved among the Self Help Groups (SHGs) formed in participating GPs.

Scrutiny of records of 22¹⁹ GPs, revealed that WDC had executed agreements with SHGs regarding seed money provided to start income generating activities. The seed money was to be refunded within specified period along with interest agreed upon. However, seed money of ₹ 14.11

¹⁸ Chandrapur, Nashik, Sangli, Satara, Thane and Yavatmal

¹⁹ ZP Chandrapur: GP Chandankheda, Mokhala, Padoli and Pimpalkhut,
ZP Nagpur: GP Banpuri, Borda, Dehgaon-Rangari, Panjari and Potachankapur,
ZP Thane : GP Ambiste, Ashele, Shenve and Vangaon,
ZP Yavatmal: GP Jarang, Mandava, Rudha, Sarai and Savargaon,
ZP Washim: GP Bramha, Hivarapen, Poharadevi and Shelgaon-Bagade

lakh was not refunded by SHGs to WDCs and had remained blocked with SHGs for the period ranging from 12 to 54 months. In reply (July 2010 to October 2010) WDCs stated that seed money would be recovered and revolved among the SHGs. In the exit conference (May 2011) RSPMU stated that instructions had been issued to Gramsevak and Local Fund Audit to ensure the recovery of seed money. However, as per GOM circular (May 2008), seed money was fund of GP and hence the responsibility of accounting and recovery was of concerned GPs. Non-refund of seed money resulted in non-revolving of fund among other needy SHGs and they were deprived from the benefit of income generating activities.

2.1.8.2 Community Infrastructure

At GP level, the project was to be implemented within 18 months to carry out various activities of following phases.

Project Cycle Phase	Implementation duration
Community mobilisation	One month
Village Level Planning	Four months
Appraisal and Sanitation	One month
Community implementation	Nine months
Operation and maintenance	Three months

(i) Inordinate delay in exit of GPs from the project

Audit observed (December 2010) that as of 30 November 2010, the batch wise status of the GPs in the project was as under:

Batch	Pilot	Batch I	Batch II	Batch III	Total
Month of GP selection	January 2003	April 2004	April 2005	December 2005	
	----	March-April 2005	September-December 2005	----	
Target Date	July 2004	October 2005	October 2006	June 2007	
	----	October 2006	June 2007	----	
No. of GPs selected	26	224 431	486 1657	567	3391
No. of GPs deleted	3	50	259	71	383
No. of GPs under project	23	605	1884	496	3008
No. of GPs completed the project cycle	20	489	1514	368	2391
No. of GPs incomplete/ not completed the project cycle	3	116	370	128	617

The above table showed that 617 GPs had not completed the project cycle or were at incomplete stage and thus, the schedule of 18 months was not adhered to. On success of GPs selected in Pilot Batch and Batch I, GPs in

Batch II and Batch III were selected. However, still three GPs of Pilot Batch and 116 GPs of Batch I had not yet completed the project cycle or works were at incomplete stage. This resulted in inordinate delay and purpose of selection of these GPs well in advance was not achieved. The overall delay in completing the project ranged from 42 to 77 months (December 2010).

In this regard, RSPMU stated (November 2010) that the project process laid down at the GP level was demand driven approach and also involved huge amount of social mobilization to be implemented by community. The processes were time consuming, therefore, none of the GPs of the project had completed the project cycle within 18 months. Since, number of GPs to be exited through multiple processes from the project were substantial, it was not possible to monitor each GP for the exit process. Also each phase of the project cycle was completed in different durations in the GPs and hence only broad parameters of physical and financial completion at GP level was monitored.

The reply is not acceptable as the project cycle of 18 months was extended upto 36 months. In spite of that, the project cycle was not adhered to and GPs selected in 2003 and 2004 could not complete the project cycle. Also as these factors were known to the RSPMU in the initial stages, proper planning and monitoring should have been ensured for efficient implementation of the projects in time.

In the exit conference (May 2011) RSPMU stated that 384 GPs had been deleted and only 222 GPs remained incomplete as of April 2011.

(ii) Water Recharge and Source Strengthening

Based on the information generated during the participatory appraisal and community mobilization process, the community was to search for alternate sources and technical options to solve water supply and sanitation problems. In order to do so, the existing assets and sources were to be evaluated for assessing the feasibility of rehabilitating, rejuvenating or augmenting. While scouting for the initial available menu of solutions, sufficient consideration was to be given to traditional water sources, water conservation and recharge measures *etc.* The source was to be certified by the Geologist being member of DFT and VAP submitted by VWSC was to be approved by DAMT. Audit observed that the failure of the district authorities in planning and monitoring resulted in failure of source sustainability as indicated below:

(iii) Source sustainability

In GP Sumthana, ZP Latur, the original source well constructed failed after incurring expenditure of ₹ 1.51 lakh resulting in construction of another well at different source and revision of VAP cost from ₹ 18.89 lakh to ₹ 20.68 lakh. Thus, the selection of source initially was not proper. GP stated (September 2010) that due to non-availability of source of water, excess expenditure was incurred and project was delayed.

(iv) Water Recharge Sustainability

To meet the water quality demand, rain water harvesting was done for source strengthening. This was to be executed as support facility in addition to main water supply scheme. The project has to run for next 20 years, thus all these facilities need to be protected by the implementing agencies. The deficiencies in maintenance of water recharge are discussed subsequently.

- In GP Phalegaon, ZP Hingoli, the rain water harvesting work was undertaken at a cost of ₹ 2.28 lakh. Site visit by audit team and VWSC (October 2010) revealed that caps and joints of PVC pipe lines were removed, thus defeating the purpose for which the work was executed. GP stated (October 2010) that the said work was destroyed by animals and would be got repaired. The reply is not acceptable as the work should have been regularly monitored by GP for proper use of the facility.
- In GP Bhingi, ZP Hingoli, nine rain water harvesting works executed were broken and the borewells to whom they were connected were also not in use. GP stated (October 2010) that the destruction was by animals and would be got repaired.
- In GP Banpuri and Panjari of ZP Nagpur, rain water harvesting work proposed for ₹ 0.75 lakh were not executed. GP stated (August 2010) that the works would be executed later on.
- In GP Adgaon of ZP Jalgaon, work of roof top harvesting of ₹ 0.57 lakh incorporated in original VAP cost was deleted in revised VAP cost. GP stated (August 2010) that for executing additional works as per demand of villagers, the water recharge work was deleted.

Thus, in all these GPs, the purpose of water recharge work was not served.

(v) Watershed Recharge

VWSC, Nitur, ZP Latur had selected two sources at different places. Water supply was started from source well in downstream of Tajpur storage tank which was washed away (September 2010) due to heavy rain. The villagers would not get sufficient water supply as the source would run dry since watershed recharge facility from the storage tank was not available. Though another source well on bank of Manjara river was constructed, water supply was not started due to incomplete rising main. The GP had received ₹ 87.15 lakh upto May 2010 and was having balance of ₹ 17 lakh in Bank account (September 2010). In reply (October 2010) VWSC Nitur confirmed the facts and stated that efforts would be made to complete the work. The reply is not tenable as the GP was having sufficient fund and could have built another sustainable source well. However, due to dispute on rates of material procured, which were much more than the Jalswarajya rates fixed, the fund was not used. The ZP office also failed to timely resolve the issue. In reply ZP stated (October 2010) that decision on dispute of rates would be taken shortly.

(vi) Water Supply Sustainability

In GP Sarai, ZP Yavatmal, the need of daily demand after completion of project was 53628 litres on the basis of 40 lpcd norms and for projected population for the year 2021 was 73129 litres. However, VWSC Sarai had constructed ESR of 40000 litres only which was not even sufficient to cater to the needs of the current demand.

GP stated (October 2010) that water supply was done twice a day but there would be problems in future.

(vii) Delay in completion of works

As per PIP, the project at GP level was to be implemented within 18 months to carry out various activities. Scrutiny of records relating to implementation in 20 GPs (**Appendix V**) of 10 selected ZPs revealed that most of the VWSCs were able to complete the works such as source well, rising main and distribution system. Sub-works which required skill and technical knowhow such as ESR, GSR, WTP, filter media and obtaining of permission from various departments remained incomplete and resulted in inordinate delay of five to six years beyond the stipulated period of 18 months. The reasons for inordinate delay were improper planning, lack of skilled labour, delay in obtaining electric connection, escalation in estimated rates, non-availability of land for ESR/WTP, internal dispute, opposition to install the pumping machinery, labour problem, delay in getting sanction to ESR/WTP as per revised design. As of November 2010, work remained incomplete in case of 478 GPs out of 3008 GPs in the project. It resulted in delay in providing benefit of drinking water in time to the targeted population of 13.79 lakh and compelled them to fetch water from existing source or to depend on tanker water supply. In reply VWSCs confirmed (August 2010 to October 2010) the facts and assured to complete the project work at the earliest.



Incomplete ESR at GP Umadi, ZP Sangli



Incomplete WTP at GP Umadi, ZP Sangli

(viii) Failure in selected GPs

As per exit procedure, the VWSC has to recover O&M fund six months in advance and handover the scheme to the GP. In GP Mokhala, ZP Chandrapur, though project was completed (August 2008), water tax of

₹ 2.48 lakh was outstanding beside O&M funds (August 2010). Thus, after two years of exit of the GP, it could not recover the O&M fund and arrears of water tax amounting to ₹ 2.48 lakh.

(ix) Community, School and Environmental Sanitation Infrastructure

The component of Community, School and Environmental Sanitation Infrastructure was to assist in providing the infrastructure to support the GOM's strategy for providing total sanitation. The GOM's strategy recognized that total sanitation should go beyond the installation and use of latrines by adopting suitable measures like drainage/soak pits, safe garbage, compost pits and school sanitation. Community rewards was to be instituted to encourage achievement of 100 *per cent* participation and sanitation by the community as the project fund of 11.42 *per cent* was envisaged for this component.

- During initial phase of the project as per PIP, sanitation work such as drainage (gutters), soak pits, compost pits, women sanitary complex, lane improvement and some other works were proposed for providing sanitary facilities in villages. As of November 2010, out of 2126 sanitation works proposed, 2097 were completed, 14 were in progress and 11 were not started.
- In GP Hivarapen, ZP Washim, the sanitation work such as underground gutter, soak pits and individual soak pits amounting to ₹ 2.12 lakh were included in original VAP sanctioned (February 2007). However, these works were deleted at the time of revision (March 2010) of VAP due to increase in the cost of the project.
- Promotion of Open Defecation Free (ODF) villages and to increase community awareness towards use of toilets was one of the major objectives of the project. All project villages were to achieve at least 50 *per cent* ODF status before exit of villages. As of December 2010, out of 3008 GPs under project implementation, 2880 GPs became ODF (96 *per cent*). In 2003, out of 11.57 lakh households, 9.11 lakh (79 *per cent*) households and schools were having Individual House Hold Latrines (IHHL). Ministry of Rural Development, GOI, is promoting environment sanitation in rural community through incentive based prestigious award "Nirmal Gram Puraskar" (NGP). State level status report (September 2009) revealed that out of 3008 GPs in the project, 1159 GPs received NGP which was 38 *per cent* of GPs in the project. GP Marsul, ZP Hingoli, had received NGP during 2008-09. However, on site visit to GP (October 2010), it was observed that open defecation on roads still continued. VWSC stated (October 2010) that some villagers had negative tendency for use of toilets and efforts were being made to encourage them to use toilets.
- In GP Koregaonwadi, ZP Osmanabad, ODF status was only 10 *per cent* which was far below the minimum requirement of 50 *per cent*.

Out of 90 households only 10 were having IHHL. GP was having one 10 seater toilet complex. In reply VWSC stated (September 2010) that as the topography of village land was of hard strata, soak pits could not be executed. Therefore, it was decided to construct public toilet complex from other schemes. Reply is not tenable as the stratum of the village land was known earlier and accordingly plans should have been finalised.

2.1.9 Monitoring and evaluation

The project envisaged process, progress and performance monitoring at various levels and evaluations to assess the performance, outcome and impact of entities in delivering the project objectives.

2.1.9.1 Water Quality Monitoring

The objectives of the component was to institute an effective water quality monitoring system so as to ensure safe water to the communities. An amount of ₹ 17.40 crore was utilised for activities such as (i) providing user-friendly water quality testing kits and training to schools, women groups and VWSC members at the village level to check the residual chlorine in water samples on a daily basis. (ii) supported a State-wide orthotolidine²⁰ testing of all drinking water sources and subsequent follow up measures and (iii) Public Health Laboratories at the district level were equipped for testing physical, chemical and biological parameters of water quality.

(i) In GP Mokhala, ZP Chandrapur, the villagers were not getting water supply at full pressure and hence the distribution system above ground level and taps connected thereto were removed. They dug and constructed pits below ground level to collect and fetch the water by small utensils. It led to poor water quality and contamination. In reply (September 2010) while confirming the facts, GP stated that some area of the village is at high altitude.



GP Mokhala, ZP Chandrapur

Therefore, valves would be installed for uniform, sufficient and adequate distribution.

(ii) Water Quality

To address the issue of water quality in State, chemical testing of water quality was completed under Jalswarajya project in 2005-06 under which 2,78,939 samples of drinking water sources from 35049 villages were collected and analysed. Major five parameters *viz.* Nitrate, Fluoride, Chlorine, Iron and Total Dissolved Solids were considered for chemical testing. Out of total villages, the water quality in 9845 villages was found

²⁰ Formation of yellow colour on addition of 0.1 ml of orthotolidine solution to 10 ml of chlorinated water indicates the presence of chlorine.

to be affected in the State. In Jalswarajya project out of total 4392 villages, 1075 villages were affected in terms of the five parameters being above the permissible limit. New water sources were selected wherever necessary. All districts were instructed to conduct water quality analysis twice in a year to analyse the chemical contamination of water.

(a) From analytical reports of tests conducted by District Laboratory, parameter wise chemical testing revealed that content of parameters was above the permissible limit in the following villages:

Name of GP and District	Alkalinity		Total Hardness		Permanent Hardness		Total solids		Nitrate		Turbidity		Chlorine	
	L	A	L	A	L	A	L	A	L	A	L	A	L	A
GP Rudha/ Yavatmal	200 ppm	322 ppm												
GP Mandva/ Yavatmal	200 ppm	460 ppm	300 ppm	326 ppm							10	460		
GP Sarai/ Yavatmal										100 ppm	Excess			
GP Padoli/ Chandrapur			300p ppm	388 ppm	100	148	500	1228					250 ppm	800 ppm
GP Chekthane- vasna/ Chandrapur			300 ppm	410 ppm			500	845.24						
GP Dehgaon Rangari/ Nagpur	200 ppm	370 ppm	300 ppm	410 ppm										

L= Limit, A= Actual, (Source – GP Water testing reports), ppm – part per million

District Laboratories suggested to the GPs to use drinking water after treatment and disinfection and GPs replied (August and September 2010) that needful would be done.

(b) In GP Koregaonwadi, ZP Osmanabad source well was in back water of a percolation tank. The sugarcane field was nearby (100 mtrs) the source well. There was possibility of chemical contamination due to use of inorganic fertilizers in sugarcane field as indicated in the Environmental Assessment Report (April 2003) by Ground Water and Survey Development Agency (GSDA). In reply VWSC stated (September 2010) that farmers would be encouraged to have different cropping pattern without using fertilizer for crops.



Sugarcane field near source well at GP Koregaonwadi, ZP Osmanabad

Excess irrigation and use of chemical fertilizers for sugarcane had led to decline of ground water table and contamination with the Nitrates.

2.1.9.2 Evaluation of sub-projects by external agency

According to the implementation programme envisaged in project agreement (September 2003) between International Development Agency and GOM, GOM was to ensure: (i) an evaluation of the first batch of sub-

project to be carried out in tribal settlements not later than 31 December 2005, (ii) at the beginning but not later than 31 March 2004, RSPMU should have regular technical, social, environmental and process Audits of the project undertaken at six monthly intervals by external independent agencies and (iii) the land requirements needs to be assessed and the availability of freehold land ensured.

Against the schedule date of evaluation in December 2005, the first round of evaluation of tribal development component was conducted only in October 2006 and second round between November and December 2009. Technical audit was conducted in May and June 2010, instead of prescribed date of 31 March 2004 and the reports from external agencies (M/s Samarth Engineers, Pune and Government Engineering College, Aurangabad) were awaited (May 2011). Process audit was conducted in October 2007 and December 2008 as against March 2004. Environmental Assessment Report was prepared (April 2003) by RSPMU and GSDA. However, separate environmental Audit was not conducted. RSPMU had undertaken (August and December 2009) an inter-village community monitoring exercise. These audits were not conducted at intervals of six months as envisaged in the project agreement between IDA and GOM.

2.1.10 Conclusion

Total 383 GPs were deleted due to failure of concerned organisations in capacity building to execute project through participatory process. Freehold land was not acquired by some GPs before commencement of work. Fund was not utilised or short utilised due to non-execution of some components. Community infrastructure fund became wasteful in respect of deleted GPs. Unspent grant was not recovered from exited GPs. Payment of PC by contractor and other than the end users in some GPs defeated the spirit of public participation and affected the quality of work executed by the contractor. Time schedule prescribed for CA's final audit was not adhered to. Seed money disbursed to SHGs was not refunded and hence not revolved among needy SHGs. Total 617 GPs had not yet completed the project cycle or at incomplete stage. The stipulated period of 18 months was not adhered to and overall delay in completion ranged from 42 to 77 months beyond stipulated period. Equitable distribution network in terms of supply of water with required hydraulic pressure to end user was not ensured. Water quality was affected due to digging of pits below ground level. Evaluation of project by external agencies was not conducted as per stipulated date and at six monthly intervals.

2.1.11 Recommendations

- Expeditious action to recover the balance fund lying with the Gram Panchayats should be taken in cases of the villages which have been deleted from the list of the villages.
- Appropriate support with the system of periodical monitoring and follow up should be introduced so as to ensure early implementation and completion of water supply schemes in view

of substantial number of cases with delays in execution leading to time and cost overrun.

- In order to ensure that the assets that have been constructed are available for long term and on a sustained basis, Gram Panchayat should be instructed and periodically monitored for collection of appropriate Operation and Maintenance charges.
- Government of Maharashtra may educate farming community about use of drip irrigation, sprinklers and use of organic fertilizer through Information, Education, Communication with the help of Irrigation and Agriculture Department.

The matter was referred to Government (April 2011). Reply has not been received (June 2011).
