

1. Project Data:		Date Posted : 04/01/2010	
PROJ ID : P055454		Appraisal	Actual
Project Name : Kerala Rural Water Supply And Environmental Sanitation Project	Project Costs (US\$M):	89.90	83.32
Country: India	Loan/Credit (US\$M):	65.50	62.00
Sector Board : WAT	Cofinancing (US\$M):		
Sector(s): General water sanitation and flood protection sector (63%) Other social services (24%) Sub-national government administration (10%) Central government administration (3%)			
Theme(s): Rural services and infrastructure (20% - P) Administrative and civil service reform (20% - P) Participation and civic engagement (20% - P) Decentralization (20% - P) Pollution management and environmental health (20% - P)			
L/C Number: C3431			
	Board Approval Date :		11/07/2000
Partners involved :	Closing Date :	12/31/2006	09/30/2008
Evaluator :	Panel Reviewer :	Group Manager :	Group :
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2. Project Objectives and Components:

a. Objectives:

The overall project development objective as stated in the PAD and the DCA is to assist the Government of Kerala (GOK) in improving the quality of rural water supply and environmental sanitation (RWSS) service delivery to achieve sustainability of investments. Specific project development objectives would be to: (a) demonstrate the viability of cost recovery and institutional reforms by developing, testing and implementing the new decentralized service delivery model on a pilot basis; and (b) build the state's capacity in improved sector management in order to scale -up the new decentralized service delivery model statewide .

The project was to benefit some 2,500 communities that had a population of 1.5 million or about 5% of Kerala state's population in 4 Districts. Poor and vulnerable groups were specifically targeted through selection of beneficiary groups and implementation of a Tribal Development Plan (TDP).

b. Were the project objectives/key associated outcome targets revised during implementation?

No

c. Components (or Key Conditions in the case of DPLs, as appropriate):

1. **Institution Building . Appraisal cost US\$ 11.10 million, actual cost US\$ 10.23 million.** This included 4 subcomponents: (a) setting-up and operation of the autonomous Kerala Rural Water Supply and Sanitation Agency (KRWSA) to act as a facilitating and support unit to Gram Panchayats (GPs) and Beneficiary Groups (BGs). KRWSA would establish four District Project Management Units (DPMU) to assist implementation. Project assistance would be in the form of incremental costs, technical assistance (TA), audit, equipment and goods, construction supervision monitoring and M&E; (b) Sanitation and hygiene promotion through the development and dissemination of information, education and communication materials (e.g. brochures, radio, and TV); (c) Capacity-building based on a needs analysis and learning requirements of different categories of stakeholders. The project would supply TA, orientation training of state -level policy-makers, motivation and management training for KRWSA and DPMUs, and technical, social and management training of support organizations and GPs; and (d) Gram Panchayat strengthening through support of contract staff for 2 years, their capacity-building, installation of office equipment and computers, and a small and flexible discretionary fund.
2. **Community Development and Infrastructure Building . Appraisal cost US\$ 62.70 million; actual cost US\$73.00 million.** This included 5 subcomponents: (a) Community development support to BGs and their committees in social, technical and management aspects of planning, implementation and operations of WSS facilities through community mobilization and well designed training programs . This mainly involved financing of SO staff and other costs; (b) Women's development programs to ensure effective mobilization and participation by women . This involved capacity building programs to upgrade their WSS -related technical and management skills and supporting micro-enterprise initiatives; (c) Design and engineering support to GPs and BGs in preparing engineering designs, procurement, construction and consultancy support (mainly SO engineering staff costs); (d) Construction of 2,500 micro water supply schemes, 6 large water supply schemes, upgrading existing water supply schemes, 45,000 household latrines, upgrading 8,000 existing unsanitary latrines, small environmental improvement schemes like drainage, compost pits, desilting of tanks and implementing groundwater recharge and rainwater harvesting schemes; and (e) Tribal Development Plan to provide targeted and more extensive mobilization and capacity development support and financing WSS facility improvements in 9 tribal GPs.
3. **Statewide Sector Development . Appraisal estimate US\$ 1.20 million; actual costs US\$ 0.04 million.** This included 3 subcomponents: (a) technical assistance to GOK for statewide planning, development and management of the water sector in a comprehensive and integrated manner, including : (a) The formulation of long-term sector policy and strategic plan to be developed based on comprehensive statewide sector study ; (b) The development of a comprehensive sector information management system to enhance the strategic planning and monitoring of the RWSS sector in the state; and (c) other pilot studies on WSS related issues .
4. **National Sector Development . Appraisal estimate US\$ 2.00 million; actual cost US\$ 0.05 million.** This was designed to provide technical assistance to the Government of India (GOI) in furthering its sector reform agenda countrywide.

d. Comments on Project Cost, Financing, Borrower Contribution, and Dates:

- At Mid-Term Review (MTR) component 4 was cancelled as GOI found it no longer useful . At the same time US\$10 million was cancelled because RWSS schemes were smaller and cheaper than anticipated .
- Following the Tsunami in December 2004 US\$10 million was reallocated to finance the rehabilitation and enlargement of water supply schemes in the 2 coastal GPs. The closing date was extended twice for a total of 21 months to allow completion of the project in the Tsunami -affected area and to finalize beneficiary capacity-building.

3. Relevance of Objectives & Design:

Objectives .

Objective (a) to demonstrate the viability of cost recovery and institutional reforms by developing, testing and implementing the new decentralized service delivery model on a pilot basis was and is highly relevant .

- Since 1997 decentralization of RWSS service delivery has been a major priority of the GOK in line with Central GOI policy. Current relevance is affirmed by the 2008 State Water Policy that places a high priority

- on working within decentralized democratic institutions for water management .
- Because Kerala demonstrated it was ready for decentralization and RWSS subsector reform according to GOI criteria, they recommended the state for inclusion in the Bank's lending program .
- A priority for the Bank through its FY05 CAS has been to help the GOI find ways of improving the living standards of the rural and urban poor, through programs aimed at community empowerment and through improving the health and education services they receive . The institutional reforms that included the decentralized service delivery model for RWSS empowered local communities and was and remains highly relevant to the Bank's CAS.

Objective (b) to build the State's capacity in improved sector management in order to scale up the new decentralized service delivery model statewide was and is highly relevant .

- In the Kerala Modernizing Government Programme (MGP) eight out of the 28 initiatives relate to WSS services improvement. The State government and the Gram Panchayats are publically accountable for measures to ensure the sustainability of improvements to all WSS services .
- Scaling-up decentralization of operation and management to communities was consistent the State's objective to reduce the recurrent expenditure .
- The Bank's FY05 CAS advocated measures to persuade state governments to improve service delivery . This was part of a major shift in Bank strategy in India that combined expanded support for the lagging states with increasing leverage for federal programs designed to enhance infrastructure at the state level .

Design was highly relevant .

- **Adopting decentralization and a demand -driven approach with partial capital cost recovery and full financing of O&M by beneficiaries was highly relevant .** It proved to be a very effective service-delivery model in three prior RWSS operations in some of India's other states . The phased implementation - piloting in 4 districts to fine-tune the approach - also proved to be effective and led to a steady and well-managed expansion to all 14 districts.
- **The design of institution -building, community development and infrastructure building components provided a results -chain to achieve project objectives .** The establishment of the Kerala Rural Water Supply and Sanitation Agency provided a knowledgeable partner for GPs . It satisfied fiduciary concerns, that BGs were recognized and empowered, and that external TA support was provided to support community development and build the capacity of the BGs and GPs in RWSS . It also provided reliable back-stopping for operations and maintenance (O&M). The selection criteria for GPs (those with: a higher proportion of poor and vulnerable groups, severe water scarcity, and low -level of latrine coverage) met health improvement and poverty alleviation objectives, as did targeted assistance to the tribal population in nine GPs in the project districts . Community development aimed not only to build local capacity but also to provide them with additional income opportunities that particularly benefited women . Fostering demand-driven development ensured that RWSS infrastructure was relevant to BG's needs .
- **Support for Statewide sector development and related TA was relevant .** It aimed at building the knowledge base and utilizing this to help stakeholders evolve a common long-term vision for the sector that would lead to a long-term strategic plan covering the policy and regulatory framework, institutional reform, financing strategies, technology options and health and hygiene education initiatives .
- **National Sector Development was not relevant .** The GOI was unwilling to pay for TA out of the credit .

4. Achievement of Objectives (Efficacy):

Objective (a) to demonstrate the viability of cost recovery and institutional reforms was fully achieved . Efficacy is rated substantial .

- **Cost recovery was viable .** Beneficiaries, communities and local governments contributed US\$ 17.8 million (28%) of the project's capital investment costs, some US\$0.3 million more than planned at appraisal. The average contribution towards the capital costs per household (HH) for all schemes was US\$36. Even Scheduled Castes and Tribes (SCT) contributed US\$27 per HH in cash and labor equivalents . As a result, overall state subsidies for capital investment in water supply schemes were reduced from 100% to 74%.
- Most (90%) of the schemes fully recover their operation and maintenance costs and 95% of beneficiaries pay their bills regularly. In comparison, Kerala state averages 60% O&M cost recovery while the average for all Indian states receiving RWSS assistance from the Bank was only 27% (World Bank, 2008. *Review of Effectiveness of RWSS in 10 States in India*).
- **Decentralized institutions for RWSS worked .** Bye laws enabled the legal establishment of BG Federations (BGFs) and arrangements for their financial sustainability . Each GP used project funding to improve/upgrade offices and equipment to improve administrative efficiency and management information systems . NGOs were encouraged to become 'Watsan' specialists and partner with the GPs and BGs . An output-based payment system for NGO work was phased into the project and this provided the incentive to increase the pace of implementation.
- **RWSS service provision increased .** Average water supply service coverage in the project communities increased from 55% to 81%, and that for sanitation from 76% to 86%. And 76% of the 112 project communities were awarded the Nirmal Gram Puraskar Award under the GOI's Clean Village Program for achieving 100% HH latrine coverage. Despite these accomplishments there are no data on the incremental levels of water supply at

the household level.

- **It successfully targeted the poorest** . Within served communities 53% of the population was below the poverty line (target was 30%). While SCT comprise only 2% of the state's population, project beneficiaries included 16% SCT served by 162 water supply schemes. Women now hold executive positions in the management structure of beneficiary groups: President in 33%; Secretary in 53% and Treasurer in 73%.
- **Schemes are sustainable** . A survey of 1,500 completed schemes at the end of the project found 94% functioning with no major breakdowns and user satisfaction of 90%. There were no disruptions caused by financial constraints. BG's in 3% of schemes have installed water meters to improve management .

Outputs

- 3,712 small water supply schemes were provided to serve 329,637 households (HH) in 112 communities with a population of 1.424 million people (target was 2,500 HH, and 1.8 million people). All HH opted for private connections. New sanitary latrines were provided to 68,023 households (target 45,000) and 24,194 latrines were upgraded/converted to sanitary latrines (target 8,000).

Objective (b) to build the state's capacity in improved sector management was substantially achieved . Efficacy is rated substantial .

Outcomes

- **Kerala successfully developed instruments to decentralize RWSS** . The Kerala Rural Water Supply and Sanitation Agency (KRWSA) was established as an autonomous body to facilitate formation of cluster groups of communities needing water and willing to become legally registered as Beneficiary Groups in partnership with Gram Panchayats (GPs). KRWSA has become a successful facilitator of demand-led beneficiary-managed RWSS. The RWSS model developed under the project was mainstreamed into the 2008 State Water Policy and the government has allocated KRWSA 20% of the annual appropriation given to the Accelerated Water Supply Program to expand the project model to the whole state .
- **The government's O&M burden was successfully transferred to beneficiaries through decentralization** . 348 existing Panchayat water supply schemes were taken over, rehabilitated and managed by BGs .
- **Better sector management by KRWSA reduced RWSS scheme costs** and enabled it to expand the decentralized RWSS program from 4 to 14 Districts and from 89 to 112 GPs. Community contracting and transparency in project execution reduced construction costs by 10 to 15% (ICR, page 39).

5. Efficiency (not applicable to DPLs):

The ICR estimates of the ERR is based on a very small 1% sample (23 HH) in four Districts and is probably not reliable. The ex-post ERR is 18.7% (at appraisal it was 25.1%) because of a smaller beneficiary population, a 15% reduction in the assumed HH time saving, a lower opportunity cost of time, smaller incremental consumption benefits, a 48% increase in O&M costs and inclusion of omitted planning costs . The institutional reforms were efficient at leveraging a much greater contribution towards capital cost than expected and O&M cost recovery is 50% better than the State average. Administrative efficiency was high as evidenced by the 10-15% cost savings from community contracting. At appraisal the average scheme cost per HH was expected to be US\$ 280 per HH; in practice the average cost was US\$306. This may seem modestly inefficient but appraisal assumed that standpipes would service 30% of HH and direct water supply connections would be to 70% of HHs. In contrast the project provided 100% of HH with direct water supplies. Thus a much higher level of service was achieved at a very modest incremental cost (US\$26 per household or 9%). All this evidence suggests that overall efficiency is substantial .

a. If available, enter the Economic Rate of Return (ERR)/Financial Rate of Return (FRR) at appraisal and the re-estimated value at evaluation :

	Rate Available?	Point Value	Coverage/Scope*
Appraisal	Yes	25.1%	1%
ICR estimate	Yes	18.7%	1%

* Refers to percent of total project cost for which ERR/FRR was calculated.

6. Outcome:

The project demonstrated the new delivery model for RWSS . It showed RWSS can be be decentralized through institutional reform, and empowerment and training of beneficiary groups backed -up by technical support and more efficient line agencies . Importantly, it also showed that the decentralize service -delivery model increased cost recovery and reduced risks to sustainability . The project efficiently achieved its immediate objectives . Overall efficacy is rated substantial. High overall relevance for objectives and design,substantial efficacy and substantial efficiency lead to a satisfactory rating .

a. Outcome Rating : Satisfactory

7. Rationale for Risk to Development Outcome Rating:

Political commitment is high. BGs are well organized and established and support user O&M and full cost recovery. Willingness-to-pay is high and schemes are financially sustainable. The primary risks are (a) coping with, and developing mechanisms to repair, major breakdowns and (b) security of water supplies - the user survey found 5.6% of schemes had source failures.

a. Risk to Development Outcome Rating : Negligible to Low

8. Assessment of Bank Performance:

Quality-at-entry. The Bank worked closely with both the GOI and the government of Kerala to ensure ownership. Institutional and financial aspects were very thoroughly appraised by the Bank and this enabled to project to get off to a quick start. Even though it was an institutional reform demonstration project more attention could have been given to outcome indicators on cost recovery, institutional reform and incremental per capita water consumption. In addition, they Bank over-estimated GOI's willingness to utilize technical assistance to further its national reform agenda.

Supervision. Continuity of key staff throughout implementation created an effective team that worked extremely well with the Borrower, helped by an emphasis on field inspection that visited 500 schemes. The Bank quickly and effectively responded to the Tsunami and the emergency reallocation of US\$ 10 million was done expeditiously. Reporting was excellent.

a. Ensuring Quality -at-Entry:Satisfactory

b. Quality of Supervision :Satisfactory

c. Overall Bank Performance :Satisfactory

9. Assessment of Borrower Performance:

Government. There was high borrower ownership at the state level. Enabling policy and regulatory instruments were established to allow decentralization, and the government setup and supported the new implementing agency. In contrast, the GOI showed almost no interest in using this project (component 4) to provide technical assistance (TA) to assist furthering its sector reform agenda in the states countrywide. Similarly the government of Kerala did not utilize TA to develop a comprehensive state-wide water plan (component 3). Even so it did develop a comprehensive water policy. Five elections disrupted implementation.

Implementing Agency. KRWSA was very effective in developing a cadre of qualified staff that were highly committed to making the project a success as facilitators of demand-led development. They successfully worked with GPs and BGs to devolve responsibility for scheme management and O&M to project beneficiaries. However, a high turnover of state and district level staff undermined the quality of leadership after MTR. Subsequently the Project management unit had problems coping with the expansion of the project and this was exacerbated by the additional work to address damage in the Tsunami-affected area. Even so, KRWSA significantly exceeded output targets set at appraisal.

a. Government Performance :Satisfactory

b. Implementing Agency Performance :Satisfactory

c. Overall Borrower Performance :Satisfactory

10. M&E Design, Implementation, & Utilization:

Design. A robust M&E system was designed at appraisal with considerable attention to its management arrangements and for monitoring project implementation. The primary attention, however, was on inputs and outputs and community development processes. Attention to outcomes was modest apart from financial indicators. There are no systematic monitoring of water consumption improvements and time savings of WSS interventions - a major failing in a demonstration project. Instead, very a small sample survey (27 HH in 23 schemes or much less than 1% at the end of the project) was used to inform outcomes and economic evaluation.

Implementation. Records of inputs and outputs were well kept and regularly reported as required. Little attention was paid to outcome monitoring except for the very small ex-post sample described above.

Utilization. Project management made very good use of the data produced to adjust implementation and improve

community management and participation in response to feedback as experience was gained . It also increased fiduciary assurance regarding community contracting . M&E provided the basis for a results-based payment system for the NGOs participating in the project . The analysis of the very small ex-post survey was excellent but its very small size was a major limitation in drawing general conclusions about time saving and incremental water consumption.

a. M&E Quality Rating : Modest

11. Other Issues (Safeguards, Fiduciary, Unintended Positive and Negative Impacts):

Safeguards. The project invoked two safeguards : Environmental Assessment and Indigenous People . A Tribal Development Plan prepared during appraisal was successfully implemented . Environmental assessment was applied at the scheme level to alleviate concerns about sanitary latrines causing groundwater pollution and on more general water quality monitoring . While land was acquired for project schemes this was voluntary and market prices were paid.

Fiduciary. There was full accounting of project inputs and outputs . All Audits were unqualified. The Bank's reviews revealed minor issues over bookkeeping in only 6 of the 20 state audits reviewed .

12. Ratings:	ICR	IEG Review	Reason for Disagreement / Comments
Outcome:	Satisfactory	Satisfactory	
Risk to Development Outcome:	Negligible to Low	Negligible to Low	
Bank Performance :	Satisfactory	Satisfactory	
Borrower Performance :	Satisfactory	Satisfactory	
Quality of ICR :		Satisfactory	

NOTES:

- When insufficient information is provided by the Bank for IEG to arrive at a clear rating, IEG will downgrade the relevant ratings as warranted beginning July 1, 2006.

- The "Reason for Disagreement/Comments" column could cross-reference other sections of the ICR Review, as appropriate .

13. Lessons:

- **Decentralized delivery of RWSS requires the active participation of local government to ensure greater accountability and long term sustainability** . Local government needs to be well integrated into the institutional design of projects to provide guidance on regulations, procedures and local conditions . Their support also provides a safety-net during the early years of beneficiary management as they are able to mobilize, as needed, external resources more efficiently .
- **Demand-led development works well if communities make informed choices** . Development of local capacity through 'learning-by-doing' approaches, assisted by independent quality control consultants, has the potential to accelerate project implementation as happened in this project .
- **A step-by-step approach to scaling -up decentralized service delivery works well** . This approach benefits from learning-by-doing that enables refinement of approaches that lead to accelerated buy -in and implementation.

14. Assessment Recommended? ● Yes ○ No

Why? As a cluster assessment with the Tanzania RWSS Project . These projects demonstrate two quite different facets of community-driven demand-led development and there will be quite a few lessons to learn .

15. Comments on Quality of ICR:

The main report reads well and provides a good account of project achievements . However, there are a number of small inconsistencies between the numbers presented in the main report and those given in its Annexes 2 and 3. For example, the benefitting population is given as 1.127 million on page 10 and as 1.88 million on page 24. In the second paragraph on page 11 it says the average HH contribution was US\$46, but taking the data for the whole project it is US\$36. In Annex 2 it says that the US\$46 was derived from 3,164 schemes, not all schemes (3,689). Some of the data in the Annex 2 para 8 does not agree with that in the PAD, or with the ICR main report .

a.Quality of ICR Rating : Satisfactory