

**PROJECT INFORMATION DOCUMENT (PID)
APPRAISAL STAGE**

Report No.: AB5711

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|----------------------------------------|-------------------------------------------------------------------------------------------------------------------------------------------------------------------------|
| Project Name | Karnataka Rural Water Supply and Sanitation Project |
| Region | South Asia |
| Sector | Water Supply (70%); Sanitation (30%) |
| Project ID | P119882 |
| Borrowers | GOVERNMENT OF INDIA |
| | Department of Economic Affairs Ministry of Finance, North Block India 110001 Tel: 23092059 Fax: 23092244 |
| Implementing Agency | GOVERNMENT OF KARNATAKA/ KARNATAKA RURAL WATER SUPPLY AND SANITATION AGENCY |
| | KRWSSA, DEPARTMENT OF RURAL DEVELOPMENT AND PANCHAYAT RAJ, GOVERNMENT OF KARNATAKA. SECOND FLOOR, CAUVERY BHAVAN, BANGALORE-560009 TELEPHONE : 91-80-22240508 |
| Environment Category | <input type="checkbox"/> A <input checked="" type="checkbox"/> B <input type="checkbox"/> C <input type="checkbox"/> FI <input type="checkbox"/> TBD (to be determined) |
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1. Country and Sector Background

National Issues: India spends about US\$1 billion annually through various programs to improve access to drinking water and sanitation facilities in the rural areas. These investments have resulted in significant coverage in rural areas. Despite this, there is considerable gap between infrastructure created and service available at the household level. Key issues relate to poor sustainability (environmental, operational, and financial), inadequate sanitation coverage, water quality affected areas, supply driven approaches that run counter to devolution intended by 73rd amendment, monitoring & evaluation (M&E) systems that focus on infrastructure and expenditure rather than on the outcome of efficient and reliable service delivery.

Measures to Address these key Issues. Rajiv Gandhi National Drinking Water Mission, Department of Drinking Water Supply, Ministry of Rural Development, Government of India (GOI), has recently drawn up a framework Implementation Action Plan for 2009-2012 articulating the national goal, principles governing the interventions and action steps. Apart from bringing PRIs and communities into the center of the decision making process, it proposes building a warehouse of information and knowledge for ensuring innovations. Also, arrangements are being made to reward good performance and achievement of sustainability.

2. Key Sector Issues in Karnataka

Issues that affect the Rural Water Supply & Sanitation (RWSS) Sector in Karnataka state are more or less similar to that for the nation as a whole.

(i) **Sustainability** comprises the following three elements:

- **Sustainability of water sources** is the prime concern, particularly, in groundwater based schemes. Rapidly declining ground water tables have meant sources being depleted or going dry on a large scale.
- **Operational sustainability.** GOK has transferred the operation and maintenance (O&M) responsibilities to PRIs and communities quite some time back. But, O&M performance of the water supply schemes is not uniformly good. Poor O&M results in reduced levels of services, and this then impacts customer's willingness to pay for service.
- **Financial Sustainability.** Measures to ensure appropriate cost recovery from the users continue to be an area of concern. Given the poor interface between electricity supply companies and PRIs, demand for electricity charges are not made promptly, with the result that financial discipline is yet to be built on a full scale.

(ii) **Quality Aspects.** Water quality issues are gaining wide recognition as the groundwater scenario is becoming worse. The level of natural contaminants such as fluoride, and chemical pollutants such as pesticides and insecticides, is high and rising.

(iii) **Coverage to Security.** Given the increasing levels of user's aspirations and the proposal to shift from 'service coverage' to 'service security', water supply design standards necessarily have to be raised. This, and the above stated issues, has meant a re-think on the strategy leading to a move towards more and more surface water source based interventions.

(iv) **Technical Capacity.** Shifting to surface sources, though gaining ground, has some associated difficulties. Technical capacity, both in terms of hardware and software, is yet to be built and a critical mass of professionals are not yet available to take up surface source based schemes on a large scale.

Operation and maintenance of surface source schemes is quite complex and the local communities may not be able to do so on their own. Alternative arrangements for managing O&M will need to be explored.

(v) **Institutional Aspects.** At the state level, following a directive from the GOI, the Karnataka Rural Water Supply & Sanitation Agency (KRWSSA) is also vested with the responsibility of housing the State Water Supply and Sanitation Mission (SWSM). This has meant a state-wide mandate and multiple fold increase in work load. At the district level, currently, there is no dedicated organizational arrangement for managing water rural water supply activities. All the technical staff (engineers) are mapped into the Panchayat Raj set up and are engaged in a variety of activities. Overall, insufficient technical capacity and hence inadequate support to the communities are identified as major concerns.

(vi) **Sanitation.** Household latrine coverage and its usage need significant enhancement. Community sanitation involving sullage/ storm water disposal and solid as well as liquid waste disposal too require considerable attention.

3. Achievements under the current Bank supported Project:

In the backdrop of the above constraints, some substantial progress has been made in 11 districts of Karnataka under the current RWSS project. These include:

- a) **Water Supply:** About a million households, comprising some 5 million persons, now have access to adequate water supplies (minimum of 40 lpcd) exceeding Project Appraisal Document (PAD) targets by 25%.
- b) **Private house connections:** Number of households having private water supply connections has increased from the baseline of 12% to 47% (PAD target – 30%)
- c) **Distance travelled for fetching water:** Households that travel less than 150 meters to fetch water is now 81% (baseline-15%)
- d) **Integrated Thanda Development Program (ITDP):** Developed in compliance with the Bank's Operational Policy on Indigenous Peoples, has benefited 424 habitations and benefitting over half a million persons (PAD target – 0.2 million).
- e) **SC/STs and women:** Half of the beneficiaries belong to BPL category and SC/STs constitute 25% of the total. A little more than a third of the VWSC members are women and they are at the helm of the affairs in as many as 93% villages.
- f) **Sanitation:** Regarding Household Latrines and Smokeless Chullahs, the physical targets set in the PAD have been surpassed. Latrine coverage in the project Gram Panchayats (GPs) has risen from 8% to 36% as against the PAD target of 30%.
- g) **Institutionalizing decentralization:** The results of this project on the ground have demonstrated a way for the Government of Karnataka to successfully decentralize the rural water supply and sanitation services by aligning the project's institutional arrangements with the existing Panchayati Raj institutional set up i.e. Zilla Panchayat (ZP), at the district: Taluka Panchayat (TP) at Taluka: and Gram Panchayat (GP) at the village level. GPs in the project have been placed in the 'driver's seat', and together with the user groups, namely Village Water Supply and Sanitation Committees (VWSC), have been capacitated to make decisions, procure materials, carry out construction, manage funds, share in the capital cost and have begun managing the system operations with their own resources. Construction funds have been devolved fully to the GPs. The project has played a key role in deepening and broadening the decentralization agenda in the state. It is also important to note that the project (concepts/implementation wise) has received continuous endorsements and support from the PRIs that have managed it.
- h) **Innovations:** The project has initiated and adopted various innovative approaches and measures during its implementation. These are:
 - Introduction of Saral Jal Schemes which uses a single phase pump which can continuously fill water into nearby static water tank from where households collect water.
 - Provision of deep bed micron sand filter to treat surface water for several schemes. These filters are compact and hence need less land, are user-friendly and less costly as compared to conventional slow sand filters or rapid sand filters
 - Instead of conventional intake well / Jackwell slide rail arrangement is provided to lift raw water from river intake which is cost effective and economical and easy to operate
 - Floating Duck Equipment is provide to lift water instead of the conventional Intake well, connecting pipe and Jackwell resulting in cost and time saving and is also user friendly

- Disinfection units are installed with Silver Ionization and generation of on-site Sodium Hypochlorite solution using common salt with electro chlorination.
- Installation of computerized package for maintenance of account.
- Promoting individual water meter at household level
- Involving self help groups (SHG) for collection of water tariff from user's
- Household O&M card monitor and to minimize defaulters

4. **Objectives**

The Objectives under the Additional Financing (AF) Proposal continue to be the same as that of the existing main project: (i) to increase rural communities' access to improved and sustainable drinking water and sanitation services; and (ii) institutionalize decentralization of rural water supply and sanitation service delivery to Gram Panchayats and user groups.

The proposed additional credit would help finance the costs associated with scaling up activities to enhance the impact of a well-performing project for the period of July 2010 - July 2013. More specifically, the additional financing would enable expanded rural water and sanitation activities in the project's 11 districts. The project will also have increased focus on quality affected areas.

5. **Rationale/Demand for the AF.**

Currently, the project covers eleven districts in northern Karnataka (Bagalkote, Bidar, Belgaum, Bijapur, Dharwar, Gadag, Gulbarga, Haveri, Koppal, Raichur, and Uttara Kannada) comprising 2,305 Gram Panchayats with 9,698 villages. The World Bank has supported Government of Karnataka in implementing two Rural Water Supply and Sanitation Projects. The first engagement was during 1993-2000. The second project (started in 2001) accounts for 744 GPs and 3,062 villages.

The two projects together, thus, cover 901 GPs (39% of the total) and 3,466 villages (35%). This leaves a balance of 1,404 GPs and 6,232 villages. Of this, some 2,200 villages require further interventions. Out of this, 1659 villages are proposed to be covered under Additional Financing from the World Bank. Thus, Additional Finance is being sought to meet the remaining demand, based on the concept of **“more of the same”**. With this, the coverage of villages under the World Bank Assisted Projects would go up to about 5000 villages or 80% of the total. Remaining 20% are expected to be covered under other sources of finance. Thus, the demand for RWS will be met completely in the 11 districts in the next three years.

6. **Project Description**

The concept of **“More of the same”** implies that the AF proposal is underpinned by the same development objectives, principles, strategy, institutional design and implementation arrangements as well as the rules of engagement as adopted under the ongoing Project.

Focus and coverage. From a view point of ensuring that water sources are sustainable, the AF project will be focused more on tapping water from surface sources – mostly rivers. This will enable covering not only habitations having ‘quantity’ issues, but also ‘quality’ affected habitations. In addition, AF will also invest in roads and drainage in such villages wherein the same could not be taken up during the current project for want of funds.

In all, some 1,000 Water Supply and 760 Roads and Drainage Schemes are expected to be taken up under AF. Of the 1,000 WS schemes, about 60% of them will draw water from surface sources, and 15 Multi Village Water Supply Schemes. Benefits will accrue to about 600 GPs having 2,400 habitations and comprising 4.10 million persons.

Project Components. The project comprises the following three main components: (A) Institutional Building; (B) Community Development and Infrastructure Building; and (C) Statewide Sector Development Programs.

Component A: Community Development and Infrastructure Building (US\$ 159M): There are two sub components. One, Infrastructure Building, to support investments for improving water supply and sanitation services in the project habitations, including : (i) construction of new infrastructure or rehabilitation and augmentation of existing schemes with safe disposal of wastewater; (ii) Groundwater Recharge for ensuring sustainability for groundwater based schemes; (iii) construction of roads and drainage; (iv) provision of smokeless Chullahs for mitigating indoor air pollution; and (v) spot interventions for power generation. The final sub-component, Community Development, will provide technical, financial and institutional support to GPs and VWSCs, and Women Development Programs. Also included in this is the Integrated Thanda Development Program (ITDP), targeted at the Lambanis, in accordance with the Bank’s Operational Policy 4.10- Indigenous Peoples.

Component B: Institutional Building (US\$ 13 M): This component will provide institutional capacity support to implement, manage and sustain the project activities. The main sub-components include: (a) Capacity Building and Training activities for state level institutions, PRIs and sector stakeholders; (b) Information, Education and Communications (IEC) Program; (c) Sanitation and Hygiene Program (SHP); and (d) Monitoring and Evaluation; and (e) Project Management.

Component C RWSS Sector strengthening programs (US\$ 8 M): This comprises activities such as: (i) Piloting Innovations for addressing quality affected habitations and; (ii) Developing Innovative Models for O&M; (iii) Water Quality Monitoring and Mitigation; and (iv) Sector Information System encompassing Impact Studies, Policy Workshops, publications etc., all aimed at developing and strengthening the sector as a whole throughout the state.

New Feature -- Pico/ Micro Hydro Power Generation. KRWSSA has realized that there exists a huge potential to make productive use of the hydraulic head created under the project facilities in a number of villages by generating electricity. Technical and financial assistance available from State and Central Governments renders it a financially attractive proposition. The power thus generated can be used to plough back into O&M of the project facilities and/ or for benefiting the local communities. Jhari (gravity springs) schemes constructed in Uttara Kannada and one of the Multi Village Scheme (MVS) are being taken up for piloting this initiative. This initiative has great promise for the future of RWSS. Depending on the success of the pilot venture, further scaling up may be considered.

7. **Financing**

The financing pattern is presented below: US\$ M

| | |
|---------------------------------------------|-----|
| Gram Panchayats and Communities | 15 |
| Government of Karnataka | 15 |
| International Development Association (IDA) | 150 |
| TOTAL | 180 |

8. Implementation

Institutional and implementation arrangements will continue to be the same as that prevailing in the existing project. As per the provisions of Karnataka Panchayath Raj Act, management of Water Supply & Sanitation Sector in rural areas is the responsibility of the Panchayatti Raj Institutions. So, GPs will continue to be the focal points at the village. Village Water Supply & Sanitation Committee (VWSC) at village level and Joint Committee (JC) at the multi village scheme level will continue to perform their roles as extended arms of the GP and Taluk Panchayat respectively. District level project management activities rest with the Zilla Panchayats (ZP). At the state level, the Rural Development and Panchayath Raj (RDPR) Department of Government of Karnataka would be the Nodal Department for the project and will be responsible for providing project funds and an enabling policy environment for project implementation. RDPR department will use KRWSSA as a vehicle for steering the project throughout the state. Water supply and roads and drainage investments will be financed under the project. Activities aimed at achieving Open Defecation Free villages including constructing household latrines and the related IEC shall be financed out of the funds from GOI under its Total Sanitation Campaign (TSC). The project will support TSC with supplementary manpower at the state as well as district levels.

| Component | What it does | Implementation Agencies |
|----------------------------------|------------------------------------------|---------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|
| Comp A: Village Level | Community Development and Infrastructure | <ul style="list-style-type: none"> • GPs • Village Water Supply and Sanitation Committees (VWSCs) • Scheme Level Committees (SLC) • Non Government Support Agencies (SAs) |
| Comp B: Project Level | Institution Building | <ul style="list-style-type: none"> • Zilla Panchayats • KRWSSA |
| Comp C: State Level | Sector Strengthening Programs | <ul style="list-style-type: none"> • KRWSSA • GOK |

9. Sustainability

The key ingredient for sustainability is commitment and ownership to the project's demand responsive philosophy and decentralized service delivery. The borrower (GoI) and the implementing entities (Government of Karnataka and Karnataka RWSS Agency) are fully committed to this. It is noteworthy that government at the state level has changed thrice (and GPs thrice), but the project (concepts/ implementation wise) has received continuous endorsements and support, both political and from the administrative quarters.

The successive governments have taken pride in the project as the results on the ground have demonstrated a way to successfully decentralize the rural water supply and sanitation services, by aligning the project's institutional arrangements with the existing PRI setup. GPs in the project have been placed in the 'driver's' seat, and together with the user groups (Village Water Supply and Sanitation Committees) have been capacitated to make decisions, procure materials, carry out construction, manage funds, share in the capital cost and have begun managing the system operations with their own resources. Construction funds have been devolved fully to the GPs. Even funds meant for Multi Village Water Supply Schemes (as high as Rs. 30 crores or USD 16 million per scheme) as well as contracts are being managed by the Panchayati Raj Institutions (PRI) themselves, only one of its kind in the country. The project has played a key role in deepening and broadening the decentralization agenda in the state. Recent experiences, however, point out that simultaneous to effecting 'decentralization' viz., devolving decision making to PRIs, substantial efforts are to be made at building capacity both within and outside the PRIs to ensure availability of adequate technical capacity support.

Operational and Financial sustainability are assessed by: (i) sustainability exercises of schemes in operation, and (ii) the setting of a sound sustainability framework. The former is ascertained through Sustainability Monitoring Exercises (SME). As regards the latter, Government of Karnataka, after a prolonged discussions and debate, has approved an O&M Policy, developed jointly by the KRWSSA and the Bank, which will be adopted throughout the state. Now, the challenge lies in operationalizing the same. This will be one of the focal points during the AF project implementation.

10. Lessons Learned from Past Operations in the Country/Sector

The Bank's engagement in the RWSS sector and lessons learnt from Bank-funded RWSS operations (Uttar Pradesh, Kerala, Karnataka, Maharashtra, Uttarakhand and Punjab) have contributed to the design of the proposed project. Bank's own Project design knowledge and implementation support capacity also built from experiences and lessons learned from 9 similar RWSS projects implemented since 1991 and the sector work carried out. Bank association for over 16 years over two successive Karnataka RWSS projects has helped build client capacity in meeting Bank standards of financial and social and environment safeguards.

1. Past experiences have shown that Community Driven Development Approaches underpinned by decentralization (coupled with subsidiarity) can result in effective, efficient and sustainable RWSS interventions.
2. From a sustainability point of view, it is better to have GPs as the focal point with a provision for a User Group (Village Water Supply and Sanitation Committee), to serve as a dedicated vehicle for RWSS activities. Capacity building of all the stakeholders on a continuous basis is critical to accomplish the social and environmental objectives – inclusion, equity, gender, safe sanitation, improved hygiene for maximizing health benefits, and operation and maintenance.
3. Macro (district/block) and micro (village) planning, taking into consideration ground and surface water resource availability and utilization; focused capacity building for procurement and financial management in decentralized implementation arrangements; and technical and social audits for quality checks are equally essential for better management.
4. In the past, the project has witnessed substantial delays - in particular in surface water based

complex schemes. This implies, the project should focus more on building the capacity of the project professionals in both hardware and software aspects, particularly on team building and contract management.

5. For ensuring operational sustainability, a Sustainability Framework/ Policy, backed up by legislative support is critical as the rules of engagement and implementation modalities should be consistent over years and uniform across the state, including both project and non-project areas.
6. Piloting innovations hold the key for effecting advances in the RWSS sector.

11. **Safeguard Policies (including public consultation)**

The Safeguard policies triggered for the proposed project are highlighted below

| Safeguard Policies Triggered by the Project | YES | NO |
|--------------------------------------------------|-------------------------------------|-------------------------------------|
| Environmental Assessment (OP/BP 4.01) | <input checked="" type="checkbox"/> | <input type="checkbox"/> |
| Natural Habitats (OP/BP 4.04) | <input type="checkbox"/> | <input checked="" type="checkbox"/> |
| Pest Management (OP 4.09) | <input type="checkbox"/> | <input checked="" type="checkbox"/> |
| Physical Cultural Resources (OP/BP 4.11) | <input type="checkbox"/> | <input checked="" type="checkbox"/> |
| Involuntary Resettlement (OP/BP 4.12) | <input checked="" type="checkbox"/> | <input type="checkbox"/> |
| Indigenous Peoples (OP/BP 4.10) | <input checked="" type="checkbox"/> | <input type="checkbox"/> |
| Forests (OP/BP 4.36) | <input checked="" type="checkbox"/> | <input type="checkbox"/> |
| Safety of Dams (OP/BP 4.37) | <input type="checkbox"/> | <input checked="" type="checkbox"/> |
| Projects in Disputed Areas (OP/BP 7.60)* | <input type="checkbox"/> | <input checked="" type="checkbox"/> |
| Projects on International Waterways (OP/BP 7.50) | <input type="checkbox"/> | <input checked="" type="checkbox"/> |

The implementing agency is familiar with the Bank’s social/environmental requirements, as the State has already implemented a water supply project and current is the second rural water supply and sanitation project being implemented . The project has deployed experienced social and environment specialists at both state and district levels who have addressed the issues quite well. The project will continue the ITDP program successfully implemented so far and an environmental management frame work is already in place.

The project has also prepared an environmental and social due diligence report for assessing the nature and extent of compliance/ performance on safeguards. Scope for further improvements have also been mapped.

12. **List of Technical Documents**

Project Implementation Plan -
 Environmental and Social Safeguards Due Diligence Report
 Financial Management Manual
 Procurement Manual
 Procurement Plan

Movement towards Ensuring People's Drinking Water Security in Rural India: Framework for Implementation 2009-2012. Department of Drinking Water Supply, Government of India. March 2010

Sector Strategy: 2000-05 to 2006-15. KRWSSA, Government of Karnataka, March 2010

Annual Report on Total Sanitation Campaign, KRWSSA, Government of Karnataka, February 2010.

13. Contact point

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