

KARNATAKA URBAN WATER SECTOR IMPROVEMENT PROJECT (KUWASIP)

1. Background:

Introduction:

The World Bank assisted Karnataka Urban Water Sector Improvement Project (KUWASIP) is a project for reforms in Water Sector at the State and ULB levels. **The primary objectives of the project are reforms and service improvements through Private Sector Participation in water sector in Karnataka.** For this purpose, three cities viz., Belgaum, Gulbarga and Hubli-Dharwad have been selected for investments for improvement of water supply services. The total cost of project is Rs.237 Crores. The project is being implemented by Karnataka Urban Infrastructure Development & Finance Corporation (KUIDFC), which is the nodal agency for implementing urban infrastructure projects in Karnataka State.

The project mainly comprises of two components viz., **“Sector Development & Technical Assistance” and “Physical Investments”**. Under the first component, the following studies are carried out:

- Establishment of Karnataka Urban Water Supply Council
- Review and Establishment of the Regulatory and Legal Framework
- Water & Sanitation Sector Investment & Tariff Framework
- Strengthening of Urban Water Supply and Sanitation Service delivery in ULBs
- Creation of Water & Sanitation Information system and bench marking of service provision
- Tariff design for continuous water supply

Under the second component the following works are carried out :

- Priority Investment Works are implemented by Karnataka Urban Water Supply and Drainage Board(KUWS&DB) to increase the bulk supply to the project cities.
- Refurbishment of distribution system to transform the existing system into a 24 x 7 water supply system, which includes 2 years Operations. This component is implemented in the 5 selected Demonstration Zones, spread over the three cities by a Private Operator.

Need:

The water sector in Karnataka suffers from the following issues, which are common across the Country:

- Chronic inefficiencies,
- Unreliable service quality and limited coverage.

- At the technical level, problems include sub-optimal resource allocation,
- Mismatched capacity investments,
- Lack of requisite technical manpower
- Poor operation and maintenance (O&M) practices
- Un-economic tariff structure / levels
- Poor collection efficiency
- High levels of unaccounted and non-revenue water
- sector information systems are deficient
- Poor service coverage; service coverage in all the three participating ULBs was estimated to be less than 50%

An attempt is made to address the above issues through this Project

2. Situation Prior to Initiative

- The situation prior to implementation of the project was as under:

City	Bulk Supply in MLD	Service Level (LPCD)
Belgaum	57	123
Gulbarga	25	46
Hubli-Dharwad	111	123

3. Objectives and Aims:

- Launch urban water supply reforms at GoK and ULB levels;
- **Demonstrate that continuous pressured supply of water is achievable;**
- Increase the bulk supply reaching each of the ULB, thereby countering any social issues outside the Demo Zones
- Upgrade management of water service to deliver an efficient and effective service;
- Rationalize and reorganize the institutional and regulatory structures to effectively manage, monitor and regulate all aspects of the water service
- Bring in demonstrable improvements to the water service in each of the ULBs
- Study replicability and sustainability based on the lessons learnt
- Also, monitor whether on-site wastewater systems are able to cope with the demands placed upon them by improved water supply;

Expected Benefits:

The target beneficiaries are:

- Sector development and technical assistance component - would benefit the general urban population in Karnataka, totaling approximately 16.8 million (approximately 33 percent of the state population of 53 million).
- General physical investment component would benefit all water consumers in the three participating ULBs, totaling to 1.8 million (as per 2001 census) (940,000 in Hubli-Dharwad, 425,000 in Belgaum, and 430,000 in Gulbarga).
- Demonstration project would target the people in the demonstration zones, which

correspond to about 10% of the population in each city, totaling to about 220,000.

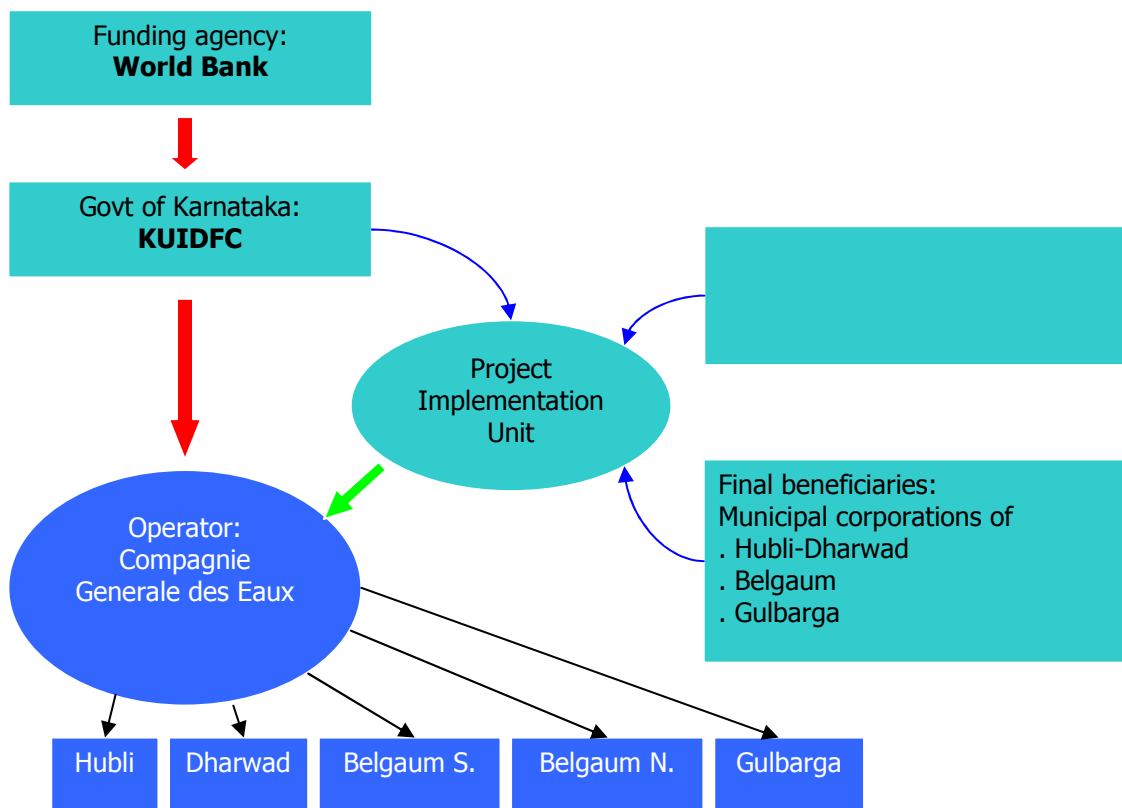
The major benefits of improved Water Supply Service delivery in the three ULBs would include:

- Improvement in Public Health
- Increased hours of supply
- Equitable water supply
- Improved customer satisfaction

4. Strategies adopted and implementation process:

➤ The partners involved in the project are:

1. Karnataka Urban Infrastructure Development and Finance Corporation (KUIDFC).
2. Karnataka Urban Water Supply & Drainage Board (KUWS&DB).
3. City Municipal Corporation of Belgaum, Gulbarga and Hubli-Dharwad and
4. M/s Compagnie Generale Des Eaux (C.G.E) and Seureca, Paris, France.



The responsibilities of the partners are:

I. KARNATAKA URBAN INFRASTRUCTURE DEVELOPMENT AND FINANCE CORPORATION (KUIDFC)

- Overall Project management including review, finalization, maintenance and supervision of Investment Programme, disbursement of the capital, disbursement of Operator Remuneration and Bonus, taking decisions regarding the completion of the Capital Works and achievement of the respective obligations by each party
- Approval of investments in the Demonstration Zones;

- Advise Corporations to depute specific number of staff to the Operator.
- Taking decisions regarding achievement/non-achievement of performance obligations by the Operator and release of payments;
- Supervise payments to Consultants / Sub-Contractors;
- Manage the project roles and responsibilities, interfaces and resolution of problems arising out of them using appropriate level(s) of interface.

II. KARNATAKA URBAN WATER SUPPLY & DRAINAGE BOARD (KUWS&DB)

- To provide adequate Bulk Water to the Operator for supply, to meet its obligations.
- Manage, operate and maintain Bulk Water supplies and steadily increase the same in a phased manner.
- Co-ordinate with the Operator in providing connections to un-connected properties, where property owners request and fulfill necessary conditions and pay the required fee.
- Receive requests for approvals for new connections in Hubli-Dharwad and inform the Operator for further action within a reasonable time.
- Collection of water bills/ arrears and disconnections in case of non-payment beyond the notice period.

III. CORPORATIONS OF THE CITY OF (1) BELGAUM, (2) GULBARGA AND (3) HUBLI-DHARWAD.

- Adopt the project concept, tariff principles and the roles & responsibilities of the Corporation during the Implementation Period and the Operation & Management Period, through a declaration; and
- Provide adequate Bulk Water to the Operator to meet its obligations Co-ordinate with the Operator in Belgaum and Gulbarga, in providing connections to un-connected properties, where property owners request and fulfil necessary conditions and pay the required fee;
- Receive requests for new connections & inform Operator for further action.
- Provide the Operator with the permission to repair or replace the Facilities, which the Operator is responsible for, and the right to lay new water mains on behalf of the Corporation
- Depute the Corporation Employees to the Operator
- Manage all aspects of customer interface outside the Demonstration Zones and together with Operator within the Demonstration Zones;
- Collection of water bills/arrears and disconnections in case of non-payment beyond the notice period.

IV. Operator (M/s Compagnie Generale Des Eaux and Seureca, Paris, France)

- Diagnose the existing systems in each of the five demonstration zones and develop Investment Program to refurbish and transform the existing systems to deliver 24 x 7 pressured water supply
- Implement the refurbishment works identified in the Investment Program

- Meter 100% customer connections
- Demonstrate the performance targets set in the Contract
- Operate and Manage the 24 x 7 water supply in the demonstration zones for two years, including billing customers on volumetric basis. However the responsibility of collection is with the Corporations.

5. Situation after implementation of initiative:

- The situation after implementation of the project is as under:

City	Bulk Supply in MLD	Service Level (LPCD)
Belgaum	84	182
Gulbarga	55	101
Hubli-Dharwad	113	125

Thus, there is improvement in supply of bulk water to Belgaum, Gulbarga and Hubli-Dharwad cities by 27 MLD, 30 MLD and 2 MLD respectively.

- **There is continuous pressured (24x7) water supply in 5 Demonstration Zones viz., (i) Belgaum (South), (ii) Belgaum (North), (iii) Gulbarga, (iv) Hubli and (v) Dharwad, which represent about 10% population in each city.**

6. Outputs and outcomes :

Continuous pressured (24/7) water supply has been operationalised in all the five Demonstration Zones viz., (1) Belgaum (South) (2) Belgaum (North) (3) Gulbarga (4) Hubli and (5) Dharwad during 2007-08 and the O&M period commenced from 3.4.2008.

The following are the perceivable differences in the Demo Zones, where continuous water supply is in operation.

- Per capita supply of ---- lpcd, as against 135lpcd assumed
- Equitable water supply to all customers without operating a single valve
- Scientific pressure management without throttling the valves
- Distribution pressure ranging from 7m to 18m
- 100% metering of the customers
- Losses within the levels stipulated in the Contract
- Improved water quality
- Reliable water supply
- Improved customer satisfaction
- Customers are saving money since no pumping of water from sumps
- Improved data management – customer data base and asset database

All this is leading to a improved good will of the customer towards the respective Corporations



smile on customers face

7. Sustainability

Sustainability is one of the biggest challenges of any project. The service (continuous pressured (24x7) water supply) emanating out of the above project (KUWASIP) is expected to be sustainable, as the project was formulated and is implemented in consultation with all the stakeholders and all the issues having a bearing on sustainability have been addressed.

The details are as follows:

Creation of Administrative Structure:

- As per the contract, the Operator is expected to maintain the system / service for a period of two years during the Operation & Management phase.
- The contract provides for deputation of ULB staff to the Operator during project implementation period and also training to the staff during O&M period for familiarization of equipments, technologies and processes utilized in the project, which would strengthen the capability of ULBs to takeover the system for future O&M. (The required staff of the respective ULBs has been deputed to the Operator and are being trained)

Financial Framework:

- A Tariff Design Study for Continuous Water Supply in the Cities of Belgaum, Gulbarga and Hubli-Dharwad was carried out and keeping in view the recommendations of the study, an appropriate volumetric tariff structure has been

approved by the Government.

Social Intermediation and Communication Strategy:

- An effective communication programme which is a pre-requisite for the success of such innovative projects has been made an important component of the project. This programme is designed to inform the general public, commerce, industry, the Municipal Administration and local Councillors / elected representatives about the content, rationale, objectives of the Demonstration Project. (Communication activities are carried out vigorously through NGOs in each of the ULBs).

Social Equity:

- With a view to see that, the benefit of continuous (24x7) water supply reaches the urban poor in the Demo Zones, a Pro-Poor Policy has been adopted under KUWASIP.

Public Response:

- The provision of continuous water supply has received overwhelming response from the residents in the five Demo Zones. People outside the Demo Zones have also expressed their interest and are demanding to extend continuous water supply to their areas.

8. Potential for replication:

By dispelling the following myths about continuous pressured water supply this project has demonstrated that the project is replicable:

- **It requires more bulk water**
- **It is not feasible in Indian scenario**
- **It is not required for Indian scenario**

While identifying the project Cities and the demonstration zones, various factors were considered. One among them was the “replicability”. Five demonstration zones selected had various blends of

- social fabric – various classes of community
- commercial activity, domestic and mixed
- well developed posh areas, middle income groups and slums
- Core areas of the Cities – congested streets, traffic, other utilities
- Peripheral areas of the Cities – developing areas, where population density is low

All the three project Cities are located in Northern parts of Karnataka, which are considered traditionally backward areas. As the project has been successful in these areas, 24X7 water supply can be replicated at other places.

The “Operator Contract” of KUWASIP is a flexible document which can be used for water supply projects intended to be taken up with Private Sector Participation.

This model contract with suitable changes / modifications can also be used for sanitation sector viz., (i) Sewerage services and (ii) Solid Waste Management.