Project Name	Yemen-Rural Water Supply and Sanitation Project
Region	Middle East and North Africa
Sector	Rural Water Supply and Sanitation
Project ID	YEPE5906
Implementing Agency	General Authority for Rural Electrification and Water (GAREW)
Date Of This PID	April 10, 1998
Projected Appraisal Date	January 1999
Projected Board Date	June 1999

Background

1. About 70 % - 80 % of Yemen's total population of about 15 million people live in rural areas. Rural infrastructure services, in particular rural water supply and sanitation are poor. Less than 20 % of rural inhabitants have access to potable water and even fewer to safe sanitation (as compared with about 80 % and 60 % fur urban areas). Water and environmental sanitation related diseases account for about 50 % of child mortality (under age five). Overall rural child mortality is indicated with 120 to 150 per 1,000 live births. About half of the piped rural water supply systems are either not working or not providing drinking quality water, and, at best, 10 % of all wells and boreholes are adequately protected to yield safe water. The main reason is lack of community involvement in project planning and management. Most systems use tariffs, based on metered water use, or on a flat rate. Since beneficiaries did not participate in the choice of technology and design of the system, they can often not afford paying the full cost of operating the RWSS schemes, let alone producing an operating surplus for the purchase of spare parts.

2. Little is done in the area of safe wastewater (WW) and excreta disposal, hygiene education and safe drinking water storage. This major omission constrains reaping the full potential health benefits of new water supply. Diarrhoeal and other fecal-transmitted diseases are major causes of infant mortality and general rural morbidity in Yemen.

Objectives

3. The objectives of the proposed project are to (i) help the Government establish a RWSS Sector Strategy; (ii) experiment with decentralized, demand-based community participation methods to be used in different geographical, geological, climatic and social environments; (iii) expand RWSS service coverage with sustainable drinking water and safe sanitation facilities; and (iv) lay the ground for a large-scale national RWSS program. Ultimately, the project and its downstream outputs would help alleviate the dismal situation of rural poverty and health.

Project Description

4. The project would target the poorest populations, initially in three

Governorates (para. 6, below). It would include the following major components, (i) water supply: rehabilitation and construction of demand-based, community managed rural water supply schemes; (ii) sanitation: provision of material (cement, squatting plates) for the construction by beneficiaries of latrines, building of drainage ditches, WW collection systems and community-based, low-cost WW treatment, block latrine construction for schools and markets, social communication, health and hygiene education; (iii) technical assistance (TA): training and studies.

Project Cost and Financing

5. The project's baseline investment costs are estimated at US$ 13 million. IDA would fund about US$ 10 million, the balance to be financed by beneficiaries and the government.

Project Implementation

6. The project would be implemented over five years in two phases. During the first phase (about three years), the project would concentrate on the Governorates of Ibb, Hudaydah and Abyan. These Governorates were selected, because of the presence of GAREW branches that can be strengthened and built up with the project, and because they present a sociological and geological variety, in which different technologies can be tested. Within these Governorates, poor communities as defined by the social assessment, would receive priority. During this phase, the results under the experimentation (Objective (ii), above) would be monitored and evaluated, and the lessons would form the basis for the RWSS Strategy. During the second phase, the project may expand to the Western Uplands, the Governorates of Mahweet and Hajja; and to Shabwa in the south, or to other areas, as may be identified during project preparation. The RWSS Strategy and data base would be developed during this phase, and the national RWSS program designed. Project implementation would be carried out with direct support from the UNDP-World Bank Water and Sanitation Program and based on three major principles:

i) Decentralization: Worldwide experience shows that RWSS schemes succeed best, if implemented through a regional or local institution. Physical and social closeness to the community fosters community management and provides for readily available advice and TA.

ii) Demand drive: In the past, GAREW established priorities and implemented projects without consulting or involving the beneficiaries. This resulted in breakdowns, lack of operation and maintenance (O&M) and eventually, lost capital resources. In the proposed project, communities would come forward and express their need for RWSS and their willingness to participate in the project. This interest would then be followed up by a multi-disciplinary Social Mobilization Team (SMT). The team would help the villagers choose the technology and service level commensurate with their socio-economic needs and possibilities, as well as to establish a village-based water association. The team would also convey key health and hygiene messages regarding water handling and safe sanitation.

iii) Community management: As a result of participation and 'ownership', communities would assume responsibility for managing their water supply systems. The project would assist the communities to become legal entities, capable of owning the assets of their RWSS system and of borrowing money. The

committees would receive training from the SMTs for O&M and administration of their systems.

Sustainability

7. The project is expected to achieve sustainability through (i) the participatory approach, based on actual demand and willingness to pay by the beneficiaries; (ii) an intense social mobilization and health education campaign before, during and after project implementation; and (iii) a TA and a rigorous monitoring and evaluation component.

Lessons learned

8. The Bank has learned worldwide that beneficiary participation and management, in particular of RWSS projects, increase a project's sustainability substantially. In addition, the implementation of a sanitation component in parallel with water supply optimizes health benefits. In the past, neither principle has been consistently applied, resulting in a high failure rate of RWSS projects. Though implementation with full beneficiary participation is considerably slower than the traditional 'supply-driven' approach, the results are infinitely better, in terms of impact and sustainability, when the project responds to actual demand.

Poverty Category and Environmental Aspects

9. The poverty category has not been rated. The project meets BP 17.50 environmental requirements and is rated as Category 'B'. Please see attached Annex on Environmental Aspects.

Benefits

10. The project aims at (i) providing the main inputs (technical, financial, institutional) for the drafting of a RWSS Sector Strategy; (ii) laying the ground for a large-scale national RWSS development program; and (iii) alleviating a dismal situation of rural poverty and health.

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Note: This is information on an evolving project. Certain activities and/or components may not be included in the final project.

Processed by the InfoShop week ending May 1, 1998

Environmental Aspects

1. The project would have a positive impact on rural public health and the environment. First, providing safe drinking water and excreta and wastewater (WW) disposal facilities, along with health and hygiene education, is expected to reduce water-borne diseases and child mortality, which is estimated between 120 and 150 for 1,000 life births. Second, providing sanitation facilities - simple latrines for households, schools, health centers and markets, as well as drainage and collection of wastewater (WW) and low-cost WW treatment, if justified - will improve the environment of the villages and the habitat, as well as protecting aquifers from run-off WW. Third, organized exploitation of groundwater, through he introduction of community-managed water supply systems with full cost recovery for operation and maintenance and spare parts, will help reduce water wastage.

2. The potential increase in the volume of water consumed will be addressed in the sanitation component. Availability of a latrine or other WW and excreta disposal system is a condition for eligibility to have water supply connected to the house. The Social Mobilization Teams (SMT) will design simple technical worksheets for the Village Water Committees to assist the individual households with the construction of family latrines. Block latrines for schools, markets and health centers will be designed by consultants in accordance with each particular situation. Implementation of the sanitation component will be followed closely by Bank Supervision Missions and by the SMTs, so as to meet environmentally sound technical standards, to avoid groundwater pollution.