Iraq Water Country Assistance Strategy

Iraq’s water sector is in crisis, with severe effect on the incomes and health status of the Iraqi people. This ESW suggested that immediate improvement in rural service delivery, together with effective demand management, can provide early wins in Iraq, with potentially high economic and social benefits. Follow-up lending projects are helping achieve early results. Efforts to date have created about 176,000 man-days of local employment, improved about 70,000 irrigated hectares, and benefited 121,000 end users, mainly in the irrigation sector.

1. Challenge

The protracted crisis that began in the 1990s has affected the water supply, sanitation, and irrigation sector in Iraq severely. Irrigated agriculture is the largest consumer of water, but water is used inefficiently. Irrigation infrastructure from pumping stations to canal networks has degraded from lack of maintenance. About 40 percent of the traditionally irrigated area is out of production, and yields are at levels below those of the 1960s. Rural employment has plummeted and about 30 percent of farmers were already out of farming by 2002.

Water planning and allocation decisions are managed from the center, with limited cooperation among the various delivery agencies and with virtually no user involvement. Hydropower output had dropped in recent years and is often at 30-50 percent of capacity. Water service in most cities is limited to few hours a day and is of poor quality. The water supply system is inefficient, and losses amount to two-thirds of the water treated and pumped. The high losses stem from aging and deterioration of water facilities, lack of proper maintenance over the past decade and a half, and ongoing physical damage from the war.

The Iraq Water Country Assistance Strategy (CAS) was undertaken in 2005-6 to address the water crisis. It is a cross-cutting ESW, covering various water-related themes. The main counterpart for the Water CAS has been the Ministry of Water Resources, but other ministries have also shared ownership, particularly the Ministry of Planning and International Cooperation and the Ministry of Public Works and Municipalities.

2. Findings and Dissemination

The recommendations of the Water CAS focused on two key aspects: immediate improvement in service delivery to provide quick returns, and policy and institutional reforms in the medium to long term.

On the first point, the report stressed the need to target investments in rehabilitation and modernization that could bring rapid improvements in domestic water supply and sanitation, irrigation, and hydropower for electricity. These investments would be contingent upon an assurance by the government to achieve
tangible and immediate results in securing water and creating employment at the community level. In the immediate emergency phase, the government should consider two factors in prioritizing infrastructure rehabilitation: (a) cost-effectiveness criteria, for example, cost per hectare of land irrigated or cost per unit volume of water saved; and (b) future needs, that is, investments made today should not prejudice possible future decisions on supply or use. The report also suggested using the crisis as an opportunity for change by testing new institutional approaches for implementation. These include consulting local users on priority locations and preferred designs for rehabilitation in order to foster accountability, as well as employing labor-intensive approaches where possible to generate local employment. For instance, the report recommended adopting small-scale civil work contracts with competitive bidding across the entire country to maximize the local labor content of each contract.

Second, the Water CAS emphasized the need for policy and institutional reforms geared to better management of water resources. It recommended an integrated approach to balance supply and demand in the sector. On the supply side, measures to manage and augment water resources were proposed for the medium to long term. On the demand side, the report called for immediate implementation of a coherent set of pricing and nonpricing instruments, including improvements in the technical efficiency of the water system. Also recommended were measures for capacity building through training and reform of procurement procedures to encourage competitiveness.

At the request of the Iraqi government, the Water CAS was translated into Arabic to facilitate its dissemination within Iraq.

3. Subsequent Role for the Bank

In line with the recommendations of the Water CAS, the Bank has been supporting the government of Iraq through a number of water-related operations. The Iraq Emergency Community Infrastructure Rehabilitation Project (ECIRP, $20 million), approved in 2005, aims to restore priority rural water supply, sanitation, irrigation, and drainage infrastructure using labor-intensive, small-scale civil works programs through national and local contractors. As part of the demand management strategy, the project seeks to improve the technical efficiency of the water conveyance and distribution system.

The Iraq Dokan and Derbandikhan Emergency Hydropower Project ($40 million), approved in December 2006, is intended to finance the urgent repair of two hydroelectric power stations to improve electricity supply. This is in line with the strategy that emphasizes rapid rehabilitation of critical infrastructure to improve basic service delivery.

The Iraq Second Emergency Water Supply Project ($108 million), approved in March 2008, seeks to improve the quality and quantity of water supply in four selected governorates by rehabilitating urban water supply and distribution schemes. It will also build the capacity of the Ministry of Municipalities and Public Works for project planning and implementation. The government of Iraq, assisted by a Policy and Human Resources Development grant, is also preparing a national water supply and sanitation sector study to serve as a basis for future sector reform.

4. Key Results

The ESW is contributing to results in several areas:

Adoption of the Water CAS. The Ministry of Water Resources has adopted the Water CAS as a basis for developing the country’s water strategies and operations. Phase II of the National Land and Water Master Plan, supported by the U.S. Agency for International Development, also intends to incorporate a range of policy, institutional, and investment options recommended in the strategy.

Tangible outcomes of the ECIRP in line with the policy directions of the Water CAS. As of mid-2008, the ECIRP has improved about 70,000 hectares of irrigated area and benefited 121,000 end users, mainly in the irrigation sector. The project is financing 22 rehabilitation subprojects and 11 goods/equipment contracts across 13 of Iraq’s 18 governorates. The unit cost for rehabilitation of irrigated land is on average $500 per hectare and is half the regional average. The labor-intensive civil works to restore and improve the water supply and sanitation infrastructure have created about 176,000 man-days of local employment. Spatially, these subprojects have had reasonably equitable distribution across Iraq.
which is positive from a sociopolitical viewpoint. Procurement has been competitive, with an average of seven bidders per contract. The use of local and national contractors has helped create local employment and contributed to the development of small and medium enterprises.

**Scaling up from the ECIRP.** Following the success of the ECIRP, the government of Iraq requested assistance for scaling up the activities. Additional financing of $26 million, provided through the Iraq Trust Fund in March 2008, will support rehabilitation of the rural water infrastructure and create local employment. It is estimated that the additional financing will enable the project to add at least 86,000 man-days of local employment, improve an estimated 33,000 hectares of irrigated area, and benefit about 38,000 end users.

### 5. Lessons Learned

The Iraq Water CAS and subsequent Bank projects highlighted several aspects of project implementation in conflict states. Even if a country is in crisis, the Bank can still deliver a diagnostic ESW with an acceptable level of client ownership. Since World Bank staff are not permitted to travel to Iraq, an unconventional "pyramid" approach was used to obtain credible information and promote client ownership. At the base of the pyramid, a group of multidisciplinary national consultants were engaged to approach the respective Iraqi agencies for cross-cutting baseline data. Each consultant covered a specific topic such as institutions, natural resources, infrastructure restoration, or legislation, with some overlap between them as a hedge against the failure of any one consultant to deliver. At the middle tier of the pyramid, two international consultants helped analyze and synthesize the deliverables of the national consultants, and at the apex, the Task Team managed the entire process. This approach may be replicable for other client countries experiencing or emerging from conflict.

It was useful to disseminate the deliverable, including the background reports, internally to other related sectors within the Bank's Middle East and North Africa Region. Useful inputs and perspectives were obtained from various sectors within the Bank, including Energy, Agriculture and Rural Development, Environment, and Social Development.

The Bank's supervision has been supported by a satellite imagery system that has provided some evidence of the project's impact. Satellite data are particularly useful in evaluating activities in a conflict country where Bank staff cannot travel.

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