

## Ex-ante Evaluation

### **1. Name of the Project**

Country: The Republic of Iraq

Project: Irrigation Sector Loan

(Loan Agreement: January 25, 2008; Loan Amount: 9,514 million yen; Borrower: The government of the Republic of Iraq)

### **2. Necessity and Relevance of JBIC's Assistance**

In the aftermath of many years of economic sanctions and conflicts, which have left deep scars in its economy and society, Iraq has begun to move toward reconstruction with assistance from the international community after the war.

In its national development strategy of 2005–2007, which was launched in June 2005, because of the importance of agriculture and the necessity of irrigation development for the Iraqi economy, the Government of Iraq adopted rehabilitation of its irrigation infrastructure as one of the areas to target in its priority assistance.

In addition to the economic sanctions and conflicts, the devastation caused by the drought and other natural disasters reduced grain production in 2001 to about half (about 1.5 million tons) of what it was in 1993. Nevertheless, the agriculture sector accounted for 10% of the non-oil economy in 2004 (the non-oil sector represents a third of Iraq's GDP). After the service sector, agriculture is the most important non-oil sector. Thus the figure of 10% shows just how important agriculture remains in Iraq. In the days ahead, the agricultural sector is expected to provide work for many people in Iraq where unemployment has accelerated. Also, since the termination of the United Nations' Food-for-Oil Program (OFFP) in 2003, the need to raise Iraq's food self-sufficiency rate has become increasingly more urgent.

There is very little rainfall in Iraq: about 600 mm a year in the north and about 200 mm in the rest of the country. Thus agriculture based on irrigation is indispensable in many regions, but irrigated agriculture is actually practiced only in about a third of the land where irrigation is possible. Also, it has been confirmed that, due to inadequate maintenance of equipment and materials used for irrigation drainage and irrigation drainage canals, the country's irrigation function has been declining. There is fear that if nothing is done to alleviate this situation, the irrigated area of land used for farming will further decrease. Consequently, it is necessary to revitalize the existing irrigation drainage canals and development of irrigation farmland by providing the country with equipment and materials used for irrigation drainage whose function has deteriorated significantly, etc.

In the International Conference on Reconstruction in Iraq held in Madrid in October 2003, besides grand aid amounting to \$1.5 billion for urgent reconstruction of Iraq, the Government of Japan pledged a total of \$3.5 billion in yen loans to support medium-term reconstruction after 2005. Additionally, in JBIC's Medium-Term Strategy for Overseas Economic Cooperation Operations (April 2005), one of the sectors is the assistance it provides for efforts being made to solve global problems and build peace. Consequently, the support for Iraq, where social instability continues even after major conflicts have ceased, is consistent with JBIC's assistance policy.

JBIC's support for the project is therefore highly necessary and relevant.

### **3. Project Objectives**

The project aims to improve and upgrade the existing irrigation systems, by rehabilitation of pumps and related facilities and provision of necessity equipments and machineries for operation and maintenance, thereby contributing to increasing agricultural production, creating medium- and long-term job opportunity and accelerating regional development

#### **4. Project Description**

(1) Target Area

Throughout Iraq

(2) Project Outline

- (a) Provision and installation of irrigation drainage pipes
- (b) Provision of equipment and materials related to the operation and maintenance of irrigation drainage canals
- (c) Consulting services

(3) Total Project Cost / Loan Amount

12,685 million yen (Yen Loan Amount: 9,514 million yen)

(4) Schedule

May 2008–June 2012 (50 months). The definition of project completion is “when the procurement and installation of equipment and materials as well as the consulting services are completed.”

(5) Implementation Structure

- (a) Borrower: The Government of the Republic of Iraq
- (b) Executing Agency: Ministry of Water Resources (MOWR)
- (c) Operation and Maintenance System: Same as (b)

(6) Environmental and Social Consideration

(a) Environmental Effects / Land Acquisition and Resident Relocation

(i) Category: FI

(ii) Reason for Categorization

It is not possible to identify the subprojects prior to the approval of the JBIC loan, and once the subprojects are identified, it is assumed that they would have an impact on the environment. Thus, under the “Japan Bank for International Cooperation Guidelines for Confirmation of Environmental and Social Considerations” (established in April 2002), this project is classified as Category FI.

(iii) Other / Monitoring

Since this project mainly aims to provide equipment and materials for irrigation, no serious negative impacts on the environment are foreseen. With assistance from the project’s consulting services, the executing agency will confirm the social and environmental considerations of the subprojects based on the JBIC Environmental Guidelines.

(b) Promotion of Poverty Reduction

None

<p>(c) Promotion of Social Development (e.g. Gender Perspective, Measure for Infectious Diseases including AIDS, Participatory Development, Consideration for the Handicapped, etc.) Promotion of operation and maintenance by water utilizing farmers, etc. will be examined in the days to come.</p> <p>(7) Other Important Issues Synergetic effects can be expected with third country training provided by JICA, etc.</p>
<p><b>5. Outcome Targets</b></p> <p>(1) Evaluation Indicators (Operation and Effect Indicator) In this project, as many indicators as possible will be installed to determine the effects of the project after the ODA loan agreement is signed. After that, standard and target values will be set up by implementing a baseline survey in a limited number of target areas.</p> <p>(2) Internal Rate of Return (Financial and Economic Internal Rate of Return) In this project, after the ODA loan agreement is signed, the internal rate of return will be calculated to determine the effects of the project as much as possible.</p>
<p><b>6. External Risk Factors</b></p> <p>Deterioration of law and order, etc.</p>
<p><b>7. Lessons Learned from Findings of Similar Projects Undertaken in the Past</b></p> <p>In the ex-post evaluations of similar past projects, the lesson learned is that establishing an appropriate operation and maintenance system is indispensable for ensuring smooth operation and maintenance of facilities after they are launched. In this project, sufficient attention will continue to be paid to establish an operation and maintenance system by, among other things, including in the project training for the staff of the Ministry of Water Resources, the project's operation and maintenance agency.</p>
<p><b>8. Plans for Future Evaluation</b></p> <p>(1) Indicators for Future Evaluation Indicators that show improvements, etc. in irrigation and revitalized farmlands</p> <p>(2) Timing of Next Evaluation 2 years after project completion</p>