

**INTEGRATED SAFEGUARDS DATA SHEET  
APPRAISAL STAGE**

Report No.: AC823

**Date ISDS Prepared/Updated: August 5, 2004**

**I. BASIC INFORMATION**

**A. Basic Project Data**

<b>Country:</b> Islamic Republic of Iran	<b>Project ID:</b> P071170
<b>Project Name:</b> IRAN – Alborz Integrated Land and Water Management	<b>Task Team Leader:</b> Satoru Ueda
<b>Estimated Appraisal Date:</b> September 28, 2004	<b>Loan/Credit amount (\$m.):</b> IBRD: 140
<b>Estimated Board Date:</b> January 6, 2005	
<b>Managing Unit:</b> MNSRE	<b>Lending Instrument:</b> Specific Investment Loan
<b>Sector:</b> Irrigation and drainage (80%); General agriculture, fishing and forestry sector (20%)	<b>Theme:</b> Decentralization (P);Civic engagement, participation and community driven development (P);Rural services and infrastructure (P);Water resource management (P)
<b>Safeguard Policies Specialists in the task team:</b> Allan Rotman, Helen Shahriari, Tjaart Schillhorn-Van Veen, Ulrich Schmitt, Satoru Ueda	
Other financing amounts by source: <span style="float: right;">(\$m.)</span>	

**B. Project Objective**

The development objective of the proposed project is to enhance current government efforts to achieve sustainable integrated land and water management at the river basin level through: (i) increasing agriculture productivity through the improved irrigation and drainage system and participatory management mechanism; (ii) reducing soil erosion and sediment yields into the Alborz Dam, which is under construction using GOI funds, through the improved upper watershed management; and (iii) protecting the water environment downstream of the Babol River and other water bodies through the improved hydrological / water quality monitoring, reservoir operation, and pest management.

The project will enable water resources in the Alborz River basin to be managed in a sustainable manner by addressing the concerns described above. Improving management of arable and rangeland in the catchment area of the Alborz Dam (currently under construction with funding from the Government of Iran) will reduce the risks of siltation from watershed degradation. Benefits will accrue to all stakeholders in rural and urban areas. The primary beneficiaries are farmers, livestock herders, urban residents and forest dwellers. By including users from farm-level Water Users Associations (WUAs) and micro-catchment level watershed management/forest cooperatives, the project will support decision making on water resources management down to the lowest appropriate levels. A comprehensive river basin management approach will facilitate solutions to basin-level water allocation and water quality problems, leading eventually to better

natural resource management and conservation. This will provide valuable lessons for replication in other river basins of the country.

### C. Project Description

The project envisages the following components:

1. ***Upper Watershed and Forestry Management (US\$13 million)***: This will include: (a) technical assistance, master planning and capacity building in the upper watershed; (b) forest and rangeland rehabilitation and management (51,500 ha); and (c) soil and water protection measures over the upper watershed area. In the alpine rangeland and forest areas, overgrazing and illegal timber cutting have caused serious pasture and forest degradation, which has led to increased soil erosion and sediment yields downstream. The component aims at establishing effective soil and water protection measures and improving sustainable and participatory community-based forest and rangeland management including the establishment of cooperatives in the upper watershed;
2. ***Irrigation and Drainage Management (US\$130 million)***: This will include: (a) rehabilitation and construction of irrigation and drainage systems covering a total area of about 52,000 ha, of which 33,000 ha are traditional irrigation areas and 19,000 ha are new irrigation areas (currently being irrigated by ground and rain water); (b) capacity building and technical assistance for establishment of WUAs and their increased O&M/cost recovery function; and (c) agricultural extension and research activities to support farmers for improved water management and crop diversification. The component aims to enhance irrigation water use efficiency and agriculture production/income by rehabilitation and modernization of the irrigation/drainage systems and improved O&M through development of participatory water management including training and agriculture extension/research support;
3. ***Integrated Basin Water Management (US\$7.0 million)***: This comprises: (a) establishment of a Basin Water Committee (BWC) and Basin Water Fund (BWF); and (b) establishment of a GIS-based information dissemination and optimized water distribution system on a basin scale:
  - The former sub-component will include: (i) establishment and technical support for the BWC, comprising the key stakeholders, including: Regional Water Authority of Mazandaran and Golestan (RWAMG); Mazandaran Jihad-e Agricultural Organization (MJAO); and end user representatives; (ii) establishment of the BWF to provide WUAs, forestry cooperatives, and other communities and informal groups with support for community-based land and water conservation and income generating activities under the guidance of the BWC. This sub-component aims to support both integrated land/water resources management on a basin scale and community-based initiatives for improved land/water resources management.
  - The latter sub-component includes: (i) technical assistance for detailed studies and system development; (ii) capacity building and training of the core management unit within the RWAMG and associated entities; and (iii) provision of monitoring equipment and decision-making tools. This sub-component aims to enhance inter-sectoral coordination through the GIS-based system and the optimized water distribution system on a basin scale and enable distribution of stored water to farming areas in the most efficient manner.
4. ***Environment Management (US\$8.0 million)***: This pertains to the implementation of the Environmental Management Plan (EMP) of the Environmental and Social Assessment (ESA),

including water quality monitoring, integrated pest management, and other mitigation measures.

5. **Project Implementation and Coordination Support (US\$4.0 million):** This involves: (i) project implementation and coordination support for the PMUs (Project Management Units) and PIUs (Project Implementation Units) and (ii) their monitoring and evaluation (M&E), reporting and auditing activities.

Regarding institutional arrangements, community-based WUAs based on Iran's Cooperatives Law were successfully piloted at the farm level in the previous Irrigation Improvement Project. This project will replicate WUAs up to the secondary level of the irrigation network. In the previous Irrigation Improvement Project (IIP), Water Users Groups (WUGs) were established up to the tertiary and quarterly levels which would mean an area of approximately 300 ha. This project aims to go a step higher and establish WUAs up to the secondary level which would cover a wider area (for instance 3,000 ha instead of 300) in all irrigated areas of the project. Furthermore, the project's team and the government are conducting an institutional analysis and preparing a mechanism to operationalize the BWC concept with adequate civil society participation by appraisal.

Total base costs of the project are estimated at about US\$163 million and total costs including physical/price contingencies are around US\$216 million. It is expected that the IBRD loan would be around US\$140 million, with the remainder funded by Government counterpart financing and beneficiary contributions.

#### **D. Project Location (if known)**

The project is located in the Alborz River basin of Mazandran Province, which drains into the Caspian Sea.

#### **E. Borrower's Institutional Capacity**

The GOI has established a Central Liaison Office (CLO) comprised of the Ministry of Jihad and Agriculture (MOJA) and the Mazandaran Golestan Regional Water Company (MGRWC) representatives and two PIUs in Mazandaran. The CLO will be responsible for: (i) overall project coordination and management; (ii) procurement and financial management; (iii) implementation of the EMP; and (iv) staff training, research and knowledge management. The CLO will be guided by the Steering Committee for the project composed of the key representatives of the Ministry of Economics and Finance (MOEF), MOJA, MOE, the Management and Planning Organization (MPO), and other central government agencies.

Project implementation will be handled by the PIUs of MGRWC and the MOJA. The MOJA is responsible for work on both the upper watershed/forestry management component and the irrigation and drainage management component. The MGRWC is responsible for the trunk drainage and irrigation component as well as overall water resources management. The Mazandaran Department of the Environment in DOE will supervise the implementation of the environmental management component in compliance with the EMP. The two PIUs will need to have adequate implementation capacity and work in close coordination in order to ensure successful implementation.

The BWC and BWF will be established in order to: (i) facilitate inter-sectoral consultation on a basin scale; (ii) prepare a basin master plan and monitor its implementation and progress in

coordination with MOJA and MGRWC, as well as stakeholders within a basin; and (iii) provide direct support for WUAs, forestry cooperatives, and other communities and informal groups to help improve their land/water resources management and sustain their livelihood through income generating activities. Technical assistance and outreach programs will be provided to empower WUAs, forestry cooperatives and the BWC to support community-based land and water management activities.

## II. SAFEGUARD POLICIES THAT MIGHT APPLY

The project includes in its area of influence the Alborz Dam (height = 78 meters), which is not financed by the project. The dam and its reservoir area are currently under construction, under a separate project that is fully financed by the Government. A separate environmental assessment report was previously prepared for the dam project, which has been approved by the Iranian Department of Environment (DOE).

The present project, categorized as Category A under OP4.01, triggers seven (7) safeguard policies—environment assessment, pest management, involuntary resettlement, forests, safety of dams, cultural property and projects on international waterways — for which mitigation measures will be undertaken as will be described in the Supplementary Environmental and Social Assessment (ESA) report that is under preparation by the Government.

Project investment activities are planned in the forested upper watershed area that comprises the catchment area for the Alborz Dam. The area downstream of the dam is a well developed agricultural plain that also will have investment activities. Water quality and quantity will be monitored under the project, and community activities will be arranged for environmental improvements in both the upper and lower watersheds.

<b>Applicable?</b>	<b>Safeguard Policy</b> If Applicable, How Might It Apply?
[YES]	<b><u>Environmental Assessment (OP/BP 4.01)</u></b> : In order to take into account the new activities for the upper and lower watersheds as proposed under this project, additional work is being carried out to prepare a Supplementary Environmental and Social Assessment (ESA) Report that will comply with all Bank Safeguard policies, including OP 4.01.
[NO]	<b><u>Natural Habitats (OP/BP 4.04)</u></b> : As there are no critical natural habitats of international significance affected by the project, or significant conversion of natural habitats, OP4.04 is not triggered. The cleared reservoir area for the dam comprises agricultural land and forest. Conservation of the upper forests and habitats is addressed through the conservation and sustainable forest management activities of the upper watershed and forestry management component.
[YES]	<b><u>Pest Management (OP 4.09)</u></b> : As this project will develop new irrigated agricultural areas and the use of pesticides is an existing issue, OP 4.09 is triggered. A project specific Integrated Pest Management Plan (IPM) is being prepared to address this policy and will be incorporated into the Supplementary ESA.
[YES]	<b><u>Involuntary Resettlement (OP/BP 4.12)</u></b> : The ongoing construction of the Alborz Dam in the project site (financed by the government) has resulted in the displacement (in process) of about 4000 people in 18 villages. The task team is in the process of reaching an agreement with the government regarding a course of action to retrofit the resettlement process for those that have already been compensated and relocated from the project area, so that the Resettlement Plan (RP) will be consistent with the provisions of OP 4.12 for all affected people. In addition, two of draft Resettlement Policy Frameworks (RPF) are being

	prepared by the government for the potential land acquisition under the irrigation/drainage component (agricultural plain) and livestock reduction under the upper watershed and forestry management component.
[NO]	<b>Indigenous Peoples (OD 4.20)</b> The ongoing social assessment has not indicated any data to trigger this policy.
[YES]	<b>Forests (OP/BP 4.36):</b> The above mentioned Supplementary ESA Report will address this policy and provide recommendations. The policy is triggered as there are many small communities with a total of approximately 7000 people in the upper forested watershed actively using forest resources. A forestry management plan will be prepared in a participatory manner to introduce sustainable forestry management practices.
[YES]	<b>Safety of Dams (OP/BP 4.37):</b> An independent Panel of Experts (POE) has been constituted to oversee the preparation and implementation of the dam safety aspect. The POE met, carried out site visits, and submitted the dam safety report in February 2004. Its recommendation has been incorporated in the Supplementary ESA Report.
[YES]	<b>Cultural Property (draft OP 4.11 - OPN 11.03)</b> The existing environmental assessment report addressed cultural property in the dam site and upper watershed areas through a field based inspection and prior review of the project by the Sari Cultural Heritage Organization. Several shrines (approximately 10) and tombs (approximately 6) are being protected from flooding by the reservoir. Chance find procedures were also used during the construction activities in the dam site area.  For the downstream irrigation areas, the initial construction of some structures has started. Currently, the alignment of the irrigation structures is being designed to avoid cultural property sites identified by a field based inspection. To conform with Iranian regulations, the conservation and buffer zone distances from cultural property sites must be respected during the construction activities. The Supplementary ESA will review all actions carried out to date and ensure appropriate additional mitigation measures are implemented.
[NO]	<b>Projects in Disputed Areas (OP/BP/GP 7.60)</b> Not applicable.
[YES]	<b>Projects on International Waterways (OP/BP/GP 7.50)</b> As this project involves construction of irrigation and drainage systems, and one dam on a river flowing into an international waterway (the Caspian Sea) as specified under the policy, and to conform with this policy, a notification of the proposed project will be issued to the riparian states.

**Environmental Assessment Category:**

[X] A [ ] B [ ] C [ ] FI [ ] TBD (to be determined)

If TBD, explain follow-up and calendar/steps for the determination of the category:

**III. ACTIONS DURING PROJECT PREPARATION**

**A. What actions might be needed during project preparation to assess safeguard issues and prepare to mitigate them?**

To address the multiple safeguard issues in this project, the task team initiated scoping and review of the major potential impacts in late 2002. The environmental assessment prepared for the Alborz Dam project was reviewed, and site visits were conducted to the full project area. Based on the

scoping, terms of reference for a Supplementary Environmental and Social Assessment (ESA) study were discussed with the government, which is now underway. Discussions between the Bank and the Government indicate that the Government is in the process of deciding on the approach to mitigate possible adverse impacts under OP 4.12 on people who have already received cash compensation under the dam project and have moved out of the project area, but may not have found sustainable livelihoods after resettlement. The study area of the Supplementary ESA now under preparation includes the Alborz Dam, the upper watershed and the downstream areas where the irrigation works will be constructed.

Given the multidisciplinary nature of the project, several Bank safeguard specialists are working with the Government to ensure compliance with the Bank's safeguard policies, and this is being overseen by the MNA Regional Safeguards Adviser, with support from the Quality Assurance and Compliance Unit of the Environmentally and Socially Sustainable Development Network (ESDQC).

#### **B. How might consultation and disclosure requirements be addressed?**

Initial consultations have already commenced in the project area on the potential impacts of the project, through a combination of interviews with farmers and other residents, and through meetings with technical specialists in the government agencies. A second set of public consultations was held in February 2004 during preparation of the Draft Supplementary ESA Report. The Final Draft Supplementary ESA Executive Summary will be available in Farsi and disclosed at appropriate locations in Iran. The draft Resettlement Plan and the draft Resettlement Policy Frameworks for the downstream irrigation area and the upper watershed area will also be disclosed in Farsi at appropriate locations in Iran.

#### **IV. AGREEMENTS REACHED ON SAFEGUARDS AT PCN REVIEW**

The project is classified as Category A in accordance with OP 4.01, and triggers seven safeguards policies. During recent missions, the Regional Safeguards Advisor and the task team discussed with the Government the key requirements for the ESA Report in order to comply with the Bank's safeguards policies. The Draft Supplementary ESA (including Executive Summary) will be disclosed prior to appraisal.

Once the issues noted in the table in Section II are addressed, the project itself will lead to improvement in water resources management.

#### **Agreed Target Date for Quality Enhancement Review**

A Quality Enhancement Review (QER) meeting to address issues related to safeguard policy issues is expected to be held in August 2004.

#### Signed and submitted by

Task Team Leader:  
Project Safeguards Reviewer 1:

#### Name

Satoru Ueda  
Sherif Kamel F. Arif

#### Date

August 5, 2004

#### Approved by:

Regional Safeguards Coordinator:  
Sector Manager:

#### Name

Sherif Kamel F. Arif  
Vijay Jagannathan

#### Date

