

**INTEGRATED SAFEGUARDS DATASHEET
APPRAISAL STAGE**

I. Basic Information

Date prepared/updated: 09/14/2007

Report No.: AC3091

1. Basic Project Data

Country: China	Project ID: P084742	
Project Name: Irrigated Agriculture Intensification Loan III		
Task Team Leader: Qun Li		
GEF Focal Area: C-Climate change	Global Supplemental ID: P105229	
Estimated Appraisal Date: April 5, 2005	Estimated Board Date: October 11, 2005	
Managing Unit: EASRE	Lending Instrument: Specific Investment Loan	
Sector: Irrigation and drainage (68%);Agricultural extension and research (12%);General public administration sector (11%);Forestry (5%);General agriculture, fishing and forestry sector (4%)		
Theme: Other rural development (P);Rural services and infrastructure (P);Rural policies and institutions (S);Environmental policies and institutions (S)		
IBRD Amount (US\$m.):	0.00	
IDA Amount (US\$m.):	0.00	
GEF Amount (US\$m.):	5.00	
PCF Amount (US\$m.):	0.00	
Other financing amounts by source:		
	BORROWER/RECIPIENT	31.72
	<u>GLOBAL ENVIRONMENT - Associated IBRD Fund</u>	<u>18.28</u>
		50.00
Environmental Category: B - Partial Assessment		
Simplified Processing	Simple <input checked="" type="checkbox"/>	Repeater <input type="checkbox"/>
Is this project processed under OP 8.50 (Emergency Recovery) or OP 8.00 (Rapid Response to Crises and Emergencies)	Yes <input type="checkbox"/>	No <input checked="" type="checkbox"/>

2. Project Objectives

The project development objective is to enhance the resilience of agricultural and water development to climate change in the 3H Basin through: (a) selecting, developing, implementing and promoting adoption of selected climate change adaptation measures and techniques by main stakeholders at selected demonstration areas in the 3H Basin; and (b) mainstreaming and incorporating such demonstrated adaptation measures into the national CAD program.

The main project development impact indicators would be: (i) increased water and agricultural productivity (kg/m³); (ii) improved irrigation efficiency (%); (iii) relevant climate change adaptation measures/techniques implemented in selected demonstrated areas (ha) through broad stakeholders participation (number of farm households) at selected sites; and (iv) policies, mechanisms and instruments for adaptation to climate change formulated and integrated into the national CAD operation system.

3. Project Description

Based on a gap analysis of IAIL3 from a climate change adaptation perspective, the proposed GEF project would include the following components:

Component 1: Identification and Prioritization of Adaptation Options. Specific activities under this component would include:

(a) Impact assessment of climate change in 3-H Basin and project area, including: (i) stocktaking of previous studies; (ii) testing and adapting existing hydrology and agricultural production models to be dynamic and responsive to climate and resulting changing land cover-land use (including cropping patterns); (iii) assessing the sensitivity of 3-H Basin agriculture to climate and water availability; and (iv) conducting farm households analyses in the project area and elsewhere in the 3H Basin to determine climate sensitivity, water demand, adaptation response and the effectiveness of household- and community-level adaptation options in the face of projected climate change. The work would integrate all the relevant climatological, hydrological, and economic aspects and capture climate change impact and adaptations in agriculture and irrigation (climate sensitivity) and in water resources management (at the river basin level). The use of these state-of-the-art modeling techniques to integrate climate, hydrology and agricultural economics over key spatial and time scales is an important and essential innovation in the approaches that will be adopted under the proposed project; and

(b) Prioritization and selection of adaptation measures and demonstration areas. The activities would include: (i) a gap analysis of IAIL3 to identify adaptation measures and plan their implementation; (ii) identification and selection of adaptation demonstration areas in accordance with well-defined selection criteria. Priority will be given to areas in which there is both high vulnerability and a high likelihood of making significant impacts in strengthening resilience to climate change; and (iii) use of the above models and scientific technical analysis to select and refine adaptation options in content, implementation, costs and impacts for each project province and demonstration area.

Component 2: Demonstration and implementation of adaptation measures. The purpose of this component is to introduce, demonstrate and implement the specific adaptation measures in selected demonstration areas, and adjust and integrate appropriate adaptation measures into the implementation of the IAIL3 project. The main activities under this component would include:

(a) Based on the gap analysis and preliminary conclusions of scientific studies under Component 1, introduce and demonstrate initially identified demonstration adaptation measures and relevant techniques for each specific demonstration area in each related sub-region of the 3-H Basin (focusing on agricultural production and rural water management and utilization). The selected specific new activities (in addition to IAIL3) include: (i) explore/develop alternative water resources based on each sub-region's conditions, including the development of catchments (natural and artificial ponds) to enhance rainfall storage capacity and reduce water logging threats in the alluvial plain, well-based irrigation with reinforced prevention and resistance to drought in Huang-Hai plain, and advanced field water-saving irrigation technologies and works; (ii) promote adaptation-oriented farming practices, including adjustment of farming patterns to reduce water consumption (proportion of wheat-rice, wheat-rape and other crop would be suitably adjusted based on the climate change tendency) combining drainage with

irrigation to avoid soil deterioration in Huang-Hai plain; and (iii) adopt water saving oriented farming technologies, including development of drought resistant varieties, ?seeded in water?, membrane and biological water conservation to deal with water scarcity, land and eco-system rehabilitation and amelioration. Water pollution control measures would be tested at non-control points. The identified innovative adaptation activities would be implemented and tested in selected demonstration area, and then supported, expanded and promoted where appropriate in all IAIL3 project area.

(b) Integrate and expand appropriate adaptation measures into IAIL3 project implementation, focusing on those activities that are part of IAIL3 (which did not consider climate change in their design) and which are at risk from climate change. The scientific analysis and modeling (under Component 1) would be applied in the redesign of these components, leading to more climate resilient outcomes (sometimes referred to as ?climate proofing?). Based on a gap analysis of IAIL3 from a climate change perspective, this component will review and refine the original IAIL3 technical design for all adaptation-related activities and adjust the IAIL3 Project Implementation Plan to respond to actual or expected short-term climate variability and long-term change and their effects in each specific region. All identified IAIL3 activities related to adaptation measures would be supported and expanded where appropriate. These include the following IAIL3 sub-components: (i) engineering water-saving irrigation and drainage technologies and facilities; (ii) agronomic water-saving measures, including land leveling, deep plowing, balanced fertilizer use, recycling of crop residues, introduction of improved quality seeds, on-farm forestry belts and restoration of riparian zones; and (iii) water-saving management measures, including development of water user associations and farmers? professional cooperatives, installation of water measuring facilities and equipment, and preparation and implementation of groundwater management plans in water-short counties in Hebei project areas, pilot crop ET monitoring and management programs.

Component 3. Mainstreaming adaptation in the national CAD program and institutional strengthening. The component would aim at integrating climate change adaptation in the national CAD program. Given CAD?s limited experience and capacity with this issue, a series of capacity building, technical assistance, knowledge sharing, and public awareness activities would be needed. Based in part on experience with adaptation activities under IAIL3, a ?national climate change adaptation plan? for CAD would be prepared under the leadership of SOCAD, with the close cooperation with the national climate change adaptation offices of the National Development and Reform Commission?s (NDRC) and the Ministry of Finance?s (MOF). The main activities under this component would include:

- (a) development of the national CAD climate change adaptation policy and replication/implementation plan;
- (b) capacity building including training/workshops, technical assistance, study tours and information dissemination;
- (c) implementation of a results-based monitoring and evaluation (M&E) system and a management information system (MIS) focusing on adaptation measures. Adaptation M&E would be linked to and coordinated with (and may be added on to) the comprehensive M&E system of IAIL3 and will be designed to assess the effectiveness of adaptation implementation mechanisms and measures; and

(d) project management and institutional coordination, and in particular the development of mechanisms to promote and support cooperative work on adaptation between MOF, NDRC, and SOCAD.

4. Project Location and salient physical characteristics relevant to the safeguard analysis

The project area will comprise the IAIL3 provinces of Hebei, Jiangsu, Anhui, Shandong, and Henan in the 3H Basin and the Autonomous Region of Ningxia in the arid northwest. There are Hui minority communities in project demonstrations sites in Tongxin county in Ningxia. An EMDP has therefore been prepared for Ningxia, and covers the Hui ethnic groups residing in Tongxin county.

5. Environmental and Social Safeguards Specialists

6. Safeguard Policies Triggered	Yes	No
Environmental Assessment (OP/BP 4.01)	X	
Natural Habitats (OP/BP 4.04)		X
Forests (OP/BP 4.36)		X
Pest Management (OP 4.09)		X
Physical Cultural Resources (OP/BP 4.11)		X
Indigenous Peoples (OP/BP 4.10)	X	
Involuntary Resettlement (OP/BP 4.12)		X
Safety of Dams (OP/BP 4.37)		X
Projects on International Waterways (OP/BP 7.50)		X
Projects in Disputed Areas (OP/BP 7.60)		X

II. Key Safeguard Policy Issues and Their Management

A. Summary of Key Safeguard Issues

1. Describe any safeguard issues and impacts associated with the proposed project. Identify and describe any potential large scale, significant and/or irreversible impacts: Partially blended with the IAIL3 project, which is focused on improvement and upgrading of existing irrigation schemes with limited new construction and no major civil works, the project is an environmental project. In line with its development objectives, the project will introduce new concepts of risk management, new standards for irrigation management and infrastructure, and the use of natural resilience (land, water, and forests) to moderate the impact of extreme weather conditions and climate change. Environmental and social impacts of project activities are expected to be positive. In addition, the proposed project will primarily provide technical assistance, capacity building and other software support for climate change adaptation. The project has been classified as a Category C project. In case there are EA related issues, the project will follow the Bank safeguards and mitigation policies applied to IAIL3, including the EMDP, EMP and Environmental M&E plan prepared for each participating province.

Involuntary Resettlement: The proposed project will not undertake activities that required taking of land, and neither land acquisition nor involuntary relocation is expected during project implementation. Any potential impacts resulting from the proposed testing of adaptation measures at demonstration sites will be dealt in accordance with the Resettlement Policy Framework prepared for the ongoing IAIL3.

The Bank's Indigenous People policy was not triggered by IAIL3 as there are no ethnic minority groups identified in the five original Project Provinces based on the social impact review carried out for the project by SOCAD. However, IAIL3 included provision to add 'Participating Provinces' for WUA development, and social assessments had been undertaken for all proposed Participating Provinces; Ethnic Minority Development Plans (EMDPs) had been required for Participating Provinces which may include ethnic minorities. Recently five Participating Provinces have been added to IAIL3, and for three of those ethnic minorities have been identified and EMDPs have been prepared. The proposed GEF project demonstration sites are all within the project areas of the original IAIL3 Project Provinces, except for Tongxin county in Ningxia, which is newly added to IAIL3 as a Participating Province and in which there are Hui minority communities; an EMDP has therefore been prepared for Ningxia, and covers the Hui ethnic groups residing in Tongxin county.

Based on prior and informed consultation with local ethnic minority groups during the project information dissemination campaign and social assessment process, the EMDP analyzed the local Hui people's needs and aspirations as related to project activities, and set forth measures to help ensure equal opportunities for Hui ethnic groups to participate in project design and implementation. Although the GEF program in Ningxia covers only 10 villages in one township, 6 of the ten have Hui populations which account for 47% of the total project beneficiaries in Ningxia. The EMDP is intended to ensure these people participate in the GEF project voluntarily, and also ensure that project design in Ningxia is in conformity with the required social safeguards under OP4.10.

2. Describe any potential indirect and/or long term impacts due to anticipated future activities in the project area:

There are no major adverse environmental impacts expected as a result of this project. The project is designed to be entirely positive from an environmental point of view, particularly by protecting vulnerable ecosystems from the impact of climate change. Some expected direct positive impacts include: (a) reduced uncertainty of impacts of climate change and formulation of adequate adaptation measures; (b) mitigation of impacts of unsustainable agricultural practices and development and implementation of sustainable alternatives; (c) reduced vulnerability of agro-systems, and planning and management of irrigation water supply; (d) increased public awareness building on adaptation needs and increased social and institutional capacity to manage the ecosystems.

3. Describe any project alternatives (if relevant) considered to help avoid or minimize adverse impacts.

The GEF project has been designed to upgrade IAIL3 in view of further avoiding or minimizing environmental adverse impacts.

4. Describe measures taken by the borrower to address safeguard policy issues. Provide an assessment of borrower capacity to plan and implement the measures described. Under IAIL3, the EMDP, EMP, a Policy Framework for Resettlement and Land Acquisition and Environmental M&E plan were prepared for each related project province. Mitigation measures, monitoring programs and other activities described in the EMDP, EMP and Environmental M&E plan would also apply to GEF-supported activities.

Under IAIL2 and IAIL3, significant capacity has been developed within SOCAD and its lower-level implementing bodies. Their capacity to address social and environmental issues is substantial and would be further strengthened during the process of the preparation and implementation of the proposed adaptation project.

5. Identify the key stakeholders and describe the mechanisms for consultation and disclosure on safeguard policies, with an emphasis on potentially affected people. The major direct intended beneficiaries/stakeholders of the project are farmers and local communities in the demonstration sites and the counties where these sites are located. Preparation of the proposed project has paid close attention to Bank social safeguards policy. The social development goal in the project context is to support the empowerment of local farmers through their involvement in design and implementation of project activities and adaptation measures, as exemplified by farmer participation in and management of Water User Associations (WUAs) and Farmer Associations (FAs). Extensive consultations were conducted with farmers on the proposed components to ascertain their views and priorities. A questionnaire survey of 5,070 farm households under IAIL3 showed that project area farmers looked forward to the improved on-farm works and better irrigation efficiency and would participate with their labor inputs. A number of consultations during the preparation of the project also showed that farmers would welcome adaptation measures that would eventually help them reduce risks of climate disasters.

Consultation and disclosure on social safeguards policy have been undertaken through strengthening the farmers' own capability to deal flexibly with climate change, and support for expansion of WUAs and FAs as the farmers' own organizations that have been included in IAIL3 to enable the farmers themselves to participate in and (where appropriate) control decision-making on local irrigation management and agricultural production. Each of the IAIL3 provinces prepared WUA and FA development plans which have been modified to include agricultural adaptation to climate changes as part of project component design. In doing so, care was also taken to ensure the participation of women farmers in WUAs and farmer associations (FA), particularly as managers of household land and water when males migrate out for work.

Moreover, the project has also paid particular attention to vulnerable groups in the official poverty counties (about one-third of the project areas), to promote inclusive, pro-poor institutions which increase poor farmers' participation in and benefit from both IAIL3 and the GEF project.

B. Disclosure Requirements Date

Environmental Assessment/Audit/Management Plan/Other:

Was the document disclosed prior to appraisal?	Yes
Date of receipt by the Bank	08/24/2007
Date of "in-country" disclosure	08/23/2007
Date of submission to InfoShop	08/24/2007
For category A projects, date of distributing the Executive Summary of the EA to the Executive Directors	

Indigenous Peoples Plan/Planning Framework:

Was the document disclosed prior to appraisal?	Yes
Date of receipt by the Bank	08/24/2007
Date of "in-country" disclosure	08/23/2007
Date of submission to InfoShop	08/27/2007

*** If the project triggers the Pest Management and/or Physical Cultural Resources, the respective issues are to be addressed and disclosed as part of the Environmental Assessment/Audit/or EMP.**

If in-country disclosure of any of the above documents is not expected, please explain why:

C. Compliance Monitoring Indicators at the Corporate Level (to be filled in when the ISDS is finalized by the project decision meeting)

OP/BP/GP 4.01 - Environment Assessment

Does the project require a stand-alone EA (including EMP) report?	Yes
If yes, then did the Regional Environment Unit or Sector Manager (SM) review and approve the EA report?	Yes
Are the cost and the accountabilities for the EMP incorporated in the credit/loan?	Yes

OP/BP 4.10 - Indigenous Peoples

Has a separate Indigenous Peoples Plan/Planning Framework (as appropriate) been prepared in consultation with affected Indigenous Peoples?	Yes
If yes, then did the Regional unit responsible for safeguards or Sector Manager review the plan?	Yes
If the whole project is designed to benefit IP, has the design been reviewed and approved by the Regional Social Development Unit or Sector Manager?	N/A

The World Bank Policy on Disclosure of Information

Have relevant safeguard policies documents been sent to the World Bank's InfoShop?	Yes
Have relevant documents been disclosed in-country in a public place in a form and language that are understandable and accessible to project-affected groups and local NGOs?	Yes

All Safeguard Policies

Have satisfactory calendar, budget and clear institutional responsibilities	Yes
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been prepared for the implementation of measures related to safeguard policies?

Have costs related to safeguard policy measures been included in the project cost? Yes

Does the Monitoring and Evaluation system of the project include the monitoring of safeguard impacts and measures related to safeguard policies? Yes

Have satisfactory implementation arrangements been agreed with the borrower and the same been adequately reflected in the project legal documents? Yes

D. Approvals

<i>Signed and submitted by:</i>	<i>Name</i>	<i>Date</i>
Task Team Leader:	Ms Qun Li	08/28/2007
Environmental Specialist:	Ms Chongwu Sun	08/28/2007
Social Development Specialist	Mr Zong-Cheng Lin	08/28/2007
Additional Environmental and/or Social Development Specialist(s):		
<i>Approved by:</i>		
Sector Manager:	Ms Susan S. Shen	09/06/2007
Comments:		