INTEGRATED SAFEGUARDS DATA SHEET
CONCEPT STAGE

Report No.: AC6615

Date ISDS Prepared/Updated: 12/15/2011

I. BASIC INFORMATION

A. Basic Project Data

Country: China	Project ID: P125496
Project Name: Integrated Modern Agriculture Development Project	
Task Team Leader: Rabih H. Karaky	
Estimated Appraisal Date:	Estimated Board Date: April 16, 2013
Managing Unit: EASCS	Lending Instrument: Specific Investment Loan
Sector: Irrigation and drainage (60%);Crops (25%);Forestry (5%);Agricultural extension and research (5%);Agro-industry, marketing, and trade (5%)	
Theme: Rural services and infrastructure (30%);Climate change (20%);Water resource management (20%);Other rural development (20%);Rural policies and institutions (10%)	
IBRD Amount (US$m.): 200 IDA Amount (US$m.): 0 GEF Amount (US$m.): 0 PCF Amount (US$m.): 0 Other financing amounts by source: Borrower 0.00 Local Govts. (Prov., District, City) of Borrowing Country 90.50 Sub-borrower(s) 23.50 114.00	

B. Project Objectives [from section 2 of PCN]

The proposed Project Development Objective is to support sustainable and climate resilient agriculture production systems in selected areas of Gansu, Hunan, Jiangxi, and Liaoning provinces; Xinjiang Autonomous region; and Chonqging municipality. This will be achieved by investing in (i) water conservation infrastructure improvement, (ii) enhanced climate-smart agricultural practices, and (iii) institutional strengthening and capacity building.

Key Performance Indicators may include: (a) area of farm land benefiting from climate resilient agricultural systems established; (b) increased irrigation water use efficiency; (c) improved agricultural productivity from adoption of climate smart agricultural practices; (d) increased numbers of improved water user associations and active cooperatives.

C. Project Description [from section 3 of PCN]

The Integrated Modern Agricultural Development Project (IMAD) would finance investments in 34 counties/prefectures/cities in the six participating provinces/regions/municipalities. An approach that balances infrastructure improvement with the promotion of climate smart agriculture practices and the strengthening of the involved institutions and their sustainability is contemplated. Interventions would be tailored to the local conditions and will be determined in consultation with line bureau staff, technical institutions, farmer groups, local private sector representatives and local government. Project areas are selected based on specified criteria such as clustered arable land with adequate water resources but with infrastructure and technology gaps, vulnerability to climate shocks, potential for agricultural modernization with demonstrative impacts, access to markets, etc. The total cost is estimated at about $314 million, comprising an IBRD loan of US$200 million and counterpart funding of $114 million. Counterpart funds comprise allocations from the six provinces/regions/municipalities and farmers contribution. The GOC will pass on the Bank loan, as grants, to the provinces. The project would have four components.

1. Description

Component 1 – Water Conservation Infrastructure Improvement (Indicative 60%-65% of total cost)

This component seeks to improve farmland infrastructure and the reliability and efficiency of irrigation and drainage systems. It aims at stimulating irrigated agriculture output by increasing water productivity and improving water use efficiency in the targeted areas. Activities will be customized for each target area based on the analysis and the stakeholders input related to constraints and opportunities. Activities financed under this component may include civil works and equipment associated with: (a) systems design and rehabilitation of irrigation and drainage infrastructure (canal lining, dredging, cleaning of earth canals and drain channels, small weirs, bridges, culverts, gates, etc..); (b) water-saving irrigation (drip, sprinklers, furrow, and low pressure pipelines); (c) local water resources storage systems and farm ponds ; (d) rehabilitation and electrification of pumping stations and existing tube wells; (e) water monitoring and measurement structures and equipment (flow measurement devices, ground water monitoring); and (f) farm and field access roads.

Component 2 - Enhanced Climate–Smart Agricultural Practices (Indicative 20%-25% of total cost).

This component seeks to build on the improved irrigation infrastructure and water delivery activities in component 1 to improve the productivity of agriculture, increase farmer incomes, and reduce their vulnerability to adverse climatic events.

Activities financed under this component may include: (a) on-farm water saving technologies, such as land leveling, need-based irrigation, use of crop residues for mulch, wet-dry methods for rice cultivation, and green houses; (b) adaptation-oriented agronomic practices such as improved seeding technologies, demonstration of low carbon and conservation agriculture measures, crop rotations, diversification to drought/heat/frost/pest resistant varieties, and soil fertility management (e.g. soil testing, precise/formula fertilizer application, green manure, and organic mulching); (c) promotion of integrated pest management, integrated nutrient management, and

green, organic, and non-polluting production techniques; (e) improved access to machinery, farm equipment, technology, and extension services; (f) enhanced post-harvest measures to add value to agricultural products and mitigate against climate and market risks; (g) agro ecological activities to improve the resilience of the farm landscape and increase carbon sequestration (e.g. forest shelterbelts, greenbelts, and soil conservation measures); and (h) adaptive research on technical and policy issues related to climate change adaptation and mitigation (e.g. index- based risk transfer and insurance mechanisms, water pricing, low carbon agriculture, incentives for adoption of new technologies/policies, etc.).

Component 3 - Institutional Strengthening and Capacity Building (Indicative 10% of total cost)

This component seeks to improve farmer and institutional capacity at various levels for sustainable and climate resilient irrigated agriculture. The component would be designed to fully integrate with and add value to the irrigation infrastructure and agriculture investments. Possible activities would include: (a) development and transfer of technical knowledge through training, study tours, and demonstration of innovative technologies that will contribute to information transfer to farmers and help them respond or cope with climate risks (e.g. early warning systems, real-time weather information and responses to farmers through Information and Communication Technology- ICT); (b) establishing and strengthening water user associations for operation and maintenance of local irrigation systems, monitoring and evaluating their performance, and integrating their support into existing programs; (c) promotion and support of farmer cooperatives to enhance services delivery, access to markets, and farmer-based adaptation to climate change; (d) awareness building, education, and communication on climate smart agriculture aimed at the wider farmer community and mainstreaming such aspects into the project institutions' planning and programs; and (e) training for PMO staff at central, provincial, and county levels including training on World Bank procedures (financial management, procurement, safeguards, and project monitoring and evaluation).

The component would also finance technical assistance and equipment required to provide specialist and multidisciplinary expertise to farmer groups, and project institutions on various features of climate resilient agriculture (e.g. mitigation and adaptation to climate change in agriculture, environmental, social and economic aspects, application of GIS and remote sensing technologies, ET monitoring, environmental monitoring, decision support tools, and downscaling of climate impacts and interventions needed at the local level).

Component 4 - Project Management support (Indicative 5% of total cost).

The purpose of this component is to strengthen the capacity at each level to manage, implement and monitor project and to establish and implement an effective project Monitoring and Evaluation system. Possible activities to be financed under this component include: (a) equipment and materials - computers, office equipment, training equipment, vehicles (if required); and (b) establishment of efficient project monitoring and evaluation (physical and financial progress, impact monitoring, safeguards monitoring, etc.), and management information systems and provision of other related consultancies.

D. Project location (if known)

The project covers 34 counties/districts in five provinces and Chongqing Municipality: i.e. Hunan Province(6): Jinjing City, Ningxiang County, Hengdong County, Datonghu District, Junshan District, and Zixing City; Jiangxi Province(6): Jinxian County, Anfu County, Gaoan County, Xinguo County, Yushui District, and Jinxi County; Gansu Province (6): Dunhuang City, Gaotai County, Yongdeng County, Linyao County, Wuxian County, and Lingtai County; Liaoning Province(6): Zhangwu County, Changtu County, Sujiatun District, Jingzhou City, Chaoyang, and Lianshan District); Xinjiang Autonomous region(4) (Qitai County, Fukang City,Yanqi County, and Bohu County; and Chongqing municipality(6): Nanchuan District, Fuling District, Tongnan County, Dazhu County, Yiongchuan District, and Kai County.

The above counties were selected based on the selection criteria defined below and agreed to with SOCAD:

• Priority would be given to counties, among the CAD areas, with potential for agricultural development that is yet to be fully realized and that would show measurable impacts from planned project investments.

• Selected project counties would have shown some vulnerability to climatic shocks as evident by frequency of adverse weather events (heat, drought, floods, frost, etc…), and/or changing patterns of rainfall, temperature, etc…, supported by weather data. • Project counties/sites would be selected where integrated and comprehensive planning and implementation of proposed project activities (irrigation, agriculture, environment, institutions, etc…) could be adopted and demonstrated in order to maximize the benefits and the demonstrative effect of project activities.

• Proposed project activities and sites selection must be consistent with the National and provincial development strategies (five year plans), Agricultural development and water resources management programs and policies, Climate change plans (if available), existing Master plans for environmental protection and land use.

• Project sites should have relatively clustered arable land with adequate water resources, albeit with crucial gaps in infrastructure, access to markets, and with an existing services delivery network, so as to constitute scale and size for potential development with measurable and sustainable impacts (economic, environmental, and social, etc…) from project activities.

E. Borrower's Institutional Capacity for Safeguard Policies [from PCN]

The State Office of Comprehensive Agricultural Development (SOCAD), in the Ministry of Finance, through its Comprehensive Agriculture Development Program, is the lead implementing and coordinating agency for the project. SOCAD currently manages the largest on-farm irrigation investment program in China and has a long experience in planning, financing, and implementing a large number of agricultural development projects, including Bank-financed projects. It is familiar with the Bank implementation procedures and requirements including fiduciary, safeguards, and monitoring and evaluation. SOCAD will set up a Central Project Management Office to be in charge of overall project management. At the provincial level, project implementation and coordination will be carried out by the Provincial offices of Comprehensive Agriculture Development (POCADs). All the provinces, Xinjiang Autonomous region, and Chongqing municipality have ongoing Bank supported projects, and each of them will set up a Provincial Project Management Office under the guidance of a Project Leading Group consisting of representatives of the various line bureaus and of technical experts. Project Management Offices (PMOs) will also be established by the County offices for Comprehensive Agriculture Development (COCADs) for project implementation at the county level. The Bank

team and SOCAD will work on strengthening the implementation capacity of all PMOs in various aspects of project preparation and implementation.

F. Environmental and Social Safeguards Specialists

Mr Zong-Cheng Lin (EASCS)
Mr Ximing Zhang (EASCS)
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II. SAFEGUARD POLICIES THAT MIGHT APPLY

Safeguard Policies Triggered	Yes	No	TBD
Environmental Assessment (OP/BP 4.01)	**X**		

The impacts of the proposed project on the environment are expected to be overall positive as the project, by design, puts strong emphasis on the development of sustainable and climate resilient agricultural production systems. Possible adverse environmental impacts may include: (i) noise, dust, soil erosion, spoil disposal, associated with small-scale construction for water conservation infrastructure (e.g. canal lining, small weirs, bridges, culverts, water resources storage systems such as farm ponds; canal bank roads and farm roads), and dredging to clean up silt in the secondary or tertiary irrigation channels/ditches. The presence of heavy metals or dangerous chemicals in the silt is not a concern, which is regulated by relevant national regulations or standards and is supported by irrigation water quality data provided by the client; (ii) Other impacts, if not managed well, of improved agricultural irrigation on surface water and other water-users; and (iii) impacts of improved irrigation facilities and diversification of crop system (e.g. vegetable greenhouses which potentially involve use of pesticides).

In accordance with national EA policies and the Bank safeguard policies, an Environmental Assessment will be conducted for the proposed activities. An EMP, or an Environmental Code of Practice (ECOP) for a typology of canal repairs, will be prepared to prevent, minimize, and mitigate the negative environmental effects and enhance the positive ones. A Pest Management Plan (PMP) will be prepared to address the potential impacts of pesticides which may be induced by the improved irrigation facilities and diversification of crop systems.

Although the Project is not financing the construction of dams, the irrigation systems financed by the Project will divert water from reservoirs formed by a number of existing dams and/or dams under construction (refer to Dam Safety Policy below). Apart from the Dam Safety Policy requirements, a due diligence investigation, as part of the environmental assessment process, will be undertaken to confirm that these reservoirs are in compliance with Chinese national environmental laws and regulations.

Based on the available information provided by the provinces and the Bank's field visits to a sample of project counties in the project provinces, the Task Team proposes risk category B for the project after considering the type, location, sensitivity, and scale of the project and the nature and magnitude of the potential environmental impacts due to the following: (i) the project mainly includes improvement of the existing irrigation system and introduces agronomic measures to adapt to climate change and to promote integrated pest management; (ii) the project is located in existing farmlands with no environmental and cultural important sites that may be affected by the

Safeguard Policies Triggered	Yes	No	TBD
project; (iii) the project does not likely have any significant adverse environmental impacts that are sensitive, diverse or unprecedented. Instead the potential negative environmental impacts are site-specific short, reversible in nature. The mitigation measures for these adverse impacts can be designed readily. In addition, the project itself is a set of mitigation measures for environmental problems and is expected to bring about substantial positive impacts: such as improvement of water productivity, water use efficiency, better soil quality, improved carbon sequestration; and reducing the negative environmental impacts of agriculture.			
Natural Habitats (OP/BP 4.04)		X	
Based on the available information and the initial screening conducted by the project team, the project will not affect any protected areas, known natural habitats, or established or proposed critical natural habitats.			
Forests (OP/BP 4.36)		X	
The project will not finance activities that would involve significant conversion or degradation of critical forest areas or related critical natural habitats as defined under the policy.			
Pest Management (OP 4.09)	X		
The project aims to reduce the negative environmental impacts of agriculture such as non-point source pollution. The project will include promotion of Integrated Pest Management (IPM), and green, organic and non-polluted production techniques. The project may have potential impacts from pesticides which are likely to be induced by improved irrigation facilities, diversification of crop systems, and the plantation and management of wind breaker, shelter belts, and green belts. A Pest Management Plan (PMP) will be prepared to address this potential impact.			
Physical Cultural Resources (OP/BP 4.11)		X	
Based on the available information, the physical investment will be mainly in existing farmlands. The project will not adversely affect sites with archeological, paleontological, historical, religious, or unique natural values. Chance finds during construction might occur and relevant clauses will be included in all construction contracts.			
Indigenous Peoples (OP/BP 4.10)	X		
Among the six proposed project provinces, there are some ethnic minorities in the 4 proposed project counties of Xinjiang Autonomous Region. These ethnic minorities include Uygur, Kazak, Hui, and Mongolian. Most of them fall within the definition of Indigenous Peoples as per OP4.10. It is concluded that the Bank IP policy is triggered. In addition, there are small numbers of ethnic minority people - Korean and Mongolian who live scattered in the project area of Lingyuan City in Liaoning Province. According to the OP4.10 policy requirements, a social assessment (SA) and free, prior and informed consultation among these ethnic minority groups in Xinjiang will be carried out during project preparation. Based on the SA and consultation, an Ethnic Minority Development Plan (EMDP) will be developed.			
Involuntary Resettlement (OP/BP 4.12)			X
The project will not require land acquisition and resettlement in any of the six project provinces according to the current plan for land use. Civil work is planned only for canal dredging and on-farm work without new land requirement, and will be undertaken in the crop idle seasons so as to avoid impact of temporary land occupation on crops as much as possible. However, there might be some minor readjustment or changes of land use for some irrigation			

Safeguard Policies Triggered	Yes	No	TBD
facility rehabilitation. This will be further examined during project preparation to determine whether there would be any possibility for temporary or permanent involuntary taking of the land. If so, the policy will be triggered and a Resettlement Policy Framework will be prepared to guide the events in which involuntary taking of land takes place during project implementation. Meanwhile, in Fukang city of Xinjiang, a new Baiyanghe reservoir is currently under construction and is planned to be completed in 2012. This is a medium sized reservoir with a total capacity of 12 million m3 of water to irrigate over 10,000 ha of land. Though beyond the project area, the Baiyanghe reservoir could possibly constitute one of the water sources for irrigation in the project area in Fukang City. In view of the possible connection, due diligence will also be conducted during project preparation to determine whether the construction of the reservoir is directly related to project activities, and hence whether it will be a linked project that would trigger the policy.			
Safety of Dams (OP/BP 4.37)	X		
Although the Project doesn't finance construction of dams, the irrigation systems financed by the Project will divert water directly from reservoirs formed by a number of existing dams and/or dams under construction (DUC), and they could not function if the dam were to fail. In the meantime, a number of upstream existing dams may also provide flood protection to the water diversion works being constructed by the Project. Failure of the upstream dams could cause damage to or failure of the new Bank-funded structures. Based on the requirement of the OP4.37, the project provinces should hire one or more independent dam specialists to (a) inspect and evaluate the safety status of the existing dam or DUC, their appurtenances, and their performance history; (b) review and evaluate the owner's operation and maintenance procedures; and (c) provide written reports of findings and recommendations for any remedial work or safety-related measures necessary to upgrade the existing dams or DUC to an acceptable safety standard.			
Projects on International Waterways (OP/BP 7.50)			
Projects in Disputed Areas (OP/BP 7.60)		X	

Environmental Category: B - Partial Assessment

III. SAFEGUARD PREPARATION PLAN

A. Target date for the Quality Enhancement Review (QER), at which time the PAD-stage ISDS would be prepared: N/A

B. For projects that will not require a QER, the target date for preparing the PAD-stage ISDS: 12/05/2012

C. Time frame for launching and completing the safeguard-related studies that may be needed. The specific studies and their timing[1] should be specified in the PAD-stage ISDS.

All Safeguards related documents, i.e. the EA, EMP (or ECOP), PMP, EMDP, and if needed, RPF, will be completed and disclosed prior to appraisal.

IV. APPROVALS

Signed and submitted by:	
Task Team Leader:	**Mr Rabih H. Karaky**
Approved by:	
Regional Safeguards Coordinator:	**Mr Panneer Selvam Lakshminarayanan**
Comments:	
Sector Manager:	**Mr Paul Kriss**
Comments:	

[1] Reminder: The Bank's Disclosure Policy requires that safeguard-related documents be disclosed before appraisal (i) at the InfoShop and (ii) in-country, at publicly accessible locations and in a form and language that are accessible to potentially affected persons.