

INTEGRATED SAFEGUARDS DATA SHEET CONCEPT STAGE

Report No.: ISDSC13372

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I. BASIC INFORMATION

A. Basic Project Data

Country:	China	Project ID:	P153115
Project Name:	Hunan Integrated Management of Contaminated Agricultural Land (P153115)		
Task Team Leader(s):	Wendao Cao, Qing Wang		
Estimated Appraisal Date:	06-Apr-2016	Estimated Board Date:	08-Dec-2016
Managing Unit:	GEN02	Lending Instrument:	Investment Project Financing
Sector(s):	General agriculture, fishing and forestry sector (50%), Irrigation and drainage (20%), Agricultural extension and research (15%), Public administration-Agriculture, fishing and forestry (15%)		
Theme(s):	Pollution management and environmental health (50%), Environmental policies and institutions (50%)		
Financing (In USD Million)			
Total Project Cost:	200.00	Total Bank Financing:	100.00
Financing Gap:	0.00		
Financing Source		Amount	
Borrower		100.00	
International Bank for Reconstruction and Development		100.00	
Total		200.00	
Environmental Category:	A - Full Assessment		
Is this a Repeater project?	No		

B. Project Objectives

16. The project development objective is to improve environmental management of agricultural land contaminated with heavy metals and other pollutants for safe agricultural production in selected counties in Hunan.

17. The project is part of Hunan's efforts to improve the quality and safety of its agricultural product area, and also the part of the national efforts to reduce heavy metal pollution under the 12th Five Year Plan on Integrated Prevention and Control of Heavy Metal Pollution. Hunan is one of the 14 key provinces selected for heavy metal pollution management under the Plan. The project will contribute to sustainable agriculture and food safety in Hunan and China.

18. The total cost of the project is estimated as RMB 1.237 billion Yuan (US\$200 million), including US\$100 million from the World Bank, and RMB 620 million of counterpart funding from provincial government and participating county governments.

C. Project Description

Component 1: Management of Contaminated Agricultural Land. This component aims to reduce concentrations or manage risks of heavy metals (Cd in particular) and other toxins in the crops (mainly rice) and soils in participating counties by applying different approaches and technologies (such as phytoremediation, inactivation, comprehensive agronomic control technologies, less costly than conventional treatments for heavy metal contamination in soils) in three categories of contaminated farmlands: highly-contaminated area, medium-contaminated area and low-contaminated areas. The approaches and technologies will be assessed and selected during project preparation based on soil and crop contamination risk assessment, taking into account those that are being demonstrated under the national program and other remediation technologies that have been used internationally, and have potential for scale-up in China.

In highly-contaminated area, cropping systems will have to be shifted towards new or alternative crops more resilient to accumulating heavy metals, or even stop cropping altogether. There is therefore a need to explore alternative uses of land, and the benefits/costs to farmers. The project will identify and demonstrate a suitable level of compensation to farmers for the changes in cropping systems which would affect their livelihood or restricted access to land. This will be addressed through an environmental and social management framework.

Component 2: Sustainable Soil Management. This component aims to improve environmental performance of agriculture production operations for restoring and maintaining soil quality. To increase the efficiency of soil remediation investments under Component 1 there is a need for simultaneous improvement in agricultural soil management to protect soil organic matter, nutrients, organisms, and structure. Sustainable soil management practices will help limit the activity of heavy metals in the soil and dissolve excess nitrogen and phosphorus.

This component will support soil management practices including (i) soil health assessment; (ii) organic matter management: leaving crop residues in the field, choosing crop rotations that include high residue plants, using optimal nutrient and water management practices to grow healthy plants with large amounts of roots and residue, growing cover crops, applying manure or compost, using low or no tillage systems, using sod-based rotations, growing perennial forage crops, and mulching; (iii) tillage management - avoiding excessive tillage; (iv) chemical management - testing and monitoring soil and pests, applying only the necessary chemicals at the right time and place, taking advantage of non-chemical approaches to pest and nutrient management such as crop rotations, cover crops, and manure management; (v) prevention of soil compaction; (vi) residue management - keeping the ground covered; and (vii) diversification of cropping systems using buffering strips, small fields, or contour strip cropping. These sustainable soil management practices will be detailed during project preparation, taking into account international good practices. All or part of these practices will be applied depending on the soil situation in different locations, especially the level of

heavy metal pollution land areas.

This component may also support techniques and practices to control agricultural non-point source (NPS) pollution from the three key water pollutants including total chemical oxygen demand (COD), total nitrogen (TN) and total phosphorus (TP). NPS pollution is possibly caused by (i) fertilizers and agrichemicals, and other agricultural inputs (e.g. plastic film), (ii) crop residues (e.g. straws), (iii) livestock wastes, (iv) contaminated irrigation water, (v) aquaculture discharges, and (vi) rural household wastes. Some of these sources (e.g. i, ii, iii) will be addressed through sustainable soil management. During project preparation, more detailed baseline data on the other sources will be collected to prioritize and justify project support for specific activities on (iv), (v) and (vi).

This component will also raise awareness of farmers on environmental impacts of poor farming practices; transfer knowledge and international good practices on soil management; and establish ecological compensation mechanisms, such as establishment of an incentive mechanism to help farmers adopt sustainable soil management practices to preserve soil quality.

Component 3: Environmental Management and Agricultural Environmental Monitoring (AEM). This component aims to assist the participating county-level governments in (i) regulating (compliance and enforcement) heavy metal and other toxic pollutants entry into the soil; (ii) improving AEM to guide agricultural land pollution management and agricultural pollution source control.

The focus of effective environmental management is the use of a systematic approach to planning, controlling, measuring, and improving an industrial enterprise's environmental impact i.e. the International Standards Organization (ISO) 14000 series of environmental management standards. Clean production and cost savings can be achieved by improving the environmental management processes. The component will support (i) development and issuance of local regulations, technical guidelines and standards for controlling industrial heavy metal emissions and limiting heavy metal entry into soil by application of industrial waste or sewage sludge and agrochemicals, (ii) training for government officials to improve their enforcement capacity and for technical service providers on compliance assistance, (iii) training and technical assistance for key highly-polluting enterprises on establishment of Environmental Management Systems (EMS).

This component also aims to improve existing AEM system in participating counties, in collaboration with the local Environmental Protection Department and Bureaus, to enable agricultural land pollution risk mapping and risk assessment, which will help identify areas that are more or less vulnerable to land pollution and crop pollution and display this information graphically. Combining risk assessment with maps would help local governments to identify the main sources of pollution and get the highest food safety impacts for money spent. The other objective of the AEM is to assess how agriculture and changes in agricultural practice affect the environment. Continuous soil, water and air monitoring and mapping of results would be required for meeting the monitoring objectives. The results of this monitoring, together with statistical data from the agricultural sector and results from special research and evaluations should be the basis for taking decisions on assessing and developing agricultural policy and helping direct resources and land use activities to appropriate areas, and assisting in protection and remediation efforts. The monitoring system is not to replace site-specific investigations, but rather to be used as a planning and management tool. This will also mark the beginning of effective and comprehensive agricultural soil pollution and soil quality management planning. This component will finance development, revisions and issuance of technical guidelines and procedures for AEM and procurement of monitoring and data processing/

presentation equipment in participating counties.

Component 4: Project Monitoring & Evaluation, Capacity Building and Management. This component aims to support monitoring and evaluation of the project outcome indicators and results by collecting evidence-based information and data, summarizing and disseminating lessons and experiences derived from project implementation, and organizing the project launch and completion workshops. This component will also support capacity development of all levels of AC in Hunan, agriculture technical service providers, and farmer field schools through study trips and training, and provision of international and national technical experts to support project implementation. This component will also support project management, including day-to-day project implementation, procurement and financial management, and environmental and social safeguards functions carried out by the PMU, and coordination and collaboration among local government agencies, non-government agencies and the farmer's professional organizations

D. Project location and salient physical characteristics relevant to the safeguard analysis (if known)

The number of participating counties is estimated at up to 10, during the preparation the selection of the counties will be confirmed.

E. Borrowers Institutional Capacity for Safeguard Policies

The Provincial Government of Hunan is setting up a Project Steering Committee (PSC) to be chaired by a vice governor and composed of the Department of Finance, Agricultural Commission (AC), and Departments of Environmental Protection, Water Resources, Land Resources, as well as the Provincial Development and Reform Commission. The PSC will coordinate overall project preparation and implementation in the province. Under the PSC, AC will be the implementing agency of the project. It will host a Project Management Office (PMO), which will be expanded from the PMO established under the Bank-financed Eco-farming Project (was closed in 2014). The safeguard performance of the AC PMO under the previous project was satisfactory, and the PMO and the AC high-level managers expressed strong commitment for this proposed project.

F. Environmental and Social Safeguards Specialists on the Team

Meixiang Zhou (GSURR)

Yiren Feng (GENDR)

II. SAFEGUARD POLICIES THAT MIGHT APPLY

Safeguard Policies	Triggered?	Explanation (Optional)
Environmental Assessment OP/BP 4.01	Yes	The project is designed to improve environmental management of agricultural land contaminated with heavy metals and other pollutants for safe agricultural production in project counties in Hunan. The Project is proposed as a Category A ₁ project based on types, locations, sensitivity and scales of the proposed activities as well as the nature and magnitude of positive and negative environmental impacts associated with these project activities: possible handling of heavy metal (HM) contaminated agricultural waste under Component 1, and possible exposure to HM contaminated soils and water under

		<p>Component 1 and 2.</p> <p>During the identification stage, the project counties have not been decided, it is expected that totally up to 10 counties will be selected for the project. In this sense, an Environmental and Social Management Framework (ESMF) and site-specific EMPs for participating sites will be appropriate EA tool. The ESMF will include an analysis of key environment and social risks of the project, a robust screening process for each farmland to be supported under the project including specific guidance or ToR for the preparation of site-specific EMPs. During project preparation, the ESMF and site-specific EMPs for identified and confirmed sites for the first year implementation will be prepared, consulted upon and disclosed prior to project appraisal. Site-specific EMPs for other sites will be prepared during project implementation following the ESMF when they are confirmed. The RSS will review the TORs for ESMF and site-specific EMPs to be prepared during preparation.</p>
Natural Habitats OP/BP 4.04	No	Since the proposed project activities are located in rural areas with intensive agricultural activities, no sensitive locations are expected, and the policy is not triggered
Forests OP/BP 4.36	No	The Project doesn't involve forests resources. This policy is not triggered.
Pest Management OP 4.09	Yes	The component 2 will support sustainable soil management practices to restore and maintain soil quality, including chemical management, the policy is therefore triggered. A Pest Management Plan (PMP) will be prepared to describe range of pest and disease control and management methods, emphasizing integrated pest management (IPM) approaches, and the scope of the recommended application under various conditions. The PMP also should provide a list of fertilizers, pesticides and herbicides that may be required under the project in compliance with World Health Organization's recommended categories. The PMP should include detailed provisions for training for project stakeholders and a monitoring program. Implementation of the training and monitoring programs should be budgeted in the project cost.
Physical Cultural Resources OP/BP 4.11	No	Chance finds during contaminated land remediation

		engineering work or soil management engineering work, to be detailed during project preparation, may occur and relevant clauses will be included in all bidding documents and construction contracts.
Indigenous Peoples OP/BP 4.10	TBD	The list of project sites is not determined at the PCN stage. It is therefore not clear whether there is any presence of ethnic minority people in this project according to the criteria of Bank's IP identification. There are some ethnic minority groups like Miao people in the western part of this project province-Hunan. The applicability of Bank's indigenous people policy (OP 4.10) is to be determined only after the project sites' counties and villages are selected and indigenous people's presence is confirmed. A social assessment (SA) will be undertaken by hiring professional consultants via the PMO. It will assess local social economy in project sites through intensive public consultation with project stakeholders and other investigation and review activities. The SA will screen the presence of ethnic minorities against the Bank IP term to confirm whether this policy is triggered or not. The social assessment will collect and analyze the needs and opinions of project potential beneficiaries and key stakeholders, and identify social risks and impacts such as issues about farmers' participation and cooperation, and come up with social action plan to mitigate the risks and promote positive social impacts. Once it is confirmed that the Bank IP policy is triggered through the SA, an IPP will be prepared to address the needs, rights and interest of the IPs in project design and implementation.
Involuntary Resettlement OP/ BP 4.12	Yes	The project has component 1 on Management of Contaminated Agricultural Land and component 2 on Sustainable Soil Management. There may be a need for land acquisition and involuntary resettlement. Under component 1, cropping systems is likely to be shifted to alternative non-food crops from traditional food crops, or entirely stopped cropping in highly-contaminated farming area. Under component 2: there may be civil works in improving irrigation facilities which are likely done within project villages and land could be adjusted within village without change to land ownership. Land acquisition cannot be fully ruled out under the project according to information available at this stage. The Bank's involuntary resettlement policy (OP4.12) is seen to

		be triggered in some project sites by taking a cautious approach. Further confirmation will be sought during project preparation. To address any possible involuntary resettlement in the project, a resettlement policy framework will be prepared by professional consultants. Other relevant social safeguards instruments like due diligence review report and resettlement action plan can be also prepared accordingly once there are needs confirmed in relation to land demands for the project. The RPF will include transitional and permanent losses occurred as a result of changing farming systems.
Safety of Dams OP/BP 4.37	TBD	Since the project is at identification stage, there is no sufficient information to determine whether the policy triggered or not. Once more information available in project preparation, triggering of the policy will be determined. If the policy is triggered, damsafety evaluation will be conducted by an independent dam safety expert.
Projects on International Waterways OP/BP 7.50	No	The project will not involve trans-boundary rivers. The policy is not triggered.
Projects in Disputed Areas OP/BP 7.60	No	The project will not involve trans-boundary rivers. The policy is not triggered.

III. SAFEGUARD PREPARATION PLAN

A. Tentative target date for preparing the PAD Stage ISDS: 29-Apr-2016

B. Time frame for launching and completing the safeguard-related studies that may be needed. The specific studies and their timing¹ should be specified in the PAD-stage ISDS:

Launching in July 2015 and completing in April 2016 the safeguard-related studies.

IV. APPROVALS

Task Team Leader(s):	Name: Wendao Cao, Qing Wang	
<i>Approved By:</i>		
Safeguards Advisor:	Name: Peter Leonard (SA)	Date: 18-Jun-2015
Practice Manager/ Manager:	Name: Frank Van Woerden (PMGR)	Date: 16-Jul-2015

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.