

INTEGRATED SAFEGUARDS DATA SHEET **CONCEPT STAGE**

Report No.:

Date ISDS Prepared/Updated: April 28, 2009

I. BASIC INFORMATION

A. Basic Project Data

Country: China	Project ID: P115878	
	Additional Project ID (if any):	
Project Name: Shandong Provincial Biogas CDM Program		
Task Team Leader: Ms. Qun Li		
Estimated Appraisal Date: October, 2009	Estimated Board Date:	
Managing Unit:	Lending Instrument: Carbon Offset	
Sector: Rural Development		
Theme: Climate Change		
IBRD Amount (US\$m.):		
IDA Amount (US\$m.):		
GEF Amount (US\$m.):		
PCF Amount ((Euro\$m.): 4.8		
Other financing amounts by source:		
Environmental Category: B - Partial Assessment		
Simplified Processing	Simple []	Repeater []
Is this a transferred project	Yes [X]	No []

B. Project Objectives

The objective of the proposed project is to promote large-scale rural greenhouse gas (GHG) emissions reductions through household biogas development in Shandong province. To meet this objective, the project would: (i) help about 150,000 households located in 45 comparatively poor counties install bio-digester/biogas facilities; (ii) reduce coal consumption by substituting use of biogas; (iii) establish an innovative operation and maintenance (O&M) system and monitoring and evaluation system for rural household biogas development and related GHG reduction activities in the rural sector; and (iv) demonstrate a new financing mechanism for household biogas development in rural China through use of incentive payments to households based on carbon offset revenue, integrated into the national and local government subsidy programs for biogas development. The proposed project would help meet China's national climate change mitigation targets, and improve rural living conditions by changing human and animal waste treatment techniques.

C. Project Description

Project Components

Component A: Development and Construction of the Bio-gas Facilities, including the technical design and construction of about 150,000 household-based biogas digesters in 45 counties in

Shandong. The biogas digester is composed of six parts as a whole system, including the fermentation chamber, gas storage, inlet tube, outlet chamber, removable or sealed cover, and a gas pipe line;

Component B: Development and Establishment of a Sustainable Household Biogas Operation and Maintenance (O&M) System, including the establishment or improvement of the bio-gas service stations at county and township levels, procurement of the necessary service equipment and supplies, and development and implementation of biogas O&M plans for local project areas; and

Component C: Institutional Strengthening and Project Management, including: (i) specific CDM training program design and implementation (training for farmers, technical service staff, and project management officials); (ii) establishment of the project monitoring and evaluation (M&E) system including a M&E database management system, designed as a model for use with other rural household biogas development and related GHG reduction activities in the rural sector; and (iii) a M&E center for key monitoring information collection and evaluation (based on the data from township and village level) in each county.

Project Costs and Financing

A typical 10m³ biogas installation in Shandong costs around Y 4,000. The national and provincial subsidy would be Y 1,000 and Y 200 respectively. The remaining Y 2,800 would be self-financed by the farmer. A total of Y 600 million would be needed for bio-digester construction for the 150,000 households, of which Y 150 million would come from the national budget, Y 30 million would be the province subsidy, and Y 420 million would be raised by the farmers themselves. The designed life of bio-digesters is 20 years, with estimated annual energy cost savings of Y 1,370 per household, including savings from replacing coal/electricity by biogas (Y 800), and application of bio-fertilizer (Y 250), as well as revenue from promotion of pig breeding (Y 300). According to a conservative estimate, the total Carbon Finance revenue based on emission reduction estimates would total about EUR 4.8 million.

The total O&M costs estimated for the additional required services are about Y 22.7 million, and will be fully financed by the provincial Finance Bureau from the government budget. Shandong Finance Bureau and Agriculture Bureau need to provide an agreed financing plan and make proper arrangements for financing the rural energy stations and groups at county and township levels, with consideration of carbon revenue support. The Bank pre-preparation mission suggested that a part of the estimated EUR 4.8 million of carbon revenue should be used to support the necessary O&M activities.

The detailed investment costs for Institutional Strengthening and Project Management component, including establishment of the new M&E system, will be estimated by Shandong Provincial PMO, and included in the related cost and financing plan. The Shandong Finance Bureau will finance the whole component through provincial government budget.

D. Project location (if known):

Project Scale and Scope. It has been confirmed that 45 counties with a target to install a total of about 150,000 household bio-digesters will be included in the project. Based on experience with other similar CDM projects under the World Bank Carbon Finance program, and assuming average GHG emission reduction to be 1.5 ton of CO₂e per household, the annual ERs of the Project are expected to be 220,000 tons of CO₂e at full project commission, estimated based on the technical assessment. Bank project management experience could be built into Project implementation and arrangements for project organization and management.

E. Borrower's Institutional Capacity for Safeguard Policies:

To ensure a successful implementation of the project, Shandong has set up a project management leading group composed of provincial Finance Bureau (FB) and Agricultural Bureau (AB) mainly including the AB Comprehensive Agriculture Development Office, Livestock Division, Eco-farming Division and Project Management Office (PMO) for Introduction & Utilization of Foreign Loans, which are responsible for overall coordination during project preparation and implementation. The executive body of the management committee is the PMO, which had experience with implementation and management of the Bank's Irrigated Agriculture Intensification Phase I Project and Shandong Agricultural Development Project.

The PMO will take the lead to coordinate project preparation and implementation supported by the AB's Eco-farming Division and its county Rural Energy Service Stations (the bio-gas subsidy program implementing agency). The provincial Eco-farming Division under AB will support data collection, project management and monitoring, with its lower level county Rural Energy Service Stations which are the main project implementation agencies in each county (responsible for all technical design and construction works in each county).

Various government agencies in participating Project Counties will be engaged in both project preparation and implementation. Organization and management arrangements for project implementation will be made by each Project County.

F. Environmental and Social Safeguards Specialists on the Team:

Ms Chongwu Sun (EASCS)

Mr. Yiren Feng (EASCS)

Mr. Zong-cheng Lin (EASCS)

II. SAFEGUARD POLICIES THAT MIGHT APPLY

Safeguard Policies Triggered (<i>please explain why</i>)	Yes	No	TBD
Environmental Assessment (OP/BP 4.01)	X		
The proposed project will be implemented in 45 Counties in Shandong Province with target to install 150,000 household bio-digesters, about 3000 households for each County.			
The proposed project will build a 10m ³ bio-digester within each farmer's household yard. For such environmentally friendly small size biogas projects, there is no EA requirement in China.			

Safeguard Policies Triggered (<i>please explain why</i>)	Yes	No	TBD
<p>This project is a Category B project since the potential adverse environmental impacts are very limited, site-specific, reversible in nature, and mitigation measures can be designed readily. Considering the type, location, sensitivity, scale of the proposed project, and the nature and magnitude of its potential environmental impacts, it is expected that the project will bring very positive environmental and social benefits to Shandong's rural areas. However, there may be limited adverse impacts on the surroundings during the construction and operation if no proper environmental management measures are in place.</p> <p>The households (HHs) for each 45 Counties will be determined during the implementation. To maximize the project's positive impacts and eliminate or minimize the potential minor impacts, a Project Management Manual including environmental friendly design, construction management, and O&M Procedures would be prepared by the client to comply with Bank safeguards policies. Shandong Provincial CDM center was contracted for the preparation of the Manual. These procedures will be distributed to all the participating HHs and appropriate training will be provided. In addition, Safeguards documents are individually disclosed locally (in local languages) and in the InfoShop prior to departure of the appraisal mission.</p>			
Natural Habitats (OP/BP 4.04)		X	
The project is constructed within the farmer household yard; there will be no adverse effects on natural habitats. Subprojects will not significantly convert or degrade any protected areas or natural habitats as the screening procedures will exclude all subprojects with such impacts.			
Forests (OP/BP 4.36)		X	
The project will not involve any forests. 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 will not procure any pesticides nor will an increased use of pesticides result from the project			
Physical Cultural Resources (OP/BP 4.11)		X	
With the current project design, the project is not expected to have any impact on cultural property. The project will not adversely affect sites with archeological, paleontological, historical, religious, or unique natural values. Appropriate clauses will be included in all construction contracts regarding the procedures to be followed in the event of 'chance finds' of culturally significant artifacts or sites.			
Indigenous Peoples (OP/BP 4.10)		X	
Shandong is not a province where ethnic minority groups traditionally live. During project preparation, the task team will conduct social screening for ethnic minority concerns and consult with relevant local authorities and line agencies (such as the Ethnic Minority and Religious Affaires Bureaus) for confirmation of absence of ethnic minority communities in the project counties.			
Involuntary Resettlement (OP/BP 4.12)		X	
The project will help build a 10m ³ biogas digester within each project household yard on a voluntary basis, and there will be no resettlement or involuntary taking of land under the proposed project.			
Safety of Dams (OP/BP 4.37)		X	
The project will not involve any dams. The project will not finance construction or rehabilitation			

Safeguard Policies Triggered (<i>please explain why</i>)	Yes	No	TBD
of, or relate to, any large dams as defined under this policy.			
Projects on International Waterways (OP/BP 7.50)		X	
The project will not involve any international waterways. There are no known project components involving international waterways as defined under the policy.			
Projects in Disputed Areas (OP/BP 7.60)		X	
The project is not located in any known disputed areas as defined under the policy.			

III. SAFEGUARD PREPARATION PLAN

- A. Target date for the Quality Enhancement Review (QER), at which time the PAD-stage ISDS would be prepared: Does not apply.
- B. For simple projects that will not require a QER, the target date for preparing the PAD-stage ISDS: The safeguard-related documents will be prepared and disclosed before project appraisal in September-October, 2009.
- C. Time frame for launching and completing the safeguard-related studies that may be needed. The specific studies and their timing¹ will be specified in the PAD-stage ISDS.

IV. APPROVALS

<i>Signed and submitted by:</i>		
Task Team Leader:	Name Ms. Qun Li	Date
<i>Approved by:</i>		
Regional Safeguards Coordinator:	Name Mr. L. Panneer Selvam	Date
Comments:		
Sector Manager:	Name Mr. Ede Jorge Ijjasz-Vasquez	Date
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.