

INTEGRATED SAFEGUARDS DATA SHEET CONCEPT STAGE

Report No.: ISDSC6466

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I. BASIC INFORMATION

A. Basic Project Data

Country:	Mexico	Project ID:	P145618
Project Name:	MEXICO Sustainable Energy Technologies Development for Climate Change (P145618)		
Task Team Leader:	Todd M. Johnson		
Estimated Appraisal Date:	12-Mar-2014	Estimated Board Date:	14-May-2014
Managing Unit:	LCSEG	Lending Instrument:	Investment Project Financing
GEF Focal Area:	Climate change		
Sector(s):	General energy sector (100%)		
Theme(s):	Climate change (100%)		
Financing (In USD Million)			
Total Project Cost:	16.88	Total Bank Financing:	0.00
Financing Gap:	0.00		
Financing Source		Amount	
Borrower		0.00	
Global Environment Facility (GEF)		16.88	
Total		16.88	
Environmental Category:	B - Partial Assessment		
Is this a Repeater project?	No		

B. Project Objectives

The Project's Development Objective is to improve the institutional capacity of advanced clean energy (ACE) technology institutions (both public and private) in Mexico, foster the commercialization of ACE technologies by providing financial incentives to the private sector, and in the process reduce GHG emissions.

C. Project Description

The objective of the project is to improve the institutional capacity of advanced clean energy (ACE) technology institutions (both public and private) in Mexico, foster the commercialization of ACE technologies by providing financial incentives to the private sector, and in the process reduce GHG emissions.

Component 1: Regional Needs Assessments (RNA) for ACE technologies and Clean Energy Regional Investment Plans (CERIPs). (Funding: GEF US\$5 million; SENER US\$90 million)

The objective of this component is to: (i) conduct RNAs to assess the capacity of academic and research institutions, private enterprises, and sub-national government entities across Mexico; (ii) prepare CERIPs that will aim to boost institutional capabilities to produce clean energy technologies; and (iii) identify promising initiatives that could be considered for financial support by the ACE or the FSE Fund. Together, these initiatives are designed to assess and improve the capacity and means of public and private stakeholders to identify and commercialize ACE technologies that can lead to reductions in GHG emissions.

The RNA will be a highly participatory exercise seeking the input of students, researchers, local government institutions, the private sector, and consumer representatives. An RNA will be prepared for each sub-region of Mexico. For each region, specialized consultants will: (i) survey and map the resources and capacities (human, technical, infrastructure, financial) of Mexican universities, research institutions, and clean energy enterprises; (ii) identify the ACE technology needs of enterprises in strategic sectors; (iii) identify each region's comparative advantage in S&T sectors and in the clean energy value chain; (iv) review the capacities of sub-national government entities to implement policy and regulation conducive to the dissemination of clean energy technologies; and (v) assess financial, regulatory, and policy barriers.

The key output of the needs assessment will be a regional investment plan. Each CERIP will (i) identify the investments and strategic actions (curriculum changes, the creation of new incentives, policy reforms) recommended and agreed to have strong potential over the medium-term to boost human capital in S&T and entrepreneurial (finance, business administration, strategy) disciplines critical to commercialize ACE technologies; (ii) identify ACE investments, advanced research activities, and other initiatives that could be undertaken by the FSE Fund to reduce GHG emissions; and (iii) create a potential pipeline for the ACE Fund, a grant facility for private enterprises in the ACE sector, described below under Component 2. In order to create the ACE Fund project pipeline, the consultants will compile an exhaustive database and capacity assessment of clean energy enterprises, together with private enterprises with ACE technology needs in other sectors across Mexico. They will also raise awareness about the ACE and the FSE Funds to all stakeholders contacted in the preparation of the RNAs, which will help to ensure broad participation.

SENER will seek to leverage its CERIP investment by seeking co-financing from other government stakeholders (local and state governments, other federal agencies of the GoM). The CERIP is intended to bring these entities together towards implementing a coherent strategy that can advance clean energy technology commercialization and ultimately to reduce GHG emissions. Investment in CERIPs will begin during the Project implementation period and continue after the Project closes.

Component 2: Grants and technical assistance for private enterprises in the ACE sector. (Funding: GEF US\$11.05 million: Private sector enterprises: US\$3.23 million).

Component 2 will finance grants targeting: (i) proof-of-concept stage of development of ACE technologies for SMEs; and (ii) Collaborative Clean Energy Commercialization grants (CCEC) targeting industry-academia collaboration on advanced ACE R&D. In both cases, the grants will target ACE technologies with strong commercialization potential.

Component 2 seeks to fill a void in the current public and private financing landscape for early-stage technology commercialization, and to incentivize industry-academia technology development

collaboration through a pilot grant program (the “ACE Fund”). The fund will focus on specific technology areas for development where there is both regional demand and a comparative advantage for Mexico. For example, among the technical areas which are a priority for Mexico are energy efficiency, geothermal, wind, and solar energy technologies. Over time, the technology focus will be further narrowed and refined by the results of the analysis carried out in Component 1 and promising ideas will be recommended for participation in the ACE Fund competition.

The ACE Fund will be administered by an Investment Committee chaired by SENER and composed of individuals with strong expertise in, among other things, early stage technology commercialization, venture capital, applied research, ACE technologies, and concept-to-market strategy.

Proposals to the ACE Fund will be first scanned for eligibility and technical merit. The most promising proposals will be recommended to the Investment Committee. Proposals which are not selected for further consideration will receive a detailed explanation for why they were not selected, and access to information on other funding opportunities they may wish to pursue.

Subsequently, Investment Committee members will conduct a detailed review of the short-listed proposals. The Investment Committee’s review will consider, inter alia, the proposal’s technical merits; potential to achieve commercial success, and potential to achieve GHG reductions. A site visit and interview with the applicant(s) will be a critical part of the application process. More detailed selection and eligibility criteria will be established in the Project Operational Manual (POM). The Investment Committee will meet on a quarterly basis to vote on grant awards.

Applicants not accepted for a matching grant will receive detailed feedback and may be recommended for TA if the Investment Committee believes this could accelerate ACE technology commercialization. In addition, applicants may receive advice on other resources available in the private and public sector which may be of further assistance.

Component 2.1: Technical Assistance (Funding GEF: US\$1 million: Private sector enterprises: US \$180,000). Winning proposals (and selected short-listed candidates) can receive vouchers for technical assistance (TA) either as a stand-alone award, or as part of their overall grant package. Since the TA demands of the applicants and beneficiaries will be unique, the voucher approach will allow grant beneficiaries to purchase TA that is most relevant to their needs. The Investment Committee will provide guidance to the beneficiary on the types of TA that, in their view, are most relevant. TA may include, inter alia, mentoring, legal advice, preparation of business plans, IP protection and monetization, business and market advice, and access to finance. TA recipients will be required to co-finance 15% of the costs of the TA award.

Component 2.2: Matching Grants (Funding: GEF US\$10.05 million: private sector enterprises: US \$3.05 million). The ACE Fund will also provide matching grants for both proof-of-concept and Collaborative Clean Energy Commercialization (CCEC). The terms, eligibility criteria, maximum grant size, application procedures, monitoring criteria, and other features of both the proof-of-concept and the CCEC grant are included in the POM. Where relevant, the Investment Committee will also look for ways to leverage its investment (co-financing by other private financiers and/or commercial banks, other sectoral funds, or the FSE).

Because GEF funds are limited, an important objective of Component 2 is to sustain public support for the ACE Fund after the closure of the Project by finding other sources of resources from the public or private sectors. Positive demonstration effects from the program, combined with active policy dialogue, can help to catalyze public support for the initiative after GEF resources are exhausted.

Component 3: Project Management. (Funding: GEF US\$0.83 million: SENER US\$1.5 million). The Project will utilize the existing World Bank Project Implementation Unit (PIU) within SENER to coordinate and manage the Project. This arrangement is preferred in order to increase overall program efficiency, to minimize start-up delays, and to build on SENER’s existing capabilities

related to other World Bank operations in Mexico. The GEF will finance the costs of hiring additional personnel with expertise in financial management, procurement, and project management, as well as operating costs.

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

The project will feature a competitive grant program eligible to qualified Mexican applicants. At this point it is not known where such technology developers and entrepreneurs will be located. The project will provide grants to start-up clean energy technology companies, and the size of grants (varied, but on average less than US\$500,000 and no more than \$2 million) will limit the physical impacts of the prototype technologies. No sub-projects will be financed that could adversely affect indigenous peoples, natural habitats, physical cultural resources and forests or that could cause involuntary resettlement as per OP 4.12.

E. Borrowers Institutional Capacity for Safeguard Policies

In Mexico, the Environmental and Natural Resources Secretariat (SEMARNAT for its acronym in Spanish), the National Water Commission (CONAGUA), the National Forest Commission (CONAFOR), the Natural Protected Areas Commission (CONANP) and the Federal Environmental Protection Attorney Office (PROFEPA), amongst others, are all federal level institutions that have the responsibility for guaranteeing the adequate application of Mexican law regarding environmental impact and pollution control.

Concerning environmental legislation, Mexico has accumulated a great number of laws, regulations and statutes that span every single aspect of environmental management. Amongst these, the General Ecological Balance and Environmental Protection Law is the one that will regulate the expected subprojects to be supported by this project.

Since 1986 the General Ecological Equilibrium and Environmental Protection Law has established a mandatory Environmental Impact Assessment for every project, whether privately or publicly financed. The procedure is detailed and explained in the Rulebook for such Law concerning Environmental Impact and its correlation with the wide existing regulations, and the guidelines for the development of environmental impact assessment carried out in Mexico, are consistent with World Bank operational directives for Environmental Assessment (Safeguard 4.01).

The monitoring of the prerequisites on environmental impacts resolutions are guaranteed by the Federal Environmental Protection Agency (PROFEPA) which depends directly upon the SEMARNAT and enforces the environmental legislation for which it has specialized offices in every state. PROFEPA is a 20 year old organization with a noble and effective entrustment, but with very limited resources for operation.

The existing SENER PIU has some capacity to manage social and environmental safeguards issues, as it is currently implementing a large number of infrastructure-intensive Projects in the energy sector, such as solar farms for remote communities, as well as wind farms. Since the proposed Project will not finance infrastructure projects, the Bank will provide training to key personnel at SENER, the PIU, and on the investment committee in the proper application of the safeguards instrument for the proposed Project. Additional environmental and/or social consultants will be hired as needed for the Project who are found to be acceptable to the Bank. Personnel will be required to fulfill the following objectives:

- screen potential subprojects for environmental and social risks and impacts

- ensure that sub-borrowers carry out an environmental and social assessment for their respective subproject
- verify that subprojects comply with local laws and are consistent with Bank Safeguards Policies

The safeguards instrument will be an Environmental and Social Management Framework (ESMF). The ESMF is being prepared by SENER, with support from World Bank environmental and social specialists. In practice, the ESMF will be a screening tool to help key personnel to identify which projects to exclude, and for approved projects with some perceived environmental and or social risks, how to manage them.

Social: The Project will not finance any sub-projects that impact the rights of indigenous peoples, including their territorial and intellectual property rights. Sub-projects to be financed will be technologies related to energy efficiency and renewable energy that will not use indigenous intellectual property. Rather, the intellectual property is expected to derive from R&D activities in inter alia, the life sciences, industrial and mechanical engineering, thermodynamics, and geology. In addition, sub-projects will not be financed in the territories of indigenous peoples. As such, the risk that sub-projects financed by the ACE Fund infringe upon the territorial and intellectual property rights of indigenous peoples are expected to be minimal.

Moreover, it is not very likely that members of indigenous communities, or cooperative organizations, will seek to benefit from the Project by preparing proposals for the ACE Fund. Sub-projects will be selected for support that produce innovation in the advanced clean energy technology sector. As such, it is highly unlikely that indigenous communities will benefit directly from sub-projects in ways that would merit specific outreach approaches or design adjustments to accommodate the needs of these communities.

F. Environmental and Social Safeguards Specialists on the Team

Alonso Zarzar Casis (LCSSO)

Jose Luis Calderon Bartheneuf (LCSEN)

II. SAFEGUARD POLICIES THAT MIGHT APPLY

Safeguard Policies	Triggered?	Explanation (Optional)
Environmental Assessment OP/ BP 4.01	Yes	<p>The early stage of commercial development and the small scale of the technologies supported are not expected to result in significant negative environmental impacts, but minor impacts will be avoided or minimized with the use of an ESMF.</p> <p>It is important to note that since there will be an exclusion list of subprojects and no category A subprojects will be supported, the potential subprojects will fall into either B or C categories. All sub projects will be subject to screening by SENER. This screening process will be supported by an ESMF that will be</p>

		<p>developed by a consultant hired by SENER to be applied by proponents when they submit to SENER their subprojects for evaluation and possible funding. This consultant will also train SENERs designated personnel in the use and follow up of this ESMF.</p> <p>This ESMF will determine, if any, the legal, environmental and social requirements that may apply to the subprojects, and compliance actions, if any, that will be mandatory for project funding. Additionally the ESMF will have a specific section to estimate the scope and magnitude of expected environmental and social impacts if the subproject is to scale up in the future (cradle to grave). The team environmental and social specialists will supervise the proper application of this ESMF.</p>
Natural Habitats OP/BP 4.04	No	The project will not finance any activities that impact natural habitats.
Forests OP/BP 4.36	No	The project will not finance any activities that impact forests.
Pest Management OP 4.09	No	No sub-projects that require the purchase or significant use of pesticides will be supported.
Physical Cultural Resources OP/BP 4.11	No	No sub-projects that may impact physical cultural resources will be supported.
Indigenous Peoples OP/BP 4.10	No	The ESMF will screen out sub-projects that infringe upon the rights of indigenous peoples, including territorial and intellectual property rights. It is highly unlikely that indigenous peoples will seek benefits from the Project in ways that would merit specific outreach approaches or design adjustments to accommodate the needs of these communities.
Involuntary Resettlement OP/BP 4.12	No	The Project will not finance any activities that will require the involuntary taking of land that result in physical displacement, loss of assets or access to assets or economic displacement.
Safety of Dams OP/BP 4.37	No	The project will not finance the construction or rehabilitation of any dams nor will finance activities that rely on the operations of existing dams.
Projects on International Waterways OP/BP 7.50	No	The Project will not finance any activities that impact international waterways as defined under the policy.

Projects in Disputed Areas OP/BP 7.60	No	The Project will not finance any projects in disputed areas as defined under the policy.
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III. SAFEGUARD PREPARATION PLAN

- A. Tentative target date for preparing the PAD Stage ISDS:** 12-Mar-2014
- 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:
 The ESMF will be reviewed, accepted, and disclosed prior to appraisal.

IV. APPROVALS

Task Team Leader:	Name: Todd M. Johnson	
<i>Approved By:</i>		
Regional Safeguards Coordinator:	Name: Glenn S. Morgan (RSA)	Date: 06-Mar-2014
Sector Manager:	Name: Marisela Montoliu Munoz (SM)	Date: 06-Mar-2014

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.