

INTEGRATED SAFEGUARDS DATA SHEET
INITIATION/CONCEPT STAGE

Report No.: **95452**

Date ISDS Prepared/Updated:
02/26/15

I. BASIC INFORMATION

A. Basic Project Data

Country:	Chile	Project ID:	P152820
Project Name:	Technical Assistance for Geothermal Development		
Task Team Leader:	Migara Jayawardena, Mariano González Serrano		
Estimated Date of Approval:	February 28, 2015		
Managing Unit:		Lending Instrument:	Investment Project Financing
Sector(s):	Other Renewable Energy (100%)		
Theme(s):	Climate Change (50%) Infrastructure services for private sector development (50%)		
Fragile and/or Capacity Constraints []			
Financing (in USD Million)			
Total Project Cost:	3.5	Total Bank Financing:	3.5
Total Complementary financing (IDB):	(50)	Financing Gap:	
Financing Source			Amount
ESMAP			0.5
Clean Technology Fund			3
Complementary financing (IDB)			(50)
BORROWER/RECIPIENT Agencia de Cooperación Internacional – Ministerio de Relaciones Exteriores (AGCI)			
Total			3.5
Environmental Category	B		
Is this a Repeater project?	No		
Is this a Transferred project?	No		

B. Project Objectives

The project objective is to assist the Government of Chile to improve geothermal energy market conditions by removing key barriers, leading to sustainable investments in this sector. Specifically, the expected key results are the following:

- Draft geothermal concession law drafted and submitted for approval
- Create an incentive framework for the geothermal sector

The proposed project forms a complementary part of a package of initiatives being undertaken by the GoC with development partners through the support of the CTF. For this effort to succeed, it will be important to simultaneously address some of the associated barriers that are hampering efforts to invest in geothermal exploration and preventing Chile's significant prospects from being unlocked. These reforms should also help prepare the groundwork beyond the riskier resource confirmation. Consideration should be given to the investment climate for the full development of geothermal operations from surface reconnaissance through to operating power plants, with a view towards the progressive scale-up of development of the sector sustainably over the long-term. It is with these intentions that the GoC has requested the World Bank to bring to bear its global experience to assist the GoC to undertake a number of key reforms. The aim is to improve the market conditions and facilitate greater immediate as well as long-term investments in the sector, so that geothermal energy can eventually become a key pillar in an optimally diversified power generation mix.

The proposed Technical Assistance for Sustainable Geothermal Development project will entail a number of activities that will be carried out under the two components described below in order to comprehensively address several key barriers to geothermal development in Chile:

Component 1 - Improve policy framework and strengthen management capabilities for mobilizing investments in geothermal energy. Some of the envisaged activities under this component include:

- a) Legal and regulatory reform related to the geothermal sector, in particular the submission of a new geothermal concession draft law
- b) Strengthen the concession management system, including resolving issues related to the large number of existing undeveloped concessions, and improving the capabilities within GoC to oversee the progress of these developments
- c) Stakeholder engagement to raise awareness regarding geothermal development with local communities taking into account environmental and social considerations; and provide guidance to developers on compliance with international standards and domestic requirements

Component 2 - Enhance market conditions for promoting sustainable development of the sector. Some of the envisaged activities under this component include:

- a) Develop a geothermal resource risk mitigation framework to help mobilize investments in exploration and production drilling
- b) Identify and address issues related to integration of geothermal power in the broader power market in Chile
- c) Identify and address ways in which the long-term competitiveness of geothermal can be improved including an industrial analysis for sourcing services from domestic sectors and exploring medium and low enthalpy uses that would expand the market for geothermal in the country.

The World Bank will provide direct technical assistance by mobilizing and managing international

specialists in geothermal energy development, carrying out analytical work to advise the GoC, and providing just-in-time support to the client. The GoC will secure the services of international and local specialists to assist them with key implementation activities under the proposed project. The specific breakdown of Bank-executed and client-executed activities will be finalized by appraisal of the proposed project. The project, by its design, includes flexibility and just-in-time support to respond to requirements that may arise during the reform that cannot be anticipated in advance.

Potential environmental and social issues will be summarized in the Project Paper prior to appraisal, based on meetings in-country with relevant stakeholders and agencies (Indigenous Peoples Associations/Parks Authorities/Environmental Regulatory Authorities/Water Resources Agency/Concession Owners/etc.).

Key environmental/social issues around the concessions (if any) will be identified and summarized in the Project Paper, which will delineate next steps (in terms of review of ToRs under the project for envt/social content).

The consultation process to be followed during appraisal will be delineated prior to appraisal and a stakeholder engagement strategy that will be adopted during project implementation will be summarized in the Project Paper.

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

The project will address the geothermal policy framework for the country of Chile. Chile has geothermal resources throughout much of the Andes that extend north-south throughout the country. There is a concentration of geothermal resources identified in the far north and central-south regions, but it is possible that projects (including low enthalpy direct uses) may be developed in multiple regions in Chile.

The project will entail direct technical advisory support to the Ministry of Energy, analytical and diagnostic studies, capacity building and institutional strengthening as well as information, engagement and consultation activities with key stakeholders. The project support will not include any physical investment or the implementation of any geothermal program on the ground. While the project is conceived as mostly technical assistance and direct advisory support at this stage, key policy and regulatory reforms and changes in the geothermal sector will be recommended for implementation in the future that will have downstream impact. The analytical and diagnostic studies as well as the engagement and consultations with key stakeholders that will be supported through this project will be used to manage any potential risks associated with future procedures/ frameworks being proposed for the geothermal sector in Chile.

E. Borrowers Institutional Capacity for Safeguard Management

The newly established Unit of Social Participation and Dialogue (*Unidad de Participación y Dialogo Social*) in the Ministry of Energy aims to engage specifically with communities and respond their issues and concerns regarding energy projects, which may include concerns about land and resource use, and cultural heritage issues. In addition, the Division of Environmental Assessment and Public Participation from the Service of Environmental Assessment (*Servicio de Evaluación Ambiental, División de Evaluación Ambiental y Participación Ciudadana*) is the agency responsible for the administration of the Environmental Impact Assessment System and the public participation within the EIA framework. As part of the project, institutional capacity and inter-sectoral coordination will be assessed and strengthened in line with the direct technical support provided to the Ministry of Energy in integrating social and

environmental considerations in the specific activities proposed.

F. Environmental and Social Safeguards Specialists on the Team

Peter LaFere (Social Development Specialist, GSURR)

Noreen Beg (Sr. Environmental Specialist, GENDR)

II. SAFEGUARD POLICIES THAT MIGHT APPLY

Safeguard Policies	Triggered	Explanation (Optional)
Environmental Assessment OP/BP 4.01	Yes	<p>The policy is triggered as the TA project intends to provide direct technical support to the Ministry of Energy on developing provisions and guidelines on issues in the geothermal sector, that have bearing on environmental management issues relating to the geothermal exploration and generation. Existing country guidelines (including but not limited to the <i>Guía para la Evaluación de Impacto Ambiental de Centrales Geotérmicas de Generación de Energía Eléctrica</i>, prepared in 2012, which serves as a guideline for Environmental Impact Assessment for geothermal energy generation and is generally consistent with the World Bank Group EHS Guidelines on Geothermal Power) and legislation referenced in this guide, will be used as a basis.</p> <p>The Project Environment and Social Specialists will review Terms of Reference (ToRs) for all studies prepared as part of the Project, (and will also review the draft law) to ensure that all environmental and social concerns related to geothermal exploration in Chile are adequately addressed. This work will include a review of any stakeholder mapping exercises already conducted, whether there are any special provisions under existing law for geothermal development in protected areas, etc.</p> <p>With regard to the ToR for the analytical review of the existing concessions already granted, social and/or environmental concerns impeding the development of geothermal in Chile, such as land acquisition/land use/protected habitats, will be examined, and proposals will be made as to how such concerns might be remedied in future concessions (and existing concessions in the event that amendments to existing contracts are permitted).</p>

		<p>The Project will explore the possibility of preparing a risk analysis, or gap analysis, to examine any shortfalls between international best practice and domestic regulations, standards, and guidelines.</p> <p>Inter-sectoral coordination with the relevant government agencies, particularly the MMA, (<i>Ministerio de Medio Ambiente</i>), will be sought in providing background information on environmental policies and regulations.</p> <p>A high-level Social Assessment will be conducted in order to scope and identify key issues with stakeholders and inform strategic planning in the geothermal sector. This social assessment will provide the basis to commence an interactive process with stakeholders on,(in addition to a discussion of land acquisition and property rights), areas of environmental importance such as the impacts of water abstraction during exploration and drilling; impacts of hydrogen sulfide emissions on sensitive receptors; and sensitivity around areas of cultural, archaeological, and historical importance.</p> <p>All TA activities, recommendations, and advice, will be consistent with the objectives and requirements of all World Bank environmental and social safeguard policies</p>
Natural Habitats OP/BP 4.04	Yes	<p>The policy is triggered as the TA project intends to provide direct technical support to the Ministry of Energy on developing provisions and guidelines on issues in the geothermal sector, that have bearing the management of natural habitats (in particular critical habitats and key biodiversity areas) in the potential areas of geothermal exploration and generation. Existing country guidelines (including but not limited to the <i>Guía para la Evaluación de Impacto Ambiental de Centrales Geotérmicas de Generación de Energía Eléctrica</i>, prepared in 2012) and legislation referenced in this guide, will be used as a basis . The Guide is generally</p>

		<p>consistent with the World Bank Group EHS Guidelines on Geothermal Power.</p> <p>All TA activities will be consistent with the objectives and requirements of all World Bank environmental and social safeguard policies.</p>
Forests OP/BP 4.36	Yes	<p>Given the possibility that geothermal development may take place in forested areas, the potential impacts of proposed strategies, incentives, and legislation on forests (both in terms of deforestation or effects on critical habitats within forests) will be assessed, and CONAF (<i>Corporación Nacional Forestal</i>) will be consulted.</p>
Pest Management OP 4.09	No	<p>The Project activities will not include purchase of pesticides or provide TA that could lead to increased use of pesticides.</p>
Physical Cultural Resources OP/BP 4.11	Yes	<p>The policy is triggered as the TA project intends to provide direct technical support to the Ministry of Energy on developing provisions and guidelines on issues in the geothermal sector that may have bearing on archaeological, historical, or culturally important resources located within the potential areas of geothermal exploration and generation. Existing country guidelines will be used as a basis.</p>
Indigenous Peoples OP/BP 4.10	Yes	<p>The policy is triggered as the TA project intends to provide direct technical support to the Ministry of Energy on developing provisions and guidelines on issues that may affect indigenous peoples in the geothermal sector taking into account existing country guidelines and legislation (i.e. Indigenous Peoples Law no. 19,253). Specifically, technical advice will be provided in formulating procedures for engaging and consulting with indigenous peoples in the geothermal sector. Inter-sectoral coordination with the relevant government agency, CONADI (<i>Corporación Nacional de Desarrollo Indígena</i>), will be sought in providing policy advice regarding indigenous</p>

		peoples. Additionally, engagement and consultations with indigenous peoples' organizations will be carried out on the proposed revisions in order to seek their feedback. Such interactions will be disseminated and documented.
Involuntary Resettlement OP/BP 4.12	Yes	The policy is triggered as the TA project intends to provide direct technical support to the Ministry of Energy on developing provisions and guidelines that may involve issues of involuntary resettlement, land acquisition and exploration in protected areas in the course of proposing relevant legal, regulatory and procedural reforms for the geothermal sector. Existing country guidelines and legislation regarding involuntary resettlement and land acquisition will be reviewed as part of the implementation of the TA project.
Safety of Dams OP/BP 4.37	No	The Project will not support the construction or rehabilitation of dams nor will support other investments which rely on the services of existing dams.
Projects on International Waterways OP/BP 7.50	No	The Project will not affect international waterways as defined under the policy nor will the Technical Assistance prepare any projects that would directly utilize underground geothermal resources.
Projects in Disputed Areas OP/BP 7.60	No	The Project will not affect disputed areas as defined under the policy.

III. SAFEGUARD PREPARATION PLAN

A. Will an Appraisal stage ISDS be required? [Y/N]

- i. Explanation
- ii. If Yes, tentative target for preparing the appraisal stage ISDS

B. Time frame for launching and completing the safeguard-related studies that may be needed. The project entails a combination of direct technical support, reviews and studies as well as engagement activities with key stakeholders and relevant sector governments. Based on the technical discussions with the Ministry of Energy, specific studies will be identified in order to integrate the needed social and environmental aspects to support the proposed legal, regulatory

and procedural changes. As per activity c in component 1 in the PCN, a communications strategy and a stakeholder engagement plan will be prepared as part of the project initial phase.

C. The specific studies, their timing and disclosure should be documented in the appraisal-stage ISDS.

IV. APPROVALS

Task Team Leader:	Name: Migara Jayawardena / Mariano González Serrano	
<i>Approved By:</i>		
Regional Safeguards Advisor:	Name: Glenn Morgan	Date: 02/26/2015
Practice Manager:	Name: Malcom Cosgrove-Davies	Date: 03/18/2015

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.