EXECUTIVE SUMMARY OF EVALUATION
FOR PUBLIC DISCLOSURE

FROM: CEU

Geofund Turkey Mid-Term Review

Redacted Version

1. The Executive Summary of the Evaluation entitled Geofund Turkey Mid Term Review has now been redacted for public disclosure in accordance with IFC’s 2012 Access to Information Policy, following the Procedure for Development, Management and Disclosure of IFC Evaluations effective on 04/01/2014.

2. The attached redacted version reflects the following adjustments:
   
   - Updated text to condense the Executive Summary of the Geofund Turkey Mid Term Review (Redacted Executive Summary), without removing any key points;
   
   - Minor typographical corrections.

3. Questions on this document should be addressed to Patrick Avato (pavato@ifc.org +90 212 385 2575]) or Patrick Luternauer (pluternauer@ifc.org +7 495 411 7555).
Executive Summary of Evaluation

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<td>Date of Final Report of Evaluation</td>
<td>October 11, 2013</td>
</tr>
<tr>
<td>Author of Final Report of Evaluation</td>
<td>Clifford Aron, GreenMax Capital Advisors, <a href="mailto:cja@greenmaxcap.com">cja@greenmaxcap.com</a></td>
</tr>
<tr>
<td>Date of this Executive Summary</td>
<td>October 11, 2013</td>
</tr>
<tr>
<td>Author of this Executive Summary</td>
<td>Tom Harding-Newman, IFC, <a href="mailto:THardingnewman@ifc.org">THardingnewman@ifc.org</a></td>
</tr>
<tr>
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<td>Modifications from original Executive Summary</td>
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<tr>
<td>Executive Summary Approved for public disclosure by (name) on (date)</td>
<td>Anna Hidalgo, IFC, <a href="mailto:AHidalgo@worldbankgroup.org">AHidalgo@worldbankgroup.org</a></td>
</tr>
</tbody>
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Background

GreenMax Capital Advisors (“GreenMax”) was retained by the International Finance Corporation (“IFC”) to conduct a Mid Term Review (“MTR”) of the Geofund Turkey Program (the “Program”), which is designed to address critical barriers to the expansion of geothermal power development in Turkey and worldwide. The Program is managed by IFC and funded by the Global Environment Facility (“GEF”).

In planning the Program, IFC assessed the barriers to geothermal development for Turkey specifically, but with understanding that similar obstacles exist for geothermal development in most emerging markets globally. Therefore, it is expected that the approach, tools, and lessons from the Program in Turkey may be replicated in other countries and regions by IFC. IFC’s overriding goal for the Program is to launch products on a pilot basis in Turkey which may, once expanded internationally, help to transform the global geothermal industry. IFC is well placed to be able to bring together all the relevant stakeholders, especially with respect to Geological Exploration Risk Insurance.

The Program initially had the following two components:
- a) Develop and pilot geothermal Geological Exploration Risk Insurance for Turkey
- b) Replication of the insurance to the broader market

A program re-evaluation in May 2012 suggested that intervention beyond launch of a risk insurance product would be enormously helpful in facilitating financing for geothermal projects in Turkey. As a result, two additional pillars were added to the Program – a “Best Practices” component and a “Capacity Building for Banks and Project Developers” component. GreenMax has been asked by IFC to focus special attention in the MTR on the relevance and success of these additions to the Program.

Objectives

The purpose of the MTR is to provide IFC Management with an assessment of the design and delivery of the Program and early results towards intended outputs, outcomes, and impacts of the Program. Additionally, this MTR is meant to provide IFC with an assessment of the Program’s reorientation of May 2012. This assessment provides lessons from GreenMax’s experience to improve the design of this and future projects to maximize impacts.
The MTR has been designed to allow the Program team to re-evaluate and re-assess the overall strategy and make adjustments as necessary to enhance Program impact. The MTR’s main objectives have been to:

1. Measure Program status with respect to its results-based management log-frame.
2. Identify opportunities to improve Program execution effectiveness.
3. Refine the initial framework for evaluation being used by the Implementation Team.
4. As necessary, recommend adjustments in the Program execution strategy and implementation processes to the Implementation Team.

**Analysis**

To undertake the review, GreenMax looked to four sources of information:
- A review of all project documentation files made available by IFC.
- Desk study review of readily available information about development of geothermal energy in Turkey and globally.
- Conduct of interviews with 32 stakeholders in Turkey and internationally.
- GreenMax’s own intelligence and experience about geothermal developments globally and in Turkey.

It is important to note that the bulk of information gathering was conducted during the period December 2012 – January 2013. Due to illness of the principal author of this report, the actual analysis of information collected has not occurred until June – September 2013. It must be stated that since the time of data collection, the Program team has made significant advances in forwarding the Program agenda.

**Conclusions and Recommendations**

The Program holds great promise to produce a useful demonstration of ways to support smaller, less experienced developers of geothermal projects which could help to accelerate development of geothermal power production in some countries. The Program is on course to successfully pilot the use of geothermal exploration risk insurance utilized for the first time in an emerging market environment. The Best Practices and Capacity Building components, developed as a result of a reorientation of the program in 2012, may provide valuable help to inexperienced developers to boost their capabilities and prepare projects suitable for financing.

However, at the time of the MTR, the goals of the Program remain unfulfilled with only a year and a half remaining in the implementation schedule. In GreenMax’s opinion, the Program is unlikely to meet its quantitative targets and still faces challenges in clearly communicating the value of its product offerings to stakeholders, including some internal partners within IFC itself.

GreenMax’s positive findings about the Program are based on a belief in the promise of future possibilities and performance rather than on real achievements by the date of this MTR. Some adjustments are recommended. GreenMax’s findings are summarized below.
Key findings

1. The changes to the Program activities made pursuant to the re-design completed in May 2012 are major steps toward achieving the goals of the Program.

2. The Program is likely to have a negligible impact on the achievement of Turkey’s geothermal power production goals and is unlikely to achieve its goal of providing geothermal exploration risk insurance to four projects totaling 140MW. Turkey, without the Program’s active contribution, is almost certain to achieve the government’s goals for geothermal power production in the sector.

3. The prospects of replicating the Program’s insurance partnership to other emerging geothermal country markets could be fairly strong, if there is reasonable success achieved for the partnership in Turkey.

4. Developers cite equal or greater obstacles to geothermal development than the issues which the Program is designed to address. Regulatory issues and lack of sufficient skilled labor and contractors amongst geothermal services providers rank equal to exploration risks.

5. The negative view of several developers towards the Program stem mainly from the program having tried to launch an insurance product before one actually existed. This approach may have created false expectations that the Program was unable to deliver on.

6. The insurers perceive IFC’s role as de facto insurance broker and co-underwriter.

7. The Program team is lacking depth of expertise in some key areas.

8. The local Financial Intermediaries have not been deeply engaged in the design of the Best Practices component of the Program and it’s unclear whether the “certification” and training will be tailored to their needs.

9. It’s unclear whether or not it is actually desirable to enable developers with limited geothermal experience and unwillingness to risk own equity in exploration, to enter the geothermal business.

Key recommendations:

1. The quantitative impact targets of the Program should be revised downward by 50%, including the GHG goals

2. IFC should start to focus on the potential for replication of the Program, performing a comprehensive review of any insurance policy that is underwritten, and identifying additional suitable countries for the insurance

3. The Capacity Building component should be expanded to include training and skills transfer for geothermal services providers.

4. The staffing of the Program should be able to draw on deeper expertise in at least one of several key areas, depending on the Program focus: risk management, geothermal technicalities, financial and governance analysis

5. In designing the certification and training, the Team should consult closely with Turkish lenders to understand what qualifications they would like to see “certified” that could result in strengthening the case loan officers will make to their credit committees.

6. The Program should open a dialogue with key global geothermal stakeholder to answer fundamental questions about the barriers facing the geothermal sector and whether the Program is adequately addressing such questions, or whether the subsidizing of insurance premiums will distort markets and incentivize the entry of low quality developers that may further hinder the market.
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