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Second Opinion on The Export-Import Bank of Korea (KEXIM)'s Framework for Green Bonds

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1. Introduction

The export-import bank of Korea (KEXIM) is an official export credit agency wholly owned by the Korean government providing export credit and guarantee programs to support the international business development of Korean companies. As part of follow-up of the Korean government's Vision for Low Carbon Green Growth, KEXIM will fund projects, "...in whole or in part, that promote the transition to low-carbon and climate resilient growth in the specific credit facility, as determined by KEXIM to support KEXIM's Green Pioneer program" (Document no 1, see below). The Green Bond program is one way the financing of such projects can be done.

The background for the vision of Low Carbon Growth is the UN's Framework Convention on Climate Change (UNFCCC) from 1992 - ratified by most countries of the world - aiming at avoiding serious anthropogenic interference with the climate system. At the Conference of the Parties to the UNFCCC in 2009 in Copenhagen (COP15), parties agreed to avoid global climate change above 2 °C, implying cuts of anthropogenic emissions of greenhouse gases by at least 50 % by 2050 compared to current emissions and further cuts after that by 80-90 % to stabilize the atmospheric levels of greenhouse gases. Taking burden sharing into consideration, this implies a near vision of zero emissions for Western countries by the end of this century. The work of CICERO is based on this foundation and concentrated on mitigation and adaptation.

This second opinion is an independent evaluation of KEXIM's framework for selecting eligible projects for "KEXIM Green Bonds". It should be noted, however, that to rate projects with great precision based on such criteria and procedures alone is difficult. Still, operational guidance and procedures are useful for a rough screening of eligible projects. Thus, this second opinion will not evaluate single projects in detail, but be restricted to an evaluation of the system or framework for selecting eligible projects at a general or overall level. It will mainly deal with the eligible projects' potential impacts on emissions of carbon dioxide and other greenhouse gases, and not on the environment in general.

2. Material reviewed

This second opinion is based on information provided in the following received documents and emails:

1. KEXIM Green Bond framework
2. Green Finance – Structure and Guidelines provided by the Government of Korea
3. KEXIM Environmental Guide (work procedure)
4. Annex 1 KEXIM Flowchart (illustration)
5. Annex 2 KEXIM Environmental Review Procedures checklist
6. Annex 3 Environmental Screening Form (Borrower Purpose)

7. Annex 5 KEXIM Information Disclosure Agreement with Borrower
8. KEXIM Green Project Examples provided by KEXIM
9. Annex 4 EIA
10. Email of November 27 from SEB, 2012, “KEXIM Green Bond material for 2nd opinion”
11. Email of January 9, 2013 from SEB, “KEXIM response to CICERO”
12. KEXIM supplementary submission to CICERO (attachment to email from KEXIM to CICERO of January 16, 2013).

3. KEXIMs framework and guidance for assessing and selecting eligible projects

The “KEXIM Green Bond Framework Proposal” (Document no. 1) and “Eligible Projects” (Document no. 8) are directly relevant for selection of eligible projects for “KEXIM Green Bonds” as they are defined in Document no. 1. These documents clearly defines eligible projects for “KEXIM Green Bonds” as projects that will promote the transition to low-carbon and climate resilient growth. By listing examples of Eligible Projects, KEXIM gives an idea of what kind of projects they envisage, however, these categories are for illustrative purposes only and consequently leaves a good part of subjectivity to the KEXIM staff selecting eligible projects”:

- Wind Power
- Solar Power
- Hydroelectric Power
- Water Technologies
- LED and OLED Technologies
- UN Clean Development Mechanism (CDM) related projects

The framework document (Document no 1) states that “The Eligible projects are selected in cooperation with KEXIM’s Green Finance Department and KEXIM Treasury”.

After requesting more information about the selection procedure, the following was received by email (Document 11):

As a first step, KEXIM evaluates the project based on its "Green Industry Definition" under Article 13 of the KEXIM CREDIT BYLAWS, which defines a project as "Green" only if it qualifies at least one of three criteria, which are:

A. Green technology and/or green business that is certified by the Green Certification System established under Korea's FRAMEWORK ACT ON LOW CARBON, GREEN GROWTH

B. New and/or renewable energy business which is defined by Korea's ACT ON THE PROMOTION OF THE DEVELOPMENT, USE, AND DIFFUSION OF NEW AND RENEWABLE ENERGY

C. Businesses that fall under the Sector Understanding on Export Credits for Renewable Energies, Climate Change Mitigation and Water Projects of OECD's ARRANGEMENTS ON GUIDELINES FOR OFFICIALLY SUPPORTED EXPORT CREDITS

Step 2: Commercial Screening

Once Step 1 is complete, KEXIM prioritizes the pool of projects based on internal due diligence and assessment, which is a commercial decision.

KEXIM's Green Finance Department verifies whether a candidate project is an eligible project that meets at least one of A, B and C under Article 13 mentioned above.

The Korean acts and the OECD's guidelines referred to above have been made available and constitute together with the documents listed in section "Material reviewed" the basis for this second opinion. The only parts of the bylaws relevant for the second opinion has been translated and copied above ((in *italics* A to C).

The Environmental Review Guide for Exporters, Sponsors & Borrowers (Documents no. 3, including the annexes in Documents 4-7 and 9) describes a framework or procedures for reviewing potential environmental impacts of projects. This information is needed to assess environmental risks and to prepare for mitigation measures. The Environmental Review Guide (Document 12) was presented to CICERO to emphasize KEXIM's commitment for environmental friendliness and sustainable development. It was not meant as a framework or criteria used by KEXIM to determine or select eligible projects for its Green Bonds. Still, I have chosen to give a short description of the guide and express some views on its structure and procedures, as it could be modified relatively simply to also include an assessment of the climate impact of projects.

According to the guide, KEXIM shall receive an environmental screening by the applicant when a project is amounting to more than SDR 10 million. The bank will classify projects into one of three categories before loan is approved:

A: potentially adverse environmental impacts

B: potentially less adverse than category A

C: likely to have minimal or no adverse environmental impact

The procedure and rules for managing projects are differentiated according to which category projects are assigned to. An environmental review shall be conducted on projects categorized as either A or B. For category A projects the bank will require an Environmental Impacts Assessment (EIA) elaborated by an independent environmental consultant. The scope and details of the required EIA are given in annex 4 (Document no. 9). For category B projects the review should examine the project's potential negative and positive environmental impacts based on the information provided by the applicant. Environmental monitoring will always be implemented for category A projects, but only when the bank deems it necessary for category B projects. For category C projects no further action is required beyond screening and classification.

4. Evaluation and second opinion

The KEXIM Green Bond Framework Proposal (Document no 1) clearly defines eligible projects for “KEXIM Green Bonds” as projects that will promote the transition to low-carbon and climate resilient growth. This definition is precise and reasonable. It implies that it can be documented that eligible projects will reduce the anthropogenic emissions of greenhouse gases or the growth in the emissions in such gases directly or indirectly. KEXIM will provide transparency into the projects selected (Document no 8) through an investor letter and consequently expose themselves for potential criticism in the case they do not deliver projects fulfilling the stated ambition. This, however, does not prevent the fact that “wrong” projects can be selected but do give an implicit liability.

I initially found the framework for selecting KEXIM Green Bonds a bit fragmented because it has been described in different documents and emails that has been provided to me in different stages of the process. This made it challenging for an external reviewer as me to achieve a full view of the system and as a consequence I recommended a consistent and integrated document or framework describing the guidance, criteria, and procedures for selecting eligible projects for KEXIM Green Bonds which would improve the ability to get a fast and full overview of the framework. KEXIM, in a response to this recommendation, provided Document 12 received January 16 which is a good start that could easily be developed further into such a document (look at recommendations).

I consider the Environmental Review Procedures (Documents no. 3, including the annexes in Documents 4-7 and 9) a solid and convenient framework for acquiring information about potentially negative environmental impacts of a project that is needed to assess environmental risks and to prepare for mitigation measures. The procedures are complying with international standards and recommendations as given by The World Bank (IFC – International Finance Group) and OECD.

According to information received in supplementary submission to CICERO from KEXIM (Document 12), KEXIM's Green Finance Department analyze the carbon reduction potential of candidate projects. It is not quite clear how this is done, but I am confident that the KEXIM's green staff has the necessary skills and competence to make sure that this is carried

out in compliance with international standards and guidelines for example set forth by OECD and other international organizations. I would, however, advise that this analysis or C.I.A. (Climate Impact Assessment) as it is called in the figure/flow chart in Document 12, is carried out early in the process when candidate projects are screened and assessed in relation to criteria in the two domestic Korean laws mentioned or the OECD guidelines. Now it comes too late in the process according to the figure in Document 12. KEXIM's director for the International Finance Department Sang-ho Lee has, however, in an email of January 18, 2013, explained that the figure in Document 12 may be misleading. In reality, the C.I.A. still comes early enough to screen the eligible project in a timely manner as the projects are still considered candidate projects after the projects have passed the Article 13 eligibility criteria of the KEXIM Bylaws.

Even though the Environmental Review Procedures are not supposed to be applied when KEXIM selects green bonds, they could in my view quite easily be adjusted or modified to ensure that an appropriate CIA is conducted, aiming at estimating the project's abatement potential for emissions reductions of greenhouse gases. Both the structure and procedures described in these documents are well-suited for a CIA. The metric for ranking and comparing projects should be the amount of emission reductions in tons CO₂-equivalents.

According to the selection procedure described in the email of January 9, an eligible project is defined as "green" if it qualifies criteria in the Korean Framework Act on Low Carbon, Green Growth and the Act on the Promotion of the Development, Use and Diffusion of New and Renewable Energy, or the OECDs guidelines for export credits for renewable energies, climate change mitigation and water projects. The two domestic laws mentioned are in my view modern and forward looking when it comes to stimulating deployment and development of renewable energies and promoting low carbon green growth. Few countries have similar solid and robust legislation in this field. As long as KEXIM complies with these laws and/or the OECD guidelines as best as it can when eligible projects are selected – and I take it for granted that it does as a governmental facility – it will ensure that selected projects will reduce the emission of greenhouse gases and therefore also "promote the transition to low carbon growth".

Several examples of categories of eligible projects for KEXIM Green Bonds are listed at a general level in the Framework Proposal and in the two Korean laws. Most of these projects are in renewable energy in the form of wind power, solar power, hydroelectric power, biofuel, geothermal, and marine energy (I assume that this is waves and tide). It is obvious that such projects in general can reduce emissions of carbon dioxide, but the reduction potential will differ substantially between the different categories and between projects of the same category. For biofuels in particular, the uncertainties are high and emission reductions will differ considerably between different biological sources for the fuel and between different agricultural practices. It should also be mentioned that there are other environmental impacts than climate connected to most of the projects in the different categories of renewable energies mentioned, that need to be assessed before a project is approved

Nevertheless, investments, deployment and development of these technologies at a large scale are crucial to achieve cuts in the anthropogenic emissions necessary to keep the atmospheric

levels of carbon dioxide below a level that give a low chance of the global temperature not exceeding 2 °C. It is, however, not obvious how much each single project in these different categories of renewable energies will reduce emissions and contribute to a nation's or an industry's efforts to mitigate climate change. In some cases it is not even certain that they will reduce the emissions at all because they may be additional to fossil based energy production.

The UN Clean Development Mechanisms (CDM) is listed as an example of eligible projects in the Framework Proposal (Document no 1). I will endorse that. As long as Korea has no legal commitments for emission cuts under the Kyoto Protocol, and consequently cannot achieve credits to maintain or increase their own emissions from CDMs, support to CDMs will most likely imply real emission reductions.

In the teleconference with KEXIM January 17, it was confirmed that projects in energy efficiency improvements, Carbon Capture and Storage (CCS), and adaptation are included as potentially eligible projects. It is important that energy efficiency and CCS projects are included as deployment of such technologies, according to the International Energy Agency (IEA), IPCC and others, is considered to be of utmost importance in the efforts to mitigate climate change. For example, in the IEA scenarios for emissions cuts by 2050, energy efficiency constitutes on third of the recommended actions.

I notice that KEXIM has provided a list of examples rather than limiting themselves by specific technologies or areas. That is a good strategy because it ensures flexibility. A CIA will further strengthen the selection process. This, however, once more stress the importance of the selection process and the need for reporting on the project selection.

5. Conclusion and recommendations

Conclusions

The purpose of this second opinion has been to evaluate KEXIM's procedure's and framework for selection of eligible projects for KEXIM Green Bond financing, defined as projects that will promote the transition to low-carbon and climate resilient growth in the specific credit facility. I find this definition clear and reasonable.

Transparency and accountability is secured through the investor reporting which describes which projects KEXIM has selected

KEXIM selects eligible projects on criteria and guidelines set forth in two recent Korean laws regarding renewable energy, low carbon and green growth, and OECD guidelines. These laws and guidelines are modern and of high quality and robustness. If complied with, they will ensure that selected eligible projects meet the criteria and definition for KEXIM Green Bonds.

The project categories listed in the Framework Proposal (Document 1) and in the two Korean laws, all have the potential for major emission reductions. They are, however, at a general or aggregated level and more detailed information should be required for each single project before their exact emission reduction potential can be estimated and assessed. KEXIM has

affirmed that it analyzes the potential for carbon emission reductions and uses the term Climate Impact Assessment (CIA) for their analysis. The Environmental Review Procedures can easily be modified to constitute a framework for CIAs.

Projects in energy efficiency improvement, adaptation and CCS, are also included as eligible projects for KEXIM Green Bonds, even though they are not explicitly mentioned in the documents.

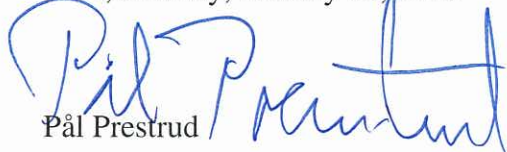
The framework for selecting KEXIM Green Bonds is a bit fragmented and described in different documents and emails. The fragmentation has to a large extent been addressed through document 12 which enable a possibility to find the relevant reference frameworks relatively fast. The KEXIM Green Bond Framework Proposal indicates what type of projects one would expect to see in the portfolio but does not list a specific criteria for selection of eligible projects. In my judgment this alone is not sufficient for selecting eligible projects and would eventually need to be supported by further guidelines to minimize subjectivity in the selection process. The procedures of using the two mentioned Korean laws and the OECD guidelines will, however, fully compensate for this weakness.

A consistent and integrated document or framework describing the guidance, criteria, and procedures for selecting eligible projects for KEXIM Green Bonds would be preferable in order to improve the ability to get a fast and full overview of the framework. This can easily be achieved by elaborating Document 12 a little bit further.

Recommendations

1. KEXIM should elaborate further on one integrated document (Document 12) outlining the criteria, guidance and procedures for selecting eligible projects for KEXIM Green Bonds. The document should not be too detailed and kept at an overall level. It must be consistent, compact and transparent.
2. Reference to the screening of projects based on the Green Industry Definition and selection based on the criteria in the two Korean domestic laws and OECD's guidelines mentioned in the mail of January 9 should be included in the document.
3. The Environmental Review Procedures could be modified in order to make it clear that an assessment of the projects emission reduction potential is included by:
 - a. An amendment to the "Objective of the Environmental Review" clarifying that emission reductions are included in the review process
 - b. Requiring that a Climate Impact Assessment (CIA) as part of the EIA should be conducted for all projects potentially eligible for KEXIM Green Bonds aiming at estimating the metric "emission reduction in tons CO₂-equivalents".

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