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### 'Second Opinion' on World Bank's Green Bond framework

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### **Summary**

The World Bank is a key player when it comes to securing a sustainable and low carbon future for developing countries. Already in 2008 the World Bank launched its "Strategic Framework for Development and Climate Change" and The World Bank Green Bonds. Since 2008, the World Bank has now issued more than USD 8 billion equivalent in Green Bonds through over 90 transactions in 18 currencies.

Eligible Projects may include projects that target (a) mitigation of climate change including investments in low-carbon and clean technology programs, such as energy efficiency and renewable energy programs and projects, or (b) adaptation to climate change, including investments in climate-resilient growth. No fossil fuel power generation projects are eligible under the green bond framework.

Specialists in the area of energy, climate change, transport and environment identify eligible projects. The World Bank has in place good procedures for monitoring and reporting of the implementation of projects. Impact reporting is an important tool for investors to be informed on the projects economic risk from climate change.

Having reviewed the eligibility criteria and the governance structure in at the World Bank, we conclude that these together provide a sound basis for selecting climate friendly projects.

### 1. Introduction and background

As an independent, not-for-profit, research institute, CICERO (Center for International Climate and Environmental Research - Oslo) provides second opinions on institutions' framework and guidance for assessing and selecting eligible projects for green bond investments, and assesses the framework's robustness in meeting the institutions' environmental objectives. The second opinion is based on documentation of rules and frameworks provided by the institutions themselves (the client) and information gathered during meetings, teleconferences and e-mail correspondence with the client.

CICERO has established the global Expert Network on Second Opinions (ENSO), a network of independent non-profit research institutions on climate change and other environmental issues, to broaden the technical expertise and regional experience for second opinions. CICERO works confidentially with other members in the network to enhance the links to climate and environmental science, building upon the CICERO model for second opinions. In addition to CICERO, ENSO members include Basque Center for Climate Change (BC3), International Institute for Sustainable Development (IISD), Stockholm Environment Institute (SEI), and Tsinghua University 's Institute of Energy, Environment and Economy. CICERO encourages the client to make this Second Opinion publically available. If any part of the Second Opinion is quoted, the full report must be made available.

CICERO's Second Opinions are normally restricted to an evaluation of the mechanisms or framework for selecting eligible projects at a general level. CICERO does not validate or certify the climate effects of single projects, and, thus, has no conflict of interest in regard to single projects. CICERO is neither responsible for how the framework or mechanisms are

implemented and followed up by the institutions, nor for the outcome of investments in eligible projects.

This note provides an update to our previous (September 16<sup>th</sup> 2008) Second Opinion of the World Bank's Green Bond Framework and policies for considering the environmental impacts of their projects. The aim is to assess World Bank's Green Bond Framework as to its ability to support the stated objective of low-carbon and climate resilient growth in view of operational experiences.

Climate change will have a significant impact on economic development, both from the perspectives of sustainable future development pathways and from the perspective of adapting to changing circumstances. The recently released Intergovernmental Panel on Climate Change report (IPCC, 2013) on the physical science of climate change highlighted the seriousness of human-induced climate effects. The report can be viewed as an immediate call to action on the challenge of reducing greenhouse gas (GHG) emissions. The 195 countries that have ratified the United Nations Framework Convention on Climate Change (UNFCCC) have agreed to reduce GHG emissions to limit global temperature increase to below 2°C above pre-industrial level. Reaching this target requires shifting development pathways towards low- or zero-emitting economies without delay, and avoiding locking-in high-emitting capital.

CICERO takes a long-term view on activities that support a low-carbon climate resilient society. In some cases, activities or technologies that reduce near-term emissions result in net emissions or prolonged use of high-emitting infrastructure in the long-run. CICERO strives to avoid locking-in of emissions through careful infrastructure investments, and moving towards low- or zero-emitting infrastructure in the long run. Proceeds from green bonds may be used for financing, including refinancing, new or existing green projects as defined under the mechanisms or framework. CICERO assesses in this second opinion the likeliness that the issuer's categories of projects will meet expectations for a low carbon and climate resilient future.

# 2. Brief description of the World Bank and the Green Bond framework

The International Bank for Reconstruction and Development (IBRD), commonly known as the 'World Bank' in the capital markets, was established in December 1945 following the ratification of the Bretton Woods agreements. It is part of the World Bank Group, which consists of five legally separate entities<sup>1</sup>. The World Bank has 188 member countries.

<sup>&</sup>lt;sup>1</sup> The International Bank for Reconstruction and Development (IBRD), established in 1945, which provides debt financing on the basis of sovereign guarantees; the International Finance Corporation (IFC), established in 1956, which provides various forms of financing without sovereign guarantees, primarily to the private sector; the International Development Association (IDA), established in 1960, which provides concessional financing (interest-free loans or grants), usually with sovereign guarantees; the International Centre for Settlement of Investment Disputes (ICSID), established in 1965, which works with governments to reduce investment risk; and

Already in 2008 the World Bank launched its "Strategic Framework for Development and Climate Change" (see http://www.worldbank.org/en/topic/climatechange) and The World Bank Green Bonds. Since 2008, the World Bank has now issued USD 8,2 billion equivalent Green Bonds 18 currencies (see in through 94 transactions in http://treasury.worldbank.org/cmd/htm/WorldBankGreenBonds.html. Eligible Projects include projects that target (a) mitigation of climate change including investments in lowcarbon and clean technology programs, such as energy efficiency and renewable energy programs and projects, or (b) adaptation to climate change, including investments in climateresilient growth. These broad categories are elaborated further in Table 1.

Primary objective	Eligible project categories
Mitigation	Solar and wind installations

Table 1 Examples of eligible projects that meet the World Bank's eligibility criteria for green bonds.

Mitigation	Solar and wind installations		
	New technologies that permit significant reductions in greenhouse gas emissions		
	Rehabilitation of power plants and transmission facilities to reduce greenhouse gas emissions		
	Greater efficiency of transportation, including fuel switching and mass transport		
	Waste (methane emissions) management and construction of energy-efficient buildings		
	Carbon reductions through reforestation and avoided deforestation		
Adaptation	Protection against flooding (including reforestation and watershed management)		
	Food security improvement and implementing stress-resilient agricultural systems		
	Sustainable forest management and avoided deforestation		

### Due Diligence, transparency and reporting

In addition to climate thematic classification, all World Bank projects at concept stage receive an environmental and social categorization (defining the relative risk and mitigation work that will be needed), among other risk indicators. When projects are finally submitted for approval by the Board of Directors, they have gone through at least two other management reviews: (i) a quality review which checks the congruence of the design with the stated objectives and how the project addresses potential risks, including potential environmental, social impacts of investments, governance aspects and other sources of risks to the desired outcomes; (ii) a decision meeting based on the designed and appraised project (i.e., with assessed costs and financing plan, defined responsibilities for implementation including monitoring and management of risks , etc.). The Board of Directors also reviews before approving loans.

the Multilateral Investment Guarantee Agency (MIGA), established in 1988, which provides insurance against certain types of risk, including political risk, primarily to the private sector.

<sup>&</sup>lt;sup>2</sup> As of 30th April 2015.

The World Bank discusses project cycle with investors as green bond projects benefit from the same process and governance as other World Bank projects. This means that the technical enhancement and risk management tools, are addressed and disclosed for all projects. Specifically, all Project Appraisal Documents, Integrated Environmental Data Sheets, and relevant Environmental Impact Assessments and Management Plans, Social Assessments, Procurement plans, etc. are disclosed to the public through the World Bank projects portal.

## 3. Assessment of the World Bank's Green Bond framework and environmental policies

Overall, the World Bank's green bond framework and environmental policies provide a sound framework for climate-friendly investments. However, certain considerations will have to be undertaken linked to the various project categories, see Table 2.

Primary objective	Eligible project categories	Likelihood of meeting objectives - concerns
Mitigation	Solar and wind installations	Good – Consider lifecycle pollution and negative impacts on wildlife, nature.
	New technologies that permit significant reductions in greenhouse gas emissions	Good - Consider whether the technologies are consistent with long-term climate goals.
	Rehabilitation of power plants and transmission facilities to reduce greenhouse gas emissions	Good – Consider danger of lock-in of obsolete technologies
	Greater efficiency of transportation, including fuel switching and mass transport	Good/medium – depending on the fuel type (biofuel or fossil fuel). Also consider rebound effects.
	Waste (methane emissions) management and construction of energy-efficient buildings	Good/medium – Consider highest building standards due to long lifetime of most buildings, and without any additional energy efficiency savings or considerations the climate impacts are not guaranteed.
	Carbon reductions through reforestation and avoided deforestation	Good – Consider potential for carbon leakage.
Adaptation	Protection against flooding (including reforestation and watershed management)	Good – Consider negative impacts on wildlife and nature
	Food security improvement and implementing stress-resilient agricultural systems	Good – Consider negative impacts on wildlife and nature.
	Sustainable forest management and avoided deforestation	Good

#### Table 2: Eligible project categories

Efficiency improvements in existing thermal plants has been seen as prolonging the lifetime of the power plant, and hence possible increasing accumulated GHG emissions from the plant. Also the greenness of switching from coal to natural gas is not guaranteed. World Bank has informed us that no fossil fuel power generation projects are eligible under the green bond framework.

According to the World Bank the category "New technologies that permit significant reductions in greenhouse gas emissions" has been applied broadly to technologies not explicitly covered in the other categories that permit significant GHG emission reductions, such as efficient motors, heating boilers, manufacturing processes, water pumps, street lighting controls, smart metering, efficient consumer goods, improved farming and agribusiness processes, etc.

### Strengths

In the process of identifying eligible projects the World Bank framework ensures that competent World Bank staff takes part in the process. World Bank energy, climate change, transport, and environmental specialists identify eligible projects on a continuous basis. The joint MDB approach for tracking and reporting of climate change mitigation and adaptation finance is taken as a starting point. Then the project's classification as a means of identifying "green" projects that deliver environmentally sustainable growth, and compliance with environmental and social safeguards are examined.

The World Bank have a very strong governance structure for selecting eligible projects for green bond financing. Combined with high in-house competence, this provides a strong guarantee that the World Bank's green bonds are environmentally sound and will promote a low-carbon and climate resilient future. CICERO takes a long-term view on climate change, and thus recommends excluding projects that support prolonged use of fossil fuel-based infrastructure that will contribute to GHGs in the long run.

### Weaknesses

We find no obvious weaknesses in the World Bank framework as it now stands.

### Pitfalls

The eligible project categories are mostly good, although some considerations to potential pitfalls are recommended.

A macro-level concern is the potential for rebound and carbon leakage effects. For example, energy efficiency improvements that lower energy costs, may induce more energy use and partially offset energy savings. Leakages can occur where efforts to reduce greenhouse gas emissions results in increased emissions elsewhere. For instance may stop of deforestation in one location move that activity to other regions. This can have the end result of lower reduction in GHG emissions than anticipated.

While these effects can never be entirely avoided, it is recommended to be aware of possible rebound effects and avoid investing in projects where the risk of such effects is particularly high. We include these issues here because they are recurrent themes that come up times and

again in discussion with many financial institutions, and are not particular related to the World Bank. To be climate conscious requires a focus also on this aspect on investments. We feel ensured by the provided documentation that the World Bank has these aspects in mind when selecting projects for Green Bonds.

### Transparency and monitoring, reporting and verification

Transparency, reporting and verification are key in order to enable investors to follow the implementation of the World Bank Green Bond Program. Without becoming too burdensome investors are beginning to ask for impact reporting.

The World Bank has in place good procedures for monitoring and reporting of projects. The framework includes supervision and monitoring at project level to ensure that safeguard and other requirements are complied with during project preparation and implementation. Detailed project documentation is available at: <u>http://www.worldbank.org/projects/</u>

In addition to disclosing the full list and description of the green projects in the green bond program at <u>http://treasury.worldbank.org/cmd/htm/MoreGreenProjects.html</u> the website also includes other relevant materials such as:

World Bank Green Bond Program Implementation Guidelines: http://treasury.worldbank.org/cmd/pdf/ImplementationGuidelines.pdf

Document summarizing work with other Multilateral Development Banks (MDBs) on harmonizing presentation of on project impacts: http://treasury.worldbank.org/cmd/pdf/InformationonImpactReporting.pdf