Workshop Green Bonds

São Paulo, December 2016 Senior Adviser Harald Francke Lund

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Center for International Climate and Environmental Research - Oslo



Independent non-profit climate change research center

Link between climate science and financial community



CICERO's involvment and motivations

World-leading provider of second opinions on green bonds

http://www.cicero.uio.no/en/ posts/news/green-bondsand-environmental-integrity





Expert Network on Second Opinions



SCI International Institute for Sustainable Developmen

International Institut Institute for Sustainable développement Development durable

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BASQUE CENTRE FOR CLIMATE CHANGE Klima Aldaketa Ikergai °CICERO Senter for klimaforskning SEI



°CICERO CLIMATE FINANCE

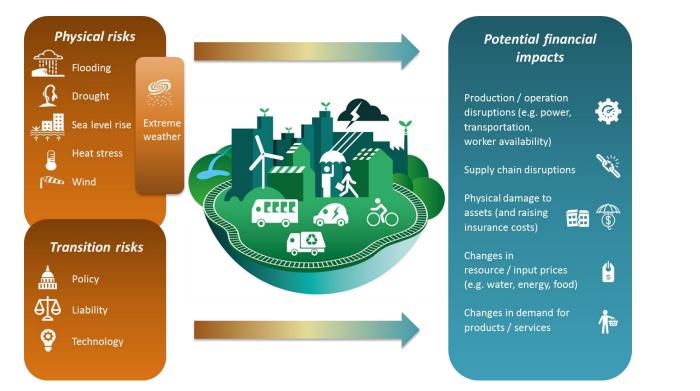


How can investors better secure the value of their portfolios against climate change risk?



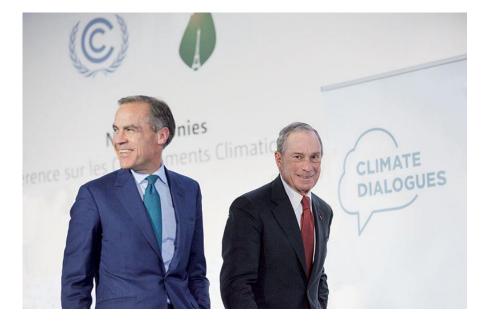


Climate Risk for Investors

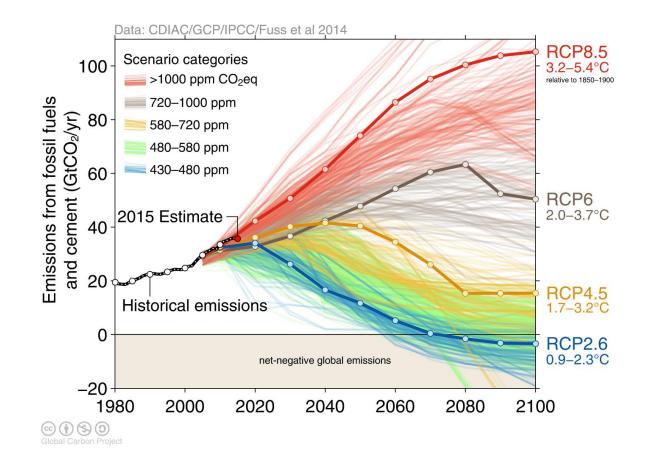


Mark Carney head of FSB – Michael Bloomberg head of TCFD

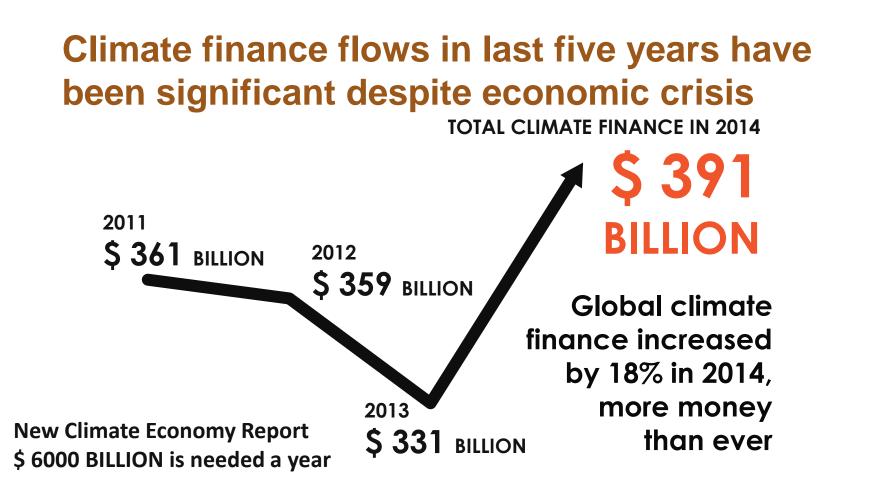
 The Task Force on Climaterelated Financial Disclosures (TCFD) will develop voluntary, consistent climaterelated financial risk disclosures for use by companies in providing information to investors, lenders, insurers, and other stakeholders.



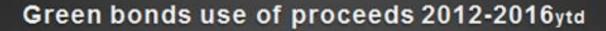
• Launches its report today

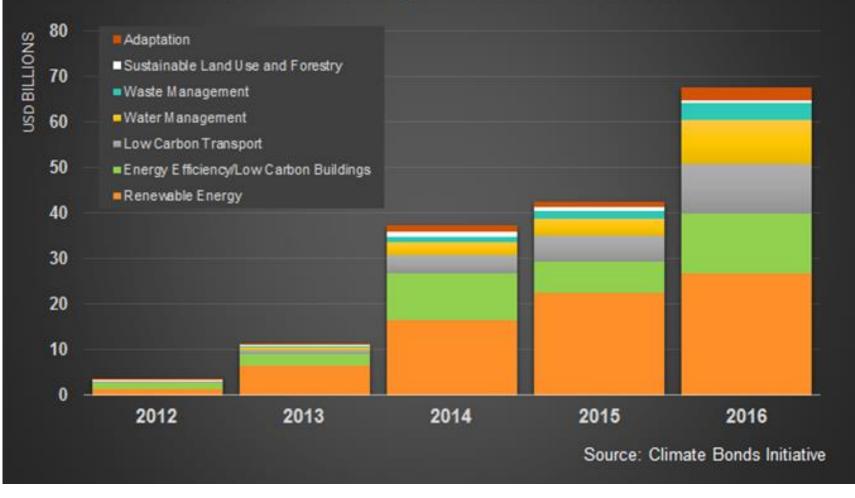


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Source CPI





What is Green – and Who Decides?

Voluntary Principles



Recommends external review

Second Opinions

Center for International Climate and Environmental Research - Oslo

Standards

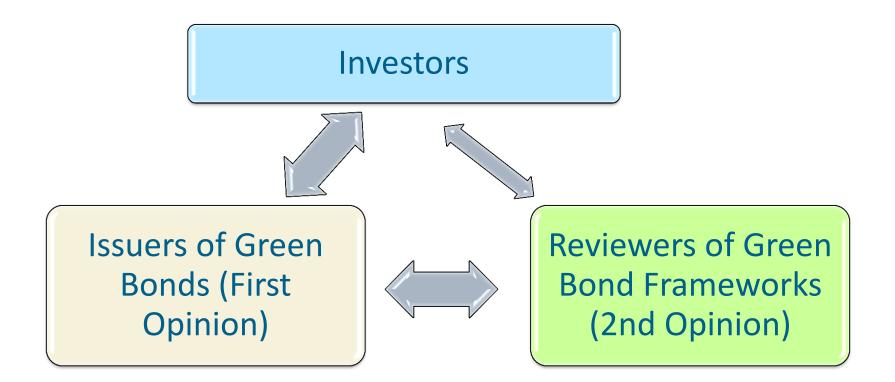




Funds & Indices

BARCLAYS MSCI

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Green Bond Framework

- 1. Use of proceeds (definitions)
- 2. Selection process (governance)
- 3. Management of proceeds
- 4. Reporting





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KBN GREEN BOND FRAMEWORK

The purpose of this document is to describe KBNs Green Bond Framework built on KBN's overall environmental strategy. KBN is a member of ICMA's Green Bond Principles' (GBF) and is also aiming to comply with the "Harmonized Framework for Impact Reporting" developed by 11 Multilateral Development Banks in December 2015².

The framework has four components:

- 1. Use of Proceeds
- 2. Process for Project Evaluation and Selection
- 3. Management of Proceeds
- 4. Reporting

1. Use of Proceeds

"Eligible Projects" means a selected pool of projects determined as eligible according to this Framework. Projects might be funded in whole or in part by KBN. Eligible Projects promote the transition to a lowcarbon and climate resilient Public Sector. Such projects may target (a) mitigation of climate change through reduction of emissions from buildings, transportation and energy production, (b) adaptation to climate change, including investments in climate-resilient infrastructure, or (c) to a smaller extent (limited to 10%), projects related to a sustainable environment on a local scale.

Eligible Project categories

Please refer to "KBN Green Bonds: Supplementary guidelines for project selection, documentation and reporting" 2 for detailed criteria and requirements of the Eligible Project categories.

- Renewable energy (a): to reduce the use of fossil fuel, KBN is financing installations for
 production of renewable energy. Please note that if the installation is part of a new construction
 it will fall under the "Green buildings" category.
- Energy efficiency (a): KBN is promoting projects aiming to lower both emissions from energy production and energy bills for the municipal sector by upgrading to higher energy standards or installing climate friendly technology such as heating or control systems.
- Green buildings (a): new buildings or additions to buildings with an energy performance superior to current energy standards according to the supplementary guidelines may qualify for KBN's green lending rate.
- Waste management (a/b): sustainable waste management is an important environmental initiative as it both reduces emissions and returns scarce resources to the value chain. KBN finances either new or upgending of plants.
- Land use (b/c): projects including sustainable redevelopment of recreational and other areas.
- Low-carbon transportation (n): low emission or emission free public transportation. The category also includes pedestrian and bicycle lane projects.
- Water and wastewater management (b): a robust water and sewage infrustructure is
 important to handle increased pressure on existing systems due to heavier reinfall and
 population growth. Projects include replacing and upgrading of water and sewage pipes in
 addition to financing equipment of handling sludge and contaminated discharge.
- Climate change adaption (b/c): natural disaster warning systems, landslide security systems, climate research and education programs.

³ http://www.kommunalbanken.no/greencriteria



2. Process for Project Evaluation and Selection

For a project to be included in the Eligible Projects pool, it shall comply with a) the categories listed in section 1 above and in the "KBN Green Bonds: Supplementary guidelines for project selection, documentation and reporting", b) the Municipality's Environmental Plan and c) Norway's Intended Nationally Determined Contributions (INDCs) according to the Paris Agreement. Applicants are required to declare eligibility by filling in a designated section in the loan document. Additionally, relevant documents indicating the Project's estimated environmental performance shall be provided. A project's eligibility is assessed by the Landing Department and approved by two Climate controllers. Approved Green Projects are entitled to KBN's Green Lending Discount and included in the bank's portfolio of Green Projects.

Green Bond Project Selection Process Flowchart



3. Management of Proceeds

An amount equal to the net proceeds of the iasue of the Notes will be credited to a special budget account that will support KBN lending for Eligible Projects, according to section 3 in the OBP. KBN will carefully manage the balance between green funding outstanding and green lending to make sure the green funding is disbursed in a timely manner. KBN aims to direct the predominant part of net proceeds to new projects. However, refinancing of selected projects with particularly high environmental or climate benefits is considered if in line with this framework.

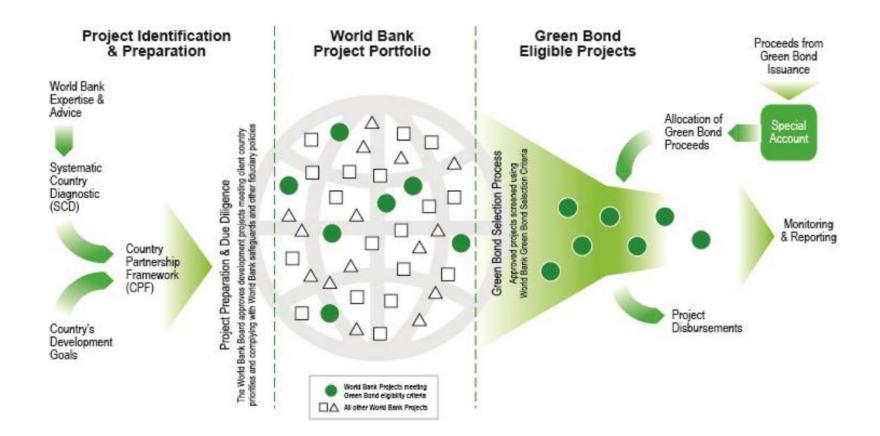
4. Reporting

To enable investors to follow the development and provide insight into prioritized areas KBN will provide an annual SRI report linked to the annual financial results report. The SRI report will include a section on the progress of the Green Bond program. KBN will also keep the dedicated Green Bond webpages continuously updated with; 1) a list of projects financed; 2) a selection of project examples "Green Bond Stories" and; 3) a summary of the KBN Green Bond development including statistics on our Green Project portfolio with impact reporting, aiming to comply with the issuer group" "Harmonized Pramework for Impact Reporting" (Dec 2015).

KBN has appointed an advisory board, "The Green Committee", whose mandate will be to provide advice and guidance in matters related to the Bank's Oreen Bond Pramework. The committee will primarily draw on external expertise in related fields, but will also include members of the KBN staff. Our Green Bond process will be audited by KBNs internal auditor, currently KPMO.

¹ http://www.icmagroup.org/Regulatory-Policy-and-Market-Practicn/green-bonds/green-bond-principles/

^a http://treasury.worldbank.org/cmd/pdf/InformationonImpactReporting.pdf



Source: World Bank Group

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Flexible Frameworks vs. Standards

- 1. How to capture that both science and green bond market are dynamic in nature?
- 2. Could issuer specific frameworks be combined with international and regional standards with more fixed definitions (building standards etc.)?

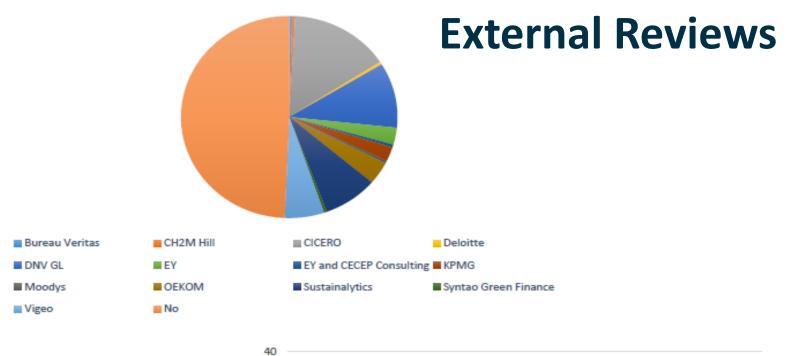
Part II



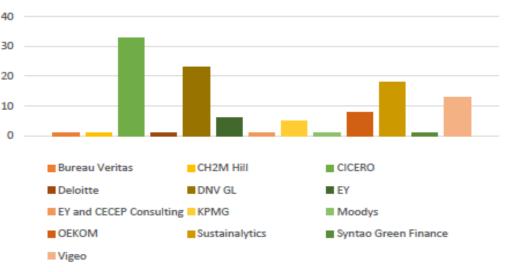
Review of Green Bonds

59% - 66% of green bonds have received an external review





- Second Opinions
- Certifications
- Verifications
- Ratings



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Source: CBI

Second Opinion Process



Issuer's information

- Green bond
 framework
- Sustainability reports
- Information on selection & reporting



CICERO's assessment criteria

- Use of Proceeds
 - Technologies and project types
 - Consideration of macro-impacts
- Management of proceeds
- Governance
 - Project selection and evaluation
 - Transparency
 - Reporting

CICERO recommendations and rating

Light green Medium g

CICERO's Shades of Green

Dark green	Implementing a long-term solution
Medium green	On the way to a long-term solution
Light green	Short-term benefits, but not a long-term solution

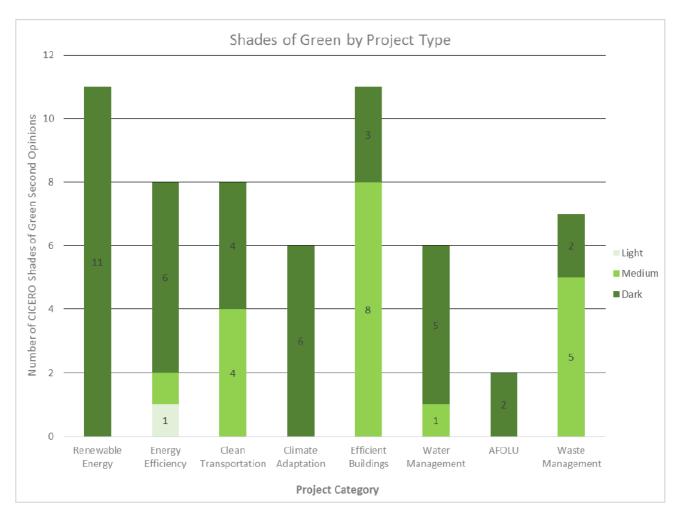
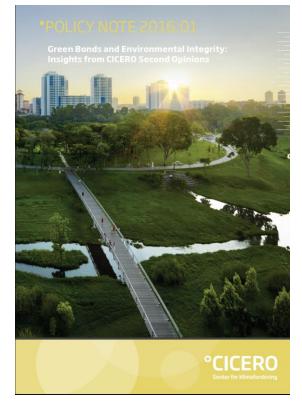


Figure 4: Number of CICERO second opinions by Shade of Green for each project type

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Emerging Best Practice



- Improved internal dialogue between finance and environmental experts
- Increased focus on supply chains
- Impact reporting –beyond emission reductions

Looking forward: further harmonization or regionalization of second opinions and standards?

www.cicero.oslo.no/greenbonds

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