Green Bonds Working Towards a Harmonized Framework for Impact Reporting March 2015

EXECUTIVE SUMMARY

This document aims to work towards a harmonized framework for impact reporting on projects to which green bond proceeds have been allocated and provides suggested core indicators for energy efficiency and renewable energy projects. The document summarizes the conclusions of an informal working group of four of the multilateral development banks (MDBs) active in the green bond market – the African Development Bank (AfDB), the European Investment Bank (EIB), the International Finance Corporation (IFC), and the World Bank (IBRD). The document shares information to catalyze broader discussions with other issuers and investors with the objective of working towards a harmonized framework for impact reporting that would be refined with the active contribution of other issuers over time, based on the feedback and experience of market participants. This initiative was requested by investors and is also welcomed and encouraged in the 2015 update of the Green Bond Principles. It is intended to provide a reference for other green bond issuers as they set up their own impact reporting that they can adopt and/or adapt to their needs.

The document has two sections. Section I describes basic guidelines around "use of proceeds." Section II describes impact reporting challenges, guidelines for reporting, and suggested core indicators for energy efficiency and renewable energy. The annex contains reporting templates issuers could adapt to their own circumstances. The following summarizes some of the key recommendations:

- Green bond issuers are encouraged to report on both the use of green bond proceeds and expected climate
 and / or environmental impacts of eligible projects at least on an annual basis. Use of proceeds reporting
 would provide a list of the projects to which green bond proceeds have been allocated, indicating the total
 amount signed and the amount of green bond proceeds allocated. Confidentiality considerations may restrict
 the detail that can be disclosed and issuers may choose to report on a portfolio level where such considerations
 apply.
- Impact reporting should be based on ex ante estimates of expected annual results for a representative year once a project is completed and operating at normal capacity. The impact report would illustrate the expected climate results that would be made possible as a result of projects to which green bond proceeds have been allocated. Furthermore, as the report would include the estimated results of projects that are still in the construction or implementation phase, it is not intended to provide actual results achieved in a specific year or reporting period.
- Issuers should define the period for including projects in an impact report: there are several options for choosing when to add and remove projects from the report. Some of these options are described below. Issuers are encouraged to explain the approach they select for their impact report.
 - Projects can be added to the report once the issuer has approved and determined a project as being eligible, or once green bond proceeds have been allocated to eligible disbursements.
 - Projects can be removed from a report when no allocations to eligible disbursements have taken place in the reporting period, or after the underlying loans have been repaid.
- When issuers are co-financing a project there can be differences in the approach for reporting the results at the individual project level compared to how the results are aggregated. The individual project reporting would be based on the total project results (including financing from all financiers) with information about the total project size and/or the issuer's share of total financing. However, when individual project results are aggregated, only the pro-rated share (as a percentage of the issuer's share of the total financing) of the total results would be included.

- It is suggested that issuers aim to report on a limited number of core indictors for projects included in their green bond programs. This document proposes four core indicators for energy efficiency (EE) and renewable energy (RE): (1) annual energy savings (EE), (2) annual Greenhouse Gas (GHG) emissions reduced or avoided (EE and RE), (3) annual renewable energy produced (RE), and (4) capacity of renewable energy plant(s) constructed or rehabilitated (RE).
- GHG emission reductions are commonly quoted to assess the climate mitigation impact of projects and issuers could use this as a core impact indicator for green bond reporting, but there are a number of calculation methodologies both within and across institutions. While there are on-going efforts to define harmonized GHG accounting methodologies for relevant sectors among a broad group of International Finance Institutions (IFIs), in the absence of a harmonized approach, institutions may follow their own methodologies with increasing efforts to make these available to investors. Given the current differences in calculation approaches, reporting GHG emission reduction data based on a uniform, consistent and published methodology remains a challenge. Issuers are encouraged to report this information only where the applicable GHG accounting methodology and assumptions can be referenced. Users of the reported information should understand that there may be limited comparability of data because of different methodologies, baseline assumptions and country context.

BACKGROUND

- 1. The overall goal of the green bond market is to help mobilize private sector financing for climate- and environmentally-friendly investments and help enhance transparency of environmental finance. The green bond market is growing rapidly in 2014 issuances were over US\$35 billion, more than three times higher than the US\$11 billion issued the year before. Furthermore, the mix of issuers has evolved from the original multilateral development banks that pioneered this market, to now include local governments and agencies, utility companies and other corporate issuers. This evolution of the green bond market is very welcome. Green bonds represent an opportunity for investors to support a global transition to low carbon development and growth. Ensuring the integrity of the market through increased transparency and impact reporting, as well as supporting further diversification of both issuers and investors is key.
- 2. The importance of more transparent reporting on the use of proceeds and on impact reporting has been highlighted by several initiatives, including:
- In November 2013, a group of investors, issuers and market intermediaries gathered at a Symposium hosted by the World Bank ¹ to discuss the green bond market and what is needed to help it achieve its purpose. Investors recognized a need for more transparency around the use of proceeds as well as further development in the area of impact reporting, and encouraged participating MDBs to help develop guidance on a common approach, building on ongoing work among a broader group of IFIs to develop harmonized approaches for GHG accounting.
- In January 2014, the Green Bond Principles (GBP), a voluntary set of guidelines, were published at the initiative of capital market intermediaries that recommended transparency and disclosure with a view to promoting integrity in the development of the green bond market by clarifying the cornerstones of green bond issuance.²
- In February 2015, a statement of investor expectations for the green bond market convened by Ceres for the Investor network on Climate Risk, highlighted investors' requests for issuers to report on the environmental impact issuers expected their projects to generate.
- In March 2015, a second edition of the Green Bond Principles was published. With the support of the International Capital Market Association (ICMA) as the Secretariat to the GBP, this edition benefited from extensive dialogue within a representative group of issuers, investors and intermediaries to reflect the evolution of the green bond market and to identify best practice. The updated GBP identified four components of green bonds: (1) use of proceeds (eligibility criteria); (2) process for project evaluation and selection (due diligence procedures); (3) management of proceeds (allocation procedures); and (4) reporting. With regard to reporting, the updated GBP specify that:

"In addition to reporting on the use of proceeds and the temporary investment of unallocated proceeds, issuers should provide at least annually a list of projects to which green bond proceeds have been allocated including - when possible with regards to confidentiality and/or competitive considerations - a brief description of the projects and the amounts disbursed, as well as the expected environmentally sustainable impact.

The GBP recommend the use of qualitative performance indicators and, where feasible, quantitative performance measures of the expected environmental sustainability impact of the specific investments (e.g. reductions in greenhouse gas emissions, number of people provided with access to clean power, reduction in number of cars required, etc.). Where confidentiality agreements or

¹ See: http://treasury.worldbank.org/cmd/htm/documents/World-Bank-Green-Bond-Symposium-Summary.pdf

² See: http://www.icmagroup.org/Regulatory-Policy-and-Market-Practice/green-bonds/

competition issues limit the amount of detail that can be made available, information can be presented in generic terms.

The GBP acknowledge that there are currently no established standards for impact reporting on Green Projects, and welcome and encourage initiatives, including those by leading green bond issuers, that help establish a model for impact reporting that others can adopt and/or adapt to their needs. Until more harmonization is achieved, transparency is of particular value, including disclosure of methodologies and key underlying assumptions."

- 3. Based on green bond market participants' interest in impact reporting and the positive influence that higher transparency and comparability in this area may have for the green bond market and the gradual development of shared impact assessment approaches, the African Development Bank (AfDB), the European Investment Bank (EIB), the International Finance Corporation (IFC), and the World Bank (IBRD) have initiated discussions on approaches for impact reporting. This document summarizes the results of these discussions in order to share information and catalyze broader discussions with other issuers and investors. The objective is to gradually extend the debate and build broader consensus towards a harmonized framework for impact reporting that would be refined over time based on the feedback and experience of market participants. It is intended to provide a reference for other green bond issuers as they set up their own impact reporting. While the discussion revolved around the business models of the MDBs in the group, the intention was to try to develop an approach for impact reporting that others can adopt and/or adapt to their needs. It also aims to identify areas where several reporting options are available and to encourage issuers to disclose the approach they adopt in order to facilitate comparability and, over time, also facilitate the development of shared impact assessment approaches.
- 4. The document has two sections. Section I describes basic guidelines around reporting on the 'use of proceeds'. Section II on impact reporting describes the challenges, guidelines for reporting, and suggested core indicators for energy efficiency and renewable energy. In addition, **Annex 1** provides an illustration of a reporting template that issuers could adapt to their own circumstances and should be read in conjunction with the guidelines for impact reporting described in this document.

I. USE OF PROCEEDS REPORTING

- 5. A defining characteristic of green bonds is that the bond proceeds are allocated only to those projects that meet the issuer's predefined eligibility criteria. Green bond issuers are encouraged to put in place a formal internal process for the allocation of proceeds linked to the issuers' lending and investment operations for Green Projects and to report on the allocation of proceeds including: (1) a list of the projects to which green bond proceeds have been allocated; (2) the total signed amount; and (3) the amount of green bond proceeds allocated to such projects. Confidentiality considerations may restrict the project level detail that can be disclosed, but issuers should aim to report the list of projects and either project level or aggregate level signed and allocated amounts.
- a) Signed amount: This represents the total approved and legally committed amount of project financing or the components thereof eligible under a green bond program. Where only a portion of the overall financing is eligible, only the eligible portion should be reported. For example, if the total approved project size is CCY 10 million, of which CCY 6 million is eligible under the green bond program, the signed amount reported would be CCY 6 million.
- b) **Allocated amount:** This represents the amount of green bond proceeds that have been allocated to eligible disbursements. For projects with partial eligibility, the issuer should disclose the procedure for attributing disbursements to the eligible components. For example, some issuers may assume that disbursements are first made to the 'green' component, while others may assume that disbursements are

pro-rated between the 'green' and 'other' components, based on their respective share of total financing. For projects with partial eligibility, issuers could also provide information about the portion of the total project that is green bond eligible.

6. All four MDBs that collaborated on this document issue "green use of proceeds bonds". Investors are exposed to the credit risk of the MDBs themselves, not the risks of the underlying projects. Other issuers may have different approaches, for example, where green bonds support an identified project or group of projects. The issuer should explain the approach it follows in its green bond process description.

(i) Adding and Removing Projects from an Impact Report

7. There are several options an issuer can elect to add and remove projects to an impact report. Some options are described below. Regardless of which option is chosen, issuers should disclose which approach they adopt for their impact report and be consistent in their reporting.

Options for adding projects to an impact report include:

- once approved projects have been identified as eligible for green bond support; or
- once green bond proceeds have been allocated to eligible disbursements.

Options for removing projects from an impact report include:

- if allocations to eligible disbursements have not taken place in the reporting period;
- after the loan supporting the project has been fully repaid; or
- an issuer may elect to remove a project from its green bond program in which case it could cease reporting on such project until a subsequent decision to restore the project's eligibility.³

II. IMPACT REPORTING

8. Impact reporting should provide quantitative and qualitative information about the climate and environmental impacts of projects to which green bond proceeds have been allocated. Working towards a harmonized approach for impact reporting requires identification of a limited number of core indicators, as well as guidance on the approaches and disclosures for reporting such indicators. This document provides guidance on reporting for a limited number of core indicators for two climate change mitigation sub-sectors: energy efficiency and renewable energy. Further work will be needed to provide guidance on common indicators for other climate mitigation sectors, climate change adaptation or more general environmental sustainability projects.⁴ The objective is to keep the number of core indicators to a few meaningful measures that a broad number of issuers would be able to report on. In addition, allowing for different information disclosure practices, issuers may choose to report on a project-by-project basis or on a portfolio level for the main indicators.

As part of issuers' due diligence in monitoring projects included in its green bond program, issuers may elect to remove a project. Possible reasons for removing a project from a green bond program include, but are not limited to, cancellation of the project, or restructuring that results in the project no longer meeting the eligibility criteria. Issuers are encouraged to disclose their approach for removing projects from their green bond programs, if applicable.

⁴ For information about the joint MDB approach for climate finance reporting see the 'Joint Report on MDB Climate Finance 2013,' published in September 2014, http://www.eib.org/attachments/documents/joint report on mdb climate finance 2013.pdf.

(i) Interpreting Impact Indicators

- 9. The intention of impact reporting is to develop a more detailed understanding of the climate and environmental impacts that can be expected from projects to which green bond proceeds have been allocated. The reporting template contained in the annex allows for quantification of a few core indicators, but it is important to appreciate the limitations of data reported therein. The main considerations to adequately interpret results are:
- Scope of results: reporting is based on "ex-ante" estimates at the time of project appraisal and mostly for direct project effects.
- Uncertainty: an important consideration in estimating impact indicators is that they are often based on a
 number of assumptions. While technical experts aim to make sound and conservative assumptions that
 are reasonable based on the information available at the time, the actual environmental impact of the
 projects may diverge from initial projections. In general, behavioral changes or shifts in baseline
 conditions can cause deviations from projections.
- Comparability: caution should be taken in comparing projects, sectors, or whole portfolios because
 baselines (and base years) and calculation methods may vary significantly. In addition, the cost structures
 between countries will also vary, so that developing cost-efficiency calculations (results per unit of amount
 invested in eligible projects) could place smaller countries with limited economies of scale at a
 disadvantage and will not take into consideration country specific context.
- Omissions: projects will have impacts across a much wider range of indicators than captured in the proposed template and exclusively focusing on the proposed core indicators will leave out other important development impacts. Furthermore, there may be some projects for which the proposed core indicator is either not applicable or the data is not available. In such cases, issuers are encouraged to complement the suggested core indicators with additional metrics appropriate for the specific project. Users of the reports should recognize that while issuers will make efforts to improve the consistency and availability of reported metrics over time, projects with climate impacts can cover a wide diversity of sectors and sub-sectors making complete harmonization of reporting metrics challenging.

(ii) Reported Impacts Based on Ex-ante Estimates

- 10. Reporting would be based on the expected annual impact results for a representative year once a project is completed and operating at normal capacity. Reported impacts would be based on ex ante estimates developed during project design. The impact report would thus serve as an illustration of expected environmental results that would be made possible as a result of projects to which green bonds proceeds have been allocated; however, there is no guarantee that these results will ultimately materialize. Furthermore, as the report would include the estimated results of projects that are still in the construction and/or in implementation phase, it is not intended to provide actual impact results achieved in a specific year or reporting period.
- 11. The estimated lifetime results and/or project economic life (in years) could also be reported to provide users with a basis for understanding the relative lifetime scope of the project. However, users of the data should understand that a simple multiplication of the project useful life by the reported annual impact result may not always provide a good estimate of the lifetime impact results, because this would not take into account ramp up and ramp down phases of the project life cycle. Also, in some project types, particularly those involving energy efficiency, it may be difficult to aggregate all the measures being implemented at a project site given the heterogeneous nature of processes and/or equipment.

(iii) Greenhouse Gases (GHGs)

- 12. In the context of climate change, data on emissions of GHG (often quoted in tonnes of CO₂ equivalent) is a commonly used indicator to assess the climate impact of a project. However, there exist a number of different methodologies for estimating and reporting GHG emissions. The differences mainly relate to the assumptions used for estimating the future output (e.g. plant efficiency), the emission conversion factors (e.g. project specific combined margin vs UNFCCC standardized baseline for the host country/region), definitions for the boundaries of a specific project (e.g. physical infrastructure/system boundary vs geographic/administrative boundary), and the baseline alternative used for comparison with the project. While many organizations have existing, published methodologies for project GHG accounting, there are on-going efforts to harmonize GHG accounting methodologies for relevant sectors among a broad group of International Financial Institutions (IFIs).⁵ However, this is an on-going process and, in the absence of a harmonized approach, institutions may follow their own methodologies while striving to make them publically available and transparent. Green bond impact reporting will increase market-wide transparency.
- 13. Given the evolution of methodologies within institutions over time, and current differences in calculation approaches across institutions, reporting GHG emission data based on consistent and published methodology remains a challenge. Issuers are encouraged to report this information in tonnes of CO₂ equivalent only where the applicable GHG accounting methodology and assumptions can be referenced. Users of the reported information should understand the issues with comparability of reported GHG emission data where different methodologies and baseline assumptions may have been used, as well as country specific context. Nonetheless, on-going harmonization efforts should improve the comparability of reported data over time.

(iv) Other Assumptions for Preparing an Impact Report

- 14. **Co-financed projects**: In some instances an issuer may co-finance a project. In such instances the individual project impact reporting would be based on the *total* project results (including financing from all financiers) with information about the total project size and/or the issuer's share of total financing. However, when individual project results are aggregated, only the pro-rated share (as a percentage of the issuer's share of the total financing) of the total results should be included. In summary, where estimated results are aggregated, only the issuers pro-rated share is included in the total, and where disclosure requirements permit individual project reporting, co-financed projects should include:
 - Signed amount issuer's share in currency
 - Total project cost (in currency) and/or issuer's share of total project cost (percentage)
 - Allocated amount issuer's green bond proceeds allocated to eligible disbursements
 - Expected results based on the total project size (including all financiers)
- 15. **Multi-sector projects**: Some projects may have components attributable to different sectors for example a project may have both a renewable energy and energy efficiency component. In some cases the expected impacts may not be reported separately for each sector. In this instance, issuers may attribute the results to each sector based on the currency amount of each component and should disclose the attribution approach that has been used. Alternatively, issuers may combine the reporting metrics for both sectors into a single table (illustrated as option 2 in the attached annex).

An overarching harmonized framework has already been agreed. See http://www.worldbank.org/content/dam/Worldbank/document/IFI_Framework_for_Harmonized_Approach%20to_Greenhouse_ Gas_Accounting.pdf

Where an institution has its own rules for pro rating results, these should be disclosed (e.g., some institutions report 100% of the results when their share of financing is above a specific threshold on the basis that they are catalytic in the project's origination).

- 16. **Projects with partial eligibility**: Some projects may have components that meet the issuer's green bond eligibility criteria and others that do not. Allocating green bond proceeds to disbursements to these projects requires an assumption about which component each disbursement relates to. Some issuers may assume that disbursements are first made to the 'green' component, while others may assume disbursements are pro-rated between the 'green' and 'other' components, based on their respective share of total financing. Issuers are encouraged to disclose their criteria. In addition, issuers may also report the proportion of the total project that is green bond eligible.
- 17. **Data consistency issues**: Issuers may elect to convert units reported for individual projects to be consistent where this would be based on a standard conversion factor to facilitate comparison and aggregation (for example converting tonnes of coal equivalent (tce) to MWh) with appropriate disclosure of the conversion approach. However, complex recalculations that are not publically disclosed in project documentation, such as re-estimating GHG emissions based on consistent baseline assumptions, should be avoided.
- 18. **Exchange rates**: In cases where the underlying loan is in a different currency to the issuer's reporting currency, the use of proceeds would be converted to the reporting currency based on spot exchange rates on the report date.

(v) Suggested Core Indicators for Energy Efficiency and Renewable Energy (see Annex 1)

19. The following section suggests four core indicators for energy efficiency and renewable energy. However there may be some projects for which the proposed core indicator is either not applicable or the data is not available. In such cases, issuers are encouraged to complement the suggested core indicators with additional metrics appropriate for the specific project. Users of the reports should recognize that while issuers will make efforts to improve the consistency and availability of reported metrics over time, projects with climate impacts can cover a wide diversity of sectors and sub-sectors making complete harmonization of reporting metrics challenging. All the same, the consolidated reports will provide a convenient summary of the projects and the scope of their impacts that are considered of particular interest to green bond investors.

A. Energy Efficiency

- #1) Annual energy savings in MWh
- #2) Annual GHG emissions reduced/avoided in tonnes of CO₂ equivalent /a Other Indicators *e.g.*,
 - Annual Absolute (gross) GHG emissions from the project in tonnes of CO₂ equivalent /a /b

B. Renewable Energy

- #2) Annual GHG emissions reduced/avoided in tonnes of CO₂ equivalent /a
- #3) Annual renewable energy production in MWh
- #4) Capacity of renewable energy plant(s) constructed or rehabilitated in MW Other Indicators e.g.,
 - Capacity of renewable energy plant(s) to be served by transmission systems (MW)
 - Annual Absolute (gross) GHG emissions from the project in tonnes of CO₂ equivalent /a /b

Notes:

- a) Where CO₂ emissions figures are reported, the GHG accounting methodology and assumptions should be referenced.
- This is the Absolute (gross) GHG emissions from projects without taking into account the counterfactual (without project) scenario. Depending on their own GHG reporting requirements, some institutions may report Absolute (gross) GHG emissions from the project, alongside the reduced/avoided emissions data (Relative or net emissions) resulting from the project.

Annex I: Illustrative Summary Template for Impact Reporting (Use of Proceeds and Results) Option 1

Energy Efficiency (EE)	Signed Amount a/	Share of Total Project Financing b/	Allocated Amount c/	Project lifetime d/	#1) Annual energy savings	#2) Annual GHG emissions reduced/avoided e/	Other Indicators
Project name f/	currency	%	currency	in years	in MWh	in tonnes of CO₂ equivalent	
e.g. Project 1 (EE only)	100	75%	60	20	62	12,000	500 people benefited; 1,000 t CO₂ eq. Absolute annual project emissions.

Renewable Energy (RE)	Signed Amount a/	Share of Total Project Financing b/	Allocated Amount c/	Project lifetime d/	#3) Annual energy produced	#4) Renewable energy capacity constructed or rehabilitated	#2) Annual GHG emissions reduced/avoided e/	Other Indicators
Project name	currency	%	currency	in years	In MWh	in MW	in tonnes of CO₂ equivalent	
e.g. Project 2 (RE, with EE component)	120	100%	85	20	65	10	14,000	Zero t CO ₂ eq. Absolute annual project emissions; 70 MWh of annual energy savings.

Option 2

Energy Efficiency (EE) and Renewable Energy (RE) g/	Signed Amount a/	Share of Total Project Financing b/	Allocated Amount c/	Project lifetime d/	#1) Annual energy savings	#3) Annual energy produced	#4) Renewable energy capacity constructed or rehabilitated	#2) Annual GHG emissions reduced/ avoided e/	Other Indicators
Project name f/	currency	%	currency	in years	in MWh	In MWh	in MW	in tonnes of CO₂ equivalent	
e.g. Project 1	100	75%	60	20	62	- na -	- na -	12,000	500 people benefited; 1,000 t CO₂ eq. Absolute annual project emissions.
e.g. Project 2	120	100%	85	20	70	65	10	14,000	Zero t CO ₂ eq. Absolute annual project emissions.

Notes:

Reported metrics based on ex ante estimates

- a/ Signed amount represents the legally committed amount of the project or component that is eligible for green bond financing.
- b/ This is the share of the total project cost that is financed by the issuer. Issuers may also report the total project cost. When aggregating impact metrics, only the pro-rated share should be included in the total.
- c/ This represents the amount of green bond proceeds that has been allocated for disbursements to the project.
- d/ Based on either the expected economic life or financial life of the project. Issuer should disclose the reporting basis used.
- e/ The methodology and assumption used should be disclosed when emission reductions are reported.
- f/ Confidentiality considerations may restrict the project level detail that can be disclosed, but issuers should aim to report the list of projects and either project level or aggregate level committed and allocated amounts and core indicator amounts. For aggregate reporting, the share of total project financing and project lifetime columns would be excluded.
- g/ Where projects include both an energy efficiency and renewable energy component, issuers may combine both sectors into a single table. The proposed core indicators would be included where applicable and data is available. Issuers may also include the share of project financing attributable to renewable energy and energy efficiency respectively.

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