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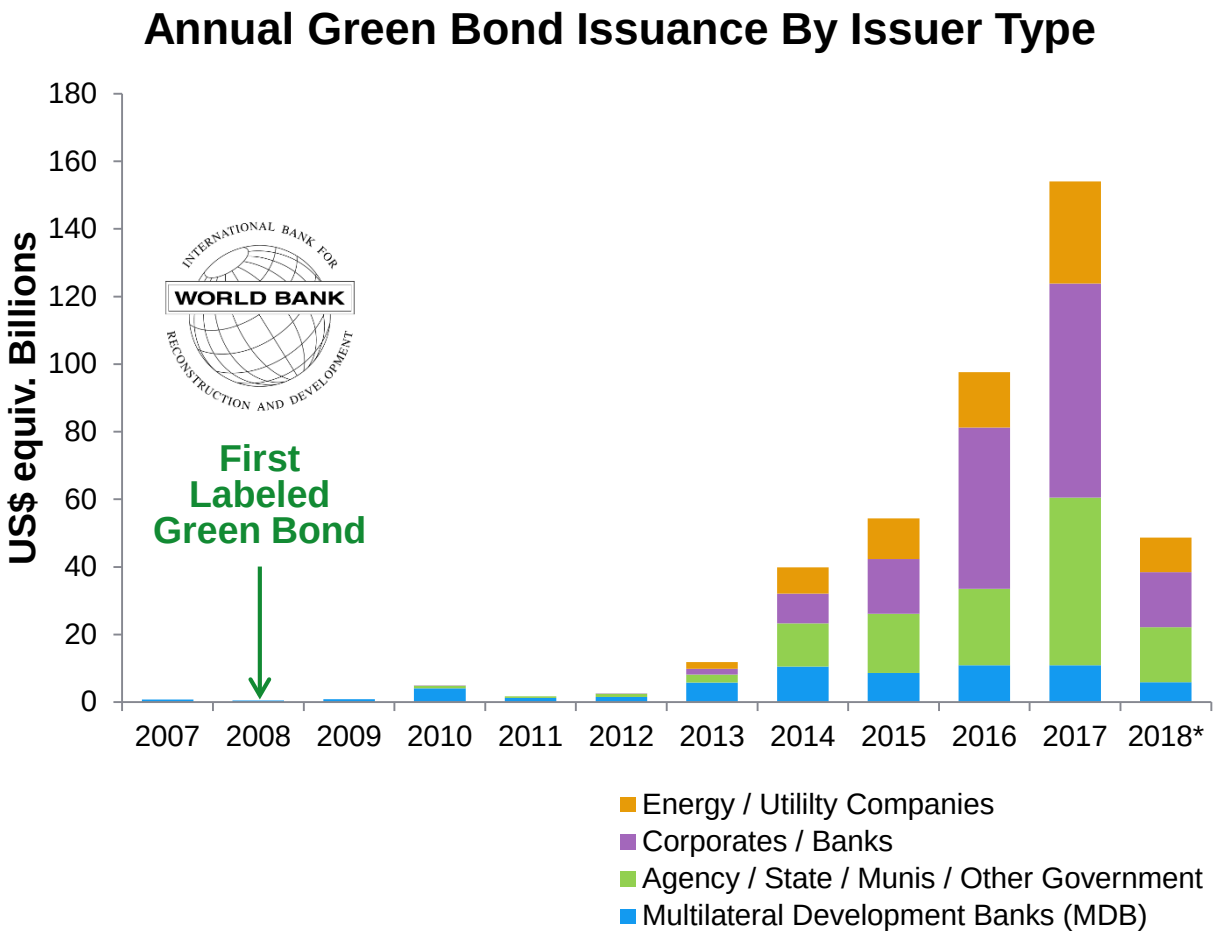
World Bank Guide for Green Bond Proceeds Management & Reporting

Webinar
October 18, 2018

Agenda

- Introduction to format and housekeeping
- **Objectives and World Bank role**
- Initiatives to develop market transparency and guidelines
- World Bank Guide on Green Bond Proceeds Management and Reporting
- Q & A
- Wrap Up

Growth of the green bond market



Source: Bloomberg, World Bank and other public sources (July 31, 2018)

IBRD has raised

US$11 bn

in

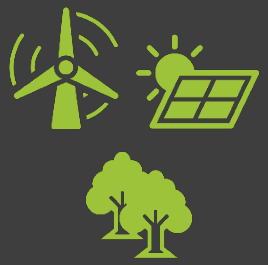
145

green bond transactions

in

19

currencies



Road Map for issuing green bonds

Issuing a regular bond	Issuing a green bond
1. Get rated 2. Get market intelligence on the currency, tenor and size you're aiming at. 3. Decide on underwriters based on the above 4. Register with local regulator (i.e., securities and exchange commission) 5. Issue prospectus 6. Comfort Letter/Due Diligence (if applicable) 7. Roadshows and sales effort 8. Launch bond 9. Price and allocate bond 10. Communicate to the capital market 11. Monitor secondary market	**1. Identify potential green projects** **2. Develop Green Bond framework** • **Define green bond criteria and project selection process** • **Set up processes and controls for the use and management of proceeds** • **Define monitoring and reporting processes** **3. Get an external review** **4. Allocate proceeds to the projects** **5. Monitor use of proceeds and projects** **6. Undertake post-issuance audit** **7. Publish impact report**

World Bank technical assistance for green bond issuers

- Share international experience and best practices
- Help regulators develop Green Bond Guidelines or Regulations
- Help policy-makers consider incentives to support the development of a local green bond market
- Facilitate demonstration issuances by national or local governments by
    - Providing technical assistance on the green bond process
    - Developing a roadmap for the issuance
    - Developing a Green Bond Framework
    - Helping to identify eligible green projects
    - Facilitating the delivery of second opinions/verifications/certification of the Green Bond Framework by an independent third party reviewer
    - Advising on reporting commitment and communication strategy
    - Developing use of proceeds and impact report

Developing the green “sukuk” market in Malaysia

- **On July 27, 2017** Tadau Energy Sdn Bhd issued **the first green sukuk in the world** to raise MYR250 million ($59 million) to finance a 50MW solar power plant in Malaysia
- **Four other green sukuk and a green bond** have been issued in Malaysia since
- Local rating agencies **established a methodology for green sukuk rating**
- Large institutional investors incorporated ESG in their strategic asset allocation
- Republic of Indonesia issued a sovereign green bond ($1.25 bn, February 2018)

World Bank Group support:

- Identified opportunity to leverage Malaysia’s role in Islamic finance to combine the “sukuk” and the green bond
- Undertook diagnostic assessment for feasibility
- Awareness campaign with line ministries; financial intermediaries; banks; institutional investors; rating agencies; and potential issuers
- Capacity building for local green bond/sukuk certifiers
- Technical assistance to issuers for the issuance of sukuk

First sovereign green bond by an emerging market: Fiji

Date of issuance: November 1, 2017

Aggregate size: F$100m ($50 million equivalent)

First tranche: $40 million equivalent

Investors:

- Domestic commercial banks
- Institutional investors

Second tranche: $20 million

Third tranche $26.62 million

Final tranche $13.38 million

(listed on London Stock Exchange on April 18, 2018)

External Reviewer: Sustainalytics (Second party opinion)

Use of Proceeds: Sustainable management of natural resources, renewable energy, water and energy efficiency, clean and resilient transport and waste water management

World Bank Group support:

- Established a high-level green bond steering committee
- Developed the green bond framework
- Helped identify eligible projects
- Provided guidance on reporting and impact indicators
- Facilitated external review
- Currently the World Bank is providing technical assistance to help Fiji develop its post-issuance impact report

Common questions in the minds of issuers

Why would I issue a green bond? What's in it for me?

What qualifies as green?

Who will buy these bonds?

Where do I start?

Which standard should I follow?

How do I disclose refinanced projects?

Which indicators do I use to monitor and disclose impact?

Who should lead – Treasury or Environment?

How do I segregate the green bond proceeds?

How long do I have to report the flow of funds?

How are other issuers doing this?

Do I have to disclose the flow of funds on a project by project basis?

Does the green bond account need to be audited?

Will all this be very expensive?

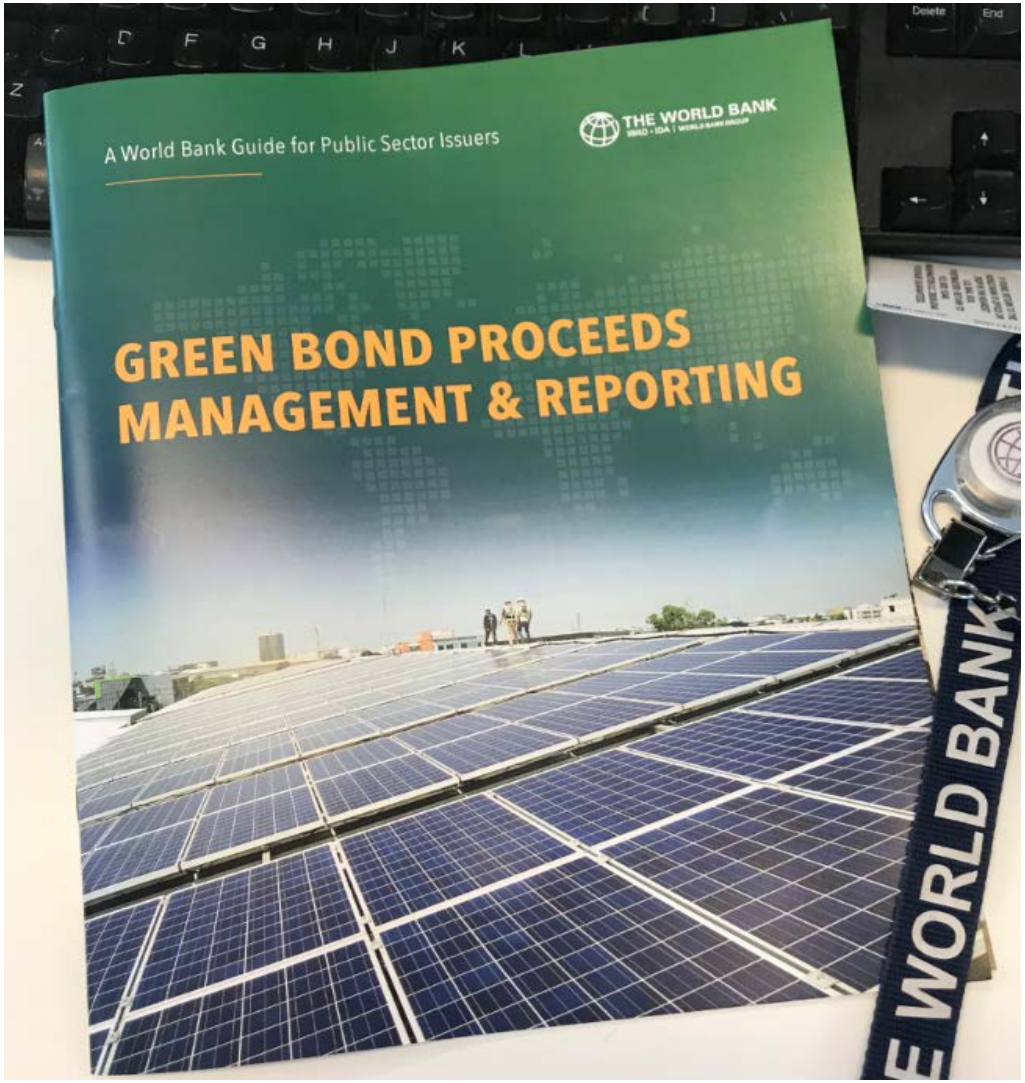
Challenges of reporting

1. Lack of a **standardized procedure**
2. Lack of **knowledge about environmental reporting**
3. Limited **resources**
4. Lack of **coordination between Treasuries and operational units or project owners** overseeing or closer to the investments
5. Inconsistent use of **metrics**
6. Project owners may not be **collecting environment-related information** systematically
7. Some data may be **confidential**

World Bank Guide

Objectives:

1. Clarify the processes issuers can follow
2. Ensure transparency and consistency
3. Promote similarity in reporting and allow investors to compare the impact of their investments across issuers



http://pubdocs.worldbank.org/en/768111536944473808/WB-Green-Bond-Proceeds-Management-and-Reporting-Guide.pdf

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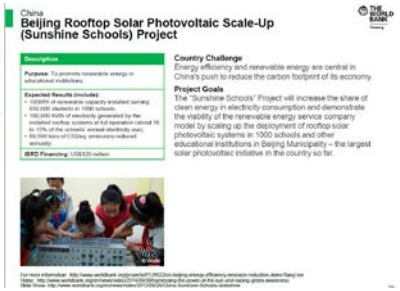
Looking back:
Journey towards harmonized reporting

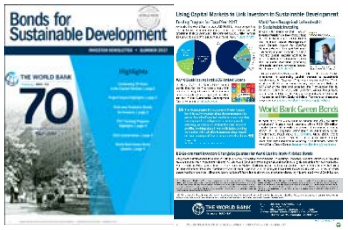
World Bank collaborates with MDBs and others for reporting and frameworks that set standards for issuers and investors to understand and report on the social impact value of investment, in addition to financial terms.

Project Documentation

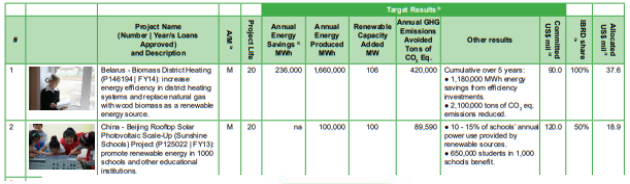
Project Stories



Newsletters



Investor Impact Report



#		Project Name (Number) Year/s Loans Approved) and Description	A/M *	Project Life	Target Results * Annual Energy Savings * MWh	Annual Energy Produced MWh	Renewable Capacity Added MW	Annual GHG Emissions Avoided Tons of CO_2 Eq.	Other results	Committed US$ mil *	IBRD share	Allocated US$ mil *
1		Belarus - Biomass District Heating (P146194) FY14): increase energy efficiency in district heating systems and replace natural gas with wood biomass as a renewable energy source.	M	20	236,000	1,660,000	106	420,000	Cumulative over 5 years: • 1,180,000 MWh energy savings from efficiency investments. • 2,100,000 tons of CO_2 eq. emissions reduced.	90.0	100%	37.6
2		China - Beijing Rooftop Solar Photovoltaic Scale-Up (Sunshine Schools) Project (P125022 (FY13) promote renewable energy in 1000 schools and other educational institutions.	M	20	na	100,000	100	89,590	• 10 - 15% of schools' annual power use provided by renewable sources. • 650,000 students in 1,000 schools benefit.	120.0	50%	18.9

Harmonized reporting:

- **Joint Report on MDBs' climate finance:**
  Annual collaborative effort to make public since 2011, MDB climate finance figures for developing and emerging economies, together with a clear explanation of the methodologies for tracking this finance.

- **Harmonized impact report for investors:**
  World Bank convened informal working group on impact reporting in 2014 that lead to the first harmonized framework for impact reporting used by the World Bank and other issuers. This work was expanded by EIB, and now ICMA hosts the impact working group lead by EBRD and KfW.

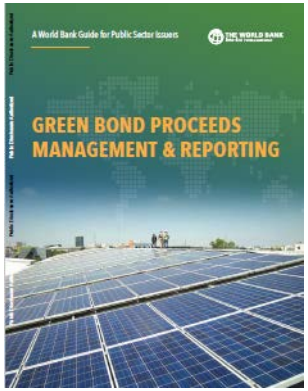
Increased momentum: National, regional and global initiatives

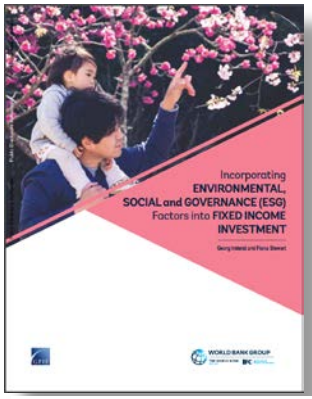
- Green Bond Principles and Social Bond Principles (ICMA GBP and SBP)
- World Bank-UNEP Roadmap for a Sustainable Financial System
- EU Commission's High-Level Expert Group on Sustainable Finance (EU HLEG)
- FSB Task Force on Climate-Related Financial Disclosures (FSB TCFD)
- Network for the Greening of the Financial Sector (NGFS)
- Prince Charles' Accounting for Sustainability (A4S)
- Global Green Finance Leadership Program (GFLP)
- Sustainable Banking Network (SBN)
- Sustainable Stock Exchanges
- G20 Sustainable Finance Study Group

➢ **Focus on urgency and reporting, transparency, harmonized information, and data and standards**

Looking forward:
Focus on environment, social and governance factors for all investments

- **ESG and project impact data is a big focus for all investors. Green bonds are a catalyst for ESG and sustainable investing. World Bank's Green Bond Proceeds Management & Reporting Guide provides standardized framework for Public Sector Issuers.**
- Investors are increasingly incorporating environmental, social and governance (ESG) criteria in all their investment decisions, and starting to use the Sustainable Development Goals (SDGs) as a framework for reporting to show impact.
- The World Bank (IBRD) issues USD 50 billion per year in AAA/Aaa-rated bonds to finance sustainable development. Bonds issued by organizations like the World Bank are a natural fit for investors integrating ESG criteria in their investment process and looking for impact.
- 2018 GPIF/World Bank Group joint research report highlighted solutions for integrating sustainability considerations into fixed income portfolios.





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Methodology

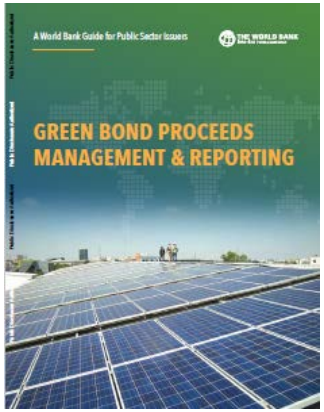
1. Based on the Green Bond Principles

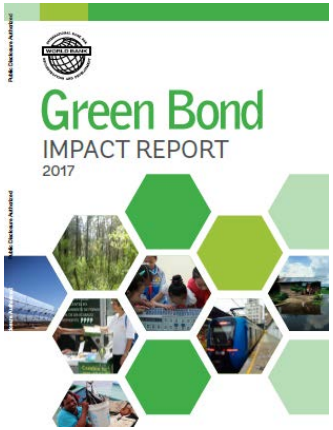
2. Builds on the Harmonized Framework for Impact Reporting using hypothetical portfolio

3. Client focused: Questionnaire to public sector issuers in Fiji, Indonesia and Malaysia

4. Feedback from international green bond investors

5. Based on the World Bank Green Bond Impact Report





Green Bond Principles

Use of Proceeds

Green bond proceeds are to be applied for environmental (or "green") projects with an indicative list of eligible project categories. Refinancing is allowed and recommends disclosing share of refinancing and look-back period for refinanced projects.

Process for project evaluation and selection

Recommends issuers to disclose their overall sustainability objectives, the process used to determine eligibility of green projects, and the process to manage environmental and social risks of these projects. Recommends an issuer's process for project evaluation and selection be supplemented by an external review.

Management of proceeds

The net proceeds of the Green Bond, or an amount equal to these net proceeds, should be credited to a sub-account, moved to a sub-portfolio or otherwise tracked by the issuer in an appropriate manner, and attested to by the issuer in a formal internal process linked to the issuer's lending and investment operations for Green Projects.

Reporting

Recommends annual reporting of the amounts allocated and results of the eligible green projects until "*full allocation, and as necessary thereafter in the event of material developments*". Use of qualitative and, when feasible, quantitative performance measures/indicators.

https://www.icmagroup.org/green-social-and-sustainability-bonds/green-bond-principles-gbp/

Management of Proceeds

Option 1:
Separate Green Account (The issuer creates a separate bank account to deposit the bond proceeds)

Option 2:
Sub-Account (The issuer credits the green bond proceeds to a general account where all other funding is deposited, but simultaneously sets a green subaccount to transfer funds only when the green projects require funding.)

Option 3:
Virtual Green Account /Cash Account (The actual transfers to the projects take place through the issuer's own financial management system, with the virtual green account reconciling equivalent debits to the original bond amount.)

FIGURE 1 • DISBURSEMENT/EXPENDITURE FOR ELIGIBLE PROJECTS (FIGURES IN THOUSANDS USD)

Worksheet		Actual Disbursements Y1					Actual Disbursements Y2				
Project Name	Approved Amount	Q1	Q2	Q3	Q4	Total Y1	Q1	Q2	Q3	Q4	Total Y2
Solar Farm	4,000	300	1,000	1,000	1,000	3,300	700	0	0	0	700
Wind Farm	5,000	400	500	1,000	1,000	2,900	800	700	600	0	2,100
Industrial Efficiency	5,000	500	400	1,000	1,000	2,900	800	600	400	300	2,100
Lighting Efficiency	3,000	300	700	1,000	1,000	3,000	0	0	0	0	0
Mass Transit	10,000	1,000	2,000	2,000	1,000	6,000	1,000	1,000	1,000	1,000	4,000
Light Train	15,000	1,500	2,000	3,000	3,000	9,500	1,500	1,500	1,500	1,000	5,500
Sustainable Agriculture	3,000	300	700	800	800	2,600	300	100	0	0	400
Afforestation	4,000	400	800	800	800	2,800	800	400	0	0	1,200
Waste Management	2,000	2,000	0	0	0	2,000	0	0	0	0	0
Water Management	4,000	4,000	0	0	0	4,000	0	0	0	0	0
Coastal Protection	3,000	500	700	500	500	2,200	500	300	0	0	800
Flood Disaster Prevention	2,000	200	200	200	200	800	200	300	300	400	1,200
Total	**60,000**	**11,400**	**9,000**	**11,300**	**10,300**	**42,000**	**6,600**	**4,900**	**3,800**	**2,700**	**18,000**

Virtual Approach (hypothetical portfolio)

FIGURE 2 • GREEN BOND LEDGER ACCOUNT (FIGURES IN THOUSANDS USD)

	Credit	Debit	Balance
January 1st, 2018	**60,000**		
Y1-Q1		11,400	48,600
Y1-Q2		9,000	39,600
Y1-Q3		11,300	28,300
Y1-Q4		10,300	18,000
Y2-Q1		6,600	11,400
Y2-Q2		4,900	6,500
Y2-Q3		3,800	2,700
Y2-Q4		2,700	0

Recommended Approach: Impact Reporting

- Use existing reporting systems and build up to fully detailed quantitative reporting
- Base impact reporting on the expected environmental impact (ex-ante) of the projects and update as more information becomes available
- Report until the bond matures or until the green projects are completed, whichever is latest
- Report on a project-by-project basis, where feasible. Where not feasible – for confidentiality reasons; large number of underlying projects – report on a sector or portfolio

Project-by-Project Reporting Template

Project #	Name	Eligible Amount	Allocated Amount to Date in Thousands USD	% Disbursed	Goals and Key Beneficiaries	Project Lifetime (years)	Capacity or Coverage	Units	Expected Production or Improvement from Baseline	Units	Emissions Reduced Tons of CO_2 equiv.	Progress to Date	Notes (below)
Sector: Energy													
1	Solar Farm	4,000	3,300	83%	Replace diesel in industrial park	20	20	MW	22,434	GWh	10,800,000	80%	1
2	Wind Farm	5,000	2,900	58%	Supply power to off-grid community of 15,000	20	30	MW	14,821	GWh	7,114,000	40%	2
3	Industrial Efficiency	5,000	2,900	58%	Provide loans for energy efficiency	15	50	Industries	5,000,000	MWh	1,517,000	50%	3
4	Lighting Efficiency	3,000	3,000	100%	Replace inefficient street lamps in city XYZ	15	15000	Streetlamps	21,000	MWh	10,080	100%	4
Sector: Transportation													
5	Mass Transit	10,000	6,000	60%	Exclusive bus lanes (3), stations, and traffic management	30	20	Kilometers	50,000	New riders (15% increase)	n/a	50%	5
6	Light Rail	15,000	9,500	63%	Completion of last 30 Kms of light train	30	30	Kilometers	200,000	New riders (10% increase)	n/a	20%	6
Sector: Land Use													
7	Sustainable Agriculture	3,000	2,600	87%	Soil and water retention works; materials to 20,000 farmers	20	35,000	Hectares	15%	Crop yield	n/a	80%	7
8	Afforestation	4,000	2,800	70%	Replant native trees and shrubs restoring soil; 2000 farmers	25	200,000	Hectares	n/a	n/a	n/a	70%	8
Sector: Other													
9	Waste Management	2,000	2,000	100% Refinanced	Upgrade landfills for biogas capture and use in near-by industry	15	3 landfills	Landfill Gas	4,000,000	m3/year	100,000	100% Completed 1 year ago	9

Reporting Template (cont.)

Project #	Name	Eligible Amount	Allocated Amount to Date in Thousands USD	% Disbursed	Goals and Key Beneficiaries	Project Lifetime (years)	Capacity or Coverage	Units	Expected Production or Improvement from Baseline	Units	Emissions Reduced Tons of CO_2 equiv.	Progress to Date	Notes (below)
10	Water Efficiency	4,000	4,000	100%	Upgrade water treatment to reduce losses and reuse biogas	15	1	Plant	4	m3/sec	2,000	100% Completed 1.5 years ago	1
11	Coastal Protection	3,000	2,200	73%	Replanting program to reduce damage from storms; 1,000 in community	20	800	Hectares	800	Hectares	n/a	75%	11
12	Flood Disaster Prevention	2,000	800	40%	Improve drainage and reduce erosion in flood prone areas inhabited by 20,000 people	20	5,000	Hectares	5,000	Hectares	n/a	30%	12
	TOTAL	**60,000**	**42,000**										

NOTES:

1. Assumes that 1 GW produces 1,122 GWh of electricity using the world average ratio of solar photovoltaic electricity capacity to production in 2015, i.e., 220.2 GW produced 247 TWh (IEA 2017). For emissions, estimate assumes an average world emission factor of 480 grams of CO_2 eq. per kWh electricity produced based on World Bank 2014.
2. Assumes that 1 GW produces 494 GWh using the world average ratio of wind electricity capacity and production in 2015, i.e., 414 GW produced 838 TWh (IEA 2017). For emissions, the estimate assumes an average world emission factor of 480 grams of CO_2 eq. per kWh of electricity produced (World Bank 2014).
3. Assumes an emissions factor for industry of 303 grams of CO_2 eq. per MWh, i.e., each MWh saved reduces 303 grams of CO_2.
4. Assumes replacement with LED lamps achieving 50% electricity savings in the order of magnitude reported in World Bank 2016. For emissions, the estimate assumes an average world emission factor of 480 grams of CO_2 eq. per kWh of electricity produced (World Bank 2014).
5. Reduction of CO_2 emissions by Bus Rapid Transport projects can be simulated. Refer to TEEMP models available from https://www.itdp.org/ and GEF 2011.
6. The simulation of emissions reductions in light rail and other transport projects is complex. For relevant literature, see GEF 2011 and 2015.
7. In addition to improving crop yield and increasing water use efficiency, sustainable agriculture projects may contribute to reducing GHG emissions. See references section.
8. Afforestation contributes to carbon sinks and reduces soil erosion. See references section.
9. Landfills assumed to be retrofitted to capture landfill gas for use in nearby industries. The figures are not based on real projects.
10. Wastewater treatment plant assumed to be retrofitted to avoid discharges to nearby waterway and to capture methane emissions.
11. Coastal protection is assumed to include replanting of mangroves, sea grasses and other species to restore nature's ability to mitigate the impact of severe weather events.
12. Structural risk prevention assumed to improve conditions in an area of 5,000 hectares.

Aggregating projects by sector or category

Column #	1	2	3	4	5	6
	Name	Approved Amount in Thousands USD % Financed by Green Bond	Allocated to Date in Thousands USD	% Disbursed	Brief Description	Progress to Date
Eligible Sector: Energy						
	Renewable Energy and Efficiency	17,000 (100%)	12,100	71%	20 MW solar and wind capacity built; efficiency investments in 50 industries; efficient streetlamps in city XYZ.	60% overall
Sector: Transportation						
	Public Transit Systems	25,000 (100%)	15,500	62%	Construction of segregated bus lanes, passenger stations, and light rail	40% overall
Sector: Land Use						
	Sustainable Agriculture and Afforestation	7,000 (100%)	5,400	77%	35,000 hectares total farmland improved and 200,000 hectares reforested	75% overall
Sector: Other						
	Waste and Water Management and Climate Adaptation	11,000 (100%)	9,000	82%	biogas capture and use; water efficiency; coastal protection; and flood prevention investments	Includes refinanced projects; rest 50% completed
		60,000	42,000			

Note: The above projects are hypothetical. The figures are hypothetical and may not reflect correct orders of magnitude in the relevant sectors.

Conventions for Reporting

- Report on the basis of the share of the project's total investment cost that the issuer has financed with green bonds
- Report impact based on amounts disbursed and outstanding to a project (as opposed to amounts committed)
- Reference methodologies used for metrics and limitations in data where applicable; add notes on assumptions
- Include social benefits where possible:
  - qualitative description of the communities or population being targeted and,
  - include as indicator number of people benefiting from the project when feasible

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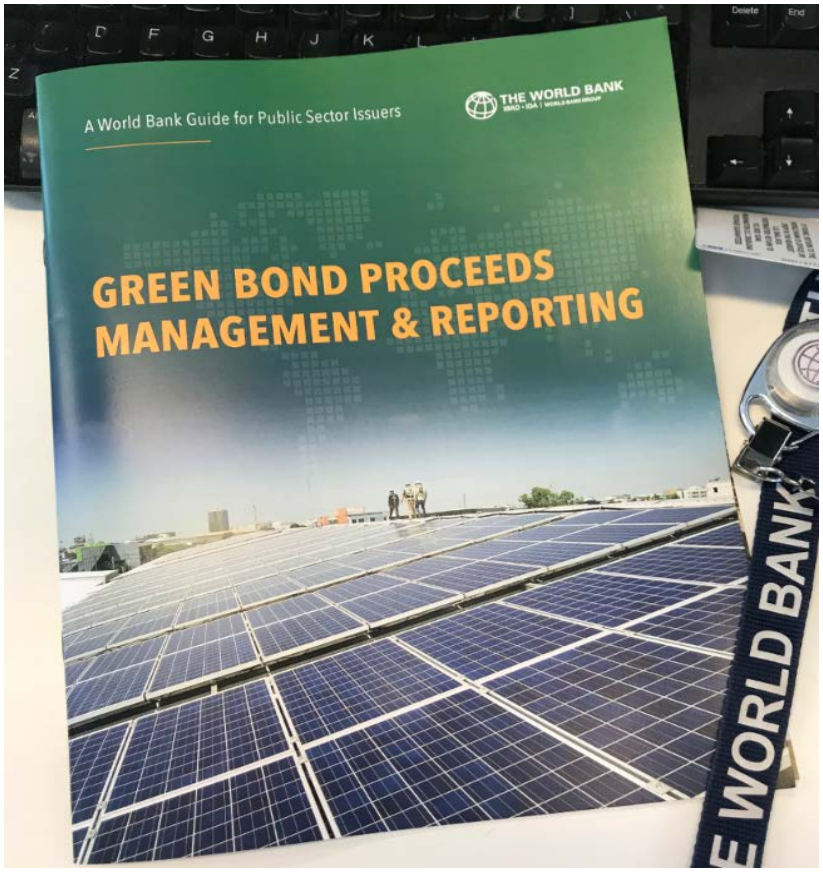

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