

# Green Bond

SIXTH ANNUAL INVESTOR UPDATE 2014

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**“Water is critically related to climate change. If carbon is the currency of climate change, water is the teeth. Fights over water and food are going to have significant direct impacts on climate change in the next five to 10 years.”**

**Jim Yong Kim**

President  
The World Bank Group

**“Energy efficiency will be critical to the competitiveness of cities as well as to their economic profile. Finding ways to achieve efficiency in transport, energy and real estate will make cities cleaner and more livable and will help attract jobs and investment.”**

**Rachel Kyte**

Climate Change Vice President  
and Special Envoy  
The World Bank Group

## Green Bonds World Bank Green Bond Issuance Reaches \$6.4 billion as Green Bond Market Soars

The World Bank had a record year for green bond issuances raising a total of almost \$3 billion in FY14 (July 2013 to June 2014). With its first green bond issued for FY15 – a green bond linked to a sustainable equity index – World Bank's total issuance reached \$6.4 billion through 68 bonds in 17 currencies, supporting 62 projects in 20 countries. Recent issues also include more than \$1 billion issued through two U.S. dollar transactions, an inaugural World Bank Euro 550 million 3-year benchmark, and the Australian market's first AU\$300 million "Kangaroo" Green Bond.

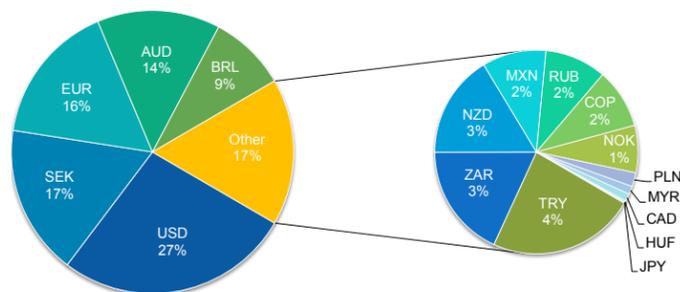
The strong demand for World Bank green bonds comes in tandem with a significant increase in the overall green bond market. By July 2014, green bond issuances well exceeded \$20 billion – twice the amount as those issued in 2013. This growth comes as more issuers and investors are joining the market.

Several developments and initiatives underway are adding more clarity for investors as corporate entities have started to join the existing green bond issuers. These developments include the Green Bond Principles; the Expert Network on Second Opinions, or ENSO, launched by Cicero; an investor initiative led by Ceres; and the Climate Bonds Initiative (CBI). Further, green bond indices which help increase liquidity have begun to appear in the market. For example, both Solactive and Standard and Poor's recently launched a Green Bond Index, and a MSCI/Barclays Green Bond Index is coming soon.

### Outstanding World Bank Green Bonds

(As of July 31, 2014)

#### BY CURRENCY



Of the US\$eq. 6.4 billion issued, US\$eq. 5.3 billion is outstanding in 17 currencies

### World Bank Green Bonds in the News

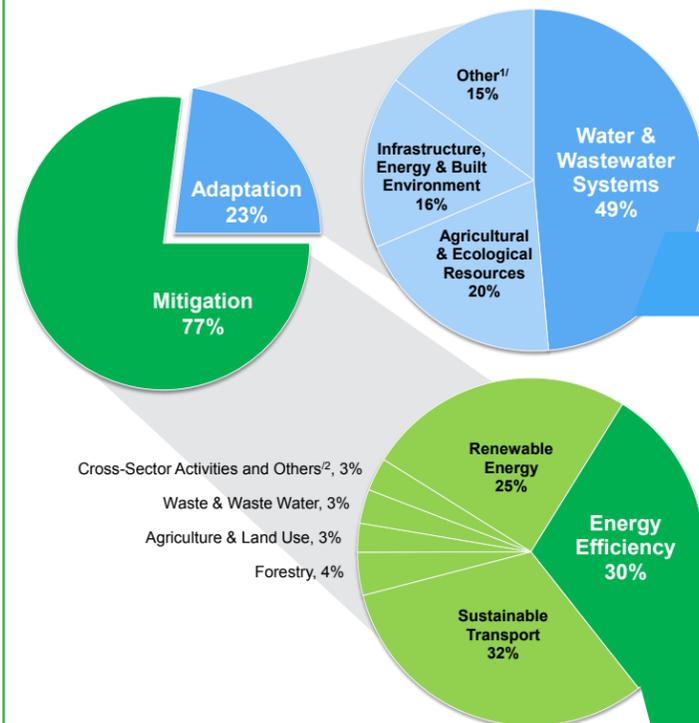
**CNBC, "A scarce global resource fighting climate change"** by Constance Gustke (July 1, 2014). [www.cnbc.com/id/101796340#](http://www.cnbc.com/id/101796340#)

**The Economist, "Green grow the markets, O"** (July 5, 2014). [www.economist.com/news/finance-and-economics/21606326-market-green-bonds-booming-what-makes-bond-green-green-grow](http://www.economist.com/news/finance-and-economics/21606326-market-green-bonds-booming-what-makes-bond-green-green-grow)

**Monitor Global Outlook, "Green bonds slowly sprouting in emerging markets"** (August 13, 2014). <http://www.monitorglobaloutlook.com/Strategic-Outlook/2014/08/Green-bonds-slowly-sprouting-in-emerging-markets>

### Green Project Approved Amounts

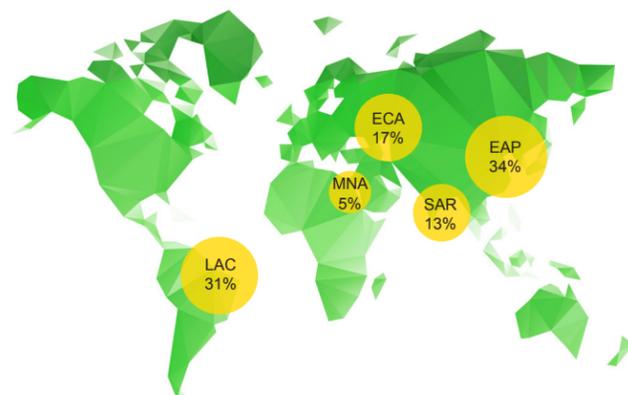
#### BY SECTOR



1/ Other adaptation activities include projects like catastrophe risk insurance facilities, and modernization of hydrometeorological services.

2/ Other mitigation activities include strengthening governments' renewable energy and energy efficiency policies.

#### BY REGION



In Equiv. US\$ billion	Approved
East Asia & Pacific	3.5
Europe & Central Asia	1.8
Latin America & Caribbean	3.3
Middle East & North Africa	0.5
South Asia	1.4
<b>Total as of June 30, 2014</b>	<b>10.5</b>

Note: Amounts may not add up due to rounding.

### Highlighted In This Issue

## Water & Energy Efficiency

World Bank Green Bonds support projects that address mitigation and adaptation solutions for climate change. In this edition, we highlight projects from a sector in each category: Water and Energy Efficiency, respectively. For a list of more projects, please see <http://treasury.worldbank.org/cmd/htm/MoreGreenProjects.html>.

**ADAPTATION** projects help countries develop while protecting people and assets from climate change impacts.

**Water and Wastewater Systems** need to be better planned and built to help communities and countries become more resilient to climate change. This means increasing capacity to achieve and sustain food and water security in an environment of increasingly scarce water resources. World Bank Green Bonds support investments in water management to prevent and reduce climate related impacts and better recover from extreme weather events, including floods, storms, heat waves, and prolonged drought.

#### DOMINICAN REPUBLIC

Upgrading the safety and reliability of water storage, irrigation and sanitation affected by storms and hurricanes.

##### Expected Impacts:

- Wastewater treatment plant serving 550,000 people restored
- 11,600 hectares with improved irrigation
- 200 MW of hydropower facilities restored + 152 km transmission lines restored

#### TUNISIA

Improving irrigation systems to save water.

##### Expected Impacts:

- Water saved across 25,000 hectares
- 10,000 households access clean water

#### CHINA

Overhauling wastewater management and drainage systems of Bengbu City (Anhui Province).

##### Expected Impacts:

- 3 months water reserve provided
- Flood protection to 95% of city land area
- Pollution discharges reduced by 11%



**MITIGATION** projects help countries develop while reducing their carbon footprint.

**Energy Efficiency** investments are considered the "low hanging fruit" of affordable options to reduce carbon emissions. Yet, energy users face many barriers in introducing more efficient technologies, including lack of up-front capital for initial costs, insufficient information about the benefits and savings of efficient technologies and products, and underdeveloped markets for energy management services and products. World Bank Green Bonds support projects that tackle these barriers in different ways.

#### CHINA

Helping Shandong Province finance energy intensive industries through leasing and performance contracting.

##### Expected Impacts (annual):

- 646 GWh of energy saved
- 175,000 tons of CO<sub>2</sub> reduced
- Equivalent to avoiding the CO<sub>2</sub> emissions of 37,000 cars annually\*

#### MONTENEGRO

Upgrading public schools and hospitals with new windows, insulation, lighting, and controls.

##### Expected Impacts (annual):

- 18,750 MWh of energy saved
- 7,600 tons of CO<sub>2</sub> reduced
- Equivalent to avoiding the CO<sub>2</sub> emissions of 1,600 cars annually\*

#### MEXICO

Promoting energy efficient light bulbs and appliances and helping poor households afford them.

**WATCH A VIDEO** about this project: <http://www.youtube.com/worldbanktreasury>

##### Expected Impacts (annual):

- 2,000 GWh of energy saved
- 1.03 million tons of CO<sub>2</sub> reduced
- Equivalent to avoiding the CO<sub>2</sub> emissions of 217,000 cars annually\*



\*Calculated using the Environmental Protection Agency (EPA) Greenhouse Gas Equivalency Calculator at <http://www.epa.gov/cleanenergy/energy-resources/calculator.html>

# What makes a World Bank Green Bond "Green"?

All World Bank bonds support sustainable development, poverty reduction and inclusive growth. They fit well with investment strategies that incorporate Environmental, Social and Governance factors into the decision-making process. The World Bank's Green Bonds are a subset of our sustainable investment opportunities focused specifically on climate change mitigation and adaptation. The World Bank Green Bond symposium helped focus on the characteristics of the green bond market that are most important to investors including the key characteristics of our Green Bond's summarized below. For more information about other sustainable investment opportunities offered by the World Bank see: <http://treasury.worldbank.org/documents/IBRDInvestorPresentation.pdf>

## Project Selection Criteria

World Bank Green Bonds support the transition to low-carbon and climate resilient development and growth. Our selection criteria underwent an independent review by the Center for International Climate and Environmental Research at the University of Oslo (CICERO).

## Process for Selecting Eligible Projects

World Bank projects undergo a rigorous review and approval process including early screening to identify environmental and social impacts and designing concrete mitigation actions. Then environment specialists identify approved projects that meet the green bond eligibility criteria.

## Ring Fencing Green Bond Proceeds

Green bond proceeds are earmarked to support only eligible green projects. They are credited to a separate Green Cash Account and are invested in accordance with IBRD's conservative liquidity policy until allocated for eligible green project disbursements.

## Monitoring & Reporting

The progress, outcomes and impacts of projects are monitored throughout implementation and the ultimate effectiveness of the operation is evaluated in terms of the objectives they were set to achieve. Project information is available on the main World Bank website and summaries and key impact indicators are provided on the World Bank's Green Bond website.

For more information on our green bond implementation guidelines, please see <http://treasury.worldbank.org/cmd/pdf/ImplementationGuidelines.pdf>

## Project Selection Criteria

### Examples of Eligible Projects

#### Mitigation

- Solar and wind installations;
- Funding for new technologies that permit significant reductions in greenhouse gas (GHG) emissions;
- Rehabilitation of power plants and transmission facilities to reduce GHG emissions;
- Greater efficiency in transportation, including fuel switching and mass transport;
- Waste management (methane emissions) and construction of energy-efficient buildings;
- Carbon reduction through reforestation and avoided deforestation.

#### Adaptation

- Protection against flooding (including reforestation and watershed management);
- Food security improvement and stress-resilient agricultural systems (which slow down deforestation);
- Sustainable forest management and avoided deforestation.

## List of Select World Bank Green Bond Investors

- Aberdeen Asset Management
- ACTIAM (Formerly SNS AM)
- Adlerbert Research Foundation
- Aegon Asset Management
- AMP Capital
- AP2 and AP3 – Swedish National Pension Funds
- Australia Local Government Super
- Australian Ethical Investment Ltd
- Barclays Treasury
- BlackRock
- Breckinridge Capital Advisors
- Caisse Centrale de Reassurance
- California State Treasurer's Office
- CalSTRS
- Calvert Investments
- Church of Sweden
- Colonial First State Global AM
- Deutsche Asset & Wealth Management
- Everence Financial
- FMO (Netherlands Dev. Fin.)
- Ikea Group
- LF Liv
- Mirova
- MISTRA
- Natixis Asset Management
- New York Common Retirement Fund
- Nikko Asset Management
- Pax World Balanced Fund
- Pictet
- QBE Insurance Group Ltd
- Rathbone Greenbank
- Sarasin
- SEB Ethos rantefund / SEB Fonden / SEB TryggLiv
- Skandia Liv
- Sonen
- Standish Mellon Asset Management
- State Street Global Advisors
- TIAA-CREF
- Trillium Asset Management
- UN Joint Staff Pension Fund
- UniSuper
- WWF-Sweden
- ZKB (Zürcher Kantonalbank)
- Zurich Insurance
- Zwitserleven

## What Investors Said

"In line with its mission and vision, ACTIAM is very committed to responsible investment and green bond investing in particular. ACTIAM is very pleased to participate in this particular World Bank deal to continue to assist its clients like Zwitserleven in their search for responsible investments."

**Erik Jan van Bergen**, Chief Investment Officer  
ACTIAM

"The green bond issued by the World Bank fits within our existing mandate guidelines and our impact investing approach in which we select investments that meet our existing risk and return requirements, but also have the intent to create a measurable social or environmental impact."

**Hendrik-Jan Tuch**, Senior Portfolio Manager  
Aegon Asset Management

"UniSuper welcomes the partnership with the World Bank for this inaugural Australian dollar green bond. This transaction demonstrates the World Bank's leading role in further developing the green bond and SRI debt capital markets overall. UniSuper is committed to the sustainable finance effort and is proud to contribute to it through this transaction."

**Talieh Williams**, Manager, Governance and Sustainable Investment  
UniSuper

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**About the World Bank:** The World Bank (International Bank for Reconstruction and Development, IBRD), rated Aaa/AAA (Moody's/S&P) operates as a global development cooperative owned by 188 member countries. The World Bank has two main goals: to end extreme poverty and promote shared prosperity. It provides its members with financing, expertise and coordination services so they can achieve equitable and sustainable economic growth in their national economies and find effective solutions to pressing regional and global economic and environmental problems.

**About the World Bank Group:** The World Bank Group consists of five separate legal organizations working towards a common mission to eradicate extreme poverty and promote shared prosperity. It includes International Bank for Reconstruction and Development (IBRD), the International Development Association (IDA), the International Finance Corporation (IFC), the Multilateral Investment Guarantee Agency (MIGA), and the International Centre for Settlement of Investment Disputes (ICSID). Both IBRD and IFC are issuers of green bonds.



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