



# Green Bond Impact Report

Financial Year 2017

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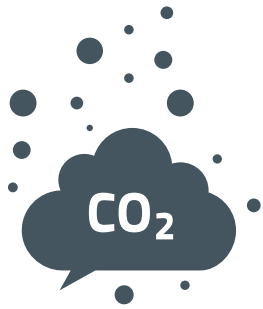
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# FY17 Highlights

← **33** new projects →

Expected reduction to GHG emissions amount to

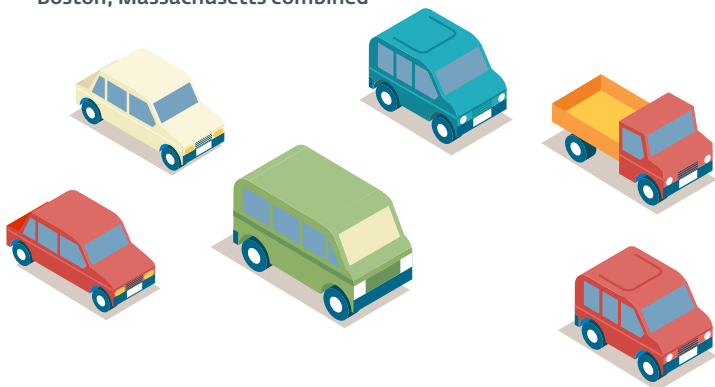
**2.24 million**  
metric tons of CO<sub>2</sub>-equivalent



is equivalent of removing

**477,770**  
cars off the road

or all cars in Washington, DC and Boston, Massachusetts combined\*

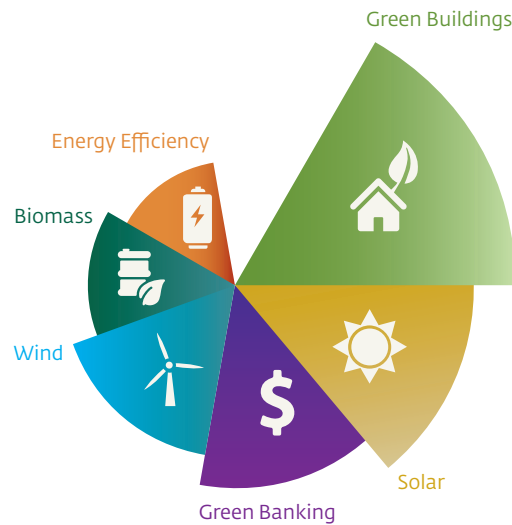


contribute approximately

**2.19 million**  
MWh

in annual renewable energy generation

sufficient to supply residents of Miami, Florida with electricity for one year\*.



\*Sources:  
<http://worldpopulationreview.com/us-cities/>  
<http://www.governing.com/gov-data/car-ownership-numbers-of-vehicles-by-city-map.html>

# Letter from the Vice President

**It is my pleasure to present to you IFC's annual Green Bond Impact Report for the financial year 2017. Climate change is already impacting various regions across the world, with the most vulnerable being hit the hardest.**

The effect of extreme natural disasters *is equivalent to a \$520 billion loss in annual consumption, and forces some 26 million people into poverty each year*. The funding required for an orderly shift to a low-carbon, resilient global economy is estimated at trillions. This opens vast opportunities for scaling climate-smart investments. It is projected that for infrastructure alone, the world *will require about \$90 trillion over the next 15 years – most of it in developing and middle-income countries*. Climate action is a vast opportunity for sustainable global development, with investment potential in the trillions of dollars and the ability to drive innovation and create green industries and new jobs. An *IFC Report* launched in November 2016 estimates that the historic global agreement on climate change adopted in Paris can open up nearly \$23 trillion in opportunities for climate-smart investments in 21 emerging markets between now and 2030.

As the largest development finance institution supporting the private sector in emerging markets, IFC is well positioned to work with private enterprises to grow climate-smart business and to green the financial sector. Since 2005, IFC has invested \$18.3 billion in long-term financing from its own account and mobilized another \$11 billion through partnerships with investors for climate-related projects. By the end of the financial year on June 30th 2017, IFC's total own account climate-related investments was \$3 billion, covering over 90 climate investment projects in 41 countries. We mobilized an additional \$1.8 billion from other investors. Under our Green Bond Program in FY17, we issued 19 green bonds in public and retail format across six currencies amounting to a total volume of approximately \$650 million. At the close of fiscal year 2017, there were 125 green bond-eligible projects supported by IFC's green bond proceeds. The total committed amount for these projects is \$4.6 billion, of which \$2.8 billion has been disbursed. IFC's outstanding green bonds amounted to around \$2.3 billion.

The global market for green bonds has expanded rapidly in recent years – totaling more than \$100 billion in 2016. Nevertheless, a huge gap persists: few banks in developing countries have issued such bonds. IFC has undertaken several initiatives to promote the issuance of green bonds in these countries. In FY17, IFC supported two banks in Colombia, *Davivienda* and *Bancolombia*, to issue green bonds. Bancolombia's was the first green bond issued by a commercial bank in Latin America. During the year, IFC also teamed up with Amundi to structure the *largest green bond fund dedicated to emerging markets*, targeting financial institutions as green bond issuers. Looking ahead, we will continue to work on innovative products to crowd in investors and develop de-risking tools and guarantees to assist our clients to become active in the green bond markets.

**Jingdong Hua**  
IFC Vice President and Treasurer



# IFC's climate business summary

Since 2005 IFC has invested about \$18.3 billion in long term financing, and mobilized another \$11 billion through partnerships with investors for climate-related projects, for renewable power, energy efficiency, sustainable agriculture, green buildings, waste, and private sector adaptation to climate change.

In FY17, IFC's climate-related long term investments from own account were close to \$3 billion and we also achieved close to \$1.8 billion in core mobilization, for a total of \$4.8 billion invested in climate-smart projects.

**In FY17, through its Advisory, IFC enabled more than \$636 million in climate related investments in power, resource efficiency, access, and public private partnerships.**

In FY17, IFC's total climate-related investment and advisory projects will account for reducing over 6.7 million metric tons of greenhouse gas (GHG) emissions annually, equivalent to taking 1.4 million cars off the road.

## 5 minutes chat with ...

**Alzbeta Klein**  
Director IFC Climate Business



### Why is Climate Risk important?

Businesses in emerging markets can no longer afford to ignore the risks posed by the changing climate to their bottom lines. Ranging from increasingly frequent and severe weather events to new regulations and changing consumer preferences, climate change is fundamentally transforming the way we do business. Increasingly, companies and their investors are seeking opportunities to transition to and invest in climate-smart portfolios.

### What role does the private sector play?

By all accounts, engaging the private sector in climate-smart investments will be a cornerstone to growing climate business which will require trillions more in innovative climate-smart investments particularly in emerging markets. A low carbon business strategy goes beyond environmental benefits and positions companies for the markets of tomorrow. IFC estimates that the Nationally Determined Contributions (NDCs) of 21 emerging market economies alone represent \$23 trillion in investment opportunities.

### What are IFC's priorities in Climate finance?

Closing off a successful fiscal year in 2017, IFC committed and mobilized close to \$4.8 billion in climate-smart industries, helping scale up climate investments in 41 emerging markets. While these industries are all showing promise, there are five sectors where, based on our experience, innovative approaches are poised to widen the tent, attracting billions in private sector capital:

- **Climate-smart Agribusiness:** Unquestionably, meeting future demand for food will be one of the world's greatest climate-related challenge.
- **Green Buildings:** Buildings are estimated to be responsible for about one third of global greenhouse gas emissions.
- **Smart Cities:** 70% of developing country populations are expected to live in cities by 2050. This opens doors for opportunities to build "smart" cities, capable of sustainably meeting demand for infrastructure in urban environments.
- **Energy Storage:** New research from IFC suggests that over the coming decade, energy storage technologies will grow 40 percent annually in emerging markets. This growth is likely to unlock significant environmental, social, and economic benefits.
- **Clean Energy:** This includes renewable energy generation as well as energy storage. IFC supports renewable energy across the entire value chain: from helping investors enter renewable energy markets to advising governments to develop climate-smart regulations and PPPs, as well as facilitating financing for grid-tied renewables and improving people's access to modern off-grid energy services.
- **Green Bonds:** A critical challenge remains the ability to scale up climate-smart investments bringing new financiers into the climate-smart investment space.

# IFC's Green Bond Program summary

**In FY17, IFC issued 19 green bonds in public and retail format across six currencies amounting to a total volume of approximately \$650 million. This brings the cumulative issuance since 2010 to \$5.8 billion across 79 bonds in twelve currencies.**

At the start of the fiscal year, IFC reopened its longest tenor global green bond to satisfy investor demand by increasing the size of the bond by \$500 million to an outstanding \$1.2 billion. The bond was allocated to more than thirty accounts. Another notable issuance was also in the long end of the curve, IFC's first green bond in Swedish Krona issued in April 2017. The SEK800 million bond has a 10-year maturity.

Throughout the year, IFC's Impact Note retail program in the US was issued exclusively in green format. This designation was in response to demand from retail investors who increasingly value green use of proceeds in addition to credit consideration. The total issuance of green Impact Notes in FY17 amounted to \$23 million.

IFC continued to be active in the Japanese Uridashi retail market, having offered green notes to Japanese households amounting to \$22 million during the year.

**As at 30<sup>th</sup> June 2017, IFC's outstanding green bonds amounted to around \$2.3 billion.**

5 minutes chat with ...

**Monish Mahurkar**  
Director IFC Treasury Market  
Operations



## **What was the impetus for creating a Green Bond Program?**

Since 2005, climate change has been a top strategic priority for IFC because of the risks it poses to our development mission. Initially in 2010, IFC issued green bonds to meet niche investor demands. By 2013, when we issued the market's first billion-dollar benchmark, it was done to promote the product from a niche one to a mainstream product. It has now been 7 years since IFC launched its Green Bond Program. Since then in addition to providing liquidity, we have used the product to engage investors and educate them about green bonds. One of the main objectives of the Green Bond program remains to convert traditional investors to Environmental, Social and Governance (ESG) investing, which means providing mainstream products with a familiar look and feel. The "use of proceeds" green bond does just.

## **How has your approach changed since IFC's Green Bond Program was launched?**

We have broadened the spectrum of our green bonds expertise in several ways: we branched into demonstrating issuance in local currency to match local investor needs without exposing them to currency risk, which has a double effect of encouraging investors to consider ESG as mainstream investment approach even in local markets, as well as meeting our mandate of developing local capital markets.

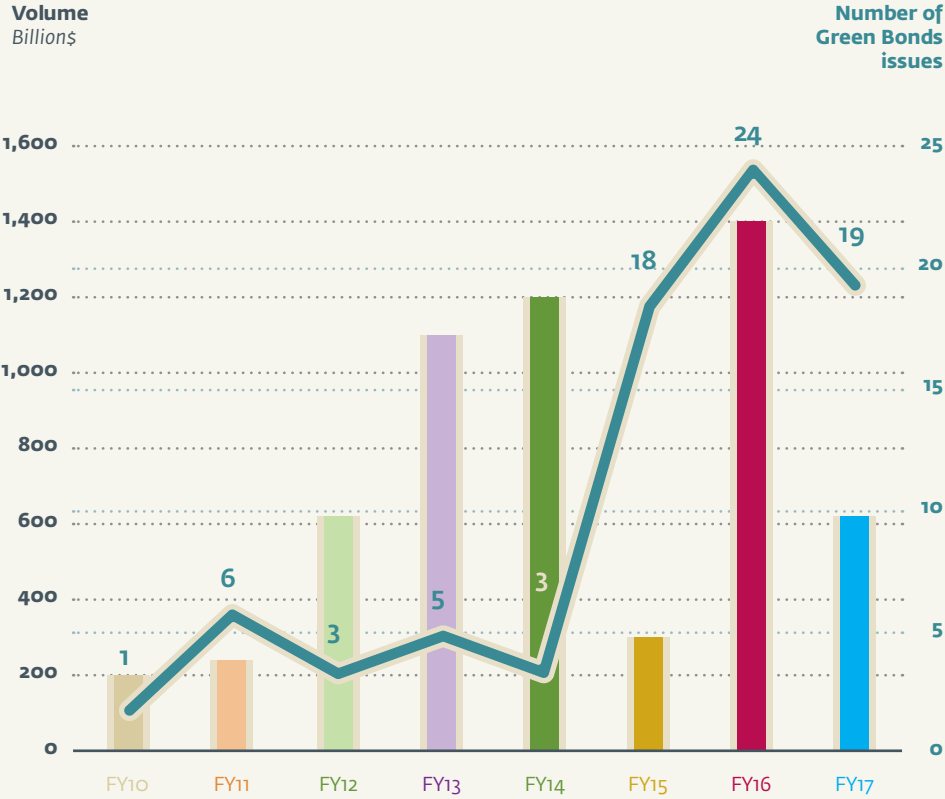
IFC now has a unique position in that we not only issue green bonds, but we also support green bond issues through anchor investments as well as provide credit guarantees to allow our clients access the green bond market and most recently, we have launched the [Green Cornerstone Bond Fund](#) with Amundi which will serve to open up the green bond market in our client countries.

## **From an issuer perspective, how would you like to see the green bond market develop?**

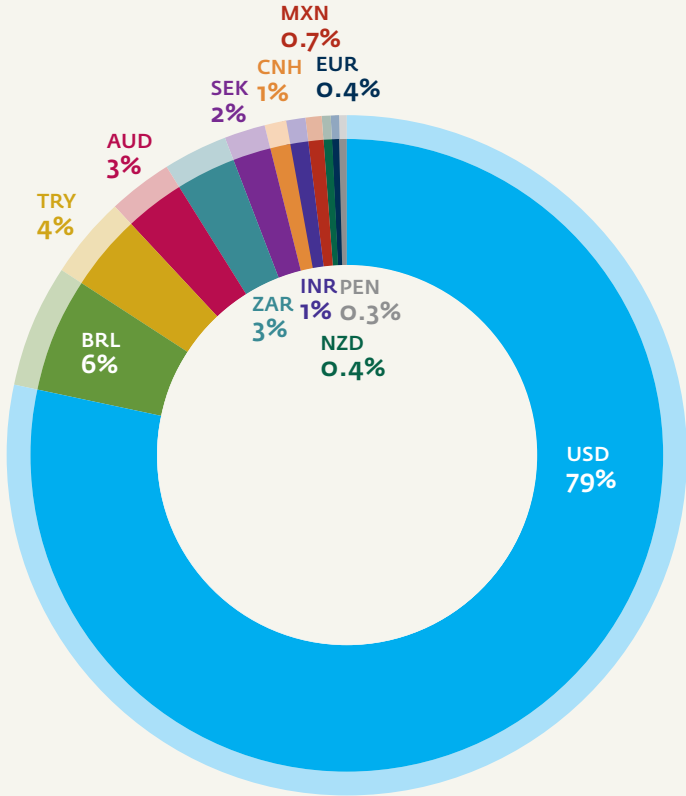
There are few developments that would support a more robust, diversified and transparent green bond market including: expansion of the market to new issuers, transactions in new currencies; facilitation of green asset-backed securities as securitizations could offer investors exposure to a diversified pool of assets; introducing green project bonds which would allow investors gain direct exposure to the risk of the project with or without potential recourse to the issuer depending on risk appetite. Increasingly, investors are asking for more transparency on the use of green bond proceeds and reporting so ensuring transparency is fundamental, but we must endeavor to maintain a balance in promoting greater transparency and encouraging growth in new directions so as not to deter smaller and potential issuers.

# IFC's Green Bond issuance summary

IFC historical Green Bond issuance



IFC Cumulative Green Bond issuance by currency



# Green finance engagement

**IFC works closely with the financial institutions, international initiatives, standard setters, and regulatory bodies engaged in green finance with the broader goal of promoting clean and sustainable development around the world.**

In FY17, IFC sustained a principal role in developing the green bond market through several key initiatives. As an active member of the Executive Committee (EXCOM) for the *Green Bond Principles* (GBP), IFC contributed to the drafting of the updated version of the voluntary set of transparency and disclosure guidelines published in June 2017. The GBP have gained broad market acceptance, as good practice driving transparency and accountability, and membership is now at 149 members. IFC also actively participated in the EXCOM's working groups on strategic topics, such as new markets, impact reporting, green projects eligibility etc. as well as chairing the Social Bond Working Group which successfully published the *Social Bond Principles*, an initiative that was awarded "*Most Valuable Innovation for the Green/SRI Bond Market*" by GlobalCapital.

IFC continues to deploy innovative ways to expand the green finance market. In addition to IFC's green bond program which helps unlock private capital investment for climate-smart projects, IFC operates a multi-faceted approach to green finance as issuer, investor, provider of risk mitigation instruments and most recently a fund originator for green bonds. IFC was the sole investor in the first green bond issued by a commercial bank in Latin America with its anchor investment in Bancolombia, Colombia's largest commercial bank's 350 billion Colombian pesos bond. IFC was also the sole investor in the largest green bond issue by a private financial institution in Latin America issued by Davienda, one of the largest banks in Colombia. The bond raised 433 billion Colombian pesos. In another bid to further develop the green bond market, IFC and Amundi collaborated to create the largest green-bond fund dedicated to emerging markets – a \$2 billion initiative that aims to deepen local capital markets and expand financing for climate investments. IFC will invest up to \$325 million in the new Green Cornerstone Bond Fund which will buy green bonds issued by banks in Africa, Asia, the Middle East, Latin America, Eastern Europe, and Central Asia. Amundi will raise the rest of the \$2 billion from institutional investors worldwide and will provide its services in managing emerging-market debt. Another milestone achieved during the year was the first-of-its-kind Forests Bond – a 'green coupon' bond issued by IFC to offer investors the option of getting repaid in either forestry credits or cash. The bond raised \$152 million to help prevent deforestation in developing countries.



ICMA, Green Bonds Principles Conference 2017





## Green finance engagement

IFC developed this in collaboration with BHP Billiton, who will buy the credits if investors elect for a cash coupon. In addition to helping conserve forests and wildlife, the revenue provides many other community benefits. It recently was selected as Environmental Finance's Sustainable Forestry Deal of the Year.

IFC remains involved in private sector engagement around the Carbon Pricing Leadership Coalition (CPLC) that was launched at COP21 in Paris. Given the growing global momentum on carbon pricing as a means of driving investments for a cleaner future, IFC is helping use carbon pricing to engage leading clients to measure and manage climate risks – and unlock new investment opportunities.

Measuring green finance faces several challenges, namely, a lack of cohesiveness across approaches, definitions, data availability, and the inconsistent use of quantifiable indicators. Without an integrated approach, it remains difficult to track green finance's impact. In April 2017, IFC's published "[Green Finance: A Bottom-up Approach to Track Existing Flows](#)", a report completed in partnership with Germany's Gesellschaft für Internationale Zusammenarbeit (GIZ). The paper seeks to provide methodologies for tracking flows that are aligned with much needed concrete definitions proposed at the project-level.



The report finds that 82% of all syndicated loans in 2014 financed projects in sectors with some green activities. Of all lending to projects with some green use of proceeds, 41% of loans were for green real estate and 24% for infrastructure and transport. By estimating the current supply of green finance provided by the financial sector, IFC enables broad analysis and supports the ability of policymakers to mobilize additional green finance as they develop clear action points to close any gaps with demand at a national level. Additional findings show that the green bond market represents the most advanced use of definitions and tracking in the field of green finance and could serve as an example for other areas. Tracking green finance will become much easier and more accurate when bank lending and project purposes can be clearly labeled as green based on consistent classifications. The report finally outlines key action points for market players both in the short and medium term, with the goal of enhancing cooperation and building a foundational roadmap for a stronger, more integrated green finance sector. This analysis lends support to the activities proposed under the recent "[Roadmap for a Sustainable Financial System](#)" launched by UN Environment and the World Bank Group, which intends to design an action plan for moving towards a sustainable financial system and a basis for measuring progress.

# Awards

IFC's 10-year green bond which raised \$700 million for climate-smart investments in emerging markets was awarded **Best SRI Bond** by Global Capital. The bond carries a coupon of 2.125% and was upsized from \$500 million in response to significant investor demand.



IFC's Forest Bond won the Environmental Finance **Sustainable Forestry Deal of the Year 2017** award. A key feature of the bond is that investors can choose to have the coupon paid in cash, or in carbon credits. The \$152 million, 5-year bond launched in October 2016 was oversubscribed and listed on the London Stock Exchange. The Bond is an important demonstration example of leveraging markets to support a sector that needs \$75 - \$300 billion of investments in the next decade.

IFC won the award for **Best Green Bond Impact Report** in the Environmental Finance Green Bonds Awards 2017 as voted for by green bond issuers, underwriting banks and other players in the industry globally.



# Spotlight on Green Bonds for green buildings



# Spotlight on Green Bonds for green buildings

**Green bonds are an increasingly attractive avenue to finance green buildings. Population growth, urbanization and buildings are responsible for a third of global greenhouse gas emissions. IFC is helping promote a universal and accessible green performance standard to identify areas for cost savings in buildings.**

Currently, only a small volume of buildings are designed and certified as green. Developers and consumers are only beginning to become aware of the financial benefits of resource-efficient buildings, and financing is not yet designed to support green development. In contrast, IFC's report on *Climate Investment Opportunities in Emerging Markets* found that there is a \$16 trillion investment potential for green buildings between now and 2030. IFC also executed a *deep dive analysis of market potential* in 30 countries. This potential can be captured utilizing IFC's EDGE green buildings certification which is part of a larger creating markets program.

EDGE is a software, a standard, and a green building certification system tailored for emerging markets that makes it faster, easier, and more affordable than ever to build and brand green. EDGE recognizes the need for a measurable solution, with free software for choosing the most cost-effective ways to build green; a simple green building standard of 20% efficiency across only three categories; and a certification system to reward green building projects. EDGE is different from other certification systems, because it includes a financial calculator to estimate the cost of green measures in a 'one-stop shop' approach.

EDGE reduces transaction costs for accessing green finance with its simple but robust approach, and is ideally suited for raising finance through green bonds, as EDGE already complies with standards such as the Green Bond Principles in the following ways:

### 1. Criteria

EDGE is already partnering with standard-setting bodies to ensure that projects are in compliance with criteria for eligible green projects. Buildings in the pipeline can be greened using the free EDGE software and certified at an affordable price.

### 2. Second opinion

Since EDGE is an accepted international standard, the independent opinion on asset selection is streamlined.

### 3. Allocation process

IFC offers training to the financial institution staff on how to process green loans using EDGE. This makes the validation of the allocation process more simplified.

### 4. Reporting

The institution issuing the green bond must report on environmental and social impacts of each financed project. EDGE staff can execute this information easily from our certification tracking dashboard.

IFC has invested in green bonds for green buildings, including transactions with Punjab National Bank in India (secured non-convertible debenture) and Guaranti Bank in Turkey (covered bond for green mortgages). We have also invested in green bond issuances in Colombia and Poland, where a significant portion of the financing was earmarked for green buildings. IFC's cumulative investments in green buildings now tops \$3 billion (including own account and mobilization via syndicated loans), of which almost \$600 million was invested through other financial institutions.

IFC's EDGE Green Buildings program, green buildings footprint grew exponentially this year with:

1.5m

nearly 1.5 million m<sup>2</sup> of floor space certified

2m

additional 2 million m<sup>2</sup> registered for certification

This will translate to annual savings of:

8.9m

8.9 million kWh of energy

330k

330,000 m<sup>3</sup> of water

Positively impacting the utility bills of the customers of EDGE clients.

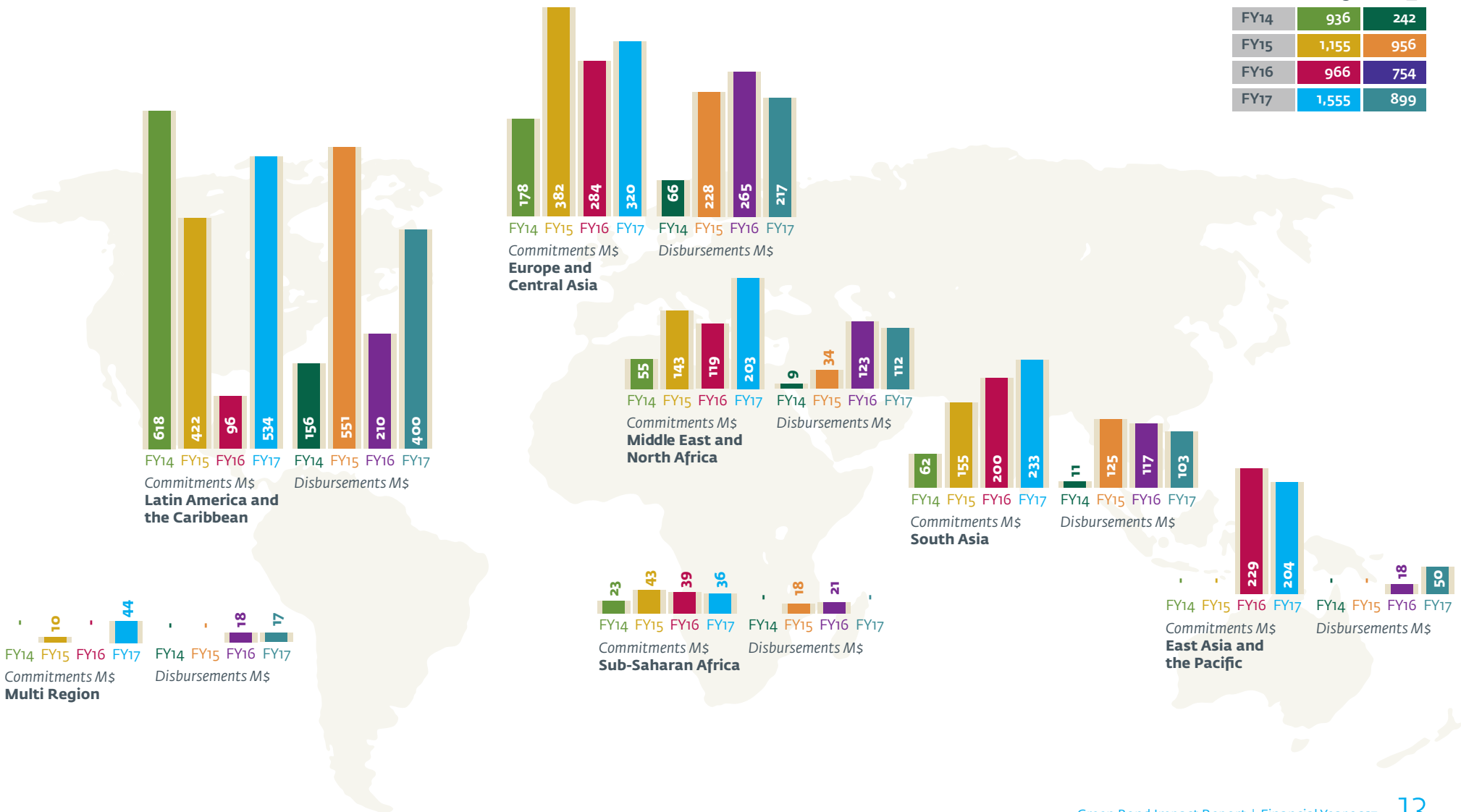


EDGE is now available in more than 130 countries, with Estonia, Greece, Latvia, Lithuania, and Poland joining in FY17.

# IFC Green Bond commitments by region

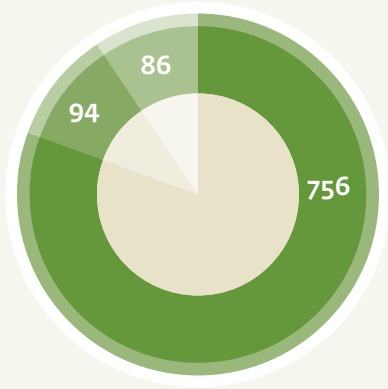
As of June 30, 2017, there were 125 green bond eligible projects supported by IFC's green bond proceeds. The total committed amount for these projects is \$4.6 billion, of which \$2.8 billion has been disbursed. The current pipeline of undisbursed commitments to green bond eligible projects is \$1.8 billion.

Total in M\$	Commitments	Disbursements
FY14	936	242
FY15	1,155	956
FY16	966	754
FY17	1,555	899



# IFC Green Bond commitments by sector

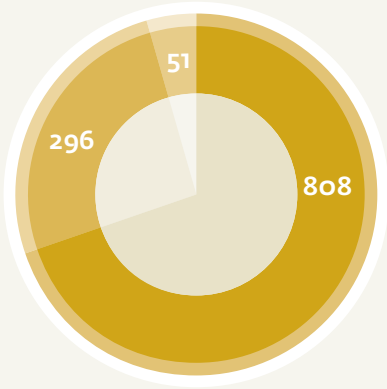
Commitments by sector  
in M\$



FY14

Renewable Energy  
Energy Efficiency  
Special Climate

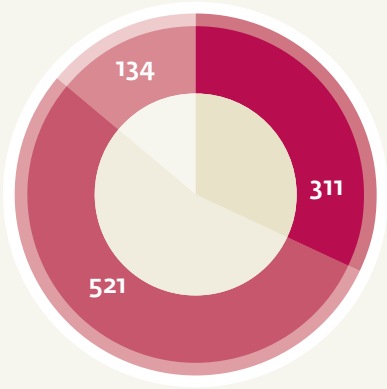
Total M\$ 936



FY15

Renewable Energy  
Energy Efficiency  
Special Climate

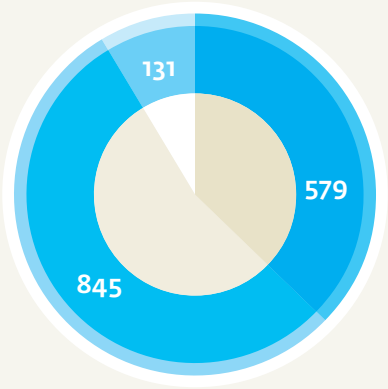
Total M\$ 1,155



FY16

Renewable Energy  
Energy Efficiency  
Special Climate

Total M\$ 966



FY17

Renewable Energy  
Energy Efficiency  
Special Climate

Total M\$ 1,555

# Featured project: Mocuba Solar

(ID: 36787)



Mocuba project

**Mozambique stands out amongst its South African neighbors as having the largest power generation potential in the region capable of generating 187 gigawatts (GW) of power. This includes an estimated 23 GW from renewables, mostly from unexploited solar power.**

Development of electrical infrastructure for renewable energy has helped the country attract foreign direct investment in its natural resource sectors, including aluminum and titanium. Consequently, Mozambique has undergone rapid economic growth, averaging 7.1% annual GDP growth over the last ten years. Consequently, the domestic energy demand has been growing at 11% per year but the country's electrical grid infrastructure has not kept pace. As a result, only 40% of Mozambican households have access to electricity – with rural electricity access even lower at 27%. Moreover, over 70% of Mozambique's electricity comes from a long-distance power transmission system in the Cahora Bassa hydropower plant, which is vulnerable to increasingly frequent climate related events like droughts, floods, and storms. In effect, those Mozambicans who have access to electricity often experience frequent service interruptions.

Responding to these challenges, Norway-based independent power producer Scatec Solar partnered with Mozambique's electricity utility Electricidade de Moçambique (EdM), and Nortec, Norway's development finance agency, to develop the country's first utility scale 40.5 MW solar PV plant in Mocuba, Mozambique. The \$76 million Mocuba Solar project is supported by a landmark \$55 million project debt finance package from IFC.

IFC's support includes a \$19 million own account loan, a \$19 million loan from the Climate Investment Funds, and a \$17 million syndicated loan from the Emerging Africa Infrastructure Fund. The project also received a \$7 million Viability Gap Funding grant from the Private Infrastructure Development Group. The remaining \$14 million in project costs were raised through sale of equity in the project company, Central Solar de Mocuba S.A.

Mocuba Solar, IFC's first engagement in Mozambique's renewable energy sector and first solar PV project in Sub-Saharan Africa, is expected to deliver power to a rural area in one of the least developed regions in the country. The project will contribute to climate resilience and adaptation by diversifying Mozambique's electricity generation mix and reducing dependence on the existing long-distance transmission system. EdM will operate the plant under a 25-year Power Purchase Agreement designed to produce electricity more affordably than fossil fuel based alternatives.

Given expectations of more severe droughts and floods in the future, the Mocuba Solar project aligns closely with objectives set out by the Mozambican government Strategy for New and Renewable Energy Development primarily aimed at accelerating rural electrification and diversifying the country's energy generation portfolio away from hydropower. Projects like Mocuba demonstrate how Mozambican renewable energy projects remain a viable and attractive opportunity for commercial financing – with the ability to drive shared economic growth and adaptation to climate change.

## Mocuba Expected Development Impacts

Generate 77 GWh of electricity per year, serving 65,000 customers in Mozambique's electrical grid

Avoid 14,800 tons of CO<sub>2</sub> emissions annually

Create 380 short and long term jobs during construction and operation

Diversify Mozambique's heavily hydropower-based electricity mix and contribute to energy security by generating electricity from a domestic renewable resource

Contribute \$19.4 million in tax revenue, concession, and CSR benefits to the government over the project's lifetime

# Featured project: City of Buenos Aires

(ID: 38533)



Ecobici bicycle sharing station, Buenos Aires

**Argentina is one of the most urbanized countries in the world, with over 90% of its population living in cities. The City of Buenos Aires (CBA), is no exception, being the center of a metropolitan area with 14 million inhabitants that is 30% of the country's population. The metropolitan area also acts a hub for economic activity nationwide, accounting for nearly half of Argentina's GDP and hosting 6 million passengers traveling through the city each business day. In this context, good governance of CBA transportation systems has become critical to generating and sustaining inclusive and climate-smart economic growth in Argentina.**

Without investing in public transportation infrastructure, CBA's low income workers are disproportionately affected by the increased use of cars through traffic congestion, accidents and pollution. For these reasons, CBA announced an ambitious \$400 million transportation strategy for 2016 – 2017, supported in part through an IFC \$50 million loan. IFC financing is being used to finance construction of a new 3.5 km bus rapid transport (BRT) line connecting Paseo Colon to Avenida Alem, one of the busiest traffic corridors in Buenos Aires, as well as construction of the Flores and Pacifico bus interconnection terminals. IFC funds are also being used to establish 88 new stations to the Ecobici bicycle sharing network and adding 33 km of segregated bicycle lanes. Supporting CBA's financial strategy to reduce its share of foreign denominated debt, IFC offers the option of disbursing this funding in local currency. This is expected to lead to reduced refinancing risk, improving the City's position for financing in future capital raising efforts and potentially helping elevate its credit rating.

The remaining \$350 million from the city's transportation strategy was funded through other resources and borrowing, including a \$252.5 million financing package from the Inter-American Development Bank (IDB). This package included two IDB Group loans totaling \$152.5 million and a syndicated loan of \$100 million from the Industrial and Commercial Bank of China (ICBC) and federated investors. This financing is supporting upgrades of the CBA metropolitan area road network, including the construction of a bridge and relocation of the Illia Highway – improving the quality of life of residents in the CBA metropolitan area by enhancing mobility and reducing travel time for commuters.

IFC's investment in CBA is also helping promote thought leadership amongst cities on sustainable urban governance by coupling this loan with a broad program of advisory support through the LAC Cities Platform. As part of this support, IFC is offering technical assistance to help CBA compare economic benefits of transportation projects, identify alternative funding sources to expand bicycle sharing stations, promote green building standards through the IFC Excellence in Design for Greater Efficiencies EDGE program, and develop a policy to combat gender-based violence in the public transport system. Looking ahead, IFC is exploring the opportunity to improve the City's solid waste management system through a potential waste-to-energy plant.

As IFC's first subnational investment in Argentina, the City of BA project is expected to demonstrate the viability of holistic approaches to transport system planning, promoting economic productivity and social inclusion while enhancing environmental sustainability and improving city-wide safety. The project will also help pave the way for increased commercial financing for infrastructure in the city as it pursues its ambition to be a global leader in green, inclusive, and safe urban development.

## City of BA Expected Development Impacts

**Avoid 794 tons of CO<sub>2</sub> emissions annually (670 from Colon-Alem BRT and 124 from bus interconnection terminals) not including emissions saved through bicycle sharing program**


**Recover equivalent to \$3 million annually in economic savings and 1.2 million hours in annual passenger time through Colon-Alem BRT system**

**Expand and improve access of 250,000 Buenos Aires' commuters to safe, efficient, and affordable bus transportation, not including expanded bicycle ridership**





# Green Bond eligible project commitments FY17

The Impact Assessment table below lists the expected climate results from projects funded, in whole or in part, with IFC Green Bond Proceeds. The table includes only the projects committed in FY17. The projects are organized by sector and are categorized by project type as renewable energy (RE), energy efficiency (EE) or Special Climate activities which are activities that contribute to mitigation but for which GHG reduction calculations are not available.

Green Bond climate sector	Project short name	Project ID	Country	Type	Project description	Climate loan volume	Annual energy produced	Annual energy savings	RE capacity constructed/rehabilitated	Expected Annual GHG reduction
						M\$	MWh	kWh	MWh	tCO <sub>2</sub>
 Green Buildings	<b>Peninsula</b>	33972	Tanzania	EE	Design and construction of green retail and office facilities in Tanzania adhering to international best practices and conforming to international fire and safety standards.	17.5	-	1,540,000	-	444
Green Buildings	<b>Unijaveriana</b>	37307	Colombia	EE	Expansion of Pontificia Universidad Javeriana campus compliant with IFC's EDGE Program: construction and equipment of a new main student building, new engineering, health, science faculty and other buildings.	30.0	-	864,000	-	93
Green Buildings	<b>Shangri-La UB 2</b>	37908	Mongolia	EE	Design and construction of green building business facilities including a hotel, offices, and an apartment complex compliant with IFC's EDGE Program in Mongolia.	50.3	-	-	-	1,475
Green Buildings	<b>Elazig Health</b>	38035	Turkey	EE	Construction of a 1,038-bed hospital compliant with IFC's green building standards in Elazig, Turkey.	87.6	-	9,935,944	-	4,750
Green Buildings	<b>Rede Dor Growth</b>	38202	Brazil	EE	Design, construction and upgrade of hospital infrastructure meeting IFC's green building standards.	37.4	-	10,600,000	-	756
Green Buildings	<b>Vinte-NuEDGE</b>	38374	Mexico	EE	Construction of 2,000 homes in line with IFC's EDGE Program in middle to low income housing sector in Mexico. In addition to reducing energy and water use by at least 20%, the project will address a long-standing housing shortage in the area.	17.8	-	2,928,000	-	620
Green Buildings	<b>ISCH III El Sal</b>	39042	El Salvador	EE	Refurbishment and expansion of shopping malls in El Salvador, Nicaragua, and Honduras. The project targets EDGE certification after reducing water and energy usage, and embedded energy in materials by at least 20%.	22.0	-	2,318,000	-	527
Green Buildings	<b>ISCH III Hon</b>	39043	Honduras	EE		10.0	-	2,427,000	-	1,126
Green Buildings	<b>ISCH III Nic</b>	39044	Nicaragua	EE		13.0	-	2,258,000	-	851

\* Based on resource efficiency measures (summarized in Environmental and Social Review Summaries for each project), impact data was estimated using the EDGE software.

## Green Bond eligible project commitments FY17




Green Bond climate sector	Project short name	Project ID	Country	Type	Project description	Climate loan volume	Annual energy produced	Annual energy savings	RE capacity constructed/rehabilitated	Expected Annual GHG reduction
						M\$	MWh	kWh	MWh	tCO <sub>2</sub>
Green Buildings 	<b>Grivalia REIC</b>	38285	Greece	EE	Energy efficiency improvements of existing commercial buildings in Athens in line with IFC's Green Building standards.	53.2	-	-	-	-
	<b>LLP Peru</b>	40154	Peru	EE	Construction of warehouses and logistics infrastructure in Peru. Client is targeting EDGE certification with at least 20% more efficiency in water, energy, and materials.	14.0	-	858,535	-	255
Green Banking 	<b>Consortio RE</b>	36053	Chile	RE	A second commitment to support Banco Consortio, Chile to finance small scale Renewable Energy projects.*	30.0	-	-	-	-
	<b>ABC Climate</b>	37960	Brazil	RE	A credit line to ABC Brasil for climate related SME financing of RE and EE projects, including manufacturing of RE and EE equipment, and green buildings. ABC Bank reports and monitor results for eligible climate sub-projects using the CAFI (Climate Assessment for FI Investment) platform.	42.8	-	-	-	214,748
	<b>DCM L&amp;T Green Bond</b>	37995	India	RE	Investment in non-convertible debentures to finance solar projects in India.	103.6	-	-	-	80,069.4
	<b>AlexBank Loan</b>	38160	Egypt	RE and EE	Sustainable energy finance to medium and large corporates in Egypt.	25.0	-	-	-	46,590
	<b>FinansL EE III</b>	38496	Turkey	RE and EE	Sustainable energy finance to micro-, small and medium enterprises in Turkey reducing GHG emissions and SMEs' energy costs.	50.0	-	-	-	106,802
	<b>City of BA</b>	38533	Argentina	Special Climate	Integration of low emission public transportation infrastructure (bike lanes, bus rapid transport, metro lines, improved connectivity and sidewalks) in the city of Buenos Aires.	50.0	-	-	-	794
	<b>DCM Green MCB</b>	38649	Turkey	EE	Investment in the Green Mortgage Covered Bond issued by Türkiye Garanti Bankası AS. The proceeds will support the bank's green mortgages to residential housing in Turkey, as part of IFC's ongoing green building market creation program in the country.	75.0	-	12,175,200	-	5,771

\* For the second and all consequent commitment loans we do not estimate GHG or energy saved since they are accounted under the first commitment.

## Green Bond eligible project commitments FY17

	Green Bond climate sector	Project short name	Project ID	Country	Type	Project description	Climate loan volume	Annual energy produced	Annual energy savings	RE capacity constructed/rehabilitated	Expected Annual GHG reduction
							M\$	MWh	kWh	MWh	tCO <sub>2</sub>
	Green Banking	<b>DCM BCP Green Bond</b>	38717	Morocco	RE	Investment in a green bond issued by Banque Centrale Populaire. The proceeds will refinance eligible renewable energy infrastructure projects in Morocco.	112.1	725,000	-	-	494,557
	Green Banking	<b>DCM BC Green Bond</b>	38731	Colombia	Special Climate	Investment in the first green bond issuance in Columbia by Bancolombia S.A. to fund renewable energy projects and green buildings in line with country's climate change goal of reducing GHG in 20% by 2030. IFC launched the green building creation program in the country in 2017.	117.1	-	-	-	75,180
	Green Banking	<b>DCM Dav-Green Bond</b>	39057	Colombia	RE and EE	Investment in a Green Bond issued by Banco Davivienda S.A. in the Colombian Segundo Mercado supporting the creation and development of a local green bond market in the country. The proceeds will fund renewable energy, green building, energy efficiency and cleaner production projects in Colombia.	150.0	-	-	-	170,521
	Green Banking	<b>DCM CBC-Green DPR</b>	39811	Sri Lanka	RE and EE	Supporting Commercial Bank of Ceylon PLC to expand access to finance for energy efficiency projects to SMEs in Sri Lanka.	100.0	-	-	-	165,040
	Biomass	<b>Thomas Lloyd RE</b>	34754	Philippines	RE	Development and operation of biomass power plants with a total of 70MW capacity in three locations in the Philippines. The co-location of intermittent and base-load power contributes to grid stabilization.	63.9	429,240	-	70	181,569
	Recycling	<b>Assan-VII</b>	37550	Turkey	Special Climate	Acquisition of scrap recycling plant, modernization of two existing recycling furnaces, installation of new furnaces and production lines, including improvement of overall plant maintenance and production efficiency. The investment will lower production costs, recover metal scrap for re-use and reduce energy and water consumption.	12.8	-	-	-	-
	Energy Efficiency	<b>Pilkington IV</b>	38822	World	EE	Funding R&D expenses geared towards improving energy efficiency of the manufacturing processes and to produce more climate friendly products, and financing recent cold repairs, which are expected to generate an approximate 20% reduction in energy consumed at the glass furnace level.	24.2	-	266,990	-	45,042

## Green Bond eligible project commitments FY17

Green Bond climate sector	Project short name	Project ID	Country	Type	Project description	Climate loan volume	Annual energy produced	Annual energy savings	RE capacity constructed/rehabilitated	Expected Annual GHG reduction	
						M\$	MWh	kWh	MWh	tCO <sub>2</sub>	
	Wind	<b>Alibunar WPP</b>	32752	Serbia	RE	Construction of 42 MW of wind farm in Serbia, one of the first in the country heavily dependent on coal-fired electricity generation. The project is expected to increase the renewable energy capacity, displace carbon from the country's thermal generation plants and reduce pollution.	17.3	116,900	-	42	77,240
	Wind	<b>Envision</b>	36094	China	RE	Supporting expansion of Envision company that services the windfarm industry, including procurement, assembling, on-site commissioning and operation of windfarm projects.	50.0	-	-	-	-
	Wind	<b>Tricon BostonWind</b>	38229	Pakistan	RE	Construction, operation and maintenance of a 150 MW windfarm in Pakistan.	66.0	522,800	-	147.9	313,450
	Solar	<b>Mocuba Solar</b>	36787	Mozambique	RE	Design, construction and operation of a 40MW solar PV power plant in Mocuba, in the Zambézia Province. This plant has dual adaptation-mitigation benefits.	18.8	77,000	-	40.5	14,748
	Solar	<b>Chint New Energy</b>	38815	China	RE	Expansion of a China-based integrated solar system solution provider, engaged in solar PV manufacturing and solar power generation enabling the company to develop solar power generation projects in emerging markets outside of China (South-South investment).	40.0	125,108	-	165	56,129
	Solar	<b>FRV Solar India</b>	39151	India	RE	Investment in a 100MWac/136 MWdc solar photovoltaic plant constructed by FRV Andhra Pradesh Solar Farm I Private Limited and FRV India Solar Park II Private Limited. This is IFC's first 'Green Project Bond' globally in the infrastructure sector. The projects are 50MW each.	14.4	95,500	113,652	50	90,731
	Solar	<b>FRV Solar Park</b>	40186	India	RE		14.4	95,500	113,652	50	90,731
	Transport	<b>Nibulon CL</b>	39155	Ukraine	Special Climate	Expansion of one of the largest Ukrainian grain and oilseeds companies that helps to link farmers with end markets by giving farmers the access to modern storage infrastructure and using low emission transportation.	24.0	-	-	-	-
<b>Total</b>						<b>1,555</b>	<b>2,187,048</b>	<b>46,398,973</b>	<b>565</b>	<b>2,240,609</b>	

# Appendices



# IFC's Green Bond process

**IFC Green Bond Program follows best market practice, and is compliant with the Green Bond Principles.**

## Use of proceeds

Proceeds from IFC's Green Bonds are allocated to a special sub-portfolio that is linked to lending operations for climate-related projects ("Eligible Projects"). Eligible Projects are selected from IFC's climate-related loan portfolio, which comprises projects that meet IFC Definitions and Metrics for Climate-Related Activities.

Only the loan portions of the projects are eligible for funding via Green Bond proceeds (equity investments and guarantees are ineligible). The sub-portfolio is credited as disbursements are made towards Eligible Projects.

**Projects eligible for Green Bond financing include the following sectors:**

**Energy efficiency (EE):** investments in equipment, systems and services which result in a reduced use of energy per unit of product or service generated, such as waste heat recovery, cogeneration, building insulation, energy loss reduction in transmission and distribution

**Renewable energy (RE):** investments in equipment, systems and services which enable the productive use of energy from renewable resources such as wind, hydro, solar and geothermal production

**Resource efficiency:** investments to improve industrial processes, services and products that enhance the conversion efficiency of manufacturing inputs (energy, water, raw materials) to saleable outputs, including reduction of impact at source

**Cleaner technology production:** investments in manufacturing of components used in energy efficiency, renewable energy or cleaner production, such as solar photovoltaics, manufacture of turbines, building insulation materials

**Financial intermediaries:** lending to financial intermediaries with the requirement that IFC's investments are on-lent to specific climate projects that fit IFC's green bond eligibility criteria; and

**Sustainable forestry**

## Evaluation and selection

In addition to meeting the green bond eligibility criteria, all projects financed by IFC comply with IFC's Performance Standards for environmental and social issues and IFC's Corporate Governance Framework and have undergone a rigorous due diligence process.

IFC's project evaluation and selection criteria have been reviewed by the Center for International Climate and Environmental Research at the University of Oslo (CICERO). CICERO's Second Opinion is published on IFC's website.



# IFC's Green Bond process

## Management of proceeds

All proceeds from IFC Green Bonds are set aside in a designated Green Cash Account and are invested in accordance with IFC's conservative liquidity policy until disbursement to Eligible Projects. Disbursement requests for Eligible Projects take place in accordance with IFC's established policies and procedures and are often made over a period of time depending on project milestones etc.

In some cases, the climate-related component of a project supported by Green Bonds may be a part of a larger investment. In such cases, the Green Bond portfolio only finances the eligible portion of the project.

Monitoring of the projects comprises regular reports by the investee company on project activities and performance throughout the lifetime of investment.

## Reporting

IFC Green Bond Impact Report follows the GBP's reference framework for reporting "Working towards a harmonized framework for Green Bond impact reporting", which aims at ensuring integrity of the market through increased transparency.

The report provides a list of projects that received funding from Green Bond proceeds and subject to confidentiality considerations, it also provides a brief description of each project, the amount disbursed, and the expected environmental impact. The report only covers projects eligible for Green Bond financing, for more information on IFC's climate business visit [www.ifc.org/climatebusiness](http://www.ifc.org/climatebusiness).



# Impact reporting policy

### IFC access to information policy

The [Access to Information Policy](#) is the cornerstone of the IFC Sustainability Framework and articulates our commitment to transparency.

We seek to provide accurate and timely information regarding our investment and advisory services activities to clients, partners, and stakeholders, and disclose the relevant information pertaining to project, environmental, and social implications, as well as expected development impact prior to consideration by our Board of Directors.

This commitment also applies to projects funded by the Green Bond Program.

### Impact indicators

IFC reports on a number of core indicators for projects included in the Green Bond Program in accordance with the [Harmonized Framework for Impact Reporting](#) developed by a group of multilateral development banks including IFC.

The four core indicators are as follows:

1. Annual energy savings
2. Annual Greenhouse Gas (GHG) emissions reduced or avoided
3. Annual renewable energy produced
4. Capacity of renewable energy plant(s) constructed or rehabilitated .

### Interpreting impact indicators

The impact indicators are tracked on a project-level basis and have not been pro-rated for the portion of IFC's contribution. Special climate projects are those which contribute to mitigation, but do not have an agreed methodology for impact's calculation. Investments in financial intermediaries ensure that climate finance is available for smaller clients that IFC cannot reach directly, such as small and medium sized enterprises. It is important for IFC that our partner financial intermediaries assess climate impacts of their investment portfolio, and therefore, IFC has developed the web-based application CAFI (Climate Assessment for FI Investment) which enables financial intermediary clients to monitor results for investments in the areas of energy efficiency, renewable energy, climate adaptation, and special climate.<sup>1</sup>

IFC's GHG Methodology and Climate Related Definitions and Metrics are available at IFC's Climate Business website.<sup>2</sup>

The Impact Assessment table allows for quantification of a few core indicators, but it is important to appreciate the limitations of data reported. 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 may have impact across a much wider range of indicators than captured in the Impact Assessment table and may have 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.

While IFC takes efforts to improve the consistency and availability of reported metrics over time, projects with climate impact can over a wide diversity of sectors and sub-sectors making complete harmonization of reporting metrics challenging.

<sup>1</sup> See <http://www.ifc.org/cafi>

<sup>2</sup> [http://www.ifc.org/wps/wcm/connect/Topics\\_Ext\\_Content/IFC\\_External\\_Corporate\\_Site/CB\\_Home/Measuring+Reporting/](http://www.ifc.org/wps/wcm/connect/Topics_Ext_Content/IFC_External_Corporate_Site/CB_Home/Measuring+Reporting/)



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This report was prepared by IFC's Climate Business and Treasury Market Operations Departments. The authors are Esohe Denise Odaro, Berit Lindholdt-Lauridsen, Zauresh Kezheneva, Olga Khlebinskaya, Francisco Avendano Ugaz, Maria Antonia Panan, Rusmir Music, Sihui Yan, and Philip Neil Killeen. The report was reviewed by Sona Panajyan and Emma-Kate Symons.

IFC Investor Relations  
International Finance Corporation  
2121 Pennsylvania Avenue NW  
Washington, DC 20433

Email: [investors@ifc.org](mailto:investors@ifc.org)  
Twitter @IFC\_Investors

[ifc.org/investors](http://ifc.org/investors)

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