

BONDS AND CLIMATE CHANGE

THE STATE OF THE MARKET / UPDATE 2017 INDIA



The Indian green bond market

Since the publication of our Global State of the Market report in July 2016, India has maintained its strong growth into 2017 and retains its position amongst the top 10 of labelled global green bond issuers with USD 3.2bn issued as of 5th April 2017.

To date, Indian issuers have been leaders in demonstrating best practice by having most labelled green bonds receive a review or certification from an external body.

Indian issuers are pioneers of Climate Bonds Certification

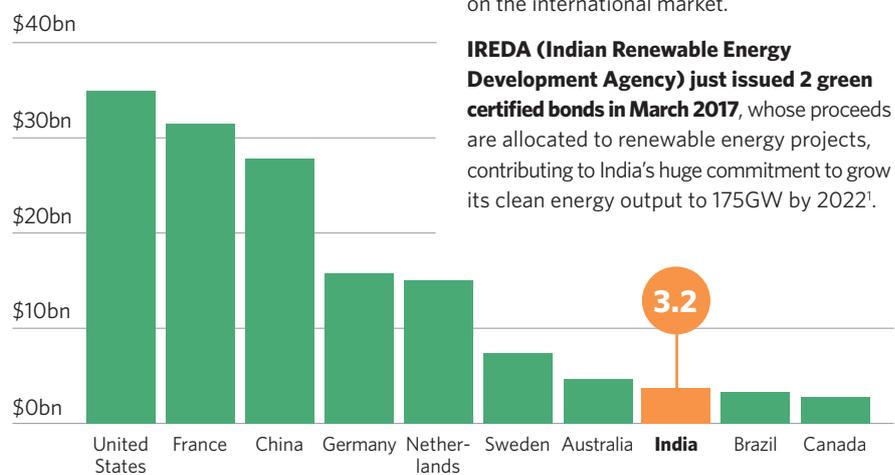
4 out of 7 bonds issued in 2016 were certified against the Climate Bonds Standard and one bond received a review from Sustainalytics. In 2017, both IREDA and ReNew Power issued bonds which obtained the Climate Bonds certification.

Having bonds certified by external parties has been instrumental in ensuring international investor confidence in the green credentials of the Indian green bond market.

Indian green bond market highlights include the INR20bn (\$299m) green bond issued by NTPC in August 2016, which is the 2nd green Masala bond issued so far.

NTPC is India's largest power utility. Despite its assets primarily being in fossil fuels this bond was issued to finance solar and wind power projects and associated transmission networks and infrastructure.

This is a significant development as it is one of the few bonds which leverage a fossil fuel-based balance sheet to finance new green infrastructure – this model needs to be replicated globally by large fossil fuel companies to support the transition from brown to green assets.



India ranks 8th in green bonds outstanding

Axis Bank's USD500m green bond issuance in June 2016 was certified against the Climate Bonds Standard. The transaction achieved many milestones including the first listing of a green bond by an Indian issuer on the London Stock Exchange.

ReNew Power's INR5bn green bond issued in August 2016 was also awarded a Climate Bonds Certification for its 90.3MW wind power project in the state of Madhya Pradesh. A new certified green bond followed in February 2017, issued this time on the international market.

IREDA (Indian Renewable Energy Development Agency) just issued 2 green certified bonds in March 2017, whose proceeds are allocated to renewable energy projects, contributing to India's huge commitment to grow its clean energy output to 175GW by 2022¹.

Indian green bonds 2015 - March 2017

* denotes international issuance

DATE	ISSUER	AMOUNT	COUPON	TENOR	CERTIFIED/REVIEWED	THEME
Feb 2015	YES BANK	INR10bn	8.85	10	n/a	Renewable energy and energy efficiency
Apr 2015	Export-Import Bank of India	USD500m*	2.75	5	n/a	Low carbon transport
Sep 2015	CLP Wind Farms India	INR6bn	9.15	3, 4 & 5	n/a	Renewable energy
Nov 2015	IDBI	USD350m*	4.25	5	KPMG	Renewable energy, low carbon transport and water management
Feb 2016	Hero Future Energies	INR3bn	10.75	3 & 6	Climate Bonds Standard	Renewable energy
April 2016	PNB Housing Finance	INR5bn	8.01	n/a	n/a	Low carbon buildings
June 2016	Axis Bank	USD500m*	2.88	5	Climate Bonds Standard	Renewable energy, low carbon buildings and transport
Aug 2016	ReNew Power	INR5bn	n/a	n/a	Climate Bonds Standard	Renewable energy
Aug 2016	NTPC	INR20bn*	7.38	5	Climate Bonds Standard	Renewable energy
Aug 2016	Greenko	USD500m*	4.88	7	Sustainalytics	Renewable energy
Dec 2016	YES BANK	INR3.3bn	7.62	7	n/a	Renewable energy
Feb 2017	ReNew Power	USD475m*	6	5	Climate Bonds Standard	Renewable energy
Mar 2017	IREDA (x2)	INR7bn	8.12 & 8.05	10	Climate Bonds Standard	Renewable energy

Market support developments

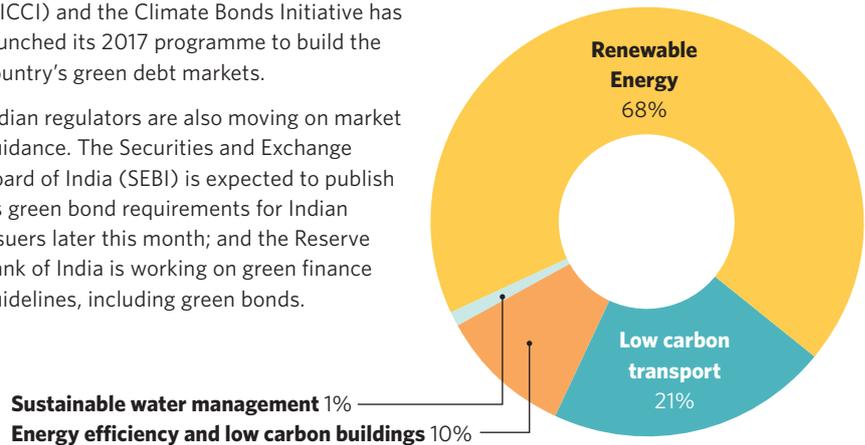
\$2.5trn is required to meet India's climate change mitigation targets by 2030 and approximately \$1trn investment in infrastructure every five years to satisfy demand². Around half of the total investment is expected to come from the private sector. As banks' balance sheets become increasingly constrained by sector exposure limits and capital ratio requirements, capital markets are expected to play a bigger role.

The Green Infrastructure Coalition (GIIC) held its inaugural forum in London last June to facilitate exchanges between future issuers and investors looking for exposure to new green infrastructure.

The Indian Green Bonds Council, formed in late 2017 as a joint project of the Federation of Indian Chambers of Commerce Industry (FICCI) and the Climate Bonds Initiative has launched its 2017 programme to build the country's green debt markets.

Indian regulators are also moving on market guidance. The Securities and Exchange Board of India (SEBI) is expected to publish its green bond requirements for Indian issuers later this month; and the Reserve Bank of India is working on green finance guidelines, including green bonds.

Labelled green bonds 2015-17 use of proceeds



Growing the Green Bond Market

At the Paris COP 21 conference in 2015, international investors representing USD11.2 trillion called for new investment opportunities in green bonds.

Labelled green bonds are bonds with proceeds earmarked for projects and assets that deliver environmental benefits. Labelling bonds as green under internationally agreed rules reduces the due diligence effort required for investors and simplifies stakeholder reporting. It's best practice for bonds to be reviewed or certified by a second or third party. Issuers gain from investor diversification and, where issuance is in USD or EUR, some evidence of modestly lower interest rates.

Domestic investors in India have already shown strong demand for green bonds - two of the Top 10 investors globally with the largest green bond holdings are India based - ICICI Prudential Asset Management and Reliance Capital Trustee Co. Ltd.

International issuance & exposure

Of the 14 green bonds issued by India-registered entities, 6 have been listed in

Singapore, with several dual listed in London or Berlin.

International issuance has been mainly in USD and the ticket size of the bonds was significantly larger than for bonds issued domestically - ranging from USD299m to USD500m (average USD437m) compared to an average of USD75m (INR4.9bn) for domestic issuance. Issuing offshore has enabled Indian companies to tap deeper pools of capital and has also given foreign investors a tool for gaining exposure to the Indian economy and, via masala bonds, its currency.

Average coupon for domestic issuers is significantly higher - 7.5% compared with 4.7% for international issuance. This significant difference is linked to the currency risk of the INR and additional hedging costs would need to be considered to make these figures truly comparable. Currency risk also plays a role in the typical tenor of bonds, with international issuance typically being of shorter-term than domestic issuance: 5-7 years versus 3-10 years.

In August 2016, the first INR denominated green bond was issued internationally in

by NTPC market with a 5 year INR10bn (USD150m) bond Certified and Verified using the Climate Bonds Standard.

There was significant oversubscription for this first-of-a-kind bond, with the company receiving orders worth INR29bn (i.e. x 2.9 times oversubscribed), and ultimately deciding to scale up the issuance to INR20bn (USD299m). The bond was dual listed in both Singapore and London and achieved a yield of 7.48% - higher than that of a comparable USD bond, but competitive with what could have been achieved through a domestic issuance.

The green investment opportunity

There are many bond issuers who could easily be issuing green bonds. For example India Rail bonds would qualify. With the support of the Indian Green Bonds Council, these issuers have the opportunity to join the green bonds market.

Investor demand for green product is growing, the potential now exists for India to attract significant international capital via a robust green bond market to meet national climate and development goals.

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The Climate Bonds Initiative is an investor-focused not-for-profit, mobilizing debt capital markets for a rapid transition to a low-carbon economy.

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Notes

1. <http://www.mnre.gov.in/>
2. <http://www4.unfccc.int/submissions/INDC/Published%20Documents/India/1/INDIA%20INDC%20TO%20UNFCCC.pdf>

www.climatebonds.net

