

BONDS AND CLIMATE CHANGE

THE STATE OF THE MARKET INDIA



2016

The Indian green bond market

Since the publication of our Global State of the Market report in July 2016, some important developments have taken place in India's labelled green bond market. India is now the 7th largest labelled green bond issuer with USD 2.7bn issued as of 12th of October 2016 - most of this has been issued since 2016.

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.

Four out of seven bonds issued in 2016 were certified against the Climate Bonds Standard (with verification from KPMG and Emergent Ventures India) and one bond received a review from Sustainalytics.

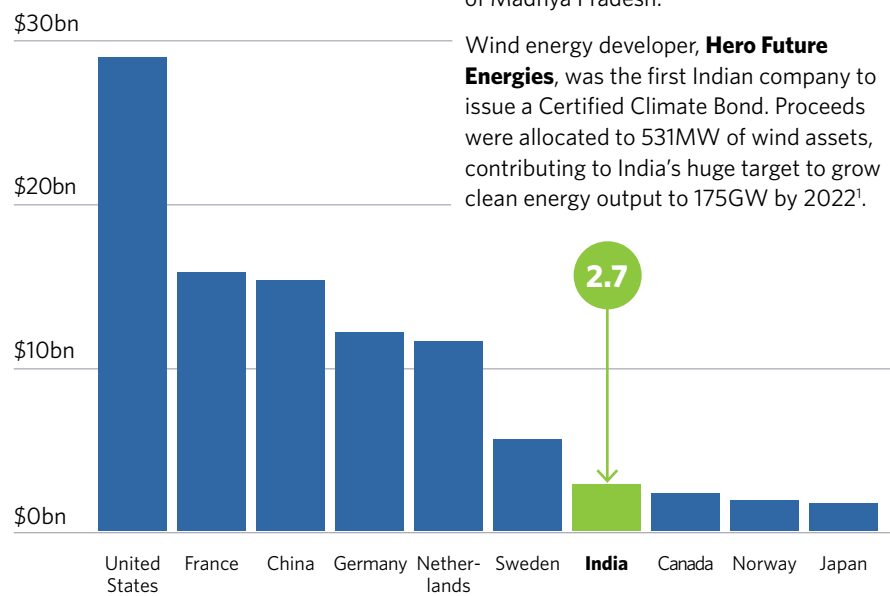
Indian issuers are pioneers of Climate Bonds Certification

Certification 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 INR 20bn (USD 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 whose

assets are primarily in fossil fuels. However, the bond was issued to finance solar and wind power projects and associated transmission infrastructure in India.

This is an important 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 currently ranks 7th for total labelled green bond issuance

In addition, **Axis Bank's** USD 500m green bond issuance in June 2016 was certified for Wind, Solar, Low Carbon Transport and Low Carbon Buildings projects 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 INR 5bn 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.

Wind energy developer, **Hero Future Energies**, was the first Indian company to issue a Certified Climate Bond. Proceeds were allocated to 531MW of wind assets, contributing to India's huge target to grow clean energy output to 175GW by 2022¹.

Green Bonds of 2016: Indian labelled green bonds, Jan to Sept

DATE	ISSUER	AMOUNT	COUPON	CERTIFIED/REVIEWED	THEME
Feb 2016	Hero Future Energies	INR 3bn	0	Climate Bonds Standard	Renewable energy
May 2016	PNB Housing Finance	INR 5bn	n/a	n/a	Low carbon buildings
June 2016	Axis Bank	USD 500m	2.875	Climate Bonds Standard	Renewable energy, low carbon buildings and transport
Aug 2016	ReNew Power	INR 5bn	10.4	Climate Bonds Standard	Renewable energy
Aug 2016	NTPC	INR 20bn	7.375	Climate Bonds Standard	Renewable energy
Aug 2016	Greenko	USD 500m	4.875	Sustainalytics	Renewable energy
Sept 2016	YES Bank	INR 3.3bn	n/a	n/a	Renewable energy

Climate Bonds INITIATIVE

HSBC

Foreign & Commonwealth Office

Prepared by Climate Bonds Initiative.

Launch Partner: HSBC.

Supported by Foreign & Commonwealth Office.

Outlook for Indian green bonds

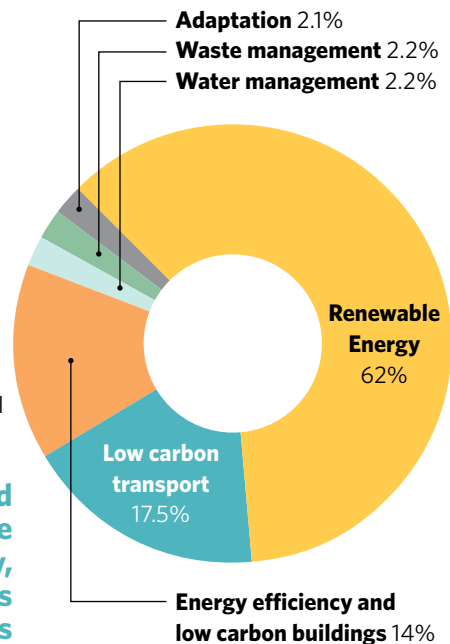
USD 2.5trn is required to meet India's climate change mitigation targets by 2030 and approximately USD 1trn investment in infrastructure every five years to satisfy demand². Around half of the total investment is expected to come from the private sector. As bank balance sheets become increasingly constrained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

Facilitating exchanges between future issuers and investors looking to get exposure to the green infrastructure space, the Green Infrastructure Coalition (GIIC) held its inaugural forum last June in London. Indian project developers and financiers presented their five-year infrastructure pipelines to investors and

outlined plans to issue USD 5–7bn of green bonds primarily to raise capital for renewables and energy efficiency projects. More GIIC events are planned towards the end of the year³.

Indian regulators are showing leadership by providing guidance and regulation to the market. In January 2016, the Securities and Exchange Board of India published its official green bond requirements for Indian issuers. India became the only other country (after China) to provide national level guidelines⁴.

Over 60% of Indian labelled green bonds' proceeds are allocated to renewable energy, helping the country reach its renewable energy targets



Opportunities for growth: Indian climate-aligned bonds

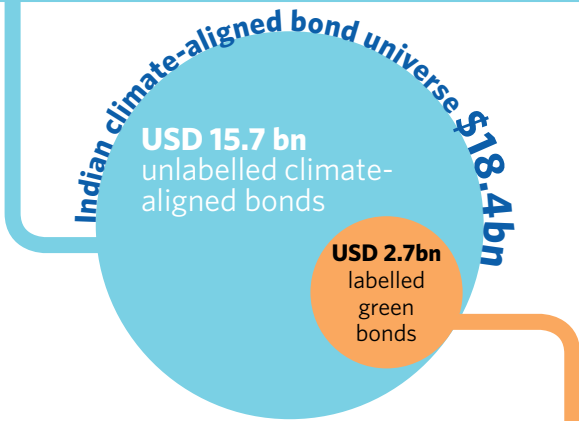
In our analysis for India, we found an additional universe of \$15.7bn of unlabelled climate-aligned bonds outstanding. This demonstrates green investment in India beyond the green bond market, which could be labelled in the future.

79% of the bonds' use of proceeds were allocated to low carbon transport assets (rail solely) and 21% to renewable energy (mostly hydro).

Quick facts: India's \$15.7bn unlabelled climate-aligned universe

- 79% to low carbon transport
- 71% > \$100m in size
- 70% with maturity over 10 years
- Largest issuer: Indian Railway Finance
- 87% issued in Indian Rupees

Unlabelled climate-aligned bonds support projects that are aligned with climate mitigation or adaptation objectives, but are not labelled as 'green'. The climate-aligned bonds discovered and analysed for this report are issued by pure-play companies which derive at least 95% of their revenue from activities that fit within the Climate Bonds Taxonomy.



Labelled green bonds are bonds with proceeds earmarked for projects and assets that deliver environmental benefits. These bonds are labelled as such by the issuer and are therefore easier for investors to identify. It is best practice for bonds to be reviewed or certified by a second or third party.

© Published by the Climate Bonds Initiative October 2016

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

All source data from Bloomberg LLP. Design: Godfrey Design

Disclaimer: This report does not constitute investment advice and the Climate Bonds Initiative is not an investment adviser. The Climate Bonds Initiative is not advising on the merits or otherwise of any bond or investment. A decision to invest in anything is solely yours. The Climate Bonds Initiative accepts no liability of any kind for investments anyone makes, nor for investments made by third parties.

1. <http://www.mnre.gov.in/>
 2. <http://www4.unfccc.int/submissions/INDC/Published%20Documents/India/1/INDIA%20INDC%20TO%20UNFCCC.pdf>
 3. <http://www.giicoalition.org/>
 4. <http://203.199.247.102/sebiweb/home/detail/32793/yes/PR-SEBI-Board-Meeting>

www.climatebonds.net

