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An Analytical Study of IFC's Green Masala Bonds

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Abstract

Green Masala bonds are offshore rupee denominated financial instruments issued by Indian corporates to raise foreign capital so as to finance environmental-friendly projects such as renewables, water and energy efficiency, bioenergy, and low carbon transports. The first green masala bond was issued by IFC (International Finance Corporation) in 2015 for financing the YES Bank renewable and clean energy projects particularly for wind and solar energy. YES bank has allocated the proceeds from these bonds in various wind energy and solar energy projects in different parts of the country. The number of Wind Energy projects financed are 12 which have a combined capacity of 723.1 MW while on the other hand number of Solar Energy projects financed by these bonds are 34 which have a combined capacity of 2010 MW. The Green bonds issued by YES bank have paved the path in India by demonstrating innovative climate financing structures and creating a market oriented towards green finance. The proceeds of the bonds allocated in various renewable energy projects have various positive and expected annual and lifetime environmental and social impact in India.

Keywords: Masala bonds, Green Bonds, Green Masala bonds, International Finance Corporation, Green Infrastructure projects, YES bank, Infrastructure development.

Introduction

Masala Bonds are basically rupee denominated financial instruments issued by Indian companies to raise capital from foreign investors in Indian currency. These are new financial instruments in Indian market which are listed on offshore stock exchanges. These bonds are particularly destined for the overseas investors who are interested to participate in Indian assets.

Masala Bonds have gained an exaggerated publicity not only in Indian market but also in Foreign Markets. These can be termed as instruments of debts that are typically used by corporates to raise money from overseas investors. The "Masala bonds" marked the first rupee bonds listed on the London Stock Exchange. Masala means spices and the term was used by International Finance Corporation (IFC) to popularize the culture and cuisine of India on foreign platforms. The objective of Masala Bonds is to fund infrastructure projects in India, fuel internal growth via borrowings and internationalize the Indian currency. This is not the first time that a bond has been named after the food or culture of a country. Chinese bonds, for example, are called Dim sum bonds, Japanese ones as Samurai bonds, Yankee of USA and the Bulldog of UK.

The International Finance Corporation (IFC), a sister organization of the World Bank and member of the World Bank Group, is the largest global development institution focused on the private sector in developing countries. It is an international financial institution that offers investment, advisory, and asset-management services to encourage private-sector development in less developed countries. The Bank Group has set two goals for the world to achieve by 2030, i.e., end extreme poverty and promote shared prosperity in every country.

In most developing countries, basic infrastructure is failing, insufficient, or non-existent—compromising livelihoods and holding back economies. An additional $1 trillion a year in infrastructure investment is needed just to keep pace with expected population growth, particularly in emerging-market cities. Governments of these markets cannot afford to scale up infrastructure spending through tax revenues and aid alone. Private investment continues to be far below the required level as a result of the risk profile of large infrastructure projects, particularly in developing countries with changing regulatory regimes. At the same time, many institutional investors are looking for stable, long-term debt yields to match their long-term pension and other obligations that infrastructure project loans could provide.

Thus, IFC has stepped up to the task. They have launched a new syndications program that aims to raise $5 billion from institutional investors over the next five years, allowing these investors to co-invest with IFC in power, transportation, and telecommunication projects in emerging markets. IFC originates the deals and manages the portfolio of loans that will mirror their portfolio in infrastructure.

Like other developing economies and emerging markets, India is no exception. The country has a large, unmet infrastructure gap (Planning Commission 2012)[3] which requires funding. Budgetary constraints limit public funding of infrastructure investments while domestic banks, the key medium for financing all types of economic activity, are inherently ill-suited for financing large-scale infrastructure projects that typically have long gestation periods. Moreover, the public sector banks are already overburdened by soured loans from the past and have little appetite for fresh infrastructure financing. And despite many initiatives and efforts, India still lacks the vibrant developed bond market[4] that is needed to fill this vacuum (Khan 2015).

The first offshore issue of rupee-denominated Masala bonds launched by the International Finance Corporation (IFC) in 2013, paved a way and eased down the situation for Indian companies to raise foreign capital which was earlier depended only on the External Commercial Borrowing that was raised and repaid in Dollars only. Subsequent issues of Masala bonds followed and their successful placements with global investors made these bonds a hit in international markets. This bolstered the confidence of Indian regulators (Khan 2015) with the RBI quickly allowing resident corporate firms, real estate and infrastructure investment trusts to issue masala bonds of a 5-year tenor up to $750 million annually, under the automatic route for the first time. Masala Bonds quickly become a game changer for Corporate Debt Market due to high benefits offered to both issuers and investors.

Masala bond market may be the most viable option for the Indian banks to raise capital due to certain inherent characteristics of the market. The Masala bond market at present is at a very nascent stage, but has huge potential with a much wider investor base and greater appetite. This could come to the rescue of Indian PSBs and solve a lot of their capital raising related problems Chopra (2017). The issuance of masala bonds by the RBI could be the major advancement for the Indian economy. The recent opportunity for Indian banks to raise foreign currency through RDBs is also an enlightening step towards the growth. Depending on the masala bonds for getting foreign investment is good for some extent but too much dependence will lead to a negative exposure and ultimately it affects the investments to India **(**Challa & Kanakadurga 2016**)**.

Objectives of the Study

To know what are Green Masala Bonds issued by International Finance Corporation (IFC) and how these bonds are helping India in its Infrastructure development especially its contribution in YES Bank's Green Infrastructure Project.

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[3] India's erstwhile Planning Commission projected total investment in infrastructure to go up to 8.18% of GDP in the 12th Plan (2012-17) or US$ 1 trillion.

[4] Private placements dominate bond issuance, at about 95 percent of total (2014-15); the majority of these are in the 2-5 year tenor. Trading activity, although it is gradually improving, is far lower than observed in sovereign bonds while the market for credit default swaps (CDS), instituted to stimulate the corporate bond market by facilitating risk transfer, is yet to show any significant activity (Khan, 2015).

Green Bonds

The term 'green bonds' refers to bonds whose proceeds are used to finance environmental-friendly projects (Mercer 2015), such as renewables, water and energy efficiency, bioenergy, and low carbon transports (Campiglio 2016). These are the fixed income financial instruments which are linked with promotion and implementation of climatic change and environmental solutions. With this instrument, the issuer of the green bond gets the capital to finance green projects while the investors receive fixed income in the form of interest. When the bond matures, the principal is repaid. In a way, green bonds are the same as any corporate, in fact they are a subset of corporate bonds, where the use of proceeds are pre-allocated to a green activity.

The first green bond was issued in 2007 by the European Investment Bank, underwriting €600 million under the label 'Climate Awareness Bond', as a structured bond with proceeds dedicated to renewable energy and energy efficiency projects. Since then, the market has witnessed over 50% Compound Annual Growth Rate (CAGR), and it continues to evolve into a mainstream subset of the broader fixed income market. The global green bond market has grown from $34 billion in 2014 – to $41 billion in 2015 – to $81 billion in 2016 – to more than $120 billion in 2017. Over the years, the market has expanded significantly in terms of breadth—scope, average issue size, issuer diversity, investor diversity, credit ratings, review and indexes; and depth—repeat issuers, larger tranches, and a growing base of institutional investors.

India entered the green bond market in 2015 with the YES bank issuing the first green bond for financing the renewable and clean energy projects particularly, for wind and solar. Gradually, the green bond market has expanded to several public sector undertakings, state-owned commercial banks, state-owned financial institutions, corporates, and the banking sector. The Climate Transparency's Brown to Green Report 2017, drew a comparison across the G20 countries in terms of their green bond issuance as a share of the country's overall debt market. According to them, among the G20 countries, India ranks fifth. This highlights the existing scale and future scope in the country to develop and grow green bonds as an instrument to accelerate green market penetration.

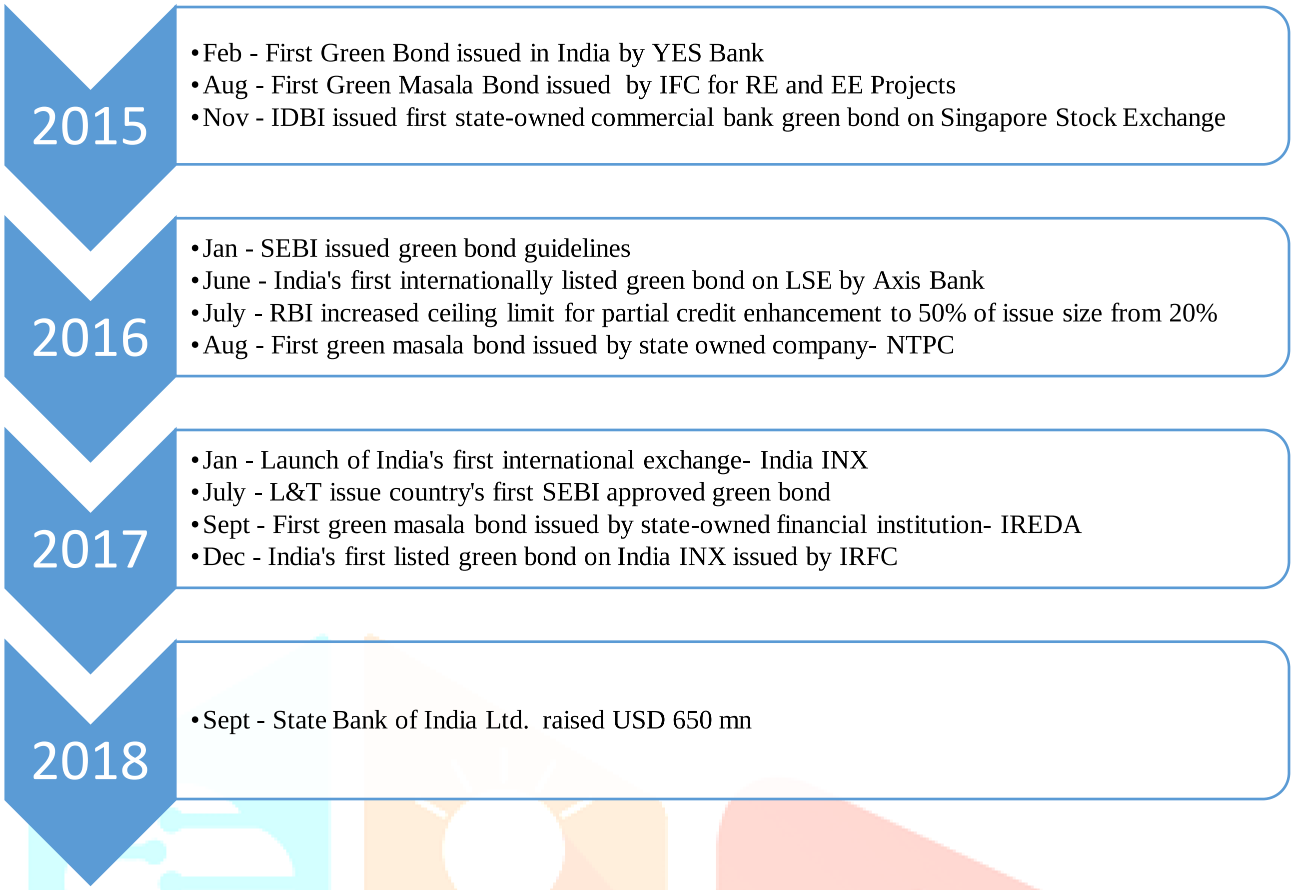

Figure 1.Timeline of Green Bonds in India

IFC, a member of the World Bank Group, issued a Green Masala bond, raising 3.15 billion rupees—approximately $49.2 million—for private sector investments that address climate change in India. The bond, listed on the London Stock Exchange, is the first green bond issued in the offshore rupee markets. IFC will invest the proceeds of the bond in a green bond issued by YES bank, one of India's largest commercial banks. YES bank will invest the proceeds of its bond in renewable energy and energy efficiency projects, mainly in the solar and wind sector.

The bond yields 6.45% p.a. The bond is issued under IFC's $3 billion offshore rupee Masala bond program. Under the program, IFC has issued bonds worth over 103 billion rupees ($1.66 billion) in a range of tenors, building a triple-A yield curve and attracting new investors to the offshore rupee markets. IFC has also issued onshore Maharaja bonds under a $2.5 billion program for issuances in India's domestic capital markets.

IFC is one of the world's largest financiers of climate-smart projects for developing countries, investing about $11 billion in long-term financing over the last decade for renewable power, energy efficiency, sustainable agriculture, green buildings and private sector adaptation to climate change.
IFC also is one of the earliest issuers of green bonds, launching a green bond program in 2010 to help catalyze the market and unlock investment for private sector projects that support renewable energy and energy efficiency. As of June 2015, IFC had issued $3.8 billion in green bonds, including two benchmark $1 billion issuances that were, at the

time, the largest such issuances in the markets; and a 500 million renminbi-denominated green bond that was the first such issuance listed on the London Stock Exchange.

Green Infrastructure Project by YES Bank

YES bank, India's fourth largest private sector bank is a high quality, customer centric and service driven bank. Since inception in 2004, YES bank has grown into a 'Full Service Commercial Bank' providing a complete range of products, services and technology driven digital offerings, catering to corporate, MSME & retail customers. YES bank operates its Investment banking, Merchant banking & Brokerage businesses through YES SECURITIES and its Mutual Fund business through YES Asset Management (India) Limited, both wholly owned subsidiaries of the Bank.

"YES BANK, in alignment with its COP21 commitment of mobilizing USD 5 bn towards climate action, pioneered India's first Green Bond in 2015. The unprecedented success of these Green Bonds cemented the Bank's conviction in sustainable finance with subsequent issuances with IFC and FMO. YES BANK paved the path in India by demonstrating innovative climate financing structures and creating a market oriented towards green finance.

The Indian green bond market has witnessed a tremendous growth since its inception in early 2015. It has already crossed the INR 50000 crore mark with about 25 issuances and is further expected to grow steadily. These bonds have not only infused the much-needed capital for climate action in India, but have also encouraged both foreign and domestic responsible investment in the country. YES bank pioneered this vibrant market with India's first green bond in February 2015.This has established the case for raising green capital for climate related projects. The bank subsequently structured a unique back to back green bond investment with IFC via its Green Masala bond programme in August 2015. A third green bond followed in December 2016, with the Dutch Development Bank, FMO. As of March 31 2018, the bank has contributed to financing 2.73 GW of solar and wind energy projects using proceeds from its green bonds' issuances.

Key Milestones of YES Bank's Green Bonds

February 2015

- India's first-ever Green Infrastructure Bonds(AA+ by CARE).
- Raisied INR 10 billion (USD 160 million).
- 10 years tenor bond.
- Prime Investors are Insurance companies, Pension & Provident Funds, Foreign Portfolio Investors, New Pension Schemes and Mutual Funds.

August 2015

- Issued to IFC, on a private placement basis.
- First investment by IFC in an Emerging Markets Green Bond issue, in the world.
- Raised INR 3.15 billion (USD 50 million).
- 10 years tenor bond.
- Awarded the "Most Innovative Bond Structure" by Environmental Finance in May 2016.

December 2016

- Issued to FMO, the Dutch Development Bank, on a private placement basis.
- First investment by FMO in a Green Bond issued by a bank in India.
- Raised INR 3.30 billion (USD 50 million).
- 7-years tenor bond.
- Proceeds from FMO's sustainability bonds are invested in this green bond.

YES bank has allocated the proceeds from these Green bonds in various wind energy and solar energy projects in different parts of the country. The number of Wind Energy projects financed are 12 which have a combined capacity of 723.1 MW while on the other hand number of Solar Energy projects financed by these bonds are 34 which have a combined capacity of 2010 MW. The projects funded by the proceeds of the Green bonds in various states of the country over the years till 31st March 2018, are:

Table 1 Projects Funded by the Proceeds

STATE	WIND PROJECTS (MW)	SOLAR PROJECTS (MW)
Punjab	___	74
Rajasthan	55.4	50
Gujarat	48	___
Madhya Pradesh	38	280
Maharashtra	71.5	___
Telangana	48	415
Karnataka	46.2	181
Andhra Pradesh	200	650
Tamil Nadu	216	360

*Source: YES Bank's The Green Bond Impact Report FY 2017-18

The Green bonds issued by YES bank have paved the path in India by demonstrating innovative climate financing structures and creating a market oriented towards green finance. The proceeds of the bonds allocated in various renewable energy projects have various positive and expected annual and lifetime environmental and social impact in India.

Environmental Impact

Solar Power Plants and Wind Power Plants are well known for assisting in emissions of CO_2, SO_2, and NO_x, among others. The green projects funded by the proceeds of YES BANK's Green Bonds would help reduce these emissions and would also contribute to a positive environmental impact.

- **Carbon dioxide (CO_2) Emissions Avoided**

Carbon dioxide, a greenhouse gas, is one of the primary pollutants of air. The renewable energy projects funded by YES bank's green bond proceeds are instrumental in achieving reduction of carbon emissions in India. The annual and lifetime CO_2 emissions that these projects have avoided are 5.22 megatons and 123.56 megatons, respectively in year 2017-18.

- **Sulphur dioxide (SO_2) Emissions Avoided**

Sulphur dioxide is known to be deadly to human health. It also causes acid rains which can damage ecosystems. The projects financed by YES BANK's Green Bonds has avoided sulphur dioxide emissions, especially which would have been contributed by conventional power plants. The projects would reduce (avoid) as much as 43.45 kilotons of SO_2 emissions annually whereas lifetime anticipated reduction being 1029.11 kilotons as per 2017-18 Impact Report of Green bonds by YES Bank.

- **Oxides of Nitrogen (NO_x) Avoided**

Oxides of Nitrogen are also a chief emission from fossil fuel-based power plants, apart from motor vehicles. Through the shift towards solar and wind electricity generation projects, a considerable amount of oxides of nitrogen can be avoided. The annual emission of oxides of nitrogen that will possibly be avoided through these projects is 13.08 kilotons in year 2017-18 and the potential lifetime emissions avoided would be 309.76 kilotons.

- **Fossil Fuel Usage Avoided**

Employing renewable resources not only avoids usage of fossil fuels, but also boosts national energy security with a significant impact on reducing fossil fuel dependencies. With fossil fuel being one of the prime imports, renewable energy helps in reducing the trade deficit of India. Based on the generation potential of the projects till 2017-18, around 464.23 kilotons of fossil fuel usage would be avoided each year. The lifetime usage avoided is expected to be 10.99 megatons.

Table 2 Impact of Green Project

Benefits/Period	2016-17	2017-18	Lifetime (expected)
CO_2 Emissions Avoided	2.3 Megatons	5.22 Megatons	123.56 Megatons
SO_2 Emissions Avoided	19 Kilotons	43.45 Kilotons	1029.11 Kilotons
NOx Emissions Avoided	5.7 Kilotons	13.08 Kilotons	309.76 Kilotons
Fossil Fuel Usage Avoided	204.5 Kilotons	464.23 Kilotons	10.99 Megatons
Electricity Generation	2.35mn MWh	5.4mn MWh	______

Social Impact

Solar and wind power plants not only have a positive environmental impact but also strengthen a country's energy security. The green projects funded by the proceeds of Green Bonds issued by YES BANK will annually generate around 5.40 million MWh of electricity. This volume of electricity can light up around 1.05 million households in India, in a year.

Conclusion

IFC, a member of the World Bank Group, is one of the world's largest financiers of climate-smart projects for developing countries, investing about USD 13 billion in long-term financing over the last decade for renewable power, energy efficiency, sustainable agriculture, green buildings and private sector adaptation to climate change. IFC's main mission is to secure social and economic development in the host countries of their projects. The Strategic Priorities include addressing climate change and ensuring environmental and social sustainability. IFC was one of the first issuers of green bonds, and launched its green bond program in 2010. As of November 2015, IFC raised USD 4.3 billion for green bonds which included USD 50 million (INR 3.15 billion) of Green Masala Bonds for India's YES Bank Green Infrastructure Project.

Green Masala Bonds are the next step towards the proliferation of renewable projects and can act as catalysts for greening the country's conventional practices including thermal and hydro power generation. The projects funded by these bonds issued by YES BANK are expected to contribute towards climate mitigation and the country's global commitment of achieving 175 GW renewable energy capacity in the next few years.

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