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GREEN BONDS - THE WAY TO A GREENER INDIA: A CRITICAL REVIEW

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ABSTRACT

India is one of the nations that is significantly impacted by severe climate conditions. Lately, the nation has been experiencing severe weather conditions, whether it be during the summer or winter seasons. With a population of roughly 1.4 billion, India's status as one of the most populous countries in the world means that the carbon intensity of its economy directly affects global emissions and, consequently, climate change. India ranked as the third largest emitter of greenhouse gases (GHG) in 2021, with a total of almost 3.9 billion metric tons of carbon dioxide (CO2) equivalent. India's per capita greenhouse gas (GHG) emissions were comparatively low, standing at 2.8 CO2-equivalent tons, in contrast to the global average of 6.9 and the United States' figure of 17.5. India is one of the 195 countries that have ratified the Paris Agreement on climate change. India made a commitment at the 27th United Nations conference of Parties (COP 27) in 2022 to reduce the amount of greenhouse gas emissions produced per unit of economic output by 45% compared to 2005. Additionally, India aims to increase the proportion of energy generated from non-fossil fuel sources to 50% of the total capacity. India requires substantial financial resources to fund these and other obligations. Financing green projects can be challenging due to their capital-intensive nature and long duration. Green bonds or climate bonds, is the issuance of bonds specifically allocated for sustainable initiatives. In India, green bonds have assisted organizations in bridging the funding shortfall in the conventional domestic capital markets, which arises from the inherent risks linked to projects and industries such as renewable energy that are still in their early phases of development. This article carries out the SWOC analysis ofgreen bonds market and aims to identify strategies to overcome the lack of momentum in green bond investments in India.

Keywords: *Climate Bonds, Green Finance, Sustainability, Environment Bonds.*

Introduction

Environmental Bonds

Green bonds are financial products designed to generate revenues only for initiatives that have a positive influence on the environment. These bonds are generally known as climate bonds. The primary advantage of investing in green finance is the provision of tax benefits to investors, such as tax cuts or exemptions, while simultaneously promoting the development of sustainable infrastructure to mitigate carbon emissions. Green bonds are commonly issued to finance a range of initiatives, including waste management initiatives, renewable energy projects, water sustainability initiatives, sustainable land projects, marine and aquaculture projects and projects focused on pollution control mechanisms. Green bonds provide a more attractive coupon rate than corporate government bonds with the same duration in order to incentivize greater investment. The International Capital Market Association (ICMA) has set four criteria to classify bonds as green bonds:

- The funds must be allocated only for environmentally-friendly initiatives.
- The issuer must specify the methodology employed for project evaluation and selection.

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- Additionally, the issuer is required to uphold transparency in the administration of funds.
- Further, they are required to provide updates on the status and impact of the funds' utilization.

It is important for the issuer to designate the bonds as 'green' in public documentation and the issuer has to utilize the funds generated by these bonds to finance climate and environmental initiatives. A green bond is not considered as such if more than 5% of the revenue is allocated for any purpose other than its intended use.

Literature Review

The demand for green bonds has significantly increased due to heightened awareness of climate concerns. In the face of escalating climate calamities, enduring societal problems, and governance issues, sustainable finance and its novel financial mechanisms have become increasingly important to stakeholders worldwide (Singhania et al., 2023). The primary drivers for issuing green bonds are the advantages to reputation, the influential market signalling they provide, and the aim to mitigate climate change (Sangiorgi & Schopohl,2023; Alamgir &Cheng, 2023). Countries that have a greater issuance of green bonds are more inclined to successfully attain their sustainability objectives, specifically in relation to the generation of renewable energy and the reduction of carbon emissions (Alamgir & Cheng, 2023). A study conducted by Ahmed et al. (2023) revealed that the endeavors of enterprises and investors in addressing climate change (SDG13) indicate that green bonds contribute to achieving of the Sustainable Development Goals (SDGs).Despite the relatively higher cost of green bonds compared to conventional bonds, respondents have indicated a surge in demand for them, greater levels of investor involvement, expansion of their investor pool, and a strengthened internal dedication to sustainability. (Sangiorgi &Schopohl, 2023). Green bonds lead to sustainable economic growth in both agriculture and industry. (Xu et al., 2023). According to Bedendo et al. (2023), financial institutions that issue environmentally-friendly bonds more frequently are able to effectively cut their emissions and decrease their lending to sectors that contribute to pollution. This, in turn, helps in the process of decarbonizing the financial sector. Green bonds are instrumental in enhancing environmental performance but only they are passed through rigorous certifications. Moreover, green bonds do not exert any influence on financial performance (Yeow & Ng, 2021). The primary obstacles to market for environmentally friendly bondsare a lack of progress in the market and a lack of knowledge and appropriate environmentally friendly initiatives (Sangiorgi & Schopohl, 2023).

Study Objectives

The paper aims to:

- To understand the worldwide growth of green bonds, with a particular emphasis on India.
- To do a SWOC study of investments in green bonds in India.
- To propose strategies for surmounting problems and mitigating hazards.

The Green Bonds- Journey

- **Worldwide**

The European Investment Bank initiated the issuance of a £600 million Climate Awareness Bond (CAB) in 2007, establishing itself as the leading issuer of green bonds. There has been a substantial increase in the green bonds' investment in recent years. The issuance of green bonds in 2014 amounted to 37 billion U.S. dollars. It reached high in 2021, reaching roughly 582 billion U.S. dollars, and experienced a minor decline in 2022, with green bonds issued totalling 487 billion U.S. dollars.

- **India's Green Bonds Journey**

The instrument has been utilized by financial institutions and government bodies since 2015. In 2015, India entered the green bond market with the issuance of the first green bond by YES Bank. The purpose of this bond was to raise funds for renewable energy projects, with a specific emphasis on wind and solar energy. Subsequently, CLP India issued INR 600 Crore. Axis Bank Limited has been the first institution to offer a green bond that is internationally accredited, with a total value of USD 500 million. The Securities and Exchange Board of India (SEBI) implemented Green Bond Guidelines in 2015, which were derived on the worldwide guidelines established by the worldwide Capital Market Association (ICMA).

The cumulative value of Indian green bond issuances has surpassed $21 billion as of February 2023. India's most prominent issuer of green bonds Greenko Group is financing hydroelectric, solar, and wind power initiatives in multiple Indian states using the proceeds from its environmentally-friendly bonds.

In 2021, Ghaziabad Nagar Nigam, a municipal corporation, Uttar Pradesh has achieved the distinction of becoming the first to issue a green bond worth20 million USD. In 2023, the Indore Municipal Corporation issued green bonds worth 87 million USD. India released its inaugural sovereign green bond on January 25, 2023, with a value of INR 80 billion, equivalent to $980 million. In Feb 2023, The Government of India declared its intention to release an additional sovereign green bonds worth INR 80 billion. India's sovereign green bonds demonstrate its dedication to increasing the generation of renewable energy and decreasing its carbon intensity. These bonds provide financial support for expenses related to renewable energy and the electrification of transportation networks.

(SWOC) Analysis -Strengths, Weaknesses, Opportunities, and Challenges

SWOC analysis is a comprehensive evaluation of a project or task, focusing on its strengths, weaknesses, opportunities, and threats. Beginning with the value enhancement that investments in green bonds provide to the organization.

Advantages

- Green bonds enhance the reputation of the issuer and attract positive sentiment from investors. These bonds are ideal for investors with a specific interest in supporting environmental initiatives.
- The interest rate on these bonds is cheaper compared to the loans provided by commercial banks. Consequently, the expense of acquiring capital can be reduced.
- Foreign investors are showing a growing interest in ecologically sustainable enterprises. This helps to bring foreign investment in India's green bonds market.

Limitations

The Green Bonds market is seeing slow growth. There are specific imperfections that require attention:

- Indian green bonds market is still in its early stages and faces a lack of investor knowledge.
- The projects that qualify for investment through green bonds are distinguished by their substantial capital needs and require a considerable duration to generate returns. Typically, green bonds have a duration of approximately 10 years, which may not be appealing to investors with shorter or medium-term investment goals.
- Furthermore, the Indian markets suffer from a notable absence of credit ratings or established criteria for credit ratings, which can discourage potential investors.

Opportunities

India has established ambitious objectives for renewable energy in order to enhance energy accessibility and security, as well as to address climate change. These goals include achieving a target of 500 GW of renewable energy by 2030 and the establishment of 100 Smart Cities.

- In order to accomplish these ambitious goals, India will need to allocate 2.5% of its GDP annually towards green expenditure.
- Furthermore, the Reserve Bank of India (RBI) has designated renewable energy as a priority area for lending, with a maximum limit of INR 15 crore per borrower.
- Ethical and informed investors seek to invest in newly developed financially sustainable instruments.
- The need for environmentally sustainable initiatives has increased significantly since the COVID-19 pandemic.
- In order to obtain the required funding to meet these national goals, there will be an increase in the use of new and creative financial tools, such as green bonds.

Challenges

Green bonds market needs lots of regulation.

- Occasionally, the environmental initiatives emphasized by those who offer them are dubious. This is due to the fact that the issuer utilizes the funds generated from these bonds to support initiatives that have a detrimental impact on the environment. The phenomenon of greenwashing is widespread on a global scale.

- In addition to the absence of adequate rating criteria, the credit ratings for these instruments are often poor. Investors are hesitant to invest in these bonds due to their credit rating falling below AAA or AA.
- The majority of green bonds are focused on investments in renewable energy, with just a small portion allocated to the development of a secure transportation system. Although there are multiple activities that meet the criteria for green bonds, the number of entities issuing these bonds in these sectors is restricted. As a result, the investors have a reduced level of diversification.
- In order to be classified as "green bonds" according to the Green Bond Principles, green bonds must provide evidence of their environmentally friendly attributes. Conducting periodic audits of their activities to showcase their environmental impact incurs an extra expense for green bonds.

Green Bonds: A Critical Review

Based on the SWOC analysis, the paper seeks to criticaly evaluate green bonds market and offer certain suggestions to overcome those challenges.

- **Financial Restructuring Necessary**

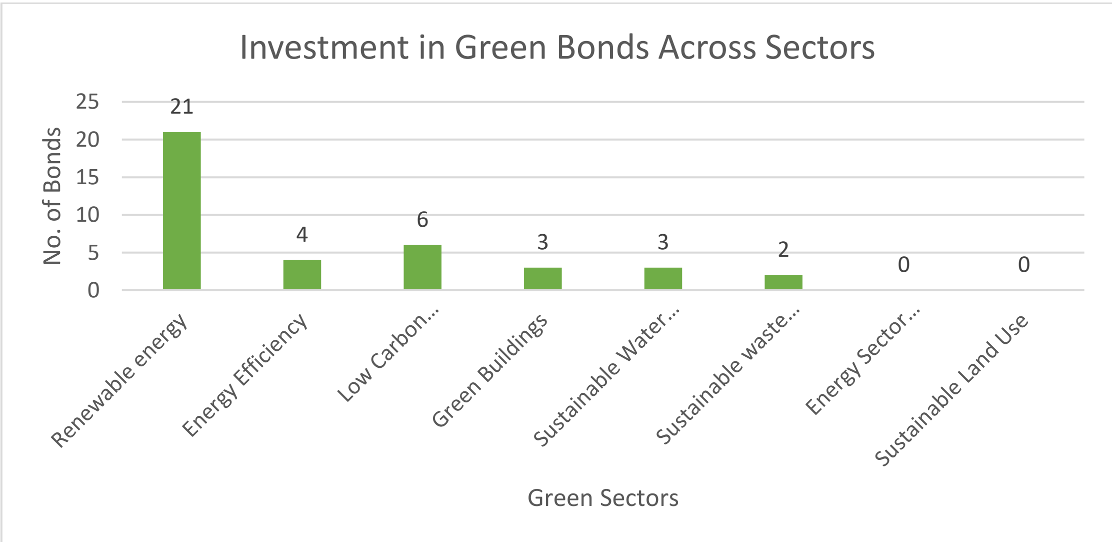
Green bonds have the power to advance sustainable development and quicken climate measures. However, the average domestic investor is reluctant to invest in these bonds because of its novelty and lack of knowledge, viewing it as a high-risk undertaking. Moreover, in India, green initiatives frequently deviate from the specified parameters in terms of project magnitude, repayment time, and issuing organization. To make green bonds appeal the retail investors financial restructuring is required to improve their credit profiles and reduce risk.

- **Public Aid**

With its active participation in the market and issuance of green bonds, the Government of India is currently supporting it. By issuing sovereign green bond in 2023, the government has demonstrated its support. However, mere issuance of green bonds is not enough. Direct intervention and support is required like tax exemptions to both issuers and investors, infrastructural support to stimulate the retail investment in green bonds.

- **Green Bonds Market Lacks Sectoral Diversity**

Experts stress issuance of green bonds to other clean energy sectors beyond the realm of renewable energy.



Source: Bloomberg, Climate Bonds Initiative

The figure above also shows concentration of green bonds majorly in renewable energy sector. Green bonds have significant potential for issuance in several unusual areas such as forestry and aqua conservation, sustainable transportation, and new sustainable business models.

- **Need for a Broader Range for Green Bonds**

There is a widespread belief in the market that numerous issuers perceive themselves as constrained by the regulations governing the green bond market. Environmental and social objectives are seen as a more comprehensive approach to achieve good future. The Securities and Exchange Board of India (SEBI), has released extensive rules for green bonds to include such socio- sustainable projects. These standards cover a wide variety of project types included in the green bond taxonomy. However, currently, there is no standardized nationwide structure in place to evaluate this extensive spectrum.

- **Projects across Green Sectors Not Comparable**

Not all classifications of environmentally friendly initiatives can be directly juxtaposed: Establishing renewable energy facilities and implementing low carbon public transportation have distinct effects on emissions per unit of investment, yet both contribute to achieving an environmentally sustainable outcome. Hence, it is crucial to provide weightings to the various categories offered by SEBI to validate their influence on the concerned investors. This would facilitate the investors in making a informed decisions towards their selected impact category.

- **Local / Domestic Content Missing**

While global verification and assessment procedures offer benefits, it is impractical to establish a uniform norm for review due to country-specific variances. Multiple stakeholders have raised concern on the appropriateness of implementing the current international standards in the country, highlighting the need to tailor a certification standard to match the specific requirements of India. It is crucial to create green rating guidelines specifically for India that are in line with global standards. These guidelines would give international investors the necessary transparency and confidence to participate in Indian green bonds, resulting in several advantages.

Conclusion

In the coming years, India is expected to become a significant participant in the green bond market as it matures and establishes clearer and more precise criteria and certifications. The Government of India's foray into the green bond market is expected to stimulate greater investment in eco-friendly projects and initiatives. This would facilitate India's transition towards sustainable, resilient, and inclusive economic development. However, there are several possible challenges that both investors and bond issuers of projects may encounter. To ensure the continuation of the growth trend and the expansion of the green bonds market, it is imperative to address the aforementioned problems about policy support and bond structuring.

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