IOSR Journal of Business and Management (IOSR-JBM)
e-ISSN:2278-487X, p-ISSN: 2319-7668. Volume 25, Issue 6. Ser. 1 (June. 2023), PP 69-79
www.iosrjournals.org

Green Finance: Eclipsing protectorate over affairs of ESG

Diksha Chaubey & Dr. H. K. Singh*
Research Scholar, Faculty of Commerce, BHU, Varanasi (U.P.)
**Professor, Faculty of Commerce, Banaras Hindu University, Varanasi (U.P.)*

ABSTRACT
Green finance covers a wide range of financial products and services, which can be broadly divided into banking, investment and insurance products. Examples of these include green bonds, green-tagged loans, green investment funds and climate risk insurance. Green Finance in India: Progress and Challenges of funds are being established. They together constitute green finance. Green finance is central to the overall discussion on sustainability of economic growth. Rapid economic development is often achieved at the cost of environment. In this study the researcher has discussed about the basics of Green Finance Policy In The Public Domain, Best Practices From Throughout The World, Public Policy In India, India's Progress And Challenges In The Field Of Environmental Finance. Green Bonds, Green Finance As An Effective Tool For Sustainability, Areas Covered By Green Finance; Green Banking, Green Insurance, Benefits Of Green Finance, Limitations Of Green Finance, The Status Quo Of Green Finance In The Field Of Renewable Energy, The Market Mechanism Of Green Finance, Types Of Green Financial Products, Role Of Policies In Green Finance and Impact Of Green Bonds On Environmental Protection.

I. INTRODUCTION

Financing initiatives that are environmentally friendly or take climate change into account is referred to as "green finance." Solar, wind, and biogas power; clean transportation that minimizes greenhouse gas emissions; energy-efficient initiatives like green construction; and waste management including recycling, effective disposal, and conversion to electricity are all part of a sustainable approach to building. Green Debt Securities projects must disclose information on how they will deal with environmental issues such as climate change adaptation, resource conservation, waste and water management, land use, and biodiversity. Carbon market mechanisms (like a carbon tax) and new financial institutions (like green banks and funds) are all being created to help fund these sorts of projects. Green finance is the sum of all of these elements put together in one package.

Sustainable economic growth and green funding are linked. Rapid economic expansion is not often accompanied with environmental degradation. Health and economic consequences of environmental deterioration, loss of natural resources, and pervasive pollution are becoming more and more apparent. In an effort to protect and improve the environment, countries throughout the world are rapidly adopting environmentally friendly technologies. The development of an acceptable incentive structure would be required, however, to increase the amount of money provided to initiatives that promote environmental sustainability. It's possible that established enterprises may divert land and man power to more sustainable ventures. (Berensmann, K., & Lindenberg, N. 2016), As a consequence, long-term resources are allocated in a way that fosters long-term growth. Governments, companies, and central banks all play a role in economic growth via the implementation of specific green finance policies.

Environment and natural resource conservation are becoming increasingly important as more and more environmental problems arise. This is due in large part to the rise in pollution, ozone layer depletion, global warming, and other environmental difficulties. The goal of green finance is to strike a balance between the needs of the environment and the interests of the financial system. Though there isn't a clear definition for Green finance, any financial assistance given to projects with the primary goal of promoting sustainability, such as the construction of green buildings, efficient management of energy, waste management, preservation of biodiversity, renewable energy projects, and other related projects, can be referred to as Green financing. Investments from the public sector will fall short of what is needed to complete these projects. Government and business sector efforts should be encouraged to fulfill the expanding need. However, to deal with the issues of fundraising and the use of that money, a regulatory framework and appropriate policy measures are needed as well. (Mohd, S., & V K, K. 2018) As a result, funding for renewable energy, energy efficiency management, and green investment products is not prioritized due to a lack of awareness, subsidies given to fossil fuels in various countries, the bias toward low returns, fear of breaching trust, and mismanagement of funds invested, and other such reasons At the moment, there is little effort being made to connect the concepts of finance and the environment. As part of the long-term aims of the 2015 Paris accord, the financial component was included, along with limiting global average temperature increase and enhancing capacity to adapt to climate change consequences. We need international agreements, policy initiatives, and regulations to bring these two parts together so they may be integrated. Green Financing has been examined in this article as an effective instrument for sustainability and the different possibilities and problems that occur when merging the methods of finance and the environment in India.

Figure 1.1: Basics of Green Finance

1.2 GREEN FINANCE POLICY IN THE PUBLIC DOMAIN

(a) Best practices from throughout the world

Since the G20's first summit in 2008, the circular carbon economy (CCE) has come up for debate, although climate change has been on the table for a long time. In order to increase the funding and public knowledge of environmentally friendly projects all over the globe, a number of well-known initiatives have been launched. Companies in both the financial and non-financial sectors may benefit from programmes like this that encourage them to include environmental considerations into their financial planning. Financial institutions' commitment to sustainable development may be shown in initiatives like UNEP's Statement of Commitment on Sustainable Development, Principles for Responsible Investment, and Equator Principles. In India, a number of groups have agreed to support these efforts. Environmental and social risks can only be mitigated if a credible source of information on how the entities manage them and a track record of the entities' ability to identify opportunities with both an acceptable rate of return and environmental benefits are in place. (UNEP) As part of the Sustainable Stock Exchange, stock exchanges in signatory countries are urged to create stock price indices that track the stock performance of a select group of companies operating in the signatory countries that are leaders in incorporating ESG principles into their financing strategies.

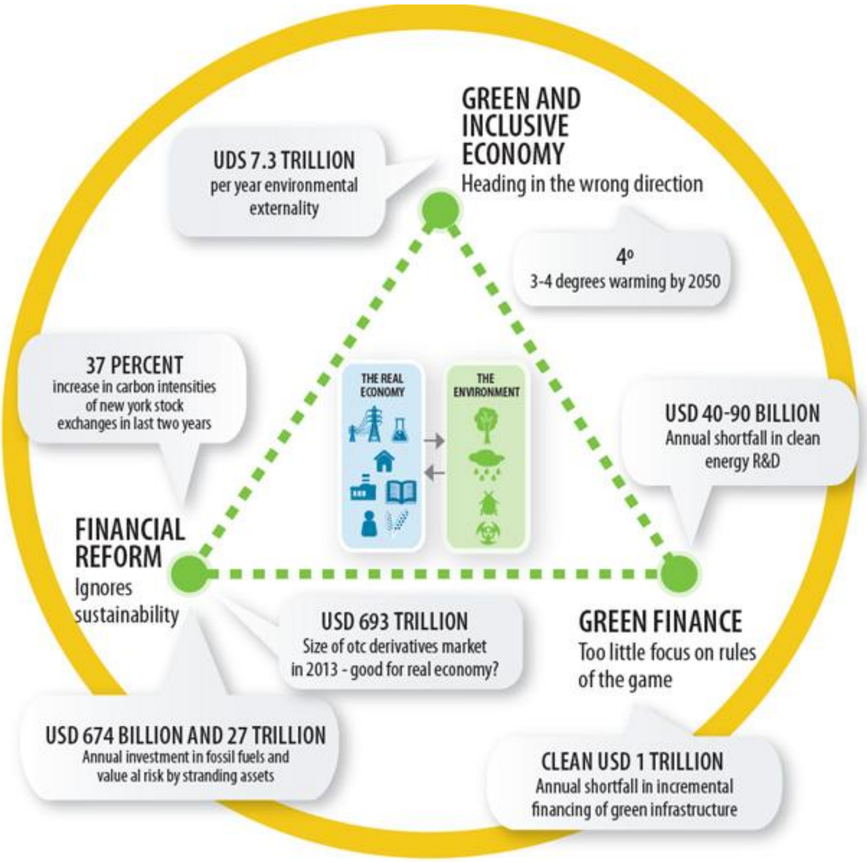

Figure: 1.2 Green Finance Policy

Environmentally conscious investors may use these indices to their advantage. Members of this initiative include the Bombay Stock Exchange (BSE) and the National Stock Exchange (NSE) of India, which each develop their own ESG indexes. There are four broad types of legal frameworks in use across the world: Financial and non-financial businesses are required to report on their exposure to ESG risks as part of their sustainability disclosures, which is the first step. (Dikau, S., & Volz, U. 2018,) These kinds of disclosures have grown increasingly widespread since the G20 called on firms to voluntarily adopt the principles of the Task Force on Climate-related Financial Disclosures (TCFD). In order to adopt TCFD by June 2020, 60 percent of the 100 largest publicly listed companies worldwide have committed. A system for disclosing ESG-related risks by publicly traded companies has been introduced in many countries. China is one of these Hong Kong (2012) (2012) England and Wales (2012) a country called India (2012) a chronology of events: Philippines, Vietnam, Singapore (2016). (Chowdhary, T. U., Datta, R., & Mohajan, H. K. 2013) Annual CSR reporting by commercial banks started in 2008, and the obligation was extended to non-banking financial institutions (NBFIs) in 2013, with an extra review of social hazards included to the credit evaluation in 2017. Bangladesh's banks were required to use a common risk reporting format as early as 2013. Physical and transitional risks must be reported by asset owners and managers in accordance with France's Energy Transition for Green Growth Law.

(b) Public policy in India

India has made green finance a top goal since 2007. Corporate Social Responsibility, Sustainable Development, and Nonfinancial Reporting - The Role of Banks" in which it highlights the importance of global warming and climate change for sustainable development, the Reserve Bank of India released a notice in December 2007. In 2008, the NAPCC was established to lay out a comprehensive strategy for mitigating the harmful consequences of climate change in the United States. CCFU, the Ministry of Finance's climate change finance unit, was set up in 2011 to serve as a coordinating body for India's several green funding organisations. The implementation of sustainable disclosure guidelines was the most major strategic move since 2012. Since 2012, the Securities and Exchange Board of India has mandated that companies provide annual reports on corporate social responsibility (SEBI). (Soundarrajan, P., & Vivek, N. 2016) SEBI's guidelines for green bond issuance in May 2017 said that disclosure requirements must be satisfied. A compulsory CSR report was imposed in 2013 by the Ministry of Corporate Affairs under the Companies Act, 2013. (Corporate Social Responsibility) 9 At least once a year, the Committee on Corporate Governance advised that the board of directors meet to discuss strategy, budgeting, board assessment, risk management, environmental and social responsibility (ESR), as well as succession planning.

In India, there are several tax and financial benefits. Following India's 2015 Paris Agreement goals to reduce greenhouse gas emission intensity by 33 to 35 percent below 2005 levels and to attain 40 percent of installed electric generating capacity from non-fossil sources by 2030, these incentives are being implemented. Almost all Indian governments give a 30 percent subsidy for the installation of solar panels on rooftops11. Up to 70% of the installation expenses are subsidized by certain of the special-category states12. If the yearly generation exceeds 1100 kWh1500 kWh, beneficiaries may additionally benefit from a generation-based incentive, which pays '2 per unit of generation. The government may set a price for excess power, which can then be sold on the open market. Additionally, the Indian government launched the Faster Adoption and Manufacturing of Hybrid and Electric Vehicles (FAME) programme in 2015 and 2019 with the goal of increasing credit availability, lowering upfront costs for all vehicles, and developing infrastructure (such as charging stations) to promote the production and sale of environmentally friendly automobiles in the future (Geddes A., Schmidt T. S. and Steffen, B. 2018). There will be a 20 basis point reduction in upfront fees for electric automobiles under the State Bank of India's "green auto loans" scheme, as well as an extended payback period for customers for the production of high-efficiency renewable energy modules; the government has also developed a Production-Linked Incentive (PLI) Scheme.

It has also adopted active policy measures to assist and stimulate green finance operations. The small renewable energy sector is now part of the bank's Priority Sector Lending (PSL) strategy, which began in 2015. Family members may borrow up to'10 lakh to invest in renewable energy, while businesses can borrow up to'30 crore (rising to'15 crore from September 4, 2020). It was announced by the Indian government in September that the country expects to create 450 (GW) of renewable energy by the year 2030.

1.3 INDIA'S PROGRESS AND CHALLENGES IN THE FIELD OF ENVIRONMENTAL FINANCE

a) Increased general awareness

Green finance and sustainable development aren't often discussed in the mainstream media; therefore it's difficult to gauge public opinion. If you're curious about how people search the internet from various areas at different times, Google Trends is an excellent resource. Based on the volume of Google searches, we may get a sense of how much interest there is in a certain issue or subject area. As a percentage of all searches done in an area during the selected period, the number of Google searches on each subject is normalized in Google Trends. (Keerthi, B.S. 2013) Because Google's general search activity has changed over time, this normalization eliminates any bias. Overall search traffic is substantially bigger now than it was in 2004, for example, due to the global increase of internet access. This means that the total number of searches for a certain topic may not be a useful indicator of how much interest the public has shown in that subject over time. Green finance and its role in sustainable economic growth are becoming more popular, according to Google Trends.

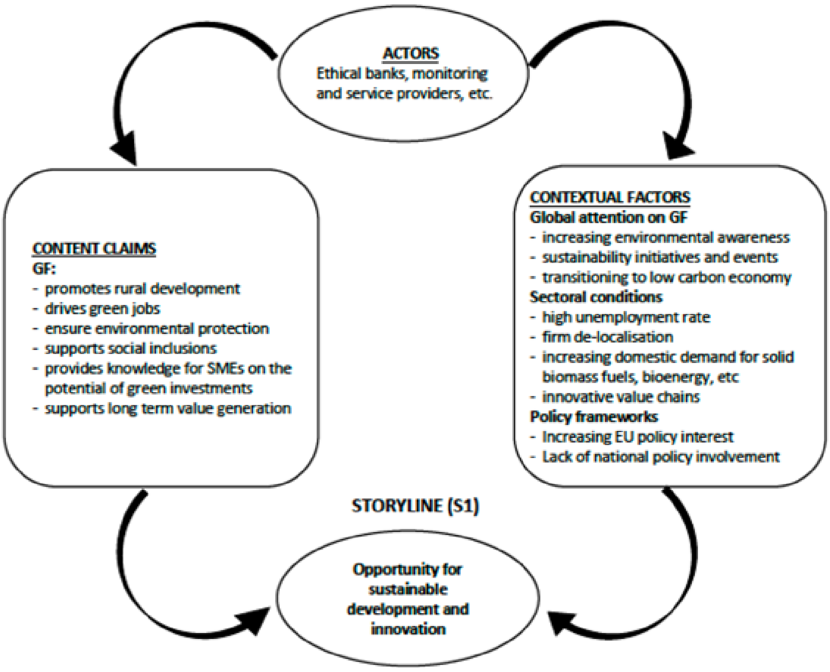

Figure: 1.3 Opportunities and Challenges of Green Finance

b) Green bonds

In this case, the bond's issuer undertakes to use the bond proceeds to support environmentally friendly goods, reforestation, and climate-related initiatives, among other things. To properly allocate money to environmentally friendly projects while also taking into account the risk and reward associated with the bonds, a balanced strategy is required. In addition to strengthening the reputation of the issuing firm or financial institution, green bonds allow investors who only want to invest in environmentally friendly goods to do so. At the same time, it assists those investors who wish to engage in socially responsible initiatives, and so fulfills their desire to incorporate investment and social responsibility into a single transaction. The European Investment Bank and the World Bank initially issued green bonds in 2007. Private businesses, banks, and other financial organizations began issuing green bonds in the following years. For the listing and issuance of these debt instruments in India, the Securities and Exchange Board of India (SEBI) published rules. For SEBI standards, the revenues of such bonds should be invested in green projects including renewable energy and climate change action as well as efforts to preserve biodiversity and reduce pollution levels.

Figure: 1.4 Green bonds

Green bonds may be issued by any sovereign entity, intergovernmental coalition, or company and the earnings from the bonds can be used for environmentally beneficial activities. Bloomberg has provided extensive data on green bonds issued by Indian firms and governments. In India, we started by looking at all bonds issued since January 21, 2015, regardless of whether they were green bonds or not. Bonds with "India" indicated as the risk country have been selected regardless of where the issuer is based. Over 5000 Indian bonds have been issued since 2015,(Berensmann, K. & Lindenberg, N. 2019)and our data includes the initial issuance amount in US dollars, the coupon rate and debt to total assets ratio, as well as whether the bond revenues were to be utilized for green initiatives or not. The Bloomberg terminal was used to get summary information, but not detailed information, for international comparisons.

Green bonds have been issued by the Indian government since 2015. There are now $16.3 billion in green bonds outstanding in India. Approximately $8 billion in green bonds were issued in the Indian financial market at the beginning of 2018, accounting for approximately 0.7% of all bonds issued in India. Some of the world's most powerful and emerging economies have experienced a large increase in green bond investments over the last few years.

"Most green bonds issued since 2015 have maturities of five years or more, but less than 10 years. Yes, Bank Ltd. (2015), the Indian Renewable Energy Development Agency Ltd. (2017, 2019), the Rural Electrification Corporation Limited or REC Limited (2017), the Power Finance Corporation Ltd. (2017), and the Indian Railway Finance Corporation Limited (2017) have all issued long-term green bonds (2017). Renew Power Pvt. Ltd. issued short-term green bonds earlier this year, expiring in less than five years. India's green bonds have been issued in US dollars at a rate of 76% since 2015. It isn't only the World Bank that issues green bonds for Indian projects; it has done so on occasion. India's Green Bond Impact report (2019) estimates that as of June 30, 2019, the amount of Green Bond proceeds earmarked to help finance such projects in India is expected to be US$640 million. (Jain, S. 2020), summary: India's eco-finance sector has only begun to take shape. A total of 7.9% of all outstanding bank credit in the power sector was accounted for by non-conventional energy as of March 2020, whereas green bonds accounted for only 0.7% of all bonds issued in India since 2018. In the next section, we'll discuss some of the most pressing concerns facing the Indian green bond market."

Table 1: Since January 1, 2018, Green Bonds have been sold (Corporate and Government: All Maturities)

Country	Amount issued ($Mn)	Number of bonds issued	The amount issued as a percent of all bond issuance (percent	Number of bonds issued as a percent of all bond issuance (percent)
Euro Area	1,96,854	594	1.7	0.4
China	63,023	183	0.3	0.2
USA	35,421	71	0.2	0.2
Japan	11,815	88	0.1	1.1
South Korea	11,781	44	1.0	0.4
Central and Southern America	8,869	53	0.5	1.0
India	**7,992**	**22**	**0.7**	**0.3**
South-east Asia	7,208	86	0.6	1.4
Australia and New Zealand	5,878	15	1.1	0.8
UK	5,311	17	0.4	0.5
Hong Kong	4,781	19	0.5	1.0
Singapore	496	9	0.05	1.2

c) Meaning of Green Finance

It's difficult to agree on what defines green funding. "Green Finance" refers to financing initiatives and businesses that do not affect the environment. Environment-friendly projects and investments in renewable energy, clean energy, and pollution control and water sanitation are funded with consideration for both the positive and negative impacts on the environment. This includes the development of green products for end-users like cloth-cotton bags, etc. When we talk about "green finance," we mean financial planning that is both publically and privately funded, with an eye toward long-term sustainability.

1.4 GREEN FINANCE AS AN EFFECTIVE TOOL FOR SUSTAINABILITY

Sustainable development, the environment, and the financial system can all coexist in harmony when green financing is used to support initiatives aimed at reaching that end. As a result, it protects natural resources, stimulates the use of renewable energy resources, and so tries to decrease human exploitation of the environment. For the sake of attaining sustainable development objectives, it serves as an effective method.

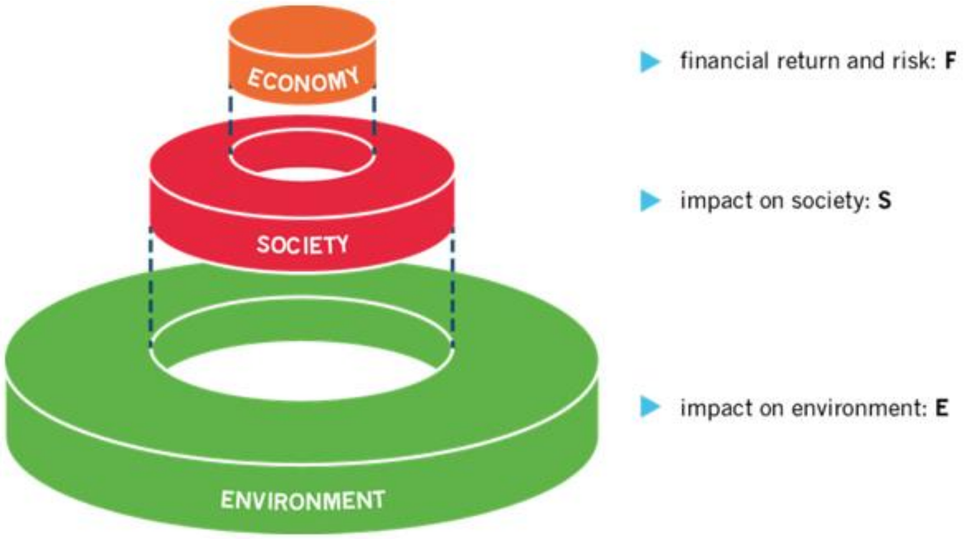

Figure: 1.5 Managing Sustainable Development

Areas covered by Green Finance

1.4.1 Green Banking

It focuses on promoting environmentally friendly behaviors via banking activity. Green banking is beneficial to both the environment and the financial industry since it aids in environmental conservation.

Technology advances, shifting stakeholder expectations, and operational innovations are all part of its functioning. (Dikau, S., & U. Volz. 2018) SBI, Punjab National, Bank of Baroda, Canara, ICICI and DFC Bank, Kotak Mahindra, and IDBI are among the Indian banks that provide green banking services to their clients. Other green banking institutions in India include the State Bank of India, Punjab National Bank, Bank of Baroda, Canara, and IDBI.

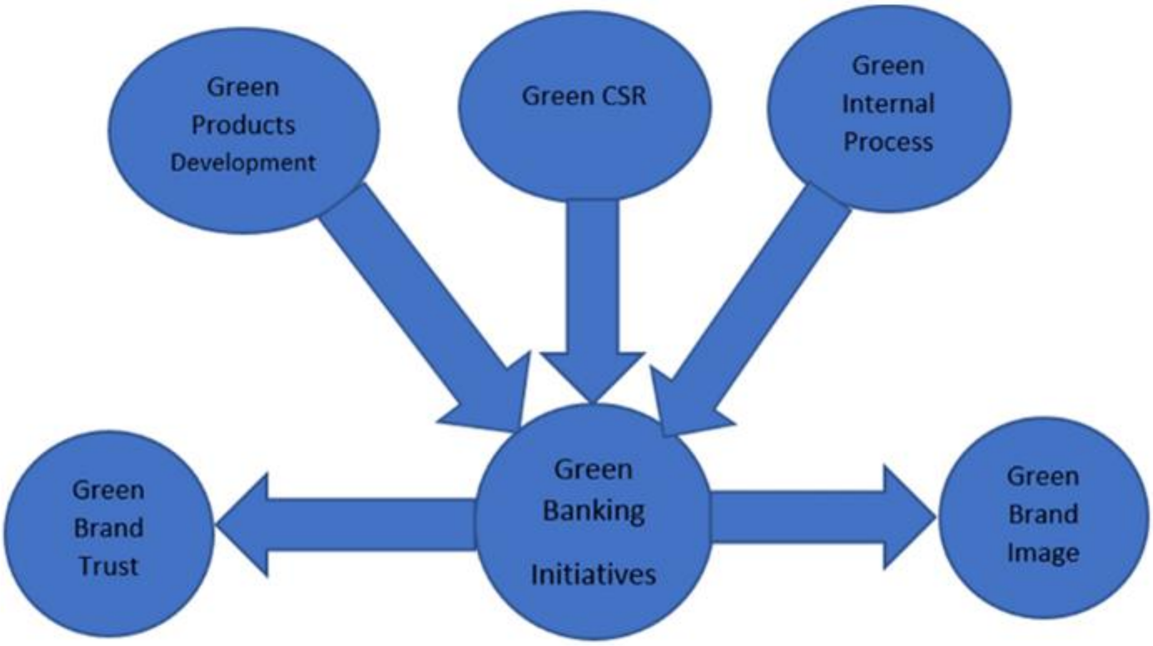

Figure: 1.6 green banking

In the following table, you will find a collection of green banking practices.

Table 2: Green banking practices

S.No	Areas covered	Explanation
1	Online Banking	Using the internet to provide clients with financial services. Encourages the use of electronic payment methods rather than paper checks or cash.
2	Green mortgage	For the acquisition of green buildings or the renovation of existing buildings to green buildings, financing is given.
3	The green home equity loan	Purchase and installation of home energy-saving equipment made possible thanks to the loan.
4	Home office conversion loans	Loans to set up a home office and begin working from home.
5	Green car loan	discounts on financing for non-zero emission automobiles
6	Green credit cards	Environmentally-friendly initiatives are funded by deducting a portion of each payment from the cardholder's account.
7	Energy-efficient loans	Loans for energy management that is more efficient
8	Loans towards the development of alternative fuel vehicles and infrastructure.	Incentives and loans provided to the conversion of existing vehicles to cleaner and more efficient fuels

1.5 GREEN INSURANCE

As a member of the green financial sector, the insurance business has a critical role to play in achieving long-term sustainability objectives. As a backbone for green financing, the insurance industry provides information on risk management and significantly lowers the risk associated with its various strategies and its business of underwriting, Dipika (2015). Although it has not been directly involved in environmental degradation or framing regulations about these issues.

For private electric cars insured by the Insurance Regulatory and Development Authority of India (IRDAI), the third-party premium rates would be cut by 15% from FY 2019-20.

Table 3: Green insurance types

S.No	Type of green insurance	Explanation
1	Green car insurance	Insurance premiums will be based on the number of miles driven, which will encourage people to drive less and help the environment at the same time.
2	Green business insurance	Incentive programs for company owners to renovate or rehabilitate damaged structures using environmentally friendly materials
3	Eco-friendly home insurance	Insures renewable energy power systems with technology and maintenance

		assistance, as well as insurance coverage
4	Green travel insurance	By contributing a portion of the premium to programs aimed at reducing carbon dioxide emissions, this insurance compensates for the environmental impact of traveling.
5	Green life insurance	Insurance companies will give a portion of the premiums they collect to environmental causes.
6	Carbon insurance	Protects the plantation woodlands from weather-related dangers by providing insurance coverage.

1.6 BENEFITS OF GREEN FINANCE

Green finance will have a positive impact on both the environment and the economy. It aids in creating a balance between the financial and natural worlds. There are a variety of advantages to be had.

1) **Efficient energy management:** Under green finance, various incentives and money are made available for the installation and use of renewable energy resources. As a result, energy efficiency may be improved.

2) **Environmental protection:** Green finance is all about supporting sustainable development initiatives, and environmental preservation is an essential element of that funding. So the notion will help reduce pollution, mitigate climate change, mitigate the loss of the ozone layer, and protect biodiversity, which is essential for the existence of living beings.

3) **Enhances reputation:** As the number of stakeholders who want to have a positive impact on society via their investments grows, they will give preference to firms who are doing their part to protect the environment. (Wang, K., Tsai, S.-B., Du, X., & Bi, D. 2019) Even the government offers financial assistance to environmentally beneficial initiatives. As a result, firms will be able to create and strengthen their reputation via green finance in the long term.

4) **Helps in attracting FDI:** Concerns about environmental preservation are on the rise across the world. Therefore, international investors that invest in local enterprises are going to take into account the social costs and benefits while evaluating the initiatives. As a result, releasing green investment instruments would help our nation attract FDI.

1.7. LIMITATIONS OF GREEN FINANCE

1) Ambiguity regarding definition: The term "green finance" has no universally agreed-upon meaning. Investing in green projects will be challenging for investors since there is a lack of clarity on what constitutes a "green" project, which leads to misunderstanding and so acts as a barrier.

2) No proper regulatory framework: When it comes to the appraisal of green projects and the implementation of green investment policies, no formal laws, rules, or regulations exist, As a result of this regulatory void, green investment has had difficulty expanding and developing.

3) Lack of awareness: Many stakeholders are unaware of green finance, even though some groups of individuals are becoming more receptive to environmentally responsible investments. Insufficient knowledge and awareness of green investment goods will result in less capital accumulation than necessary. As a result, there will be an imbalance between the supply and demand for financial resources.

4) Give rise to unhealthy competition: There is a rising demand for green investment goods, and market players will take advantage of this need to increase their market share by utilizing the term "green projects." Prioritizing short-term economic gain above long-term sustainability creates unhealthy competition.

1.8. RECOMMENDATIONS

- To begin, governments, banks, and financial institutions should work together to educate the general people on the importance of environmental protection as well as the vast range of green investment options available. Innovative goods that both attract investors and contribute to environmental progress may be created by combining technology and money.
- To properly analyze green finance projects and safeguard the interests of investors, a robust regulatory framework must be established. All monies received for a certain project must be utilized for the intended purpose, according to the regulations.
- To penalize market players who unfairly take advantage of the increased demand for green initiatives, strict legislation must be implemented to govern the abuse of money. (Volz, U. 2018) Additionally, the legislation should be concerned with the use of monies generated. In the event of a policy infringement, appropriate measures must be implemented.
- Research in the area of green finance should be encouraged to bring forth novel green investment products and efficient green projects as well as the right legislative measures required for complete development and growth in the financial industry.

1.9 THE STATUS QUO OF GREEN FINANCE IN THE FIELD OF RENEWABLE ENERGY

Energy sources including natural gas, crude oil, wind and solar power are the primary focus of green finance research today rather than an overall picture of the energy industry. (Reddy, A. S. 2018) we can help reduce the risk and cost of financing, enhance the financial system, and support the expansion of renewable energy via green finance. Solar energy's expansion has been slowed for years due to a lack of adequate financing. Renewable energy processors and consumer demand should be taken into consideration by the financial system in order to promote broad use of renewable energy. The cost of renewable energy technologies electricity is directly influenced by the cost of financing. The future structure of renewable energy sources may be influenced by the power market's competitiveness. (Sachs, J.D., Woo, N., Yoshino, N.,& Hesary, T. Hesary 2019)If financing for renewable energy projects can be made more affordable via competition, they should accomplish their stated goals. There are many ways to look at wind energy funding for the banks; the need for efficient use of funds over time; financial instruments must be aligned with scientific and technological progress and renewable energy financing requirements; and political objectives must be aligned with energy security legislation and the energy fund in order to better promote development However, no research has been done on the interconnected expansion of the energy and financial sectors, and no in-depth examination of the internal mechanism addressing the link, mutual penetration, and reciprocal influence between the two businesses is known yet.

1.10. THE MARKET MECHANISM OF GREEN FINANCE

“Environmental funds, weather derivatives, nature-linked securities, and ecological options are just a few of the green financial products available. Ecosystem-based financial products and methods are also part of the green finance sector, which aims to protect firms against unanticipated natural disasters”

1.10.1 Emissions trading market mechanism

The first stage in constructing an emissions trading market is to identify the total amount of emissions trading in the region, as well as the initial number of tradable permits that will be available for trading. Emissions trading market creation also includes the transaction subject, the transaction protocol, and how the market will be governed and controlled among other aspects. The Slovak government and Japan's Sumitomo Corporation inked an agreement in 2002 for the trading of emissions totaling 200000 tones, which is generally recognized as a milestone in the worldwide emissions trading market. Air pollution, water pollution, and biodiversity challenges have all been addressed via the application of financial market mechanisms by environmental regulatory authorities.

1.11 Types of green financial products

Biodiversity Funds and Environmental Funds	Biodiversity conservation funds and environmental funds provide financial assistance directly to conservation initiatives or indirectly to businesses engaged in the protection of biodiversity. RBI (2019), Sustainability in forests and fisheries may be achieved via the establishment of environmental funds and funds dedicated to biodiversity.
Debt-for environment Swaps	In exchange for contributions to an environmental fund, the more developed country may avoid incurring debt. Over 30 countries have previously benefited from debt-for-environment swaps programmes in the US, Sweden, and Germany; one of the most notable debt-for-environment swap agreements between the US and Polish governments had a total value of approximately $370 million.
Securitizations in Forestry	Companies that set up securities transfer all of their profits to a new legal entity, which then obtains funds from investors by issuing securities in the capital market and lends the revenues to the companies of forestry extraction, for example in mitigation banking of wetland and endangered species in the United States and the system tradable native vegetation obligations in Brazil.
Derivatives on the weather	Climate change-related financial losses may now be offset by these new financial solutions. Companies entering weather derivative contracts may be required to pay compensation if the degree of climate change exceeds a certain benchmark. Since 2002, the transactions in weather derivatives have reached billions of dollars, according to data from CME, which dates back to the energy sector's mid-1990s.
Nature-linked Securities	Nature-linked Natural catastrophes and climate change may be transferred to investors in the global financial market using securities. A special purpose vehicle (SPV) is often set up by the sponsors of natural catastrophe securities before they issue debt securities. As a result of this agreement, SPV commits to compensate sponsors in the case of natural catastrophes in exchange for the sponsors' monthly payment of an insurance premium to SPV.
Green investment funds	For example, “many investment firms and trust funds refuse to invest in pollution-producing industries. Fund managers were encouraged to implement environmentally friendly investing methods under the Equator principles of green finance”

1.12 THE ROLE OF POLICIES IN GREEN FINANCE

Due to the large initial investment and the lengthy payback time, environmental protection sector expansion needs a specialized financing strategy. Green finance policies may help alleviate some of the government's funding shortfalls when paired with reform and new financial instruments. Reform and innovation of existing financial tools are part of a two-pronged approach to achieving the goals of green finance development: first, an examination of fiscal policy and the most feasible means of raising funds; and second, a review of the efficiency and direction of the use of fiscal funds.

1.13 THE IMPACT OF GREEN BONDS ON ENVIRONMENTAL PROTECTION

The use of financial tools are essential to the practical application of green financing. The worldwide market for green bonds has grown at an incredible rate. The terms "green bonds" and "bonds" are used interchangeably here. Bonds that are classified as "green" have many of the same features and functions as regular ones. Issuers have a low capital cost to issue bonds since the interest is pre-tax and investors' desire for yield is low, therefore lowering the cost of capital. For big-scale infrastructure projects that need enormous amounts of cash and long-term investment returns, bonds are ideal since they can generate a substantial amount of funds and have relatively long periods. There is a wide range of funding sources, including the government, financial institutions, and corporations, as well to suit the needs of a wide range of investors, bonds outperform bank deposits when it comes to profitability, liquidity, and stability. (Shen, C., Zhao, K., & Ge, J. 2020), Investors benefit from greater liquidity management due to bonds' lower entry/exit fees as well as the ability to change their investment portfolios more easily. Green bonds have stricter environmental standards than traditional bonds. The monies received must be used for renewable energy and green initiatives that are long-term and sustainable. Environmental and climate change risks may be hedged by investing in green bonds. The government may introduce green bond-related preferential policies such as lower investment thresholds and more favorable tax treatment in the future. (Nassiry, D. 2018), some national and local government subsidies may be used to fund green bond projects shortly. The transparency standards for green bonds are also more stringent, allowing investors to invest with less risk while still fulfilling their social obligation and benefiting from it. The first worldwide Climate Awareness Bond was issued by the European Investment Bank (EIB) in June 2007. (Geddes A., Schmidt T. S. and Steffen, B. 2018) It was used to finance renewable energy and energy efficiency initiatives. From 2007 to 2012, the worldwide green bond market went through the earliest stages of development before entering a period of significant growth in 2013. Scale expansion and the variety of issuers are two of the most important aspects of the green bonds market. From Europe to all across the globe, particularly in developing nations, distribution is becoming more widespread.

REFERENCE

[1]. Mohd, S., & V K, K. (2018). Green Finance: A Step towards Sustainable Development. Journal Press of India, 5(1), 59–74. https://doi.org/10.17492/mudra.v5i01.13036

[2]. Chowdhary, T. U., Datta, R., & Mohajan, H. K. (2013). Green Finance is Essential for Economic Development and Sustainability. International Journal of Research in Commerce, Economics & Management, 3(10), 104–108. https://mpra.ub.uni-muenchen.de/id/eprint/51169

[3]. Soundarrajan, P., & Vivek, N. (2016). Green finance for sustainable green economic growth in India. Agric.Econ, 62(1), 35–44. https://doi.org/10.17221/174/2014-AGRICECON

[4]. Keerthi, B.S. (2013). A Study on Emerging Green Finance in India: Its challenges and Opportunities. International Journal of Management and Social Sciences Research (IJMSSR), 2(2), 49-53

[5]. https://www.ceguide.org/Strategies-and-examples/Finance/Green-bonds

[6]. https://www.ifc.org/wps/wcm/connect/9e8a7c68-5bec-40d1-8bb4-a0212fa4bfab/Amundi-IFC-Research-Paper2018.pdf?MOD=AJPERES

[7]. Berensmann, K & Lindenberg, N. (2019). Green Finance: Actors, Challenges and Policy Recommendations. Briefing paper.

[8]. Sachs, J.D., Woo, N., Yoshino, N.,& Hesary, T. Hesary (2019). Why is Green Finance Important? ADBI working paper 917. https://www.adb.org/publications/why-green-finance-important.

[9]. Dipika (2015). Green Banking in India: A Study of Various Strategies Adopted by Banks for Sustainable Development. International Journal of Engineering Research & Technology (IJERT).

[10]. Dikau, S., & U. Volz. (2018). Central Banking, Climate Change and Green Finance. ADBI Working Paper 867. Tokyo: Asian Development Bank Institute.

[11]. Chowdhary, T. U., Datta, R., & Mohajan, H. K. (2013). Green Finance is Essential for Economic Development and Sustainability. International Journal of Research in Commerce, Economics & Management, 3(10), 104–108.

[12]. Wang, K., Tsai, S.-B., Du, X., & Bi, D. (2019). Internet Finance, Green Finance, and Sustainability. Sustainability, 11(14), 3856. https://doi.org/10.3390/su11143856

[13]. https://www.bankexamstoday.com/2017/02/green-banking-all-you-need-to-know.html https://www.iii.org/article/green-insurance

[14]. https://development.asia/explainer/green-finance-explained (Asian Development Bank)

[15]. Establishing China's Green Financial System, Report of the Green Finance Task Force, April 2015.

[16]. Future of Finance, (2019), Bank of England, June

[17]. The G20 Green Finance Study Group (GFSG)'s work supports the G20's strategic goal of strong, sustainable and balanced growth. It was set up post G20 Finance and Central Bank Deputies Meeting at Sanya, China in December 2015

[18]. Dikau, S., & Volz, U. (2018, September), "Central Banking, Climate Change and Green Finance", ADBI Working Paper Series(867).

[19]. Berensmann, K., & Lindenberg, N. (2016), "Green finance: actors, challenges and policy recommendations", German Development Institute/ Deutsches Institut für Entwicklungspolitik (DIE) Briefing Paper, 23

[20]. Geddes A., Schmidt T. S. and Steffen, B. (2018), "The multiple roles of state investment banks in low-carbon energy finance: An analysis of Australia, the UK and Germany", Energy Policy, 115 (2018), 158-170

[21]. Jain, S. (2020), "Financing India's green transition", ORF Issue Brief No. 338, January 2020, Observer Research Foundation.

[22]. Nassiry, D. (2018), "Green Bond Experiences in Nordic Countries", ADBI Working Paper, No. 816, March

[23]. Olga, B., & Smorodinov, O. (2017), "Challenges to green finance in G20 countries", Mirovaya ekonomika i mezhdunarodnye otnosheniya, 61(10), 16-24

[24]. RBI (2019), "Opportunities and Challenges of Green Finance", Report on Trend and Progress of Banking in India (2018-19), 17-18.

[25]. Reddy, A. S. (2018), "Green Finance- Financial Support for Sustainable Development", International Journal of Pure and Applied Mathematics, 118(20), 645-650.

[26]. Shen, C., Zhao, K., & Ge, J. (2020), "An Overview of Green Building Performance Database", Journal of Engineering.

[27]. Volz, U. (2018, March), "Fostering green finance for sustainable development in Asia", ADBI Working Paper Series(814)

[28]. Group of Twenty (2016). G20 Green Finance Synthesis Report. http://unepinquiry.org/wpcontent/uploads/2016/09/Synthesis_Report_Full_EN.pdf

[29]. Jayasubramanian, P., & shanthi, M. (2014). Green Finance. Indian Journal of Applied Research , 4 (8), 610-612.