

## GREEN FINANCE – AN OPEN DOOR IN FUTURE FOR THE UNIVERSE

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### ABSTRACT

Green Finance includes all initiatives taken by private and public banks, businesses and international organizations in developing, promoting, implementing and supporting projects with sustainable impacts through financial instruments. Green finance represents the future of financial sector through innovative financial mechanisms. This paper is written in a simple language to make everyone understand What is Green Finance? It concentrates on the evolution and concept of green finance, global impact and challenges and green finance during COVID-19. This is a Descriptive study carried only with secondary source of data. Finance is an Ocean and Green Finance is a little drop of an Ocean.

**Keywords :** Climate Finance, Sustainable Finance, Environmental, Green Bonds, Green Investments

#### 1. INTRODUCTION

Green finance is any systematic financial action that's been built to provide a more together environmental outcome. GF is one of a number of terms used to label movements related to the two-way communication between the environment and finance and investment. It is also termed as Climate Finance, Sustainable Finance and Responsible Investment (RI). Mostly it includes issues relating to environmental, social, economic and governance issues. Green bonds and carbon market instruments are being established along with new financial institutions, such as green banks and green funds. Together these instruments and institutions constitute green finance (<https://development.asia/explainer/green-finance-explained>). To be simple, green finance is any methodized financial activity – a product or service – that's been set up to ensure a better environmental outcome. It includes a cluster of loans, debt mechanisms and investments that are used to boost the development of green projects or reduce the effect on the climate of more regular projects or a combination of both. In the present economic and financial development,

green finance has become a global concern. This paper gives in a nutshell the concept of green finance, its global opportunities and challenges and the impact during the present COVID-19 pandemic.

#### 2. OBJECTIVES

To study the concept and evolution of green finance:::To study the global challenges of green finance:::To examine the impact of green finance:::To examine the impact of green finance during COVID-19

#### 3. MATERIALS AND METHODS

This study is descriptive and analytical in nature. The literature review section concentrates on various other studies and reports as such making this study Descriptive. This study is carried with authentic secondary sources of data to give a highlight of Green Finance. Any subjectivity on the secondary sources may reflect on the study which should be considered as limitation for the study.

#### 4. DISCUSSION AND RESULTS

##### 4.1. Growth, Concept and Evolution:

(Schaefer & Voss, 2011) As defined by Economic Development and Employment, **Green Economy** – Is

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one whose growth in income and employment is propelled by public and private investments that lower carbon emissions and pollution, strengthen energy and resource efficiency, and prevent the loss of biodiversity and ecosystem services. **Green Growth** – Is a strategic method of approach to build up economic growth aimed at shaping established economic process according to ecological principles and creating increased opportunities for employment and income generation while minimizing the impact on the environment. **Green Finance** – Is a strategic approach to assimilate the financial sector in the transformation process towards low-carbon and resource-efficient economies, and in the context of adaptation to climate change. (Lindenberg, 2014) Green finance comprises (a) The funding of public and private green investments, adding preparatory and capital costs in biodiversity and landscapes, energy efficiency or dams. (b) The funding of public policies that boost the practice of environmental and environmental-damage reduction or alteration projects and initiatives. (c) Ingredients of the financial system that deal specially with green investments like green bonds and structured green funds. **Green Investments** = Water Processing and Recycling + Biodiversity Protection + Water Sanitation + Industrial Pollution Control + Reforestation + Energy Efficiency + Renewable energies + Climate Change Adaptation + ??? This represents green investments and it does not include the mentioned only. It has more things which contributes to the definition as mentioned ???. (Source: Proposal for the BMZ – Nannette Lindenberg). (Institute, n.d.) National and International Context meaning of Green Finance: **G20 Green Finance Study Group**: Financing of investments that provide environmental benefits in the broader substance of environmentally sustainable development. **Green Finance Initiative**: Funding any means of reducing carbon emissions or raising resource efficiency. **Organisation of Economic Co-operation and Development (OECD)**: Green finance is finance for “achieving economic growth while cutting reducing pollution and greenhouse gas emission, minimizing waste and reforming efficiency in the use of natural resources.” **Government of Germany**: Green finance is

a strategic approach to incorporate the financial sector in the transformation process towards low-carbon and resource-efficient economies, and in the situation of adaptation to climate change. **European Banking Federation**: Green finance includes environmental aspects and climate change-related aspects. Common elements which can be quantified looking the above mentioned are: (a) Allocating capital for a wider purpose (b) Focus is on investment to the benefit of environment (c) To govern environmental risks facing the finance sector and society (d) Recognition of policies and infrastructure to enable green finance (e) A broader context of sustainable development and economic growth

#### 4.2. Global Opportunities and Challenges in Green Finance:

(Labanya Prakash Jena, 2020) **India** is ranked the fifth most exposed nation to the repercussions of climate change with nearly 3% of its GDP at risk annually. Green finance can play a vital role in making India's economy strong to climate change influences. Financial intermediation for green sectors in India is limited due to multiple challenges. Since there is no common standard and formal definition of Green Finance, climate finance, responsible finance and ESG investments are used interchangeable. India's financial sector is not fully evened with the global efforts to accelerate Green Finance in terms of awareness, interest, and recognition of “green” in lending and investment practices. Hence there is a growing need to sensitize India's financial sector about the importance of Green Finance and to the need for accelerating capital through sustained market-led collaborative actions and regulatory interventions. In future experts from various fields are required to advise on the steps towards green fiancé and climate change risks and mobile resources for green. (Falcone & Sica, 2019) This analyze the opportunities and criticalities affecting GF by investigating the extent to which they might hinder the investment decisions of **Italian** agroforestry biomass producers. The study was carried in two means (a) disclosure analysis and (b) semi-structured interviews with a pool of biomass experts. The outcome believed that through green investments, GF provides a

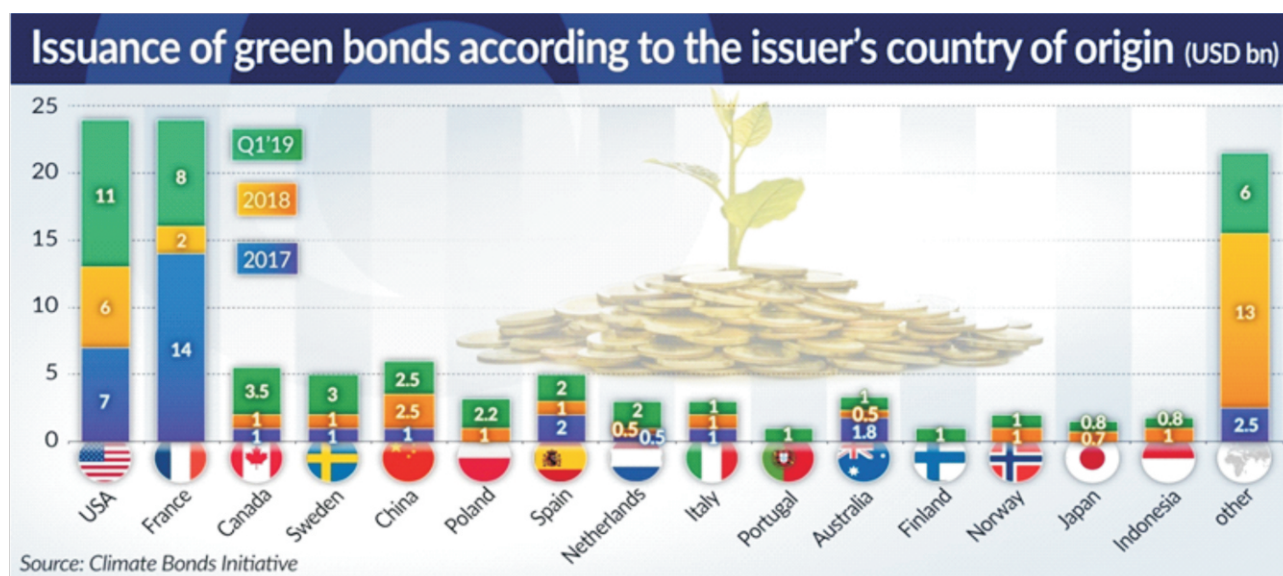
win-win solution wherein both environmental protection and long-term value are guaranteed.(Wardle et al., 2019)This is based on the Global Green Finance Index (GGIF 4). It concentrates on many countries in chronological order. For our paper the first five countries are taken based on the (1) Ranks and Ratings of Depth of Green Finance – Amsterdam, Luxembourg, Copenhagen, Stockholm and Zurich (2) Ranks and Ratings of Green Finance Quality – London, Amsterdam, Paris, Hamburg and Zurich. (Trimble, 2018) The Green Finance Task Force was instituted by People's Bank of **China** (PBC) research Bureau and the UNEP Inquiry into the design of sustainable financial system in 2014. The task force brought simultaneously leading Chinese financial policy

and regulations experts together with professionals from the private sector, academia and think tanks, as well as international proficient. (Research Bureau, 2015) University of China, The Econ Forum Global, China Finance 40 Forum and Ecological Finance Research Center (Renmin) have lent great support for the same.(Kahlenborn et al., 2017) This study analyses **worldwide efforts** on defining “Green” in three segments: (1) Green Bonds (2) Green Lending and (3) Green Equity Investments. The following table will specify the approaches to define “Green” and these approaches illustrates that green finance is mostly defined by reference to what is finance and not by what it achieves.

Green Avenues					
Instruments	Objectives	Taxonomy	Exclusion criteria	Indicators and Ratings	Process criteria
Objectives	Broad Vs. Narrow	Regular Vs. less regular objectives, sectors and technologies			Associated / not associated to more detailed taxonomies
Taxonomies	Exhaustive Vs General			With / without contended items	
Exclusions	Related with sectors, technologies or compliance with norms		Carrying with min (green) or max (brown) thresholds		Full or partial exceptions
Greenness	Binary (green/non-green) Vs. degrees of greenness				
ESG	Considered or not consideration for green finance				

**Source:** European Commission. Green Finance: Definitions and implications for investments.

The following image is taken from Green Finance Revolution as on 09.09.2019 which shows clearly the Green Bonds Issuance of the Issuer's Country.



Source:<https://www.obserwatorfinansowy.pl/in-english/financial-markets/the-green-finance-revolution/>

(<https://www.weforum.org/agenda/2019/09/these-countries-are-leading-the-way-in-green-finance/>) This is based on “Sustainable Development Impact Summit”. Initiating a greener economy requires important investment, whether that is financing a new network of electric buses, the formation of a solar farm, or building power plants that shoot on renewable energy. It represents that the green bond market – money borrowed to advance in environmentally-friendly projects – is a positive measure of the advance that countries are preparing on taking up climate change. Since 2007, when the first green bonds were issued to encourage finance climate change, the market has grown to attain a global standards and more than 200 countries committed to organizing green finance on climate change. (UNEP, 2016) This outlines the concern and needs of developing countries in relation to green finance, particularly focusing on developing countries that are not members of the G20. Financial Development shapes the context for green finance. Different openings of capital and financial institutions are notably pointful in different countries. This study concentrated on three major areas and the important concerns and specific needs were grouped and thoroughly studied under the headings (1) Integrated Approach (2) Dilemmas, Gaps and Trade Offs (3) Impacts of International Developments (4) National Collaboration (5) Disruptive Potential (6) Inward Direct Investment (7) Financial System Developments and (8) International Knowledge Sharing.

### 4.3. Green Finance and COVID-19

(Volz, 2020) This COVID-19 crisis is a rupture. In countries around the world, rich and poor, the pandemic has exposed the vulnerabilities of our health and social systems and the fragility of our economies. It has also highlighted in dramatic ways the need for better disaster preparation. This strikes us at a time when – according to the Intergovernmental Panel of Climate change – we have about a decade left to achieve a low-carbon transition and bring the world economy to a trajectory limiting global warming to 1.5 degree C above preindustrial levels. Many green technologies have matured and low-carbon energy is, in most cases, cheaper now than fossil-fuel-based energy. Recent evidence suggests that well-designed green projects can generate more employment and deliver higher short-term returns per dollar spent, compared with conventional fiscal stimulus. However many countries lack the means of finance a recovery and undertake critically needed investments in climate adaptation and mitigation, which should be addressed and should be settled to make Global Green Financial environment. (Cooper, 2020) This Impact report gives a summary that a total of 91% of sustainable finance assets are located in booming markets, 86% of our sustainable finance assets are spotted in some of the world's least developed countries (Least, lower and lower middle-income DAC countries – as per OECD). The breakdown of Green Project financing as given by Standard Chartered Bank Report are as :

Category	Project	Countries						Total
Renewable Energy	Wind	Australia	India	Jordan	Taiwan	UK		
	Projects	1	2	1	3	2		09
	Solar	Bangladesh	China	Hong Kong	India	Jordan	Malaysia	
	Projects	1	1	1	1	1	1	06
	Grid Expansions			Angola				01
	Waste to Energy			UAE				01
Energy Efficiency	Green Buildings			Singapore				02
Total								19

**Source:** Standard Chartered Bank / Sustainable Finance Impact Report



(Kharas& Dooley, 2020) The acute global recession now expected in 2020 (negative 5.9 percent GDP per capita according to the IMF) connected with destructive actual and likely loss of life and health damage due to COVID-19 has left the worldwide macroeconomic and development scenario in bits and pieces. There following are the stages in the economic response to COVID-19. (1) There is an urgent requirement to save lives and countries must manage the health crisis by broadening public health services so as to avoid oppressing hospital capacity through lockdowns, social distancing and clear communication to the public of their social responsibilities. (2) There are steps to restore living and ease the socio-economic impact of the crisis and the global economic shocks of tumbling commodity prices, trade, tourism, remittances along with major losses in jobs and wages. (3) There is a 'build back better' plan of resetting growth along a procedure of mended sustainability, insertion and resilience. (World Economic Forum, 2020) Green finance is blossoming and the estimation of green bonds exchanged could before long hit \$2.36 trillion. The European Central Bank is engaging in green finance. The major green bond issuers are the US, China and France. The World Economic Forum's Green Horizon Summit concentrates on how green finance can aid the reclamation from COVID-19. Globally, the green bond market could be worth \$2.36 trillion by 2023. Common projects that fall under the

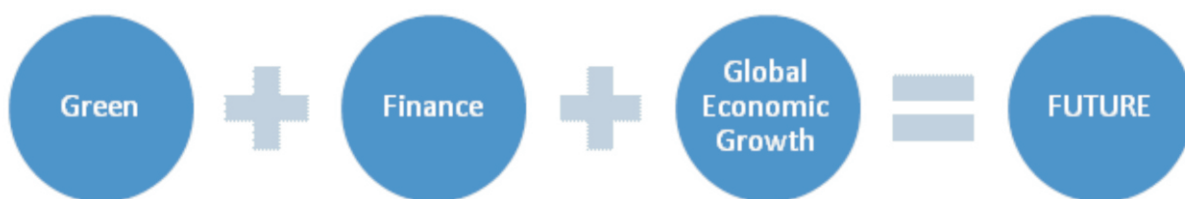
green finance are: Renewable energy productivity, Prevention and control of Pollution, Biodiversity preservation, Initiative of Circular economy and Sustainable utilization of common assets and land

## 5. CONCLUSION

This study has clearly highlighted that - Green Finance is an open door for capital flows for long term ventures in nations where growth is most carbon intensive and also financial stability can be promoted. Dispensing cash-flow to green technological innovations will increase the prospects for an environmentally supportable and sustainable recovery in worldwide development. To have an effective green finance and desired outcomes in the long run, the dynamic active involvement of public, private and worldwide organisms is required. Green finance is more significant as it supports financial flow. It likewise helps in developing the business models, investments, trade, economic, environmental and social arrangements.

## AUTHOR'S SENSATION

Green Finance represents the future of the financial sector through creative monetary systems and by supporting the investments in ventures with positive and reasonable externalities. Green finance will build up the economy which will build up the worldwide countries. Development of economy is development of global wealth and sure it will be a "Green Development (Finance)" and so THE FUTURE IS GREEN.



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