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# Green Finance in India – An Overview

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**ABSTRACT:** India is among the top emitters of greenhouse gases globally, and achieving net-zero emissions by 2070 will require spending more than USD 10 trillion. Both the sectors public and private are taking initiatives that will enhance funding and investment possibilities. Green money, it is also referred to as sustainable finance or responsible finance, it helps in reducing emissions of greenhouse gases, improving energy efficiency, or creating a circular economy. This paper will focus on concept, meaning, definition and features of Green finance and Climate finance. It also covers the various green products, scopes, challenges and the government policy. This study is based on secondary data.

**KEYWORDS:** Green Finance, Climate finance & Green product.

## INTRODUCTION

India is experiencing extreme climate condition, extreme heat waves that break records, flash floods, and droughts. It has been noted that the 2018 and 2019 floods were of a type that is only predicted to occur once every hundred years and cannot be solely attributed to the whims of nature. In July and August of 2019, barely two months, at least 1,351 people died as a result of floods and excessive rains, compare to 1562 deaths of 2018, according to reports from Mongabay, India. The frequency of floods caused by climate change has increased in Kerala, and several areas of Mumbai every year. Devastating heat waves that surpass previous records occur in some parts of north and central India every year. Moreover, these extreme weather condition, the natural capital of the country is depleting rapidly. The most polluted city in the world is Gurugram, which is a part of the National Capital Region (NCR), and our nation's capital, New Delhi, has emerged as the most polluted capital globally. According to reports, Delhi is accountable for between 10,000 to 30,000 fatalities per year.

India aims to increase the share of power produced from non-fossil fuels to 40% by 2030, reduce 33–35% greenhouse gas emissions to 2005 levels, and increase forest cover to absorb 2.5–3 billion tons of carbon dioxide. Financial tools that assist initiatives addressing climate change and advancing environmental sustainability are referred to as "green finance. It encompasses initiatives such as renewable energy generation, low-emission transportation systems, energy-efficient infrastructure like green buildings, and sustainable practices in waste management, recycling, and waste-to-energy conversion. To fund such projects, specialized financial instruments and institutions have been developed, including green bonds, carbon market mechanisms (such as carbon taxes), green banks, and green investment funds. Collectively, these approaches are categorized under green finance.

## OBJECTIVES OF THE STUDY

1. To study the basic concepts and types of green finance.
2. To know the prospective areas of green finance investments.

**TYPE OF RESEARCH:** This study is descriptive in nature.

**Data collection:** This study is based on secondary source of data and data was collected from various journals, books and articles from newspapers.

## REVIEW OF LITERATURE

According to Jha and Bakhshi (2019), green finance plays a vital role in fostering environmentally friendly benefits while supporting fair, resilient, and cleaner economic growth. It serves as a key mechanism for mobilizing financial resources from government bodies, private enterprises, and nonprofit organizations toward sustainable development projects.

In a recent study, Lin et al. (2023) examined the relationship between green finance and sustainable development in China in their work Using data from 30 provinces and cities collected between 2013 and 2021, they analyzed the framework of “green finance – ecological environment improvement and new economic momentum – sustainable socioeconomic development.” Their findings highlight that the establishment of green finance reform and innovation pilot zones has significantly contributed to advancing both economic and social sustainability.

Almazrouei & Nobanee (2021) examine how green finance might help achieve sustainable development goals and solve sustainable funding challenges as well as environmental, social, and governance (ESG) concerns. Prajapati A. & Mittal

S. (2022) outline the main obstacles to green finance, including storage, technological, and investment considerations, as well as the path toward a sustainable and green economy.

Shaheen (2020) study, Green Financing and Sustainable Development in the Arab World, study concentrated on the idea of green finance, its prospects in the Arab world, and the development of green finance instruments for attaining sustainable green development. The study comes to the conclusion that environmental change and the need for funding are the two main issues facing the Arab economy. According to this study, the supervisory authorities should strengthen the legal and contractual aspects of green financing, educate lenders about the need to offer financing tools that can be tailored to the needs of environmentally conscious businesses, and offer government incentives to banks and lending agencies to improve green financing. Additionally, educational systems and vocational training should incorporate market demands related to the green economy.

**Sustainable Finance:** Sustainable finance refers to financial practices and investments aimed at building an inclusive economy that promotes social well-being, environmental protection, and long-term economic stability. It integrates economic growth with social responsibility and ecological balance.

**Green Finance:** Green finance extends beyond climate-related initiatives to include broader environmental objectives such as biodiversity preservation, natural resource management, and ecological conservation.

**Climate Finance:** According to UNEP Inquiry, climate finance involves "local, national, or international funding—sourced from public, private, or alternative mechanisms—designed to support mitigation and adaptation measures addressing climate change."

## TYPES OF GREEN FINANCING

**Green Mortgages:** Special mortgage schemes that provide favorable terms to homeowners who purchase environmentally sustainable properties or invest in improving the ecological efficiency of their homes.

**Green Loans:** Loans offered to individuals and organizations for eco-friendly initiatives such as energy-efficient systems, electric vehicles, solar panel installations, or other sustainability projects.

**Green Credit Cards:** Financial products that contribute to environmental causes with each transaction. For instance, certain cards allocate funds to activities like tree planting, thereby enabling consumers to link everyday spending with positive environmental impact.

**Green Banks:** Institutions that operate like conventional banks but primarily focus on channeling public funds to mobilize private investment in renewable energy and other sustainability-focused ventures.

**Green Bonds:** One of the most significant instruments in green finance, these bonds generate capital specifically for projects such as renewable energy, sustainable transport, conservation programs, and other environmentally responsible initiatives.

## BENEFITS OF GREEN FINANCE

Promotes environmentally friendly infrastructure technologies: Developing nations' governments are building infrastructure to boost a nation's competitiveness, enhance long-term resource management, and direct private sector investment into regional green markets.

**Provides a Comparative Advantage:** As climate change and other environmental and economic challenges become more pressing, a low-carbon green development approach may inevitably move from being optional to required. When environmental restrictions tighten, you will have a competitive edge if you expand green financing.

**Adds Business Value:** By expanding (and promoting) their involvement in green financing, companies can raise the value of their portfolio. It gives their business a competitive advantage and draws in more eco-aware clients and investors.

**Improves Economic Prospects:** Governments that support green finance help shield their communities from resource constraints. They accomplish this by establishing and promoting regional markets for renewable energy and breaking into new markets with significant job opportunities.

## GREEN INVESTMENT IN VARIOUS SECTORS IN INDIA:

Energy and feedstock transformation: Generation, transmission, distribution, and storage of energy, and feedstock from renewable sources.

**Transport:** shift towards low carbon modes of transportations.

Waste and circular economy: Efficient use and reuse of materials and waste to reduce demand and GHG emissions.

**Land use and ocean:** Management of land use changes and oceanic temperatures to reduce GHG emissions into the atmosphere.

**Water:** Conservation and sustainable management of water resources to ensure water security.

**Health:** Improvement of food security, health infrastructure and services to adapt to the impacts of climate change.

**Climate Change Forecasting and Monitoring:** Protection of people, infrastructure and ecosystems from climate hazards with planning and early warning systems and technologies.

**Industry:** Technologies and processes for low-carbon and sustainable manufacturing of industrial materials and products.

**$CO_2$ Management:** Reduction of CO2 in the atmosphere using technologies and natural climate solutions.

**Buildings:** Reduction of energy consumption in buildings by using technological and design efficiency measures.

**Food, Agriculture and Livestock:** Initiatives to reduce emissions from agriculture and livestock and help the sector adapt to the impacts of climate change.

**Marines, Fisheries and Coastal Zones:** Protection of marine and coastal ecosystems from the impacts of climate change.

**Forestry:** Protection of and increase in forest cover for carbon sequestration, ecosystem protection and livelihood generation.

## CONCLUSION

It is a type of finance arrangement used for initiatives that embrace climate change or are environmentally sustainable. Energy-efficient projects like green buildings, waste management that includes recycling, effective disposal, and conversion to energy, clean transportation that involves fewer greenhouse gas emissions, and the production of energy from renewable sources like solar, wind, biogas, etc. are all examples of environmentally sustainable projects. New financial mechanisms like green bonds, carbon market instruments like carbon taxes, and new financial institutions like green banks and green funds are being formed to address the funding requirements for these kinds of initiatives. Together, they make up green finance. Energy and feedstock transformation, transportation, waste and the circular economy, land use and the ocean, water, health, industry, buildings, food, agriculture and livestock, marines, forestry, and other areas are among the many green finance investment opportunities that are examined in this study.

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