

# ROLE OF GREEN FINANCE FOR PROMOTIONAL AND DEVELOPMENT OF AGRICULTURE

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## ABSTRACT

Green finance is a component of a larger phenomenon that involves the integration of different ethical or nonfinancial concerns into the financial realm. Generally speaking, green finance refers to the funding of green growth that considerably lowers emissions of air pollutants and greenhouse gases. Increased green finance for green buildings, green agriculture, and other green projects is necessary for the nation's economic growth. In order to promote green growth and achieve significant reductions in greenhouse gas and air pollution emissions, green finance is essential. The application of green finance in a variety of sectors, including banking, insurance, investment, green building, agriculture, and other green projects, ought to boost the nation's economic growth. Market-based lending or investment programs that consider environmental impact are known as "green finance."

*Keywords:* Green Finance, Green Projects, Green Environment, Economic Development, Agriculture. **INTRODUCTION** 

Green growth refers to balanced green economic growth, which represents a pattern of economic growth with the new driving power of "green." The idea behind green growth is to continuously improve manufacturing capabilities, reduce environmental pollution by using green technology and knowledge, and expand energy and resources. For sustainable growth, two sides should be maximized by the positive circulation of green and economy. One of the fundamental steps in achieving green growth is green financing. One corporate social responsibility (CSR) activity that businesses should attempt to do for society is green environmental management. Another CSR activity for financial institutions like banks, mutual fund companies, stock companies, and so on is green financing. This implies that even though green financing is currently not profitable, financial firms should still try to implement it as a CSR initiative. The phenomenon of global warming is caused by excessive carbon dioxide emissions into the atmosphere, which also create ecological imbalance. This has forced governments around the world to take it seriously for the benefit of future generations and has started the process of resolving this disaster by adhering to the Kyoto Protocol and numerous other UN initiatives. The concepts of green finance, green investment, green technologies, and many other green initiatives fall between these lines and can be combined into a single phrase.

### LITERATURE REVIEW

**Yuqiu Du (2023)** Climate uncertainty caused anthropogenic activities to increase dramatically in the biosphere, eradicating the sustainable environment for life. As a result, the ongoing increase in environmental pollution keeps environmentalists from finding practical ways to preserve the green ecological era. Thus, the goal of the current study is to determine how China's environmental pollution (CO2 emission) is influenced by natural resources, agriculture development, geopolitical risk, and green financing. We apply the proposed



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Quantile Autoregressive Distributed Lags (QARDL) method to time series data from 1995 to 2020. Additionally, we check the asymmetric association using Causality-in-Quantile. Nonetheless, the empirical findings of causality indicate that all of the variables have an asymmetric relationship and bi-directional causality. Furthermore, the QARDL results show the significant and negative p-values of error correction parameters throughout the qualities, which confirmed the reversions to the long-term association between the determinants and CO2 emission.

**Arshad Ahmad Khan (2022)** For regional planning and development, the farming community's active participation as micro-actors in green finance schemes is essential. This article used 2350 small studies to estimate the impact of green-finance strategies on peasants' agricultural investment and developed a mediation effect method based on the degree of coordination between financial progress and sustainable development using a difference-in-differences approach. It looks into how the influence of financial constraints is mediated by the managerial variability of peasants. The findings show that the beneficial effects of green finance laws on peasants' agricultural investment are diminished when a financial restriction variable is added. Moreover, peasants who participate in non-agricultural management exercises are more inclined to take advantage of green financing regulations and are affected via financial restrictions in mediate means.

**Sushma B S [2021]** The days when every organization in the world operated solely for financial gain are long gone. Natural resource preservation and environmental protection are becoming increasingly important in all spheres of life these days. Around the world, researchers are always looking for new and creative ways to achieve sustainability. The term "green finance" refers to financial support given to projects that address environmental preservation, climate change mitigation, renewable energy investments, green cover expansion, and all other sustainable development-related initiatives. This article considers the aspects of Green Banking, Green Insurance, and Green Bonds as a part of Green Financing. It also evaluates the opportunities and challenges for Green Finance in developing countries like India with the help of existing literature and attempts to give new insight about Green Finance as an effective tool of Sustainability.

**NagarajanVivek** (2016) Because it links the financial sector, environmental enhancement, and economic growth, green finance is a fundamental component of low carbon green growth. This paper's goal is to examine green finance and confirm that the idea of balancing ecological degradation brought on by the atmospheric assimilation of carbon gases is feasible in Indian industries. Green finance is a market-based lending or investing program that uses environmental incentives to influence business decisions or incorporates environmental impact into risk assessment. As a result, the article also covers current developments as well as prospects and obstacles for green finance in developing India. Green investing recognizes the value of the environment and its natural capital and also seeks to improve the human well-being and social equity while reducing environmental risks and improving the ecological integrity.

#### **Definition of Green Finance**



There is no standard definition of green financing. Green finance defines as financial support for green growth which reduces greenhouse gases (GHGs) and air pollutant emissions significantly. Green growth indicates as growth make through the harmony between the economy and the environment. Finance in industrial and economic advancements with the reduction of greenhouse gas emissions and other environment pollutions is green finance. Green growth is the solution to three current threats to the global economy; namely, climate change, energy constraints and financial crisis. Green finance faces a wide-ranging challenge to the traditional constructs of financial law in every country. In the 1990s environmental considerations have started to play a bigger role in the field of project finance, influencing and shaping the organizational routines governing lending decisions

### **Green Finance in Agriculture**

Climate change and global warming have raised doubts about the agricultural boom. Due to the low returns from traditional farming, the agriculture sector has not drawn enough investment. As a result, the younger and more educated generation would rather work than work in agriculture. Young people will develop farming and produce far more than a job does if modern technologies and funding are expanded in agriculture to maximize cultivation output. Crop productivity can be raised by increasing irrigation funding during the dry season. In order to adopt better packages and practices, farmers would receive training in contemporary farming methods. The lack of protein can be exacerbated by funding poultry farms and hatcheries. Young people without jobs can find adequate benefits if the financing is increased in these sectors.

## **Challenges of Agricultural Financing**

Similar to other sectors, those who invest in agriculture, particularly local farmers, but also foreign-owned plantations, processing factories, storage facilities or fertilizer companies, may need funds from third parties to carry out their businesses. However, in the current global financial system, a number of factors frustrate the development of solid financial services in rural areas in most developing countries. First, transaction costs in rural areas are higher than in urban areas due to a more dispersed population with weak infrastructure International Fund for Agricultural Development.

### **Financing In Green Marketing Projects**

Green marketing encompasses a wide range of actions, including altering the product, the production process, the packaging, and the promotion of environmentally friendly products. Consumers most frequently associate green marketing with phrases like phosphate-free, recyclable, refillable, ozone-friendly, and environmentally friendly. However, green marketing encompasses a wide range of actions, including altering the product, the production process, the packaging, and advertising, which can be used for consumer, business, and even service goods. Because it provides opportunities for both top line growth and bottom-line incentives, green marketing is a crucial component of any business. Companies can develop new and improved products and services with environmental impacts which help access to new markets, s.

### **Finance in Green Buildings**



The populations of the world have been growing at steady rates for the past three decades, which creates stable and steady housing demand. Agricultural lands and lands for livestock are decreasing for new homes, educational institutions, roads, offices and parks. As a result conventional buildings are not providing sufficient eco-friendly and energy saving equipment's. Green buildings have minimum energy efficiency, water conservation, indoor air quality, and waste recycling standards etc. Not all the municipalities of the world developed the green building policies, but the increasing acceptance of green building practices in many cities is reflected in the adoption of policies by cities, counties, and states.

# **RESEARCH METHODOLOGY**

This research aims to evaluate the green finance schemes offered by six Indian public sector banks (PSBs) examining their potential for promoting a sustainable future. Semi-structured interviews were conducted with employees from each bank focused on scheme design and implementation. Information was gathered from open-access sources provided by each bank. This data helped understand scheme details, eligibility criteria, loan disbursements, repayment period, margin etc. For the purpose of the research field visits were conducted to different branches within each bank. Schemes across different Indian public sector banks were studied andcompared with major foreign public sector banks. In our discussion we have stressed on the secondary results of the researches on global green financing. We have taken an attempt through our works to initiate green finance in the developing countries. Every society need green finance for the eco-friendly business. The populations of the world growing rapidly and for this large population we need green finance to make the earth as a living place of the whole species of organisms.

## **RESULTS AND DISCUSSIONS**

Three predictors—green finance, creativity, and agricultural growth—have been used in this study. Furthermore, two control variables have been included in the current study: population growth, as measured by population growth (annual percentage), and economic growth, as measured by GDP growth (annual percentage). Lastly, the predictive variable known as carbon emission, which is expressed as carbon dioxide damages (as a percentage of GNI), has also been used in this study. The specifics of the constructs are provided in Table 1.

| S. No. | Variables         | Measurements   |  |  |
|--------|-------------------|--|--|--|
| 01     | Carbon Emission   | Carbon dioxide damages (% of GNI)                        |  |  |
| 02     | Green Finance     | Green credit provided by the financial sector (% of GDP) |  |  |
| 03     | Creativity        | Research and development<br>expenditures (% of GDP)      |  |  |
| 04     | Economic Growth   | GDP growth (annual %)                                    |  |  |
| 05     | Population Growth | Population growth (annual %)                             |  |  |

| Table 1: Measurements of varia | bles |
|--------------------------------|------|
|--------------------------------|------|



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| 06 | Agriculture Growth | Agricultural added value growth |  |  |
|----|--------------------|---------------------------------|--|--|
|    |                    | index                           |  |  |

The present research analyzed the descriptive statistics that exposed the mean and standard deviation with minimum and maximum values. The results indicated that the CO2 emission average value is 1.797% of GNI, and the green finance average value is 1.113 percent of GDP. Moreover, the mean value of creativity is 8.619%, while the average value of economic growth is 5.660, and the mean value of population growth is 20.85%. Table 2 exhibits the descriptive in detail.

| - · ·           |     |       |           |       |       |
|-----------------|-----|-------|-----------|-------|-------|
| Constructs      | Obs | Mean  | Std. Dev. | Min   | Max   |
| CO <sub>2</sub> | 90  | 1.797 | 0.405     | 1.028 | 2.733 |
| GF              | 90  | 1.113 | 0.091     | 0.905 | 1.344 |
| CR              | 90  | 8.619 | 0.363     | 7.808 | 9.128 |
| EG              | 90  | 5.660 | 0.311     | 4.961 | 6.399 |
| PG              | 90  | 20.85 | 10.876    | 11.94 | 25.89 |
| AG              | 90  | 2.97  | 0.578     | 0.870 | 1.546 |

### Table 2: Descriptive analysis

From the Table 3, It is gauged that green finance, agriculture growth and creativity share a negative correlation with CO2 in the chosen sample. While economic growth and population growth are positively correlated with carbon emission. In addition, 50.90% of variations in the carbon emission are due to the selected variables. Table 6 shows the FEM.

| CO <sub>2</sub> | Beta  | S.D.  | T-value | p-value | L.L    | U.L.   | Sig |
|-----------------|-------|-------|---------|---------|--------|--------|-----|
| GF              | -2.66 | 0.689 | -3.852  | 0.001   | -2.025 | -0.718 | *** |
|                 | 3     |       |         |         |        |        |     |
| CR              | -1.91 | 0.165 | -11.678 | 0.000   | -1.327 | -0.324 | *** |
|                 | 5     |       |         |         |        |        |     |
| EG              | 0.640 | 0.224 | 2.89    | 0.005   | 0.195  | 1.083  | *** |
| PG              | 0.014 | 0.006 | 2.83    | 0.006   | 0.004  | 0.024  | *** |
| AG              | -2.35 | 0.589 | -2.982  | 0.002   | -2.045 | -0.618 | *** |
|                 | 4     |       |         |         |        |        |     |
| Constant        | 3.375 | 1.408 | 2.396   | 0.009   | 0.987  | 1.437  | *** |
| R-squared       | 0.    | .509  | Number  | of obs. |        | 90     |     |
| F-test          | 5.    | .140  | Prob    | . > F   |        | 0.000  |     |

#### Table 3: Fixed Effect Model

## CONCLUSIONS

Any developed agriculture sector must have access to financing, and attracting farmers and small business owners in developing nations to the financial system is still a long way off. It is no accident that nations with highly developed agricultural financial markets also have highly developed agricultural sectors. This does not imply that successful agricultural finance stories can only be found in developed nations. Green finance is essential to a nation's economic growth, especially when it comes to tackling the problems caused by greenhouse gas emissions and global warming. Green finance programs have the potential to drastically



cut greenhouse gas emissions, improving the environment and lowering health problems. Using green buildings further encourages sustainability and energy efficiency initiatives, which helps to create a contributing to a more sustainable future for all. The Indian government ought to develop a comprehensive green investment plan with an eye on the long run of the economy. To foster investor trust and confidence, the regulatory policy ought to be more open and accommodating.

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