



## EVALUATING THE ROLE OF GREEN FINANCE IN ADVANCING SUSTAINABLE FARMING PRACTICES IN TELANGANA

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### ABSTRACT

*Green financing is a term that refers to sustainable development projects and initiatives, environmentally friendly products and policies that encourage financial investment to stimulate more sustainable economy. This paper mainly aims to study the kind of green financial products and services being offered by Indian markets and to analyze the trends in green financing in India. The study observed that Indian green Finance market is at an emerging stage and it has not been able to attract ample number of investors.. It requires proper framework for making these green finance products more attractive to the investors. Therefore it is suggested that Awareness among Investors and consumers about the green finance is essential for the sustainability of the economy. Conferences, newspaper report, seminar can be useful tools for imparting the knowledge about the necessities of green products, technologies for energy efficiency for the sake of the future generation because a socially responsible consumer creates the market for green products High-input agriculture presents several drawbacks that can adversely affect both environmental sustainability and human health. These substances can deplete soil nutrients, impair crop growth, and ultimately render the land barren and unproductive. The findings highlight the prevalence of high-input agriculture practices and their implications for soil health and farmer livelihoods in. Effective strategies are needed to promote sustainable agricultural practices and mitigate the adverse effects of chemical-intensive farming on both environmental sustainability and farmer income.*

**Keywords:** *High-input agriculture, Organic and conservative farming, Green finance, Green bonds, Agricultural practices*

### INTRODUCTION

Green finance influences how capital is allocated and helps to solve the issue of their not being enough money for development. Green credit and other means prompt capital to flow to green projects put idle funds into the hands of farmers through leverage, increase the level of expertise and scale in agriculture, and encourage the agricultural industrial structure's transition to a capital-intensive one; agricultural insurance helps farmers to disperse and transfer the uncertainty and risk in production and operation, protects the economic benefits of farmers, and promotes the enthusiasm of farmers to optimize the industrial structure. The movement of factors toward green manufacturing is guided by the market signal issued by green financing. It makes factor allocation more reasonable, promotes farmers to take the initiative to carry out intelligent, digital, and modernized construction, encouraging modernization and transforming agriculture.

Green finance plays a crucial role in driving sustainable development and has the potential to effectively reduce pollution emissions, thereby positively impacting the environment. However, in the agricultural sector, unlike developed countries, primarily relies on a small-peasant economy, and the green financial system is not well-developed. As a result, the specific emission reduction effects and mechanisms of green finance on agricultural non-point source pollution remain unclear. The objective of our research is to explore the internal mechanisms through which green finance influences, with the aim of providing valuable policy insights to

the government and promoting the green transformation of agriculture for enhanced food security.

One prominent facet of green finance is the issuance of green bonds. These financial instruments are specially designed to fund projects and initiatives that deliver tangible environmental benefits. Essentially, green bonds are debt securities, much like traditional bonds, but they are exclusively allocated to support environmentally responsible endeavours. This could involve projects spanning sustainable agriculture, conservation initiatives, or biodiversity enhancement. The critical distinction is that the funds raised through green bonds are earmarked for initiatives that contribute to a greener, more sustainable future. Green bonds operate as a financial instrument aimed at funding environmentally friendly projects. The raised capital must be allocated exclusively to environmentally beneficial projects. Investors purchase these bonds, providing the issuer with funds to undertake green projects. The issuer then pays periodic interest to the investors and repays the initial investment upon maturity. The appeal lies in supporting environmentally sound initiatives while gaining financial returns, aligning investors' interests with sustainable development goals. Third-party verification ensures transparency and adherence to predefined environmental criteria, assuring investors of the projects' eco-friendly nature. The significance of sustainable agriculture within the green finance landscape is profound. Conventional agriculture practices, which often involve intensive resource use, monoculture farming, and heavy pesticide and fertiliser application, have been associated with soil degradation, water pollution, and biodiversity loss. In contrast, sustainable agriculture strives to mitigate these environmental challenges by embracing practices that integrate practices that enhance nature. The scale of climate finance dedicated to sustainable agriculture is growing, yet it remains highly insufficient compared to the need. The Climate Policy Initiative (CPI) reports that the amount of climate finance going to agriculture and forestry pales in comparison to that for energy systems, industry, and transportation. Given the transformative role agriculture and forestry can play in human development and climate mitigation there is an urgent need for increased investment in sustainable agricultural practices.

### **LITERATURE REVIEW**

**Liang-Xin Li et al (2024)** Green Finance mainly promotes the development of the low-carbon economy through three paths of policy, targeted financing, and technological innovation in China. The low-carbon economy is to nurture the development of green finance by stimulating financial needs. Based on the relevant data, this article has established an index system for green finance and low-carbon economy. It uses a comprehensive evaluation model to define the development level of green finance and low-carbon economy. Economic evaluation dimensions have explored the coupling coordination relationship between the two systems. The results show that the rapid growth of the development of green finance and the low-carbon economy in is currently presenting a state of high coupling and highly coordinated development, which shows that green finance has a significant targeted role in the low-carbon economy which proves the model's effectiveness in this study.

**Ofori Daniel et al (2023)** the purpose was to examine the effect of green financing on firms' sustainability: the moderating role of management commitment among Rural Banks. A cross-

sectional quantitative research approach was employed on a sample of ninety-nine (99) respondents who were randomly selected. Questionnaire was employed using structured closed-ended 7-point Linker Scale. Descriptive statistics, such as mean score, standard deviation, correlation and regression method were employed for interpretation. The study's findings revealed there is direct significant effect between green finance practices and firms' sustainability. Banks management commitment has direct significant effect on firms' sustainability. Management commitment has strengthened the relationship between green finance and firms' sustainability. This shows that the rural banks tend to achieve greater and superior sustainability at point when the banks blend management commitment to green finances.

**Jianing Zhou et al (2022)** under the background of building ecological civilization and implementing the concept of green development, the construction of a green financial system has become the development direction of the financial industry. The development of green finance is a profound change in the financial industry. It is faced with multiple difficulties and problems, such as the lack of coordination in policies and standards, the insufficient product innovation capacity, and the imperfect international cooperation. Based on China's carbon peaking and carbon neutrality goals and related strategic deployment and guidance, this paper conducts an in-depth analysis of the existing problems and gives specific suggestions, in order to promote the steady development of green finance and contribute financial strength to promoting ecological progress and building a new development pattern.

**Benjamin Danso Kwakye et al (2021)** the extent of engagement of the youth going into farming is steadily seen as the modern-day panacea for sustainability and extenuation of food insecurity. Yet, this plodding-shift of the youth has opened new doors for a different problem that needs efficient agricultural resolution. The study examines the correlation between youth farming and the various factors that influence the youth to go into agriculture using data obtained from the Ghanaian youth. We applied Explanatory Factor Analysis of the paradigms, with principal component factoring. The results justified using Confirmatory Factor Analysis in AMOS and R. The results showed that technology outperforms factors such as motivation, economics, and government policies to significantly influence the youth towards farming. Attitude and knowledge were also found to have an indirect influence on youth farming. The paper contributes to the theoretical influence of technology on the youth and on the practicality of agricultural farming.

### **Supply of green finance**

In terms of structure, ownership, operations, and strategic importance, green financing providers are extremely different. There are two major financial instruments used by these companies: debt and equity. In order to evaluate the development of existing green money flows, financial institutions, international agencies and regulatory bodies have established their own methods for delivering, monitoring and reporting on green finance. This adds to the limits of not being able to obtain authentic data from popular sources. In addition, it was found that many agencies utilize their own analytics to analyse the flows, which are predominantly private sector investments. Using data from the banking industry, the Climate Policy team at the

International Finance Corporation (IFC) has devised a new way to evaluate and track green finance, in order to better understand the current state of green lending and make recommendations on how different approaches to measuring green finance can be better aligned (IFC, 2018). Two widely used green finance products were thoroughly examined in a 2018 IFC document, which examined their global situation in great detail: investment in (a) equities and (b) debt.

### **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.

### **Green finance will promote technological progress**

Firstly, it offers financial support and risk diversification for enterprise technological innovation. Agricultural technological innovation requires enterprises to make larger capital investments, has longer time costs, and there is some uncertainty, so green finance can provide support. Green financing may help businesses innovate technologically and optimize production equipment while providing financial support. It can improve green, clean energy research and technology development investment. And green finance has a supervisory role, forcing enterprises to innovate. For enterprises that are actively engaged in innovation to provide better financial services, it incentivizes enterprises to implement the new development concept: technological innovation. Therefore, green finance can promote technological innovation.

### **Green finance promotes industrial structure optimization**

Green finance influences how capital is allocated and helps to solve the issue of their not being enough money for development. Green credit and other means prompt capital to flow to green projects put idle funds into the hands of farmers through leverage, increase the level of expertise and scale in agriculture, and encourage the agricultural industrial structure's transition to a capital-intensive one; agricultural insurance helps farmers to disperse and transfer the uncertainty and risk in production and operation, protects the economic benefits of farmers, and promotes the enthusiasm of farmers to optimize the industrial structure. The movement of factors toward green manufacturing is guided by the market signal issued by green financing. It makes factor allocation more reasonable, promotes farmers to take the initiative to carry out intelligent, digital, and modernized construction, encouraging modernization and transforming agriculture

### **METHODOLOGY**

In conducting a comprehensive review on the topic of “Advancing Green Finance: A Review of Sustainable Development and the Future Directions,” a Narrative review method was used. We conducted extensive research to identify scholarly articles, publications, and research papers on green finance, sustainable development, and their future implications. Various sources, such as online databases and academic platforms, were utilized to compile relevant information on the subject. Texts were chosen for their pertinence and contributions to the research subject. Reviewed works from peers that offered valuable perspectives on the correlation between green finance, sustainable development, and forthcoming prospects were incorporated into the examination. We analyzed and synthesized the selected literature to identify key findings, themes, and trends related to green finance and sustainable development. According to the review, shared viewpoints were identified, areas of study were lacking, policy recommendations were made, and implications for future research were identified. The findings of this narrative review contribute to our understanding of green finance, sustainable development, and its implications for the financial industry, corporate behavior, and the environment. They provide valuable insights for investors, policymakers, and researchers seeking to promote sustainable investments and drive green finance initiatives

## RESULTS & DISCUSSIONS

Finance plays a vital role in modern agriculture. Finance is used for short term needs, medium term and long-term needs in agriculture. It is needed by farmers to achieve a proper combination of productive factors like land, labour, inputs, machinery, livestock and managerial ability that helps in generating income. Finance is an important factor which increases income, production of crops, standard of living, employment and saving of the farmers. Cultivators need money for operating their agriculture need. This need can be fulfilled by banks and financial institutions by sanctioning finance as and when they required it. A healthy foundation of agriculture is in need to increase the performance of agriculture sector in the economy and for socio-economic development in general. Agriculture credit is dominated by non- financial institutions like relatives, friends, money lenders etc. They do not have rules and conditions while giving the loan, so, the exploitation of farmers have been seen in many cases.

### Survey Response

**Table: 1 Survey Response**

Questionnaires sent	600
Questionnaires received	540
Response rate	90%

### Analysis of Profile of Respondents

The number of farmers of selected districts of Uttarakhand, who took part in the research, are given in table 1. The table .2 below shows that there are equal number of farmers from each category.

**Table 2: Frequency of Respondents of Three categories**

S. No.	Label	Frequency	Percentage	Cumulative percentage
1.	Marginal farmers	216	40 %	33 %
2.	Small farmers	156	29 %	67%
3.	Large farmers	168	34 %	100 %
<b>Total</b>		<b>540</b>	<b>100%</b>	

**Age wise classification**

Age is one of the most important factors for human living and age also serves as a yard stick to participate or discontinue any occupation or profession, thus the questions relating to the age of the farmers are gathered and the results are given in the following table.

**Table 3: Age wise classification**

Particulars	Less than 25	25-50	Above 50	total
Marginal farmers	38 (17.59%)	82 (37.96)	96 (44.44)	216 (100)
Small farmers	24 (15.38%)	56 (35.89)	76 (48.71)	156 (100)
Large farmers	-	50 (29.76)	118 (70.23)	168 (100)
<b>Total</b>	<b>62 (11.48%)</b>	<b>188 (34.81)</b>	<b>290 (53.70)</b>	<b>540 (100)</b>

The table .3 reveals the age wise classification of the respondents. Of the 216 marginal farmers 44.44 per cent belong to the age group of above 50 years, 37.96 per cent of the respondent belong to the age group from 25 years to 50 years and the remaining 17.59 per cent of the respondents belong to the age group of below 25 years. In the 156 small farmers’ category 48.71 per cent belong to the age group of above 50 years, 35.89 per cent belong to the age group from 25 years to 50 years and the remaining 15.38 per cent comes in the age group of below 25 years. In relation to the 168 large farmers’ category 70.23 per cent belong to the age group of above 50 years, 29.76 per cent belong to the age group from 25 years to 50 years of age.

The overall observation relating to the study provides information that out of 540 farmers 53.70 per cent belong to the age group of above 50 years of age, 34.81 per cent belong to the age group from 25 years to 50 years and the remaining 11.48 per cent are in the age group of below 25 years of age. From this it is viewed that majority of the aged people engage in agriculture operations.

**CONCLUSION**

Green finance is a loan that is offered to support the activities that are environment friendly. Hence green finance may help people and business houses in investing their money for the business development as well as for protecting the environment. The green finance can be considered as a boon to the society and environment as it contributes for development process without compromising the needs of future generations. The role of green finance becomes important as it aims at sustainable development by financing the ideas that have some potential in environmental advantages to everybody. By providing green finance, the financial

institutions are enabling sustainable development and in turn extending the benefits to the stakeholders and thereby equalizing the transition to a low-carbon society. the comprehensive review indicates that green finance is crucial to advancing sustainable development and combating environmental issues. the examined literature underscores the importance of substantial investments in sustainable and low-carbon initiatives and the need for robust regulatory frameworks to facilitate green financial availability and the integration of carbon-neutral practices.

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