GREEN FINANCE FOR SUSTAINABLE AGRICULTURE AND FOOD SYSTEMS:

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Annotation

This article presents the trends in the development of green finance for sustainable agriculture and food systems for achieving the United Nations Sustainable Development Goals by 2030. Because a sustainable future is not possible without eradicating poverty and hunger. Ensuring food security for every one of the key functions and a difficult task for agriculture, which is faced with growing difficulties. Population growth, the accelerating pace of urbanization, and rising income levels are increasing the burden on the agricultural sector associated with the need to meet the demand for safe and nutritious food. Agriculture must ensure decent work and support sources livelihoods of billions of rural residents' areas around the world, especially in developing countries. Where levels of hunger and poverty are highest. However, one of its strengths as a concept is the implication that there is a need to reconcile economic development, the quality of life, and the environment, within various political frameworks that interrelate at the international and global levels.

Keywords: Green finance, financial resources, agriculture and food systems, sustainable development goals.

1. INTRODUCTION

The object of research of the article is green finance considered as a science. Green finance is investments and other financial instruments and other financial instruments aimed at implementing environmentally friendly, energy efficient, and low carbon projects. The main

instruments of green financing are green bonds, preferential lending, subsidies for green projects, and others.

Providing environmental benefits through social governance is a function that high-potential, green financial services can play. “Business as usual” will not be able to solve the current world challenges, such as the financial crisis, global warming, and the COVID-19 pandemic, and sustainable business practices must be adopted as a solution. In recent years, green finance has shown its ability to change the focus from shareholder profit creation (economic) to the generation of stakeholder value (economic, environmental, and social). Although green finance taxonomies are taking center stage, demand for green finance continues to grow and challenges the supply side’s preparedness, resulting in a slowdown in sustainable financing practices in the Global South. Development finance institutions, multinational banks, and other industry leaders are well-supported by governments around the world through international cooperation in driving global green financing initiatives. According to experts, one of the important factors for a successful transition to a green economy is its financing [1]. One of the driving forces of economic development is the financial sector, with a strong governance system, even countries with limited financial resources can use them productively. Efficient use of financial resources leads to innovation in the financial resources leads to innovation in the financial sector, which in turn stimulates economic growth. There is a strong correlation between financial and economic development.

There is a strong correlation between financial and economic development. A well-managed financial sector is more attractive to investors, boosts the stock market, and stimulates economic activity. By stimulating economic growth, the financial sector encourages investment, which further accelerates economic growth, completing the development cycle. Financial sector progress also helps deepen the financing network, which reduces financial costs. As V.Arkhipova notes in her research, “green” finance forms the basis for the development of a green economy in each country since financing plays an important role in the implementation of cost-intensive projects following the concept of sustainable development.

Because a sustainable future is not possible without eradicating poverty and hunger. Ensuring food security for every one of the key functions and a difficult task for agriculture, which is faced with growing difficulties. Population growth, accelerating pace of urbanization, and rising income levels are increasing the burden on the agriculture sector associated with the need to meet the demand for safe and nutritious food. Agriculture must ensure decent work and support sources livelihoods of billions of rural residents’ areas around the world, especially in developing countries, where levels of hunger and poverty and highest. Besides, the sector plays a critical role in maintaining the sustainability of valuable natural resources and biodiversity, especially in light of climate change [2].

Although today there are a sufficient number of foreign sources of financing for the development of a green economy, on a global scale.

Agriculture lies at the heart of Uzbek society. It is the backbone of Uzbekistan`s economic and social infrastructure. Its importance extends far beyond providing the nation with food. It lies at the heart of our cultural heritage and rural traditions, reflected in every region of our beautiful country, through their own unique shades and rich diversity. Today in Uzbekistan, agriculture continues to provide significant employment opportunities and incomes for so many of us and remains a driving force of the growth of Uzbekistan`s economy.

The Agri-food Development Strategy 2020-2030, which was adopted by Decree on 23rd October 2019, responds to this need for change and aims to address, in a comprehensive manner, the need for key reforms that will be introduced over the next ten years to prepare the Uzbek-Agri-food sector to effectively compete in global markets.

The Strategy is the result of a collaborative process. The identification and prioritization of needs in Uzbekistan`s agriculture sector and rural areas has been coordinated by the Ministry of Agriculture and has involved input from leading institutions within the government, representatives of major donors, and international financial institutions, and consultations with

other key stakeholders in t5he private sector and civil society. The efforts of all those who contributed to the process were very much appreciated and have brought considerable additional value and depth to the Strategy. The government believes that the Strategy has the potential to have a major impact, not only on the development of the agri-food sector and rural areas of our country but also to serve as a locomotive for boosting the national economy of Uzbekistan and ultimately to improve the livelihoods of current and future generations [3].

2. LITERATURE REVIEW

The key factor in the development of green finance is the principle of green credit. It refers to a series of administrative measures requiring commercial banks and other financial institutions to develop and implement financing for the creation of treatment facilities, environmental protection, and restoration. Green finance is also implemented in the creation of bases for the production of green energy, allowing a focus on circular economic production, the production of environmental goods, and environmentally friendly agriculture products. Loans of this type are used to support relevant enterprises and institutions by providing preferential loans.

Financial involvement in agriculture has occurred for centuries because of the need for risk management in a sector where production can be facilitated sharply. Starting in the 18th century, futures exchanges for agricultural commodities were established in London to allow farmers and grain traders to buy and sell commodities for future delivery (Salerno, 2017, p.213). It is shown that the scope and scale of this involvement have substantially increased at the same time as it has experienced deregulation. Financial actors are increasingly investing in a range of agriculture investment products, including agricultural, commodity index funds, agriculture funds, farmland and commodity production firms (Clapp, 2017, p.233).

These developments are summarized in the concept of "financialization", which is occurring across the economy as a whole. What this means is that financial services come to occupy a larger share of the global economy and financial capital, including financial institutions and financial elites, comes to adopt a more dominant position, influencing a variety of trading and purchasing relationships. For example: "The retail food sector, financial market orientation becomes particularly lucrative because retailers face the challenges of saturated and highly competitive domestic markets in the industrialized countries (Fuchs, Meyer-Eppler, and Hemenstadt, 2013, p.227.

There is a growing consensus that there is at least a short-term impact on food prices as a result of increased speculation in financial commodity markets (Murphy, Burch, and Clapp, 2012, p.36).

One view is that it encourages food price swings, although some of this may reflect an imbalance of supply and demand resulting from increasing population, changing eating patterns, and global geopolitical dynamics.

For much of the 20th century agriculture commodity markets were tightly regulated to prevent market manipulation and an enhancement of price volatility. However, the neoliberal wave from the 1980s onwards led to a relaxation of these restraints. Position limits for banks and other financial institutions in commodity markets were removed or reduced, and in the US the Commodity Futures Modernization Act of 2000 removed traders outside the formal markets from regulatory oversight, allowing derivative trading and speculation to occur more freely (Salerno, 2017, p.213). Large pools of investment funds were consolidated, enabling the development of a new breed of financial and investment products, based not just on agricultural commodities, but also on farmland and agri-food company shares. In particular, there was a sharp rise in Commodity Index Funds which bundle different commodities together with agricultural commodities often making up a third of the index (Clapp, 2017, p.244).

Agriculture and food become more vulnerable to speculative activity which bears little relationship to the needs of other producers or consumers.

As noted by domestic and foreign scientists such as Andrew Robinson, P.McDonald, R.A.Edwards, J.F.D.Greenhalgh, C.A, Morgan, L.A.Sinclair, R.C.Shakirov, M.K.Mahmudov

explained that green loans are especially needed by agricultural production entities that implement the principles of environmentally friendly production in their activities [4].

There is no standard definition of green finance or green credit in modern economic literature. Some scholars define green finance as financial support for green economic growth or sustainable economic development that reduces greenhouse gas emissions and air pollution. It should be noted that green growth means economic growth achieved through harmony between the economy and the environment. Green growth involves resolving three current threats to the global community: climate change, energy restrictions, and the financial crisis.

Based on this, green finance in modern conditions is faced with a wide range of globalization challenges.

As noted above, the demand for green loans is growing especially rapidly in the republic`s agriculture. Global warming and climate change have created uncertainty about the need to increase agricultural production.

In traditional agriculture, yields are low, since the level of intensification is very low, and accordingly the profitability of production is low.

As a result, the educated younger generation prefers to work in more progressive industries rather than engage in farming. If green technologies are expanded in agriculture and funding is increased for maximum returns in growing crops, then the problem will be resolved.

From now it is necessary to create a platform for the younger generation who will develop agriculture with a high level of yield and profitability. There are the following justifications for this:

- Firstly, the introduction of the principles of environmentally friendly production by providing preferential green loans will be a means of stimulating subjects.
- This will ensure an influx of labor and investment into a sector of the economy that is important from the point of view of ensuring food security.
- Secondly, high demand for environmentally friendly agricultural products in foreign countries will ensure an increase in the profitability of agricultural producers.
- Thirdly, farmers will be trained in modern farming methods, which largely contribute to increasing the intensification of agriculture in the republic.

According to the above, green technologies contribute to solving several important problems of socio-economic development, which include:

- Attracting investments into the country from carbon funds.
- Ensuring higher levels of productivity and efficiency in the production process.
- Improving living conditions in remote regions with limited access to main highways and infrastructure.
- Reducing the negative impact on the environment by ESG (environmental, social, governance) requirements and standards.
- Successful implementation of sustainable development goals in the national economy.
- Based on this, the republic`s strategic economic research should regularly study ways to increase the demand and use of green technologies.
- Strategic economic research of the republic should regularly explore ways to increase the demand and applicability of green technologies.

3. DATA AND METHODOLOGY

The authors compared the trends in green finance in Uzbekistan and European countries. The systems for collecting data and information in the agri-food sector are based on outdated mechanisms and practices developed as part of a centrally planned economy. Estimates of production, yield, and performance misrepresent the actual situation in the field. The lack of accurate and reliable data constrains the design of new legislative acts and also does not allow for an objective assessment of their impact on the sector. The lack of reliable marketing information significantly limits the ability of farmers and other agri-business entities to take advantage of existing and changing market opportunities when developing business plans or the proper planning activities.

Attracting investments in the system of collecting reliable statistical information, and processing and disseminating data reflecting the state of the agri-food sector will have a positive impact on the development of the public and private sectors [5].

4. STRATEGIC OBJECTIVES

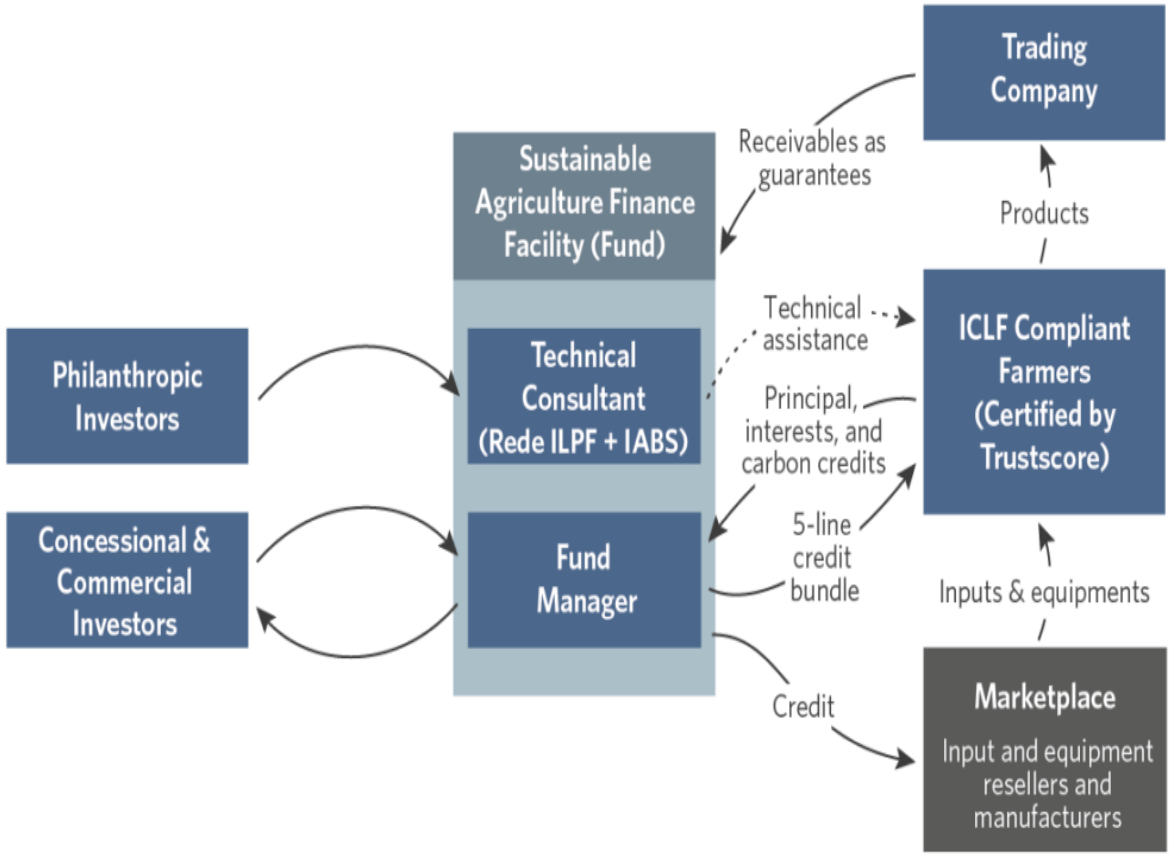
The main objective of this priority area is to improve the collection, comparison, and dissemination of reliable statistical information.

5. RESULTS AND DISCUSSION

That is planned to contribute to the achievement of these goals include:

- Adaptation of a clear plan for the development of agriculture and food statistics.
- Collection, comparison, and publication of information on economic indicators costs, profit, and profitability of major agricultural products.
- Developing a state program for the development of «Smart agriculture».
- Publication of a reference book on farm productivity, state support of industries, labor legislation, taxation, crediting, and other necessary information.
- Publication of the annual agriculture report, which includes measures and achievements in the sector and planned state policy measures.
- Active participation in information exchange platforms and international forums for the development of national agricultural systems and services.
- Conducting an Agriculture Census.
- Introduction of a system for identifying, monitoring movement, and tracking of farm animals.

The system design is given in Figure 1.



Source: https://www.climatefinancelab.org/ideas/green-affordable-housing-finance/

By comparative analysis, I can strongly recommend the Brazilian model of Green Financing for Uzbekistan which can be useful and implemented in a short time.

This paper analyzes the future of green finance in the agriculture industry.

This innovation project is integrated under the trend in sustainable agriculture is ICLF, covering the crop-livestock-forest systems, which include different types of systems, yielding economic and environmental benefits.

The instrument is modeled as a ten-year revolving credit facility with five lines of credit, one for each type of product being financed: land management, soil recovery, livestock, equipment, and forestry. The facility will draw from concessional and commercial capital to build up an investment fund. Farmers can withdraw their loans in inputs and equipment only, to avoid misplacement of resources. At the same time, philanthropic investors will fund a parallel structure that will pay for the technical assistance embedded in the loan product [6].

6. CONCLUSION

Based on this, strategic economic research of the republic should regularly explore ways to increase the demand and applicability of green technologies. Research in this direction should all interested parties, since the business sector, the green entrepreneurship fund, regulatory bodies, in particular those responsible for subsoil use and environmental protection, scientific-educational institutions, and of course, the banking sector, which acts as a financial intermediary between entrepreneurs and green funds financing.

What is also important here is the national focus on expanding opportunities for the use of green technologies by the country`s entrepreneurs, who are the target clients of banks responsible for access to financial resources and expert technical services in green financing projects [7].

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