

The Role of Farmers In Green Agricultural Development: A Study In Vietnam



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ABSTRACT: In recent years, green agriculture has been identified as an important direction toward sustainable development of the agricultural sector in Vietnam. Numerous green agriculture development policies have been issued, contributing to changes in farmers' thinking, awareness, and farming practices. Vietnamese agriculture is gradually transitioning its production model to meet green growth and consumption demands. Green agriculture aims to enhance the competitiveness of agricultural products, promote technologies for waste treatment and by-product reuse, stabilize the economy, and improve farmers' quality of life while protecting natural resources and agro-ecosystems. This ensures agricultural sustainability across economic, social, and environmental pillars and contributes to the development of a green economy. In the context of climate change exerting significant impacts on global economic life, investment in green development has become an inevitable trend. In recent years, Vietnam has made strides toward a green economy, including the promotion of green agriculture to ensure the sustainable development of all three pillars: economy, society, and environment. This paper outlines the current state of green agricultural development in Vietnam and proposes several solutions to promote the growth of this economic sector toward sustainable agriculture.

KEYWORDS: green economy, organic farming, sustainable agricultural development, green agriculture

INTRODUCTION

Vietnamese agriculture is gradually transitioning its production model to meet green growth and consumption demands. Green agriculture aims to enhance the competitiveness of agricultural products, promote technologies for waste treatment and by-product reuse, stabilize the economy, improve farmers' quality of life, and protect natural resources and agricultural ecosystems. This approach ensures sustainable agriculture across economic, social, and environmental pillars and contributes to the development of a green economy. However, translating policies into practice is a complex process that poses numerous challenges for the advancement of green agriculture. Therefore, research into green agricultural development is necessary to address existing difficulties and barriers, aiming toward a sustainable agricultural system.

1. STATUS OF GREEN AGRICULTURE DEVELOPMENT

1.1. Policies to promote green agriculture development

In the world, green growth in general and green agriculture in particular have gradually become the main trend. In that context, many mechanisms and policies to facilitate the development of green agriculture have been promulgated, such as: Resolution No. 19-NQ/TW, dated June 16, 2022, the Fifth Meeting of the XIII Party Central Committee on agriculture, farmers and rural areas to 2030, with a vision to 2045 affirmed, The role of agriculture is a national advantage, a pillar of the economy, in which agricultural development is associated with green, organic, circular agriculture, associated with market demand.

Decision No. 150/QĐ-TTg, dated January 28, 2022 of the Prime Minister approving the Strategy for Sustainable Agriculture and Rural Development for the 2021-2030 period, with a vision to 2050. The overall objective of the Strategy is to build a commodity-producing agriculture and at the same time develop agriculture based on local advantages, in the direction of modernity with high productivity, quality, efficiency, sustainability and competitiveness among the leading groups in the region and in the world. firmly ensure national food security. Immediately afterwards, in September 2022, the Ministry of Agriculture and Rural Development approved the Action Plan for the implementation of the National Strategy on Green Growth for the period 2021-2030 with the goal of developing agriculture in the direction of ecology, circularity, and low carbon emissions to improve the quality of growth, added value, competitiveness and sustainable development... Accordingly, developing agriculture in the direction of ecology, organic, circular, and low-carbon emissions in order to improve the quality of growth, added value, competitiveness and sustainable development; reducing pollution of the agricultural and rural environment, aiming for a carbon-neutral economy by 2050.

The Role of Farmers In Green Agricultural Development: A Study In Vietnam

Or the Sustainable Agriculture and Rural Development Strategy to 2030 (promulgated under Decision No. 150/QĐ-TTg, dated January 28, 2022 of the Prime Minister) requires: Developing green, environmentally friendly agriculture, adapting to climate change, reducing rural environmental pollution, etc striving to reduce greenhouse gas emissions by 10% compared to 2020.

On June 23, 2020, the Prime Minister issued Decision No. 885/QĐ-TTg approving the Organic Agriculture Development Scheme for the 2020-2030 period. The project sets goals: To develop organic agriculture with high added value, sustainability, and eco-friendliness, associated with the circular agricultural economy for domestic consumption and export. Organic agricultural products are certified in accordance with regional and world organic agriculture standards; making Vietnam a country with an organic agricultural production level on par with advanced countries in the world.

1.2. Green agriculture and green agriculture development policies

According to the Food and Agriculture Organization of the United Nations (FAO), green agriculture is about bringing the green agenda into the agri-food policy system, creating a systemic transformation to ensure food security for all. This goal is achieved by minimizing the impact on natural resources, avoiding environmental degradation through high recycling rates and using fewer inputs; at the same time, it is necessary to reduce poverty, increase livelihoods and ensure nutritional needs through sustainable policies and activities⁽¹⁾.

Enhancing the sustainability of the agricultural sector requires systemic change towards higher yields and essentially reducing output volatility in the face of climate, natural disaster and socio-economic risks. More productive and sustainable agriculture requires profound transformations across the entire agricultural value chain, from production to distribution and consumption⁽²⁾. For sustainable development, agriculture must meet the needs of current and future generations, and at the same time ensure profits, the environment, social justice and the economy. Sustainable food and agriculture (SFA) contributes to the four pillars of food security (availability, accessibility, use, stability) and dimensions of sustainability (environmental, social, economic). FAO promotes the SFA to help countries around the world achieve the goal of zero hunger and achieve the Sustainable Development Goals (SDGs)⁽³⁾.

The development of green agriculture is an important solution to improve the ecological environment and promote sustainable development⁽⁴⁾. The essence of green development in agriculture is the synchronous development of agricultural, social and ecological economy by making the entire agricultural production process green⁽⁵⁾ with high productivity, high resource use efficiency and low environmental impact. This is an important task, requires the cooperation of all parties, including the government, farmers, the agricultural and industrial sectors, educators and researchers. Green agriculture development will focus on rebuilding the entire crop and livestock production and food production and consumption system, with a focus on setting high standards for the environment and food quality as well as improving human well-being⁽⁶⁾.

Vietnam has approached green agriculture since the beginning of the 21st century. Many researchers have come up with concepts in the context of Vietnam. Sustainable green agriculture development is a multi-dimensional development process, including: (i) ensuring the sustainability of the food chain (from producer to consumer, input supply, processing and consumption market); (ii) ensuring sustainability in the use of natural resources in both space and time; (iii) ensuring adequate food security in the region and between regions⁽⁷⁾.

From the concept of sustainable development, sustainable agricultural development is defined as the process of ensuring the harmony of the three economic, social and environmental goals, and satisfying the current demand for agriculture without compromising the ability to meet the needs of the future⁽⁸⁾. Green agriculture is the synchronous application of scientific and technological processes, rational and effective use of natural resources and resources⁽⁹⁾. Green agriculture development is understood as improving the quality of the environment and resources used in agriculture to satisfy the demand for agricultural products for humans and the demand for raw materials for industry, ensuring economic feasibility in tandem with improving the quality of life for farmers.

Thus, green agriculture is understood as an agricultural production system to protect the environment, use sustainable resources and ensure food safety for people in the present without affecting future generations. The goal of green agriculture is to enhance the efficiency of resource use; reducing environmental pollution and protecting public health; improving farmers' incomes through sustainable production; ensuring food security and food quality; to develop value-added and sustainable export products.

Green agriculture development policy is a system of appropriate principles, tools and measures used by the state to regulate a country's agricultural activities, towards the goal of green agricultural development.

1.3. Guidelines and guidelines of the Party and policies of the State of Vietnam on the development of green agriculture

The Party and State of Vietnam have soon realized the importance of sustainable development, including the perspective of sustainable development in resolutions, strategies and plans for socio-economic development, including agriculture, farmers and rural areas. The Party has issued many documents on green development. Resolution No. 26-NQ/TW dated 19-5-2008 of the Central Committee "on agriculture, rural areas and farmers"; Conclusion No. 56-KL/TW dated 21-02-2013 of the Politburo "on promoting the implementation of the Resolution of the 5th Central Committee of the IX Session on continuing to innovate, develop and improve collective economic efficiency"; Conclusion No. 97-KL/TW dated 15-5-2014 of the Politburo "on a number of guidelines and

The Role of Farmers In Green Agricultural Development: A Study In Vietnam

solutions to continue implementing the Resolution of the 7th Central Committee of the X Session on agriculture, farmers and rural areas"... Accordingly, the Party requires comprehensive agricultural development in the direction of modernity, sustainability, large-scale commodity production on the basis of restructuring industries, product structures associated with innovating growth models, improving the competitiveness of agricultural products. Implementing agricultural restructuring in accordance with the market mechanism and ensuring the basic objectives of welfare for farmers and consumers, sharply shifting from broad-based development to improving quality, efficiency, increasing value and profit.

The 13th Congress of the Party requested "to effectively implement the policy of restructuring agriculture, developing agriculture and rural economy in association with building a new countryside in the direction of ecological agriculture, modern countryside and civilized farmers"⁽¹⁰⁾. In particular, Resolution No. 19/NQ-TW dated 16-6-2022 of the 13th Party Central Committee "On agriculture, farmers and rural areas to 2030, with a vision to 2045" has set out many important tasks and solutions on developing effective and sustainable agriculture in the direction of ecology, applying advanced science and technology, improving quality and added value. The Resolution sets out the requirement to promote substantive and effective agricultural restructuring, exploit and promote the advantages of tropical agriculture, the potentials and advantages of each region, region and locality. Encouraging the development of green, organic, and circular agriculture, the One Commune One Product (OCOP) program, reducing greenhouse gas emissions, etc. These important orientations are also affirmed in many national strategies on green growth, climate change, sustainable agriculture and rural development.

Implementing the Party's policy, the Government has issued many policies to promote sustainable agricultural development. Decision No. 899/QĐ-TTg dated 10-6-2013 of the Prime Minister approving the Scheme on restructuring the agricultural sector in the direction of increasing added value and sustainable development, emphasizing the three pillars of economy, society and environment in agricultural development. The three groups of policies proposed are: (i) regulations directly related to sustainable agriculture: land use planning and zoning, regulations on environmental protection, monitoring and control of the use of pesticide fertilizers, monitoring of food hygiene and safety standards, etc. sanctions for handling environmental violations; (ii) market instruments to support farmers in adopting environmentally friendly agricultural practices, including carbon emission permits, subsidies for the development and application of technologies, payment for environmental services, establishment of environmental protection funds, etc. apply environmental protection fees and natural resource use taxes; (iii) technology and education to raise awareness, through the establishment of data systems on ecological agriculture, training and transfer of green technologies, reporting cases of environmental pollution to the community, education to raise awareness, building eco-labels based on environmentally friendly processes.

According to the Prime Minister's Decision No. 885/QĐ-TTg dated June 23, 2020 approving the Organic Agriculture Development Project for the 2020-2030 period, it is necessary to develop the organic agriculture industry with high added value, safety and environmental friendliness, associated with circular agriculture for domestic and international consumption. Organic agricultural products are recognized in accordance with regional and world organic agriculture standards; helping Vietnam become a country with organic agricultural production equivalent to developed countries in the world.

The Prime Minister's Decision No. 150/QĐ-TTg dated 28-01-2022 approving the Strategy for Sustainable Agriculture and Rural Development for the 2021-2030 period, with a vision to 2050, towards building a commodity-producing agriculture, and at the same time developing agriculture based on local advantages, in the direction of modernity with high productivity, quality, efficiency, sustainability and competitiveness, among the leading groups in the region and in the world, firmly ensuring national food security. In addition, develop green, environmentally friendly agriculture, adapt to climate change, reduce rural environmental pollution, and strive to reduce greenhouse gas emissions by 10% compared to 2020.

The action plan of the Ministry of Agriculture and Rural Development to implement the national strategy on green growth for the period 2021-2030 was issued on September 12, 2022 with the goal of developing agriculture in the direction of ecology, organic, circular, and low carbon emissions in order to improve the quality of growth, added value, competitiveness and sustainable development; reduce environmental pollution in agriculture and rural areas, aiming for a carbon-neutral economy by 2050.

At the 26th United Nations Climate Change Conference (COP26) in November 2021, Vietnam made strong commitments, including 2 contents related to the agricultural sector, which are the premise for implementing sustainable agricultural development. They are: (i) committing to bring net emissions to "zero" by 2050; committing to reduce global methane emissions by 2030 compared to 2010; (ii) join the "Glasgow Declaration of Leaders' on Forests and Land Use". In order to achieve the goal of "Netzero" by 2050, Vietnam continues to improve the relevant legal framework, develop specific plans and roadmaps; review and adjust strategies, plans and operation plans of each branch and each locality; take advantage of the shift of global financial resources; mobilize investment resources for infrastructure to adapt to climate change; promoting the development of the circular economy...

The policies for the development of green agriculture and sustainable agriculture of the Party and the State have made an important step in transforming agricultural production models, farmers' farming practices and awareness of sustainable development. The development of sustainable rice farming models "flower rice fields", "large sample fields applying VietGAP", 3 decreases 3 increases, 1 must 5 decreases, 1 must 6 decreases, SRI, ICM... is a typical proof. Farmers have reduced the amount of seeds sown, integrated pest management (IPM), used pesticides according to the "4 right", and reduced inorganic fertilizers. Applying the GAP

The Role of Farmers In Green Agricultural Development: A Study In Vietnam

farming process in crop cultivation and the model of using biogas in livestock. Aquaculture has applied quality control from ponds to tables. Organic agriculture is growing. In 2022, the number of farmers participating in organic production across the country will reach 17,168 people; the number of enterprises is 97 enterprises, of which 60 enterprises participate in exports with a turnover of about 335 million USD/year. According to the Ministry of Agriculture and Rural Development, in 2016, the organic farming area of the country reached about 77,000 hectares; in 2022, about 240,000 hectares. In particular, 59/63 provinces and cities across the country have implemented organic agriculture and this trend is spreading more and more strongly ⁽¹¹⁾.

Thanks to the implementation of many green and clean agricultural production models, clean and traceable agricultural and fishery products have accounted for an increasing proportion. According to the International Organization of Agriculture, in 2020, Vietnam's organic agricultural products will be consumed domestically and exported to 180 countries around the world, including: the US, the European Union (EU), China, Japan, Germany, the UK, South Korea, Russia, Singapore, France, Belgium, the Netherlands, Italy ⁽¹²⁾... In 2023, Vietnam's agricultural sector will achieve an industry-wide GDP growth rate of 3.83%, the highest level in 10 years to 2023, of which crop cultivation will increase by 2.6%, livestock industry will increase by 5.1%, forestry will increase by 3.2% and fisheries will increase by 3.6%. The total export turnover of agricultural, forestry and fishery products reached 53 billion USD ⁽¹³⁾. Thus, Vietnam's sustainable agricultural development policy has contributed: i) enhancing production efficiency through encouraging the application of new technologies, clean raw materials and sustainable farming methods, helping to improve the productivity and quality of agricultural products; ii) environmental protection through measures to reduce toxic chemicals in agricultural production, protect water resources and conserve biodiversity; iii) improve farmers' lives when formulating policies to promote the transformation of production structure, create more job opportunities and increase incomes for rural residents; iv) promote exports through focusing on the production of high-quality agricultural products to help Vietnam improve its position in the international market, especially commodities such as rice, coffee, and seafood.

The development of green agriculture has made remarkable progress. Besides, there are still some limitations. It is the state of small-scale production; this is a barrier to large agricultural production in Vietnam. The level and capacity of farmers to access science and technology are still limited; old habits and mindsets in production have not been changed such as the excessive use of inorganic fertilizers, pesticides, abuse of antibiotics in livestock - veterinary - fisheries, environmental protection, food safety and hygiene, etc. There is no planning for organic production. There is no separate mechanism and policy to support organic production, which is currently only integrated in other programs and projects. Consumers have not really believed in organic products in Vietnam; have no experience in distinguishing between organic production products and other common agricultural products... These problems make the development of green agriculture in Vietnam still slow.

Vietnam's green agriculture development policy also has limitations that need to be overcome. Specifically: (i) lack of synchronization between ministries, sectors and localities, leading to difficulties in implementation and implementation; (ii) financial, technological and human resources for sustainable agriculture are still limited, making it difficult to apply advanced production models; (iii) A part of farmers is not fully aware of the importance of sustainable agriculture;

2. RESULTS ACHIEVED

With the above policies, in Vietnam, the green agriculture model is increasingly interested by farmers. In many localities, many models have been in the process of transforming green and ecological agriculture development according to world market trends as well as helping to reduce the impact of climate change.

Many localities, enterprises and cooperatives have raised awareness for farmers in reducing the amount of sown seeds, managing IPM synthetic pests, using pesticides according to the "4 right," reducing the amount of inorganic fertilizers, along with many technical advances, such as: "3 decreases 3 increases," "1 must 5 decreases," irrigation techniques such as shallow - exposed - dry... These synchronous technical solutions and processes have been bringing many benefits in practice, helping to increase productivity and product quality, reduce production costs and reduce environmental pollution. Studies have shown that the longer a rice field is flooded, the more methane is produced. Rice fields are applied to shallow - open - dry irrigation techniques to help reduce greenhouse gas emissions by about 3.5 times compared to rice fields that are flooded throughout the season.

Or the rice-shrimp, rice-fish model... is one of the typical models of adaptation to climate change in the Mekong Delta region, not only improving the value of production, but also helping to solve the problem of reducing greenhouse gas emissions, building a green and sustainable agriculture. These are new directions suitable for the current market because in the world market, many countries have encouraged and prioritized the import of ecological and organic products.

In animal husbandry, waste treatment and utilization of agricultural by-products in the form of circular economy are being applied on different scales. Along with biogas works, the livestock industry is promoting guidance for farmers to collect livestock waste to raise worms, black soldier flies, etc. creating a source of protein as animal feed in the context of rising animal feed prices, while converting waste into organic fertilizer, reducing harm to the environment. Typically, in the cattle breeding of T&T 159 Hoa Binh Joint Stock Company, in order to create a source of feed, the Company has purchased all agricultural by-products, such as corn stalks, straw, peanuts, etc. production into animal feed. Taking full advantage of waste products of the wood production industry such as chips, shavings, sawdust, etc. production into bio-buffers. The food of the microorganisms in the biobuffer is the waste of

The Role of Farmers In Green Agricultural Development: A Study In Vietnam

cows. This transformation will help the barn to be odor-free and always clean. In particular, the organic fertilizer factory will recycle these bio-buffers and this is also a source of income of certain significance in the income of businesses (Bich Hong, 2022). The above approach is being spread by T&T 159 Hoa Binh Joint Stock Company and the Vietnam Agricultural Enterprise Council, farmers, farms and large enterprises to build a circular agricultural ecosystem.

One of the farming methods of green agriculture is organic agricultural production, which has also been strongly developed for many years. According to the Ministry of Agriculture and Rural Development, if in 2016, the area of organic cultivation reached about 77,000 hectares, by 2022, the whole country will have about 240,000 hectares of organic cultivation. In particular, up to 59/63 provinces and cities across the country have implemented organic agriculture and this trend is spreading more and more strongly (Nguyen Dinh Dap, Pham Thi Tram (2022).

Thanks to the implementation of many green and clean agricultural production models, clean and traceable agricultural and fishery products have accounted for an increasing proportion. According to a survey published in 2020 by the International Organization of Agriculture, Vietnam's organic agricultural products are consumed domestically and exported to 180 countries around the world. including: USA, European Union (EU), China, Japan, Germany, UK, South Korea, Russia, Singapore, France, Belgium, Netherlands, Italy... (Thuan Nguyen, 2022).

3. THE ROLE OF FARMERS IN THE DEVELOPMENT OF GREEN AGRICULTURE

When implementing policies related to agriculture, farmers and rural areas, Party committees and authorities at all levels need to promote the strength and role of farmers. In the current period, a new class of "farmers" is gradually forming along with the development of agriculture and the integration of the country is an inevitable trend. This will be a qualified workforce that can meet the requirements of a modern agriculture. However, over the past time, policies on the development of this workforce have been implemented, but mainly primary training and "hands-on" have not been improved in training and focus on production techniques. The policy to encourage intellectuals in rural areas has been implemented but is not synchronous and attractive, attracting enough intellectuals, especially good intellectuals and students of some other majors such as Law, Economics, Commerce, etc. career development in rural areas. The restructuring of labor has not been fully prepared, so when rural workers move to work in other areas, leading to a local shortage of labor resources, especially young and skilled workers, the aging of the labor force in rural areas is also a matter of concern.

Although they are product creators, farmers are still in a weaker position, almost not allowed to make decisions, especially the selling price of agricultural products. Farmers are often passive, and their ability to respond to challenges and risks in agricultural production is not high on a regular basis such as natural disasters, epidemics, and climate change,... In some places, functional sectors have not paid enough attention to the connection in the relationship between farmers, scientists, the state, businesses, etc. not durable.

Although the level of investment in agriculture and rural areas is very large, compared to the actual requirements, it is still limited and spread, not commensurate with the potential and contribution of the sector to the national economy; Rural technical infrastructure still has many inadequacies, the logistics sector has not been properly invested, affecting the cost and quality of agricultural products, agricultural exports are still mainly raw exports, and few products are processed to increase value and preservation time. The scale of production is small, based on the household economy, so social labor productivity is low. The ability of farmers to adapt to the 4.0 technological revolution is still limited.

In particular, the downside of the market economy has greatly affected the lives of farmers, there are problems that need to be addressed such as: some good traditional values of the nation, social ethics are affected; social evils such as drugs, prostitution, gambling, black credit, and debt collection in rural areas are still complicated, making farmers worried and frustrated. Environmental pollution in many rural areas is increasing, especially from craft villages and rural industrial parks, due to spontaneous and unplanned exploitation and development. The excessive use of chemical fertilizers and pesticides by farmers also pollutes the soil and water environment, causing direct consequences on agricultural products, affecting the health of farmers and consumers, and at the same time affecting the export of agricultural products.

The propaganda and mobilization of farmers has not been implemented well at times and places, and it is still spread out and has not been deep. The implementation of the Regulation on democracy in some localities is still formal; the thorough understanding and communication and enhancement of the role of the subject of farmers is still limited due to the lack of active participation of a number of cadres, civil servants and people; some farmers are still indifferent, not properly aware of their roles and responsibilities, live a closed life and have the idea of "wanting to be poor", expecting the support of the State and society.

Arousing the aspiration to rise, building the peasant class into an advanced, productive, high-quality and efficient labor force and promoting the role of the peasant class in agricultural development, rural economy, and building a new countryside is the right policy of the Party. In order to continue to concretize and put into practice the Party's views and guidelines, it is necessary to raise awareness of the role of the peasant class and relevant branches and levels in all relations with peasants. It is precisely with the correct awareness of their roles, positions, responsibilities and powers that the peasant class can promote its own internal strength to rise, that is, there must be a harmonious coordination between the impact of society and the positive thinking and action of the

The Role of Farmers In Green Agricultural Development: A Study In Vietnam

peasants in order to promote the role of the subject. It is necessary to further improve the recognition and interest of other strata in society, especially the awareness of Party committees and authorities at all levels.

Over the past time, under the leadership of the Party, agriculture and rural areas have made great progress, and the lives of farmers have been significantly improved. However, in the current trend, the problem of the peasant class is posing many new challenges to be solved. Therefore, the Party needs to promulgate many guidelines and policies to build the peasant class in the current period in order to create conditions for peasants to become a professional workforce with high productivity, quality and efficiency; a strong and powerful socio-political force in building and defending the Fatherland, having the courage, qualifications and capacity to master the countryside; preserving and promoting the national cultural identity in the countryside; Farmers must truly be the masters of the countryside, the people who deserve to enjoy the achievements, efforts and contributions to the country.

In particular, in the management and administration work, the State needs to continue to have attractive mechanisms and policies to strongly mobilize resources for investment in rural areas, focusing on the development of infrastructure, electricity, transportation, irrigation, science and technology, agricultural product processing, etc vocational training for farmers...; adopt policies to encourage the expansion of production scale, land accumulation, overcoming the fragmentation of production land, promoting and improving the quality of planning of production areas in association with the formation of agricultural product processing and consumption establishments. Continue to study and develop reasonable mechanisms and policies for farmers to borrow capital at preferential interest rates, develop production and prevent "black" credit in rural areas; The State has macro policies to help farmers consume agricultural products, strengthen solutions to manage agricultural materials, trees and seeds; have a mechanism to encourage enterprises consuming agricultural products to associate with farmers in the form of share contributions, create stable raw material areas, encourage export enterprises to develop; encourage scientists and scientific research organizations to transfer scientific and technological advances to production, help farmers reorganize production, bring digitalization, automation and biotechnology into agricultural production, link production and consumption; strengthen policies to mobilize and encourage farmers to participate in voluntary social insurance and agricultural insurance to limit farmers' losses due to risks, natural disasters and epidemics; focus on training human resources, improving knowledge for farmers on economic management, agricultural administration, science – technology, culture – society, law, market and international integration; adopt policies to attract intellectuals to the countryside, gradually intellectualize the peasant class, build a contingent of professional farmers in order to resolve the contradiction between the labor restructuring and the requirement to develop an advanced agricultural labor force.

On the other hand, building the Vietnamese peasant class in the period of accelerating industrialization and modernization must not only develop in quantity, but also create a change in quality, raise the class's confidence in the Party and the State; improve technical qualifications, skills, labor discipline, know labor cooperation so that farmers are truly the subjects of the process of agricultural development and new rural construction; at the same time, it is also the main beneficiary of the achievements of industrialization and modernization; actively participate in building and defending the Socialist Fatherland of Vietnam. It is necessary to focus on building a team of professional farmers, this is a very necessary requirement, considering farming as a profession and can get rich from farming. Focus on advanced and comprehensive vocational training, because nowadays farming not only requires experience and knowledge about agriculture but also needs knowledge in many fields of economy, trade, services, culture, politics, etc.

Along with that, it is necessary to pay attention to innovating the content and methods of propaganda and mobilization of farmers about the Party's guidelines, policies and laws of the State, especially knowing their roles and positions in society and in relationships with other classes and strata. Raising responsibility to society and the community, changing awareness and thinking in production to know what products need to be produced, having a heart, vision, knowing how to think about people's health, not hurting the common interests of the community, being a person with knowledge and action for a green agriculture, clean, organic, sustainable development for today and for future generations. Know how to link in production, cooperate and voluntarily participate in collective economic organizations. Have an open mind, always want to expand communication space, actively create social relationships.

In addition, it is necessary to properly promote the mastery of the peasant class, which is the core issue for farmers to perform their role well. Implement "people know, people discuss, people do, people inspect, people supervise, people benefit" in a practical way and take people's satisfaction as a measure of work efficiency. Practice well the Law on Implementation of Democracy at the grassroots in a concrete, practical and effective way.

At the same time, to develop an appropriate mechanism, create conditions for the Farmers' Association to well perform its role and task of mobilizing the peasant class, acting as a bridge between the Party and the peasant class. The Farmers' Association has a deeper awareness of the role and responsibility of the Association towards the peasant class, especially in the current revolutionary period. There is a strong, comprehensive, synchronous innovation of content and mode of operation to improve the quality and efficiency of the Association's work. Regularly consolidate and consolidate the organization, improve the quality of members; mobilize farmers to overcome difficulties to develop production, strive for labor to rise to legitimate wealth, participate well in social activities, and actively build a new countryside. Promote the implementation of patriotic emulation movements of the government; the movement launched by the Farmers' Association must attract, attract and gather a large number of farmers to participate.

The Role of Farmers In Green Agricultural Development: A Study In Vietnam

Notably, it is necessary to have national-level scientific research works to be able to research and create specific products, suitable to the characteristics, properties and traditions of each different region and region. There is an effective analysis and evaluation of models that have been implemented in practice on promoting the role of farmers in agricultural development and building new countryside such as: large sample fields, farms, farms; building new-type cooperatives; links between the State, farmers, enterprises and scientists; agricultural product value chain; farmers' interest in local government work. It is necessary to have appropriate policies and laws on agriculture to solve the problems that have existed in recent years, creating conditions for the peasant class to promote its role as a subject. It is necessary to study and formulate the Law on the peasant class and the activities of the Peasant Association in order to strengthen the legal status of the peasant class.

The peasant class has an important position in all strata of society, with a large number of forces, this is a class that has made and will make many contributions, has a great influence on the development of the country's economy, ensures national food security and supports the economy. especially in the current period when the country is in the process of integrating with the world. When implementing policies related to agriculture, farmers and rural areas, Party committees and authorities at all levels need to promote the role of the peasant class in developing the agricultural economy and building a new countryside is an important requirement that needs to be seriously implemented. with high results and efficiency. To do that, it is necessary to properly evaluate and recognize the particularly important strategic role and position of agriculture, farmers and rural areas, pay attention to the thoughts, feelings and aspirations in order to promote the strength and role of farmers in agricultural development. rural./.

4. PROBLEMS POSED

It can be seen that green agriculture in Vietnam has made great strides in development. However, in fact, there are still some "bottlenecks" that need to be removed, namely:

There is no planning on organic production, there are no separate mechanisms and policies to support organic production, but it is integrated into other programs and projects such as the program to develop high-tech agriculture, support for linking production and consumption of agricultural products through contracts, etc.

Small-scale production is a "barrier" to the application of closed and concentrated production with a large farming area.

Consumers do not really trust and have no experience in distinguishing between organically produced products and other conventional products.

The level and capacity to access science and technology are still limited, leading to the slow development of green agriculture.

Farmers still have old habits and mindsets in production that have not been eradicated, such as: excessive use of inorganic fertilizers, pesticides, drug abuse in livestock - veterinary - aquatic products, epidemics, environmental pollution, food hygiene and safety, etc. are becoming more and more serious problems, seriously affecting human health, the ecological environment and the reputation of Vietnam's products in the international arena.

5. SOME SUGGESTIONS

To integrate into the agricultural economy, Vietnam needs to take new steps and have a vision to transition to a green, low-emission and sustainable food system. According to the author, it is necessary to focus on implementing some of the following solutions:

Firstly, in order to have investment capital for green growth, the agricultural sector needs to focus on mobilizing social resources, especially from businesses to implement green growth goals. Strengthen international cooperation to call for financial support and technology transfer to make Vietnam's agriculture a model for green, low-carbon, food safety agricultural development, and improve competitiveness in the global agricultural product chain.

In addition, building a green economy, developing green agriculture, forming a harmonious lifestyle between humans and nature..., first of all, managers and people need to renew their thinking, awareness, proactively promote green economy, green growth, green consumption, etc. In addition, the agricultural sector and localities need to create new breakthroughs with a synchronous solution system, develop ecological agriculture in the direction of multi-value, multi-sector, integrating economic, social, and environmental values... Along with that, it is to make the most of the natural advantages of regions for agricultural development, ensuring interaction with the ecological environment.

Secondly, it is necessary to have a credit policy for investment capital suitable for households so that they can invest in expanding production scale. Among the resources for green economic development, capital is an important resource. The formation and development of production models in the direction of "green" requires a larger initial investment than the conventional production model, so it is necessary to have capital support for development. In addition, lending and debt collection methods and procedures need to be suitable to the characteristics of each type of production model. The procedures must be simple and convenient, and the mechanism for lending and collecting debts according to the seasons of crops and livestock helps farmers feel secure in production.

The Role of Farmers In Green Agricultural Development: A Study In Vietnam

Thirdly, in terms of science and technology, it is necessary to focus on improving the knowledge and techniques of cultivation and animal husbandry for the people through the agricultural extension network, helping the people to be proactive in production based on their own knowledge; promoting the application of new scientific advances to production.

Fourthly, in order to solve the market problem for farmers in the consumption of commodity agricultural products, localities need to create large-scale, standardized specialized production areas with strict farming processes; at the same time, digital transformation to articulate information between production and consumption, thereby traceable the origin of the product. This is the leading factor to position a green agriculture.

Fifth, agricultural production is highly risky due to the effects of weather and climatic factors, so to minimize risks, it is necessary to have an insurance policy for agriculture. This is a new field for both farmers and insurance organizations. so the State needs to have policies to support organizations implementing agricultural insurance./.

6. CONCLUSION

Green agriculture development policies in Vietnam have been in the spotlight since the 2000s, especially after Vietnam joined the World Trade Organization (WTO) in 2007. However, specific policies on sustainable agriculture and organic agriculture have only been enacted and perfected in recent years. The 2010 Law on Agriculture and other legal documents on sustainable agricultural development have created a legal basis for the implementation of these policies.

Thanks to sustainable agricultural development policies, Vietnam's green agriculture development has achieved many good results. The area of green agricultural production, especially the production of organic agricultural products, has increased significantly. Many areas specializing in green agricultural production have been formed. The policy has helped raise awareness among farmers and communities about the importance of sustainable agriculture, environmental protection and human health. Vietnam's green and organic agricultural products are increasingly popular in the domestic and international markets, expanding export capabilities and increasing income for farmers...

REFERENCES

- 1) Party Central Committee (2022), Resolution No. 19-NQ/TW, dated June 16, 2022, the Fifth Meeting of the XIII Party Central Committee on agriculture, farmers and rural areas to 2030, with a vision to 2045.
- 2) Bich Hong (2022), Green agriculture - a new flow of the market, accessed from <https://bnews.vn/nong-nghiep-xanh-dong-chay-moi-cua-thi-truong/254792.html>.
- 3) Nguyen Dinh Dap, Pham Thi Tram (2022), Organic agriculture development trends in the world and Vietnam's prospects, accessed from <https://tapchinganhang.gov.vn/xu-huong-phat-trien-nong-nghiep-huu-co-tren-the-gioi-va-trien-vong-cua-viet-nam.htm>.
- 4) The Prime Minister (2022), Decision No. 150/QĐ-TTg, dated January 28, 2022 promulgating the Strategy for Sustainable Agriculture and Rural Development to 2030.
- 5) Thuan Nguyen (2022), Promoting green agriculture in Vietnam, accessed from <https://dangcongsan.vn/kinh-te-va-hoi-nhap/thuc-day-nen-nong-nghiep-xanh-tai-viet-nam-610377.html>.
- 6) Party Central Committee (2022), Resolution No. 19-NQ/TW, dated June 16, 2022, the Fifth Meeting of the XIII Party Central Committee on agriculture, farmers and rural areas to 2030, with a vision to 2045.
- 7) Prime Minister (2020), Decision No. 885/QĐ-TTg approving the Organic Agriculture Development Scheme for the 2020-2030 period
- 8) The Prime Minister (2022), Decision No. 150/QĐ-TTg, promulgates the Strategy for Sustainable Agriculture and Rural Development to 2030.
- 9) Prime Minister (2022), Decision No. 687/QĐ-TTg approving To develop the circular economy in Vietnam.
- 10) Jianbo S., và cộng sự: Agriculture Green Development: a model for China and the world, *Front. Agr. Sci. Eng.* 2020, 7(1): 5-13 <https://doi.org/10.15302/J-FASE-2019300>.
- 11) Pham Doan: Sustainable agricultural and rural development solutions for poverty alleviation and environmental protection, 2005, <http://www.ttvnl.com/ttx/571456.ttvn>.
- 12) Do Kim Chung et al.: Textbook on Principles of Agricultural Economics, Agricultural Publishing House, Hanoi, 2009.
- 13) Thu Huong: Vietnam aims to develop green, <https://consosukien.vn/agriculture>, 25-10-2022
- 14) CPV: Document of the 13th National Congress, p.I., National Political Truth Publishing House, Hanoi, 2021, p. 124.
- 15) Do Nhu: Deputy Head of the Central Economic Commission: Green transformation needs to focus on 3 major pillars, vneconomy.vn, April 10, 2024.
- 16) Trinh Viet Tien: Green agriculture development: Current situation and some solutions, <https://kinhtevadubao.vn>, 27-01-2024.
- 17) Chu Khoi: Agriculture has the highest growth in 10 years, vneconomy.vn, January 2, 2024.

The Role of Farmers In Green Agricultural Development: A Study In Vietnam

- 18) Ministry of Agriculture and Rural Development (12/2023): Report on the summary of the implementation of the 2023 Agricultural and Rural Development Plan and the implementation of the 2024 plan./.
- 19) Xu, X., Huang, X., Huang, J., Gao, X., Chen, L: Spatial-temporal characteristics of agriculture green total factor productivity in China, 1998-2016: based on more sophisticated calculations of carbon emissions, Int. J. Environ. Res. Public Health. 16 (20), 3932, 2019, <https://doi.org/10.3390/ijerph16203932>.
- 20) Wang, W., Wang, J., Liu, K., Wu, Y.J.: Overcoming barriers to agriculture green technology diffusion through stakeholders in China: a social network analysis, Int. J. Environ. Res. Publ. Health 17, 2020, p.1-22. <https://doi.org/10.3390/ijerph17196976>.



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