

The high-tech agriculture development strategy of the Communist Party of Vietnam in the period 2021-2030

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Abstract

This article emphasizes the orientation and strategy of the Communist Party of Vietnam in developing high-tech agriculture until 2030. Through analyzing the context, supportive policies, challenges, and potentials, the article proposes measures to optimize the process of high-tech agriculture development. The objective is to build a modern, advanced, and sustainable agricultural system contributing to the comprehensive development of the country. By ensuring cooperation among relevant parties, enhancing investment in infrastructure and human resources, as well as efficiently managing and innovating, Vietnam can overcome challenges and seize opportunities to develop high-tech agriculture, promoting the prosperity and well-being of the nation.

Keywords: *agriculture, high-tech, orientation, policies.*

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I. Introduction

High-tech agriculture is not only an important factor but also a decisive pillar in the sustainable development of a nation. In today's global context, where competition in the international market is increasingly fierce and demands for safe, efficient, and sustainable agricultural production are rising, the application of modern technology and scientific advancements in agriculture becomes inevitable.

In this context, the Communist Party of Vietnam has demonstrated its concern and commitment to enhancing the quality and efficiency of the agricultural sector through the promotion of high-tech agriculture development. With the goal of shaping a modern, advanced, and sustainable agricultural system, the Party has been focusing on building specific policies, strategies, and action programs to promote innovation and enhance the competitive capacity of the agricultural sector.

This article aims to analyze and comprehensively evaluate the orientation of the Communist Party of Vietnam in developing high-tech agriculture until the period of 2030. Through studying key policy documents, action programs, and specific measures, we will provide an overview of the decisions, directions, and efforts of the Party in promoting the development of high-tech agriculture, as well as recognizing the challenges and opportunities in this process.

By clarifying the Party's orientations and strategies, this article aims to contribute to a deeper understanding of the actions of the government and relevant agencies in building a strong, sustainable, and efficient high-tech agricultural sector, thereby contributing to the comprehensive development of the country.

Agriculture is one of the important economic sectors of Vietnam, contributing significantly to the national GDP and providing income for a considerable part of the population. However, Vietnam's agricultural sector still faces many challenges, including resource shortages, poor infrastructure, traditional techniques, and outdated production models. Moreover, with climate change and increasing production scale, the necessity of applying high technology in agriculture becomes more urgent than ever.

The development of high-tech agriculture is considered one of the effective solutions to address these challenges. High technology not only helps increase productivity and product quality but also minimizes negative impacts on the environment, enhances the resilience of farmers to climate change, and creates higher added value for the agricultural sector.

In this context, the development of high-tech agriculture is shaped and substantiated by various theoretical foundations. Firstly, the theory of sustainable development is an important basis for determining the goals and directions of high-tech agriculture. According to this theory, agricultural development needs to ensure a balance between economic, social, and environmental factors while creating long-term benefits for both the community and the living environment.

Furthermore, theories of innovation and creativity also play a crucial role in encouraging the application of high technology in agriculture. Innovation includes not only the adoption of new technologies but also the creation of new business models, improvement of production and management processes, as well as strengthening the adaptability of the agricultural sector to new challenges.

In conclusion, the development of high-tech agriculture is not only a matter for the agricultural sector but also a part of the overall economic and social development strategy of Vietnam. The Communist Party of Vietnam has been and is putting forward orientations and strategies to promote the development of high-tech agriculture while ensuring sustainable development for the country.

II. The Communist Party's high-tech agriculture development policy

Currently, the Communist Party of Vietnam has clearly identified the need and significance of developing high-tech agriculture in the country's economic and social development strategy. The current orientation and strategy of the Party focus on several key objectives as follows:

The Party acknowledges the importance of modern infrastructure and technology in promoting the development of high-tech agriculture. Current policies and strategies of the Party emphasize investment in and development of infrastructure and technology systems, especially in transportation, storage, and agricultural product processing.

The Party promotes collaboration among research organizations, businesses, and agricultural workers to apply and develop high technology in agricultural production. Proposed support and encouragement policies include sponsorship programs, preferential loans, and skills training.

The Party emphasizes improving the business and investment environment in high-tech agriculture by streamlining administrative procedures, creating investment encouragement policies, and enhancing supervision and management.

The Party recognizes the importance of environmental protection and natural resource conservation in the process of high-tech agriculture development. Current policies and strategies of the Party aim to ensure that agricultural development does not have negative impacts on the environment and resources.

In summary, the current orientation and strategy of the Communist Party of Vietnam in developing high-tech agriculture focus on building modern infrastructure and technology, promoting the application of high technology, creating a favorable business environment, and protecting the environment and natural resources. These are important steps to ensure the sustainable and effective development of the agricultural sector in the future.

III. Policies, regulations, and support programs

The Communist Party of Vietnam has implemented numerous policies and support programs to encourage and promote the development of high-tech agriculture. The 13th Party Congress set forth major orientations, leading to profound changes in agricultural thinking. Resolution XIII of the Party Congress affirmed: "Agriculture makes a strong transition to commodity production, applies high technology, improves quality and efficiency, and continues to be the backbone of the economy; rural economy continues to develop; the new rural construction program has achieved many important results, completing nearly two years ahead of schedule, contributing to changing the face of rural areas and farmers' lives". One of the important policies is the National Target Program on High-Tech Agriculture (HTP), launched in 2017 with the goal of creating high-quality agricultural products, improving productivity and production efficiency, and promoting agricultural exports. One notable project under this program is the Export Fruit Development Project in the Mekong Delta, implemented by the Ministry of Agriculture and Rural Development.

High-tech agriculture began with the High-Tech 2008 initiative, laying the groundwork for its development. Since then, many policies have been issued and implemented, including the National Program for High-Tech Agriculture Development, such as: Decision No. 1895/QĐ-TTg dated December 17, 2012, of the Prime Minister approving the high-tech agriculture development program under the national program for high-tech development until 2020; Decision No. 66/2014/QĐ-TTg dated November 25, 2014, of the Prime Minister approving the priority investment list of high-tech technologies and encouraged development list of high-tech products; Decision No. 575/QĐ-TTg of the Prime Minister dated May 4, 2015, approving the master plan for areas and regions of high-tech agriculture application until 2020, aiming towards 2030; Decision No. 738/QĐ-BNN-KHCN dated March 14, 2017, of the Ministry of Agriculture and Rural Development on defining criteria for high-tech agriculture and the appendix of high-tech technology applied... The goal of developing high-tech agriculture is particularly emphasized in the Strategy for Sustainable Agricultural and Rural Development 2021 – 2030, with a vision to 2050.

In addition, the Government has issued many policies to encourage investment and provide capital support for businesses and individuals operating in high-tech agriculture. For example, the Government has established the high-tech agriculture development support fund to provide preferential interest rate loans for high-tech agriculture projects. The 13th Party Congress identified, it is necessary to "Closely link agriculture with industry, services; production with preservation, processing, consumption, brand building, increasing the value of agricultural products in value chains" (To enhance the awareness and skills of agricultural workers, the Party and Government have implemented many training and human resource development programs. For

example, the Advanced Agricultural Technology Research and Development Center (AHRD) has organized many training courses and seminars on the application of high technology in agriculture, attracting participation from farmers and researchers.

To protect the environment and natural resources, the Party and Government have issued many regulations and support policies. According to Resolution No. 24-NQ/TW, dated June 3, 2013, of the 7th Central Committee's 11th Plenum, "On actively responding to climate change, strengthening resource management and environmental protection." For example, there are regulations on the management of fertilizer and chemical use in agricultural production to minimize negative environmental impacts and promote a shift towards growth models linked to restructuring the economy towards green growth and sustainable development. In addition, there are programs to encourage the application of organic and sustainable agricultural methods to minimize environmental pollution and protect the health of consumers.

From the orientation of "agricultural development, rural economy associated with building new rural areas towards ecological agriculture, modern rural areas, and intelligent farmers", Resolution XIII of the Party Congress clearly states: "Emphasizing the development of large commodity agricultural production, application of high technology; exploiting the potential, advantages of each region, each locality".

Overall, the policies, regulations, and support programs have played a significant role in promoting the development of high-tech agriculture in Vietnam. However, there are still limitations and challenges that need to be overcome to ensure the transparency and effectiveness of these support measures.

IV. Evaluation of effectiveness

The assessment of the effectiveness of policies and support programs in the development of high-tech agriculture to date shows significant progress, but there are also many challenges that need to be addressed.

One notable progress is the noticeable increase in the application of high technology in agricultural production. For example, according to the Ministry of Agriculture and Rural Development, the adoption of advanced aquaculture methods has helped increase productivity and product quality while minimizing negative environmental impacts. Additionally, the application of high technology in clean vegetable cultivation and high-tech livestock farming has also yielded positive results.

However, there are still some challenges and limitations. One of the significant issues is the delay in the implementation and execution of policies and support programs. Many businesses and individuals still face difficulties in accessing and understanding regulations and standards, as well as in administrative procedures and loan applications.

Moreover, ensuring transparency and fairness in the distribution and utilization of resources and support is also facing many difficulties. Some provinces still lack capital and have poor infrastructure, leading to uneven implementation of policies and support programs.

Finally, the evaluation and measurement of the effectiveness of policies and support programs are still limited. Currently, there is no comprehensive and scientific monitoring and evaluation system, making it difficult to propose adjustments and improvements.

In summary, despite significant progress, the development of high-tech agriculture still faces many challenges. To continue making progress, there needs to be concentration and improvement in the implementation of policies and support programs, as well as enhanced monitoring and evaluation of their effectiveness.

V. Prospects and directions towards 2030

Goals and Plans for the Development of High-Tech Agriculture by the Party:

The Communist Party of Vietnam has set goals for the development of high-tech agriculture in the development strategy until 2030. The main goal is to build a modern, advanced, and sustainable agricultural system, contributing to improving the quality of life for people and the country's economic development. To achieve this goal, the Party has identified several specific plans and programs such as:

- Strengthening research and application of new technologies in agricultural production, especially intelligent technologies, automation, and robotics to increase productivity and product quality.
- Developing technical infrastructure and technology, including electricity networks, communication, and agricultural management information systems.
- Enhancing training and development of human resources, especially those with knowledge and skills in information technology and modern agricultural management.
- Encouraging investment and providing capital support for businesses and individuals operating in high-tech agriculture.

Shaping the future of high-tech agriculture in the overall economic and social development strategy of Vietnam: High-tech agriculture will play a significant role in Vietnam's overall economic and social development strategy until 2030. Building a modern, advanced, and sustainable agriculture industry not only helps increase

productivity and product quality but also contributes to poverty reduction, job creation, and income generation for rural people, while also contributing to environmental protection and natural resource conservation.

High-tech agriculture is also considered one of the key industries in the national industrialization and modernization strategy. Increasing investment and development in this field will create new opportunities for businesses and promote the development of related supporting industries and services.

Implementation Solutions and Measures:

To achieve these goals and directions, there needs to be concentration and implementation of specific solutions and measures such as:

- Increasing investment in research and development of technology in agriculture.
- Innovating the structure of agricultural production and management towards the application of high technology.
- Building support systems and encouraging investment for businesses and individuals operating in high-tech agriculture.
- Developing and promoting cooperation among relevant parties, including businesses, government agencies, and research and training institutions.

In conclusion, the prospects and directions towards 2030 for high-tech agriculture require consensus and effort from both the government, businesses, and society. Through this, Vietnam's agriculture sector will have the opportunity to develop vigorously and sustainably, contributing to comprehensive development.

VI. Challenges, potential, and opportunities

****Challenges***

During the development of high-tech agriculture, the Communist Party and the Government of Vietnam face significant challenges:

1. Technical infrastructure and technology remain limited in some rural areas, creating barriers to the adoption of new technologies and optimizing production.
2. The shortage of skilled labor in applying and managing high technology may reduce the effectiveness of development programs.
3. Investment in research and development of technology, as well as investment in infrastructure and human resource training, requires significant capital.
4. An effective management system is needed to ensure that support policies and measures are implemented transparently, fairly, and effectively.

Measures to overcome challenges and ensure success in the development of high-tech agriculture:

1. Enhance investment in technical infrastructure and technology to create a favorable environment for the application of high technology in agricultural production.
2. The Party and the Government need to invest in training and developing highly skilled human resources in information technology and modern agricultural management.
3. Encourage collaboration between the government, businesses, and research organizations to maximize resources and experiences.
4. Build and improve an effective management system to ensure transparency and fairness in the implementation of support policies and measures.
5. Seek diverse sources of capital from domestic and international sources to support the development of high-tech agriculture.

In conclusion, overcoming challenges in the development of high-tech agriculture requires consensus and effort from all sides. By implementing appropriate measures and policies, Vietnam can achieve sustainable development goals in this field.

The orientation and strategy of the Communist Party of Vietnam in the development of high-tech agriculture are receiving attention and support from the international community. The Party has implemented many supportive measures and policies to create favorable conditions for the application of high technology in agricultural production. These efforts have yielded positive results such as increased productivity, product quality, and income for farmers.

Potential and opportunities

Vietnam has great potential for the development of high-tech agriculture due to its abundant natural resources, abundant labor force, and low labor costs. Additionally, the rapid development of information technology and communication creates significant opportunities for the application of high technology in agriculture.

However, there are also risks and challenges. One of the biggest risks is the impact of climate change and natural environmental changes on agricultural production. Furthermore, market diversification and intense competition pose significant challenges to farmers and businesses.

Nevertheless, with the support of the Party and the Government, along with consensus and effort from the community, Vietnam can overcome these challenges and leverage its potential and opportunities to develop high-tech agriculture, contributing to the country's sustainable development.

In summary, the development of high-tech agriculture is an essential part of Vietnam's economic and social development strategy. Through this, the Party and the Government aim to build a modern, advanced, and sustainable agriculture sector, contributing to the comprehensive development of the country.

VII. Conclusion

In the context of the comprehensive development of the country, high-tech agriculture plays a vital role in increasing productivity, product quality, and income for rural people. The Communist Party of Vietnam has strongly and consistently implemented strategies and policies for the development of high-tech agriculture.

Despite the many challenges ahead, with determination and effort from all sides, we can overcome these difficulties and leverage the potential and opportunities to develop high-tech agriculture, contributing to the prosperity of the country.

We need to continue to strengthen cooperation, innovate, and enhance competitiveness to build a modern, advanced, and sustainable agriculture sector. Through these efforts, we will contribute to the goal of making Vietnam a developed and prosperous country worthy of the name "Vietnam - the Land of Development and Prosperity."

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