

OBSTACLES IN HIGH-TECH AGRICULTURE DEVELOPMENT IN VIETNAM TODAY

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ABSTRACT

At present, the trend of globalization and the explosion of technology, the development of high-tech agriculture is a decisive factor to the income and life of farmers, and will increase the competitiveness of agricultural products. country in the international market. However, the explosion of information technology; the process of international integration requires the higher the quality of agricultural products; along with the shrinking land area due to urbanization, climate change while the population increases, the demand for food is constantly increasing... are huge challenges for agricultural production. Therefore, Vietnam has identified the development of high-tech agriculture as an inevitable trend, which will create a new driving force for Vietnam's agriculture in the context of international integration, climate change and the industrial revolution 4.0.

Keyword: *Agriculture, high-tech, high-tech agriculture*

1. Introduction

High technology, advanced technology has been strongly applied in each stage or in the whole production chain to bring high added value to agricultural products, promote the construction of agricultural zones and areas for application. use high technology. Vietnam's agricultural sector is implementing a restructuring plan towards increasing added value, developing high-tech agriculture, and developing sustainably in response to climate change.

2. Overview of research

Some research projects on hi-tech agriculture:

- Solutions to effectively implement the socialist-oriented market economy institution in Hanoi in the 2010-2020 period (Nguyen Thanh Cong, National Political Publishing House, Hanoi, 2010). The author presents some basic theoretical issues about the socialist-oriented market economy institutions, the current status of socialist-oriented market economic institutions in the capital in recent years, on that basis, propose a number of viewpoints and solutions (including solutions on the science and technology market institution) in order to organize the effective implementation of the socialist-oriented market economy institution. in the capital for the period 2010 - 2020.
- The role of scientific knowledge in the cause of industrialization and modernization in Vietnam today (Tran Hong Luu, National Political Publishing House, Hanoi, 2011). This book deals with many contents, issues directly related to the thesis that the author can exploit are: the role of scientific and technical knowledge, technology in the process of industrialization, modernization in our country today; reasons why businesses do not want to invest in science - technology development; our Party's views on science and technology development; solutions to motivate research, dissemination and application of scientific and technological achievements to production and life.
- Agricultural development towards high technology in Vietnam (Duong Hoa Xo and Pham Huu Nhuong posted on hcmibiotech.com.vn on November 25, 2006). In it, the development of high-tech agriculture in some countries

around the world was presented, and pointed out the successful and unsuccessful aspects of those countries, drawing lessons that can be applied to agricultural development. high-tech applications in Vietnam.

- Israeli agriculture, a miracle in the desert (Nguyen Hoang posted on vneconomy.vn on December 26, 2011) mentioned Israeli agricultural projects with the proud affirmation of Israelis: "Climate climate" harsh, but we still have the most advanced agriculture in the world." To build a modern agriculture, it is necessary to increase investment in science and technology with bold decisions and strong support from the government.

3. Research overview

The article uses a system of methods: Theoretical research, interdisciplinary research, history - logic; abstract – concrete

4. Research findings

* Some barriers in the development of hi-tech agriculture

Hi-tech agriculture is an agriculture that rationally applies new and advanced technologies to production in order to improve efficiency, create a breakthrough in productivity and quality of agricultural products, and satisfy increasing demands. society and ensure sustainable agricultural development.

The salient features of high-tech agriculture include:

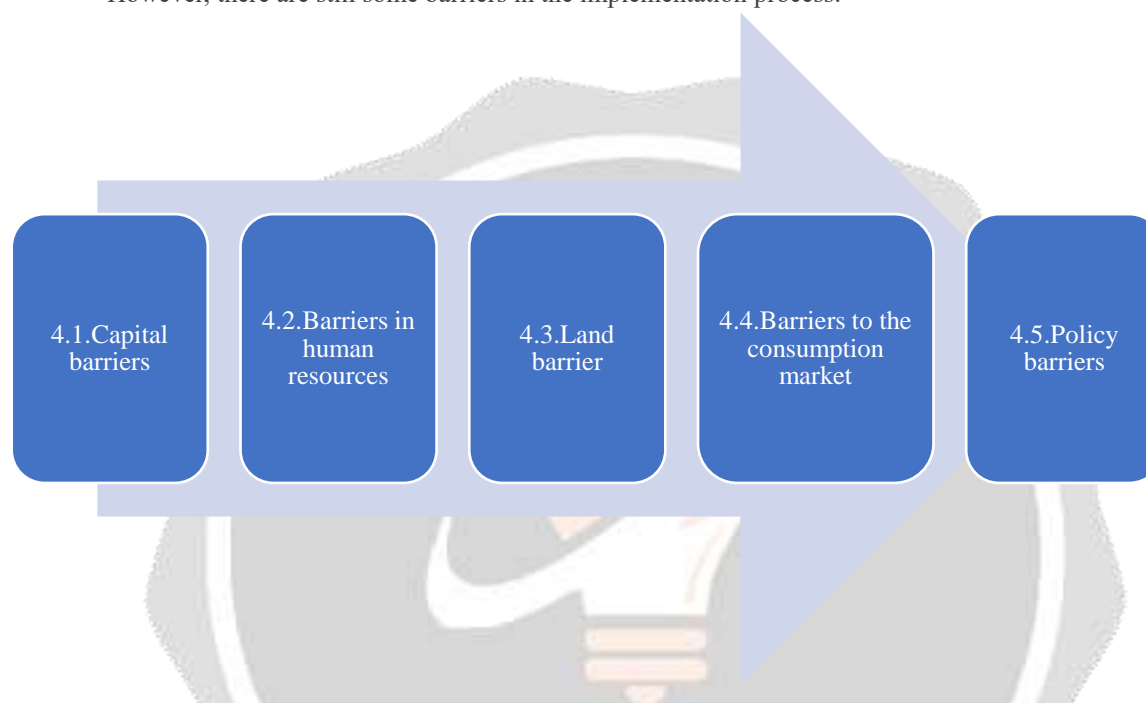


The Vietnamese Government also attaches special importance to and creates conditions and mechanisms for the development of hi-tech agricultural zones, regions and enterprises. In recent years, preferential policies and support for the development of high-tech agriculture have attracted many corporations and companies to invest in hi-tech agriculture.

	ORGANIZATION	PROJECT	ACREAGE	INVESTMENT	LOCATION
1.	Vingroup	High-tech agricultural project at VinEco Ha Nam Farm	180 ha	300 billion VND	Ha Nam province
2.	TH group	High quality rice and organic vegetable production project, potato processing plant in series from	3.000 ha	3.000 billion VND	Thai Binh province

		nursery building, planting, extracting, collecting finished products, processing and packaging, distributing products			
3.	Tay Ninh province	Planning 20 hi-tech agricultural regions in the period of 2022-2030	11.650 ha	8.989 billion VND	Tay Ninh province

However, there are still some barriers in the implementation process:



4.1. Capital barriers

Developing hi-tech agriculture requires huge capital to build infrastructure, invest in the production of plant varieties and livestock, train human resources, sell products and especially import equipment. In fact, to establish and develop a medium-sized livestock farm according to the hi-tech agricultural model, the cost is 4-5 times higher than that of building a traditional farm. Therefore, the lack of investment capital is the biggest barrier in the development of hi-tech agriculture.

4.2. The barrier of human resources

Agricultural human resources are the subject of the development of high-tech agriculture, but are currently lacking in quantity and weak in quality. In 2020, Vietnam lacks about 3.2 million trained agricultural workers. Low qualifications make the majority of laborers in agriculture not capable of mastering advanced technologies, limiting the access and application of modern science and technology to production. On the other hand, the training of experts in the field of agriculture in our country still has many shortcomings.

4.3. The land barrier

For high-tech agricultural production, large-scale land is required, in a location convenient for production and circulation. The process of land accumulation and concentration is still slow due to inadequate regulations on land use term and time of land use, which has not created a motivation to attract investors; procedures for renting and transferring agricultural production land have many troublesome procedures; The granting of land use rights in some localities has not been completed, causing difficulties for lease and transfer.

4.4. Barriers to the consumption market

Currently, in Vietnam, the market for high-tech agricultural products is still limited and unstable, leading to low production efficiency of some products, not commensurate with the level of investment. The reason is that many agricultural products do not have a brand name; forecast market demand for high-tech agricultural products is not available or sufficient; the link between production and consumption is still weak; agricultural products for export are mostly in raw form, with low added value; selling prices of high-tech agricultural products are still high compared to consumers' incomes. These inadequacies are barriers when investing in high-tech agriculture.

4.5. Policy barriers

Policies related to the development of hi-tech agriculture in our country over the past time have many shortcomings. Credit policy supports the development of high-tech agriculture with cumbersome and complicated regulations and procedures, along with the evaluation and classification of hi-tech agricultural projects based on qualitative, lacking criteria. quantitative ... making it difficult for businesses to access this capital. Land policies with inappropriate deadlines and deadlines also make it difficult for subjects with high-tech agricultural production and business needs to access. Policies such as agricultural human resource training, agricultural insurance, product consumption, market management, research support and science and technology transfer into agriculture... still have many bottlenecks. barriers to slow the development of high-tech agriculture in Vietnam.

5. Recommendations

5.1. Completing policies and laws, creating a premise to promote hi-tech agriculture

5.2. About attracting investment in agriculture and high-tech agriculture

5.3. Capital solutions.

5.4. Solutions on human resources.

5.5. Solution on land.

5.1. Completing policies and laws, creating a premise to promote hi-tech agriculture

The system of policies and laws in the field of hi-tech agriculture is still not really synchronous, such as: Policies and laws on land, credit, environmental protection, application of science and technology, etc. development of agricultural enterprises, on attracting enterprises to invest in rural areas, on application of high technology in production and processing of agricultural products, on agricultural insurance, on the development of forms of association and cooperation in products. production along the value chain, on adaptation to climate change and sea level rise.... Therefore, it is necessary to continue to improve institutions and policies, to support research activities, technology transfer, intellectual property rights to use research results, to promote close links between businesses and organizations. science and technology institutions; support and facilitate the application, production of products and provision of high-tech services; promote international cooperation in high technology; raise social awareness about the role and impact of high technology. At the same time, there are mechanisms and policies attractive enough to attract and promote the development of enterprises, especially enterprises using high technology in production, processing and consumption of agricultural products as the core to promote the development of enterprises. cooperation and association in production and consumption of products along the value chain, market development in rural areas...

5.2. About attracting investment in agriculture and high-tech agriculture

Encourage enterprises of all economic sectors to invest, support investment in building deep processing establishments and develop supporting industries. Continue to implement policies to support enterprises to import and transfer high technology in agriculture. Mobilize investment resources of the society and prioritize allocating budget resources to support the implementation of scientific and technological programs, projects and tasks on agricultural development with high technology application and sustainable agriculture. to cope with and adapt to climate change. Science and technology organizations need to drastically innovate in conducting research activities, transferring scientific and technological results into production, and supporting enterprises and farmers in applying high technology in production agriculture.

5.3. Capital solutions.

The government should create favorable conditions for production facilities to access resources; Localities must quickly issue certificates of high-tech agricultural enterprises based on the following criteria; Administrative reform creates a favorable environment to attract enterprises to invest in hi-tech agriculture. Commercial banks must quickly complete guiding documents for branches in the system to implement.

5.4. Solutions on human resources.

Building knowledge about hi-tech agriculture, clean agriculture into the education system from the high school level in order to gradually raise awareness, improve behavior and form thinking of applying high technology in agricultural production. . At the same time, promote agricultural training for farmers. It is necessary to immediately train the workforce involved in all stages of the production chain applying high-tech agriculture. In addition, focusing on innovating the content and training program for a team of experts, scientific and technological staff specialized in high-tech agriculture; combine theory with practice. Training links with universities and research institutes in countries and territories with high-tech agriculture such as Taiwan, Korea, Japan, Israel...

5.5. Solution on land.

Accelerate the consolidation and exchange of plots in localities to form large fields; Extension of filling term and rental period. The Government needs to simplify procedures for renting and transferring land; localities need to speed up the process of granting land use right certificates after consolidating and changing plots; harmonize interests between enterprises and farmers; encourage farmers to contribute capital by land to enterprises; develop occupations in rural areas, and convert farmers to other fields with higher incomes.

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