Factors affecting state management of agriculture in Vietnam towards green growth

Vu Thi Hong Diep
Thanh Dong University, Vietnam
*Corresponding author: diepvth@thanhdong.edu.vn

ABSTRACT:

In the context of depleted resources, declining biodiversity, increasing environmental pollution and evident climate change, green growth has become the main development model of many countries to solve environmental problems and sustainable development. In particular, in state management of agriculture towards green growth, factors such as policy, technology, finance and community participation have a direct impact on implementation efficiency. The author uses quantitative analysis methods to analyze the impacts of these factors, which will provide important information for the development and implementation of sustainable agricultural policies. Statistical methods and data analysis will help determine the level of influence of each factor, thereby improving state management and enhancing the effectiveness of agricultural development policies towards green growth.

Keywords: State management; Agriculture; Green growth; Vietnam.

1. INTRODUCTION

Green growth agriculture will bring economic, social and environmental benefits to countries and territories. In the economic field, green agriculture helps improve productivity and product quality, expand export markets by meeting international environmental standards. This not only increases farmers' income but also contributes to national economic growth. In society, green growth agriculture creates sustainable jobs, improves farmers' living conditions, and reduces health risks due to environmental pollution. In the environmental field, green growth agriculture contributes to protecting land, water resources, and biodiversity, contributing to minimizing the impact of climate change and improving the health of the global ecosystem.

Not only developed countries but also developing countries have paid great attention to developing agriculture in the direction of green growth with the hope of solving the negative impacts of the market economy on the natural environment, gradually moving towards the goal of sustainable development. In the process of transition from traditional agriculture to green growth agriculture, the state plays a very important role in orienting and guiding the development of green agriculture. State management of agriculture in the direction of green

growth is also focused on in order to fulfill the role of orientation and guidance of the state. The state will apply many different measures to improve the effectiveness and efficiency as well as perfect the state management of agriculture in the direction of green growth to better meet the requirements of society, creating all favorable conditions for the development of green agriculture.

In the process of implementing state management activities on agriculture towards green growth, there are many factors affecting the results of state management activities. Identifying, distinguishing and evaluating the multidimensional impacts of these factors will help countries be more proactive in planning and organizing the implementation of agricultural development policies towards green growth. At the same time, it will help countries assess the level of influence of factors on state management activities on agriculture towards green growth, thereby proposing appropriate solutions and response measures to ensure the effectiveness and efficiency of state management activities on agriculture towards green growth.

2. THEORETICAL BASIS AND RESEARCH MODEL

2.1. Some concepts

Green growth:-

OECD (Organization for Economic Cooperation and Development): Defines green growth as "economic growth and development while protecting natural resources and the environment to ensure sustainable development in the future". OECD emphasizes the need to combine economic, environmental and social aspects to promote comprehensive development [12].

UNEP: Green growth is defined as the process of promoting economic development without harming the environment. UNEP believes that green growth helps improve human well-being and social equity, while reducing environmental risks [16].

World Bank: Focuses on the economic and environmental aspects of green growth, considering it as development that can generate long-term economic growth without harming environmental health or depleting resources [19].

Author Nguyen Van Ngai and colleagues: Green growth is a development strategy that combines economic growth with environmental protection and optimizes the use of resources. Domestic authors emphasize that implementing green growth is not only an urgent need but also a solution to achieve sustainable development [11].

Central Institute for Economic Management (CIEM): Defines green growth as a model of sustainable economic development, minimizing negative impacts on the environment and increasing efficiency in resource use. CIEM has pointed out that Vietnam needs to promote green policies and apply technology to develop a more sustainable economy [17].

Vietnam Ministry of Planning and Investment: Green growth is the combination of economic development and environmental protection through efficient use of resources, emission reduction and transition to a low-carbon economy.

International and domestic authors agree on the nature of green growth as an economic development model that harmoniously combines growth and environmental protection. However, the approaches may differ. International organizations often emphasize the importance of global policies and advanced technologies to minimize emissions and optimize resources. Meanwhile, domestic authors often focus on adjusting the development model to suit the conditions of each country, especially developing countries like Vietnam.

Within the scope of this article, green growth is understood as: Green growth is an economic development model that aims to ensure sustainable increases in production and consumption, while minimizing negative impacts on the environment and optimizing the use of natural resources.

State management of agriculture:-

State management is a concept that reflects the way in which public agencies organize, operate and exercise power to manage areas in society to achieve economic, social and political development goals. This concept is approached from many different perspectives at home and abroad.

According to author Nguyen Dang Thanh: State management is defined as the process of organizing and operating the activities of the state apparatus to perform social management functions. State management is related to the development and implementation of policies and laws to regulate and develop economic, cultural and social fields [15].

According to Henry Fayol: Management is understood as a process that includes the functions of planning, organizing, leading, and controlling. When applied in the context of state management, these functions aim to create conditions for state agencies to perform their responsibilities effectively and in an organized manner [3].

Max Weber: Weber's state management is based on the bureaucratic administrative model, emphasizing the importance of decentralization, hierarchy and clear working procedures in the exercise of state power.

State management of agriculture is a branch of state management, focusing on the development and implementation of policies, laws and programs to promote sustainable agricultural development, ensure food security and improve the lives of people in rural areas.

Author Pham Van Minh: State management of agriculture includes activities such as formulating agricultural development policies, providing technical and financial support to

farmers, managing natural resources (land, water), and responding to climate change to protect the agricultural environment.

According to author Philip G. Pardey: Agriculture is not only a production sector but also an important factor in ensuring global food security and economic stability. State management in this field needs to aim at measures to protect resources, encourage research and development to increase productivity and minimize environmental impacts.

Food and Agriculture Organization of the United Nations (FAO): Emphasizes that state management of agriculture does not stop at development policies but must also include sustainable management of land, water resources and environmental factors, while protecting farmers' rights, especially in the context of climate change and globalization.

Green growth agriculture can be understood as the combination of production measures and modern technology in agricultural production to achieve three goals: (i) increase productivity and profit in agricultural production; (ii) Protect the natural environment and regenerate natural resources; (iii) Protect the living environment, improve the quality of human life.

State management of agriculture towards green growth is the operation and management of agricultural activities through policies and measures towards sustainable development, environmental protection and natural resources. It includes promoting environmentally friendly agricultural production methods, using natural resources efficiently and protecting agricultural ecosystems.

There are different views on state management of agriculture towards green growth. OECD emphasizes the role of agriculture in green growth, arguing that agricultural development needs to ensure economic, social, and environmental factors. Governments need to establish framework conditions to stimulate green production and consumption through economic instruments and other measures, while promoting cooperation and sharing of good practices among businesses. The development and use of new technologies, along with policy consistency, are key factors to achieve this goal [12].

According to Adnan Habib and colleagues, state management of agriculture towards green growth includes the development and implementation of policies to guide the development of the agricultural sector. Agricultural policies are often related to the management of land and water resources, financial support for farmers, environmental protection, and promoting research and development in agriculture. [1] . Including the establishment of insurance mechanisms and support for farmers in case of natural disasters, epidemics, or market fluctuations. These measures help reduce risks and stabilize income for farmers.

From the above concepts, it can be understood that state management of agriculture towards green growth is the operation and management of agricultural activities through

policies and measures to ensure sustainable development, environmental protection and efficient use of natural resources. This includes promoting green technology, raising awareness and skills for farmers on green growth agriculture, along with State support policies to achieve green growth goals in the agricultural sector.

2.2. Some related theories

Public administration theory :-

This school focuses on the study of how government policies are organized, administered, and implemented in various sectors, including agriculture. Theories in this school emphasize the role of government agencies in formulating and implementing public policies, ensuring efficiency and transparency in management.

Max Weber's theory of bureaucratic administrative management: Max Weber argued that in state management, organizations need a clear hierarchical structure, with standardized processes and procedures to achieve efficiency in implementing policies. This helps to minimize arbitrariness and ensure fairness in state management. In agricultural management, applying this theory can help ensure fair and equitable allocation of resources, from financial support to farmers to building rural infrastructure.

Herbert Simon’s theory of decision-making in public administration: Simon proposed the theory of “rational decision-making” in public administration, especially in the formulation and implementation of policies. This theory helps managers make decisions based on complete information and detailed analysis, which is very important in the context of agricultural management, where decisions related to land, natural resources and support for farmers need to be carefully calculated.

James E. Anderson's Theory of Public Policy: Anderson argues that the public policy process involves steps such as problem identification, policy analysis, decision making, and policy implementation. In the study of agricultural management, this theory helps explain the process of formulating and implementing agricultural policies, from developing policies to support farmers to developing programs to promote sustainable agriculture.

Sabatier's Theory of Public Policy (Policy Analysis Framework Model): Sabatier argues that public policy formulation is driven by different interest groups, and policies may change over time as these groups interact and negotiate. This model can be applied to analyze factors influencing agricultural management, such as farmer groups, businesses, and governments in deciding agricultural development strategies.

Theory of sustainable development:-

The sustainable development school of theory focuses on the management of resources and assets to ensure long-term development without harming the environment and society. For

agriculture, sustainable development is an important factor in maintaining land and water resources, while improving the quality of life of farmers.

Brundtland's Theory of Sustainable Development: According to the World Commission on Environment and Development's report “Our Common Future” (1987), sustainable development is "development that meets the needs of the present without compromising the ability of future generations to meet their own needs". This theory can be applied to agricultural management by promoting policies that support green agriculture, developing new technologies, protecting natural resources, and minimizing negative impacts on the environment.

FAO's theory of sustainable development: FAO (Food and Agriculture Organization of the United Nations) defines sustainable agricultural development as development that not only ensures agricultural production but also helps protect land, water resources, and improves farmers' lives. This theory is closely linked to the development of effective management policies and the development of sustainable agricultural models [3].

Elinor Ostrom's resource stewardship theory: Ostrom argues that communities can sustainably manage natural resources without government intervention, as long as they have appropriate systems of rules and monitoring mechanisms. This theory can be applied to agricultural land and water resource management, where farming communities and local organizations participate in the management of agricultural resources.

2.3. Research model

The proposed research model may include input factors, management processes and output results. An overall model for research on state management in the agricultural sector may include the following key variables:

Independent variable:-

Fiscal policy: This is an important tool of the state to regulate the economy, including measures on public spending and taxes. In the agricultural sector, fiscal policy can support infrastructure investment, improve production conditions and protect the environment.

Financial support: Includes preferential loan support programs, subsidies, and agricultural development funds. The goal is to encourage the application of green technology and sustainable development in production.

Relevant Laws: Regulations and laws aimed at protecting resources, controlling pollution, and promoting sustainable production. They are the legal basis for implementing environmentally friendly agricultural practices.

Natural conditions:-

Land: Effective land management and use helps to avoid degradation and ensure fertility. This management also involves equitable land allocation and land use in accordance with sustainable development planning.

Water: Water resources must be protected from pollution and overexploitation. Strict management measures are needed to maintain clean water sources for production and daily life .

Forests: Forest protection and development are important in mitigating climate change, maintaining biodiversity and providing livelihoods for people. Application of information technology in management

Use technology solutions such as geographic information systems (GIS), land management databases, and real-time monitoring platforms to enhance management efficiency, improve decision-making, and predict trends.

Community engagement plays an important role in ensuring that policies are effectively implemented. Farmer organizations can promote the adoption of sustainable production practices, share knowledge, and improve capacity to respond to challenges .

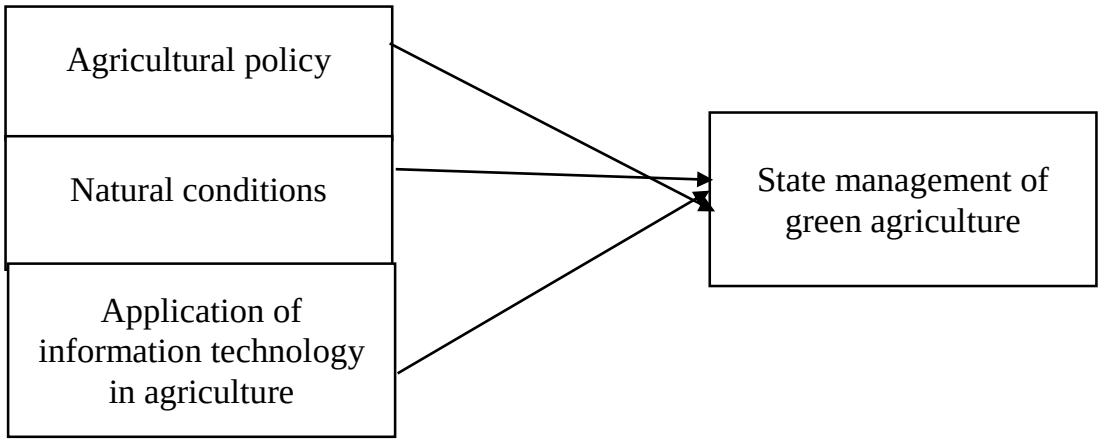

Figure 1. Research model

Intermediate variables:-

Effectiveness in policy formulation and implementation: The policy formulation and implementation process directly affects the results and effectiveness of management. This factor reflects the ability of state agencies to design realistic policies and implement them effectively.

Implementation of agricultural development programs: The implementation of agricultural development programs requires an effective coordination mechanism among parties, adequate resources, and continuous monitoring to ensure that green development goals are met.

Interaction between stakeholders: Coordination between government agencies, farmers, businesses and social organizations plays an important role in synchronizing and optimizing management efficiency. This interaction helps share information, resources and experiences to promote sustainable agricultural development projects.

Dependent variable:-

Level of sustainable development in the agricultural sector: Demonstrated through indicators such as stable economic growth, environmental protection (reducing greenhouse gas emissions, conserving land and water), and social development (equitable distribution of benefits, improving quality of life).

Farmers' lives and income: Factors related to increased income, improved living conditions, and farmers' satisfaction with sustainable production environments.

Resilience to climate change and risk factors: The level of preparedness and capacity of agricultural systems and communities to cope with climate change and other risks such as natural disasters, epidemics, or changes in global markets.

3. RESEARCH METHODS

3.1. Qualitative research methods

Approach:-

Qualitative research methods are used to gain in-depth understanding of the factors influencing state management in agriculture and the specific challenges associated with implementing green growth policies.

Semi-structured interview approach: Experts and managers in the agricultural sector were interviewed to collect detailed information on policies, management practices and difficulties encountered.

Data collection:-

Expert interviews: Conduct interviews with experts in government agencies, non-governmental organizations, and researchers with experience in agricultural policy and sustainable development.

Document Analysis: Collect and analyze official reports, policies, legal documents, and previous studies to build a theoretical basis and research context .

Case studies: In-depth research on some localities that have had successful programs on sustainable agriculture to draw lessons from experience.

3.2. Quantitative research methods

Approach:-

Quantitative research helps to define and measure the impact of factors on the effectiveness of state management in the agricultural sector. Statistical models are used to test hypotheses and find correlations between variables .

Surveys are a key tool for collecting large-scale data and measuring the awareness and effectiveness of policies among stakeholders.

Data collection:-

Questionnaire design: Develop a questionnaire containing detailed measurement items on policy effectiveness, farmer satisfaction, and feasibility of green technology adoption. Questions may be designed on a Likert scale to collect quantitative responses.

Survey of farmers and managers: Issue questionnaires to farmers, district and commune managers to get a broader view of the policy implementation status .

Statistical analysis: Apply statistical analysis methods such as multivariate regression, ANOVA analysis to determine the relationship and level of influence between factors such as policy mechanisms, finance, technology and community participation.

3.3. Scope of research

Select typical local:-

Mekong Delta: This region is the agricultural heartland of Vietnam but is facing many challenges from climate change. Research here will help to understand climate change response and green growth strategies.

Central Highlands: A region rich in resources but heavily impacted by unsustainable farming practices. The study will help clarify the role of management policies in the transition to sustainable agriculture.

Red River Delta: This is a region with many initiatives on the use of green technology in agriculture. The analysis here will demonstrate the effectiveness of management policies and innovation.

Selection criteria:-

Diversity of natural conditions: Helps research have a more comprehensive view of applying policies suitable for each specific natural condition.

Level of economic development and infrastructure: Assess factors such as the level of government support, access to technology, and cooperation among stakeholders.

4. RESEARCH RESULTS

4.1. Objective factors

Socio-economic development situation :-

When the economy develops strongly, the State's financial resources are abundant and strong, which creates favorable conditions for the State to invest in advanced agricultural technologies and implement green agricultural projects. The planning and organization of agricultural development policies towards green growth must be based on a thorough assessment of the resources required in the implementation of the policy cycle, in which financial resources are considered a key factor determining the success of agricultural development policies towards green growth. In other words, when each country's economy is stable, large financial potential will allow the State to have financial resources to carry out state management tasks on agriculture towards txx, including from organizing the apparatus, attracting high-quality human resources to implementing high-tech solutions to serve state management activities on agriculture towards green growth.

Conversely, during economic downturns, limited budget resources may reduce the ability to finance green growth initiatives. At the same time, a growing economy can attract investment in research and development of green technologies. Advanced technologies help improve production efficiency and reduce environmental impacts, thereby supporting the goal of green growth in agriculture.

On the social side, when the economy develops, the people's intellectual level and quality of life are improved. At that time, they have a higher awareness of environmental protection and public health, thereby proactively applying more sustainable and environmentally friendly production measures. At the same time, the ability to access and understand the benefits of green growth is also improved, the State will be more favorable in implementing measures to propagate and disseminate policies and laws on agricultural development towards green growth to farmers. The policies and guidelines of both the Party and the policies and laws of the State are understood, agreed with and supported by the people,

this creates a favorable social environment for the State to implement state management measures on agriculture towards green growth.

A typical example is in the US, thanks to its strong economic potential, in 2022 the US decided to invest 1 billion USD in pilot projects to promote green, environmentally friendly farming, livestock and forestry activities to reduce greenhouse gas emissions or capture and store carbon to prevent it from being released into the air, thereby limiting climate change [4]. This investment is the latest initiative of the Biden administration to combat climate change, with the goal of cutting 50% of greenhouse gas emissions from the agricultural sector by 2030 and putting the US on the path to achieving net zero emissions by 2050.

Natural conditions of each country:-

The country's natural conditions have an important impact on state management of agriculture towards green growth. Factors such as climate, land, water resources and biodiversity will determine how the state develops and implements agricultural development policies towards green growth.

Climate: climate factors directly affect agricultural activities. To ensure the effectiveness of agricultural production, during the cultivation process, people must calculate the suitability of climate factors for crop varieties. The same is true for agricultural development towards green growth. Currently, climate change is taking place globally and tends to become more and more complex, making weather forecasting inaccurate, which negatively affects agricultural production. Changes in temperature and rainfall can cause problems such as drought, floods, and other extreme weather events. In Vietnam, in early 2024, the complicated hailstorm phenomenon in the Northern Midlands and Mountains region has seriously damaged the agricultural production of farmers [6]. Or the complicated drought situation in the Central Highlands has seriously affected the agricultural production of people [7]. This requires the State to adjust water resource management policies, develop drought- and flood-resistant crop varieties, and promote climate-smart agriculture. At the same time, the State, as a “guide” in developing agriculture towards green growth, will have to develop appropriate scenarios to respond to climate change.

Land: In the process of state management of agriculture towards green growth in order to be able to use land types reasonably, based on the soil characteristics of each region, the State will develop appropriate agricultural development policies towards green growth, for example, forming specialized agricultural production areas towards green growth on a large scale or applying agricultural production models to protect land resources such as circular agriculture model; smart agriculture; organic agriculture; purely natural agriculture...

In Vietnam, depending on the soil characteristics, the State has directed localities to focus on developing suitable crops to ensure productivity. The Mekong Delta has alluvial soil, which is very suitable for growing rice. This is the largest rice granary in Vietnam, contributing

greatly to the country's rice output. The Central Highlands with red basalt soil, cool climate and abundant rainfall, is very suitable for coffee growing. This region is famous for high-quality coffees such as Arabica and Robusta. The northern mountainous provinces such as Thai Nguyen, Lao Cai, Ha Giang have soil and climate conditions suitable for growing tea. The soil here is often sandy clay, loose, rich in nutrients... From the selection of soil suitable to the characteristics of crops, specialized agricultural production areas on a large scale have gradually been formed, bringing high economic value and creating favorable conditions for applying new technologies towards developing agriculture towards green growth.

Water resources: Building a synchronous irrigation system for agricultural production areas is not something that farmers can do by themselves. To ensure water resources for agricultural production, especially green agriculture, the State, as the entity performing state management activities in the sector, will have to mobilize capital sources to complete the infrastructure and irrigation systems serving agricultural production. At the same time, decentralization, delegation of authority and responsibility to localities in ensuring water resources for green agricultural production. In areas with water scarcity, there needs to be specific strategies for economical and efficient water use, such as applying drip irrigation technology and water-saving farming methods.

Globalization trend:-

Globalization facilitates the transfer of technology between countries. Green technologies in agriculture, such as drip irrigation, integrated pest management (IPM), and biotechnology, can be shared and widely applied through international cooperation. At the same time, international cooperation in research and development helps countries access the latest scientific advances. This not only improves productivity but also reduces the environmental impact of agricultural activities.

In addition, globalization also promotes international agreements and policies. International agreements such as the Paris Agreement [5] set targets for greenhouse gas emission reduction that countries must comply with. This encourages the State to develop and apply green agricultural policies to reduce emissions and adapt to climate change. The United Nations has also established sustainable development goals, including goals related to green agriculture. Member states are encouraged to adjust national policies to achieve these goals. Thus, it can be seen that participating in international integration will directly impact the State's measures in the process of implementing state management of agriculture towards green growth. To integrate and participate in the international playground, the State is required to make policy adjustments in accordance with the international agreements it has signed and to fulfill its obligations when integrating internationally.

In addition, WTO regulations and standards related to food safety and environmental standards can influence the agricultural policies of countries. Countries need to comply with these regulations to maintain their competitiveness in the international market. International

NGOs play an important role in promoting green agriculture and environmental protection. They often put pressure on governments and businesses to adopt green agricultural practices and protect farmers' rights.

The Fourth Industrial Revolution:-

The Fourth Industrial Revolution is based on the emergence and widespread application of new knowledge and technology: big data, blockchain, artificial intelligence, robots, the Internet of Things, virtual reality, etc. This is not only a technological revolution but also a comprehensive revolution in both institutions and society, creating a new era. Agriculture, rural areas, and farmers are not outside this flow, being deeply and comprehensively affected, and one of the increasingly increasing trends is the shift to agriculture 4.0 - that is, green agriculture applying high technology. Regarding state management of agriculture towards green growth, the Fourth Industrial Revolution has a profound impact on state management of agriculture towards green growth, thanks to technological advances and innovations. For example: internet-connected devices in agriculture help monitor and manage the farming environment in real time. Governments can deploy these systems to collect data on soil conditions, climate, and crop growth, thereby optimizing management decisions and supporting farmers in adopting sustainable farming practices. Big Data: Big data analytics helps governments and agricultural managers better understand trends in production, consumption, and climate change. This supports the development of effective policies and strategies to promote green and sustainable agriculture. AI and machine learning can analyze and predict farming patterns, helping to optimize production processes and reduce resource waste. Governments can support farmers in accessing and adopting these technologies through training programs and technical assistance.

In addition, the application of achievements of the 4.0 industrial revolution will help the State build an e-Government, strengthen the implementation of digital transformation in state management activities on agriculture towards green growth in order to grasp the situation of green agricultural development in a timely manner, reduce the time to implement management decisions, thereby improving the effectiveness and efficiency of state management activities on agriculture towards green growth.

Climate change and sustainable development trends:-

Climate change causes major changes in weather conditions, temperature, and rainfall, leading to serious challenges for agriculture such as droughts, floods, and diseases. The government must develop adaptation strategies, including the development and deployment of drought- and flood-tolerant crop varieties, improved irrigation systems, and sustainable water resource management.

In the agricultural sector, the trend of sustainable development requires agricultural policies to focus on environmental protection, efficient use of natural resources, and

maintenance of biodiversity. To achieve this goal, the State, as the entity implementing state management of agriculture towards green growth , needs to promote environmentally friendly farming methods and protect land and water resources.

At the same time, to promote green agriculture, the state can apply incentive policies such as subsidies for farmers applying clean technology, preferential credit for sustainable agricultural projects, and technical support for farming households as well as agricultural production and processing enterprises.

4.2. Subjective factors

Political environment:-

The origin and nature of a state originate from the political nature of the social regime under the leadership of a political party. Under the capitalist regime, the state will have a bourgeois nature, and under the socialist regime led by the Communist Party, the state will have the nature of the proletariat. Both in theory and practice, it is shown that the ruling party will establish a state with a corresponding state apparatus to implement the political goals of the ruling class. The state concretizes the will of the ruling class through laws and policies. The Socialist Republic of Vietnam has a theoretical system of Marxism-Leninism and Ho Chi Minh thought under the leadership of the Communist Party of Vietnam. The Party sets out policies and guidelines, which are important political orientations for the state to institutionalize into laws and specific policies to manage the country, leading the country to develop in the right direction that the Party has determined.

In Vietnam, in the state management of agriculture towards green growth, the political views of the Communist Party of Vietnam on agriculture and rural development at each stage are the orientation for the State to issue public policies to realize the development goals set by the Party. At each stage of development, based on the assessment of the socio-economic development situation as well as the international context, the Party will set specific development goals. This is the guideline for state management in general and state management of agriculture towards green growth in particular.

Legal corridor:-

In the process of implementing state management of agriculture towards green growth, in addition to policies, laws are important tools that the State uses to implement state management of agriculture towards green growth. Laws will establish regulations and standards for agricultural activities, ensuring that agricultural products are produced and consumed in compliance with environmental and food safety standards. These regulations may include classification of organic fertilizers, limits on the use of toxic chemicals, and requirements for the protection of water and land resources. Establish a system of technical standards and regulations to ensure green growth criteria in agriculture. This is the basis for

state management entities of agriculture towards green growth to conduct inspections, examinations and supervision of agricultural development towards green growth.

At the same time, the law also provides a legal basis for supporting policies such as financial support, preferential tax rates, and incentives for investment in green agriculture. These incentives can help increase productivity, reduce environmental impacts, and enhance agricultural sustainability. The law regulates natural resource management and environmental protection, including monitoring and controlling environmental pollution, managing land and water use, and conserving biodiversity. These regulations play an important role in ensuring that agricultural activities do not cause negative impacts on the environment and meet international standards for environmental protection.

Regional development thinking of the government:-

The regional development mindset of the government will directly influence the content of agricultural development policies towards green growth in each country and territory. It will determine the orientation and strategy of agricultural development. The government determines and sets out development strategies for each region, including agricultural strategies. Towards green growth, these plans may include the development of organic agriculture, the application of green technologies, and the protection of local resources.

All socio-economic changes in the country originate from changes in the development thinking of the State. Socio-economic development thinking in general and the thinking on agricultural development towards green growth in particular are the basis for building viewpoints, guidelines, policies, laws and implementing them in practice. In regional development, the traditional closed agricultural production thinking has become outdated and inappropriate, causing localities to compete and limit each other instead of cooperating in a chain. Each locality, instead of becoming "a part of the chain", becomes an independent "economy". From there, regional linkages become loose and ineffective.

The government's thinking plays a leading role, leading and orienting the state management of agriculture towards green growth. On the contrary, the practical results of agricultural development towards green growth will provide specific reflections and lessons learned so that the state management thinking can be adjusted in a timely manner. In addition, regional development thinking promotes cooperation between local authorities, organizations, businesses and communities. This helps optimize resource use, enhance the adaptability of green growth agriculture to climate change and protect the environment. At the same time, regional development thinking can help the state orient and manage risks from climate change, protect and restore important ecosystems for agriculture, and encourage the use of adaptive farming methods. The government will evaluate and monitor the effectiveness of regional development policies and strategies. This helps adjust and improve agricultural activities towards green growth.

Capacity of state agencies:-

The capacity of state agencies plays an extremely important role in state management of agriculture towards green growth. The capacity of state agencies is demonstrated in many different aspects such as: The ability to lead, plan, organize, and control the activities of the agency; the quality of human resources; the perfection of the system of regulations and rules to perform functions and tasks; financial potential and financial management capacity; the ability to apply technology and information management in the activities of the agency; the ability to establish and maintain relationships with domestic and foreign agencies and organizations; the ability to listen to, receive opinions from people and stakeholders and solve problems; the ability to adapt to change, innovate, and continuously improve processes, services, and policies. The capacity of state agencies will determine the effectiveness and efficiency of state management activities in general and state management activities of agriculture towards green growth in particular.

5. MANAGEMENT POLICY IMPLICATIONS

In the world, green growth in general and green agriculture in particular have gradually become the mainstream trend. In that context, many mechanisms and policies to facilitate the development of green agriculture have been issued, such as: Resolution No. 19-NQ/TW, dated June 16, 2022, the 5th Conference of the 13th Party Central Committee on agriculture, farmers, and rural areas to 2030, with a vision to 2045, affirming the role of agriculture as a national advantage, a pillar of the economy, in which agricultural development is associated with green, organic, circular agriculture, and market demand.

Decision No. 150/QD-TTg dated January 28, 2022 of the Prime Minister approving the Strategy for sustainable agricultural and rural development for the 2021-2030 period, with a vision to 2050. The general goal of the Strategy is to build a commodity agricultural production while developing agriculture based on local advantages, in a modern direction with high productivity, quality, efficiency, sustainability and competitiveness among the leading groups in the region and the world, firmly ensuring national food security. Immediately after that, in September 2022, the Ministry of Agriculture and Rural Development approved the Action Plan to implement the National Strategy on Green Growth for the 2021-2030 period, aiming to develop agriculture in an ecological, circular, low-carbon direction to improve growth quality, added value, competitiveness and sustainable development... Accordingly, developing agriculture in an ecological, organic, circular, low-carbon direction aims to improve growth quality, added value, competitiveness and sustainable development; reduce pollution of the agricultural and rural environment, towards a carbon-neutral economy by 2050.

Or the Strategy for sustainable agricultural and rural development to 2030 (issued under Decision No. 150/QD-TTg, dated January 28, 2022 of the Prime Minister) requires: Developing green, environmentally friendly agriculture, adapting to climate change, reducing

rural environmental pollution, striving to reduce greenhouse gas emissions by 10% compared to 2020.

On June 23, 2020, the Prime Minister issued Decision No. 885/QD-TTg approving the Project on organic agriculture development for the period 2020-2030. The project sets the goal: Developing organic agriculture with high added value, sustainability, and friendliness to the ecological environment, associated with a circular agricultural economy serving domestic consumption and export. Organic agricultural products are certified to comply with regional and international organic agricultural standards; making Vietnam a country with an organic agricultural production level on par with advanced countries in the world.

To have investment capital for green growth, the agricultural sector needs to focus on mobilizing social resources, especially from enterprises, to implement green growth goals. Strengthen international cooperation to call for financial support and technology transfer to make Vietnamese agriculture a model for green, low-carbon, food-safe agricultural development, and enhance 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... Besides, the agricultural sector and localities need to create new breakthroughs with a system of synchronous solutions, developing ecological agriculture in the direction of multi-value, multi-sector, integrating economic, social, environmental values... Along with that, making the most of the natural advantages of regions for agricultural development, ensuring interaction with the ecological environment.

The government needs to have appropriate investment credit policies for households so that they can invest in expanding their production scale. Among the resources for green economic development, capital is an important resource. The formation and development of "green" production models requires larger initial investment capital than conventional production models, so capital support is needed for development. In addition, lending and debt collection methods and procedures need to be appropriate to the characteristics of each type of production model. The procedures must be simple and convenient, and the lending and debt collection mechanism must be seasonal for crops and livestock to help farmers feel secure in production.

The government needs to have policies on science and technology, focusing on improving knowledge and techniques in cultivation and animal husbandry for people through the agricultural extension network, helping people to be proactive in production based on their own knowledge; promoting the application of new scientific advances in production.

The government needs to have policies to solve market problems for farmers in consuming agricultural products, localities need to create specialized, large-scale production areas, standardized with strict farming processes; at the same time, digital transformation to

connect information between production and consumption, thereby tracing the origin of products. This is the leading factor to position a green agriculture.

Agricultural production is highly risky due to the impact of weather and climate factors, so to minimize risks, there needs to be an insurance policy for agriculture. This is a new field for both farmers and insurance organizations, so the State needs to have a policy to support organizations implementing agricultural insurance.

6. CONCLUSION

Thus, there are many factors affecting state management of agriculture towards green growth. Understanding the factors affecting state management of agriculture towards green growth will help the State intervene and make adjustments in accordance with the Party's orientation, the State's laws, and agricultural resources towards green growth will increasingly promote their effectiveness, truly be a pillar contributing to socio-economic development, building a rich and strong country, helping the lives of farmers in particular and the people of the whole country in general to improve and develop, making our country soon become an industrialized country in a modern direction.

REFERENCES

1. Adnan Habib (2023), *Measuring green growth in agriculture: a comparative analysis of world economies.*
2. Party Central Committee (2022), Resolution No. 19-NQ/TW, dated June 16, 2022, *the 5th Conference of the 13th Party Central Committee on agriculture, farmers, and rural areas to 2022 2030, vision to 2045* .
3. FAO (2017). *The Future of Food and Agriculture - Trends and Challenges*. Rome: FAO.
4. Fayol, H. (1916). *General and Industrial Management*. London: Pitman Publishing.
5. Academy of Public Administration, 2010, *Textbook of State Administrative Theory* (internal circulation)
6. Academy of Public Administration, 2010, *Textbook of State Management of Agriculture and Rural Areas,* Truth Publishing House
7. Dang Thi Hoai, 2022, The role of the State in developing high-tech agriculture, *Journal of Electronic State Management*, May 2022.
8. Hong Minh (2022), US Department of Agriculture invests 1 billion USD to promote green agriculture, https://moitruong.net.vn/bo-nong-nghiep-my-dau-tu-1-ty-usd-thuc-day-nong-nghiep-xanh-17243.html
9. United Nations (2015), Climate Change Conference
10. Pham Van Minh (2019). *State management in the agricultural sector in Vietnam: Current situation and solutions*. Agricultural Publishing House.
11. Nguyen Van Ngai & Associates (2020). *Green growth: Sustainable development strategy in the context of climate change*. National Political Publishing House.
12. OECD (2011), The Contribution of Agriculture to Green Growth.
13. OECD (2011). *Towards Green Growth*. Paris: OECD Publishing.

14. Pardey, PG, & Alston, J.M. (2010). *Agriculture in the Global Economy: An Overview*. *Journal of Economic Perspectives, 24* (3), 1-20.
15. Nguyen Dang Thanh (2020). *State management and the role of state management in economic development.* Truth National Political Publishing House.
16. UNEP (2011). *Towards a Green Economy: Pathways to Sustainable Development and Poverty Eradication*. Nairobi: UNEP.
17. Central Institute for Economic Management (2018). *Green economic development in Vietnam: Current status and solutions*. Hanoi: Science and Technology Publishing House.
18. Weber, M. (1947). *The Theory of Social and Economic Organization*. New York: Free Press.
19. World Bank (2012). *Inclusive Green Growth: The Pathway to Sustainable Development*. Washington, DC: World Bank.