

CURRENT SITUATION OF ORGANIC AGRICULTURE DEVELOPMENT IN SON LA PROVINCE

Nguyen Thi Ngan

University of Economics and Business Administration
ntngan@tueba.edu.vn

ABSTRACT

Organic agriculture is a sustainable method of agricultural production that provides safe agricultural products and protects human health, and the ecological environment. Therefore, the development of organic agriculture is the right direction for Vietnam in general and Son La province in particular. With favorable natural conditions and climate, Son La has the potential for the development of organic agriculture. In recent years, the province has made efforts to transition to organic agricultural production, with encouraging results. Research results show that organic agriculture production in Son La province has been growing in terms of quantity, variety, and quality. Organic production models have proven to be economically more efficient compared to conventional production methods. However, organic agriculture still faces challenges, such as small-scale production in Son La, as most crop production areas are on sloping land, making it difficult to expand organic production. Therefore, the development of organic agriculture requires a change in the mindset of producers and the management authorities in Son La province

Keywords: Organic production, organic agriculture, Son La province, Sustainable method, Economic efficiency.

INTRODUCTION

The agricultural sector has transitioned to intensive farming methods to increase productivity, and crop yields, and meet the growing demand for food and sustenance. Excessive use of fertilizers, chemicals, and plant protection agents in agriculture has led to adverse impacts on the ecosystem, environment, and human health. Consequently, many countries worldwide are making efforts to shift towards a safe organic agriculture system. The trend of using organic agricultural products is growing and has become an essential global trend, exerting significant influence on the global market. Therefore, actively promoting organic agriculture is crucial and aligns with the direction of creating breakthroughs in economic recovery and achieving sustainable development goals. This contributes to restructuring the economy with a focus on modern growth models, enhancing competitiveness, and the capacity to proactively adapt to changing circumstances.

Son La is a mountainous province located in the Northwestern region of Vietnam, with significant advantages in terms of natural conditions and climate. Son La has a total agricultural land area of 1,064,937.43 hectares, with an average elevation of 600-700 meters above sea level. Its terrain is heavily dissected by the Da River, Ma River, and numerous high mountain ranges. The province boasts two plateaus, Moc Chau and Na San, which have relatively flat terrains. The soil quality in the region is quite good, with deep topsoil and abundant organic matter. The climate is tropical, characterized by the typical features of the Northwestern region, and it benefits from a well-

developed hydrological system, particularly the Da River with its 32 tributaries and the Ma River with its 17 tributaries.

With these favorable conditions, Son La is well-suited for developing a diverse and rich crop system, including various fruit trees (such as mango, longan, avocado, passion fruit, plum, papaya, orange, grapefruit, pear, lychee, banana, strawberries, apricots, apples, and dragon fruit), vegetables, tubers, medicinal plants, tea, coffee, bamboo, timber, non-timber forest products, livestock, and concentrated aquaculture. The province has the potential to diversify agricultural and aquatic products with unique local characteristics, especially in the context of promoting organic agriculture.

Furthermore, local farmers have a wealth of experience in long-standing agricultural practices, particularly in their approach to and utilization of natural conditions and resources. These advantageous conditions provide a solid foundation for the development of organic agriculture in the province.

However, in recent times, the development of agriculture using new scientific and technological advancements, including the use of chemical substances to enhance soil fertility and increase crop and livestock productivity, has had a significant impact on the environment, the health of producers, consumers, and residents in the production areas. To mitigate the environmental impact of agricultural production, Son La province has implemented Decree No. 109/2018/ND-CP on organic agriculture and established mechanisms and policies to support and promote organic agriculture development. Nevertheless, many individual farmers, cooperatives, and businesses have encountered various technical and production process challenges when engaging in organic agriculture. Organic agricultural products still face quality and diversity competition issues, with many products failing to meet food safety requirements. Presently, organic agriculture production remains predominantly small-scale and limited in scope.

Therefore, the researchers conducted a study titled "The Current State of Organic Agriculture Development in Son La Province" to analyze the current situation of organic agriculture production in Son La Province. The aim was to identify the advantages and challenges in the process of developing organic agriculture in Son La and, based on this analysis, propose solutions for the future development of organic agriculture in the province.

LITERATURE REVIEW

Over the world, numerous studies on organic agriculture, such as those by Lampkin (1990) [3], Sharma (2001) [5], and Ullah et al. (2015) [8], have highlighted the manifold benefits of organic farming, both economically and environmentally. These studies have indicated that organic agriculture offers advantages such as the conservation of non-renewable resources, improved agricultural product quality, and safeguarding consumer health. Implementing organic farming practices not only increases income for farmers but also protects the environment by avoiding the use of harmful chemicals and fertilizers. These research findings also underscore the pivotal role played by governments, agricultural promotion agencies, and research organizations in enhancing awareness and promoting the benefits of organic farming for farmers.

In Vietnam, research on organic agriculture is gaining attention, although the number of studies remains limited. Some of the research on organic agriculture includes Nguyen Van Bo (2017) [1], whose research revealed that the opportunities for the development of organic agriculture are increasing due to a rising demand for safe products both domestically and internationally. However, organic agricultural production in Vietnam currently faces several challenges and obstacles, such as issues related to food security, income, management, and the environment.

Ha Phuc Mich (2023) [4] conducted research and summarized the state of organic agriculture development in Vietnam from 2019 to 2021. The study also highlighted the opportunities, challenges, and practical solutions for implementing organic agriculture in the current context. It specifically pointed out several primary challenges, including limited awareness among domestic consumers about organic agriculture and its products, inadequate supporting policies for organic agriculture, the absence of a comprehensive list of inputs for organic production, high certification fees from international organizations while domestic certification bodies have not gained full trust from the community, and the entrenched habit of conventional farming practices.

As a result, transitioning to organic farming standards should be considered a revolutionary change at all levels and for all agricultural laborers, given the challenges involved.

METHODOLOGY

Data Collection Method: the research involved gathering secondary data from reports and statistical information published by state agencies in Son La province, including the Department of Agriculture and Rural Development and the Provincial People's Committee. Additionally, data were collected from studies on organic agriculture development in Son La conducted by research organizations, universities, and institutes throughout Vietnam.

Data Processing Method: the research project employed statistical methods for comparison and data analysis over different periods to assess and evaluate the status of organic agricultural production in Son La province.

RESULTS

The Current Status of Organic Agriculture Development in Son La Province

Organic agricultural production is a global trend, including in Vietnam, aiming to meet the demand for safe food, promote human health, and ensure sustainability for the natural environment. Given its favorable natural conditions and climate, Son La province has significant potential for developing organic agriculture. The provincial government and local authorities show strong interest in organic agricultural production. The province has recognized the development of organic agriculture as a priority and a foundation for moving towards sustainable agricultural production.

Resolution No.08 of the Provincial Party Executive Committee regarding the development of agriculture, forestry, and aquaculture with a focus on sustainability, applying advanced technology until 2025, with a vision to 2030, has set objectives that include "leveraging and effectively utilizing the advantages of natural conditions, establishing and developing areas and agricultural zones applying advanced technology that meets international food safety standards throughout the value chain, increasing income for agricultural producers, minimizing adverse environmental

effects resulting from the utilization of natural resources for agricultural, forestry, and aquaculture production, and enhancing the efficient management and utilization of natural resources..."[7].

Following Resolution No. 08 of the Provincial Party Executive Committee, Son La province has issued various documents, mechanisms, and policies to encourage businesses and cooperatives to engage in organic agricultural production. Specifically, the People's Committee of Son La province issued Decision No.490/QĐ-UBND on February 28, 2019, outlining a support plan for cooperatives and enterprises involved in organic agricultural production in the province during the 2019-2020 period. The Provincial Party Committee also formulated a plan for the development of agriculture, forestry, and aquaculture with a focus on sustainability, applying advanced technology until 2025, with a vision for 2030 [6].

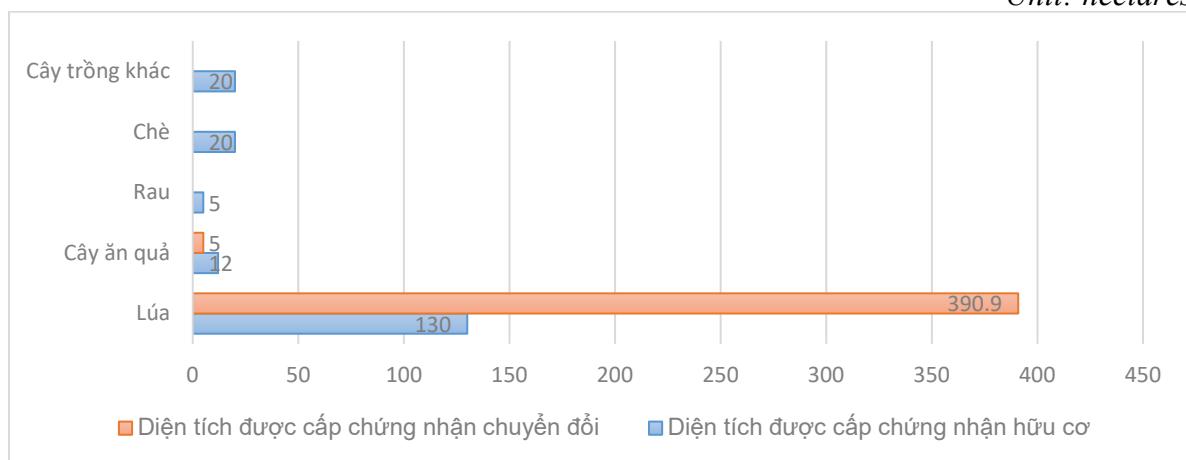
Following the implementation of Government Decree No.109/2018/ND-CP dated August 29, 2018, on organic agriculture, some specific outcomes have been achieved [10]:

- **Regarding organic agricultural production:**

Organic agricultural production has been directed and organized by various levels and relevant sectors, in line with the concept of linking production with processing industries, effectively exploiting the province's advantages and potential. This approach ensures food security, supplies raw materials to processing plants and increases exports, particularly for major product categories. The province has conducted campaigns to promote awareness about organic agriculture by disseminating regulations to relevant organizations and individuals through conferences and public communication channels. Additionally, the province has organized conferences to roll out organic agricultural production on its territory and has conducted training sessions to transfer technical knowledge to businesses and cooperatives, thus contributing to enhancing the awareness of organizations and individuals involved in organic farming.

Chart 1: Organic Agricultural Production Situation in Son La Province in 2022

Unit: hectares



(Source: Department of Agriculture and Rural Development, Son La Province)

According to statistical data from the Department of Agriculture and Rural Development and the Provincial People's Committee of Son La Province, by the year 2022, there were 187 hectares in Son La Province certified for organic agriculture products that meet the organic standards and 395.9 hectares certified for organic conversion (Chart 1). Additionally, the total area of crops

produced following organic practices included 7,610 hectares (comprising 2,636 hectares of rice, 702 hectares of vegetables, 257 hectares of tea, 3,941 hectares of fruit trees, and 74 hectares of other crops). Organic livestock farming was also in development with a total of 11,910 head of livestock [10].

For rice: According to the data from the Department of Agriculture and Rural Development, as of the end of 2022, Son La had 520.9 hectares of organic rice production in Phu Yen district, yielding 4,530.61 tons. Among them, the area of rice in the organic conversion phase was 390.9 hectares, with a yield of 2,810.71 tons, and the certified organic area was 130 hectares, producing 1,719.9 tons. The organic rice production area was purchased by Bao Minh Agricultural Product Processing Trading Company, which achieved an economic advantage of over 30% compared to conventional rice production [9].

For vegetables: According to the statistics from the Department of Agriculture and Rural Development, by the end of 2022, there were 10 hectares of organic vegetable production in the districts of Mai Son and Moc Chau in Son La Province. In Moc Chau district, the natural-safe vegetable production cooperative model was implemented, while in Mai Son district, the organic vegetable production model was carried out in the Hat Lot town. Currently, there are 5 hectares of certified organic vegetable production in Moc Chau district, and both organic vegetable production models in Moc Chau and Mai Son are experiencing good growth and development.

For fruit trees: The overall organic fruit tree cultivation area in the province reaches 3,941 hectares. This includes 5 hectares of certified organic pomelo cultivation in Phu Yen district and 12 hectares of certified organic pomelo cultivation in Phu Yen district and Thuan Chau district. These organic fruit cultivation models have been showing robust growth and development, resulting in high-quality produce that adheres to safety standards.

For tea trees: The province boasts a total organic tea cultivation area of 257 hectares, with 20 hectares dedicated to two business and cooperative models in Van Ho and Moc Chau districts, receiving certification as organic product areas.

For other crops: According to statistics from the Department of Agriculture and Rural Development, as of the end of 2022, there are 20 hectares of organic passion fruit in Muong La certified as organic, along with 74 hectares of other crops produced using organic methods.

The province of Son La has been actively incorporating advanced technology into its agricultural practices. It has introduced new crop varieties, adjusted its crop structure, and applied scientific and technical advancements to production, such as grafting for crop improvement, rejuvenating orchards, pruning, and creating canopies. The province has also strategically invested in major industrial crops, vegetables, and fruit trees, aligning production with market demand to enhance economic efficiency. Additionally, it has established concentrated raw material areas to serve processing plants, and expanded the organic production regions, ensuring adherence to standards and high-quality produce for both local consumption and export, resulting in substantial economic benefits for the producers.

Initial findings demonstrate that organic farming approaches have shown a consistent upward trend in production efficiency. Notably, these approaches have delivered significantly higher economic returns when compared to conventional farming practices. The organic rice production model in Phu Yen District, for instance, stands out as it provides double the economic benefits of traditional rice farming. The tea production model in Van Ho District has also proven to be financially advantageous. Consequently, the value of agricultural products per hectare of cultivated land is on a continuous rise, leading to substantial enhancements in the living standards of rural communities.

- **Regarding organic agriculture product certification:**

The total certified area for organic agriculture products that meet organic standards in the province is 187 hectares. This is distributed as follows:

- Rice: 130 hectares in Phu Yen.
- Pomelo: 12 hectares in Phu Yen and Thuan Chau.
- Persimmon: 20 hectares in Muong La.
- Vegetables: 5 hectares in Moc Chau.
- Tea: 20 hectares in Van Ho and Moc Chau.

The total area certified for organic conversion in rice and fruit trees is 395.9 hectares, including:

- Rice: 390.5 hectares in Phu Yen.
- Orange and pomelo: 5 hectares in Phu Yen.

- **Regarding processing and marketing of organic agricultural products:**

The province has implemented policies to attract investment and create a favorable production, business, and export environment for domestic and foreign enterprises involved in the effective production, certification, processing, and export of agricultural products in Son La. Eight processing plants and facilities have been established for processing agricultural products, serving both the domestic and export markets. This contributes to increasing the value of the province's crop production. In addition, there are nearly 500 small-scale fruit processing facilities (primarily for lychee, plum, and mango) operated by households, individuals, cooperatives, and businesses in the province. To date, 37 of these facilities have been recognized for packaging fruit for export.

Promotion of trade and product introduction is a priority. The province has made significant efforts to register and obtain region-specific codes for export cultivation areas, and it has successfully negotiated market access for numerous promising products to demanding markets such as the United States, Australia, Japan, and South Korea, and accepted in the Chinese market.

As of the current time, there are 18 products grown in the province that have received protected designation status, including 3 products under geographical indication protection (Moc Chau Shan Snow Tea, Yen Chau Round Mango, Son La Coffee), 13 products protected under certification mark (Phu Yen Oranges, Song Ma Lychee, Son La Sơn Tra Apples, Na Mai Sơn, Mộc Châu Avocado, Yen Chau Bananas, Lemon, Son La Plums, Mộc Châu Vegetables, Son La Vegetables, Oolong Tea, Phong Lai Tea, and Mường Va sticky rice). There are also 2 products protected under collective marks (Thuận Châu Sweet Potatoes and Ta Xua Bac Yen Tea). Out of these, 2 products are protected in foreign markets (Shan Snow Tea is protected in the Thai market, and Shan Snow Tea and Round Yen Chau Mango are protected in the European market under the EVFTA agreement).

The total agricultural product (fruits and vegetables) consumption occurs through three channels (within the province, domestic, and export). The volume of vegetables and fruits produced is primarily sold directly to businesses, cooperatives, organizations, and individuals through consumption contracts for processing, accounting for a relatively small proportion compared to the total volume of vegetables and fruits produced. The products are directly sold to businesses, cooperatives, organizations, and individuals for consumption within the province. In the domestic market, they are distributed through major supermarket chains such as Vinmart, Big C, Lotte, Hapro, etc., in significant quantities. Additionally, vegetables and fruits are also consumed in various provinces like Lang Son, Quang Ninh, Hai Phong, Nam Dinh, Thanh Hoa, and others.

- **Linking the Supply Chain in organic Agriculture Production and consumption**

A linkage has been established between businesses, cooperatives, and households in the production, consumption, and processing of agricultural products to transfer scientific and technological advances and purchase raw materials for processing, creating a sustainable connection between businesses and farmers.

The province has implemented seven projects to support organizations and individuals in developing organic production, linking them within the value chain, focusing on organic mango production in districts including Muong La, Thuan Chau, Quynh Nhai, Phu Yen, Bac Yen, Moc Chau, Van Ho, Mai Son, Yen Chau, and Son La city with an area of 308.5 hectares. It also focuses on organic orange production in Song Ma and Sop Cop districts with an area of 18 hectares, and organic pear production in Moc Chau and Quynh Nhai districts with an area of 78 hectares. In 2022, two new value chain production initiatives have been launched for organic durian and Thai jackfruit to enhance value chain development and promote product consumption across districts.

Some advantages and challenges in the development of organic agriculture

- **Advantages:**

- There is close attention and guidance at both provincial and local levels in the implementation of the Organic Agriculture Development Plan for 2020-2030. The organic agricultural market in Son La province is expanding due to international economic integration.

- The Son La Provincial Party Committee's Standing Committee has provided leadership and direction to local Party Committees and authorities for the implementation of Central Committee directives on agriculture, farmers, rural areas in general, and organic agriculture in particular. It has focused on leading and directing the development of organic agriculture, issuing the Plan for Developing Safe and Sustainable Crop Cultivation and High Technology Application for the 2021-2025 period with a vision to 2030. The provincial People's Committee has issued support plans for cooperatives and enterprises engaged in organic agriculture production in the province. The Department of Agriculture and Rural Development has issued guidelines for organic crop production in Son La province.

- Regarding natural conditions: Son La has a total agricultural land area of 409,321 hectares, with generally favorable soil quality. The province has thick soil layers and a distinct two-season climate with a significant day-night temperature difference. It also possesses a river and stream system with water storage capacity, creating an advantage for the development of diverse and rich crop groups, including industrial crops (tea, coffee), fruit trees (mangoes, lychees, bananas, tangerines, plums, and peaches), vegetables (various types, specialty vegetables), flowers, and

food plants. Particularly, seasonal vegetables and fruits from Son La have a distinctive quality and unique flavors compared to other regions.

- **Challenges:**

- Organic agriculture production involves higher costs, labor, and time, which limits the investment and development of organic agriculture.
- Organic agriculture production requires the establishment of isolated zones away from conventional agriculture to prevent direct chemical contamination of the produce. However, in the province, most crop production areas are on sloping terrain, making it challenging to create isolated organic production zones.
- Farmers in the province are accustomed to traditional farming practices, and changing their cultivation habits requires a certain amount of time.
- Currently, the Ministry of Agriculture and Rural Development has not issued organic production procedures for various types of crops. This presents difficulties in guiding organic crop production.

Solutions to the Development of Organic Agriculture in Son La Province

Organic agriculture is a production method that imposes strict requirements on producers and is limited in terms of market demand. Developing organic agriculture is a process that requires the support and attention of the state and local authorities through specific policies, effective planning, infrastructure development, and support for product processing and trade. To successfully develop organic agriculture in Son La Province, the following issues should be considered:

- Establish a database on organic agricultural products to ensure clear traceability, thereby building trust with consumers.
- Strengthen awareness campaigns and organize training sessions for local residents to help them understand the economic and social benefits of organic production.
- Shift from building "agricultural supply chains" to developing "value chains" within the industry. Connect stakeholders in the chain based on transparency, responsibility, and the sharing of benefits according to their value contribution. Enhance the linkages between six key actors (farmers - government - businesses - banks - scientists - distributors), with the core being the connection between farmers and businesses.
- Promote and expand pilot models of organic agriculture production to serve as examples for specialized regions that meet market demands. These models should encompass aspects like organic agriculture, resource efficiency, and waste reduction, as well as combine agriculture with industry (processing agricultural products, recycling waste, by-products, renewable energy production, etc.), link agriculture with services (experience-based tourism, environmental protection services, training and technology transfer services, product marketing services, etc.). Evaluate the effectiveness of these models to extract lessons learned, scale up operations, and introduce new technologies and management practices.
- Establish and develop organic agriculture zones that meet food safety standards along the value chain. Implement programs and projects to issue region-specific codes for cultivation and trace the origins of organic agricultural products in the province.
- Encourage and support the development of linkages between industry associations, cooperatives, and international trade conglomerates in the field of organic agriculture products.
- Create various industrial and service clusters that serve organic agriculture production (warehouses, ports, processing plants, stations, seed farms, etc.) integrated with organic agriculture production, processing, and trade. Invest in enhancing processing and preservation capabilities, as

well as logistics services for major specialized areas, with a focus on organic agricultural products in the province. Actively implement the One Commune One Product (OCOP) program in conjunction with organic agriculture products.

- Support the building and development of brands for organic agricultural products through the national brand program. Register trademark protection for the province's organic agricultural products both domestically and internationally. Enhance the efficiency of systems connecting and promoting the consumption of organic agricultural products. Diversify distribution channels, ensuring sustainable and stable consumption, with priority given to e-commerce development.
- Efficiently implement practical promotion and trade activities for organic agricultural products based on information technology and digital transformation.

CONCLUSIONS AND RECOMMENDATIONS

Conclusions

The research findings highlight the continuous growth of organic agriculture production in Son La province in terms of both quantity and quality. The province has witnessed an expansion in the variety of organic products, as well as the development of different models for producing and distributing organic agricultural goods. Overall, organic agriculture in Son La has made significant progress and has played a role in enhancing awareness among organizations and individuals regarding the appropriate use of fertilizers in farming. This has led to an increased understanding among producers about the benefits and application of organic fertilizers in cultivation, thereby encouraging the shift from synthetic to organic fertilizer usage.

Effective involvement of businesses in the province's organic agriculture development is promoted. The initial results demonstrate that organic production models are significantly more economically viable than conventional methods. Notably, the economic efficiency of organic rice production in Phu Yen district is twice that of traditional rice production. The same trend is observed in organic tea production models in Van Ho district.

However, the development of organic agriculture production in Son La province still faces several limitations. These include small-scale production, a lack of technical infrastructure for local agricultural workers, and more. Therefore, promoting the development of organic agriculture is of paramount importance for Son La province. It presents an opportunity for the province's agricultural products to reach broader domestic and international markets.

Recommendations

We recommend that the Ministry of Agriculture and Rural Development continues to focus on market forecasting and information for localities. This includes providing guidance for the production of economically efficient organic crops and livestock, and issuing organic production procedures for various types of crops. Additionally, policies should be put in place to encourage the development of organic agriculture on a regional and interconnected basis.

REFERENCES

- Nguyen Van Bo. (2017). Organic Agriculture Production in Vietnam: Opportunities, Challenges, and Key Concerns. *Journal of Science & Technology of Vietnam*, Issue 7.
- Statistical Office of Son La Province. (2022). *Son La Province Statistical Yearbook 2022*.

- Lampkin, N. (1990). *Organic Farming*. Farming Press, Ipswich.
- Ha Phuc Mich. (2023). Organic Agriculture in Vietnam: Current Situation, Trends, and Development Solutions. In *Agricultural Promotion Forum @ Agriculture: Developing Organic Agriculture, Circular Economy with Environmental Protection and Biodiversity*, Lam Dong.
- Sharma, A.K. (2001). *A Handbook of Organic Farming*. Agrobios (India), Jodhpur.
- Son La Provincial Party Committee. (2021). Project on the Concentrated, Sustainable Development of Agriculture, Forestry, and Aquaculture with High Technology Application by 2025, Oriented to 2030.
- Son La Provincial Party Committee. (2021). Resolution of the Provincial Party Committee's Executive Committee on the Concentrated, Sustainable Development of Agriculture, Forestry, and Aquaculture with High Technology Applications by 2025, Oriented to 2030.
- Ullah, A., Shah, S.N.M., Naz, R., Mahar, A., & Kalhoro, S.A. (2015). Factors Affecting the Adoption of Organic Farming in Peshawar, Pakistan. *Agricultural Sciences*, 6(06), 587.
- Son La Provincial People's Committee. (2022). Report on the Results of Production in 2022, Production Plan for the Spring Crop 2022-2023.
- Son La Provincial People's Committee. (2022). Report on the Implementation of Government Decree No. 109/2018/ND-CP dated August 29, 2018: Organic Agriculture.