

Original Article

# Solutions for Developing Commodity Agricultural Production in the Trend of International Integration in Vietnam

<sup>1</sup>Tran Thi Dien\*, <sup>2</sup>Pham Thanh Tra, <sup>3</sup>Nguyen Van Thang

<sup>1,2</sup>Faculty of Economics and Business Administration, Tan Trao University, Tuyen Quang, Viet Nam.

<sup>3</sup>Faculty of Medicine and Pharmacy, Tan Trao University, Tuyen Quang, Viet Nam.

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**Abstract:** The author has researched the theoretical and practical basis to propose recommendations to improve policies on developing commodity agricultural production in the trend of international integration in Vietnam. Recommendations to improve the policies mentioned in the study include Guidelines and policies for developing commodity agricultural production; Planning and management of agricultural commodity production areas; Investing in infrastructure for agricultural commodity production; Supplying materials for agricultural commodity production; Applying science, technology, and techniques to produce agricultural products; Developing human resources to serve agricultural commodity production; Developing brands and product consumption markets; Evaluate the results and economic efficiency of developing commodity agricultural production.

**Keywords:** Agricultural products, policy, development, international integration, Vietnam.

## I. INTRODUCTION

For each country, developing commodity agricultural production always holds an important position; solutions to develop commodity agricultural production are always the concern of every country, territory, and production region. The theory of developing commodity agricultural production is widely mentioned in economic studies such as FAO (1990), Gunnar (1989), Dudley (1997), Patrick et al. (2011), and Tomislav (2018). However, research on developing commodity agricultural production is often approached in the direction of increasing product quantity and quality. Very few theoretical studies approach solutions to develop commodity agricultural production in the trend of international integration.

Vietnam is an agricultural country with a low starting point, with 64.9% of the population living in rural areas and 43.3% of agricultural workers (General Statistics Office, 2021). However, the country has natural, economic, and social conditions that allow the development of tropical agriculture, a modern commodity-producing agriculture. In recent years, Vietnam has also had orientations and solutions to develop commodity-oriented agricultural production to create many valuable agricultural products to meet the needs of domestic and export markets in the context of international economic integration. Documents of the 12th National Congress of our Party have pointed out the direction and tasks of agricultural and rural development: building agriculture towards large commodity production, applying high technology, improving product quality, ensuring food safety, and promoting exports. Thereby creating favorable conditions for Vietnamese agricultural products to be competitive in regional and international markets (Office of the Central Party, 2016). Production of agricultural products aims to exploit the potential and advantages of tropical agriculture, create jobs, increase income, and improve the lives of farmers. At the same time, we aim to export to create foreign exchange revenue for the development of the country's economy (Vietnam Government, 2012).

However, commodity agricultural product production in Vietnam still faces many difficulties: production is spontaneous, and the scale of agricultural land area is fragmented. There is no effective combination between farmers and businesses in production, processing and business. The output of agricultural products is not much. Technical facilities, science and technology for production and processing, and organizational and management levels are still limited (Vietnam's Party Central Office, 2016). Therefore, there are many issues that need to be resolved in order to develop commodity-producing agriculture in Vietnam. Only by developing effective commodity agriculture with high productivity, good quality, diverse types of goods, and exploiting the competitive advantages of the region. Only then can the lives of rural residents be improved.

## II. POLICY CONTENT FOR DEVELOPMENT OF COMMODITY AGRICULTURAL PRODUCTION IN THE TREND OF INTERNATIONAL INTEGRATION

### A) Guidelines and policies for developing commodity agricultural production

Guidelines and policies on agriculture, agricultural extension, linkages, and markets of departments and governments from central to local levels have a direct and profound impact on the development of commodity-oriented agricultural



production. (Pham Van Dinh, 2009). Institutions and policies can be at a high (central) level, such as regulations on land and forest resource use in laws or codes; Production development strategies and policies, agricultural production plans or financial and monetary policies; Human resource training policies; Policies to transform economic structure, crop and livestock structure, and build new rural areas. At the grassroots/community level, these can only be regulations and general commitments on environmental protection, land protection, food safety, and mobilization to participate in organizations and associations or develop linkages in product production and trading (OECD, 2015). Appropriate and stable land policies will help farming households concentrate their land on agricultural commodity production, feel secure in production, and invest in land improvement and building facilities. Thereby contributing to promoting the process of mechanization in production, forming a concentrated, large-scale agricultural product production area. Investment policies and capital support; science, technology, and services for agriculture; market development; agricultural extension work; and development of links in production are necessary. Promulgating and implementing guidelines and policies in a timely, synchronous, and effective manner will create conditions to promote actors participating in the commodity-oriented agricultural production and business process.

#### ***B) Planning And Management of Agricultural Commodity Production Areas***

Agricultural production development planning must be based on innovative thinking, market access, effective use of land and water resources, trained human resources, adaptation to climate change, and environmental protection. Ecological schools in order to effectively exploit the advantages and natural conditions of each region and each locality (Mai Thanh Cuc, 2015). Agricultural production development planning must closely link production with preservation, processing industries and consumption markets, Accumulating land and forming concentrated commodity production areas (Do Kim Chung, 2015). The planning of commodity-oriented agricultural production areas must be associated with the transformation of labor structure in agriculture and rural areas, along with trained human resources. The labor force must meet the requirements of agricultural commodity production at increasingly high technical and technological levels. There must be a policy system that ensures the mobilization of social resources, promoting the strength of international integration and state support (Vietnam Government, 2012). Planning for agricultural commodity production areas needs to be approved by competent authorities and be consistent with the general planning of the whole country. The planning content needs to be specific, clearly identifying areas eligible for land and irrigation, ensuring feasibility and suitability for the production conditions of each type of agricultural product. Implementing the planning for the development of commodity agricultural production to ensure there is an area for productive, quality, and effective agricultural commodity production with large output to meet the needs of domestic and export markets is very necessary.

#### ***C) Invest in Infrastructure for Agricultural Commodity Production***

To develop commodity-oriented agricultural production, it is necessary to develop rural industries and build socio-economic infrastructure of electricity, transportation, and communication. Implement irrigation, electrification, and mechanization. Promote technical equipment, innovate agricultural and rural production technology, and transfer advanced technology and techniques to farmers (Vu Van Phuc, 2015).

Developing agricultural commodity production areas also requires adequate physical facilities such as transportation systems, communications, irrigation, electricity, machinery and equipment for production, cold storage warehouses, processing plants, and transport vehicles. When investing synchronously and effectively in facilities it will ensure increased product productivity, improved product quality, extended seasons, and expanded markets, thereby promoting the development of agricultural commodity production. Infrastructure investment for the development of agricultural commodity production requires a large amount of capital and requires comprehensive and synchronous planning. Individual farmers cannot do these things and require support from the state. It is necessary to have extensive connections between actors participating in the production development process and the participation of businesses.

#### ***D) Supplying Materials for Agricultural Commodity Production***

Materials supplied for agricultural commodity production include seedlings, fertilizers, animal feed, pesticides, veterinary drugs, preservatives, tools, transportation packaging, and other materials such as packaging materials, and garden tools. In addition, establishments providing inputs for commodity agricultural production can also provide machinery, equipment, labor, capital, and market information to farmers. Agricultural material business establishments need to register their business, provide items on the list permitted by the state, and take measures to improve and increase competitiveness and prevent business risks, fire risks, and environmental pollution. If they violate regulations on business registration, selling goods of unknown origin, prohibited goods, or tax evasion, business establishments will face handling of violations and loss of their right to practice or revoke business licenses (Vietnam National Assembly, 2013). To develop commodity agricultural production while increasing competitiveness and sustainable development, the establishments need to provide materials of good quality and reasonable prices. Products must have a clear origin and be provided in full quantity and type. The establishments must maintain business reputation, ensure safety and environmental protection, and absorb and apply new

technology products.

#### ***E) Applying Science, Technology and Techniques to Produce Agricultural Products***

Agricultural production development not only depends on capital, labor, and natural resources but is also closely linked to the development of related science and technology. The majority of developing countries are agricultural economies characterized by low productivity, operating on small farms with inadequate and poor infrastructure. One of the ways of intervention for development is the “Application of Science and Technology in Rural Areas (ASTRA)” to transform rural areas towards sustainable and profitable livelihood development (Ananth et al., 2014 ). Advances in breeding science, care, harvesting and preservation techniques, pest control measures, and Modern production management methods will contribute to improving product value, productivity, quality, and efficiency of product production (Pham Ngoc Linh and Nguyen Thi Kim Dung, 2015). Agricultural products often have large volumes and high water content, so they are easily crushed, have high loss rates in volume and quality, are difficult to transport and preserve, and have short harvest times. These issues require solutions related to research and application of science, technology, and techniques in the stages of production, harvesting, classification, packaging, preservation, and processing. All are aimed at expanding consumption markets and improving the value of agricultural commodity production.

#### ***F) Developing Human Resources to Serve Agricultural Commodity Production***

Human resources participating in the development of agricultural production include direct and indirect labor at all stages of agricultural production and marketing. Assessing the quality of human resources participating in agricultural production development requires an analysis based on aspects of age, education level, and gender. Regarding age, according to Regnard (2006), age determines the level of wealth, maturity of each individual, and the ability to make reasonable decisions, as well as the maturity of relationships in each person’s life. The age structure can be used to improve understanding of a community’s labor potential.

Regarding educational level, Hanushek (2013) studied cognitive skills and years of schooling to evaluate human capital for economic growth. The results show that the average number of years of education has a positive impact on economic growth in developing countries. Nguyen Ngoc Hung (2016) also affirms that improving knowledge for human development and economic growth and educational factors are assessed through the index of adult literacy, which has a positive impact and immediate economic growth in Vietnam. Regarding gender, the role of female workers has been recognized and increasingly enhanced, they have played an important role in socio-economic development in general and rural household economy in particular (Le Ngoc Nuong, 2013). Training and developing human resources is a decisive factor for economic growth and development. In today’s era, humans are considered a special “resource” and an important source of development. For that reason, human resource development occupies a central position in the resource development system (Nguyen Mau Dung, 2011). Researching solutions to develop agricultural commodity production requires researching solutions to improve the quality of human resources participating in the production and marketing of products. It is necessary to ensure a reasonable age structure, improve labor qualifications, and pay attention to gender policy.

#### ***G) Building a Brand And Developing a Market for Agricultural Products***

Previously, Vietnam’s agricultural products were mainly used directly and eaten fresh, and the output was mainly only enough to supply the domestic market. In recent years, when Vietnam joined the WTO and signed many international trade agreements, Vietnamese agricultural products have had the opportunity to export to other countries. However, if Vietnam wants to enter the world market, it requires ensuring the quantity and quality of agricultural products and applying quality management measures according to GAP standards. It is necessary to build and develop chain models of safe agricultural production combined with encouraging the development of high-tech agriculture, organic agriculture, and good agricultural production practices, and advanced quality management programs (Tran Huu Cuong, 2008). But integration also means that Vietnam’s agricultural products are competed with by imported agricultural products. If there is no strategy to develop production in the integration trend, Vietnamese agricultural products will also be at risk of being defeated in the domestic market. An important factor that directly impacts the economic efficiency of agricultural commodity producers is price. Reality shows that Vietnamese farmers still face difficult situations: “A good crop loses its value, a good price loses a crop” (Dang Kim Son, 2006). Because the market for selling products is still limited in and near the production areas, when the supply exceeds the demand, it inevitably leads to a decrease in price or even unsaleability. This creates the risk of farmers converting their production objects, making the development of agricultural commodity production unstable and unsustainable. It is necessary to build brands for products and develop domestic and export markets.

#### ***H) Evaluating Economic Results and Efficiency of Developing Commodity Agricultural Production***

Implementing solutions to develop agricultural commodity production brings high economic results and efficiency. Evaluating results and economic efficiency is decisive for the existence and development of commodity production. This is the

process of monitoring, calculating and analyzing all actual revenues and expenses during the production process. At the same time, it is a tool and method for planned and economical production management. It is the basis for determining reasonable product selling prices that both ensure profits and competitiveness of products (Dao The Tuan, 2015). At the same time, evaluating the results and economic efficiency of production is also the basis for providing appropriate solutions to develop commodity agricultural production. Developing commodity production will also require producers to effectively use inputs, apply scientific and technical advances to improve productivity and product quality, save costs, and reduce production costs. At the same time, production must be linked to market demand and consumer satisfaction. The results and economic efficiency of agricultural commodity production are also a measure of the effectiveness of implementing solutions. From there, there is a basis to adjust and perfect solutions to develop agricultural commodity production in the coming time.

### **III. RECOMMENDED SOLUTIONS FOR DEVELOPING COMMODITY AGRICULTURAL PRODUCTION IN THE TREND OF INTERNATIONAL INTEGRATION IN VIETNAM**

#### **A) Solutions on Guidelines and Policies**

(1) Propagate and disseminate specific policies to all classes of people. Encourage and create conditions for local people to access policies. Effectively exploit the resources of farming households to develop commodity-oriented agricultural production. Create favorable conditions for businesses to enjoy State support policies. Encourage businesses to invest in agriculture and rural areas, especially policies to attract businesses to invest in the production, preservation, processing, and marketing of agricultural products.

(2) Effectively implement the policies that the state has issued, such as Policy on developing commodity production, Policy on applying science and technology to production, improving productivity and product quality, Farm economic development policy, Policies to encourage businesses to contract with farmers to distribute products; Preferential credit policy; Preferential land policies for businesses investing in agricultural production; Vocational training policy for rural workers.

(3) Implement the integration of capital sources from national target programs with support programs and projects with the goal of developing concentrated agricultural production areas in localities. Mobilize socialized resources for investment in production development and marketing of agricultural products.

(4) Implement loan support policies: It is necessary to promote lending to agricultural producers from loan sources. On the other hand, it is possible to integrate capital from national target programs such as production development capital into new rural development programs, Capital of poverty reduction program 134, 135, and capital of the rural credit program. Encourage the establishment of people's credit funds in communes to more conveniently meet people's loan needs. Simplify lending procedures and conditions so that poor households truly lacking capital can access loans for production. In addition, credit institutions need to closely monitor the use of loans by farmer households, minimizing cases of loans used for improper purposes.

(5) Supplement and complete a number of policies: Land policy, Infrastructure investment policy, Policies to support suppliers of input materials for agricultural production, Loan support policy, Policies to encourage the implementation of projects to develop commodity agricultural production, Human resource development policy; Policy on developing links in production and marketing of products; Policy for developing agricultural product processing industry. Policy on market development and export of agricultural products.

#### **B) Solutions For Planning and Management of Production Areas**

(1) Review, edit, supplement, and promulgate mechanisms, policies, and planning to ensure synchronization, stability, sustainability, and suitability to the actual situation; Closely link the development of agricultural commodity production with the development of preservation and processing industries and export markets; Develop a plan for training high-quality human resources to serve the development of commodity-oriented agricultural production; Build infrastructure to serve production development such as roads, irrigation, storage warehouses, and processing facilities.

(2) Land recovery, compensation, and clearance to create favorable conditions for production and business premises, thereby attracting investors to participate in developing production, preservation, processing, and marketing of agricultural products. Encourage and create favorable conditions for domestic and foreign organizations and individuals to lease land, transfer land use rights to invest in agricultural production, build wholesale markets, produce seedlings, and construct factories to preserve and process products.

(3) Encourage land consolidation to increase the scale of farm households' land area for agricultural product production to optimize land use efficiency and implement mechanization in production. There are specific planning measures to allocate land to each farmer's household. Simplify procedures and create favorable conditions for transfer, lease, and land accumulation to attract potential investors to participate in agricultural commodity production.

(4) Implement production zoning, manage the implementation of planning and projects, and combine agriculture with industry and services to promote production and avoid spontaneous development. Planning for agricultural product production areas must be linked to the qualifications and customs of local people, with special attention to ethnic minorities. Planning also needs to pay attention to the development of production areas combined with eco-tourism and resort tourism, associated with the local tourism development strategy. Propagate and publicize the plans. Assign departments, branches, and local authorities to manage and supervise the implementation of plans.

(5) Support policies for agricultural and rural development need to closely adhere to plans to form large-scale agricultural commodity production areas with high output and product quality associated with planning for the development of agricultural processing and export industries.

### **C) Infrastructure Investment Solutions**

#### **a. Regarding mechanisms and policies to attract investment capital:**

- Integrate target programs on rural infrastructure construction to create a breakthrough in the development of agricultural commodity production in each locality.
- In addition to state budget capital, localities need to have policies to attract investors, businesses, and non-governmental organizations to mobilize capital to build local infrastructure systems.
- Implement policies to prioritize supporting and attracting businesses and investors, such as land policy, credit policy, tax exemption, and reduction policies, and create a legal corridor and favorable business environment.

#### **b. Regarding investment items:**

- Transportation: Continue to build and improve the rural transportation system and inland roads in both quantity and quality of works to meet the needs of travel and transportation of materials and goods in agricultural production areas commodity production. Complete traffic investment projects for agricultural commodity production areas.
- Irrigation: Invest in renovating and upgrading irrigation systems that are severely damaged and at risk of being broken. Build new projects to improve the efficiency of using projects, ensuring irrigation water to serve agricultural commodity production areas. Special attention is paid to building irrigation works to serve advanced farming methods and water-saving irrigation, such as Israeli technology irrigation systems, water pump systems, and water tanks on steep mountain slopes.
- Electrical system: Complete the project to build and renovate the electrical system for concentrated agricultural commodity production areas. Building a new electrical system to ensure adequate electricity supply to serve the production of farming households. At the same time, plan the electrical system to meet the demand for electricity for production in industrial parks that preserve and process agricultural products.
- Infrastructure for harvesting, preservation, and processing: Investing in the construction of new projects such as wholesale markets, storage warehouses, sorting and packaging facilities, and processing factories. These facilities serve to facilitate the purchase and distribution of products during the harvest season in order to reduce post-harvest losses and increase the value of agricultural products.
- Other investment items: in addition to the above items, the infrastructure system also requires synchronous and timely investment. Some items need to be invested in new construction, such as seedling production facilities, warehouses, tanks, premises, and means of transport to supply input materials; facilities manufacturing equipment and tools for production; materials and labels for packaging and transporting agricultural products.

### **D) Solutions for Supplying Materials for Agricultural Commodity Production**

- Local authorities need to take measures to create a healthy, competitive business environment. Resolutely stop operating establishments without business registration and tax evasion. Create a fair business environment for agricultural material businesses.
- The authorities need to review and inspect business conditions, strengthen inspection and supervision, and strictly handle cases of trading in unauthorized materials, unknown origin, counterfeit goods, illegal goods, imitation and prohibited chemicals.
- There are policies to support material business establishments to borrow capital at preferential interest rates. Simplify lending procedures so they can access loans, diversify business products to meet market needs, and provide materials for farmers by deferred or installment payments.
- Support for granting business premises and building warehouse tanks, equipping fire and explosion prevention equipment, building warehouses to preserve materials, and investing in transportation vehicles to provide materials promptly on-site for producers.
- Training and educating household heads and workers in production areas on economic management knowledge,

organizing accounting work and applying information technology in business management; Methods of using materials for agricultural commodity production; preserving materials, preventing fire and explosion, and environmental protection.

- Provide complete and timely information on input and output markets and forecast information; State guidelines, policies or regulations on the list of prohibited materials. Information about changes in the types of materials of manufacturers and market needs so that business establishments can make timely adjustments to avoid violating the law or having a backlog of old products unsold, causing losses.

#### ***E) Solutions In Science, Technology and Engineering***

(1) Regarding plant and animal varieties: Select and breed plant and animal varieties with good disease resistance, high productivity and quality to put into production while preserving precious genetic resources. Research spread-crop varieties to limit seasonality in product production and harvesting. Implement price support policies for farmers when purchasing seedlings from licensed production facilities to encourage farmers to use good plant and animal varieties. Policies to support farmers in areas planned for concentrated agricultural commodity production need to be associated with a commitment that they must use designated plant and animal varieties in new and re-farming.

(2) Regarding production techniques: Producing agricultural products according to the model of high-tech agriculture. Build models and projects to transfer scientific and technical advances and apply mechanization to the stages of production, harvesting, cultivation, and economical irrigation. Applying advanced technical measures such as fertilizing, caring for plants and animals according to their needs, and supplementing missing macro and micro elements according to each growth stage of plants and animals. Use manure and organic fertilizers to improve soil and limit erosion. Control pests and diseases. Implement IPM-integrated pest control measures synchronously. Apply safe, environmentally friendly pest control measures and ensure better quality of agricultural products. Local authorities also need to establish technical guidance teams for farmers producing agricultural products. At the same time, closely inspect and monitor the process of caring for and harvesting products of farmers. Issuing certificates to farmers producing agricultural products according to VietGAP or organic models. Replicate the VietGAP model to increase productivity and quality of agricultural products.

(3) Regarding techniques for harvesting, preserving, and processing agricultural products: Implement harvesting measures to ensure correct techniques and the right season to reduce the rate of damaged products and avoid affecting the output and quality of agricultural products. Research and invent means and tools to support the harvesting and transportation of agricultural products. Equipped with appropriate means to transport agricultural products from the place of production to the place of sale to ensure quick and timely delivery, reducing post-harvest losses.

- Instruct producers to apply product preservation immediately after harvest, such as packaging for transportation, to avoid product being crushed during transportation. Implement measures to preserve products after harvest. Invest in building cold storage to preserve products. It is strictly prohibited to preserve agricultural products with chemicals, especially the use of industrial chemicals of unknown origin, which can affect the health of consumers and pollute the environment.
- It is necessary to research and manufacture materials, packaging, labels, carton boxes, containers, and specialized vehicles to transport and preserve agricultural products. This is to keep products fresh longer, reduce post-harvest losses, extend sales time and be able to be transported for sale in distant domestic and export markets. Research and application of agricultural product processing technologies. Applying advanced technology and techniques to process products that meet the needs and tastes of domestic and foreign consumers.

#### ***F) Human Resources Solutions***

(1) For suppliers: support training for suppliers on knowledge and skills of the industry, technical procedures for storage, preservation, and supply of materials. Guide them to take measures to prevent risks, ensure safety, and improve business management skills and awareness of sustainable development.

(2) For producers: Strengthen training and coaching to improve knowledge levels and disseminate techniques to producers. Training programs need to be implemented synchronously and effectively. Pay attention to farming households in remote areas, ethnic minorities, women, and people with little access to information and scientific and technical advances. Attracting a highly qualified young workforce to participate in production and business management in the agricultural sector. Especially develop a strategy to train farmers' children in the production, business, preservation and processing of agricultural products because they will be the team that inherits land and resources from their parents to develop agricultural production.

Coordinate with universities and research institutes to train typical, advanced farmers who are able to apply new technical advances in production. And from there, they can pass on their experience and understanding to other farmers to follow.

Training farmers on techniques for growing, caring for, harvesting and preserving agricultural products, helping them apply new scientific and technical advances in production and business. Integrate training programs and projects for farmers, helping them have both knowledge of farming techniques and knowledge of production and business management. Mobilize farmers with experience in agricultural production to participate in developing commodity production. Enhance knowledge of economic accounting in production and business for producers.

(3) For traders: Support training and coaching for traders in business knowledge and skills; Product preservation measures to ensure food safety; protect the interests and health of consumers; Improve business management skills and awareness of sustainable development.

(4) For scientists and experts: Allocate funding sources for scientific activities of localities to carry out projects related to the development of production and marketing of agricultural products in the fields of seed production, fertilizer, animal feed, pest control, preservation, processing, product branding, expand markets. Have policies to attract and remunerate scientists and economic experts, encouraging them to participate in programs, projects, and scientific research to develop agricultural production. Strengthen the connection between producers and scientists in the form of signing research contracts, and transferring and applying science, technology, and techniques to production. Through organizations representing farmers, such as cooperative groups, cooperatives, and commodity associations, collect service fees to form funds to develop scientific activities and fulfill orders with scientists.

(5) For state officials: Participating in supporting the development of production and trading of agricultural products are state officials at all levels of provincial, district, commune, and village authorities. They work in the fields of state management, agricultural extension, cultivation, plant protection, irrigation, trade... There needs to be preferential policies to attract talented, dedicated, and long-term workers. Such as preferential policies on the state payroll, salaries, working conditions, training, and fostering to develop the quantity and quality of this team. Training to improve professional qualifications for technical staff of centers such as science and technology research and transfer centers, agricultural extension centers, and plant protection centers. Help them improve their professional capacity to direct and guide farmers on techniques for cultivating, caring for, harvesting, and preserving agricultural products.

(6) For organizations and associations: Guide cooperative groups, cooperatives, industry associations, and businesses participating in the agricultural sector to improve the quality of operations and attract more members to participate, thereby guiding them to develop agricultural production according to plans and orientations, avoiding spontaneous development. Strengthen and promote the role of organizations and associations as a bridge between farmers and businesses, state agencies, and consumers at home and abroad. Protect the legitimate rights and interests of members. Implement product market orientation. Propagate, disseminate and encourage members to apply advanced science and technology to production. Proposing methods of linking and cooperating in product production and marketing. Advise and propose solutions to reduce intermediaries in purchasing agricultural products. Propose mechanisms, policies, and solutions to develop sustainable agricultural production and marketing. Training and fostering to improve management skills and capacity for the executive management team. Have appropriate financial mechanisms to maintain and improve the operational efficiency of these organizations.

#### **G) Solutions for Linking and Developing Product Value Chains**

(1) Disseminate knowledge and approaches to agricultural value chains to farmers.

Signing economic contracts and commercial agreements between actors participating in the product value chain. Establishing cooperative groups and cooperatives helps manage the product chain effectively, reduce production costs from input to output, and manage product quality, improving the added value of the industries. At the same time, it improves competitiveness in the quality and price of products. Strengthen the signing of product sales contracts with commercial intermediaries to stabilize prices and output. This helps producers focus resources on production and improve economic efficiency.

(2) Organize seminars between 4 actors: the state, scientists, farmers, and businesses. These are forums for actors participating in the product value chain to discuss, share, and express their wishes. All activities aim to encourage actors to link together to increase value and profits in production and business. Forming linkages in agricultural commodity production helps manage risks along supply chains better. Along with that, collecting, packaging, preserving, and processing agricultural products will be more effective.

(3) Form cooperatives to participate in the production and trading of agricultural products. These cooperatives provide services and inputs, collect and market agricultural products, and Cooperate with commercial intermediaries and producers to create conditions for actors to participate in a closely linked chain. Attract farmers to join cooperatives and associations to strengthen relationships between farmers through these organizations. Improve the operational capacity of farmers'

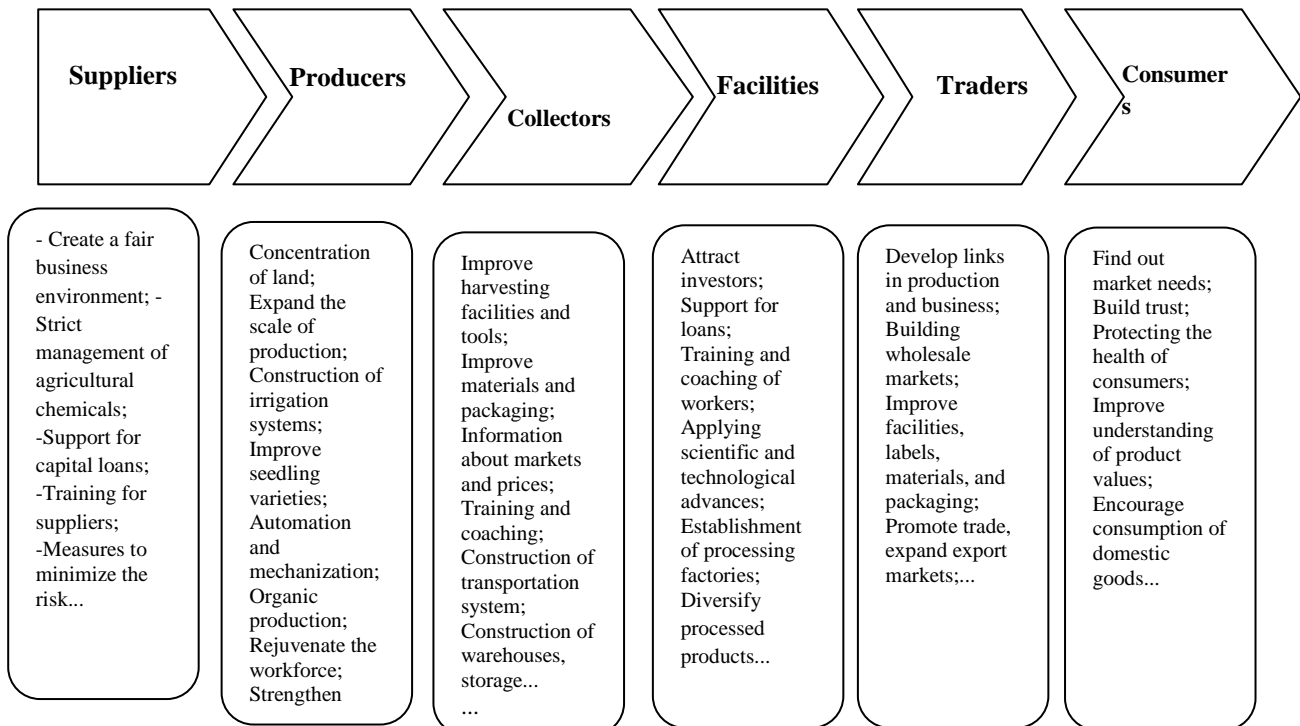
organizations so that these organizations truly become a support for producers. Cooperatives are a bridge between producers, businesses, investors, scientists, and the government. They protect the legitimate rights and interests of members. They orient domestic and foreign consumption markets. They carry out propaganda dissemination and encourage members to apply science and technology to production. They propose methods to link and cooperate in producing and marketing products. At the same time, they advise and propose solutions to reduce intermediaries in production and business and propose mechanisms and policies to develop the production and distribution of agricultural products.

(4) Increase the operational efficiency of intermediaries participating in logistics activities. Implement measures to reduce losses due to rotten products in the commercial process, save time and transportation costs, to ensure that producers enjoy higher selling prices and consumers can buy at lower prices. However, it still ensures the benefits of commercial intermediaries and improves economic efficiency in marketing activities.

(5) Develop horizontal linkages between farming households to form large-scale, concentrated agricultural commodity production areas. Through participating in cooperatives and associations, these farmers can share experiences and techniques of growing and caring for plants and animals. They jointly sign contracts for input and output. From there, they both benefit and reach collective agreements. When farmers are closely linked together, they will jointly implement and monitor each other's correct implementation of technical processes in production. This ensures that production activities take place safely, protects the ecological environment, and ensures product quality. Production for collective, community and social benefits. At the same time, the association of farmer households will create a common voice in economic transactions on price, quantity, type, and time of supply of goods and services both at the input and output stages. This helps them avoid price pressures or losses in economic transactions.

(6) Develop vertical linkage relationships between farmer households and other actors in the product supply chain, including suppliers, traders, scientists, investors, government, and consumers. To sustainably develop these linkages, farming households must sign contracts in economic transactions (input supply contracts, product supply contracts, credit contracts, science and technology transfer contracts.) with other actors in the value chains. At the same time, they must comply with the terms committed in signed contracts to ensure close and sustainable cooperation on the principle of mutual benefit.

(7) It is also necessary to implement synchronous and comprehensive solutions to develop links between actors in product value chains, to improve operational efficiency and upgrade agricultural commodity value chains. Based on the functions and roles of each actor participating in each product value chain, impact solutions can be proposed in each stage of the value chain of each type of agricultural commodity according to Diagram 3.1.



**Diagram 3.1. Solutions for developing agricultural commodity value chains**



In addition to solutions for each stage in the supply chain, policymakers also consider other solutions related to the entire agricultural commodity supply chain, such as: Protecting the ecological environment; Implement measures to overcome seasonality; Develop linkages and encourage signing contracts in economic transactions such as on supplying inputs, on producing and selling products, on science and technology transfer... Improve the operational efficiency of each actor participating in the agricultural commodity value chain. Solutions need to be implemented synchronously and effectively to develop concentrated and sustainable agricultural commodity production areas.

#### **H) Solutions for Brand Development and Market Expansion for Agricultural Products**

(1) There should be strict management measures for agricultural chemicals, especially banned pesticides and, animal feed, and products of unknown origin. It is recommended that farmers use fertilizers and animal feed that are balanced and appropriate to actual conditions. Encourage them to use chemicals of biological origin. Organize training courses for agricultural product producers on techniques for using plant protection chemicals and disease prevention. It is necessary to minimize the use of pesticides. Encourage farmers to apply IPM-integrated pest management measures and use biological pesticides. This is to limit negative impacts on the environment and public health while ensuring product quality.

(2) There needs to be measures to select and differentiate purchasing prices between agricultural products produced according to VietGAP standards and products mass produced without standards. Pay higher purchasing prices to farmers; Apply brand and traceability stamps to products; Packaging clearly stating product information and geographical indications; Implement measures to increase the ratio of agricultural products to goods, increase the ratio of products consumed with labels, boxes and bags. These are important measures to encourage farmers to apply production processes according to VietGAP standards, to ensure product quality and create trust for consumers.

(3) Strengthen exploration and search for customer needs in domestic and foreign markets. Grasp consumer needs, tastes, payment ability, transportation methods as well as types, designs, styles and ways of consuming products of consumers. Introduce and promote products at fairs, festivals, and product display stores. Organize customer conferences with private traders and agricultural export enterprises. Ensuring to meet consumer needs for quality products; available, easy to buy, good price; beautiful form and design; have a brand and reputation; Ensure food safety.

(4) Propagate, promote and improve consumer awareness of product brands. Promote the creation of product distribution chains in supermarkets. Putting products on electronic trading floors to promote and connect product consumption with domestic and export markets. Introduce and promote brands abroad in many languages via the Internet. Have policies to attract and favor businesses that are wholesalers for purchasing, distributing, and selling agricultural products domestically and internationally.

(5) Implement policies to support investment in technical equipment for organizations and individuals investing in processing facilities and storage warehouses. At the same time, build an information system to update and forecast the market as well as fluctuations in product prices at home and abroad. On that basis, provide information to producers so they can proactively produce and do business with reasonable quantities and prices.

(6) Build diverse distribution channels so that products can easily reach consumers. Product selling locations can be in supermarkets, stores, markets, or home delivery. Establish a product distribution channel system along the value chain from farm to table. Increase signing of product sales contracts. These are essential solutions to ensure stable production as well as reasonable purchasing prices, ensuring benefits for actors participating in product value chains.

(7) Strengthen training and improve trade promotion capacity for officials working in market development. Training and support in marketing and sales skills for cooperatives and farmer households. Prioritize allocating funds for trade promotion of agricultural products, especially exports.

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