

HIGH QUALITY HUMAN RESOURCES - KEY FACTOR ENSURES THE SUSTAINABLE AGRICULTURE DEVELOPMENT IN VIETNAM NOWADAYS

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Abstract

In the present period, developing the sustainable agriculture has become the main concern all of countries in the world. In Vietnam, Party and State have perceived the importance of sustainable development, establishing the opinions of sustainable development into the resolutions, strategies and socio-economic developmental plans in general, agricultural development in particular. Government established system of the total solutions to develop sustainable agriculture, especially high-quality human resources that play significant roles in developmental strategies. The article generalized the state of agricultural production in Vietnam in recent years. Base on analyzing the role of high-quality human resources for sustainable agricultural development, the article proposes some of the essential solutions to develop high-quality human resources to meet the requirements of sustainable agricultural development in the international integration in Vietnam nowadays.

Keywords: *High quality human resources, agriculture, sustainable development, human resources.*

1. Introduction

Agriculture is the specific domain that play particularly important role in socio-economic development, contributing to ensure national defense security and raising the national position in the international arena. The development of agriculture and rural areas has been identified by the Communist Party of Vietnam as a strategic mission to meet the requirements of industrialization and modernization of the country.

Nowadays, many countries are confronting with the competition of the scientific and technological revolution (especially the Fourth Industrial Revolution) that is more and more fierce in the worldwide globalization and international integration period. Besides, the opportunities and advantages of developing in agriculture, Vietnam is also facing the difficulties and challenges in this competition. In this context, Vietnam's agriculture needs to change to adapt and develop sustainably to achieve these targets. Therefore, developing high-quality human resources is one of the breakthroughs and key issues that determines the industrialization, modernization of agriculture, developing Vietnam's agriculture follow

the modern and sustainable way.

2. Methods

The article used an overall and comprehensive approach to collect and summarize the last studies and reports that related to this topic. All of the data was collected based on second-level data by a number of organizations such as the Communist Party of Vietnam, the Ministry of Agriculture and Rural Development, and the General Statistics Office.

3. Results

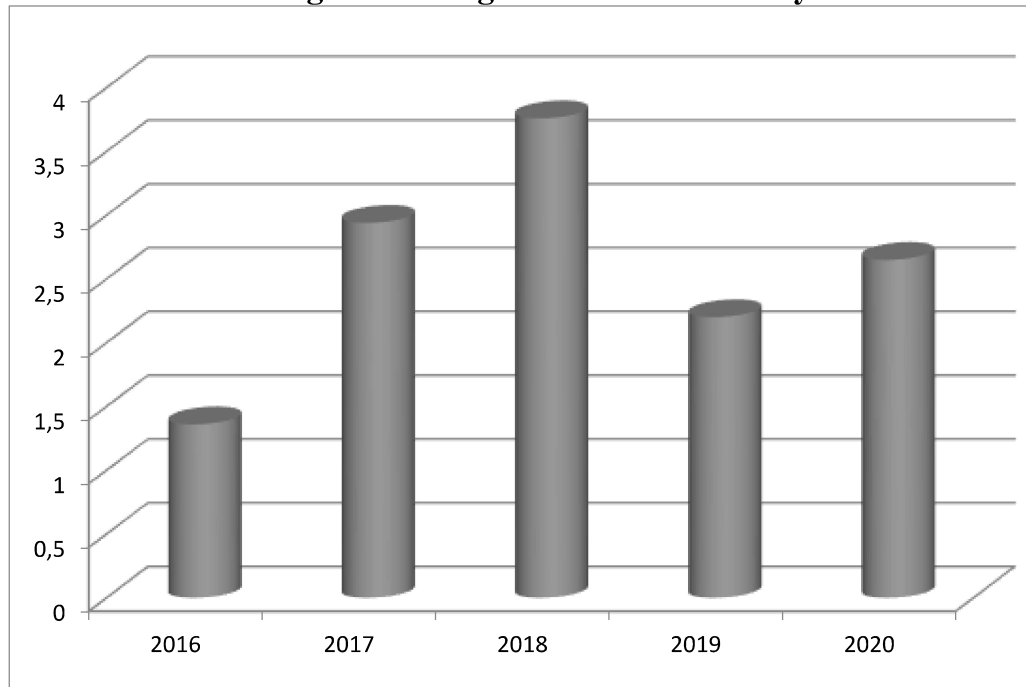
3.1. Overview of the situation of agricultural production and human resources agriculture in Vietnam recently

Vietnam is the developing country; agriculture is still one of an economic field that has made an important contribution to the socio-economic development in Vietnam. Over 35 years of conducting the comprehensive national innovation, under the attention of the Party, the State, Vietnam's agriculture has gained the huge achievements. The rate of average growth reached about 3.5% per year that was the high rate in Asia in general, Southeast Asia in particular. After a prolonged period of provisions shortages, Vietnam has gradually become one of the powerful countries about exporting of agricultural products in the world. During the period 2008 - 2017, the GDP growth rate of Vietnam's agricultural sector reached an average of 2.66% per year.

In 2020, In the context of the difficulty and complex numerous problems happened not only in Vietnam but also many countries in the world, especially the impact of the Covid-19 pandemic, Vietnam's agriculture still maintains a growth momentum of 2.65%, the total exported turnover reaches 41.2 billion USD¹. Vietnam's agricultural consumption market is expanding, the structure of production is more efficient and associated with the market demand. Many productive models were applied high technology, organic agricultural production that were deployed to bring many great values of goods. The internal structure of agriculture shifts towards promoting advantages, relating to market demand and adapting to climate change. Agricultural development has been associated with the effective exploitation of natural resources, reducing the environmental pollution and solving the social problems such as employment, economic restructuring, ensuring national food security. On the international level, Vietnam's agriculture is gradually participating strongly in the process of integration and globalization; the quality of life in many rural areas changed; the material and spiritual life of the citizen in most rural areas is improving.

⁹⁷Ministry of Agriculture and Rural Development (2020), *Summary report on implementation of agricultural and rural development plans in 2020 and implementation of the plan in 2021*, Hanoi.

The agricultural growth rate over the years



(Source: analyzed from the General Statistics Office: Report on socio-economic situation years 2016, 2017, 2018, 2019, 2020).

Although Vietnam's agriculture has gained the remarkable achievements but the quality, sustainability and method of agriculture develops still exist many limitations and inadequacy. The growth rate of the agricultural sector is unstable, the competitiveness is still low and promoting resources for production development is not high (the growth rate in the years from 2016 to 2020 about 1.36%, 2.94%, 3.76%, 2.2% and 2.65%, etc.). Transferring about the economic structure and innovating of production method in agriculture is slow, the small and scattered production is still popular; the productivity, quality and added value of many items are low, economic structure and labor in rural areas are still shifting slowly. Lack of planning for developing agriculture and rural, socio-economic infrastructure is still weak, the environment is increasingly polluted; the capacity to adapt and deal with natural disasters is still limited. The material and spiritual life of a part of rural people is still low, the proportion of poor households is unsustainable, especially in ethnic minority.

There are many reasons leading to these limitations, but the most basic reason is that our country's agricultural human resources are still limited and inadequate. As a developing country, the scale of human resources in the agricultural sector accounts for a large proportion of the total human resources of the Vietnamese economy. Along with the development of the country, human resources in agriculture will decrease in both quantity and proportion in total human resources of society. When the number of human resources in the agricultural sector is decreasing, the requirements for capacity, qualifications, qualities and skills of the remaining human resources must be higher to meet the requirements of

accelerating industrialization and modernization. of agriculture and rural areas. This is the objective law of the process of industrialization and modernization of the country.

However, the proportion of employees that have the agriculture's technical qualifications is still low when people compared to the labor market's needs. Results of vocational training and job creation for rural workers, especially in areas where agricultural land is recovered, are still limited. The proportion of sustainable jobs increases slowly, unstable jobs, temporary jobs are still quite high; The young workforce tends to move away from agriculture and rural areas. The limitations on the qualifications of human resources in agriculture directly hinder the process of transferring and applying the achievements of modern science and technology and advanced techniques into production.

In the next years, the worldwide background and Asia zone is predicted to continue to be complicated, unpredictable: slow economic growth; the commercial wars among the economic powerful countries; the trend of increasing the use of technical barriers and the method about commercial defenses increase to protect domestic production; the fourth industrial revolution is impacting strongly to many aspects; the Covid-19 pandemic has erupted and spreading in important export markets of Vietnam's agriculture, forestry and fisheries. China, EU and the US had to take the preventive measures that have caused of the disruptions to the global supply chain;... Facing the new pressures, developing the comprehensive agriculture towards sustainability becomes a strategic goal that our Party and people are determined to implement. The Resolution of the 13th Congress of the Party determined: "Continuing to effectively implement the policy of agricultural restructuring, agricultural development, rural economy associated with new rural construction towards ecological agriculture, modern rural areas and civilized peasants"². In order to construct and develop a smart agriculture, international integration, climate change adaptability, value-added raising and sustainable development need to perform drastically and synchronize many solutions, in which the development of high-quality human resources is identified as a significant strategic which plays a key role in the decision.

3.2. The role of high-quality human resources in the sustainable agricultural development in Vietnam present

The sustainable agricultural development is a developmental model that is associated among agricultural growth and the natural environment, poverty and the habitat of farmers as well as rural people. Developing the sustainable agriculture and constructing a new rural need to ensure the effective economic development, a fair society and protect the natural environment. Accordingly, the role of high-quality human resources in sustainable agricultural development in Vietnam is presented in some key aspects such as:

Firstly, the high quality human resources of agriculture are the management of the vital forces, exploiting and promoting effectively resources for the sustainable agricultural development.

Man plays the significant role of the developmental strategy, as well as the subject of development. In the process of production, humans are not only a constituent factor but also a decisive factor in the exploitation, use, protection and regeneration of other resources. In fact, all of natural resources, technical facilities, and technical science are limited, it can only promote the effect through the role of human resources. There are many potential and advantages about geographical conditions, natural resources, technical science and labor ... to develop a tropical agriculture towards the modern in Vietnam. However, the process of exploiting, use and promote those potentials depends on the qualities and capacity of the workforce in this field. High-quality human resources are workforce which were trained basically and professionally with the high technical qualifications. They are a vital force in studying and evaluating the potentials; determining strengths and the advantages to compare with agricultural development of each region in the country. Thence, managers advise and propose the appropriate strategies for rural agricultural development.

In recent years, Vietnam's resources are severely impaired, the process of the fast industrialization, modernization and urbanization lead to the area of agricultural land to be increasingly shrinking; the natural resources are exploited indiscriminately leading to declines, ecological imbalances. In addition, the amount of groundwater, aquatic resources, forest resources are seriously threatened from over-exploitation and unplanning ... The agriculture's high-quality human resources with their capacity and qualifications are the core force in identifying the effects of exploiting resources in the agricultural production activities and rural economy. From this basis, managers propose the solutions and directions for remediation; proposing the policies for exploiting the local advantages. The productivity of labor, crop productivity, livestock, income and benefits of workers will be guaranteed and increased when the agricultural advantages are exploited and used effectively.

Secondly, high-quality human resources in agriculture are a leading force in promoting the research and applying the achievements of modern science and technology to production. From there, improving productivity, quality, efficiency and competitiveness, and developing agriculture to meet the requirements of international integration.

Nowadays, the strong development of the modern scientific and technological revolution, especially the Fourth Industrial Revolution that is opening up the great opportunities for the development in the numerous sectors, especially agriculture. Many countries consider to apply the high technology for agriculture as a breakthrough to move from low-value-added agriculture to high-value-added knowledge-based agriculture which is also an important solution to successfully restructure in the agricultural sector. In Documents of the 13th National Congress of Delegate Vietnam's Party determined the main task in the agricultural development in the period of 2021 - 2025 as that: "Developing the agricultural goods should concentrate on the large-scale plans follow the modern path, applying the high technology, value-added improvement and sustainable development"³. In

order to achieve the goal that State proclaimed we need to conduct the researches, apply and transfer the achievements of advanced technical science into agricultural production. This process gets fast or slow, achieving the high or low efficiency depends on the role of high-quality human resources, especially science and technology staff in the field of agriculture.

High-quality human resources are a prerequisite condition for promoting the development and applying about the science and technology in the agriculture, especially the professional agricultural sector. In fact, high-quality human resources have been making outstanding contributions in the fields of state management, research and transfer of science and technology in agriculture in the whole country. The livestock crops have strongly developed base on the technical advances of science and technology such as the "3 reduce, 3 increase" system in rice intensive cultivation; the application of GAP, HACCP, ISO processes ... has a great effect on improving product quality.

Thirdly, high-quality human resources in agriculture are an important force contributing to ensuring food security, maintaining socio-political stability, improving the material and spiritual life for employees in agricultural and rural areas in Vietnam nowadays.

Food security is a critical issue that is not only a problem in the immediate future but also a long-term strategic issue of worldwide in general, Vietnam in particular. In recent years, Vietnam's agriculture has been impacted by the difficult and complex condition of the epidemics but Party and State have improved the maximum role of agriculture as a "platform" and "lifes up" for the country's economy. In the past, Vietnam had to import the food but it has become a major food export in the world today which contributes significantly about the country's economic development. To achieve those important results, it is impossible not to mention the role of high-quality human resources which were trained professionally with the basic knowledge and skills, they are also the core force for promoting the process of restructuring our country's agricultural sector towards improving the added value. Moreover, promoting the strong application of advanced technology and techniques to production, improving productivity and quality of agricultural products, developing agriculture in response to climate change, contributing to ensuring national food security, stabilizing the socio-economic situation for the country to continue to develop.

In the coming time, the worldwide political situation often has unpredictable uncertainties, climate change and increasing the complex situation of the epidemic has impacted significantly on agricultural production, but the problem of national food security is being impacted directly. The agriculture's high-quality human resources need to promote their role in forecasting the demands of domestic food and exports. From there, managers establish the plans in adjusting the activities of production, promoting industry restructuring, preventing and minimizing the effects of epidemics and weather on efficiency of production, investing all resources for agricultural development, contributing to ensuring national food security in all situations.

High-quality human resources also play an important role in contributing to the opportunities of jobs, incomes lead to improve the material and spiritual life for employees in the field of agriculture. In fact, the area of cultivated land is decreasing, labor productivity and the infrastructure conditions is still low in the agricultural and rural areas in Vietnam. Therefore, the agricultural workers' life is still lower than urban areas. Unemployment and lacking of work still remain potential in agricultural and rural areas, especially the needy areas. Due to the process of industrialization and urbanization lead to number of agricultural labor transfer from the countryside to cities for finding employment, this created the pressures on urban areas and arousing many negative social phenomena. On the other hand, the process of switching to the market mechanism led to a small part of farmers lack of land, they have to employ on the land previously owned by them. The differentiation of rich and poor in agricultural and rural areas is increasingly acute and pressing.

High-quality human resources in agriculture with a team of managers, scientists, agricultural entrepreneurs and farm owners have an important role in advising, proposing the appropriate plans and exploiting maximally the potentials and advantages of each local region. When the advantages are exploited and used effectively, the productivity of labor, crop productivity, livestock will be increased, the income and benefits of workers will be guaranteed to be higher and higher. In addition, high-quality human resources also play an important role in researching, and developing the cooperation programs; supporting farmers in production, preservation, processing and consumption of products, vocational training, improving qualifications for farmers, attracting farmers to work at high-tech agricultural production enterprises ... contributing to the chances of employment, raising incomes and improving the lives of workers in agricultural and rural areas.

Fourthly, high-quality human resources in agriculture play the important role in protecting the ecological environment of agricultural and rural areas in our country nowadays.

The development of agriculture and rural areas associated with ecological environment protection is an important objective in restructuring the agriculture developmental project as the important criteria of the National Target Program for new rural construction in Vietnam present. Implementing the above policies requires promoting the role of many organizations and forces, in which high-quality human resources play the significant role.

The agriculture's high quality human resources which are managers, experts, scientists, skilled workers have an important role in evaluating and effectively determining the effects of resource extraction (land, water, biodiversity, minerals) in activities of agricultural production to ecological balance. Thereby advising and proposing the specific solutions for the developmental programs and the projects. Supervising and checking the level of pollution and the risk of environmental pollution affect to nature and agricultural

products to identify solutions to limit and minimize to the environmental pollution. Moreover, high-quality human resources are also the core forces in the development of organic agriculture, ecological agriculture, high-tech agriculture which contributing positively to the protection of the ecological environment.

In recent years, all of countries is being impacted by the global warming and natural disasters which are increasing seriously. In addition, the epidemic situation is complicated on a huge scale which impact to the crops, livestock and humans. Thus, the number of pesticides used in agriculture will increase every year. Using products of the unknown pesticides harm seriously agricultural production and people's lives, polluting the ecological environment. Therefore, a team of experts, scientists and agricultural managers need to research and propose appropriate solutions to raise the people's awareness in using the safe of fertilizers and pesticides such as: encouraging farmers to produce and use quality pesticides and herbs, expanding the application of technical advances; the programs about improving cultivation and producing the safe crops ... to adapt to climate change and protect the ecological environment.

3.3. The basic solutions to develop high-quality human resources to meet the requirements of sustainable agricultural development in Vietnam nowadays

Firstly, improving awareness about the role of high-quality human resources for sustainable agricultural development in Vietnam nowadays.

This is the most important and decisive solution relate to the quality of high-quality human resource development to meet the requirements of agricultural and rural development in Vietnam today. The Party, State, ministries and people need to be aware of rightly the challenges about the quality of agricultural human resources in Vietnam in the context of globalized competition and the development of the modern scientific and technological revolution. Without improving the professional skills of workers through training, it is impossible to improve labor productivity in this field and therefore we cannot compete on the quality of agricultural products. These are responsibilities and duties of all levels, sectors and society, especially agriculture and rural development.

Secondly, innovating the state management about the development of high-quality human resources meets the requirements of sustainable agricultural development.

Perfecting and improving the capacity, effectiveness and efficiency of the management apparatus on human resources development of the Agriculture and Rural Development Sector. Clearly define between state management functions and career activities. Strengthening decentralization, improving the autonomy of human resources training institutions. Implementing the planning of a network of high-quality human resource training institutions for the agriculture and rural development sectors nationwide, fitting with the development orientation of sectors, regions and localities in agriculture and rural areas. Innovation in training management goes hand in hand with the innovation of recruitment

and use of high-quality human resources after training. Implementing the State's policies and having appropriate policies and mechanisms to develop high-quality human resources in agriculture including the contents of the working environment, employment policies, incomes and living conditions ... at the same time, there is a policy to prioritize and attract students to study agricultural and rural development disciplines and trades.

Thirdly, innovating the activities of training high-quality human resources in agriculture towards modern way, fitting with reality to meet the needs of rural socio-economic development in Vietnam.

Improving the quality of training, on the basis of enhancing the conditions to ensure the quality of training, especially the quality of human resources towards the output standards that fit with the needs of using high-quality labor in agriculture and rural areas. Innovating about training methods that meet the diverse needs of students and the development needs of each field of agriculture, forestry and fishery according to different levels. Connecting training institutions with production facilities in agriculture and rural areas, in order to improve professional skills for post-training students. Standardize teachers in higher education institutions and colleges to improve the quality of training of highly qualified human resources in the field of agriculture and rural development.

Focusing on improving the qualifications of technical staff and managers; there are many policies to attract high-tech labor resources. Training and retraining for people to access and use machinery and equipment in preservation, preliminary processing of agricultural products and processing of agricultural products. Strengthening the development of information technology systems, improving awareness about the policies of the Party and the state. Especially, applying new scientific and technological advances are highly applicable. Government need to encourage agricultural enterprises to apply high technology in some key products, creating conditions to entice the investments of inside and outside the province. Enlisting funding from programs, projects, integration, concessional loans from development banks, science and technology funds in combination with budget funds for agricultural and rural development to invest in infrastructure for production development, receiving technology application transfer, vocational training, technical training for high-tech agricultural production areas.

Fourthly, improving the effectiveness of vocational training for farmers before the development of the modern scientific and technological revolution.

Training on the basis of the real needs of the farmer, linking training with job settlement for workers. Relating to vocational training programs with new rural construction programs. Reviewing the list of training occupations for re-approval to suit the labor demands of enterprises and the requirements of the labor market, fitting with the new rural construction planning, meeting the task of restructuring sectors and sustainable poverty reduction on the basis of thoroughness and serious implementation of the motto "vocation is only trained when people are identified really about employment and post-apprenticeship

income".

Programs and training materials should be built flexibly and closely with reality; organizing about vocational training through many flexible and appropriate forms. In addition, training and fostering necessary knowledge and practical skills, it is recommended to focus on fostering knowledge and soft skills on labor law, labor safety, business knowledge and starting enterprises in competitive conditions of market mechanisms,... Closely attach the review and determination of the list of training occupations with the vocational orientation and advice for employees to choose. There are active methods to solve the output for agricultural products. Creating the favorable conditions for employees to borrow production and business loans and creating chances about jobs after studying to promote the effectiveness of teaching and apprenticeships.

4. Discussion and Conclusion

The sustainable agricultural development is an objective inevitable trend, it also is a developmental goal of many countries in the world. In Vietnam, the potential and advantages for agricultural development are still great. However, if people want those potentials become the reality and the developmental agriculture to become an important spearhead in the economy, we need to invest comprehensively in the development of high-quality human resources. High-quality human resources in agriculture with a team of management leaders, scientific and technological staff, entrepreneurs and workers who are professional training with the high technical qualifications, good professional skills, good health and good qualities will be the main motivation and the key factor ensuring the comprehensive development of Vietnamese agriculture in the direction of modernity, efficiency and sustainability in the current conditions of international integration.

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