NECESSITY OF PROMULGATION AND CHARACTERISTICS OF POLICIES AND LAWS ON HUMAN RESOURCE DEVELOPMENT IN THE FIELD OF AGRICULTURE

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Abstract: *In the context of globalization and extensive international integration, especially the strong development of science and technology, the agricultural sector with a focus on human resource development is one of the areas that needs paying attention to by countries. The attention shown in institutions, policy systems and laws must be complete and comprehensive when regulating this issue. However, not all countries in the world have their own legal systems on human resource development in the agricultural sector, typically Vietnam. Thus, the article points out the reasons why it is necessary to promulgate policies and laws on human resource development in the field of agriculture. Thereby, pointing out the characteristics of such policies and laws as a basis for effective planning and implementation, especially in developing countries like Vietnam.*

Key words: *policies and laws on human resource development in the field of agriculture*.

1. Statement of the problem

In today's world with the development of smart and sustainable agriculture, agricultural human resources play an increasingly important role. Only the agricultural workforce with good motivation, good knowledge and skills can ensure that the country is globally competitive. Besides, among a country's industries and sectors, agriculture still plays a vital role in ensuring food security and helping the country achieve many of the Sustainable Development Goals (SDGs) of the United Nations (UN, 2024). With the challenges associated with climate change, creating vibrant rural areas, preserving rural landscapes, caring for the environment and protecting food quality and health, etc. These things have made demands on countries, and it is necessary to set a legal framework to regulate agricultural development in general and human resource development activities in the field of agriculture in particular in the current period.

2. Literature Review

In the trend of the 4th Industrial Revolution and the trend of digital transformation, along with the orientation of building sustainable agriculture towards ecology, organic, circular, low CO2 emissions, environmental friendliness and adaptation to climate change, modern countryside and civilized knowledge farmers, meeting the requirements of international economic integration has been posing many challenges that need to studying and perfecting the institution and legal system on human resource development in the field of agriculture. Because, more than ever, the agricultural sector needs a workforce from management to scientific and technological research force and a direct production and supply workforce that not only meets the quantity but also has high quality in the current period. This is a problem in terms of national policy making to help the agricultural sector develop quickly and sustainably compared to other industries in society. Specially in the current context when the most elite workers of the countryside graduate from school, they often tend to stay in big cities and urban areas - where there are many job opportunities, high income and knowledge development. Hence, research shows the scientific basis for the need to have separate policies and laws to develop human resources in the field of agriculture. Concurrently, it shows that with the characteristics of that policy and legal system, policymakers and managers can study and refer to and use it in the process of developing, promulgating and managing implementation.

3. Research methods

The method used in this study is a qualitative research approach on data related to human resource development in the field of agriculture provided by countries and international organizations. With that main research method, it can be seen that the issue of developing and implementing policies and laws on human resource development in the field of agriculture is a very big political task posed to countries, especially countries with agriculture as the main economy such as Vietnam.

4. Discussion

4.1. The necessity of promulgating policies and laws on human resource development in the field of agriculture

Firstly, it comes from the situation and characteristics of human resources in the field of agriculture in the world.

In terms of the position and role of agriculture, agriculture has long been the backbone of human civilization, providing nutrition and livelihoods for billions of people globally. In fact, as of 2021, it is estimated that 27% of the global workforce is employed in agriculture, although this sector accounts for only 4% of global GDP (Bruno Venditti, 2023). Among them, India and China are the most populous countries, leading the rankings with 272 million and 229 million people working in the field of agriculture, respectively. Asia and Africa have the most farmers engaged in agriculture. (See also APPENDIX 1: The World Bank ranks the distribution of agricultural labor in the world's most populous countries).

Theoretically, agriculture is an activity related mainly to farming and animal husbandry. This is an activity providing food for humans to eat and drink. To obtain those finished products, agriculture uses a set of resources to produce commodity products, as well as create agricultural services. These resources or factors of production include land, labor, knowledge, capital and entrepreneurship. Among those factors, every factor faces opportunities and challenges. As for the human resources factor in the field of agriculture, the issue of regenerating agricultural human resources is becoming a significant challenge. This is a problem that almost all countries in the world face. Specifically:

First, the majority of those working in agriculture are older farmers, and young farmers are still scarce. Typically in Indonesia (Iqbal Rafani, Idha Widi Arsanti, 2023), the EU (EUROSTAT, 2022), etc. Accordingly, young farmers are less interested in agriculture because they are facing problems such as: insufficient access to knowledge, information and education; limited access to land; insufficient financial potential or insufficient access to financial services; difficulties in accessing green jobs; restrictions on access to the market; agriculture is often at risk from nature and prices; Unfavored, low-income and insufficient agricultural jobs; lack of motivation, etc. (See also APPENDIX 2).

Second, very few farm owners in agriculture are fully trained in agriculture. This is an issue that greatly affects the quality of human resources in the field of agriculture. In some EU countries, most farm managers in the EU have only practical experience without any agricultural training. Accordingly, the level of

agricultural training among farm managers is particularly low as in Romania and Greece, with only 0,7% of farm managers receiving adequate agricultural training, the overwhelming majority (94,5% and 94,1% respectively) having only practical experience. Only a small number of member states have a relatively high proportion of farm managers with adequate and agricultural training, namely the Netherlands (62,6%), Luxembourg (53,1%), France (38,4%) and Czechia (35,8%) (EUROSTAT, 2022).

Third, family agriculture is the dominant form of agriculture in developing and developed countries (Maria Toad, 2015). The way this agricultural model is organized will significantly affect the process of smart and sustainable agricultural development in countries in general and rural human resource development policies in particular. According to FAO Policy, family agriculture is a means of organizing agricultural, forestry, fisheries, grazing and aquaculture production that is managed and run by a family, and relies heavily on family labor, including women and men. In a certain respect, family agriculture is of great importance for the sustainable development of rural communities and the promotion of healthy lifestyles. Nevertheless, under the pressure of applying science and technology to agriculture, the problem of the rural population is getting older and older in addition to the problem of migration from rural to urban areas and the decline in interest in agriculture among the younger generation, etc. These things not only do not meet the changing and growing needs of the agricultural sector, but also show a lack of understanding of the role of agricultural human resources in the development of rural areas, localities and farmer households themselves. Families working in agriculture often do not apply new technology until they know the benefits or expectations, until their colleagues apply it successfully. Meanwhile, with highly educated farmers, they will quickly adopt, even look for new technologies, and be ready to try new technologies to produce products that may be risky. The objective is to achieve high profitability and efficiency in the implementation of agricultural activities.

In Vietnam, according to the International Labour Organization (ILO), Vietnam is one of the countries affected by the Fourth Industrial Revolution 4.0. Currently, Vietnam is facing many challenges such as: the level of technical expertise of human resources is still low (the workforce with technical expertise

accounts for just over 20% of the workforce); Vietnam's labor productivity is lower than many countries in Southeast Asia, etc. Besides, Vietnam is facing increasing pressure of international economic integration, because international integration inevitably requires agricultural enterprises to comply with the regulations of countries and international organizations processed products must comply with international competition laws as well as international quality standards, this is the weakness of Vietnamese agricultural enterprises. From the above issues, to improve the business capacity and competitiveness of agricultural enterprises, one of the important solutions is to increase training or retraining of human resources (Ngoc. C.T.B, 2018).

Thus, it is important for countries to evaluate the impact of agricultural human resources and understand the technological role of agricultural human resources from production, research, and management. As the technology used in agriculture is constantly evolving, future agriculture needs highly educated professionals in skills, engineering, information technology, taxation and business, and good communication skills. An education system for agricultural human resources must also meet the changing needs of smart and sustainable agriculture. Therefore, one of the keys to the success of policies and laws on human resource development in the field of agriculture is to provide practical support in terms of capacity, tools, technology, infrastructure and access to basic services such as taxes, finance, land, etc.

Secondly, stemming from the value of the three-farmer policy, it is necessary to focus resources on the labor force that is rural farmers. In principle, in order to achieve a sustainable agriculture, that is, in order to provide stable and quality victuals and food, and agricultural products to the people, that country must first rely on its own strength and internal resources. That's why some countries such as China, Vietnam, etc. have issued their own policies on development paths for the agricultural industry, including the “Tam Nong policy: agriculture, rural areas and farmers”. The purpose of this policy is to renovate the countryside comprehensively, with farmers as the center to create a solid and sustainable agriculture. At the same time, special attention is paid to the labor force that is farmers in rural areas.

Accordingly, in China – a major agricultural country in the world, agriculture is still identified as the basic sector of the national economy (Yan Li, 2021). Throughout the development of history, agriculture, rural areas and farmers have remained important issues. And after the establishment of the People's Republic of China, issues on agriculture, countrysides and farmers became priorities of the Chinese Communist Party and the work of the Chinese Government (Chen Xiwen, 2018). In 2005, at the Fifth Plenary Conference of the 16th Central Committee of the Communist Party of China, the issues of agriculture, rural areas, and farmers were officially raised, becoming a particularly important issue to focus forces on. Until 2012, China included issues on agriculture, rural areas and farmers in its National Economic Development Agenda. Accordingly, in order to adapt to the context of changing agro-industrialization and rural community, China has adopted a series of policies aimed at strengthening agriculture, benefiting rural communities and enriching farmers. These policies are designed to strengthen the role of agriculture as the foundation of the national economy, increase farmers' incomes, and promote inclusive rural development. With a system of policies to support agriculture in the new era, it has gradually formed and the most important is a strict policy on protecting agricultural land. Accordingly, responsibility for protecting agricultural land is divided and allocated to each rural household – those who are responsible for protecting basic agricultural land. As a rule, agricultural land is subject to collective household use, and farmers are only able to use the land when the state allocates or leases it. In order not to have basic agricultural land expropriated, it is mandatory for such a household to use and cultivate agricultural land, including those with the older. If they cannot do the heavy manual work, they must hire people to grow crops or their children must return to use them. The aim is to ensure that, the basic agricultural land area is not reduced, agricultural land is not used for other purposes and that agricultural land use is of better quality (MOA, 2017). Besides, China pays great attention to the quality of labor from rural farmers. Accordingly, to meet the needs of developing the agricultural and industrial sector, there needs to be a policy to solve jobs for rural workers and retrain surplus workers in rural areas. The strengthening of education and training for rural farmers is intended to help improve their quality of life, increase their employability and facilitate the transfer of labour from rural to non-agricultural

activities in urban areas in a shared and stable manner. A specific example of this policy change is The Sunshine Project, which was launched in 2004 by six ministries involved in its implementation, namely the Ministry of Agriculture (MOA), the Ministry of Labour and Social Security (MOLSS), the Ministry of Education (MOE), the Ministry of Science and Technology (MOST), the Ministry of Construction (MOC) and the Ministry of Main Finance (MOF). The Sunshine Project is one of the main components of the National Rural Worker Training Plan (2003–2010) (Ly Vuong & Greg Shaw, 2015). Accordingly, a wide range of national and local activities, policies and initiatives, all of which focus on the different aspects of training and support for surplus rural workers to meet the labour needs of urban areas and the agro-industrial sector of the People's Republic of China: policies on developing occupations that are capable of increasing the income of rural people, encouraging all types of skilled workers to return to rural areas to start a business, making efforts to maintain stable jobs, and resolving wage debt of rural workers; vocational training policy for the classification of vocational skills and certification of rural migrant workers, a subsidy system for certification of farmers' technical skills has been established, unreasonable restrictions on farmers' employment in the city have been abolished (By Li Xinping, 2022).

In Vietnam, the Tam Nong policy is recognized in Resolution No. 26-NQ/TW dated August 5th, 2008 of the Central Executive Committee on agriculture, farmers, and rural areas. Accordingly, the Resolution identifies the great view that agriculture, farmers, and rural areas have a strategic position in the cause of industrialization, modernization, construction and defense of the country, and are the important basis and force for sustainable socio-economic development, maintaining political stability, ensuring security and defense; preserve and develop national cultural identity and protect the country's ecological environment. With the implementation of the Tam Nong policy, the qualifications and education of our country's farmers are gradually improved, and the agricultural production and business thinking is constantly innovating, gradually adapting to the socialist-oriented market economy. Farmers have better promoted their role as subjects, participating in cooperating, associating, transforming production structures, economic development, restoring and developing rural industries, building new rural areas, preserving national cultural identity, maintaining political security, order, and social safety. The summary process shows that, in the 10 years of

implementing the Vocational Training Project for Rural Workers, nearly 10 million people have received vocational training nationwide, of which 4,6 million people have received training support. Particularly for agricultural vocational training, the whole country has trained 2,84 million people. The mastery capacity of farmers and rural residents is significantly enhanced through economic, political and social activities in rural areas; promote democracy in rural areas with the motto "People know, people discuss, people do, people check, people supervise, people enjoy" in implementing agricultural restructuring associated with new rural construction. Per capita income in rural areas increased 4,5 times (exceeding the set target of 2,5 times). The rate of poor households in rural areas decreased by an average of 1 – 1,5% per year (Central Economic Commission, 2022). Particularly, with the birth of Resolution No. 19-NQ/TW, dated June 16th, 2022, the Fifth Conference of the 13th Party Central Committee on agriculture, farmers, and rural areas until 2030, with a vision to 2045 (referred to as Resolution 19-NQ/TW). Accordingly, for the farmer workforce, the Resolution clearly defines the important role and position of farmers – those who determine the success of agricultural and rural development: Farmers are the subject, is the center of the process of agricultural development, rural economy and new rural construction. To associate the construction of the peasant class with agricultural development and the process of rural industrialization and urbanization. Comprehensive improvement of the material and spiritual life of farmers and rural residents. To focus on building Vietnamese farmers to develop comprehensively, be civilized, patriotic, united, autonomous, self-reliant and innovative, and have the will and desire to build a prosperous and happy homeland and country; have the qualifications, education and capacity to organize advanced production, civilized lifestyle, social responsibility, respect for law, environmental protection; enjoy the achievements of socio-economic development, gradually access urban services.

Hence, to implement the Tam Nong policy, localities first need to rely on local conditions and develop local resources. In which, the rural workforce, first of all farmers, needs to become passionate about new technology, and take advantage of techniques to put into production, processing, and trading agricultural commodity products. Simultaneously, they need to take care to develop new forms of agribusiness and improve the ecological value of countrysides by providing ecotourism services in order to promote local culture and solve the problem of

employment for the rural population. Besides, not only rural farmers but also management staff and agricultural engineers need fostering to have political commitment, meet the needs of the new era, and be able to lead the peasant workforce to build the nation's strength in the field of agriculture.

Thirdly, stemming from a new awareness of ecological agriculture (green, responsible and sustainable), modern countrysides, and smart farmers. Agriculture, like other sectors in the country's economy, besides providing agricultural products to serve consumer needs, brings negative impacts on the environment. Accordingly, with the use of many chemical fertilizers and pesticides to increase agricultural productivity to meet the needs of the growing population... all of the above activities have consequences including land degradation as well as the extinction of biodiversity, water pollution, etc. This leads to the formation and development of a new type of agriculture, sustainable agriculture. Besides, the world's population is increasing at a worrying rate, gradually robbing and limiting natural resources from future generations. This affects the right to nutritious food and fresh air of future generations. This is the problem of "headaches", "discomfort" of agricultural scientists and policymakers. Therefore, there needs to be a sustainable agricultural model to solve the above problems. The goal of sustainable agriculture is to meet the food and textile needs of the current generation without compromising the future generations' ability to meet their needs, which is a farming practice geared to long-term development. Understandably, "sustainable agriculture" is "an integrated system of plant and animal production activities with site-specific applications that will in the long run meet human food and fiber needs, improve the quality of the environment and the natural resources on which the agricultural economy depends, making the most efficient use of non-renewable, on-farm and integrating resources, when appropriate, natural biological cycles and controls, maintain the economic ability of farm operations and improve the quality of life for farmers and society as a whole" (D. Keeney, 1990). In other words, sustainable agriculture is an approach that prioritizes the health of the planet, people and ecosystems. By adopting environmentally friendly farming methods, people can produce nutritious food, protect natural resources, conserve biodiversity and mitigate climate change.

In order to have a sustainable agriculture, it is indispensable to have smart human resources, in which the agricultural forces are mainly farmers (Mi Jie, Nanseki Teruaki , Uenishi Yoshihiro and Widya Alwarritzi, 2023). Farmers play a central role in ensuring a sustainable agricultural system. Specifically, (1) Farmers can make decisions based on compiled data to optimize resource use, and increase efficiency and success of agriculture. By collecting and analyzing data on soil composition, weather patterns, performance of plant varieties, livestock, etc., farmers have certain insights. These data will help farmers make informed decisions in choosing plant and animal varieties... (2) Farmers, by applying advanced farming technologies and methods, help ensure the long-term sustainability of farming systems in agriculture. Accordingly, the challenges are posed by climate change, the scarcity of natural resources and the problem of population growth. Farmers, by prioritizing the sustainability of agriculture to protect the future of the agricultural sector for future generations after adapting to changing environmental conditions, maintaining productivity and quality of agricultural products before the instability of challenges. (3) To ensure people's health along with increasing the productivity of crops and livestock, farmers do not abuse or depend on chemicals. Accordingly, farmers adopt advanced monitoring and management techniques, specifically by using remote sensing technologies to monitor and manage health, growth, and development of crops and livestock, early detect pests and diseases and implement early intervention measures. The aim is to maximise productivity but minimise impacts on the environment. (4) The aim of sustainable agriculture is to minimize footprints that violate the environment, and conserve natural resources and biodiversity. Thus, in farming activities, farmers use advanced and modern machinery (drones and GPS-guided sensors) that will help them accurately determine input factors, minimize chemical runoff, soil erosion and pollution. It is these that reduce dependence on toxic chemicals, contributing to improving people's health and ecosystem resilience. Hence, so as to ensure the long-term sustainability of the agricultural sector, it is imperative that it accelerate the adaptation process and develop innovative methods of crop and animal production that effectively mitigate impacts on the environment, promote animal welfare, and contribute to carbon dioxide sequestration and biodiversity conservation. However, to achieve the above aim, it is indispensable to the

important role of the labor force in the field of agriculture, first and foremost the agricultural peasant force.

Fourthly, stemming from the reality of countries when the research and application of science - technology, innovation, and high-quality human resources have not become the main driving force to create a breakthrough in development for the agricultural sector. In the world, from the past decades until now, human needs for the use and supply of agricultural products for life are increasing. In addition, people's lifestyles change, along with the rapid urbanization process, impact the production, business, and consumption of agricultural products. With those developments, it has influenced the development models of agriculture in the world. To have a comprehensive and sustainable agricultural model, this mission has motivated scientists to study agriculture and agricultural producers discover new paths to overcome the crisis in food security. One of those paths is the application of digital technology in agricultural production, specifically the birth of digital agriculture (DA) – a pioneering technology helping meet the growing demand for sustainable food production. With the integration of various elements of digital agriculture such as artificial intelligence (which can provide detailed data and information to farmers, support decision making and inform many elements of agriculture is beyond farmers' control. For example, weather forecasting can help farmers better predict extreme weather events, which the U.S. Department of Agriculture estimates are responsible for 90 percent of crop failures); automation and robotics (the use of technology, program or robot to achieve results with minimal human participation, helping farmers save time and resources during seeding, harvesting and pruning. Robots can also fertilize more effectively, reducing greenhouse gas emissions.); sensors, Internet of Things (IoT) (In sustainable farming, these sensors can monitor crops and conditions in greenhouses, make recommendations for better watering and monitoring livestock to increase efficiency and reduce waste) and analyze data. When applying elements to agricultural activities, it will help reduce waste, optimize the input of farming activities and increase productivity and quality of crop production. This can help move from traditional agricultural activities to continuous automated processes, leading to increased agricultural output by allowing product and process traceability. The application of DA has provided agricultural producers with accurate observations and the given analyses that can help them and academics

make better decisions to increase productivity, improve efficiency, reduce costs and manage resources.

4.2. Characteristics of policies and laws on human resource development in the field of agriculture

Firstly, policies and laws on human resource development in the field of agriculture make an important contribution to improving the operational efficiency of the agricultural sector and the socio-economic development of the locality.

Currently, the performance of the national agricultural sector and local socio-economic development in agriculture depend on many factors, including human, cultural, economic, and institutional factors, etc. Among those factors, institutional factors, specifically the institution on human resource development holds an important position. This is an important element of the superstructure to systematically educate, train, and foster knowledge, skills, attitudes, and values of human resources so that they can contribute to realizing the development goals of the industry, the locality, and the country, while improving their own lives and the community. If there is a lack of policies and laws on educati, training and fostering human resources in the field of agriculture, production activities in agriculture are not optimal, profits decrease and poverty increases. Therefore, the benefits of policies and laws on educating, training, and fostering human resources in the field of agriculture will bring certain benefits such as: Poverty reduction and better community development (That is, through education providing farmers with the skills and knowledge they need to lift themselves and their families out of poverty, improve their livelihoods, and contribute to the economic and social development of the communities they live in); Improve productivity (for example, qualified farmers equipped with knowledge and skills that increase crop productivity and animal value); Use resources better (for example, educated farmers will be able to save water, reduce waste and optimise the use of fertilisers and pesticides; Improve economic performance (higher educated farmers tend to earn higher incomes and are better able to manage finance and investments); Enhance food security (With improved knowledge and practices, qualified farmers can ensure safe, nutritious and sustainable food production); Increase resilience (Trained farmers are better able to adapt to changing conditions and overcome challenges such as natural disasters, climate change and market volatility); Improving land use and environmental management (Qualified farmers are more likely to make informed decisions about land use, environmental protection and the conservation of natural

resources for future generations, they understand the importance of environmental protection and work to mitigate their effects on the environment); Better market opportunities (Qualified farmers will be better positioned to take advantage of market opportunities and sell their products at higher prices); Improve food quality (Qualified farmers understand the importance of food safety and quality, and strive to produce food of high standards); Strengthen gender equality (Education provides women farmers with the skills and knowledge they need to participate fully in agriculture, reduce gender inequality and empower women)... In fact, the movement, change and development of society, economy and institutions have created pressure on human resources of industries and fields including the agricultural sector. That is the pressure to perfect skills, qualifications, and abilities to adapt flexibly, in accordance with the above factors. Thus, to become a valuable labor force for agriculture and local socio-economic development, the components must constantly expand their abilities, knowledge and skills.

Secondly, the basic content of policies and laws on human resource development in the field of agriculture is to create modern human resources in order to accelerate the sustainable development of sectors, localities and countries.

Accordingly, policies and laws on developing agricultural human resources are implemented to nurture and help form skills for the workforce in the field of agricultural. Accordingly, this policy must be a closed circle including planning and plans for human resources in the field of agriculture; issues on training, fostering, and promoting values towards ensuring the quantity and quality of human resources in the field of agriculture; issues of use, maintenance, attraction and remuneration; the problem of investment of financial resources; the problem of building an information system on the labour market and the market for goods and services in the field of agriculture; the problem of regular forecasts of future trends in the supply and demand of human resources, etc. Hence, in order to create modern agricultural human resources, policies and laws must be fully comprehensive to attract, encourage, support and promote agricultural human resources. Meanwhile, in reality, agriculture is currently changing and innovating, because every year more new technologies are born. At the same time, the agricultural workforce, who is directly farmers without technical knowledge and technological expertise to program, operate and maintain highly technical machinery, will reduce the proportion of people working in agriculture. Therefore, to ensure the effectiveness of policies, there needs to be academic exchange

between research agencies and universities to meet market needs, bring high quality human resources, and opportunities for businesses when recruiting, creating diversity in employment, building a human resource network to penetrate foreign markets... Currently, in the context of globalization with the advancement of science and technology, information and communication, people's demand for providing quality agricultural services and products is constantly increasing. This puts pressure on human resource development activities in the field of agriculture. To address this problem, the problem of the organizational culture and attitudes of human resources to meet the needs of the environment must change rapidly.

Thirdly, policies and laws on human resource development in the field of agriculture are ensured by the state's responsibility.

Currently, agriculture in general and human resources in the field of agriculture in particular face many challenges such as the rapid globalization process, the introduction of new technologies very quickly and the most powerful, especially the digitalization process, etc. If the state does not anticipate the challenges, barriers and factors affecting human resources in the field of agriculture will create the consequence that work and activities in the field of agriculture will not be given the same importance as other sectors and fields of social life. This leads to the consequence of not ensuring sources of victuals and food to meet the needs of people and humanity. In fact, the main negative factors affecting policies and laws on human resources in the field of agriculture are demographic factors; awareness of smart and sustainable agricultural development; The pressure on the youth is moving to labor in large urban areas, agricultural productivity is decreasing, etc. Meanwhile, the process of converting agriculture from traditional agriculture to smart one, applying advanced techniques with robotic systems and artificial intelligence is taking place strongly in developed countries in the world. In addition, policies on human resource development in the field of agriculture provides a database for the country's human resource development strategy, and education and training plans. This binds the responsibility of all state agencies and stakeholders from both the public and private sectors to coordinate to build necessary human resources to ensure the country's sustainable economic development. Among which, the far-reaching goal of policies and laws on human resource development in the field of agriculture is to ensure a sustainable agricultural development. In which, by improving the knowledge, skills, attitudes and capacity of the agricultural workforce. For example, for farmers to promote the management of natural resources, nutrients,

pests and diseases, to apply smart measures to adapt to the climate, promote farm mechanization, etc.

Currently, one of the state's responsibilities is to ensure people's participation in the field of agriculture to create a sustainable national agriculture. Accordingly, ensuring people's participation means ensuring the right to access information, fair access to land and water resources, technology, finance, marketing, agricultural product processing, distribution agricultural products, etc. of people, especially people in rural areas, women, small farmers and people without arable land. For instance, to create employment opportunities from informal to formal through small-scale private agro-processing units; To promote educational and vocational training for farmers and rural communities through formal and informal education; To implement awareness-raising and training programmes for entrepreneurs, managers, bankers and traders in rural services and small-scale agricultural processing techniques.

Besides, the state is responsible for promoting human resource development for sustainable agriculture. Accordingly, ensuring the promotion of human resource development for sustainable agriculture is ensuring the strengthening and development of management capacity of management civil servants in agriculture, internal capacity of rural farmers (developing and disseminating to farmer households farm management technologies, crop rotation, use of organic fertilizers and other techniques related to the reduction of the use of agrochemicals, the use of techniques for nutrient sources and the efficient use of input materials, increase the use of techniques that use waste, by-products and prevent losses before, during and after harvest, conservation and sustainable wildlife management); capacity to develop agricultural extension services, strengthen the research capacity of scientists in developing and improving rural infrastructure, transfer environmentally friendly technologies to appropriate integrated farming and production systems. Regarding information on agricultural human resource development: (a) Training professionals and planning teams at the national, district and village levels through formal and informal guidance courses, tourism and interaction; (b) Generating discussions at all levels on policy issues, the development and environment in relation to the use and management of agricultural land, through communication programmes, conferences and workshops. Extensive training, communication and extension programmes, raising public awareness of the principles of sustainable development can be used to build capacity and should aim to: planning policies, legislative provisions, those

responsible for standards and control, analytical policies in the specialties of unit planning; programme and project managers are able to study and encourage, encourage and communicate professionally; farmers and managers of rural organisations, NGOs, private sector operators, communication systems, the media and the general public. Engage and train local economists, planners and analysts to initiate national and international policy reviews and develop a framework for sustainable agriculture; Establish legal measures to promote women's access to land and eliminate stereotypes in their participation in rural development. Raise public awareness of the role of participation of people and people's organizations, especially women's groups, youth, indigenous people, local communities and small farmers in sustainable and rural agricultural development; Ensure equitable access of rural people, especially women, small farmers, landless and indigenous peoples, for land, water and forest resources and for technology, finance, marketing, processing and distribution; Strengthen and develop the management capacity and internal capacity of rural people's organizations and agricultural extension services, and decentralize decision-making to the lowest community level; Develop and improve integrated agricultural extension services and facilities and rural organizations, and carry out natural resource management and food security activities, taking into account the different needs of subsistence agriculture as well as market-oriented crops; Review and refocus existing measures to achieve wider access to land, water and forest resources, and ensure equal rights for women and other marginalized groups, with particular emphasis on rural populations, indigenous peoples and local communities; Clearly assign ownership, rights and responsibilities for land and for individuals or communities to encourage investment in land resources; Develop guidelines on policies to decentralize rural development through reorganizing and strengthening rural institutions; Develop policies on agricultural extension, training, pricing and distribution of inputs, credits and taxes to ensure the necessary incentives and equitable access of the poor to production support services; Provide supporting and training services, recognize differences in agricultural circumstances and activities by location; optimal use of local natural resources and management of renewable energy sources; and establishing networks for the exchange of information on alternative forms of agriculture.

5. Conclusion

Among the internal capabilities of the economy, quality human resources are the most important internal capabilities. At any time, in any field, success or failure

is determined by human factors. In that context, countries must be proactive in improving the internal capacity and autonomy of the economy in general and agriculture in particular. This is specially important, of vital significance for the cause of national construction and development and this is not only for Vietnam. Besides, many developed economies in the world have strategies and policies to attract talents with abundant incentives bearing their own mark on salaries, working conditions, additional support and other benefits. Vietnam also needs an effective strategy and solution to build high-quality agricultural human resources in the context of the world's rapidly changing economy in sustainable agriculture and modern and advanced agriculture to meet the process of the country's industrialization and modernization. Thus, one of the important solution groups is that countries must promulgate or reform policies and laws to develop human resources in the field of agriculture based on causes. At the same time, when making policies and laws, countries also need to take into account the common characteristics of the system of policies and laws on human resource development in the field of agriculture. The resonance of the two causes and characteristics will help countries form a system of policies and laws on human resource development in general and human resources in the field of agriculture in particular in a comprehensive and sufficient way./.

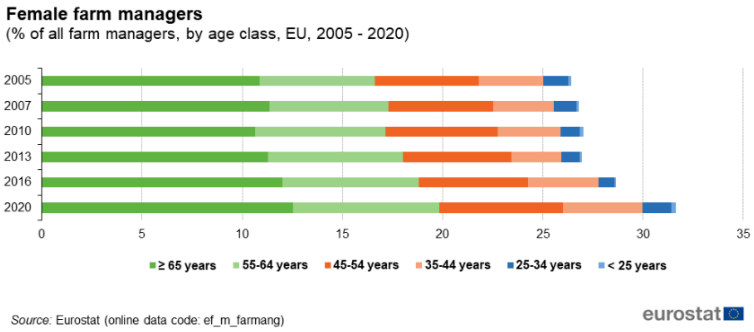
APPENDIX 1

(The World Bank ranks the distribution of agricultural labor in the world's most populous countries)

Ranking	**Nations**	**Agricultural Workers (2019)**	**% Total Workers**
1	India	272 million	43%
2	China	229 million	25%
3	Ethiopia	59 million	66%
4	Indonesia	51 million	29%
5	Pakistan	40 million	36%
6	Nigeria	40 million	35%
7	Democratic Republic of the Congo	36 million	63%
8	Bangladesh	36 million	39%
9	Tanzania	32 million	65%
10	Vietnam	27 million	38%

APPENDIX 2

(Female farm managers by age class in the EU, 2005 - 2020) (EUROSTAT. (2022))



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