

Challenges And Solutions Promoting Sustainable Agriculture Development Against Poverty in Vietnam

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Abstracts: Sustainable agriculture is one of the most important contributors to poverty reduction in low- and middle-income countries. Through the increase in agricultural productivity, people's incomes have increased and the process of poverty reduction has been carried out quickly and sustainably. However, sustainable development in a prosperous and happy country significantly depends on three aspects, including economy, society, and environment. And agriculture is considered the key factor to achieve this goal. An underdeveloped agriculture will increase the vulnerability of individuals in society as their lives become more difficult and easier to fall back into poverty. The article will point out the challenges of sustainable agriculture in the world and in Vietnam. From that, it provides legal solutions to promote sustainable agricultural development to combat poverty in Vietnam in coming time.

Keywords: Sustainable Agriculture, Poverty, Promoting Sustainable Agriculture Development.

1. INTRODUCTION

Most of the poor living in rural areas of developing countries depend on agriculture to make a living¹. This means that the key to eradicating hardship, poverty and hunger is to focus on creating a dynamic rural community based on sustainable agriculture. Indeed, poverty is a form of violence that affects people's quality of life, but it is a socially "acceptable" type of violence. Because poverty is a symptom of an imbalance in the economic and social structure, this is a sign beyond the perception and action of each individual. Besides, where there is poverty, there is a disregard for human dignity and a disregard for the value of human labor. To ensure poverty eradication, both structures must be addressed simultaneously, and especially in the economic structure, countries must achieve sustainable agriculture². In a broad sense, agriculture is understood as a manufacturing sector of crops and livestock, fisheries and forestry to bring income, employment, food and other goods and services for the majority of the population currently living in poverty³. In addition, sustainable agriculture is one of the specific goals of the 2023 Agenda for Sustainable Development (SDGs) to "end hunger, achieve food security and improve nutrition"⁴. Accordingly, sustainable agriculture has the potential to contribute directly to meeting a number of United Nations Sustainable Development Goals (SDGs), including goals on poverty, inequality, consumption and responsible production, climate and ecosystems, in addition to local and national environmental and development goals. As the 2022 United Nations State of Food Security and Nutrition Worldwide Report shows), approximately/ nearly 670 million people (8% of the world's population) will still face hunger by 2030 (even if the global economic recovery is considered)⁵. Thus, around the world, with the proportion of people living in extreme poverty, with the collective declaration of countries on the 2030 Agenda to eradicate poverty and promote sustainable growth to "no one left behind" is encouraging. In the coming years, the success of poverty reduction will largely depend on people and the

¹ *Introduction - Farming Systems and Poverty*. Retrieved from <https://www.fao.org/3/y1860e/y1860e03.htm>

² *Global agenda*. Retrieved from https://www.jica.go.jp/TICAD/en/overview/publications/levid00000003sp-att/global_agenda_20_05.pdf.

³ *Sustainable Development Goals*. (2023). Retrieved from <https://www.fao.org/sustainable-development-goals/overview/fao-and-the-2030-agenda-for-sustainable-development/sustainable-agriculture/en/>

⁴ *Transforming our world: the 2030 Agenda for Sustainable Development*. (2015). Retrieved from <https://sdgs.un.org/2030agenda>.

⁵ UN Report: Global hunger numbers rose to as many as 828 million in 2021. (2021). Retrieved from <https://www.fao.org/newsroom/detail/un-report-global-hunger-SOFI-2022-FAO/en>.

extent to which they are both agents and beneficiaries of change. Without the full participation of the poor and marginalized in the creation and maintenance of sustainable systems, it will be difficult to achieve these goals⁶.

In Vietnam, deriving from Party's major orientations and policies on agriculture, Vietnam's agriculture has gradually moved towards green agriculture with sustainable development and environmentally friendly agriculture, bringing high-quality agricultural products to achieve high selling prices, contributing to poverty alleviation. In recent years, the state has issued many policies related to sustainable poverty reduction such as Decision No. 90/QĐ-TTg of the Prime Minister: Approving the National Target Program on Sustainable Poverty Reduction for the 2021 – 2025 period; Decision No. 324/QĐ-TTg dated March 2, 2020 of the Prime Minister approving the Overall Program on Sustainable Agricultural Development Adapting to Climate Change in the Mekong Delta by 2030, with a vision to 2045; Decision No. 1909/QĐ-BNN-KH dated May 27, 2022 of the Ministry of Agriculture and Rural Development promulgating the Action Program for the implementation of the Strategy for Sustainable Agriculture and Rural Development in the 2021-2030 period, with a vision to 2050... These are major policies on supporting the development of sustainable agricultural production promulgated by state agencies to help poor and near-poor households raise their incomes, thereby escaping poverty sustainably. However, sustainable agriculture and the problem of poverty reduction in Vietnam are still two categories that are being studied and solved. That sets the task of proposing general and specific solutions so that Vietnam achieves the Sustainable Development Goals on poverty eradication, sustainable agriculture and food security for everyone.

2. RESEARCH OVERVIEW AND METHODS

Ensuring sustainable agricultural development is one of the key components in global efforts to reduce poverty, including maintaining an adequate and affordable food supply for the poor, the disadvantaged and maximize the contribution of production and trade of agricultural commodities to the healthy development of local, national and regional economy and livelihood⁷. By adopting the Sustainable Development Goals (SDGs), countries around the world have agreed to an Agenda aimed at eradicating poverty and promoting sustainable growth. As more than 800 million people all over the world live in extreme poverty, a collective declaration of intent to “no one left behind” is so encouraging. Over the next 15 years, the success of these admirable goals will largely depend on people – and the extent to which they are both agents and beneficiaries of the change. Without full participation of the poor and the marginalized in creating and maintaining sustainable systems, it will be very difficult to achieve these goals⁸. It is this topic that creates gaps in terms of research, lack of solutions in formulating policies and laws related to sustainable agricultural development against poverty in Vietnam.

The method used in this study is an approach to research the provisions in policies and laws on agriculture, sustainable agriculture, and poverty (the case of Vietnam). Accordingly, the approach to research on positive law is carried out by studying the provisions of international laws, laws of nations, Vietnamese laws related to the relationship between sustainable agricultural development and poverty. Since then, it can be seen that policies and laws on sustainable agricultural development are one of the most important solutions contributing to poverty reduction. Additionally, this study uses a multidisciplinary, interdisciplinary research approach to address the relationship between sustainable agricultural development and poverty. Such an approach will point out challenges for sustainable agricultural development against poverty. To confirm that, the fastest way to poverty reduction in rural areas is through policies on agricultural improvement towards sustainable agriculture.

⁶ *Agricultural Progress and Poverty Reduction*. (2023). <https://www.oecd-ilibrary.org/docserver/5kg6v1vk8zr2-en.pdf?expires=1682153412&id=id&accname=guest&checksum=E0BAB9D93E6141005803105ED4BD7A7A>

⁷ *Reducing poverty through sustainable agriculture*. (2015). Retrieved from <https://www.unescap.org/sites/default/files/E-ESCAP-CMP3-4E.pdf>.

⁸ *Agricultural Progress and Poverty Reduction*. (2011). Retrieved from <https://www.oecd-ilibrary.org/docserver/5kg6v1vk8zr2-en.pdf?expires=1682153412&id=id&accname=guest&checksum=E0BAB9D93E6141005803105ED4BD7A7A>, 2606

3. RESULTS AND DISCUSSION

3.1. Challenges for Sustainable Agricultural Development Against Poverty

First, it is about the reality of agriculture. According to Food and Agriculture Organization of the United Nations (FAO), the challenge for agriculture in the 21st century that all countries including Vietnam deal with is producing more victuals to feed the (increasing) population; applying more sustainable and effective farming methods and manufacturing production not only to protect the environment and adapt to climate change but also to restore natural resources; having lots of materials for the huge and potential bioenergy market so as to contribute to the general development of developing countries depending on agriculture; negative impacts of agri-food systems on the environment⁹. Therefore, in the globalized and modernized world, agriculture faces a variety of problems, both nature and synthesis. Two most common problems are loss of agricultural land and reduction of cultivars. Decreasing the area of available agricultural land means that victuals for consumers also decrease. The decline in cultivars leads to the decrease in the ability of plants to fight against disasters and occurrences.

In Vietnam, we are facing the challenge that our country's agriculture is still basically the raw production in terms of products, low in class and consuming a lot of resources. Applying science - technology and mechanizing in agriculture is still modest. The competitiveness with the region and the world is not high. Even in some fields, it is still far behind the world¹⁰. Thus, institutional solutions are needed to overcome these realities. The causes of this reality are small and fragmented production; low labor productivity but high cost of agricultural products; lack of connection within the agricultural sector as well as between the agricultural sector and other economic sectors such as industry and services¹¹. Besides, agricultural production greatly depends on climate conditions (especially extreme weather phenomena such as hail, drought, flood and so on). The above phenomena are manifestations of climate change. Strong climate change will increase extreme weather events, reduce crop yields, and change living conditions of organisms, leading to the disappearance of some species and vice versa, there is an increased risk of "natural enemies". Because of the geographical location and the above specific natural conditions, Vietnam is considered as one of the countries most heavily affected by climate change impacts with manifestations such as abnormal floods, droughts, sea level rise and high temperatures. This has been proven through the 2020 version climate change scenario published by the Ministry of Natural Resources and Environment¹². Specifically:

Table 1: The risk of flooding with sea level rise due to climate change

District	Area (ha)	Flooding rate (% of area) with sea level rise									
		10 cm	20 cm	30 cm	40 cm	50 cm	60 cm	70 cm	80 cm	90 cm	100 cm
Quảng Ninh	967.655	0,43	0,57	0,69	0,80	0,94	1,23	1,44	1,59	1,75	1,94
Red River Delta											
Hải Phòng	154.052	1,03	1,56	2,11	2,75	3,81	5,58	8,37	12,61	18,51	25,06
Thái Bình	158.131	0,96	2,25	3,76	6,07	9,26	13,66	18,98	25,06	31,53	38,22
Nam Định	159.394	1,42	2,86	5,18	8,12	12,16	17,16	22,45	29,29	36,55	43,67
Ninh Bình	134.700	1,02	1,67	2,79	4,32	6,47	8,95	11,66	14,64	17,89	21,12

⁹ *Global agriculture towards 2050*. (2009). Retrieved from: https://www.fao.org/fileadmin/templates/wsfs/docs/Issues_papers/HLEF2050_Global_Agriculture.pdf.

¹⁰ Prof. Dr. Tran Duc Vien (2020). Vietnamese agriculture: Existing issues. Retrieved November 12, 2020 from: <https://vnua.edu.vn/tin-tuc-su-kien/nghien-cuu-khoa-hoc/nong-nghiep-viet-nam-nhung-van-de-ton-tai-51105>.

¹¹ Prof. Dr. Tran Duc Vien (2020). Vietnamese agriculture: Existing issues. Retrieved November 12, 2020 from: <https://vnua.edu.vn/tin-tuc-su-kien/nghien-cuu-khoa-hoc/nong-nghiep-viet-nam-nhung-van-de-ton-tai-51105>.

¹² Viet Nam Meteorological and Hydrological Administration. (2020). *Risks of flooding when sea level rises based on Climate Change Scenario*. Retrieved January 21, 2022 from: <http://vmha.gov.vn/tin-tuc-bdkh-112/nguy-co-ngap-o-cac-khu-vuc-khi-muc-nuoc-bien-dang-cao-theo-kich-ban-bdkh-11494.html>

District	Area (ha)	Flooding rate (% of area) with sea level rise									
		10 cm	20 cm	30 cm	40 cm	50 cm	60 cm	70 cm	80 cm	90 cm	100 cm
<i>Whole Red River Delta</i>	1.492.739	0,45	0,86	1,42	2,18	3,26	4,66	6,32	8,40	10,77	13,20
Central coast											
Thanh Hóa	1.111.000	0,13	0,18	0,24	0,32	0,36	0,49	0,62	0,78	0,96	1,14
Nghệ An	1.656.000	0,07	0,07	0,09	0,13	0,18	0,25	0,32	0,40	0,47	0,55
Hà Tĩnh	599.304	0,21	0,35	0,54	0,73	0,96	1,18	1,42	1,69	2,00	2,37
Quảng Bình	801.200	1,05	1,24	1,41	1,56	1,72	1,88	2,06	2,22	2,38	2,54
Quảng Trị	463.500	0,25	0,35	0,49	0,67	0,89	1,14	1,40	1,69	1,99	2,32
Thừa Thiên Huế	503.923	1,60	2,24	2,68	3,08	3,42	3,76	4,15	4,51	4,91	5,49
Đà Nẵng	97.778	0,30	0,39	0,49	0,59	0,68	0,78	0,87	0,96	1,04	1,13
Quảng Nam	1.043.220	0,05	0,18	0,35	0,49	0,65	0,77	0,89	1,02	1,14	1,27
Quảng Ngãi	514.080	0,38	0,47	0,55	0,66	0,79	0,95	1,10	1,26	1,43	1,60
Bình Định	609.340	0,44	0,48	0,54	0,63	0,84	1,25	1,44	1,76	1,89	2,04
Phú Yên	503.690	0,30	0,35	0,40	0,47	0,55	0,64	0,74	0,86	0,97	1,08
Khánh Hoà	519.320	0,14	0,21	0,32	0,45	0,65	0,89	1,11	1,31	1,53	1,69
Ninh Thuận	335.630	0,15	0,16	0,17	0,18	0,20	0,24	0,27	0,30	0,003	0,37
Bình Thuận	796.833	0,05	0,06	0,07	0,08	0,09	0,11	0,12	0,14	0,17	0,19
<i>Whole Central Coastal Area</i>	9.554.818	0,31	0,41	0,52	0,63	0,75	0,91	1,05	1,21	1,37	1,53
Tp. Hồ Chí Minh	209.962			9,36	10,41	11,53	12,71	12,90	15,21	16,58	17,15
Bà Rịa - Vũng Tàu	190.223	0,76	1,10	1,43	1,67	1,99	2,40	2,88	3,41	4,08	4,84
Mekong River Delta											
Long An	449.100	0,00	0,00	0,31	0,49	0,61	1,36	2,85	7,12	12,89	27,21
Tiền Giang	251.061	0,13	0,71	1,43	2,57	3,79	6,71	12,58	25,23	37,57	47,80
Bến Tre	239.481	0,55	1,43	2,52	4,08	6,74	10,19	15,11	21,46	27,83	35,11
Trà Vinh	235.826	0,50	0,61	0,89	1,28	2,29	4,95	11,51	22,22	32,79	43,88
Vĩnh Long	152.573	0,00	0,34	0,61	0,91	1,31	2,02	3,66	8,28	18,34	32,03
Đồng Tháp	337.860	0,00	0,00	0,17	0,21	0,36	0,69	0,96	1,28	1,94	4,64
An Giang	342.400	0,00	0,00	0,03	0,05	0,08	0,13	0,29	0,49	0,90	1,82
Cần Thơ	143.896	0,06	0,17	0,31	0,50	0,99	2,88	9,97	26,69	44,89	55,82
Hậu Giang	162.170	0,00	0,75	3,42	10,31	18,83	29,37	38,50	45,88	53,21	60,85
Sóc Trăng	331.188	1,78	2,91	5,13	8,32	11,32	14,97	20,25	26,91	33,13	55,41
Bạc Liêu	266.901	0,71	2,87	6,66	12,14	20,08	27,78	36,84	46,31	54,38	61,87
Cà Mau	522.119	7,21	14,06	20,17	28,73	40,31	48,05	56,81	64,42	73,58	79,62
Kiên Giang	634.878	0,66	3,38	12,63	23,67	36,82	48,85	75,68	66,16	71,69	75,68
<i>Whole Mekong River Delta</i>	4.069.453	1,29	2,97	5,92	9,86	14,86	19,69	27,94	31,94	38,80	47,29

Thus, it can be said that in the past period, besides challenges, agriculture has focused on removing bottlenecks to promote development and restructure the industry. In there, we still determine that farming is the key field of agriculture and breeding also plays an important role. Agricultural restructuring towards improving quality and efficiency is affirming its practicality and correctness in order to exploit potentials and advantages effectively, and respond to climate change. Successfully restructuring has contributed to developing modern agricultural production, increasing income for farmers and constructing new countrysides in localities. Thanks to agricultural restructuring, Vietnam's agricultural, forestry and fishery production activities in recent years have made impressive achievements. In particular, the biggest achievement was to ensure national food security, to become a country with commodity agriculture from a country with backward agriculture, to have a significant position in the region and in the world (Vietnam ranks 15th in the world, second in Southeast Asia in exporting agricultural products)¹³. Specially, in 2 years affected by the Covid-19 epidemic (2020-2021), the agricultural sector has shown the “underpinning” role of the economy while both ensuring people’s security and safety and having just achieved a growth rate of 2.9% for the whole year, contributing 13.97% to the growth rate of the total added value of the whole economy¹⁴.

Second, it is about sustainability in agriculture. It can be seen that lives of the poor in rural areas are closely related to resources such as land and water. There must be land for their intensive farming and cultivation; and water to produce products that are victuals for people, as well as economic security to ensure their livelihoods. In other words, land and water resources are the basis for agricultural production, fishing and aquaculture, providing nutrition and income for the majority of the poor. So how are land and water resources used to ensure sustainability in agriculture and help the poor in rural areas improve agricultural productivity? That is because most of the poor in rural areas are smallholder farmers, who are one of the most disadvantaged and the most socially vulnerable groups working in the poorest health, safety and environmental conditions, having less representative organization to protect interests. They are less likely to have access to the most effective forms of protection and social security¹⁵. Therefore, if the poor in the countryside want to escape poverty, the sustainability of agriculture must be mentioned. The sustainability of agriculture is understood as the application of sustainable principles in agriculture, particularly ensuring that in the production process, the limits of ecology, environment, economy and society must be respected. For instance, sustainable farming must minimize the use of pesticides that can harm the health of farmers and consumers. However, when sustainability in agriculture is not taken into account (sustainable agriculture), people mainly practice traditional agriculture (i.e. using chemicals and synthetic fertilizers to maximize the yield of a crop, livestock or a particular group of plants or animals). Or they refuse to apply new farming techniques, which means that farming is completely dependent on climate conditions, does not rotate crops and just grow the same food on the same soil until the soil nutrient depletion. This monoculture is very susceptible to pests and pathogens. Therefore, it is necessary to use more pesticides so that the plants can survive the onslaught of pathogens. This way will change the natural environment, degrade soil quality and remove biodiversity. And people will have to spend a lot of money on the environment¹⁶. Thus, it can be affirmed that economic growth, income redistribution, economic adjustment and economic structure have all failed to reduce poverty. Each of the above issues is not the only condition to solve poverty, especially in rural areas where livelihood of the poor depends greatly on the sustainability of agriculture, especially in the 21st century currently.

¹³ *Vietnamese Agricultural products “cover” the global*. Retrieved January 9, 2023 from: <https://nhandan.vn/nong-san-viet-phu-song-toan-cau-post733202.html#:~:text=Vi%E1%BB%87t%20Nam%20hi%E1%BB%87n%20%C4%91%E1%BB%A9ng%20th%E1%BB%A9,gia%20v%C3%A0%20v%C3%B9ng%20l%C3%A3nh%20th%E1%BB%95>.

¹⁴ Tran Thi Thu Trang. (2022). *Vietnamese Agricultural Restructuring over the past 20 years*. Retrieved April 8, 2022 from: <https://consosukien.vn/chuyen-dich-co-cau-nong-nghiep-viet-nam-20-nam-nhi-n-la-i.htm>.

¹⁵ *Six solutions to lifting the world's farm workers out of poverty*. Retrieved November 11, 2012 from: <https://www.csmonitor.com/World/Making-a-difference/Change-Agent/2012/0905/Six-solutions-to-lifting-the-world-s-farm-workers-out-of-poverty>.

¹⁶ *Sustainable Vs. Conventional Agriculture*, Retrieved April 11, 2023 from: <https://you.stonybrook.edu/environment/sustainable-vs-conventional-agriculture/>.

In Vietnam, Vietnamese agriculture is considered as the underpinning of the economy, especially during the period of the Covid-19 epidemic. The process of poverty reduction has been accelerated thanks to strong restructuring in agriculture in the direction of raising the value of goods, promoting the role of business entities in production to bring high income for people¹⁷. However, in the current context, the challenge to the sustainable development goal of Vietnamese agriculture is the proportion of people using a lot of forms of farming; resource intensive causing impacts on the environment; a lack of control; agricultural products not meeting the increasing demands of the market for quality, nutrition, fair and sustainable standards; challenge from "3 variables" including climate change, market change and consumption trend change¹⁸. Specially, people have not changed from the "agricultural production" mindset to the "agricultural economy associated with market demand" thinking. Accordingly, thinking "agricultural economy associated with market demand" is a major policy mentioned in Resolution No. 19-NQ/TW on agriculture, farmers and countrysides until 2030, with a vision to year 2045 of the 13th Party Central Committee on June 16, 2022¹⁹. Let's take the item "mango" grown in Dong Thap province as an example. Now Dong Thap is one of the provinces in the Mekong Delta that grows mangoes the most. There are about 14,000 hectares of mango growing area. Gardeners gradually use manure and cover the fruit to reduce the use of pesticides as well as good application in flowering and fruiting at will, so there are mangoes almost all year round. To meet the requirements of the export market, about 8,228 hectares of mangoes have registered production unit codes with 296 codes; 9 packing facilities in this area have registered packing house codes; 33 organizations and individuals have been certified with VietGAP on mango trees with an area of 353 hectares. Now Dong Thap's mangoes have been exported to China, Australia, the United States, New Zealand, Korea, Japan, EU, Russia and Singapore. Last year, the export value of Dong Thap's mango industry was estimated at more than VND2,680 billion²⁰. Nevertheless, in some places, farmers are afraid of changing their farming practices traditional to ones applying VietGAP standards. Mango production scale is still small and households' care is different. That leads to mangoes with the same size, color and weight, restricting the influence on the export. Moreover, some households planting mango trees still use a lot of pesticides and chemical fertilizers, and rarely use organic fertilizers²¹. It is these challenges that make agricultural producers continue being among the lowest income and most vulnerable groups.

Third, it is about the impact of climate change. Sustainable agriculture is farming in the way to protect the environment, supporting and expanding natural resources, making the best use of non-renewable resources, and raising the quality of life for peasant families and community. However, agriculture is an industry that is much more sensitive to the weather and climate than other economic ones because it depends on land, water and other natural resources affected by the weather and climate. Along with that, the management of sustainable agricultural systems is being greatly affected by climate and weather conditions changing in particular and climate change in general.

¹⁷ *Promoting agricultural commodities to sustainable poverty reduction*. Retrieved October 19, 2022 from: <https://vnbusiness.vn/mo-hinh/thuc-day-nong-nghiep-hang-hoa-de-giam-ngheo-ben-vung-1088721.html>.

¹⁸ *Developing the global sustainable victuals system to help respond to climate change*. Retrieved April 24, 2023 from: <https://baotainguyenmoitruong.vn/phat-trien-he-thong-luong-thuc-thuc-pham-ben-vung-toan-cau-giup-ung-pho-bdkh-356717.html>.

¹⁹ *Agricultural production mindset* is the process of being aware of objective rules of crops' and livestock's biology as well as transformation rules of production materials; using materials to increase the productivity and quantity of products. Farmers do not focus on the need of the market; only produce products they can make without ones the market needs; is ready to use cultivars, fertilizers and pesticides so as increase the productivity without paying attention to the quality and safety of products; do not or rarely find out the way to raise the value; sell raw products after haversting; at the mercy of buyers without developing product labels and tracing the origin after haversting. Agricultural economic mindset is the thinking of using limited resources in agriculture effectively to produce products meeting the need of the market and gain the highest profit as possible. In order to produce based on agricultural economic mindset, farmers follow the basis of the need of the market to identify types and product standards needing producing. Production process ensures the quality to meet customers' criteria and requirements.

²⁰ *Raising the value and sustainable development for the mango category*. Retrieved April 28, 2023 from: <https://vov.vn/kinh-te/nang-cao-gia-tri-va-phat-trien-ben-vung-nganh-hang-xoai-post1016945.vov>.

²¹ *Producing safe and high-quality agricultural products*. Retrieved March 3, 2022 from: <https://nhandan.vn/san-xuat-nong-san-an-toan-chat-luong-cao-post687729.html>

Indeed, on the one hand, climate change has influence on agriculture in different ways among all the countries and population groups, and especially aggravates poverty of people in rural areas. Specifically, climate change poses an existential threat to humans and their agricultural means of livelihood and makes the plight of the poor worse. According to the World Bank's Groundswell report, only one tenth of the world's greenhouse gases are emitted by 74 lowest-income countries but they are affected the most by the impacts of climate change. Compared to the 1980s, they have experienced eight times more natural disasters in the past 10 years. If uncontrolled, climate change will push 130 million people into poverty over the next 10 years, lose hard-to-achieve development results and possibly make 216 million people in six regions of the world migrate in their own country by 2050²². Besides, climate change threatens people's livelihoods and loses the ability to cultivate and produce crops in areas with high risk of climate change. According to the World Bank's Groundswell report, by 2050, Sub-Saharan Africa could have up to 86 million internal climate migrants; East Asia and Pacific: 49 million; South Asia: 40 million; North Africa: 19 million; Latin America: 17 million; and Eastern Europe and Central Asia: 5 million²³. On the other hand, it is because of climate change that agricultural production and income from agriculture of the poor are affected. It is widespread food insecurity, productivity reductions, increased productivity convulsion, replacement or disappearance of varieties of crops and livestock, loss of agricultural biodiversity and ecosystem services, changes in food production that have pushed consumer prices higher. And it is difficult to control those prices when natural disasters are lengthened and the climate is severely affected. In fact, the World Bank predicts that the probability of crop productivity loss is up to 4.5 times higher by 2030 and up to 25 times higher by 2050 around the world. Loss of crop productivity means food prices will be 12% higher on average in Sub-Saharan Africa²⁴. Thus, climate change is an unfair change for the poor, who are disproportionately affected and damaged compared to the causes of climate change.

In Vietnam, climate change has been having a strong impact on horticulture, most obviously reducing area under cultivation, causing drought and pests, and putting great pressure on the development of horticulture in particular and agriculture in general. In other words, due to climate change (significant and sudden changes in temperature, rainfall, and wind threaten all crops and livestock, reduce crop yields and make farmers have no back-up plans to reverse the impact), people's agricultural production is often affected. Especially in recent years, the effects of climate change and extreme weather events having a great impact on the agricultural and forestry production of poor households in rural areas have become clearer and clearer. Severe cold, damaging cold, hoarfrost and drought make not only crops grow poorly but also lots of livestock die due to low temperature. In summer with plenty of rain, there is a risk of flooding and waterlogging for upland crops, landslides, crop burying, and disease outbreaks for crops and livestock. Furthermore, prolonged heavy rain also washes away nutrients, causes soil degradation and reduces crop yields. In fact, according to the Ministry of Agriculture and Rural Development of Vietnam, Vietnam is one of the countries most strongly affected by climate change, especially the Mekong Delta - one of three deltas in the world which are most vulnerable when sea level rises²⁵. Besides, according to the analysis of the World Resources Institute on the impact of floods on GDP, Vietnam ranked 4th out of 164 countries surveyed in terms of the serious effects of floods to the whole economy; causing loss of 2.3

²² World Bank. (2021). *Climate Change Could Force 216 Million People to Migrate Within Their Own Countries by 2050*. Retrieved September 13, 2021 from: <https://www.worldbank.org/en/news/press-release/2021/09/13/climate-change-could-force-216-million-people-to-migrate-within-their-own-countries-by-2050>.

²³ World Bank. (2021). *Climate Change Could Force 216 Million People to Migrate Within Their Own Countries by 2050*. Retrieved September 13, 2021 from: <https://www.worldbank.org/en/news/press-release/2021/09/13/climate-change-could-force-216-million-people-to-migrate-within-their-own-countries-by-2050>.

²⁴ *The climate crisis disproportionately hits the poor. How can we protect them?*. Retrieved October 13, 2023 from: <https://www.weforum.org/agenda/2023/01/climate-crisis-poor-davos2023/>.

²⁵ *Vietnamese Agriculture facing challenges of climate change*. Retrieved July 25, 2022 from: <https://ictvietnam.vn/nong-nghiep-viet-nam-truoc-thach-thuc-bien-doi-khi-hau-20056.html>

percent of Vietnam's GDP every year²⁶. Additionally, according to research and forecasts of the Intergovernmental Panel on Climate Change (IPCC) of the United Nations (UN) and the World Bank (WB), in Vietnam, if the sea level rises by 1 meter, it will flood about 0.3 to 0.5 million hectares in the Red River Delta (RRD) and 1.5 to 2.0 million hectares in the Mekong River Delta. In years of massive flooding, over 90 percent of the Mekong Delta area has been flooded for 4 to 5 months, of which mainly rice land is flooded or salinized and cannot be produced. Also, climate change increases natural disasters and reduces crop yields. As ADB's assessment shows, if the temperature increases by 1 degree Celsius, rice yield will decrease by 10 percent. The above situation will seriously threaten national food security and affect tens of millions of people²⁷. Hence, poor and near-poor households will have to face great challenges climate change brings. From that, it is necessary to have Climate Change Laws including appropriate measures to protect low-income households.

Fourth, it is about policies and laws on sustainable agricultural development. Clearly, agriculture is not only known as the activity of growing crops, raising livestock and then harvesting, processing and consuming products. Accordingly, agriculture which is known as an industry related to agriculture, from production to supply chain and consumption needs regulating by policies and laws. Agricultural policies and laws play a very important role in the process of poverty eradication in rural areas because it creates a good legal environment for farmers to cultivate sustainably. Besides, improved agricultural productivity in rural areas often goes hand in hand with major changes in agricultural policies and laws. In other words, if the State's policies and laws are not changed timely and do not encourage smallholders to grow crops and raise livestock sustainably, their income and sustainable livelihoods will be affected profoundly. For example, it is related to monoculture farming in agriculture and the need for a policy to integrate monoculture, rotational farming, and polyculture in rural areas to convert to sustainable agriculture. By which if localities only grow one type of trees, raise one type of animals at a time on a specific field or farm (known as monoculture), on the one hand it will bring benefits such as: (1) increased the productivity and maximize the efficiency of land use, local climate conditions (plants and livestock get used to resisting or thrive in specific weather conditions); (2) have time to develop a new technology. Accordingly, on growing monocultures, farmers tend to have more time and financial resources to consult new technologies in agriculture that help them maximize their agricultural productivity; (3) Dedicated production. Accordingly, industrial monoculture allows farmers to specialize in one particular crop because they often solve the same problems and problems arising during the process of cultivation. One advantage of such specialization is increasing profits and reducing costs as no additional machinery or other resources are needed apart from necessities to work with one particular crop; (4) Managing easily and requiring less effort, less knowledge and fewer resources compared to growing or raising different varieties. For instance, monoculture requires fewer machines to till the soil or harvest while growing multiple crops at the same time requires many different kinds of machines. This is relevant to irrigation and pest control; (5) Higher revenue. One example is that cultivating a best suited crop to grow in the particular climate allows farmers to obtain higher productivity and thus, gain a higher income. Yet, the difficulty needing solving for monoculture farming is: (1) Pest management. It is about fighting against the destruction of pests and diseases when parasites get their favorite food for a long time as well as the effective reproduction farmers has no control over. Moreover, using the plant's genetic diversity method is very effective in repelling pests and planting a variety of trees will work as a natural barrier to pest growth in the agricultural land; (2) The use of more pesticides to protect crops. These chemicals penetrate the ground and contaminate both soil and groundwater. Furthermore, monoculture farms are about to increase pesticide use because some pests still survive after chemical application by developing resistance. Then, these parasites pass on this newly acquired immunity to their offsprings who in turn will be more prolific on certain plots of fields because their main source of food stands in one place; (3) Soil degradation or disorganising the natural soil balance. Too many similar species of plants in one field deprive nutrients of the soil,

²⁶ Dr. Pham Tat Thang. (2017). *Climate change and economic growth*. Retrieved January 15, 2017 from: https://mof.gov.vn/webcenter/portal/btcvn/pages_r/tin-bo-tai-chinh?dDocName=MOFUCM094824.

²⁷ *Challenges of climate change in agricultural production*. Retrieved November 3, 2022 from: <https://moitruong.net.vn/thach-thuc-cua-bien-doi-khi-hau-doi-voi-san-xuat-nong-nghiep-56266.html#:~:text=Bi%E1%BA%BFn%20%C4%91%E1%BB%95i%20kh%C3%AD%20h%E1%BA%ADu%20%C4%91%C3%A3,ng%C3%A0nh%20n%C3%B4ng%20nghi%E1%BB%87p%20n%C3%B3i%20chung>
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resulting in a decrease in types of necessary bacteria and microorganisms to maintain soil fertility. The production of the only plant in a large area also has a negative impact on the structure of the underground layers. Only one plant means that there is only one type of root to retain moisture and prevent soil erosion, which is a job often requiring multiple types of roots; (4) Loss of biodiversity. Accordingly, when various creatures present in one certain area, the ecosystem here gets stronger and more plentiful. One of the main problems of monoculture farming is removing biodiversity. Having enough specific plants, animals and insects in a particular environment helps control the overgrowth of pests, crop diseases and other negative manifestations caused by the natural balance disruption of the soil on monoculture lands; (5) Economic risk of not fully harvesting all the products due to drought or heavy rain; (6) Crops and livestock produced with a view to commerce (exploiting the whole process of using agricultural land for monoculture); remaining small and self-sufficient when those crops and livestock harvested just feed a family or local community. After harvesting, products will be delivered with a large number to gathering points. The form of delivery is means using fossil fuels (oil and gas) which are the causes of environmental pollution when burned²⁸. It was for this reason that multi-cropping, crop rotation, and intercropping methods appeared to help use of soil nutrients better, and creat higher efficiency. Typically in developing policies on multi-cropping, crop rotation and intercropping methods in agriculture, it is the policy of leaving monoculture in the European Union with the introduction of "Green Agreement" and "Green Payment"²⁹, including the provision of an annual allowance for farmers who combine planet-friendly farming methods.

In Vietnam, the introduction of Law on Animal Husbandry 2018 (effective from January 1, 2020) and Law on Crop Production 2018 (effective from January 1, 2020) have partly ensured to create a firm legal basis in order to promote the sustainable development of horticulture and animal husbandry. Exceptionally, with the provisions of Decree No. 109/2018/ND-CP of the Government dated August 29, 2018 on organic agriculture. Accordingly, this is the regulation on agricultural cultivation and production in the field of farming towards sustainability. These regulations on operating principles, rights and obligations of organizations and individuals in farming activities along with developing and protecting concentrated commodity farming areas and specific farming are new ones which create good opportunities for farmers to choose suitable cultivars for ecoregions to adapt to climate change as well as to increase the proportion of agricultural products and commodities, the value added of products, supporting sustainable processing and export. However, in the current context, the management of "chemical agriculture" - an agriculture unsafe for human health cannot meet the import market for goods and is unsafe for the environment and natural ecosystems³⁰; especially in the face of the indispensable demand for consumers' using clean and safe food - a "green agriculture, organic agriculture". Thus, with regards to institutions, perfecting the system of policies and laws on agricultural development towards sustainability is essential.

3.2. Legal Solutions To Promote Sustainable Agricultural Development Against Poverty In Vietnam

At the United Nations Conference on Sustainable Development, nations adopted the 2030 Agenda for Sustainable Development. On that basis, Vietnam has issued the National Action Plan to implement the 2030 Agenda for Sustainable Development under Decision No. 622/QĐ-TTg, dated May 10, 2017 of the Prime Minister. In which it is affirmed: "Sustainable development is a requirement throughout the development of the country; closely, reasonably and harmoniously combines the economic development with the social development; protects natural resources and environment, actively copes with climate change; ensures national defense, social security and order; and firmly protects national independence and sovereignty". The plan sets out specific goals so that sustainable development is: "eradicating hunger, ensuring food security, improving nutrition and promoting sustainable agricultural development". Therefore, to achieve the second goal (SDG2: Zero Hunger) in the situation that the global population is increasing rapidly as now, it is necessary to continue focusing on solutions as follows:

²⁸ *Monoculture Farming In Agriculture Industry*. Retrieved October 20, 2020 from: <https://eos.com/monoculture-farming/>.

²⁹ *Green Payments in U.S. and European Union Agricultural Policy*. Retrieved September 22, 2005 <https://www.everycrsreport.com/reports/RL32624.html>

³⁰ Bui Thi Thu Trang. *The reality of organic farming in Vietnam and several solutions*. Retrieved December 28, 2022 from: <https://vjst.vn/vn/tin-tuc/7212/thuc-trang-nong-nghiep-huu-co-o-viet-nam-va-mot-so-giai-phap.aspx>.

Firstly, it is about overcoming the reality of agriculture in Vietnam. From the perspective of policies and laws, Vietnam with the motto "Ensuring food security is the basis of reducing poverty, raising people's living standards and giving an opportunity to develop Vietnamese agriculture in the orientation of 'transparency, responsibility and sustainability'"³¹ has continuously cooperated internationally, implemented international commitments, reviewed and built a system of domestic policies and laws on agriculture. In fact, in the past time, at the COP26 Conference³², Vietnam has made strong commitments, in which there are two contents closely related to agriculture: money to implement COP26 commitments quickly and towards sustainable agriculture. Besides, at the United Nations Food Summit Conference in September 2021, with the message "to promote innovative solutions and change the way of producing food; handle and consume food products to transform food systems in the healthier, more sustainable and more equal direction; better protect people and planet so that no one is left behind and actively contribute to implementing 17 Sustainable Development Goals (SDGs) of the United Nations by 2030". In order to carry out those processes, the Prime Minister issued Decision No. 150/QĐ-TTg dated January 28, 2022 on approving the Strategy for Sustainable Agricultural and Rural Development in the 2021-2030 period, with a vision to 2050; Decision No. 300/QĐ-TTg of the Prime Minister dated March 28, 2023 on approving the National Action Plan in transforming a transparent, responsible and sustainable food system in Vietnam by 2030. And the Ministry of Agriculture and Rural Development (MARD) is developing a plan to mitigate greenhouse gas emissions in the agriculture and rural development sector in the 2021-2030 period, with a vision to 2050. Therefore, the purposes of the system of policies are developing green and environmentally friendly agriculture, adapting climate change, reducing environmental pollution in rural areas, reducing greenhouse gas emissions, having advanced and modern agriculture in the whole country together with no more poor households with environmentally friendly concentrated commodity production agriculture, attaching the construction of preliminary preparing and deep processing facilities in production areas. Moreover, it is essential to review, evaluate and perfect mechanisms, policies, processes, standards and regulations for food production, processing and consumption towards transparency, responsibility and sustainability. Also, the government needs to direct ministries and sectors to develop input supply systems for agricultural production towards transparency, accountability and sustainability. Concurrently developing agricultural production towards transparency, accountability and sustainability is important.

Secondly, it is about ensuring sustainability in agriculture. From the perspective of policies and laws, to ensure sustainability in agriculture, it is necessary to have a separate legal document system to adjust. Now, some countries have enacted their own act on sustainable agriculture. For instance, Indonesia enacted the Law on Sustainable Agricultural Farming System in 2019 (effective from October 18, 2019)³³. This is a replacement text for the Law on Granting and Importing Cultivars in 1961 and the Law on Crop Cultivation Systems in 1992. This act consists of 132 articles divided into 22 Chapters regulating sustainable agricultural farming systems. This system aims at managing natural resources by applying biotechnology in the agricultural commodity production to meet human needs better, being sustainable and protecting the environment. The implementation of sustainable agricultural farming systems aims at: a) strengthening and diversifying agricultural products so as to meet the needs of food, clothing, shelters, health, domestic and export expansion industries. b) increasing farmers' incomes and living standards; c) encouraging and expanding equal business and employment opportunities. With regard to the content, sustainable agricultural farming has considered many factors, including climate change affecting the overall agribusiness system. From the stage of land use and/or other crops, seedlings, planting materials, expenditure and the inclusion of seeds, and animals, water use, agricultural protection and maintenance, harvest and post-harvest. In addition, during the implementation of agricultural farming, monitoring is set up to ensure that the Farm Facility, Farm Infrastructure and Agricultural Products are in accordance with the established standards and quality as well as overcome negative impacts on the community and the environment. In general, this act

³¹ *President's speech at Summit Conference on the United Nations food*. Retrieved September 24, 2021 from: <https://tuoitre.vn/chu-tich-nuoc-phet-bieu-tai-hoi-nghi-thuong-dinh-ve-luong-thuc-cua-lien-hiep-quoc-20210924074635323.htm>.

³² COP26: Conference of the Parties is short for The 26th United Nations Climate Change Conference of the Parties in 2021

³³ Presiden Republik Indonesia. (2019). *Law of the R.I. No. 22 of 2019 on the Sustainable Agriculture Cultivation System*, <https://faolex.fao.org/docs/pdf/ins195060.pdf>.
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contains the following matters: Agricultural cultivation planning; agricultural land use and territory planning; seedlings and nurseries; planting, exporting and importing plants and seeds; water use; agricultural sustainability; guidance and monitoring; research and development; human resource development; information systems; the community's participation and sanctions.

Besides, when developing policies and laws on sustainability in agriculture, recognizing sustainability in its broadest context is necessary. This is not only a matter of the ecology of agricultural systems themselves, but also the impact of these systems on others' lives and opportunities, especially consumers and poor producers. One system's sustainability cannot be exchanged for others' sustainability. For example, measures to promote environmentally sustainable agriculture in developed countries can still have a negative impact on opportunities for poor producers. All countries need to promote policy measures allowing farmers to take advantage of their nature such as promoting the use of market-based tools and organic labeling, which is highly recommended.

Additionally, the priority for agricultural development is creating a policy and institutional environment helping and giving authority the poor to get better livelihoods based on agriculture. This may include policy, institutional and legal reform in order to improve the implementation of the poor's rights to land, market and service. It means creating an environment to encourage investment of private sector in agriculture and agricultural services. This consists of technology, knowledge and skills development. The restoration of the entire range of services from standard settings to information such as weather forecasts may be required. Also, reconfiguring existing public institutions to suit the government's different role and enforcing the influence of the poor on the way to use resources.

Next, it is significant to transform strongly from the agricultural production mindset to the agricultural economy mindset, from traditional agricultural production to production, processing and supply of agricultural products in conformity with clean, ecological and safe standards and quality with high economic value associated with the market based on national and local competitive advantages. Accordingly, it is necessary to master the main principles of a sustainable agriculture, which are the development of efficient, self-sufficient and economical production systems bringing respectable incomes; Conserving and protecting biodiversity and territory; Optimizing the use of natural resources; Managing the quality of air, water and soil; and Increasing the efficiency of using energy in food production and distribution. Reducing poverty is required to be based on ecological and resource sustainability. Increasing food production will exacerbate soil degradation, greenhouse gas emissions and loss of biodiversity unless production methods and consumption models become more sustainable. Smallholders will need access to proper technology and infrastructure to transform the food system sustainably.

Thirdly, it is about ensuring adaptation to climate change. Countries all over the world have enacted their own laws to fight against climate change. Most of the acts recognize the country's vulnerability to climate change and the demand for appropriate adaptation. These acts provide a comprehensive framework to systematically integrate the concepts of climate change, policy development, plans to reduce risks of disasters, plans or strategies for poverty reduction. The typical examples are the Climate Change Act 2009 of the Philippines³⁴, the Climate Change Adaptation Act of June 2018 of Japan³⁵ and so on. Specially, in Europe, the European Commission has issued The European Green Deal, which lays out plans to "transform" the economy and put it on the "more sustainable way". To do this political duty, the European Climate Law, enacted in 2021, is used at both EU and member state levels³⁶. The role of the Climate Law not only regulates risk management problems, climate impacts, and climate information, but also becomes the basis of "climate litigation" among member states. There, if Member States do not issue a policy, a framework law on not publishing a Long-term Strategy for Climate Change or a plan to reduce

³⁴ *Climate Change Act of 2009 (Republic Act No. 9729 of 2009)*. Retrieved from: <https://leap.unep.org/countries/ph/national-legislation/climate-change-act-2009-republic-act-no-9729-2009>.

³⁵ *The Japanese Diet enacted the Climate Change Adaptation Act in June 2018*. Retrieved from: <https://www.japaneselawtranslation.go.jp/en/laws/view/3212/en>.

³⁶ *European Climate Law*, Retrieved from: https://climate.ec.europa.eu/eu-action/european-green-deal/european-climate-law_en.

greenhouse gas emissions, or a biodiversity law or policy, or related to enterprises' accountability for the environment³⁷, they can be taken to court. Thus, the enactment of a climate act has helped to form a foundation to fight against climate change, including national climate change-related framework policies (as a basis of research on climate change and action plans in localities) and detailed action plans on climate change in localities. Although Vietnam has no Law on Climate Change, Article 63 of Constitution 2013 defines the State's responsibility for proactively preventing and fighting against natural disasters and responding to climate change. The content of responding to climate change is also reflected in strategies, master plans and plans of socio-economic development, and plans of developing several sectors and fields which are subjects reported strategic environmental assessment³⁸. However, Vietnam needs to review the current system of policies and laws in accordance with the climate reality. Accordingly, due to the current agriculture still depending heavily on nature, Vietnam needs to proactively assess and forecast the impacts of climate change in order to have timely solutions to respond and develop the suitable and sustainable agriculture economy. Moreover, localities need to issue plans to adapt to climate change in agricultural and forestry production in each phase, in which it is emphasized: (1) Strengthening resilience and adaptive capacity of the community, reasonably exploiting natural resources and local advantages, especially key agricultural and forestry products, which is capable of adapting to climate change; (2) Developing agro-forestry economy associated with ecological environment protection, protecting and developing forests as well as ensuring sustainable development and environmental protection; (3) Focusing on economic programs on agricultural and forestry development in the direction of creating livelihoods and job opportunities in agriculture and forestry, ensuring that people can stabilize their lives thanks to agricultural and forestry production; (4) Accelerating the application of science and technology to production, restructuring plants, expanding models of using high-yielding and pest-resistant cultivars for each locality to ensure adaptation to the effects of extreme weather events; (5) Strengthening the chain linking production with consumption, developing high-tech agricultural models, safe agriculture to ensure sustainability in production associated with adaptation to climate change. (6) Building an effective disease-resistant agricultural model with new technology to support, forecast and adjust the farming model suitably. Let's take a disease forecasting model as an example. This model will predict the possibility of disease outbreaks, disease trends for cultivars and livestock. It quickly identifies cultivars and livestock that are resistant to diseases. (7) People need to use land more smartly and more sustainably through carbon trapping (carbon absorption – sequestration - storage solution) and reducing N₂O emissions³⁹. This is one of the forms of regenerative agriculture⁴⁰ and circular agriculture. In this way, it will help restore soil nutrients and ecosystems, solve inequalities, and keep people's soil, water and climate in a better state for future generations.

Fourthly, it is about perfecting the system of policies and laws on sustainable agriculture. The reality shows that most countries in the world recognize the role of policies and laws in promoting and supporting sustainable agriculture. Food, Agriculture and Rural Basic Act (Act No. 106 of 1999, amended and supplemented in 2005)⁴¹ in Japan is an example. Accordingly, the purpose of this Act is to promote comprehensive and systematic measures of food, agriculture and rural areas, thereby stabilizing and improving people's lives and achieving healthy growth of the national economy through providing basic principles and basic problems to implement those principles and

³⁷ Catherine Higham, Joana Setzer, Harj Narulla and Emily Bradeen. (2023). *Climate change law in Europe What do new EU climate laws mean for the courts?* Retrieved from: <https://www.lse.ac.uk/granthaminstitute/wp-content/uploads/2023/03/Climate-change-law-in-Europe-what-do-new-EU-climate-laws-mean-for-the-courts.pdf>.

³⁸ Assoc. Prof. Nguyen Duc Minh. (2017). *Developing policies along with laws and deploying actions responding to climate change in Vietnam*. Retrieved October 1, 2017 from: <http://lapphap.vn/Pages/tintuc/tinchitiet.aspx?tintucid=208092>.

³⁹Elizabeth Waddington. (2020). *Carbon Farming: Sequestering Carbon in Plants and Soil*. Retrieved June 04, 2020, from: <https://earth.fm/updates/carbon-farming-sequestering-carbon-in-plants-and-soil/>.

⁴⁰ Regenerative agriculture asks us to think about *all aspects of agriculture connected through a network* – a network of entities developing, enhancing, exchanging, distributing and consuming products and services – instead of a linear network.

⁴¹ *Food, Agriculture and Rural Areas Basic Act (Act No. 106 of 1999)*. Retrieved from: <https://faolex.fao.org/docs/pdf/jap66987.pdf>
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clarify the State's and local authorities' responsibilities for solutions to food, agriculture and rural areas. Besides, this act adjusts the development of basic plans for food, agriculture and rural areas so as to promote the synchronous and systematic implementation of policies on agricultural development; food consumption policy in order to strengthen the management of food quality and hygiene, appropriate food labeling to ensure food safety; import and export policies of agricultural products; policies of developing sustainable agriculture; rural development policies; Establishment of a Food, Agricultural and Rural Policy Council with no more than 30 members appointed by the Minister of Agriculture, Forestry and Fisheries. It can be seen that the highlight of this Act is introducing measures for sustainable agricultural development such as establishing and managing an agricultural system in the form of a farm and along with the region's characteristics, in which the state must use promotion policies on the development of agricultural production infrastructure, expand the scale of agricultural management, and take other necessary measures to promote the improvement of agricultural management infrastructure. Furthermore, in order to facilitate full-time concentration farmers and other motivated farmers running an agricultural business or cooperative, the State must establish many activities to deal with their requirements and help those farms develop. Therefore, with the experience of building a system of policies and laws on promoting sustainable agricultural development in Japan together with the practice of law enforcement on agriculture in Vietnam, it is necessary to implement the following specific solutions:

(1) Establish policies on agricultural restructuring with the following objectives: ensuring fair income for farmers; increasing the competitiveness of agricultural products; fully and consistently enforcing competition laws, unfair competition rules, antitrust rules and imposing severe penalties for dominant practices in the agri-food supply chain; adaptation to climate change; landscape and biodiversity conservation; supporting innovation in new technologies; creating vibrant rural areas; clean, safe and quality food to protect health. Therefore, improvements in policies on agricultural restructuring in general and farming in particular are the fastest way to poverty reduction in rural areas because rural families often earn their living by many different jobs, but the main job is still attached to agriculture⁴². However, with each plan in agricultural restructuring, the structure of rural agriculture requires prioritization because a plan will not succeed if trying to cover everything. It is recommended to focus on contents and activities that change agricultural economic growth in the countryside in Vietnam.

(2) Establish policies on creating opportunities to set up agricultural enterprises, orient the market for farmers. Accordingly, agricultural enterprises run by farmers must be developed and the State has policies on encouraging them to operate smoothly, helping to improve incomes and living standards. In addition, the State orients on input and output markets in agricultural transformation policies for farmers. That's why people in rural areas often focus on volume rather than value and productivity. Meanwhile, only high-value and high-yield products probably dominate foreign markets and significantly increase incomes for agricultural enterprises and poor farming households.

(3) Training policies for farmers to do sustainable agriculture and ensure enough workforce to participate in the agricultural sector. Accordingly, so as to train farmers to manage farm business or agricultural enterprises effectively and stably, the State must take measures to improve farmers' agricultural skills and business management skills, and encourage those who have intention of starting farming to learn agricultural skills as well as management methods, and other necessary measures.

(4) Need to develop more subsidy and trade policies in agriculture. Accordingly, the transformation of agriculture and its structure is not only a change in farming practices of farmers, but also a catalyst needed to transform one nation's rural economy. Thus, there are many regulations related to banks, labor, infrastructure, land, water, telecommunication, tax, insurance and so on. These are issues that need considering in policies to support the agricultural transformation.

⁴² *Successful agricultural transformations: Six core elements of planning and delivery*. Retrieved December 01, 2017, from: <https://www.mckinsey.com/industries/chemicals/our-insights/successful-agricultural-transformations-six-core-elements-of-planning-and-delivery>. 2617

(5) Promote women's participation in agriculture. Accordingly, in order to ensure opportunities for men and women to take part in all kinds of activities as equal members in society, the State must properly evaluate the role of women in farm business or agricultural enterprise and promote an environment allowing women to have a chance to engage in farm business and other related activities in accordance with their wishes.

(6) Policy on technology development and promulgation. Accordingly, in order to effectively promote research, development and promulgation of technology related to agriculture, food processing and distributing, the State must take measures to define objectives for related research and development of technology clearly, boost cooperation between countries and institutes of development studies at the provincial level, between universities and private sectors, etc., to promote technology promulgation projects related to agriculture based on the characteristics of each region and countryside.

CONCLUSION

One can say that agriculture can help eliminate hunger, eradicate poverty, raise incomes and improve food security for 80% of the poor all over the world who live in rural areas and mainly work in agriculture. Besides, agricultural development is one of the most powerful tools to end extreme poverty, promote common prosperity and feed 9.7 billion people expected by 2050. In other words, sustainable agriculture is crucial for the future, especially as the world's population is expected to grow while the size of the planet is not. Although, in the international aspect, we have a broad agreement on what sustainable agriculture is, we still lack a way to measure it. That will change soon, thanks to the action and development of an SDG indicator that is currently operating it under the 2030 Agenda for Sustainable Development (which needs assessing in terms of three dimensions of sustainability: economy, society and environment). At the national level, (in order to develop sustainably, it must first) for sustainable development, it is first necessary to eliminate hunger and eradicate poverty. Accordingly, countries in the world, including Vietnam, must find measures to eliminate it, and the formulation as well as the implementation of the above legal solutions is one of the bases for implementation in Vietnam in the next time.

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