# FULL REPORT

# FOOD SOVEREIGNTY:
# INTERNATIONAL EXPERIENCE AND PRACTICE TO ETHNIC MINORITY FARMERS IN VIETNAM




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The discussions in the Report are those of the authors and do not reflect the views of the sponsor or the organizations where the authors are working.

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| | |
|---|---|
| EU | The European Union |
| FAO | Food and Agriculture Organization of the United Nations |
| FGD | Focused group discussion |
| GDP | Gross Domestic Product |
| GRDP | Gross Regional Domestic Product |
| GSO | General Statistics Office |
| ha | Hectare (10,000 metric square meters) |
| II | In-depth interview |
| NGO | Non-Governmental Organization |
| QI | Questionnaire interview |
| RLS | Rosa Luxemburg Stiftung |
| USD | United States Dollar |
| VND | Vietnam Dong (Vietnamese currency) |
| VRG | Vietnam Rubber Group |
| WB | The World Bank |

# 1. Introduction

Agriculture is an extremely important economic sector of Vietnam. According to the General Statistics Office, in 2020 the total production value of the agricultural sector gained US$40.2 billion, it was equivalent to 14.85% of the total GDP of the country (GSO, 2021).[1] Although the sector's share in GDP has gradually decreased for recent years, agriculture is still the sector that makes jobs for 40% of the whole country's labor force (The World Bank--WB, 2020). Over 63% of the country's near 97.6 million people lives in rural areas[2] depending on agricultural production in different levels, of which more than 9.1 million farming households are involved in direct production, their lives mainly depend on agriculture.[3]

The agricultural sector also contributes significantly to national export. Vietnam ranks second in Southeast Asia and 15th in the world in exporting agricultural products (WB, 2016). The export turnover of agricultural products rocketed from US$4.85 billion in 2001 to US$41.2 billion in 2020, accounted for 15% of the total export turnover of the whole country, with nine commodities which achieved the export turnover of over US$1 billion including timber and wood product, shrimp and catfish, vegetable, fruit, cashew, rice, coffee, rubber, pepper, cassava and products processed from cassava. The main export markets for Vietnamese agricultural products are the US, China, Europe, ASEAN, Japan and South Korea (GSO, 2021).

The above achievements have been determined by the orientations, strategies and policies of the Party and Government recently. The Agricultural Development Strategy, the Agricultural Restructuring Program, the Development Strategy of Cultivation, etc. have shifted the agricultural sector from self-sufficiency/subsistence to market orientation, from small-scale production to accumulate land for large-scale production, from development in the width to the depth and towards sustainability (focusing on increasing product quality, value and profit), encouraging value chain linkages, connecting the production with processing and consumption markets (both domestic and export); applying scientific and technical advances and high technology, replacing low-yielded indigenous varieties by new high-yielded ones, etc.

These orientations, together with its positive results recently, have made the motivation for farm households to accelerate the conversion of indigenous/traditional plants to exotic ones with high yield and higher economic value proposed by seed suppliers or outside processors. More and more farmer households have used their limited production land for production to grow new crops, participated in the linkage models contributing their land with processing enterprises to produce the products according to orientation of the invloved enterprises and market demand.

Despite the positive effects mentioned above, the shift from traditional crops which are suitable to the knowledge, capacity and conditions of smallholders to the large-scale, market-oriented production, which are introduced by the outsiders etc., would potentially risk the livelihoods of the smallholding farmers. When participating in the linkage models of production which are market-oriented and dependent on external actors to sell the products, farmer households lose their rights on decision making, are dependent on the outsiders in selling products, and thus would face the risks of losing income/livelihood when a certain node of the linkage had problems, or market preferences changed.

[1] GDP in the whole country in 2020 estimated at US$271.2 billion (General Statistics Office, 2021).

[2] Statistical Yearbook 2020. General Statistics Office, 2021.

[3] The agricultural industry includes agricultural production, forestry and fisheries. Agricultural production in Vietnam is organized in three main forms, including households, cooperatives and enterprises. According to the survey results in 2020, the whole country had 9,123,018 agricultural, forestry and fishery production units, of which there were 9,108,129 production households, 7,418 cooperatives, and 7,471 enterprises (Source: https://www.gso.gov.vn/du-lieu-va-so-lieu-thong-ke/2021/06/thong-cao-bao-chi-ve-ket-qua-dieu-tra-nong-thon-nong-nghiep-giua-ky-nam-2020/).

Over the past two decades, the concept of "Food Sovereignty" has been increasingly mentioned and has become an important topic in international discussions related to food security and development. However, in Vietnam, food sovereignty is still a new concept, it has rarely known and hasn't been used in any executive documents, programs, or policies of the Party or the Government.

Food sovereignty is defined as "the right of people and communities to healthy and culturally appropriate products, being grown or produced by the methods which are suitable and sustainable ecologically; and the right to decide how to build their own food and agricultural systems."[4] Food sovereignty, in other words, is an approach that emphasizes the autonomy of farmers in deciding to apply for the most suitable farming system to their cultural characteristics, ecology, ability, and need.

Of over 9.1 million farm households across the country, 3.7 million households, accounting for 40.7%, are ethnic minority households mainly living in mountainous areas of the country (GSO, 2021). They have many typical characteristics of culture, ecological environment, and production conditions of mountainous areas such as low and sloping production land, lack of water, harsh weather and climate, etc. Ethnic minority farmers also have the common characteristics which are relatively limited economic capacity, knowledge, educational level, negotiation ability, etc. However, in many places, many ethnic minority farmers have participated in the linkage models of large-scale market-oriented agricultural commodity production. In many localities such as Son La, Thai Binh, Ha Nam, Lao Cai, Long An, Gia Lai, Kon Tum, etc., some processing companies/enterprises have cooperated with local households in the model of contributing production land, to create large-scale production areas to produce agricultural products for outside market/export. The farmers who do not participate in cooperation with businesses also tend to shift their crops according to current market demand: from traditional, small-scale and extensive farming crops (such as native rice, maize), to intensive large-scale farming system using exotic or outside-introduced crops which serve the demand of outside markets including export, such as fruit crops, hybrid maize, hybrid rice, etc.

Center for Agricultural Research and Ecological Studies (CARES) under Vietnam National University of Agriculture, with financial support from the Rosa Luxemburg Stiftung (RLS) of Germany, conducted the research on the impacts of participating in an intensively large-scale agricultural commodity production model following market orientation to the livelihood of the ethnic minority farmers in Vietnam. The research focuses on answering questions:

1) What are the advantages and disadvantages to the ethnic minority smallholding farmers when shifting from traditional production with native crops to intensively large-scale market oriented agro-commodity linkage production model?
2) How is the food sovereignty or self-determination of the ethnic minority smallholding farm households affected when participating in the linkage model?
3) How to ensure best food sovereignty for the involved farm households, especially the poor ethnic minority smallholding farmers?

The study used data from various primary and secondary sources. International reports and discussions on food sovereignty; statistics data from the General Department/Department/Sub-Department of Statistics, General Department of Vietnam Customs, Department and Division of Agriculture and Rural Development, Department of Industry and Trade, People's Committees of districts and communes in the study area; and reports, survey data of other organizations and individuals, are secondary sources of information used in the report.

Primary information were collected through field surveys in Son La province, carried out in July 2021. In-depth interviews, group discussions and questionnaire interviews are techniques used to collect information from officials of provincial, district and commune departments/agencies/committees;

[4] Torrez, Faustino. 2011. "La Via Campesina: Peasant-led agrarian reform and food sovereignty." *Development* 54 (1):49-54.

representatives of agro-commodity enterprises; production input agents; and ethnic minority farm households. Appendix 1 summarizes the interview locations, interviewees and number of interviews.

The report ***"Food Sovereignty: International experience and practice to ethnic minority farmers in Vietnam"*** is the product of this study. The report is organized in 5 main parts. After the Introduction (Part 1), Part 2 provides an overview of the concept of Food Sovereignty and experience from some countries around the world on the process of institutionalizing food sovereignty, as well as lessons in the implementation of food sovereignty in practice. Part 3 of the Report provides information on the current situation and development orientation of Vietnam's agricultural sector. This information is used to discuss the effectiveness, opportunities and challenges of applying food sovereignty in Vietnam in general, and for ethnic minority farmers in particular. Part 4 presents two case studies in Son La on linkage models of passion fruit and rubber, in order to illustrate and clarify the advantages and disadvantages of households when participating in the intensively large-scale agro-commodity market-oriented production model. Based on the above information, Part 5 of the Report provides discussions on importance of food sovereignty for ethnic minority smallholding farmers, and suggests the implementation of food sovereignty in Vietnam.

# 2. International experience and lessons on food sovereignty

## 2.1. Overview of food sovereignty

**History of Food Sovereignty**

Over the past three decades, millions of small and medium-sized farmers around the world have lost their land due to government policies that opened the way for large-scale agribusiness corporations to produce food for export. At the same time, the import of cheap food has also destroyed food production systems at the local and national levels in many countries. As a result, many countries are no longer able to produce and supply food and gradually become dependent on food imports from abroad. This is believed to be the result of a liberalized economic development model on a global scale (Claeys, 2015). To address this issue, FAO (Food and Agriculture Organization of the United Nations) introduced the concept of food security to ensure that governments are responsible for providing enough food for all citizens. However, the concept of food security introduced by FAO could be a way for countries to continue to do agribusiness to increase exports and reduce pressure from countries like the United States on other countries through the promotion of free trade agreements. Thus, the FAO's proposed food security effort has not changed the lives of farmers in developing countries who are struggling to live based on exporting the goods to developed Western countries.

At the FAO's World Food Summit in 1996, La Vía Campesina, an organization representing smallholder farmers, that was established in 1993 in response to the rapid globalization of agribusiness and Concentration of transnational corporations, introduced the concept of Food Sovereignty in response to the view of food security proposed by the FAO previously (Claeys, 2015; Andrée et al., 2014). At the same time, Food Sovereignty challenges the approach of the World Trade Organization--WTO (the organization was established in 1995 by Western developed countries to lead the negotiations on global trade) by giving a new human rights-based framework into the negotiations on trade in agricultural products. Food sovereignty sees food and agriculture, ecology and culture as intrinsically interconnected – a breakdown in one system can mean a breakdown in another. Food sovereignty celebrates diversity and values food production in all societies and places.

**Definition and pillars of food sovereignty**

Firstly, the concept of food sovereignty is assumed to be the right of people to healthy and culturally appropriate food produced through sustainable methods. Accordingly, food sovereignty is considered as a human right. Farmers are entitled to continue to be producers. Food sovereignty is tied to the right to produce, access to land and democratic control over the food system and the right to define

their own food and agricultural systems (La Via Campesina, 1996). According to La Vía Campesina (1996), food sovereignty is necessary:

- To secure food sovereignty in each and every country giving priority to food production for its people, social aspects and environmental.
- To give each country the right to define its own agricultural policies in order to meet its domestic needs; This includes the right to prohibit imports to protect domestic agricultural production and implement Agrarian Reform, providing peasants and small to medium-sized producers with access to land;
- To stop all forms of dumping and to protect the production of staple domestic food.

Until now, the definition of food sovereignty which was presented in the Nyéleni Conference Declaration in 2007 was the most common one. In this statement, food sovereignty not only emphasized the importance of food production, but also ecological aspects and sustainability (Andrée et al., 2014).

According to the Nyéleni Conference Declaration on Food Sovereignty in 2007, the aspirations and needs of producers, distributors and consumers of food are key points of food systems and policies rather than the needs of the market and corporations. *"It defends the interests and inclusion of the next generation. It offers a strategy to resist and dismantle the current corporate trade and food regime, and directions for food, farming, pastoral and fisheries systems determined by local producers. Food sovereignty prioritises local and national economies and markets and empowers peasant and family farmer-driven agriculture, artisanal - fishing, pastoralist-led grazing, and food production, distribution and consumption based on environmental, social and economic sustainability. Food sovereignty promotes transparent trade that guarantees just income to all peoples and the rights of consumers to control their food and nutrition. It ensures that the rights to use and manage our lands, territories, waters, seeds, livestock and biodiversity are in the hands of those of us who produce food. Food sovereignty implies new social relations free of oppression and inequality between men and women, peoples, racial groups, social classes and generations" (Nyéléni, 2007).*

According to Claeys (2015), the 2007 Nyéleni Declaration emphasis more on addressing issues that are associated with global free trade, including six pillars:

- To focus on food for all: Food is not just a commodity or an ingredient for international agribusiness but a human right. Food sovereignty places the right to enough healthy and appropriate food for all people at the heart of agricultural policies.
- To respect food suppliers: Food sovereignty values and supports the contributions and interests of women and men who are involved in the cultivation, care, harvesting and processing of food; and oppose policies, actions and programs that undervalue them, threaten their livelihoods and remove them from the food system.
- Localization of food systems: Food sovereignty brings food suppliers and consumers closer together; Put them at the center of decision-making processes to create mutually beneficial relationships. Specifically, it will protect food suppliers from dumping in local markets, and protect consumers from food of poor quality, unhealthy, culturally unsuitable and genetically modified foods.
- Placing control of natural resources at the local level against privatization of natural resource ownership: Food sovereignty respects the rights of food suppliers to control land, seedlings, livestock, schools of fish and their water basin. Food suppliers can use and share natural resources in a friendly way with the eco-environment, preserve diversity and reject the privatization of natural resources. It also promotes positive interaction between food suppliers in different regions and territories and from different sectors, which help to resolve the internal conflicts between local and national governments. In addition, it rejects the

privatization of natural resources through legislation, commercial contracts, and intellectual property rights regimes.

- Building the common exchange of indigenous and traditional knowledge and skills: Food sovereignty is built from the sharing of indigenous skills and knowledge, which have been preserved and developed over many generations for sustainable food production and harvesting. It develops the systems of appropriate research to support this and pass the indigenous knowledge to future generations. In addition, it also rejects the intervention of technologies that degrade and threaten health and the environment.
- Working with nature friendly: Food sovereignty focuses on production and harvesting methods that maximize the contribution of ecosystems, avoiding costly and toxic forms of production (eg. such as monoculture farming, overfishing, industrial-scale production), while enhancing the resilience of indigenous food systems to the impacts of climate change.

**Debate on food security, self-sufficiency and food sovereignty**

Food insecurity can be defined as the failure of providing adequate and nutritious food to the citizens of the country. There are four approaches in the current academic debates on food insecurity. Firstly, the global food crisis is a supply and demand issue both at the national and international levels, adopting a productionist approach, which emphasizes the need to increase capacity, especially through highly modernized agricultural solutions. The second approach is built on a production-oriented model, but advocates food self-sufficiency because without food self-sufficiency, the people will not have access to enough food and/or the State will become dependent on importing food. The third approach of food security is based on the idea that the households' ability to get enough food depends on their rights, and emphasizes context-specific food security at the household level. The fourth model, it is advocated by La Via Campesina transnational peasant movement which supports food sovereignty, a concept that not only includes everyone's access to enough food but also the rights of individuals to determine their own food and agricultural policies (Schreer & Padmanabhan, 2020).

Thus, it can be seen that compared with the concept of food security, food sovereignty shares both similarities and differences. Like food security, food sovereignty ensures that smallholder farmers can access to food. However, unlike food security, food sovereignty emphasizes political and economic aspects to ensure an approach based on the rights for smallholder farmers to define their own food systems and their own market.

## 2.2. Experience in institutionalizing food sovereignty in some countries in the world

In the past decades, based on food sovereignty and human rights frameworks, civil society organizations have also defended the people's rights to healthy and culturally appropriate food with through sound and sustainable methods as well as the rights of food producers to use and manage land, territory, water, seedlings, livestock, and biodiversity. Thanks to the leadership of social movements and civil society organizations such as La Via Campesina, FIAN International, GRAIN and CETIM, many of these rights are now officially recognized in the Declaration of the Rights of the Peasants and the people live in rural areas of the United Nations (UNDROP, 2018). This declaration has greatly impacted on the legal system in many countries by giving new individual and collective rights to nature and sovereignty of food, going beyond the 'right to food' (Claeys, 2015).

For the past decade, the focus has shifted from the international level to regional, national and local food sovereignty policies. At the national level, many countries, in coalitions or under the pressure from peasant movements, have initiated the efforts to achieve the recognized right of food sovereignty and shift into public policies. Constitution recognizes that the food sovereignty has been achieved in several countries, notably Ecuador, Bolivia and Venezuela (Giunta, 2014; Mckay et al., 2014; Peña, 2016; Henderson, 2018). The right to food sovereignty was also been included in the 2007 Interim Constitution of Nepal (Sharma & Daugbjerg, 2020b; Sharma & Daugbjerg, 2020a). In other countries,

such as Indonesia, Nigarawa, their policy towards food sovereignty has been built on the initiatives of farmers' organizations (Godek, 2015; Schreer & Padmanabhan, 2020).

In general, at the national level, the food sovereignty paradigm in national food and agriculture policies towards policies aiming at:

- Promoting agriculture as the motor of the economy, that means that agriculture should not only feed the national population but also contribute to economic growth,
- Boosting national food production for food security, often in the context of a self-sufficiency strategy, although agroexports are still seen as an opportunity for rural economic development,
- Favouring the farming practices that use indigenous knowledge (less industrial, more family based) but not necessarily moving away from large-scale agricultural production,
- Providing the access to land and limiting the invasion of transgenic seeds.

**Experience in institutionalizing food sovereignty in Latin American countries**

***Ecuador***

Ecuador is one of the few countries in the world that has attempted to conduct the food sovereignty through the State under the former President Rafael Correa. With the advocacy of civil society organizations and the support of the State, food sovereignty was incorporated into the country's constitution in 2008. Article 281 of Ecuador's Constitution establishes food sovereignty as a "strategic target and obligation of the State." The constitution also prohibits transgenic seeds and land accumulation. This has created a scenario where smallholder farmers in Ecuador have been placed in a favourable position to ensure food sovereignty (Sharma & Daugbjerg, 2020a).

However, there are many obstacles to the institutionalization and enforcement of food sovereignty in Ecuador. Firstly, food sovereignty and its principles were incorporated into Ecuador's constitution as a compromise by all stakeholders, including indigenous organisations and social movements, non-government organizations, agricultural export companies and the administration of the President in order to try to ensure that they will "achieve what they cannot be accomplished in the constitution" through the Law on food sovereignty. The Law on Food Sovereignty, known as the Organic Law of the Food Sovereignty Regime (LORSA), did not reflect the meaning of food sovereignty as desired by the coalition of supporting food sovereignty, who argued this Law not to reflect the meaning of Food Sovereignty as stated in the Constitution to build an alternative model of agricultural development for the agricultural production model of the capitalism. This led to a serious political split between agreed and disagreed groups within the governing coalition. In addition, even the members of the president's political party also had different opinions of the reform measures included in the Food Sovereignty Act (Gunta, 2014). In addition, the National Committee on Food Sovereignty (COPISA) was established with the task of writing the law to make food sovereignty become true, but after it was established, it encountered many obstacles. COPISA was quickly removed from the power system and became “a public organisation without power”. Specifically, as of 2016, none of the nine draft laws of the COPISA hasn’t been passed (Peña, 2016).

By 2011, the enforcement of food sovereignty in Ecuador came to a standstill when President Correa publicly criticized smallholder farmers as "a disaster" and linked rural lifestyles to poverty. In particular, President Correa's administration also failed to make his promise of land reform, which caused many peasant organizations to split with Correa. In turn, the movements that gave food sovereignty on the agenda were gradually undermined, divided, and even criminalized by the government.

By 2013, after being re-elected, President Correa had focused on "productivity", prioritizing market-oriented agriculture more than smallholder agriculture and the development of chemical agriculture more than organic production agriculture. With the support of the State, the powerful supermarket

chains have brought smallholder farmers into the agribusiness supply chains. As a result, small-scale agriculture and food sovereignty were no longer a concern of the State.

The evolution of the process of institutionalizing Food Sovereignty in Ecuador showed that there was a lack of agreement on the content of food sovereignty in the political system of Ecuador. According to Giunta (2014) Land ownership and agricultural models (specifically GMOs and fuel agriculture) seem to be the most contentious issue, as a part of the choice to continue developing market agriculture and shift to ecologically agricultural models and food sovereignty. Why this happened, some scholars make interesting observations, especially in relation to land reform. In particular, the movements of national food sovereignty in Ecuador have weakened because they are in a dilemma against the government of President Correa, which they have supported despite the lack of paying attention to all the demands of the movement from the Government. On the other hand, the Correa government applies nationalist policies to be against the neo-liberalization policies of the previous regimes, which also prevented the rise of anti-government movements. As a result, in Ecuador, the policies and programs of land distribution —an important aspect of the idea of food sovereignty—have not progressed as anticipated (Giunta, 2014; Mckay et al., 2014). In addition, the government also continues its policies towards export agriculture. Although the Correa government has paid for food sovereignty, its agricultural policies are still geared toward agricultural exports, large-scale agriculture and encouraging land consolidation rather than addressing inequality on land distribution.

Even so, the institutionalization of food sovereignty in Ecuador also brought certain positive results. Although food sovereignty is no longer on the agenda of the State, it has not disappeared. Instead, the principles underpinning this concept have been applied in agro-ecological practices. Over the past decade, this ecological approach to agriculture has been adopted by a range of rural movements at the local level and by academia at universities. Thus, ecological agriculture is currently a form of farmer's resistance associated with food sovereignty.

In conclusion, when it turns the idea of food sovereignty into concrete policies and measures, even the proponents of the idea are remarkably divided. The politicized idea of food sovereignty helped set the agenda for Agrarian Reform in Ecuador, but this doesn't lead to a significant change in the country's actual policy.

***Peru***

According to Toledo (2016), the polarizing debates around food sovereignty were the cause of the delay in the institutionalization of food sovereignty in Peru for near 2 years. Despite these obstacles, civil society and food sovereignty advocates in Congress have been successful in getting the food security and food sovereignty bill back into the political discourse and facilitating its passage by majority vote. However, further efforts are still needed to promote this law to be implemented and to have significant impacts on Peru's current food system and agrarian economy.

The success in defining and incorporating food sovereignty into a food system built on the foundation of global free markets and trade in Peru has provided a new way of institutionalizing food security and food sovereignty into national frameworks. In the case of Peru, unlike other Latin American countries such as Ecuador, Bolivia and Venezuela, food sovereignty has only been integrated into a food system based on free trade and market rather than changing this system. This has changed the model of institutionalizing food sovereignty. This raises the concerns that this approach of food sovereignty remains vulnerable to be interfered with by the governments which consider food sovereignty as a threat to the fundamental model of free trade and global markets. However, in practice, this approach is working, food sovereignty is changing the shape of food policy in Peru (Toledo, 2016).

**Experience in institutionalizing food sovereignty in Asia**

***Indonesia***

Indonesia is one of the few countries in Asia that has made efforts to institutionalize food sovereignty. The Indonesian Food Law 2012 provides an insight into this country's political system on the issue of food sovereignty (Neilson & Wright, 2017). The law builds on three foundations: Firstly, food is the most basic need of humans and its implementation is a part of the human rights guaranteed in the country's constitution in 1945. Secondly, the State have an obligation to ensure the availability and affordability of nutritious food produced and supplied based on local resources, institutions and culture. Thirdly, because Indonesia is a country with vast natural resources, the State can meet the food demand of the nation independently and sovereignly (Schreer & Padmanabhan, 2020). It can be seen that Indonesian Food Law stipulates food sovereignty, food self-sufficiency and food security as key principles in guiding the nation's food policies. Food sovereignty is considered the right of the Indonesian State and country to develop its food policy independently. Food self-sufficiency (or literally food independence) is defined as the ability of the State and country to produce enough food domestically to meet the needs of its citizens. Food security is defined as having enough food in both quantity and quality, in ways that do not conflict with religion, belief and culture.

However, the recent analyzes of Indonesia's food policy have criticized the Food Law for introducing conflicting and incompatible concepts (Neilson & Wright, 2017). In particular, the law refers to the issue of “food availability” and limit to refer to the underlying structural political-economic conditions that make the people's rights, i.e. the right to access to food at the individual and household levels. Furthermore, as the case happened throughout Indonesian history, the State continues to link food security to national food self-sufficiency in particular, and national security in general. By linking food security to national security, the government legitimizes its own role in defining the nation's food policies and the definition of food sovereignty in the State’s rights. However, the measures are taken for food self-sufficiency, such as protectionist trade policies and the establishment of large-scale agricultural zones, often have disadvantageous impacts on both the local people and their environment (Schreer & Padmanabhan, 2020). Thus, by focusing on national self-sufficiency, the Indonesian government failed to address food insecurity at the household level and thus failed to fulfill its obligations of human rights about food. However, to some extent, the negative effects of these policies have been offset by the implementation of food programs for the poor and the promotion of sustainable food production systems at the local, including Organic agriculture production (Neilson & Wright, 2017; Abdoellah et al., 2020; Schreer & Padmanabhan, 2020).

***Nepal***

Nepal has adopted liberal economic policies since the late 1980s, including in the agricultural sector. However, this is unlikely to have a major impact on this sector. Instead, there are many domestic challenges such as inequality in land ownership, increasing use of pesticides, the inability of the government to provide adequate financial and technical support to farmers. These issues made the motivation for food sovereignty to be included in the 2007 Provisional Constitution by the political forces of the Nepalese peasant (Sharma & Daugbjerg, 2020a). Thus, with the support of political forces representing farmers, especially the National Peasants' Coalition, Nepal is one of the countries in Asia that early brought food sovereignty into the country’s constitution. Food sovereignty was first incorporated into the 2007 Provisional Constitution and then the 2015 Constitution of Nepal. However, the institutionalization of food sovereignty in Nepal also encountered many obstacles and did not achieve the expected results.

The main reason pointed out is that the members of the National Farmers Union do not have a common view on food sovereignty. In particular, there were many points of disagreement on the land policy reform. A number of farmer leaders, agricultural policy analysts and activists have advocated the program of distributing land to provide land ownership to farmers. But in the view of Nepalese civil society activists who have worked on land rights for many decades, they pointed out that land

fragmentation was the problem that needs to be solved, and therefore it was more profitable if consolidating small plots of land and providing farmers with long-term leases of 30–50 years. In addition, there was also a more progressive viewpoint that called for the State to take back the private ownership of land and lease it to farmers. Because of the disagreement over the direction of land policy reform as outlined above, even though food sovereignty is enshrined in the Constitution, the programs of reforming land aimed at increasing the accessed rights to land for farmers have not been thoroughly implemented (Sharma & Daugbjerg, 2020b).

In agricultural development policy, there were similar disagreements regarding the contents of agricultural modernization and commercialization. The above disagreements have led to a lack of consistency and clarity in interpreting the meaning of food sovereignty in the process of developing legal documents to shift food sovereignty to actual policy practice. In order to shift the food sovereignty to the policy in Nepal, the Food Rights and Food Sovereignty Act was issued on September 18, 2018. The drafters of the Act sought the opinions from various stakeholders, including the leaders of farmer organizations, but not directly from farmers in order to prepare the law. However, they found that there was still a lack of common understanding among the proponents of food sovereignty. As a result, the first draft was mainly prepared by a technical team, which was then discussed in the parliament's Agriculture, Cooperatives and Natural Resources of Committee. There were many contradictions in the Act and some of its provisions seemed to go against the principles of food sovereignty given by peasant movements (Sharma & Daugbjerg, 2020a). For example, the Act declares that food sovereignty concerns the rights of farmers, which is inconsistent with the constitutional provision that defines it as a fundamental right of all citizens. Likewise, the institutionalization of food sovereignty in Nepal's agricultural development policies seems to be against the ideology of food sovereignty. In particular, the Act of Rights for Food and Sovereignty in Food promotes the transformation of small-scale traditional agriculture to large-scale modern agriculture to increase agriculture's contribution to the national economy and make the country self-sufficient in food rather than strengthening the agricultural system of the small-scale, promoting agro-ecological activities and achieving national food sovereignty. In fact, this Act especially focuses on the development of commodity and exportable crops, and the ability to export, marketize and modernize agriculture through the use of improved technologies, seedlings and pesticides. Similarly, the Act does not provide a complete ban on the use of chemicals and transgenic seeds, which is a key element of food sovereignty promoted by social movements. It only suggests measures to protect farmers from their disadvantageous impacts.

**Experience in institutionalizing food sovereignty in South Africa**

The national food system in South Africa is in crisis and is looking for a more sustainable and equitable approach. Food sovereignty is said to be able to offer initiatives that address the problems in South Africa's current food system (Drimie & Pereira, 2016).

The South Africa Campaign for Food Sovereignty emerged in 2015 to unite organizations, social movements, smallholder farmers, agricultural workers and NGOs that support food sovereignty to become a cornerstone of the national development strategy. The motivation for the campaign of food sovereignty is based on some requirements of the rights to have food or seedlings, develop sustainable agriculture and the smallholder agriculture of several independent social groups. These groups want to connect so that they can challenge the power of the large agribusiness corporations. The key viewpoint of this coherence is the need to ensure enough food for all South Africans and in particular to challenge the current system of high food prices, inequal land distribution and agricultural production systems. Thus, the Campaign sets out to promote the proposals of the Food Sovereignty Act for South Africa, which aims to facilitate food sovereignty and asks the State to take actions to support this. In addition, to direct the challenge of the dominant system and raise awareness in society about the food crisis and famine, the campaign is established to share knowledge, experiences, difficulties and successful lessons.

The objectives of the campaign for food sovereignty in South Africa is to challenge the control of food by a system of profit-driven food businesses by making an alternative food supply system through promoting ecological agriculture and a not-for-profit economy (Drimie & Pereira, 2016). The solutions are offered by the campaign, including:

Firstly, to replace the current food supply system with many intermediaries between producers and consumers, which make the food price that consumers have to pay much higher than the price at the farm gate, cooperatives can play an important role in reducing food prices by increasing their ability to control food distribution systems. For example, Ethical Coop in Cape Town only buys organic products from smallholder farmers around Cape Town where provides the products to users at reasonable prices. Ethical Coop cuts out all the middle actors and creates closer relationships between producers and users. This provides a new perspective on a more equitable system of food supply where profit is not the sole driver of the system.

Another initiative is to bring back nutritious, culturally appropriate diets and produced by local resources, while targeting low-income consumers. The key to do this is to build the incentives to adopt agro-ecological production methods, promote specific indigenous foods that do not require external production inputs, and reduce the impacts on the environment. The Surplus People project is developing such approaches to enable people to return to a nutritious diet, which includes locally grown vegetables and towards the food from the natural environment as well as the traditional ways of preparing food. This involves reviving old methods and recipes, sharing and imparting knowledge to the young, and reaffirming the cultural identity associated with food.

Although the Campaign is still building motivation for Food Sovereignty, its initial results can provide an important impetus to support and build on the above approaches. Adopting an approach of the mass movement could be the main catalyst for the change in the food system in South Africa next time.

## 2.3. Experiences of agricultural practices towards food sovereignty

**Safe land use rights as well as the ability to access and control other elements of the natural ecosystem are necessary conditions to ensure sustainable livelihoods for farmers.**

***Brazilian land reform policies***

Land reform--defined by Lipton (2009) as “the laws with primary objectives is to reduce poverty by substantially increasing the proportion of farming land controlled by the poor, and whereby their income, power or their status increases”. In Brazil an ecological land reform has been started since the 1980s, with the movements to establish the resettlement areas for farmers to focus on the production for local consumption and country rather than export. In settlements there has been a focus on growing local food crops rather than the crops that do not directly contribute to the needs of the local population. In other words, land reform incorporated social and environmental goals (conservation, self-sufficiency, adequate income and dignified livelihoods) into the planning and implementation of settlements. The surveys of approximately 1500 people in 92 settlements in 2000 and 2001 found evidence of increased crop diversity, improved food security, and increased self-reported quality of life (Heredia et al., 2006).

***Protecting land ownership and access to natural resources in Senegal***

In Senegal, land consolidation quickly swept away all the gains among the rural communities who were working to develop agroecology. In 2010, the government incorporated the concept of "healthy and sustainable agriculture" into its agricultural policy and set aside a specific budget for it. However, the progress was interrupted when the government pushed for the establishment of multinational corporations in these territories, arguing that it was the only way towards food security. This has turned farmers into farm workers on their own land while harming the environment. While only six cases of land occupation (total area 168,964 hectares) were recorded in Senegal from 2000 to 2007,

there were 30 cases recorded from 2008 to 2011, covering 630,122 hectares of land. This is an unprecedented increase, and it has sparked outrage and led to protests. The current agro-industrial facilities and harvesting companies often fail to conduct environmental studies, especially on water pollution with chemicals and other effects on water resources. The depletion of various aquifers has occurred due to the excessive exploitation of water by agricultural enterprises. For many years, farmers' organizations and their allies in Senegal have resisted the cooperation to use their resources through raising awareness, call for advocacy, research and training. The basic principle protected by farmers is that land and other resources should be in the hands of the community and that agricultural policy should be based on a financial system that is favorable to family agriculture. Farmers' organizations have developed their own policy proposals that pointed out that land must be considered alongside broader access to nature. They called the government to implement an integrated rural development policy in order to achieve food sovereignty. As a result of this advocacy, the National Land Reform Commission (CNRF) decided to incorporate civil society organizations into its steering committee and stop promoting the commercialization of land. These technical, organizational and political outcomes encourage the groups of farmers to pursue their mission of assisting rural families in reclaiming their land management and implementing the integrated development strategies that can lead them to food sovereignty (Brun, 2018).

***Unsecured land use rights in some countries hinder sustainable agricultural development and ensure the food sovereignty of farmers***

Insecure land use rights and subdivision of land due to external purchases, often from companies, expropriation for other uses, all causes the major obstacles to sustainable agricultural development and the lives of farmers in many countries. In Uganda, for example, farmers are easily excluded from agricultural production because they are difficult in being able to invest in agriculture or other activities with long-term return, because of the risk of losing access to land after investing. The similar case in Bangladesh, while the government promotes home gardening (self-sufficiency), many rural people have only a plot of land large enough for their house. They are unable to produce their own food, they have to rely heavily on the market (Misra, 2018).

***Management systems of seedlings owned by the farmers in Tanzania and India***

Seedlings sovereignty is very important to implement the food sovereignty. Seed rights, and decentralization, community-led seed savings, crop selection and breeding, have enormous potential for agro-innovations, resilience and livelihoods (Mulvany, 2021). Seedlings have received considerable attention for over the years and the participation of the farmers in livestock diversity and breeding is necessary to maintain, restore, and develop sustainable agriculture. However, according to the Bhutani Report (2019), farmers are often disadvantaged in the establishment of the laws on seedling at the local, national and international level compared to seedling businesses. The lessons from India and Tanzania showed that the initiatives to promote seedling management systems are only effective if farmers are involved in decision-making from the local to the national levels. In addition, the democratization of seedling-related legislation must be accompanied by the recognition of the value of indigenous seedlings and an allocation of public financial resources to preserve the native seedlings as well as funding the research to restore and promote the value of indigenous genetic resources. In addition, the initiatives such as the Participatory Guarantee System (PGS) to ensure quality control of seedlings produced by farmers through community-based certification and policies of supporting the organic agriculture development in Tanzania and India are solutions which the State can support farmers in seedling production.

***Focusing on the equity to be able to implement the food sovereignty in India***

Indian society, like many other countries, is highly differentiated and structured by class, gender. Kūdali Intergenerational Learning Centre (meaning participation, meet) and the Food Sovereignty Alliance, India have integrated food sovereignty into an anti-class, anti-patriarchal, and anti-capitalist platform. Kūdali is a center of learning in Telangana, India, and a transformative space for cross-ethnic, cross-

cultural and educational initiatives. Kūdali is part of a movement for food sovereignty by small farmers, herders and leading consumers. Kudali advocates an indigenous philosophy that is also motivated by the idea that food sovereignty and social justice are an important framework of action and practice. The members of the Food Sovereignty Alliance, India know that reaching out to rural and urban children and young people in schools and cities to dialogue about food sovereignty is very important for the future of this movement. The interactions with the youth take place in schools and universities as well as in the movement's learning centers. At Kudali, critical thinking about the collective future is encouraged through the meetings with agricultural farmers; visit their fields and eat grown food on their farms: understand the connections between people, ecosystems, culture and food, and ask questions about the factors and structures that impede food sovereignty; learn to work with soil, manure and seedlings; and express their views in diverse creative ways including art, singing, and theater. Together, by asserting their culture, rights and self-determination, the Food Sovereignty Alliance, India directly confronts inequality as the basis for realizing the promise of food sovereignty. (Anderson et al., 2021).

***To preserve, maintain, and spread the indigenous knowledge through community learning in Latin America***

Traditionally ecological knowledge is essential knowledge held by a society or culture that is relevant to their local environment. Indigenous knowledge seizes these agro-biosystems, is deeply associated with their cultural practices associated with the management and protection of forests and other ecosystems for wild food and medicine tree collection. To enable agronomy, it is important to preserve and restore the knowledge repositories and traditionally local practice. Therefore, it is important to facilitate cultural practices related to the management of biodiversity and territories to encourage the indigenous elders to pass on knowledge to younger generations (Anderson et al., 2021).

Movimiento Campesino a Campesino (CaC), or Farmers' Movement for Farmers, was one of the earliest and most successful efforts to promote sustainable agriculture in Latin America. The CaC-based knowledge network has been highly effective not only in creating and disseminating sustainable agricultural practices in the field, but also helping farmers to build skills and organizational capacity. The CaC is joined by hundreds of volunteer and part-time farmer promoters working with thousands of farmers and with the support of dozens of technicians, experts and local development organizations. They used relatively simple small-scale trials, combined with horizontal (farmer-to-farmer) workshops on basic ecology, agronomy, soil and water conservation, small-scale livestock care, selected seedings, crop diversification, integrated pest management and controlled biological weed (including integrated livestock). These approaches provide farmers with the complete technical and ecological knowledge, as well as the necessary belief, enthusiasm and pride to reverse degenerative processes and overcome limited basic factors in agricultural production. The CaC has succeeded in regenerating tens of thousands of hectares of barren land in the tropical region. For over the years, new insights have emerged on the urgent need to accompany farmer-to-farmer learning in the process of changing social and political structures. The CaC has been shown to be an effective socio-organizational approach to develop a capable teamwork in social and technical work — such as building a social movement, education or lobby — to encourage the spread of agronomy.

***Traditionally agricultural production in Latin American countries***

The research of Parraguez-Vergara et al. (2018) on traditionally agricultural practices (54 different methods) in several Latin American countries indicated that traditional knowledge has directly or indirectly made benefits at local for the participants in the agricultural value chain. The study concludes that the indigenous people and traditional agriculture can contribute to food enhancement in a fair and equal sovereign way in Latin America, while protecting the natural and cultural environment of the agriculturalist. The results of this study also suggest that the contribution of family-based traditional agriculture is important in strengthening the food sovereignty in Latin America. The positive role of traditionally agricultural production is reflected in the following aspects: (a) Cultural

restoration: traditional worldview, knowledge and practices; (b) conservation, protection and improvement of ecosystems: tillage, seeds, sowing, natural fertilizers and pesticides; (c) efficient use of resources: water management and other agricultural activities. These contributions are evidenced by a variety of traditionally agricultural practices in many Latin American countries such as: Chile (37), Peru (42), Ecuador (27), Colombia (30), Guatemala (47), Totonacas of Paplanta (30) and Mayas of Yucatan (26).

The current contributions of traditionally agricultural practices to food sovereignty are shown clearly. For example, some practices such as farming techniques and organic production. The use of these methods can provide the answers to the need to produce healthy, diversified, nutritious, safe, available and accessible food. Some species are domesticated in these areas, such as quinoa and amaranth, have high nutritional value thanks to high-quality protein, iron, magnesium and phosphorus and can also achieve high yields. Another example is the Andean which is a good source of carbohydrates. Most of these crops are grown in an association or cooperative form, making maximum use of the land and reducing the need for external inputs and helping retain soil moisture. The fact that traditionally agricultural practices are tied to the worldview and culture of the indigenous people, which creates a sense of respect and gratitude for the environment.

However, because the cultural capital in modern society is gradually being lost, the existence of traditionally agricultural practices is threatened. Therefore, the assessment and reinforcement of traditionally agricultural practices and cultural knowledge are imperative for achieving food sovereignty. A good example of doing this, the National Agrarian Federation, Peru has preserved and developed the values of traditionally agricultural production through education and training. Through training, the generations of students learn the knowledge of preserving ecosystems and culture associated with their livelihoods and life.

***Enhancing the livelihoods of smallholder farmers in Ecuador***

Soper (2020) studied the status of agricultural production of three rural communities in Ecuador in the context of this country's government promoting the policies on food sovereignty. Communities include Brocano – intensive farming of broccoli for export, Lavaca –dairy farming, and Quiloa – organic Quinoa farming for export. The findings in all three communities suggest that these indigenous farmers are not concerned most with environmental sustainability or local trade, but they are primarily concerned with income enhancement and livelihood improvement. Quiloa farmers practice sustainable farming more than chemically intensive Brocano farmers or monoculture farming Lacava farmers, but the motivation to do so is to meet the consumer’s demand in the markets of developed countries. It was the desire of the smallholder farmers in this study that the government should implement food sovereignty through the programs and policies that facilitate the incorporation of micro enterprises and small farms into the chain of global exports.

*In Brocano*: Average each household of indigenous farmers in Brocano can use one hectare of land. They grow very intensively the broccoli for export on these small plots, with tractors, watering, buying seedlings (incubated in a greenhouse with imported hybrid seedlings), chemical fertilizers and pesticides. It can be seen that they still practice the model of agricultural production towards industrialization and attach to the global market. Their production is not environmentally sustainable and their market is also not local. Instead, they collectively sell their broccoli to an agribusiness company that processes it into frozen broccoli and export to North America and Asia. Thus, from this perspective, it is clear that the actual practices and viewpoint of indigenous farmers aim to earn profits and secure their livelihoods.

*In Lacava*: Farmers breed the monoculture farming dairy. Community members dedicate their land to cow pastures. These indigenous farmers have shifted from diversifying food crops to monoculture farming, the profits from dairy farming are much higher than from other food crops. Farmers sell their milk through a community business to an agribusiness that processes yogurt, cheese and powder milk to regional supermarket chains.

*In Quiloa:* Producing Organic Quinoa by Fair Trade. Quinoa is grown through practising sustainable production. Instead of maximizing yields, the farmers who grow quinoa follow the organic production method by a system of rotating agricultural practices with main food crops such as barley, wheat, and fava beans. In addition, they dedicate their part of their land for pasture to feed many animals on their farm, to have a supply of organic fertilizer for food crops. After harvesting, the farmers who grow quinoa plant cover crops to replenish the soil and let the soil rest for two to three months before their next production cycle. This diverse agro-farming system (agriculture and animal husbandry) embodies the ideal of agro-ecology associated with peasant farming. However, indigenous farmers in Quiloa practice sustainable agriculture, but not because of local needs. Their quinoa is shipped in international markets in order to supply wealthy consumers in the markets of developed countries. They have also pursued the Fair Trade market on their own. Each member contributed US$40 to build a processing facility owned and operated by the producer so they could become their own middleman and better integrate into the global commodity chain.

The findings from the study of Soper (2020) indicated that the reality of farmers' demand needs to be considered as creating the basis of real food sovereignty. Food sovereignty is still ahead and should be geared towards increasing farmers' self-determination in occupying the local agricultural and commercial sectors.

***Organic agriculture practice in Indonesia***

In Indonesia, organic agriculture was started by NGOs then be promoted by the Indonesian government. The two NGOs which are at the forefront of promoting the development of organic agriculture in Indonesia are the Religious Organization (Bina Sarana Bhakti Foundation - BSB) and then Indonesian Peasant Union (SPI). Although the approach is slightly different, the goal of the NGOs as promoting organic agriculture is to bring fairness and autonomy to farmers. For the BSB, organic farming is the result of a worldview based on Asian agricultural philosophy combined with the faith in God. The combination of faith and agricultural production leads to the principles of organic farming practices on the foundation of morality. This leads to sustainable and equitable land and food policies (Schreer & Padmanabhan, 2020).

Whereas for the SPI, organic farming is a political issue: organic farming is inseparable from farmers' political resistance to the market agricultural system. Specifically, organic farming is a way for farmers to be free from the control of the global agri-economic system. In particular, the SPI strongly opposes the idea of developing organic agricultural production towards the export market.

In contrast, the government involvement in organic agriculture, although it is communicated by the messages such as “back to nature”, “thorough” and “local knowledge”, mainly seems to be promoted to develop a niche market for agricultural exports of Indonesia. The Indonesian government has an inconsistent approach to both creating links between organic farming and increasing productivity and targeting export markets and building government control over organic agriculture.

***No commercialization of products from farming home garden in Indonesia***

The research results of Abdoellah et al. (2020) showed that the commercialization of agricultural products from home gardens in West Java, Indonesia had a negative impact on the food sovereignty of households. The products from the home garden contributed to the daily demand for nutritious food in Indonesia. The agricultural practice in the family garden minimizes the use of fertilizers and pesticides, which also play a role in reducing pollution and environmental degradation. The commercialization of agricultural products on household plots, especially in poor rural areas, deprives an agricultural production method of important ecology and an important source of ancillary nutrients for households. This study calls for the Indonesian government to adopt policies that support ecological practices and reduce the use of agrochemicals on small plots of land by many households. This is an important solution in food security and sovereignty in Indonesia.

***Challenges of agricultural development towards the implementation of food sovereignty in the Philippines***

According to Wiedemann (2015), since 2011, the Philippine government decided to implement the Food Staples Sufficiency Program (FSSP). The Philippines has already been 97 percent self-sufficient in rice due to the implementation of the Food Sufficient Program. However, this program faces many difficulties in achieving food sovereignty due to population growth, increasing urbanization, geographical constraints and natural disasters. In addition, the country's participation in the WTO to exercise food sovereignty also faces barriers due to the regulations on free trade. The deregulation of international trade forces the Philippines to promote national self-sufficiency. This leads to high production costs and increased food prices while they still have to import food to meet domestic demand. This study argues that self-sufficiency in the nation's staple food is inconsistent with the Philippines' contexts. The author strengthens this argument by presenting the challenges to the five criteria of food sovereignty.

*Criterion 1: Everyone's right to access healthy and culturally appropriate food.* Since the implementation of the FSSP, rice imports have decreased significantly from 2.4 million tons in 2010 to 398,000 tons in 2013. This means that the country is 97 percent self-sufficient in rice. However, the prices of these domestic products are still higher than those in international trade markets, which is detrimental to domestic consumers, especially the poor.

*Criterion 2: Food is produced through ecologically reasonable and sustainable methods.* However, maintaining primary food self-sufficiency will not be possible for a growing population, especially in a country with a small geographical area. In addition, the frequency of natural disasters has devastated many areas in the Philippines, most importantly in agricultural areas. Thus, instead of increasing the production of staple foods, farmers can diversify crops to reduce the negative impacts of environmental degradation, natural disasters and climate change. Diversification can mitigate the negative impacts on monoculture farming intensification.

*Criterion 3: The right to define their agricultural and food systems, in which "they" prioritize local and national economies and markets over the needs of international markets and corporations.* The Philippine government understands that it is facing many difficulties in maintaining the country's main food self-sufficiency in addition to the requirements of the WTO. As a member, the Philippines no longer has control over its food system. Currently, the government has implemented the FSSP in the hope that by investing in self-sufficiency, it can prevent the economy from suffering the negative impacts on the global market but also reduce the increasing cost of domestic food production.

*Criterion 4: Desires and needs of those who produce, distribute and consume food are focused on food policy and systems, while empowering farmers and farmer-owned agriculture, while ensuring their right to use and manage their land.* Both neo-free trade policy and environmental factors have caused the decline of small-scale farmers, which has prevented from the success of food self-sufficiency. The Philippines government welcomes the alternative approaches of sustainability. However, due to the goal of the FSSP, if these methods do not make higher yields, farmers will be pressured to use modern technologies, such as genetically modified technology. Since the implementation of the FSSP, the subsidies on seedlings and fertilizers have been removed, and rice prices have increased. The shift to organic methods means they don't have to rely on the necessary loans with chemical methods. Although the objective is to encourage sustainable farming methods, the government's action removes the subsidies on seedlings and fertilizers, which makes farmers at greater risk with agricultural production, their main source of livelihood, in the future. This government action only offers farmers two options: (1) adopting GM technology that have risks of causing adverse health effects, increasing environmental degradation and increased risk in debt; or (2) agricultural production using organic farming methods, but this is not a feasible alternative method on a large scale.

*Criterion 5: The implies of new social relations without oppression and inequality between men and women, ethnic groups, racial groups, social and economic classes and generations*. More than 10% of

land owned by women in the Philippines. With the equal access to land, women can access credit and make farming decisions, which can increase the agricultural productivity and output. This is especially important today due to the notion of an agricultural shift in which “men tend to leave agriculture first, which leads to an increasing feminization of agriculture.” However, the concept of food sovereignty is not the only way to achieve gender equality. There are other approaches, such as in the Sustainable Development Goals also have the target of reducing the inequality.

## 2.4. Lessons for Vietnam from international experience

Food sovereignty is institutionalized within a country to protect the access to food and sovereign choice of the nation's food system is based on empowering smallholders to access the natural resources, inputs, promote indigenous culture and knowledge, and promote the development of an ecological and environmentally friendly agricultural system. Food sovereignty aims at protecting the interests of farmers and low-income people as well as ensuring national food security. It aims to create an alternative food system to the current food system based on markets and the free trade mechanism. However, although many movements and countries around the world have tried to put food sovereignty into practice, the results of these processes have just gained at the beginning and have not really brought the results as expected. From the experience of institutionalizing food sovereignty in countries around the world, and the experiences of practising agriculture policies toward food sovereignty, the following lessons can be drawn:

***Advantageous factors:***

- The movement of farmers and civil society organizations in support of food sovereignty has spread from Latin American countries to the world, especially in developing countries. The various models of institutionalizing food sovereignty into legal systems in Latin America, Asia and Africa have provided the options for institutionalizing food sovereignty within national frameworks.
- The support for the concept of sustainable and environmentally friendlyeco-agriculture development. This is one of the initiatives from the food sovereignty to help smallholder farmers and local communities get rid of their dependence on inputs such as seedlings, fertilizers, and pesticides from an industrialized food system and commodity production. At the same time, this is also the basis for consumers to have access to nutritious agricultural products, low prices and suitable for local cultural characteristics.
- The spread, dissemination of indigenous knowledge and cross-linking models among small producers and value chains linked consumers to producers without going through a distribution system in accordance with the market mechanisms have created new options for producers and consumers to escape the control of the food system based on the motivation of economic profit.

***Obstacles:***

- Food sovereignty challenges the power of the current capitalist food system with the interests of big food-trading multinational corporations. In addition, food sovereignty also challenges the viewpoint of promoting the development of large-scale, export-oriented commodity agricultural production to contribute to the country's economic growth. This often leads to conflicts of interest between interest groups in society. Therefore, this is a major obstacle to the institutionalization of food sovereignty due to the disagreement in interpreting the meaning of food sovereignty into agricultural policies in reality.
- In addition, the implementation of food sovereignty often involves in the land reform and the rights to access resources, which is also a major obstacle. The issues related to the reform of land allocation always make deep contradictions in society. This will often not be implemented in a thorough, comprehensive way.

Thus, for Vietnam, a country has been restructuring the agricultural industry towards the sustainable agricultural and rural development, and also aims to increase the contribution of the agricultural sector to the national economy through large-scale commodity production toward the international market, the lessons on food sovereignty which should be considered include:

- To encourage the development of organic and ecological agriculture, to reduce the impacts on the environment and be suitable to the competitive advantages of each region;
- To control the process of land accumulation and agricultural land conversion to ensure the rights and access to land resources for smallholder farmers;
- To encourage the development of farmers' organizations such as cooperative groups and cooperatives in order to strengthen the role and economic power of farmers in the value chain, and at the same time create a network of sharing and spreading indigenous knowledge in food production, processing and distributing;
- To develop domestic market and short value chains, to connect small producers with consumers to ensure low-income people can access nutritious food at cheap prices.

# 3. Agricultural production and food sovereignty in Vietnam

## 3.1. Current status of Vietnam's agricultural sector

Vietnam has experienced the rapid development over the past decade, and has become a middle-income country. Gross domestic product (GDP) has been growing strongly since 2000, reaching US$262 billion in 2019 – almost doubling since 2011 (Chart 1). GDP per capita has followed a similar pattern, reaching nearly US$3,000 per capita in 2019 (Chart 2) (WB, 2020).

*Figure 1. Vietnam's GDP, 2011-2019*

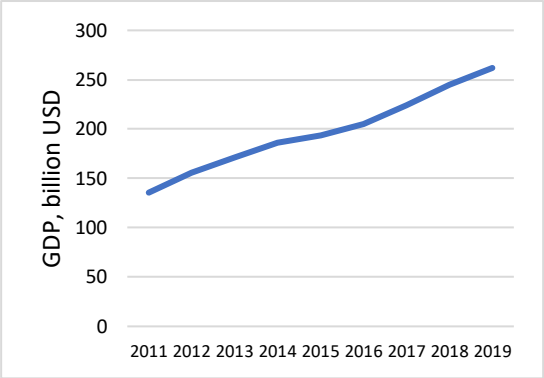
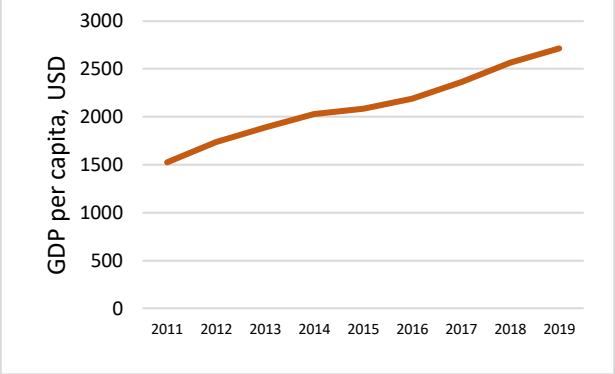


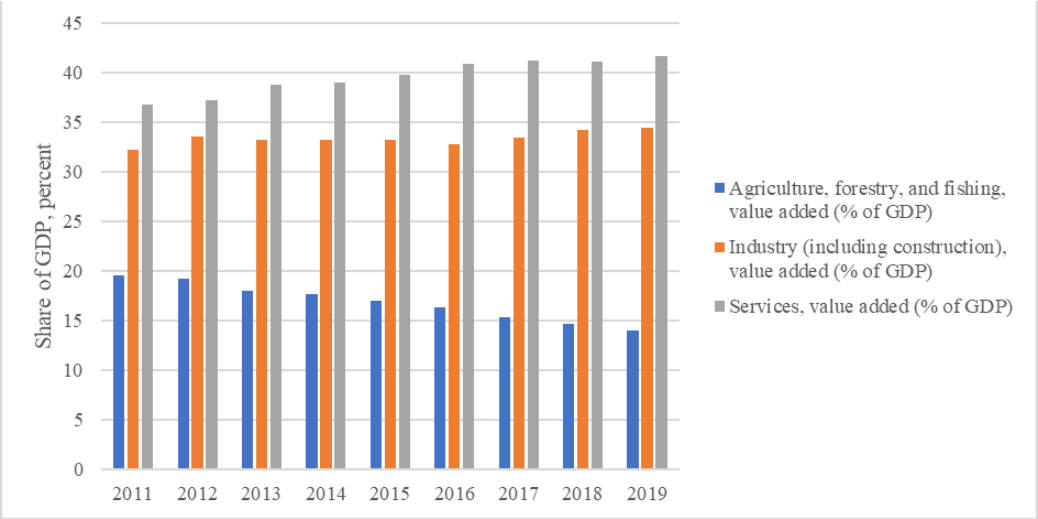

*Figure 2. Vietnam's GDP per capita, 2011-2019*




Source: World Bank (2020).

These changes partly reflect the fundamental structural changes happening in the Vietnamese economy, which has shifted from an economy reliance on traditional agriculture to manufacturing and services (Figure 3). This trend is expected to continue over the foreseeable future.

*Figure 3. Vietnam's GDP share on three economic sectors, 2011-2019*




Source: World Bank (2020).

Although the share of the agriculture in Vietnam's GDP has gradually decreased for recent years, the sector still plays an important role in the economy. The employment in agriculture still accounts for 40% of Vietnam's total labor force (World Bank, 2020). More than 63% of the nearly 97.6 million people living in rural areas[5] depend on agricultural production to different degrees, of which more than 9.1 million farming households are involved in direct production, who are living depends mainly on agriculture.[6] Of these, there are 3.7 million ethnic minority households, with 83.3% living in rural and mountainous areas and dependent on agriculture (GSO, 2021).

The efficiency of Vietnam's agricultural production has made positive changes, constantly increasing for recent years. Only for the crop sector, in the period 2016-2020, the product value per hectare increased from VND 82.6 million per ha in 2015 to VND 102.8 million per ha in 2020, an increase of over 24%. (GSO, 2021). The income from agriculture increased from VND 26.4 million per person per year in 2008, to VND 35.5 million in 2017, an increase of 34.5%. These figures show the potential for the income of farmers to continue to increase next time, which helps improve the living standards of millions of farming households, whose livelihoods entirely depend on agriculture (Tiho and cs, 2020).

## 3.2. Development orientation of Vietnam's agricultural sector

The above-mentioned positive results of the agricultural sector have been attributed largely due to the orientation in the country's development policy. The orientation of Vietnam's agricultural development in the past 10 years is shown in the Party's resolution documents. That is comprehensive, modern, sustainable development of agriculture, large commodity production based on agricultural restructuring, product restructuring associated with innovation in growth models, enhancing competitiveness, painting of agricultural products. This orientation is specifically shown through Resolution 26-NQ/TW, of the 10th Party Central Committee, "Regarding agriculture, rural areas, farmers" dated August 5, 2008; Conclusion 97-KL/TW, dated 9-5-2014, of the Politburo, on "Some guidelines and solutions to continue implementing the Resolution of the Seventh Central Conference Session X on agriculture and agriculture people, rural". Therefore, the agricultural sector implements the process of agricultural restructuring under the market mechanism while ensuring the basic goals

[5] Statistical Yearbook of 2020. General Statistics Office, 2021.
[6] See details in: https://www.gso.gov.vn/du-lieu-va-so-lieu-thong-ke/2021/06/thong-cao-bao-chi-ve-ket-qua-dieu-tra-nong-thon-nong-nghiep-giua-ky-nam-2020/.

of welfare for farmers and consumers, shifting strongly from development towards expanding to improve quality, efficiency, increase economic value and profit.

Based on the above-mentioned agricultural development orientation of the Party, the Government of Vietnam has introduced the following policies:

- Restructuring the agricultural sector to increase value and develop sustainably, linking production with processing and markets.[7]
- Promoting research and development, and technology transfer to improve the quality of plant varieties and livestock, and improve productivity, quality, efficiency and competitiveness of agricultural; applying biotechnology and building hi-tech agricultural zones; improve the ability to prevent and overcome diseases for plants and animals. Policies continue to promote the application of science and technology through enterprises to build models of science and technology application in association with technical training for farmers, improve production techniques and income for farmers. The policies also aim to encourage and create favourable conditions for enterprises and cooperatives to invest in the development of agricultural, forestry and fishery preservation and processing industries.[8]
- Supporting product consumption and market development. These policies enhance the role of industry associations in providing information, production development strategies, business association, negotiation and signing contracts; Promote the development of linkage models between actors; Renovating and building effective economic models, forms of production units in rural areas; Encourage the development of linkages between farm households and businesses, cooperatives, scientific organizations, commodity associations and product markets in order to support household economic development in the direction of family farming, a large farm, and commercial agriculture; To form modern types of production and business organization, to develop various forms of economic cooperation, linkages along the production, processing and trading chains agricultural products, linking agriculture with industry and urban economy.[9]

[7] Decision 899/QD-TT dated June 10, 2013, of the Prime Minister on approval of the project "Restructuring the agricultural sector towards increasing value-added and sustainable development"; Decision 3883/QD-BKHCN by the Ministry of Science and Technology (taking effect from December 29, 2017) promulgating the Vietnamese standard set on organic agriculture. Decree 109/2018/ND-CP dated August 29, 2018 of the Government on Organic Agriculture in Vietnam; Decision 885/QD-TTg of the Prime Minister approving the Organic Agricultural Development Scheme for the period 2020-2030, on June 23, 2020.

[8] The Law on High Technology issued in 2008; Decision 1985/QD-TTg dated December 17, 2012, of the Prime Minister approving the Agricultural Development Program with high technology application under the National High-Tech Development Program to 2020; Decision 176/2010/QD-TTg dated January 29, 2010, of the Prime Minister to promote agricultural cooperatives to apply high-tech; Decision 923/QD-TTg dated June 28, 2017, of the Prime Minister; Decision 575 QD-TTg dated May 4, 2015, of the Prime Minister on approval of a master plan for hi-tech agricultural zones and regions up to 2020, with a vision to 2030; Decision 319/QD-TTg dated March 15, 2018, of the Prime Minister approving the Strategy for the development of Vietnam's mechanical engineering industry to 2025, with a vision to 2035; Directive 25/CT-TTg, June 4, 2020, of the Prime Minister on tasks and solutions to develop agricultural, forestry and aquatic product processing industries and to mechanize agricultural production.

[9] Decree 98/2018/ND-CP of the Government encouraging the development of cooperation and association in the production and consumption of agricultural products. Incentives and supports include: Supporting the consultancy cost of building linkages; Infrastructure that supports linkages; Support for agricultural extension, training, and seeds, materials, packaging, product labelling; Decision 01/2012/QD-TTg of the Prime Minister supporting the application of GAP - Process of Good Agricultural Practices in agriculture, forestry and fisheries; Law on Cultivation promoting production according to food safety standards, quality, large-scale production, and ensure conditions for production in the value chain that focuses on processing and exporting; Decision 62/QD-TTg encouraging cooperation development, linking production with agricultural markets, building large

- Developing synchronous socio-economic infrastructure in rural areas.[10]
- Mobilizing capital and financial support for agricultural development. Credit subsidy policies for businesses when participating in the enterprise-farmer linkage model, applying high technology in agricultural production, include medium and long-term credit packages with preferential interest rates for implementation of the linked model.[11]
- Training and developing human resources for agricultural development.[12]

**Important orientations and policies on agricultural development in the coming years:**

***National food security to 2030***: Conclusion 81-KL/TW dated July 29, 2020 of the Politburo on "Ensuring national food security until 2030" and Resolution 34/NQ-CP dated March 25, 2021 of the Prime Minister on ensuring national food security to 2030:[13]

- Objective: To ensure enough food and foodstuffs for domestic consumption in all situations and partly for export; to increase the income for the people to ensure access to qualified food, food safety; step by step raise the stature, physical strength and intelligence of the Vietnamese people.
- The Resolution sets out the main tasks and solutions as follows:
    - Accelerating the development, restructuring food production, linking with the market: Restructuring the cultivation towards concentrated and large-scale production, on the basis of bringing into play regional advantages; associated with preservation, processing and consumption along with the value chain, meeting the market and adapting to climate change; applying high technology, advanced production processes, biosafety and environmental friendliness.
    - Strengthening research, application and transfer of science and technology in food production, preservation and processing.

The draft ***Strategy on Cultivation Development*** to 2030 with a vision to 2045 (Strategy) is being developed by the Ministry of Agriculture and Rural Development and consulted for finalization and submission to the Prime Minister for consideration and approval:[14]

- The strategy identifies the cultivation as the main production sector of agriculture.

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production fields. Decree 98/2018/ND-CP, replacing Decision 62/QD-TTg encouraging the development of cooperation and linkages in production and consumption of agricultural products; The project "Supporting small and medium enterprises to develop sectoral clusters in the value chain of agricultural and rural areas" issued under Decision 644/QD-TTg; The Law on Cooperatives 2012 has its regulations on support and preferential policies of the state for cooperatives (Article 6). Decree 193/2013/ND-CP was issued to detail several articles of the Law on Cooperatives 2012. Decision 2261/2014/QD-TTg approving the cooperative development program for the period 2015-2020; Decision 461/QD-TTg dated April 27, 2018, of the Prime Minister approving the Development Project of 15,000 agricultural cooperatives and unions to operate effectively until 2020.

[10] The National Target Program on New Rural Construction for the 2010-2020 period, according to Decision 800/QD-TTg of the Prime Minister, June 4, 2010.

[11] Decree 41, Decree 55/2015/ND-CP and Decree 116/2018/ND-CP dated September 7, 2018 amending and supplementing some points of Decree 55 on credit policy for agricultural and rural development; Subsidy credit policy for agricultural development, especially high-tech agriculture; Resolution 30/NQ-CP dated 7/3/2017; Decree 57/2018/ND-CP dated April 17, 2018, of the Government on incentive policies for enterprises investing in agriculture and rural development sector.

[12] Decision 1956/QD-TTg of the Prime Minister approving the project "vocational training for rural workers until 2020"; With the funding from the ILO, the General Department of Vocational Training implements the development of the Strategy for the development of occupational skills in the agricultural sector in the period 2021-2025.

[13] https://www.mard.gov.vn/Pages/bao-dam-an-ninh-luong-thuc-quoc-gia-den-nam-2030.aspx

[14] https://bnews.vn/nganh-trong-trot-se-phat-huy-loi-the-vung-mien-theo-chuoi-gia-tri/195301.html

- Cultivation will be restructured in the direction of developing large-scale commodity production, focusing on preserving, processing and consuming according to sustainable value chains on the basis of promoting the potential and advantages of each region; at the same time, promoting the development of high-tech agricultural production, clean agriculture, organic agriculture, adaptation of climate change and environmental protection.

Most recently, on January 28, 2022, the Prime Minister issued Decision 150/QD-TTg promulgating ***the Strategy for Sustainable Agriculture and Rural Development in the period of 2021-2030, with a vision to 2050***.[15] Accordingly, the development perspective is that "Agriculture, farmers and rural areas have a strategic position in the industrialization, modernization, national construction and defense; preserving and promoting the national cultural identity and protecting the ecological environment [...] The issues of agriculture, farmers and rural areas must be solved synchronously, associated with the process of industrialization and modernization in the country. To develop the effective and sustainable agriculture in terms of economy, society and environment. To bring into play the advantages of resources (land, water, air, people, historical and cultural tradition), technological science and creative innovation. To shift from the thinking of agricultural production to agricultural economy, producing high-value, diversified products along the value chain in accordance with market requirements, integrating cultural, social and environmental values into the product; to produce responsible, modern, efficient and sustainable agriculture; to develop ecological, organic, circular, low-carbon, environmentally friendly agriculture and adapt to climate change."

In addition to the above-mentioned orientations and strategies, ***the National Target Programs*** on (1) ***Sustainable Poverty Reduction in the period of 2021-2025***,[16] (2) ***New Rural Investment Policy in the period of 2021-2025***,[17] (3) ***Socio-economic development in ethnic minority and mountainous areas in the period of 2021-2030***[18] also has the above supporting contents for the development of agriculture, rural areas and farmer households.

## 3.3. Food sovereignty for farmers in Vietnam's agricultural development policy

Up to now, although international discussions and negotiations have mentioned "food sovereignty" for 20 years, this term has never appeared in any legal or regulatory documents the Party or the Government in Vietnam. However, this fact does not reflect what the term implies, as in its most common definitions, is not considered in the Vietnamese legal system. For the target group of farmers, the policy framework as well as the programs related to agricultural development, farmers, rural areas, ethnic minorities and mountainous people, etc. referred to many phrases such as Ensuring food security, Guaranteeing income; Guarantee of livelihood; Economic development, life stabilization; Ensuring social security; Ensuring the right to access land, access to preferential credit capital; upgrading the capacity; "The plowman has a field"; "No one is left behind;" etc. These phrases appear in legal documents, directing and executive documents, which shows the concern and focus on ensuring the rights and interests of farmers.

However, in specific socio-economy, there are many issues that need to be improved to ensure the legitimate rights and interests of farmers, especially mountainous ethnic minority farmers. The

[15] See details in: https://datafiles.chinhphu.vn/cpp/files/vbpq/2022/01/150-qd-ttg.signed.pdf
[16] See details in: https://datafiles.chinhphu.vn/cpp/files/vbpq/2022/01/90-qd.signed.pdf
[17] See details in: http://www2.chinhphu.vn/portal/page/portal/chinhphu/noidungchuongtrinhmuctieuquocgia?_piref33_14734_33_14731_14731.strutsAction=ViewDetailAction.do&_piref33_14734_33_14731_14731.docid=5118&_piref33_14734_33_14731_14731.substract=
[18] See details in: http://www2.chinhphu.vn/portal/page/portal/chinhphu/noidungchuongtrinhmuctieuquocgia?_piref33_14734_33_14731_14731.strutsAction=ViewDetailAction.do&_piref33_14734_33_14731_14731.docid=5106&_piref33_14734_33_14731_14731.substract=

following part of the Report will discuss in detail some cases that have been and are happening in Son La province.

# 4. The case studies in Son La province

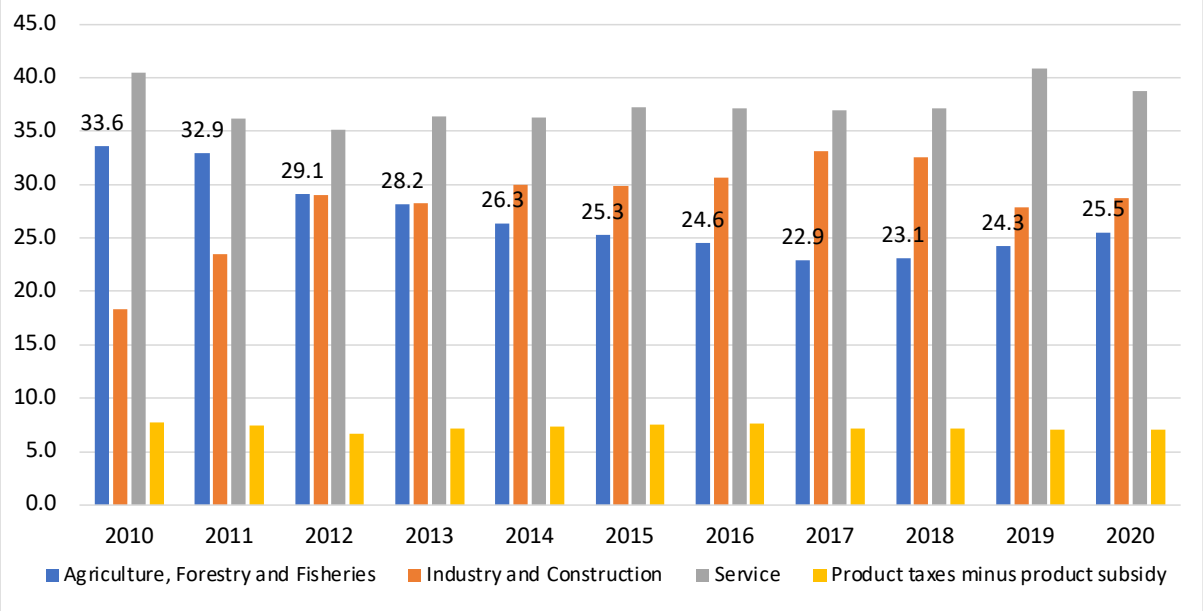
## 4.1. Policy and status of agricultural development in Son La province

Son La is a mountainous province in the Northwest of Vietnam, with an average altitude of about 600m above sea level.[19] As the third largest province in the whole country, Son La has a natural land area of over 1.41 million hectares, of which nearly 409 thousand hectares, equivalent to 38.7%, is agricultural land (Son La Statistics Office, 2020).

According to the Son La Statistics Office, by the end of 2020, Son La's population has 1,267 million people, of which over 1.1 million people (nearly 87%) live in rural areas and mainly depend on agricultural production. Son La's population belongs to 12 ethnic groups, the Thai ethnic group accounts for 54.7%, Kinh 17.4%, H'mong 13%, Muong 8.2%, and other ethnic groups 6.7%.[20]

Regarding economic development, the report of Son La province shows that the average growth of gross regional domestic product (GRDP) in the period of 2016-2020 was estimated at 5.46% per year, reached VND 56,009 billion, up 1,54 times. The income per capita in 2020 was estimated at VND44.1 million, an increase of VND 13.3 million compared to 2015.[21] However, Son La still has a high poverty rate compared to the national average. The data at the end of 2019 showed that the whole province in general still had 21.6% of poor households; only the poor ethnic minority households were 26.4%; the poor ethnic minority households were 13.4%.[22]

*Figure 4. GRDP structure in Son La province in the period of 2010-2020*




Source: Son La Statistics Office, 2020.

[19] https://timhieuvietnam.vn/gioi-thieu-khai-quat-ve-tinh-son-la
[20] http://web.cema.gov.vn/modules.php?name=Content&op=details&mid=7761
[21] https://dangcongsan.vn/kinh-te/xay-dung-tinh-son-la-phat-trien-xanh-nhanh-ben-vung-580252.html
[22] https://sonla.gov.vn/4/469/61724/581052/tin-van-hoa-xa-hoi/ty-le-ho-ngheo-tren-dia-ban-tinh-giam-3-2-nam

The agricultural development policy of Son La province has undergone a drastic change for recent years. Son La province has issued many resolutions on the projects to develop fruit trees in the province as well as the policies on supporting the production development of high-tech application, shifting the plantation of cassava and rice cultivation on steep hills to fruit trees, promote processing and consumption of safe agricultural products and food in the province. Some typical policies include:

- Resolution 17/2016/NQ-HDND dated December 14, 2016 of the People's Council of Son La province on policies to support the development of cooperatives that grow fruit and medicinal plants in the province in the period of 2017-2021;
- Resolution 28/2017/NQ-HDND dated March 15, 2017 of the Provincial People's Council on support levels for renovating mixed gardens and planting fruit trees in the province;
- Resolution 57/2017/NQ-HDND on July 21, 2017 of the Provincial People's Council on policies to support the development of crops, livestock, aquatic products, and safe processing and consumption of agricultural products and food in the province in the period of 2017-2021;
- Resolution 76/2018/NQ-HDND dated April 4, 2018 of the Provincial People's Council on the policies to support the development of producing, processing and consuming safe agricultural products and food in the province in the period of 2018- 2021. Policies support the production of agricultural products for export under this Resolution, including: the support of production, interest rate; Group of policies support the cooperatives to develop production and consumption of safe agricultural products, including the development support of crop, livestock, aquaculture, trade promotion and product consumption.
- Resolution 128/2020/NQ-HDND of the Provincial People's Council on policies to encourage the investment in agriculture and rural areas in Son La province, replacing Resolution 76/2018/NQ-HDND from March 10, 2020. This Resolution prescribes some preferential policies, supports investment in agriculture and rural areas; encourages the development of cooperation and association in production associated with the consumption of agricultural products in Son La province for enterprises; cooperatives, unions of cooperatives.
- Resolution 08-NQ/TU dated January 21, 2021 of the Son La Provincial Party Committee on concentrated, sustainable development of agriculture, forestry and fishery, high technology application to 2025, orientation to 2030. According to this Resolution, Son La aims to "build and develop high-tech agricultural areas and zones that apply high-tech, meet popular international standards on food safety and hygiene along the value chain, increasing the income for agricultural producers. To build Son La province into a center for developing high-tech agriculture in the Northwest region"[23]
- Decision 860/QD-UBND dated May 10, 2021 of the People's Committee of Son La province approving "Project on development of cultivation in the direction of safety and sustainability, application of high technology in the period of 2021-2025, orientation of 2030." According to this Project, Son La aims to form and develop safe and sustainable specialized crop areas on a concentrated scale, produced in a chain of linking production, processing and consumption on the basis of application the science and technology into production, improve productivity and quality of agricultural products, effectively use natural resources, adapt to climate change, meet domestic consumption and export. Achieving the above goal will create potentials and advantages for Son La to attract large corporations and enterprises in inside and outside the province, invest in promoting processing and deep processing industry; improve the income for farmers and businesses, manage natural resources well, protect the ecological environment and respond to climate change, promote crop development along the supply

[23] See details in:
https://sonla.gov.vn/SiteFolders/skh/pic/ứng%20dụng%20công%20nghệ%20cao%20ngành%20thủy%20sản.pdf

chain of green agriculture. To build Son La province into a center of agricultural development with high technology application of the Northwest region.

In sum, the overall orientation of agro-forestry development in Son La province to 2025 is to develop a comprehensive agriculture in the direction of quality, efficiency and sustainability, associated with new rural construction, contributing to accelerate the economic restructure associated with renewing the sustainable growth model. To raise incomes and improve the living standards for rural residents, to ensure food security and nutrition. The main directions of development include:

- To develop **clean agriculture, organic agriculture, high-tech application agriculture**, build and establish 8 high-tech agricultural zones in the province, striving to turn Son La into a agricultural development center of high-tech application in the Northwest region.
- To improve **the quality of key agricultural products of the province along with the value chain** associated with building, developing and protecting brand name, meeting the demand of domestic and export markets; To develop agriculture in association with promoting the local advantages in tourism.
- To build and develop **large-scale specialized farming areas** with the products which have advantages and competitiveness in the market such as: Tea, coffee, rubber, sugarcane, vegetables, flowers, fruits, medicinal herbs, furniture, bamboo, livestock and aquatic products are manufactured in **a linkage chain of manufacture and consumption on the basis of applying high technology**; to increase the efficiency of management and to use the natural resources (land, water, forests); biodiversity conservation; to encourage the application of environmental standards with a strict monitoring mechanism to promote the development of green agricultural supply chains.

**Outcomes of the policy developing crops in Son La province:**

With the orientation of large-scale development, chain linkage, high-tech application, market and export orientation of the agricultural industry in general and the crop sector in particular, in the period of 2016-2020 Son La province achieved relatively positive results, as summarized in the Development Project of Provincial Crop Sector: "In the period of 2016-2020, the crop sector has made important progress, ensured food security, raw materials for the processing and export industry in increasing quantities, especially key agricultural products; large-scale concentrated commodity production areas have been established, many value chains of agricultural products with high added value have been set up; productivity and quality of crops increased sharply; the crop structure has shifted in a positive direction, some agricultural products of the province have the largest area and output in the Northwest region and the Northern midland and mountainous region (all kinds of fruits, cassava, maize, etc); maintained an average growth of 5.8% per year; production efficiency were constantly increasing, product value per hectare of crop land increases 16.8% per year on average; the export volume of agricultural products increases over the years; 18 agricultural products of the province have been granted geographical indications, certification trademarks, and collective trademarks; maintained and developed 158 safe supply chains of crop products; granted 181 code of fruit growing areas for export; 11/12 science and technology enterprises operated in the field of agriculture; over 500 establishments for preliminary processing and processing of agricultural products; The living standards of rural people have been significantly improved."[24] It can be seen that during this period, the economic structure of agriculture in Son La province had a clear change, in the direction of commodity production, promoting the application of high technology, improving the quality, efficiency and competitiveness of the

[24] Practical summary in the Project on the development of crop production in the direction of safety and sustainability, high-tech application in the period of 2021-2025, with an orientation to 2030, issued together with Decision 860/QD-UBND dated 10 May 2021 of Son La Provincial People's Committee. See details at: https://thuvienphapluat.vn/van-ban/Linh-vuc-khac/Quyet-dinh-860-QD-UBND-2021-Phat-trien-trong-trot-theo-huong-an-toan-va-ben-vung-tinh-Son-La-478845.aspx

agricultural industry. By September 2020, 16 agricultural products of the province were successfully exported to 12 markets with their export turnover of US$74.46 million.[25]

With the orientation and encouragement of investing agricultural development in the direction of high-quality goods, chain linkage, high-tech application, etc. Son La has attracted the investment of some domestic and international large processing companies of agricultural products. It is typical that:

- In 2020: Dong Giao Export Foodstuff Export Joint Stock Company (DOVECO) invests in building a fruit and vegetable processing center in Mai Son district. This is the second large modern complex in Son La (its investment capital of VND400 billion), specializing in processing closed fruit and vegetable from the stage of production linkage, purchasing raw materials to fine and deep processing, and the domestic and export sales system. Particularly, the deep processing complex has a total capacity of 52,000 tons of products per year, including three lines with modern equipment and technology, including: Concentrated fruit juice and puree processing line, with its capacity of 20,000 tons per year (technology and equipment of Tropical Food - Italy); Frozen fruit and vegetable processing line, its capacity of 10,000 tons of products per year (Japanese technology and equipment); Canned fruit and vegetable processing line with a capacity of 20,000 tons of products per year (technology and equipment from Italy and Germany). The complex uses over 500,000 tons of all kinds of vegetables and fruits per year, such as mango, passion fruit, sweet corn, pineapple, soybean, etc., mainly provided by the households in the province according to the linkage model, with the scope of the material production area is from 40,000-50,000 ha.[26]
- In 2020: TH Group invests in building and operating a factory of processing fresh vegetable, fruit and herbal in Van Ho district. This is the largest investment project in the field of processing agricultural products in the province, with a total investment capital of VND1,200 billion in phase 1. The factory uses completely automatic extraction technology and HPP high pressure processing technology--one of the most modern technologies in the world from Italy today. The factory cooperates with farmers and cooperatives to purchase raw materials from 15,000 hectares of fruit crops. Processed products are fruit juices, orange juice, longan, mango, passion fruit, camellia. In phase 1, the factory achieved its processing capacity of 300 tons of vegetables and fruits per day. In phase 2 of the project, Son La province and TH Group will have an investment capital of VND3,500 billion to deal with the output, and consume agricultural products for 35,000 hectares of fruit crops. The project is expected to have a great impact and promote farmers and agricultural cooperatives towards the manufacture according to the process, applying science and technology, and controlling the quality to associate with processing and making the stable output for agricultural products.[27]
- In 2019: Northwestern Nafoods Group Joint Stock Company built and operated the processing factory of passion fruit, vegetable, fruit with its designed capacity of 120 tons of fruit per day in Moc Chau town in phase 1. The factory associates with households, cooperatives and cooperative groups for input materials. The factory's products are fresh fruit, frozen fruit, concentrated juice for export. The plant's raw material area for passion fruit alone is nearly 1,500 hectares, mainly concentrated in the following districts: Moc Chau 576 hectares; Yen Chau 147 ha; Van Ho 154 ha; Mai Son nearly 162 ha; Thuan Chau 146 ha; Phu Yen 158 ha.[28]
- In 2018: ICFOOD Vietnam Company Limited under ICFOOD Group of Korea built a factory for preserving and processing high-tech agricultural products (dried vegetables and fruits) in Van

[25] https://nhandan.vn/tin-tuc-xa-hoi/khoi-cong-trung-tam-che-bien-rau-qua-doveco-son-la-618554/
[26] http://www.baosonla.org.vn/vi/bai-viet/them-niem-vui-cho-nguoi-san-xuat-44973
[27] https://thanhnien.vn/tap-doan-th-xay-dung-nha-may-che-bien-hoa-qua-nghin-ti-tai-son-la-post995608.html
[28] http://baosonla.org.vn/vi/bai-viet/nafoods-tay-bac-va-khat-vong-giup-dan-lam-giau-20093

Ho district (ICFOOD Son La) with a manufacturing capacity of 100 tons per day, the beginning material area (phase 1) is 300-500 ha.[29]

Although initial positive results have been achieved, attracting the investment from export processing enterprises and receiving the participation of many farming households, especially ethnic minority farmers in model/linkage chain of large-scale agricultural production with the orientation of market and export, there are still limitations and risks which affect the life, income or livelihood of households participating in the similar linkage models. The following sections provide information on two linkage models where participants have many disadvantages.

## 4.2. Linkage model of planting passion fruit in Son La province

Passion fruit, English name/scientific name is Passion fruit/Passiflora incarnata, is a fruit tree originating from abroad. The main products made of passion fruit are fresh fruit juice drinks, bottled passion fruit juice, concentrated passion fruit juice, or to process some dishes.[30]

According to the official statistics of Son La province, passion fruit have been planted in the province since 2015. The plantation area of passion fruit has increased rapidly since 2017, achieved over 550 hectares (ha), and peaked at over 2,000 ha in 2019. This is considered as a part of the result in the province's policy to convert inefficient agricultural crops to fruit crops.[31] The area in 2020 was recorded to decrease to nearly 1,900 ha (Table 1), and tended to continue decreasing. Passion fruit is currently grown mainly in the districts of Moc Chau, Yen Chau, Mai Son, Thuan Chau [32] and scattered in some other districts, including Van Ho district. However, at the time of 2018-2019—after the planting area of passion fruit were officially planned (since 2017/2018), Van Ho and Moc Chau districts were two leading regions of growing passion fruit in the province, then the plantation area decreased sharply due to severe diseases that could not be treated, and the selling price fell deeply, leading to many households only planted for 1 year and then cut it off.[33]

Passion fruit have been brought to and planted in Son La mainly from two sources:[34] 1) Agro-processing enterprises introduced the fruit tree to farm households, household groups or cooperatives, under the linkage agreement of production and consumption with them and 2) The projects of hunger eradication and poverty reduction from some international organizations and non-governmental organizations (NGOs) which focus on supporting poor ethnic minority households.[35] In some cases, NGOs connected with processing enterprises to make market for passion fruit products produced by the households who participated in their passion fruit growing projects.

[29] http://www.baosonla.org.vn/vi/bai-viet/thuong-truc-tinh-uy-son-la-lam-viec-voi-cong-ty-tnhh-ic-food-sonla-20543

[30] In Europe, the stem and leaves are also used as medicine or tea for daily use.
Source: http://camnangcaytrong.com/cay-chanh-day-cd65.html

[31] Direct interview with Son La Department of Agriculture and Rural Development, Division of Cultivation and Plant Protection (July 2021).

[32] http://www.baosonla.org.vn/vi/bai-viet/can-co-giai-phap-phat-trien-cay-chanh-leo-ben-vung-43926

[33] Direct interview with Son La Department of Agriculture and Rural Development, People's Committee of surveyed communes in Van Ho district (July 2021).

[34] Direct interview with Son La Department of Agriculture and Rural Development; Commune, village officials and the people in Van Ho district (July 2021).

[35] There is also a small area of passion fruit cultivation which households themselves buy and plant varieties, according to the introduction from companies and agents provide varieties.

*Table 1. Production area of main crops in Son La province, 2010-2020 (ha)*

| Crops | Year | | | | | | | |
|---|---|---|---|---|---|---|---|---|
| | 2010 | 2014 | 2015 | 2016 | 2017 | 2018 | 2019 | 2020 |
| **Cereal crops** | 228,349 | 216,873 | 212,051 | 204,200 | 189,063 | 164,399 | 146,154 | 136,866 |
| **Fruit crops** | | | | | | | | |
| Mango | 3,510 | 3,440 | 3,695 | 4,133 | 7,796 | 11,580 | 15,176 | 18,918 |
| Orange | 190 | 371 | 408 | 580 | 1,049 | 1,411 | 1,802 | 1,976 |
| Apple | 75 | 64 | 65 | 96 | 145 | 168 | 194 | 210 |
| Longan | 7,490 | 7,569 | 7,900 | 8,495 | 11,590 | 14,659 | 16,685 | 18,702 |
| Litchi, rambutan | 500 | 241 | 237 | 241 | 253 | 278 | 262 | 259 |
| Banana | 1,968 | 2,031 | 2,260 | 2,482 | 3,190 | 3,907 | 4,921 | 5,350 |
| Pomalo | 127 | 255 | 293 | 420 | 1,078 | 1,714 | 2,198 | 2,513 |
| Plum | 2,574 | 2,784 | 2,965 | 4,054 | 6,702 | 8,383 | 9,751 | 10,878 |
| Apricot | 413 | 233 | 251 | 295 | 350 | 482 | 609 | 629 |
| Passion fruit | | | 5 | 86 | 552 | 1,390 | 2,023 | 1,894 |
| **Perennial crops** | | | | | | | | |
| Rubber | 5,357 | 6,459 | 6,178 | 6,206 | 6,039 | 6,039 | 5,879 | 5,879 |
| Coffee | 7,259 | 11,296 | 16,897 | 17,287 | 17,600 | 17,128 | 17,840 | 17,804 |
| Tea | 3,745 | 4,003 | 4,123 | 4,290 | 4,508 | 5,008 | 5,474 | 5,686 |
| **Annual crops** | | | | | | | | |
| Sugarcane | 3,265 | 5,213 | 5,492 | 6,300 | 8,039 | 9,451 | 8,770 | 7,852 |
| Fiber-extracted crops | 729 | 390 | 137 | 126 | 35 | 98 | 231 | 468 |
| Oil bearing crops | 9,538 | 3,988 | 3,259 | 3,128 | 2,928 | 2,917 | 2,908 | 2,511 |
| Vegetables | 7,282 | 8,642 | 7,665 | 7,106 | 7,837 | 8,651 | 10,331 | 11,802 |
| Others annual crops | 2,222 | 3,940 | 445 | 5,151 | 7,927 | 9,720 | 11,543 | 13,386 |

Source: Son La Statistics Office, 2020.

**The linkage model of passion fruit cultivation and consumption in Son La province** began to be officially implemented since 2016-2017, but mainly since 2018 (after the provincial authorities set planning for passion fruit planting area). Initially, with the support from a few development projects, such as the World Bank's poverty reduction project, the GREAT project, etc., to expand the growing area of passion fruit for poor ethnic minority households, through supporting seedlings, materials and techniques. The households (i.e., the project beneficiaries) grow the passion fruit on their own land and set a linkage agreement with prosessing enterprises, which are introduced by the projects, to provide passion fruits to produce juice or bottled drink (enterprises also sell fresh fruit directly to the market after buying from households). In many cases, the support from the project such as seedlings, fertilizers, and technical assistance were provided to the involved households through the processing enterprises. There are some households who invest by themselves to passion fruit cultivation (buying seedlings from companies or agents) also participate in this linkage model.

Another form of linkage is that processing enterprises make contracts with households or groups of households - the majority of which are Thai, Dao, H'mong ethnic minority farmers - to grow passion fruit to supply for them. Enterprises actively introduce passion fruit to the local households which have suitable cultivation land (slope level below 10 degrees) and persuade them to join the production linkage. When establishing the linkages, enterprises will invest in seedlings, input materials (fertilizers, pesticides, growth stimulants, etc.); technical support through training and provision of technical staff to regularly monitor the farming process of households to ensure that farmers grow with the correct technique, safety, and produce products of the right standards;[36] and provide preferential loans to the

[36] According to the DOVECO Company, the total investment cost for 1 hectare of passion fruit is about VND 110-120 million for a production cycle of about 2 years (Direct survey, July 2021).

households who take part in the linkage if required; and commits to buy passion fruit at the contract price, or at market price if the market price at the time of transaction is higher than the contract price. In return, households use their production land, labor and a part of their capital for planting passion fruit. And they must commit to sell products to the enterprises when harvesting and strictly comply with the technical procedures set by the processing enterprises in order to ensure the quality of the output products. All investment from the processors to the households will be deducted when the households sell products to the processors.

Local authorities also have roles in propaganda and encouraging households to participate in the model.

**The effectiveness of this linkage model**, as noted by the research team until July 2021 in Van Ho district, and from a number of other survey sources, is not as expected. Firstly, it is quite common for passion fruit to suffer from severe diseases, which can't be handled, leading to dead trees or poor growth, low yield, small size of fruit, bad appearance, which lead to low value or crop failure. The percentage of discarded fruit was high due to not being able to consume. The research team's direct observation confirmed this situation. A survey by the Provincial Sub-Department of Cultivation and Plant Protection (2021) showed that on passion fruit in Son La appeared 15 types of pests and diseases including: cork virus, red spider, green grasshopper, fruit fly, bugs, aphids, green soft mealybugs, thrips, gray spot disease, anthracnose, brown spot, oil spot, root rot, node rot, fruit scab. Currently, there is no cure for cork virus disease in passion fruit, when detecting infected passion fruit, the only way to solve it is to uproot and destroy. One feature that makes the passion fruit production areas more infected is that most of the growing areas are located adjacent to the forest edge so it is very difficult to eradicate pests. Because after applying pesticides a few days, insects and intermediate diseases such as peach aphids and aphids spread from the nearby forest to passion fruit gardens.[37] According to the survey, an average of 1 ha of passion fruit can yield over 20 tons per year of fresh fruit as growing normally. But many passion fruit orchards with severe pests (and poor quality seedlings) can lose everything or only reach 20-30% of the average yield, and the quality of the fruit drops drastically.

Secondly, the poor quality seedling is also believed to be the cause of severe pests, low yield and quality of passion fruit products. According to the linkage model, most of the seedlings which households participating in the model used were not well quality checked from the beginning and were provided from unclear sources (so their quality is not guaranteed). Therefore, the strict control of seedlings supply to reduce the risks for households is one of the recommendations of the Provincial Sub-Department of Cultivation and Plant Protection (as cited source).

Thirdly, the households who take part in the linkage are not provided with adequate technical support during the farming process as initially committed by the associated processing enterprises. This information was confirmed by the majority of survey respondents. This situation leads many households unabe to early recognize or timely solving problems, affecting the growth of plants.

Fourthly, not all processing enterprises comply with their commitments to purchase the output products for households. For many reasons, some processing enterprises do not buy fruit when it is time to harvest, or only buy certain proportions, which make households fend for themselves by selling to traders at the low prices set by traders. Meanwhile, the initial investment of the enterprise for the household is still considered as a debt that the households must pay to the enterprises.

Fifthly, processing companies do not buy all the passion fruit produced by the households, and set many purchase prices. In fact, many companies only buy their so-called "qualified" fruits, not the entire output of households. Typically, a company applies a "barrier" on fruit quality according to the size and appearance of the fruit to set different prices to reduce their production cost. Specifically, there are enterprises that "classify the quality of fruit to 12 types," with significantly different prices between

[37] http://www.baosonla.org.vn/vi/bai-viet/can-co-giai-phap-phat-trien-cay-chanh-leo-ben-vung-43926

these types. According to this classification, the proportion of high quality fruit purchased at the highest price is very low, usually not more than 20% of the total fruit volume in each harvest.[38]

And finally, the low demand and low market price in the domestic and export markets (partly due to the impact of the Covid-19 pandemic; China temporarily stopped importing agricultural products, including passion fruit from Vietnam) are the reasons processing enterprises or traders use to justify the push down of the purchasing price, or not purchase the fruits as committed.[39]

With the above facts, **the households participating in the linkage have to face the many risks and disadvantages** as follows**:**

- The low selling price of the product causes the households to lose/reduce their income compared to other crops, that severely affects the household's living. At the peak time in the period of 2017-2018, the price of 1 kg of fresh passion fruit sold at the farm gate averaged over VND20,000, sometimes up to VND45,000. However, at the time of June 2021, the average purchasing price was only about VND4,000-5,000 per kg (10 times descrease). The cheapest time is May-June 2020, when its price was only VND2,000-2,500 per kg.[40] With the very low prices, together with a decrease in sales due to the pandemic, a household's income from passion fruit may be "less than 10% compared to growing maize [alternative crops] on the same land, and even suffer heavy losses."[41]
- Debt incurred by households due to failure to pay the initial investment costs of the processing enterprise (the initial investment cost of the enterprise for the household is greater than the revenue from selling fruit). Some surveyed households responded that they do not know how to repay investors if the yield and quality of fruit are not improved, and the selling price of fruit continues to be as low as it is today.
- With the areas registered to participate in the linkage, it is not easy for households to cut down the passion fruit even though it is not effective (due to the constraints on the linkage contracts with processing enterprises, or with project sponsors), so the "lingering" situation occurs in many households participating in the linkage. Growing passion fruit is not effective, but the household does not dare to shift to other crops on their own, while still owing the initial investment of the processing enterprise (or project). Households who participated in the model use most of their productive land, especially the land they use to grow passion fruit, which is mostly flat (less sloping) and of good quality are the most severely affected.
- Passion fruit is not easily used for many different purposes. If passion fruit cannot be sold, the household has no choice but to throw it away and cannot make use of it like most other agricultural products. In addition, the almost entire dependence on processing enterprises or traders, who always have a way to force households for their desired prices on products, puts households at a disadvantage situation and be a losing side. In other words, the households who take part in linkage model almost have no other choice about the price and the buyer, other than accepting the requests from the enterprises and traders.
- Passion fruit is a new imported/exotic variety. Knowledge on its cultivation techniques and pest and disease risk management has not been undestood or fully disseminated, causing even technical staff of processing enterprises, agricultural extension officers and staff of the Sub-Department of Cultivation and Plant Protection to have no effective handling methods. Therefore, for ethnic minority households, who have limited access to new technologies, pest

[38] Direct survey of processing enterprises and participating households in Van Ho district (July 2021).

[39] Total output of passion fruit is about 20,000 tons, of which 80% is exported to China (Source: VTC16 at https://www.youtube.com/watch?v=O9d19_cWNew)

[40] Direct survey of households in Leo village, Chieng Yen commune, Van Ho district (July 2021).

[41] Direct survey in Van Ho district (July 2021).

and disease control for passion fruit is an impossible task.[42] Especially, the fact that households do not receive any technical support from processing enterprises as initially committed, which reduce the productivity, make low product quality, and households have to suffer it by themselves.

- Due to low economic efficiency, many households leave their passion fruit orchards without taking care and harvesting. Some households have cut their orchards while still owing the initial investment from processing enterprises. The lives of these households are significantly affected.
- With a limited level of understanding and communication ability, it is detrimental to households in negotiating contracts with processing enterprises as well as with traders; road/transportation difficulties; Lack of investment and lack of understanding of market information are also other risks and disadvantages faced by ethnic minority households participating in the linkage, which are summarized by Department of Agriculture and Rural Development of Son La.

## 4.3. Linkage model of planting rubber in Son La province[43]

Rubber is a commodity crop with the largest area amongst perennial crops in Vietnam. Over 80% of Vietnam's rubber latex produced is exported (Vietnam Rubber Association (VRA), 2018). Rubber has been planted in the North mainly since 2008-2009. The development and expansion of rubber plantation areas in Son La province are mostly done through a linkage model (commonly referred to as the model of land contribution for rubber plantations) between Son La Rubber Joint Stock Company—a subsidiary of Vietnam Rubber Group (VRG) and local households. According to this model, the Thai (mainly) ethnic minority households contribute their farming land that previously planted agricultural crops such as maize, cassava, sugarcane, or fruit crops such as mango and banana together with the Rubber Company to develop rubber plantations. The land that households contribute to the model is counted as the capital of the households contributing to the linkage. Each hectare of contributed land is valued at VND10 million, equivalent to 10% of the total investment per hectare of rubber. The remaining 90% of investment value is contributed capital from the Company, including contributions such as materials, varieties, fertilizers, technical equipment, management, etc. Households will get benefit from harvested latex, which is equivalent to the household's capital contribution rate (10%) when the rubber tree begins to have latex harvested - usually in the 6-7th year from the date of planting. According to the agreement between the household and the company, the household that contributes 1 ha of land or more will be given priority to have one household member to work at the company and enjoy the same benefits as a company's employee--be paid monthly salary and have social insurance.

The model of households contributing land together with the company to develop rubber plantations is expected to be a model to help households eliminate hunger and reduce poverty through the economic benefits that the rubber company brings to them. In addition, since rubber is a multiple purpose tree (a forest cum commodity tree), this model is also expected to make great benefits to the environment through re-greening of barren hills for the Northwest region.

The process of propagating and mobilizing households to contribute land for rubber plantations has the participation of provincial, district and commune authorities. The identification of suitable areas for rubber development also involved the provincial and district authorities in coordination with the Rubber Company.

[42] Technical staff of DOVECO Company asserted that Ethnic minority people sometimes do not meet the required production process, professionalism and compliance are not high, sometimes it is time to harvest, they are out of work" (Direct Interview, July 2021).

[43] This is a part of a study conducted by Nguyen Vinh Quang and To Xuan Phuc (Forest Trends) in 2019-2020.

The rubber linkage model in Son La has been implemented in 5 districts: Muong La, Yen Chau, Mai Son, Quynh Nhai, and Thuan Chau. The VRG's data showed that as of March 2019, over 7,200 households contributed more than 6,700 ha of land to plant rubber. Table 2 provides some information about the results of model implementation.

*Table 2. Results of implementation of the land-contributing for rubber plantation model in Son La province in 2019*

| Items | Unit | Value |
|---|---|---|
| Number of land contributed households | Household | 7,221 |
| Area of contributed land | Ha | 6,727 |
| - Area of land with a certificate of land use rights | Ha | 6,364 |
| - Area of land not yet having a certificate of land use rights | Ha | 363 |
| Number of households signed the contract with Rubber Company | Household | 5,124 |
| Number of households not yet signed the contract with Rubber Company | Household | 2,097 |
| Total number of employees being hired by the Rubber Company (as of March 2019) | Person | 2,243 |

Source: VRG's reports dated May 24, 2019 and January 7, 2020.

**The results of implementing the model of households' land contribution to the Rubber Company in Son La** from 2008/2009 to March 2019 were recorded **as unsuccessful as the initial target**. Some key points related to the content of Food Sovereignty are as follows:

The determination of rubber planting area is decided by the Rubber Company and provincial and district authorities; Local people have almost no voice in whether or not they agree to contribute their land. The decision where and when to harvest latex, according to what criteria, is entirely made by the Rubber Company.

In the survey areas, as of March 2019, the Rubber Company has only extracted latex for 1-2 years (2-3 years behind the original plan of starting tapping that the Company has committed to households), and they have started to pay income to households with the announced rate of VND 0.8 million per ha for 2017, with 500 tapped trees counted 1 ha, and VND 1.2 million per ha for 2018. However, the actual income that households received was very little, even almost zero. Many households only received from VND100,000 to VND200,000 per year. Some households only received a few thousand VND for a year.

The main reason for the late latex exploitation, as explained by the Rubber Company, is that the price of rubber latex in the world market is low and when the latex yield in the first years of harvesting is still low, the revenue from latex thus is low, not enough to cover the production costs.[44] In addition, many rubber trees are still too small which are not qualified to tap for latex, even though they have been planted for 9-10 years. The fact that there are only a few trees that can be harvested per unit area, this is also the reason given by the Company to explain the very little income distributed to households, which is much lower than the amount of income that the Company's announced. In fact, in many places, poor quality of varieties/seedlings, steep slopes and unsuitable soil of plantations, and climate conditions are also the causes leading to the poor growth of rubber trees, leading to less latex productivity.

Notably, the land-contributing smallholding households were not totally consulted or participated in the process of determining the level of income payment. The information shared by the households showed that the households were completely unaware of how the income paid to households is

[44] The latex extraction cycle of rubber trees can reach 23-25 years. The latex volume is expected to increase in the future, as rubber trees mature.

determined. The payment to households is announced orally by the Rubber Company at the time of payment and there is absolutely no official document accouncing the payment rate for households (as of March 2019).

The data from directly surveyed land-contributing households showed that on average, each household contributes about 1 ha of cultivation land, it is equivalent to 46.6% to 60.6% of the total production land area of the household (including the area of paddy rice) to grow rubber. The demand on production land and income is especially severe in the villages that previously had to share a part of their land as resettlement sites for hundreds of households who were relocated from other places for construction of Son La Hydropower Plant. Rubber development makes the limited arable land of farm households even more limited. The income from rubber is low, households are lack of production land, but cannot get back the contributed land because the compensation for the investment value of the rubber company is not affordable for them (nearly VND 200 million per ha).

Rubber development has brought about fundamental changes in the types of livelihoods and income structure of land-contributing households. The survey shows that before contributing land for rubber plantation, the main livelihoods and income sources of households ranked from high to low, are respectively maize, paddy rice, cassava and livestock. After contributing land, the important sources of income are respectively paddy rice, vegetables and hired labor. In other words, except for the role of paddy rice that remained the same, the reduction of arable land area due to the contribution of households to rubber plantations while having none or limited benefits from rubber, strongly change and reduce the households' income and income sources. Difficulty in local livelihood sources caused many households to have to work as hired laborers in other localities, such as housekeepers, construction workers, and industrial park workers.

Income from rubber trees is much lower than other crops. In the surveyed area, data on income from some other main crops on the same type of land as land contributed to rubber plantation, shows that on an area of 1 ha, the average annual profit that the households can earn over VND2.2 million from planting maize, VND4.5 million from cassava. Compared to the average income payment from rubber, which is just over VND0.2 million per ha per annum, the income from other crops is much higher, from several times to even more than 250 times. The details of comparing the economic efficiency of rubber trees with common crops and intercropping/rotation models are summarized in Table 3.

*Table 3: Economic efficiency of using one hectare of production land for common crops at the survey sites*

| No. | Common crop models | Cycle of production (year) | Average annual profit (1.000 VND) | Difference of average annual profit compared to rubber (time) | Difference of Average annual profit compared to maize intercroping rubber model (time) |
|---|---|---|---|---|---|
| 1 | Rubber | 9 | 222 | - | 0.2 |
| 2 | Rubber intercrop maize (3 intial years) | 9 | 982 | 4.4 | - |
| 3 | Longan | 9 | 41,073 | 185.0 | 41.8 |
| 4 | Plum | 9 | 57,546 | 259.2 | 58.6 |
| 5 | Mango | 9 | 18,735 | 84.4 | 19.1 |
| 6 | Coffee | 9 | 27,510 | 123.9 | 28.0 |
| 7 | Banana | 9 | 45,037 | 202.9 | 45.9 |
| 8 | Longan intercrop maize (3 intial years) | 9 | 42,420 | 191.1 | 43.2 |
| 9 | Plum intercrop maize (3 intial years) | 9 | 57,079 | 257.1 | 58.1 |
| 10 | Mango intercrop maize (3 intial years) | 9 | 19,495 | 87.8 | 19.9 |
| 11 | Rotating 3 years of upland rice + 3 years of maize + 2 years of cassava + Fallow | 9 | 948 | 4.3 | 1.0 |
| 12 | Rotating 4 years of maize + 4 years of cassava + Fallow | 9 | 2,945 | 13.3 | 3.0 |
| 13 | Maize | 1 | 2,211 | 10.0 | 2.3 |
| 14 | Cassava | 1 | 4,504 | 20.3 | 4.6 |

Source: Survey data in March 2019 (Quang & Phuc, 2020).

Notes: - The selected number of years of the production cycle of the perennial crops is 9 years, to be similar to the minimum age of rubber trees by the end of 2018 (planting in 2008/2009, latex harvest in 2017/2018).

- Economic efficiency for perennial crops is assessed by the cost-benefit analysis method (CBA).

# 5. Discussions and recommendations

"Food Sovereignty" has been increasingly mentioned and has become an important topic in international discussions related to food security and development for more than two decades. With the content of promoting the autonomy of farmers in deciding on a farming system suitable to their needs, capacity, soil and natural/climate conditions, culture, customs, etc., food sovereignty respects and upholds the rights of farmers and communities in choosing the most suitable farming model, crop type, production scale, consumption market, etc., to their own needs, and ensure food security, income and sustainable livelihoods. This approach will help limit unwanted external influences, which do not always bring benefits, stability and sustainability to farmers.

"Food sovereignty" is a new concept in Vietnam and has never appeared in any legal documents or official administrative/executive documents in the Party or government management system in general, and in the agricultural sector in particular. However, Vietnam's policies always aim at ensuring and developing social security, food security, livelihoods and sustainable incomes for communities in general and ethnic minorities in particular, with traditional culture, customs, etc. are protected and encouraged to promote. These are the contents that "Food Sovereignty" covers.

In recent years, the Vietnamese government has been promoting the policies/orientation of agricultural development towards green, sustainable, large-scale production, value chain production through various linkage models, high technology application and export market orientation. This is also the common trend of the world today and has brought about many positive results in Vietnam. Many models of linking large-scale agricultural production, applying high technology towards the export market between farmers and processing enterprises of a variety of products have been established and operated effectively in many places, and has made remarkable increase of export turnover of Vietnam's agricultural products.

However, the policy of developing large-scale commodity agriculture according to the value chain production model still poses risks or damages to the participating parties, especially ethnic minority farmers, who are inherently most vulnerable group. The two linkage models between businesses and ethnic minority smallholding farmers in growing and consuming passion fruit and rubber in Son La province have shown that when orienting large production to serve a large market, ethnic minority farmers, the farm smallholders, have faced many risks and difficulties. They inherently lack the capacity to manage and recover from risks, when participating in the value chain of large-scale commodity production. They have faced different risks that are beyond their control such as risks of difficulties in ensuring production in accordance with technical processes, product quality criteria required by target markets, risks of supply chain disruptions, decline in market demand, low prices, etc. These risks can occur at any time, causing loss of income/revenue for households, and may lead to the entire disruption of these production linkages. Those smallholding households are often led to participate in value chains with enterprises with the promotion of large-scale production zone planning policies. Their participation is either reluctant or when they are informed that joining in the affiliate model is beneficial, without risks while they do not have sufficient knowledge, skills and production techniques required by the linkage models. Having to contribute most of their scarce resources such as land, labor and capital to the linkage model leads to the risks of losing income when the model fails, and losing opportunities for alternative investment in other production that match their strengths. In addition, the voices or aspirations of farmers are not heard/considered, together with the subjective thinking and the weakness in management and monitoring of governmental management agencies, it will have a direct negative impacts on households participating in the linkage model. Consequently, the linkage models potentially are impossible to develop and be sustainable.

Thus, in the process of formulating and improving agricultural development policies, it is necessary to have an approach that respects the communities' voices and aspirations and is suitable to their conditions of capacity, ecological environment, economic, social, and traditional culture, along with

improving the efficiency of governmental management agencies. This will ensure food sovereignty for farmers, and at the same time ensure an efficient and sustainable production model in agricultural sector. In addition, in the agricultural development strategy, it is necessary to have solutions and mechanisms to promote training opportunities to improve production skills, application of new production technologies, mastery and decision making of smallholding farmers. As their autonomy and decision-making capacity improve, their voice and independence will also increase. These are also the main contents that Food Sovereignty wants to aim at.

In the immediate period (5-10 years) when the development of the agricultural sector is still led by the trend of globalization, market-oriented development, large-scale development, and value chains towards exporting market, the issue of food sovereignty, especially for poor ethnic minority households, should be prioritized as one of the key objectives of the policy. Accordingly, in policies and planning for agricultural development by region, it is necessary to carefully assess the comparative advantages, aspirations and production capacity of farmers along the value chain, as well as a full assessment of the risks that smallholders are likely to face when participating in large scale agricultural value chains. These assessments will help achieve the goals of economic growth and increase economic efficiency in the agricultural sector, boosting the livelihoods of farmers by promoting competitive advantages. At the same time, the risk assessment is very useful to avoid coercive planning that is not suitable for the needs of the people, does not promote the advantages of the region, and risks impoverishment of disadvantaged, small and poor producers. Ensuring "space" for farmers, especially smallholding ethnic minority farmers, in making decisions on what to produce, at what scale, and how to produce based on their needs, production capacity, natural conditions and other production resources will contribute to ensuring their food sovereignty.

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# Appendice

## Appendix 1: Group and number of interviewees in Son La province

| Group of interviewees | Interviewed method | Number of interviews | Number of interviewees | | |
|---|---|---|---|---|---|
| | | | Total | Male | Female |
| Provincial governmental agencies (DARD, Division of Cultivation and Plant Protection, Committee of Ethnic Minorities) | II | 3 | 7 | *2* | *5* |
| Agricultural commodity trade and processing enterprises | II | 2 | 3 | *3* | *0* |
| Agricultural supply agents | II | 3 | 3 | *3* | *0* |
| Commune People's Committees (Van Ho and Chieng Yen communes, Van Ho district) | II | 2 | 3 | *2* | *1* |
| Village heads | II | 4 | 4 | *4* | *0* |
| Farm households | FGD | 2 | 11 | *8* | *3* |
| Farm households | QI | 15 | 15 | *10* | *5* |
| **Total** | | **31** | **46** | ***32*** | ***14*** |

Notes: II—In-depth interview; FGD—Focused group discussion; QI—Questionnaire interview.