

**A STUDY ON EXPORT OF AGRICULTURE PRODUCTS
IN LAO PEOPLE DEMOCRATIC REPUBLIC**

By

SOUPHAPHONE INTHAPHONH

CAPSTONE

Submitted to
KDI School of Public Policy and Management
in partial fulfillment of the requirements
for the degree of

MASTER OF PUBLIC POLICY

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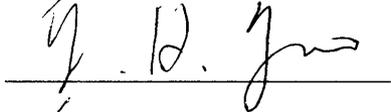
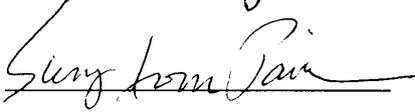
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ABSTRACT

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By

Souphaphone Inthaphonh

Laos' government has identified export of agriculture as a one of the priority sector. The purpose of this paper are to examined the role of agricultural exports in economic development, to study the opportunities and challenge the Laos agriculture sector have to face in term of export, and to suggest some policy implications drawn from the research results. The study shows agriculture export is play a critical role in economic development of the country; promoting exports is a better ways to help economic growth faster. Lao PDR is one of poorest countries in Southeast Asia who emphasize to boost its exports since it inception. The share of Lao's export has strong advocate from agriculture sector both in term of value added commodities and primary. The government plays an important role in providing investment in infrastructure and agricultural research to make sure that farm productivity can be improved continuously. However, to maintain agricultural sector growth rates and achieve good welfare and equity impacts with this growth still an important issue for management and policy makers.

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CHAPTER I

INTRODUCTION

As also mentioned in recent studies, export-led growth has been put forward and declared significant to development strategies. It is also believed that "agriculture is often lead export sector and foreign exchange earner since it is the sector with strong comparative advantage in the early stage of development (Derek et al)". Some empirical studies found that export also encourage Foreign Direct Investment (FDI) in countries, and directly increased productivity and reduce inefficiencies. The classical theory also argued about the importance of international trade in country's economic growth, and discussed the gains from specialization. Stiglitz (2007) found that "the export-led-growth and technology played an important role in success of two growth nations in the sub-continent i.e. China and India".

For many years, there has always debate among economists about the role of export on agriculture product in economic development. Generations of development economists have stressed improving agricultural productivity as essential part of successful development strategy. As a successful example done in Nigeria, agriculture has been the most important single in the Nigeria economy growth and agriculture remains a major source of economic resilience. Export on agriculture crops contributed significantly to the Gross Domestic Product (GDP), and it has a long-term relationship between agriculture export and economic growth. At the same time agriculture exports have played a prominent in economic development by providing the needed foreign exchange earnings for other capital development projects (Abolagba et al. 2010). Another similar view is "agriculture is an important part of the livelihoods of many poor people, and it is frequently argued that agricultural growth is a fundamental pre-requisite for widespread poverty reduction (Chistian,

2012)". However, poverty reduction and economic growth lead to reduce the role of agriculture sector relative to other sectors.

Increasing exports has played a critical role in Laos' growth for at least the last two decades; in 2005 export grow at 11% account for 24% of GDP increased from 9% in 1990. But the expansion of this is directly from export on the country's natural resource endowment—electricity and mining. These sectors are a major contribute to Laos' exports and it will be an important source of government revenue.

According to the United Nations Development program/National statistics Centre (UNDP/NSC), "In Lao, the agriculture and forestry sector provide the economic, social and cultural base for more than 80% of the population, and accounts for nearly half of the country's GDP and employs 77% of the national workforce (UNDP/NSC, 2006)". The most important economic activity is rice cultivation, its accounting for about 50% of all agriculture output. Moreover, started from 1999, cash crops, especially coffee, have become the major export products. Due to the open door policy in 1990s, Lao exports have become more diversified. Likewise, trade liberalization in both Laos and its trading partners has encouraged non-traditional exports—all other export items except, cocoa, electricity, minerals (Such as gold, diamonds, bauxite, etc.,) and timber.

The globalization and market liberalization affected a whole agricultural production in the world, developing countries that mostly rely on agriculture are at risk due to lack of infrastructures, knowledge, new technology, and market information. Another important issue is Laos' agriculture productivity is low, particularly rice production, is not the result of lack of land or labor shortage, but it is reliance on technology and knowledge skills of the framers.

Despite efforts made to develop and diversify its export products, the Lao PDR still has deficit in its trade balance. According to the Ministry of Investment of Laos "from 1994 to 1998, the average annual deficit was about US\$ 290 million and has been brought down to US\$ 217 million (or about 12% of GDP) in 1999-2000. The problems and constraints are: narrow export base dependent on low value-added agricultural exports; the predominance of informal cross-border trade which makes it difficult to identify the actual trade performance and the loss of tax revenue from this activity; lack of competitiveness of Laos' products in foreign market, due to low quality standard; lack of sales promotion and incentives for export; and ineffective law enforcement as a result of an underdeveloped legal framework".

Beside the weaknesses, Laos' agricultural sector also has its strategic advantage: there are more than 300 million people who live in Greater Mekong Sub-Region with an increasing demand for food products. With this amount of population, it does become a big market of rice, vegetable, livestock and other farm products from Lao PDR. Moreover, exports of handicraft, agro-forestry products like paper mulberry, benzoin, cardamom, and other Non-Timber-Forest Products (NTFPs) could contribute seriously to improve household income.

The purpose of this paper is to find out what the main problems in export on agriculture products in Laos PDR are, to highlight implication of government's policies contribute to agriculture sector aiming to boost economic development in this country, and to suggest some policy implications in order to promote agriculture export.

Research questions:

1. How can export on agriculture product contribute to the economic development of Lao PDR?
2. Will export be the opportunity or bring more challenges to economic development in Lao?

3. How can Lao government develop their potential in agriculture and address the major domestic and external constraints to fully realize the benefits from export on agriculture products over the short and medium term?
4. What policy or regulation should be adopted to accelerate the effectiveness of export function?

This paper is broken down in to four main parts. In the first chapter of the paper is observing the overall aspects of agriculture products contributing to the economic in Lao PDR. It provides an overview of Lao economy, purpose and objective of the study. In the second chapter briefly discusses the current situation agriculture in this country, the key response policies on agriculture sector and also examine the potential and the main challenges of export on agriculture products. The third chapter is study on Vietnam and Thailand's development agriculture sector and present the lesson learn from their experience. Finally, the conclusion chapter summarizes the main findings and provides some policies recommendations for promoting agriculture sector from subsistence to commercialized level in Lao PDR.

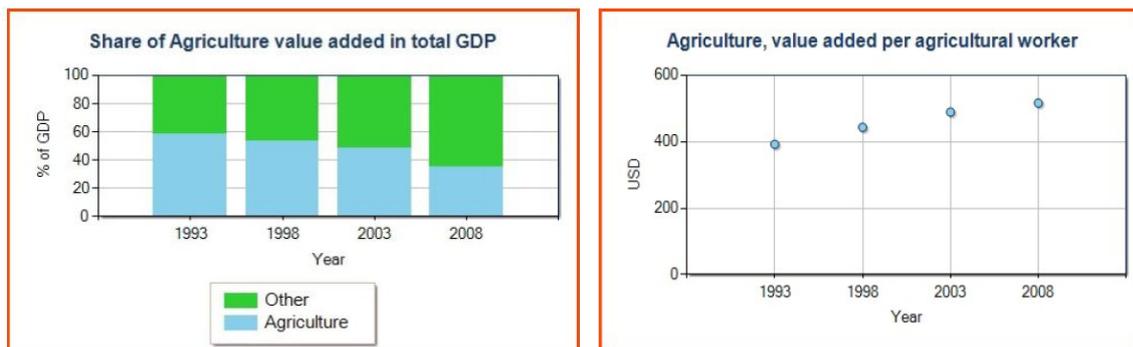
CHAPTER II

AGRICULTURE SITUATION IN LAO PDR

2.1 The role of agriculture in Lao PDR

Agriculture and forestry play two key roles in the processes of sustainable development and poverty eradication in Laos. According to Ministry of Agriculture and Forestry (MAF), "agriculture is the mainstay of the economy of Laos. GDP is expected to increase at least 3.4% per year and agriculture is also contribute at least 36% of the national GDP growth until 2010 (MAF, 2007)". In Laos, the agriculture situation has changed, large numbers of Laos' framers are moving from subsistence farming to commercial farming in order to produce the products to meet with the market demand (NAFES, 2006). Currently many Lao agricultural products are competitive in the world markets namely: rice, maize, coffee, green tea, cattle, sugarcane, non-timber forest products, and plantation timber (MAF, 2007).

Figure 1: Shear of agriculture value added in Laos: (1993-2008)



Source of data: FAOSTAT, FAO (1999-2009) <http://faostat.fao.org/site/666/default.aspx>

The agriculture in Lao has two broad framing systems—low land and upland. The significant of low land and upland are responding differently. The most promise for the commercialization, intensification and diversification of agricultural production was hold in

the low land areas. As recognize by the seven key initiatives identified in the National Growth and Poverty Eradication Strategy (NGPES) "for lowland agricultural development, the improvement in rice production and diversification into other crops in lowland areas, require a structural shift towards market-oriented production and leading role for the private sector, with limits to government policy or investment initiatives leading further gains".

The predominant *crop* is sticky rice or glutinous, which is grown on over 80% of the cultivated land; about one third is produced in uplands through slash-and-burn cultivation. Apart from rice, rural households produce vegetables, sweet potato, tobacco, cassava, maize; they tend fruit and banana trees. "Crop production systems in the Lao PDR remain primarily subsistence oriented, with minimal use of improved varieties, fertilizers, and pesticides. Although the use of modern inputs is increasing, their adoption has largely been confined to production in the Mekong river corridor (Schiller et al., 2006)". Farmers are generally excluded from the growing markets for high-value crops due to the lack of extension mechanisms and credit provision systems. Adoption of new technologies by risk-averse subsistence farmers is also constrained by the absence of risk-sharing strategies.

Table 1: Evaluation of crop production value per hectare in Laos: (1994-2009)

	Value [2004-2006 Int\$]				Annual growth rate [%]		
	1994	1999	2004	2009	1994-1999	1999-2004	2004-2009
Crop production per ha of land in use	746	871	1009	1002	3.15	2.99	-0.14

Source of data: FAOSTAT, FAO (1999-2009) <http://faostat.fao.org/site/666/default.aspx>

Compared to other countries in Asia, Laos' forest resources is quite rich. It's more than 10 million hectares of forest or around 45% of the total land. Timber and timber products account for about 50% of total export revenue. However, the heavy reliance on timber as an important source of revenue comes at a high price. Due to the high price of

timber and timber products, forest areas has continuously decreased during the last two decades, endangering the future supply of forest products, biodiversity, and the environment. "About 67,000 hectares of closed-canopy forest are lost every year, while some 100,000 hectares of forest fallow are cleared annually for slash-and-burn cultivation (MAF, 2007)". Forests from an economic resource base for rural communities, providing for household food security. Women collect mushrooms, wild berries, fruits, nuts, honey and earthworms, and also medicinal herbs. Men hunt wild animals. In periods of drought or floods, which tend to occur about once every five year, hunting and gathering forest products become important mechanisms to cope with food shortages.

Since Lao PDR is a landlocked country, the main *fisheries* resources are the Mekong River. Fisheries are very important for food security, and income of Lao people. According to MAF (2007), "freshwater fish account for 48% of dietary animal protein intake—per capita consumption of inland fisheries products is 29kg/year (compared with 4.5 and 5 kg/year for beef, pork and chicken respectively. It is estimated that 80-90% of yield is derived from river and flood-plain (including rice filed) fisheries, with the remainder coming from aquaculture and its tributaries, reservoirs, rice fields and ponds". Both culture fish pond and rice-cum-fish cultivation have increased steadily over the last two decades.

Table 2: Fisheries and aquaculture production in Laos: (1994-2009)

	Production [1000 t]			
	1994	1999	2004	2009
Total	35	60	95	105
Inland	35	60	95	105
Marine	n.a.	n.a.	n.a.	n.a.

Source of data: FAOSTAT, FAO (1999-2009) <http://faostat.fao.org/site/666/default.aspx>

Lao's farming system set livestock is one of most important component. Livestock are the most important single source of cash income for the household. Livestock sector contribute to about 16% of the GDP. Apart from being a major source of cash income, farmer keep livestock for accumulation of capital/wealth, to provide draft power to cultivate land and transport agriculture produce as well as manure for vegetable, fruit and crop production. In the country the most important livestock species is buffaloes, chickens, pigs, goats and cattle. Over 95% of all animals are being raised by smallholder farmers. The smallholder farmers mainly operate mixed farming systems, growing both crop and rearing animals. Usually, livestock rearing is supplementary to shifting cultivation systems.

The Lao PDR relies heavily on its natural resource base for livelihoods, due to a high price wood and wood products in the world market so of every year Lao export a lot of log timber and wood products. The result of export a number of wood and wood products and other reasons like illegal logging, population pressure, shifting cultivation, clearance forest for infrastructure development have reduced the area of forest in the country, for example, in 1940 forest cover about 70% of total land, in 2000, forest cover was reduced to about 54% of the total land. In the next 15 years, the government has plans to build new projects like hydropower projects, new mining ventures, to attract higher numbers of tourists, and to foster urbanization and industrialization will require measures to enhance the government capacity to manage the social and environmental consequences of rapid economic growth.

Food security is still central to agricultural development in Laos, and food security is often equated with rice production. Compare to the neighboring countries in Asia. Agriculture covers virtually all the national food requirements, every year Lao imports about 27,000 to 64,000 tons of rice. The major problem of food shortage was come from flooding and localized drought. The factors like forestry, fisheries and livestock are the major

contributors to food security of the households. Women play a critical role in food security in Lao PDR.

Agricultural sector is one among others who have direct link with the poverty.

Started from 1986, the Lao Government moved away from a centrally planned economy to a market-based economic approach allowing the private sector to become more active in socio-economic development. Laos is one of the poorest countries in the world. At substance, most Lao PDR households depend on agriculture and its related subsectors of livestock rearing, fisheries and forest exploitation for their living. In addition, the sector is dominated by smallholder farm families engaged mainly in subsistence production, and most of those employed in agriculture are self-employed or unpaid family workers in these subsistence production systems. Agricultural production in Lao PDR is largely subsistence-oriented and farm technology is characterized by low inputs, low risks and low outputs.

The outcome of agriculture activities is remaining tightly linked to the welfare of rural households. The level of diversification of rural household incomes remains low, and the ability to generate cash income from wage sources remain limited. Less than 40% of rural household can generate cash income in 2003. The people who lived in the urban area have more opportunities to generate cast income. The household in Vientiane capital can generated the highest cash income, second is Sekong, follow by Champasack province, in opposite way household in Phongsaly and Saravane provinces can generate the lowest income in the country.

Therefore, this indicates obviously that successful agriculture and rural growth are the foundations for future poverty reduction since agriculture's importance to rural households remain high because non-farm rural income opportunities remain limited. Besides, it's clear

that accelerating poverty reduction will depend largely on absorption of labor and job creation in other sectors.

Profoundly understand the mainstream of Lao people way of living the Lao government, plans an ambitious goal to exit the group of Least Developed Countries (LDCs) in 2020, in part by modernizing the agriculture and forestry sector. This is a top priority for the Lao Government in achieving food security and better livelihoods for all Lao people.

The most important factor that contributed to agriculture sector is farmers or we can say that "Farmer is a heart of agriculture sector". According to the country report in 2009, the number of women and men farmers producing for export in 2008 is estimated at 360,000, up from 277,000 in 2004. Agricultural exports, including non-food agricultural exports, thus employ the most workers and impact the largest number of Lao households. The exports also provide some employment for landless rural families.

Export of Non-Timber Forest Products (NTFPs), cattle, maize, barley, sugarcane, potatoes, other vegetables, watermelons, and raw latex go to Thailand, China, and Vietnam. Coffee and refined sugars are exported mainly to EU.

According to mirror trade statistics, between 2004 and 2007 the value of agriculture exports increased from \$30 million to \$80 million. The 2004 number includes estimates of informal exports; the 2007 number does not and thus under states total agricultural exports in 2007. Some of the increase in the value of food and Non-Forest Agriculture (NFA) exports was the result of food and commodity price increases the (except for sugar) reached their peaks in the second quarter of 2008.

2.2 The Potential Areas for Growth and Agriculture Export

Rice production is of great important to the whole nation for two main reasons. Primarily, it's the country's subsistence-oriented food and traditionally for a critical

commodity for food security or as of national self-sufficiency goal. It's produced mainly by small farm households that have an average farm size of less than 2 ha and accounted for about 67% of daily calorie intake of most of the rural population. Interestingly, the Lao PDR has one of the highest degrees of biodiversity of rice in the world by ranking the second highest to the International Rice Gene bank (IRRI). According to IRRI, "since the early 1990s, more than 13,500 rice samples have been collected, of which 85% are glutinous types. These samples represent more than 3,000 rice varieties. These resources are conserved in the country and in the International Rice Gene bank at the IRRI, which holds the world's most comprehensive collection of rice genetic resources (IRRI, 2005)".

The fame and interesting increases in the recent year of rice production, for instant, in 1995 the rice production in Lao has only 1.4 million tons, but in 2005 it's increased to 2.5 million tons. The reason of dramatic increase of rice production over the last two decades is due to expansion in irrigated area, as well as the adoption of improved varieties and improved on-farm management practices. Recently, the increasing of Laos' population growth rate cannot catch up with growth rate of rice production. Thus, per capita rice availability has increased at the national level. Important progress has been made on the technological and institutional fronts.

Table 3: Rice production and growth rate in Laos: (1995-2010)

1000 Tonnes				Annual growth rate (%)		
1995	2000	2005	2010	1995-2000	2000-2005	2005-2010
1418	2202	2568	3006	9.2	3.12	3.2

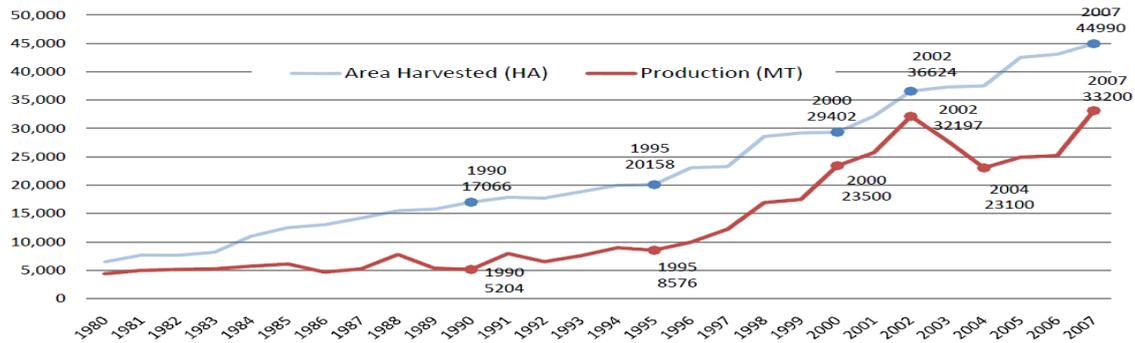
Source of data: FAOSTAT, FAO (1999-2009) <http://faostat.fao.org/site/666/default.aspx>

Apart from producing rice just for national self-sufficiency, rice production is single most important economic activity along the border with neighboring countries, namely Vietnam and Thailand, even though very little rice is currently marketed. It's believed that domestic and international trade in rice has also increased with the increase in production in recent years. Indeed, the rice trade has been seen flourished along the border with the People's Republic of China (PRC) and Thailand although there is no recent comprehensive study documenting border trade of rice. The potential exists for some export of glutinous rice to Vietnam and Thailand, and rice for global niche markets, produced on dry season irrigated land.

Currently, rice international trade is limited, and takes place mainly across the border towns in Thailand, China and Vietnam. Recently, there are very little quantities of rice were exported through the mechanism of contract framing. The main factors that limiting Lao's rice access to international markets is they are demand mainly for non-glutinous rice, but in fact, in Lao PDR the farmers produce mainly only glutinous rice and its accounts for about 80%-90% of the rice consume in the whole country. Glutinous rice can be trade only to the areas of Thailand border, where glutinous rice is also consumed. Another important factor that can effect rice export that due to Lao is seriously limits in marketing infrastructure that can reduce Lao's export competitiveness; the solution for this situation is Lao have to focus on differentiate products such as organic rice or high-quality black rice.

About a century ago, French introduced *coffee* in Laos, but it has never been play an important role in country's agricultural economy until the 1980s. From the mid 1990s (figure 2), with investment of private sector in coffee plantation and trade the robust, growth began due to the economic liberalization policy with the purposed to move the economy from a centrally-planned to a market-oriented.

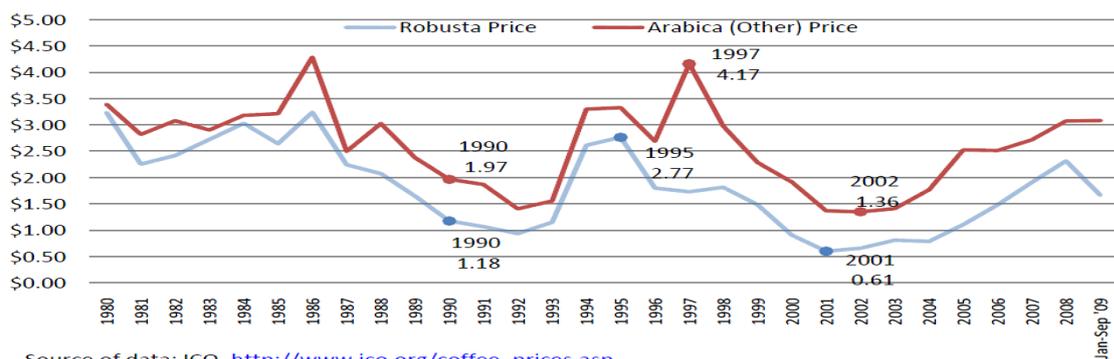
Figure 2: Coffee Production in Laos: 1980–2007(Area Harvested and Green Coffee Output)



Source: ICO: <http://www.ico.org/coffee.production.asp>

According to the FAO, in 1990 "when the international price for Robusta was \$US1.18/kg, Laos produced 5,204 tons of green coffee beans from 17,066 hectares of area harvested. Roughly, there were 13,000 households engaged in coffee farming at the time. The economic liberalization policy was implemented just at the right time for the coffee industry, as coffee price were rising (Figure 3)". The international price for Robusta increased to \$US2.77/kg by 1995, a highest price for an annual average during the past 2 decades.

Figure 3: World Annual Average Coffee Prices: 1980-Sep, 2009 (\$US/Kg)

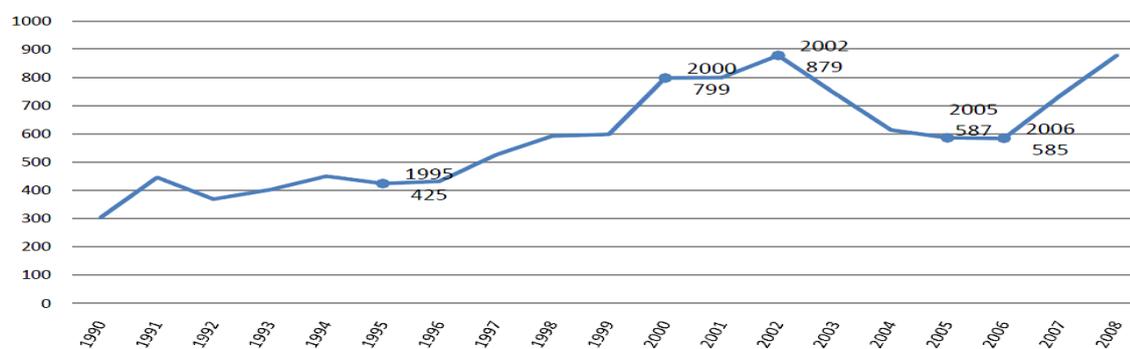


Source of data: ICO, http://www.ico.org/coffee_prices.asp

Due to rising international price of both type of coffee and expanded of private investment as a result, the total green beans production increased more than 4 times during 10

years. Within the past four years, the farming and foreign investment in coffee has continue to grow and play a critical role especially since 2005. Foreign investments have led the area of harvested increased to 44,990 hectares by 2007. According to FAO data, " there are more land area covered with coffee orchards and were ready to harvested, a price resurgent in 2006 has led to a strong rebound in the 2007 production, when total output reached 33,200 tons". By 2008, the total output in the whole country has exceeded 36,000 tons.

Figure 4: Average Coffee Farm Productivity in Laos: 1999 – 2009 (Kg/ha)



Sources of data: FAOSTAT, FAO (1990 - 2007), <http://faostat.fao.org/site/339/default.aspx>; DAF-Champasack Province (2008).

In 2009, Lao's average output per hectare still remain less than half compare to Vietnam's average output per hectare. Mana (2009) also note that, "with the impressive growing performance, an increasing interest in the Lao coffee industry from the international body like the FAO and international investors, more investments are being made in modern tools, machineries (mainly for milling), farming techniques, and in more productive variety which will raise output per hectare".

Fruits and vegetables are in great demand and have the potential for high quality, in part of-season production and processing in Laos. A wide range of fruits and vegetables are cultivated in Laos, and production is spread across the country, most of it on small family farms. Examples of fruit of cultivate in Laos are bananas, watermelons, oranges, mangos, pineapples, and rambutan. Vegetables are extensively grown in all provinces; the range includes tomatoes, chili, beans

(soybean, mungbean, yardlong bean), cucumbers, cabbage, cauliflower, eggplants, mustard, garlic, baby corn, cassava, and sweet potatoes.

Table 4: Fruits and Vegetables Production in Laos: 1999-2009

Production (1.000 tonnes)						
No.	Products	1999-2000	2003-2005	2007	2008	2009
1	Vegetables	555	816	875	900	914
2	Fruits	191	206	200	202	215

Source: FAOSTAT, FAO (1999-2009) <http://www.fao.org/economic/ess/ess-publications/ess-yearbook/ess-yearbook2010/yearbook2010-production/en/>

In line with international trends, production in Laos has increased mainly through expansion for arable land, which has an annual growth rate of 18%, and only to a lesser degree through productivity enhancement, which has shown an annual growth rate of 4% since economic liberalization in the late 1980s (Genova et al. 2006,

Table 5: Evaluation of land use in Laos: (1994-2009).

	Area [Millions of ha]				Annual growth rate [%]		
	1994	1999	2004	2009	1994-1999	1999-2004	2004-2009
Total area	23.08	23.08	23.08	23.08	0	0	0
Arable land	0.82	0.88	1.00	1.36	1.42	2.59	6.34
Permanent crops	0.07	0.08	0.08	0.11	2.71	0	6.58
Forest cover	17.00	16.61	16.22	15.83	-0.46	-0.47	-0.49

Source of data: FAOSTAT, FAO (1999-2009) <http://faostat.fao.org/site/666/default.aspx>

Overall, there is high and continuously growing demand for fresh and processed fruits and vegetables in both neighboring countries and the developed world. The total export value of fruits

and vegetables increased from 1.6 million \$US in 2001 to 7.4 million \$US in 2006. The share of fruits and vegetables in (formal) exports of food and live animals rose from 3% in 2001 to almost 18% in 2006, with the ASEAN Integrated System of Preferences being one major reason for sharp increase. The main destination for fruit and vegetable exports is Thailand, although it, in turn, is the main supplier of imported fruits and vegetables to Laos as well.

At the demand for fresh exotic fruits and vegetables as well as for off-season and organic products still exceeds supply, this means considerable export opportunities for Laos. Exports of cabbage from Champasak Province to Thailand rose from 12 metric tons in 2001 to 11,236 metric tons in 2006, with the export value highest during the Thai off-season. Besides traditional distribution channels like fresh markets and wholesalers, a growing share of fresh produce is demanded by supermarket chains around the world, with the requirement that strict quality standards be complied with. Contract farming agreements can provide farmers with the necessary inputs and know-how to meet the respective requirements and standards for high-value production, including e.g. Good Agricultural Practice or organic and fair-trade standards.

The creation of positive impact has on organic agriculture products and business. Demand for **organic products** is growing worldwide. As consumers are aware of pesticide residues in fresh products, organic production is specifically important even though the use of chemicals tends to be higher than staple crops due to their higher vulnerability to pests and insects. Nonetheless, production in Laos is largely 'organic by default'. This could be turned into a comparative advantage to supply the organic niche market. In Vientiane Province, farmer groups in organic production, mainly vegetable farmers, are being supported because the organic market in Vientiane provides a valuable marketing and distribution channel for organic farmers in the province. Awareness of organic farming and its advantages is spreading to other provinces, and many PDAFs (Provincial Department of Agriculture and

Forestry) expressed their intention to promote organic farming, including fruits and vegetables.

The quality of organically produced fruits and vegetables from Laos could be indicated by special brands and certificates. Farmers in Champasak Province already reported that Thai consumers prefer Lao cabbage because they know it is free of chemicals. Fair trade is still rather unknown in Laos. One exception is Lao Farmers Products, an agro-processing company that exports—for example—fair-trade jam to Europe. Lao Farmers Products buys raw inputs from farmers that are then processed into jam, fruit juice, fruit pastes, sweets, wine etc. and exported, among other places, to the EU under a fair-trade label. Another example is the Lao Agro Industry Company a Thai-Lao joint venture. The company exports canned fruits (e.g. palm seeds, mango) and vegetables (baby corn) to the EU, Thailand, and Vietnam. Lao Agro Industry Company is one of the few companies producing according to certain private international quality standards. The company already meets the requirements of Hazard Analysis and Critical Control Point (HACCP) and is certified under Good Manufacturing Practice. Currently, it is working on implementing the British Retail Consortium Standard (BRC Standard) as well.

Developing Lao organic agricultural products for export will have a positive impact on the national economy. It will create opportunities for farmers, representing 80% of the Lao working force, to generate bigger incomes. This will definitely contribute to achieving part of the Government's "vision" e.g. "develop Organic Agricultural Business to create employment in mountainous and remote areas for income generation in multi-ethnic group, conserve and protect the environment."

The agriculture sector provides the economic, social and cultural base for more the 80% of the population, and accounts for more than 50% of GDP. Moreover, farming defines

the character of the country, and working the soil and raising of livestock and fishery are second-nature to the multi-ethnic population. It's a character that the Government is committed to protecting with the goal of poverty eradication and graduation from LDC status by 2020 depends on a more productive agriculture and forestry sector.

In this context, the Government of the Lao PDR sets agriculture sector as a top priority with firmly of the view that more progress in modernizing this sector can and must be made, while respecting the traditions of the Lao way of life and the rich diversity of its ethnic minorities in a manner that fully meets sustainable practices and that achieves food security and better livelihoods for all people.

Transition from central planning to a market-based economy calls for much greater reliance on the private sector, and a more supportive role for the government. All levels of government and all stakeholders will have to exercise great care in this endeavor. A fully committed and participatory process from the Government is greatly needed, ranging from the village level up, in meeting these challenges and realizing opportunities to meet a huge and ever growing regional market, which offers trade and investment opportunities that can lift the agricultural sector into the new millennium.

The government set up a National Export Strategy (NES) which was designed to develop the organic agricultural products sector in Lao PDR, and aims to be a partaking of the National Economic Growth in next five years. To achieve this objective we need to focus on particular issue as follow:

- Build up capacity of private sectors and farmers in rural areas in order to increase the quality, quantity of organic agricultural products and also meet the minimum requirement of international standard;

- Develop local processing plant in order to enhance export finish products to generate value addition, creation and retention in the targeted areas;
- Develop organic agricultural business, marketing management and export capacity in the agriculture sector.

The strategies for initiative the agriculture sector include:

- Improve the capacity and capabilities of Lao's Science Technology and Environment Agency or STEA;
- Developing agriculture standards for exports;
- Establishing provincial production zones and invest more on road and necessary infrastructure like irrigation;
- Enlarge access to both international and regional markets;
- Upgrading agricultural practices, and training farmers in value-added processing;
- Reviewing the incentive structure for commercial farming;
- Identifying suitable investments and technologies;
- Develop and expand the financial services for the agricultural sector;
- Reduce trade barrier in order to facilitate to local and foreign investors who invest in agriculture sector;
- Investing in seeding; an
- Supporting the potential products such as coffee, maize, rice, fruit and vegetable.

Government measures in promoting agricultural exports include: "Market incentives for farmers, including private sector contract farming; establishment of a grading and classification system to improve product quality; participatory land use planning and resource management; new crops based on agro-zoning and market-based private sector investment; application of area-based applied technology; strengthening of the participatory

agricultural extension system; also private sector extension service, farmer vocational training and model family farms; livestock health and fisheries promotion programs, and envelopment and distribution of area-based applied technology (Lao's Poverty Reduction Strategy, 2004)".

2.3 Challenges in Agriculture Export in Lao PDR

Despite considerable recent economic growth, gross domestic product per capita was ranked eighth among the ten ASEAN countries: \$US 981. Although this is a significant improvement over 2000 (\$US332 per capita GDP) Lao PDR remains one of the poorest countries in the Asia and Pacific region. The key structural factors constraining growth and poverty reduction include a small domestic market, a large segment of the rural population living on subsistence agriculture, skill shortages, and remoteness and isolation of many rural communities. Reliance on external support for budget remains high, with externally-funded programs accounting for nearly two-thirds of all public investment. The challenge for Laos is complicated by the legacy of the past. The country has poor infrastructure, underdeveloped market institutions, an embryonic private sector and a public sector with little experience of managing a modernizing market economy.

Now a day, the major weakness in the Lao economy is the lack of experienced and human resources that was destroyed during the "lost decades" between 1960 and 1990. There's a pressing need to rebuild the human and physical capital. Education is a bottleneck for producing, marketing, and exporting high-value agricultural goods. Without basic education, it's difficult to learn and obtain additional know-how. For example, illiterate farmers cannot read a contract or written instructions by extension services,. A minimum understanding of market mechanisms (supply, demand, price formation) is important in a market economy and reduces the risk of farmers being cheats and exploited. Furthermore, lack of foreign language skills, English in particular, limits access to information. This is a severe constraint, since increasing and maintaining quality,

domesticating, or producing according to organic and fair-trade standards require constant learning and (international) exchange of research finding and best practices. The state budget is dependent on external funding to a large extent. This led to difficulties in planning and financing human resources development over the long term. Currently, there are labor shortages in certain regions (mostly in the South of Laos) and during peak season. Skilled labor is scarce everywhere. In the future, local labor may not be sufficient if additional land is used for farming and if processing of agricultural goods increases.

Lack of technology and technical expertise also a main problem. Agricultural research and extension systems require further institutional development. There is a need to continue to invest in capacity development for agricultural researchers. Agricultural research and its associated agencies are still not routinely and sufficiently funded to meet the challenges facing them. Although an important milestone has been achieved with the establishment of National Agriculture Forestry Export strategy (NAFES), the extension system needs further capacity development, with more effective links among research, district-level organizations, and grassroots agents for extension to be an effective conduit for disseminating agricultural technologies. Most farmers and collectors as well as processors complain about insufficient inputs like seeds, fertilizer, pesticides, adequate tools, and machinery. The majorities of these inputs have to be imported and are expensive, for example due to high import taxes. Farmers also lack adequate techniques for (organic) cultivation harvesting post-harvest handing, and processing. In other words, they lack know-how to produce high-value agriculture products.

Government institutions generally are understaffed, salaries are low and capacities limited. Basic infrastructure like telephone, computer, and internet are not available or very limited everywhere, especially the case at provincial and district level. As a result, the important information on market trends or new production techniques cannot be readily communicated.

Furthermore, enforcement of regulations and laws is rather weak. With regard to ASEAN, lack of government capacities contributed to a late reaction to trade restrictions imposed by ASEAN members.

Cooperation between government institutions across different sectors (planning and investment, industry and commerce, agriculture and forestry) and across district, provincial, and national levels (e.g. with regard to information sharing) leaves room for improvement. Cooperation and exchange of information between producers, collectors, processors, and traders—that is, along the value chain—could also be enhanced. Due to this lack of cooperation, there is also lack of coordination, and this results in inefficient work and prevents available capacities from being used in the best way.

As a land lock country, Laos is disadvantaged in terms of trade infrastructure. The state of infrastructure offers certain challenges compared with other countries in the region. There is no railway system in Lao PDR, the road network has very low density and less than half is paved. Therefore, transport costs are high and entrepreneurs are discouraged from investing in Laos. This not only make it difficult to get outputs to markets, but also increases the import costs of essential consumer products and inputs such as fertilizers. Ensuring adequate transport and communications facilities would play a vital role in the country's economic development and an efficient multimodal transport system can be one of the key factors in increasing Lao PDR's trade competitiveness.

Together with inadequate infrastructure problem, Laos' export has to face with institutional bottlenecks and red tape. Thailand and Vietnam still the preferred transit route for Lao trade with third countries. In addition to inadequate infrastructure, cumbersome customs procedures and corruption at the border raise transport costs and increase delivery times for key exports products. Tracks cover 2-3 days from Vientiane to the port of Bangkok. Harmonization and flexibility in working hours at custom could reduce delivery time and cost. There are some of the trade

facilitation problems that traders have to deal with and that the government has been working on resolving.

Table 6: Costs and time to move containers out of Lao PDR.

Route for a 20ft container	Distance (km)	Total transit time (days)	Total transport cost (USD)	Handling and customs charges (% of total)	Confidence index
Via Danang (Vietnam) <i>Vientiane-Danang-Singapore-Rotterdam</i>	18329	30/32	3420	29.2%	2.7
Via Bangkok (Thailand) <i>Vientiane-Bangkok-Singapore-Rotterdam</i>	17549	30/31	2477	24.8%	2.9
Via Laem Chabang (Thailand) <i>Vientiane-Laem Chabang-Singapore-Rotterdam</i>	17630	30/31	2503	23.7%	3.1
Via Lad Krabang (Thailand) <i>Vientiane-Lad Krabang-Laem Chabang-Singapore-Rotterdam</i>	17624	30/31	2519	22.8%	3.0
Via Port Klang (Malaysia) <i>Vientiane-Lad Krabang-Port Klang-Rotterdam</i>	16905	27/28	2468	21.3%	3.0

Source: Banomyong and Beresford

Furthermore, farmers have no possibility to hedge their risk regarding partial or total loss of their crop. In addition, as farmers are unable to obtain short-term loans to bridge the time until they receive money for their crop, they often become indebted with money lenders or have to sell assets, thus reducing their overall production capacity and, in particular, curtailing their capacity to fulfill long-term contracts. Although the Nayoby Bank and agriculture Promotion Bank offer financial services to the agricultural sector, their services still appear to be insufficient and not adequately targeted to the needs of farmers, processors, and traders.

Standards for production, products, and quality are often missing in Laos. Also, there is an insufficient data trained personnel, hardly any quality control takes place. Similarly, almost no risk assessment of imported goods is carried out at border checkpoints. While certification of origin is issued for some agricultural products (e.g. coffee), for others (e.g. bamboo, rattan) such certification is not available. Certification of quality is usually limited to very basic characteristics

(e.g. level of humidity) and is little more than a bureaucratic requirement without any effect on product quality. A certification body for organic production has been established but is not yet functional.

As a result of lack of market information and experience with a market system, producers, processors, and exporters tend to neglect demand-side requirements. In other words, they do not consider requirements of customers in term of product quality, size, quantity etc. In particular, smallholder producers lack the skills to market their products and to ensure that buyer requirements are fulfilled in their production process. Overall, market mechanisms are not well understood.

Since smallholder producers lack education, market information, and marketing capacities, they depend on traders or government institutions to market their products. Some farmers receive support from donor-funded projects. In many cases, they would not be capable of carrying out certain activities without this kind of support. As the government restricts the number of NTFP traders or promotes contracts with just one foreign company or government, there is a lack of competition. Thus producers cannot compare prices and contract conditions and cannot choose between different traders. Furthermore, insufficient infrastructure (e.g. roads, border crossings) can limit the number of potential trading partners and increase dependency. Finally, the Lao government depends on financial and technical support from donors.

Sanitary and Phytosanitary (SPS) play a critical role of Laos's agriculture export. The potential growth in Laos agricultural is high, and Lao's neighboring countries also demand fruits, vegetables, coffee, and high-quality beef from Lao, the need of those products is increasing every year. However, the growth in agricultural trade is limited due to lack of capacity, in both the government side and enterprise sectors, to meet international SPS standard on food safety, animal and plant health. Ministry of Agriculture and Forestry of Laos, point that "In order to meet minimum SPS standards it's will require more staff skilled and better equipment; the creation of

databases on diseases and pests; the capacity to monitor avian flu, foot and mouth disease, agrochemical use; and to carry out risk assessments and cost-benefit analyses. Developing these capacities will involve large upfront costs".

2.4 Key Response Policies in Agriculture Sector

New Economic Mechanism (NEM) in 1986 is significant mainstream of present policies including agriculture policy. Since then, significant restructuring and reforming has been carried on all level of state enterprises and decentralized responsibility for agricultural production decisions down to the household level.

The dominant role of agriculture sector was recognized by NEM, at the same time NEM also address weaknesses in agriculture sector through significant reform measures paving the way for an open market economy. The private sector, foreign investment, and trade were expected to play an increasingly important role in the achievement of the development objectives of the Government beginning with the agriculture sector.

In order to support social economic development of Lao PDR, the government have introduce eight priorities programmes (including rural development, infrastructure development, human resource development, service sector development, foreign relation development, food security, shifting cultivation stabilization, and commodity production promotion. The Commodity Production Promotion Programme has been implemented the agriculture commercialization, and a mechanism of mechanization particularly agriculture production. This policy is one of most important policy of the Lao's government for agriculture reform with the goal to support agriculture development, raising income, and poverty reduction.

The National Growth and Poverty Eradication Strategy (NGPES) clearly state that "agriculture is the first priority sector among those four main priority sectors as to ensure

poverty eradication process in Lao PDR. Furthermore, the policies for agriculture sector are set out in both long-term development strategy (2010-2020) as well as the mid-term development plan of the government (Five Years Social and Economic Development Plan 2001-2005 and also 2006-2010)". The Ministry of Agriculture and Forestry (MAF 1991) also note that:

"The Government clearly recognizes the need to redress these zonal imbalances between the sloping land and flatland areas and is embarking on a strategy of shifting resources and priorities toward accelerating the pace of market driven growth along the Mekong. The main priorities are to sustain the pace of the current momentum along the Mekong corridor, while expanding the development process to the sloping lands. There is a critical need the sloping lands for Government support to redress market failures and externalities which inhibit growth and development of the rural sector in that agro-geographic zone."

The seven Thematic Approaches was introduced by the government in order to enhance with agriculture development vision. The seven Thematic Approaches is include: "MAF planning and Decentralization; Business Regulatory Adjustment; Human Resources Development; External Trade; Lowland Transformation; Sustainable Sloping Land Development and Environment Management/Shifting Cultivation Stabilization; and Irrigation (MAF, 2007)".

These Thematic Approaches are set specifically for each area as follows:

In due consideration of the constraints and priorities for agricultural development, government policies for lowland agricultural development included: "Increase production capacity with a view to agricultural diversification including cash crops and livestock and fisheries production; Development of internationally accepted product grades and standards;

Expansion of rural credit facilities at market interest rates (MAF, 2007)"; "Expansion of rural and agribusiness lending by State Owned Commercial Banks and Private Commercial Banks; Develop the agricultural processing industry through domestic and foreign capital investment in agribusiness and increased value added (MAF, 2007)"; "Increase the efficiency of agricultural marketing and distribution through the promotion of government and private sector sponsored market research, market information systems, and improving regional linkages between producers, distributors and consumers; and Rehabilitation, expansion and intensification of dry season irrigation schemes with participatory community based management (MAF, 2007)".

CHAPTER III

SOME LESSONS FOR EXPORT PROMOTION OF AGRICULTURAL PRODUCT FROM THAILAND AND VIETNAM

What brought Thailand and Vietnam to be two of the largest agricultural product exporters in the world has caught my attention to particularly learn from its experience since Lao PDR somehow has similar characteristics by relying on agriculture sector as the backbone of national economic development and poverty reduction.

3.1 Development of agriculture and agricultural policies in Thailand.

Thailand is an agricultural country. In the perspective of Thailand: "agriculture is the heart of Thailand it can reflect the way of life among native inhabitants". In Thailand more than 40% of land use for agricultural production. About 50% of the agricultural land is used for growing rice, beside that the agricultural land use for field crops, horticultural crops and others. Agriculture is playing a critical role in Thai economy; it's a largest source of employment of rural population of the country. Previous study also point that "agricultural sector in Thailand has played a significant role in economic contribution since historical time". Another similar view is "Thai agricultural sector is still full of dynamism and the agricultural sector is determined to improve productivity and increase its competitiveness in global markets (Bhanupong, 2004)".

Agriculture production does not only contribute to domestic market but also plays important role in export revenue. Agriculture now accounts for more than 10% of GDP. The country is a one of leaders in agricultural products and export. They are export of a number of agricultural commodities, and its agribusiness sector includes one of the world's largest multinational corporations. Currently, the country is 14 rank in the world agriculture export the main agricultural products export are rice, pineapple, rubber, orchids, canned and black tiger prawns. It rang the top of Asian in exporting chicken meat and other commodities. From the last

three decades Thailand is the fifth food feeding country of the world, it also can feed more four times its own population; on the other hand they are a net food exporting country.

Most of Thai agricultural products can complete in the world market, in the different side the amount of agricultural product is decrease year by year compare to the total export in the whole country; the reason for the decreasing of Thai agricultural products over the years is due to the increasing of the manufacturing products. Even the amount of agricultural product export has decreased but it still the rank the top five in the world, especially in year 2004 Thailand was the top exporter of rice among other major exporter like US, Vietnam and India. Thai export of rice accounted for about 27 % of the world total export of rice, more than 5% of the global export of chicken and accounting for over 11% of the global export of sugar.

As one of the world's largest food exporters, Thailand was active to participant in the World Trade Organization (WTO) specifically in the Uruguay Round negotiations on agriculture with the two main objectives: "first, it aimed to strengthen the rules governing international trade so that its trade interests were not subdued by more powerful trading nations". "Second, it urged restraints on export subsidies by others, notably the European Union and United State, which favored its own exports".

What was behind the success of agriculture sector in Thailand? In order to answer this question we have to look back to it the history in the previous time:

Started from 1960s, the economy growth rate in Thailand fairly high in almost all years. Economic performance during the period of 1960s was fair because of expansion of farmland, circumstances favorable to agriculture, and development of irrigation.

The 1970s we can divide into two periods. In the early 1970s, it a hard time for Thailand they are suffered from the oil crisis in 1973. Oil price at that time is four-fold increased compare to the pervious price. The growth in economy at that time quite slow, during 1974 and 1975 the

growth rates is less than 5%. In the mid-1975s, Thai government has established credit, crop insurance programs, and legitimized use right of land for about 500,000 hectares for classified as forest reserve. By doing so the government could balance the income gap between the farmers and nonfarm in the country. In the same period, Marketing Organization for Farmers was introduced by the government, this policy can allowed farmers to buy machinery, equipment, and fertilizers at the possible lowest prices. At the same time, the government also set up the welfare fund name "Farmer Assistance Fund" that fund is collected from agricultural export taxes. In the late 1970s the economic performance was improve in the better looked, the GDP digit growth in these years is double. The better look in Thai economic performance is from high price of agriculture products in the international market especially the high price of rice exports.

In the early of 1980s Thai economic performance was poor. At that time the around the world is recession and resulting protectionism as a result Thai export growth is slowed down and held economic growth down. In the late of 1980s, a lot of Foreign Direct Investment (FDI) comes to invest in Thailand, at that time Thai economy grew very fast, at double-digit rates, the highest for 30 years. The foreign investors whom came to invest in Thailand at that time mostly from Japan, at that time the exchange rate of the yes was quite high compare to the current rate.

During the period from 1990s, up to 1995, Thai economy continuously grows at prompt pace, thanks to FDI, at that time not only from Japan but also from East Asian NIES (Newly Industrialized Economies). Manufacturing continued to lead GDP growth, accounting for the major portion of GDP (28% in 1992).

Since 1960s Thai's trade policy is breakdown into three periods. During 1960s, Thailand mainly relied on agricultural exports and natural resources for the whole export income. The most effective protection for industry in overall was following the standards of developing country. In the 1970s, the government implemented the import substitution strategies raising by others developing

countries and also raised tariffs on consumer goods. During that time the intermediate goods were enjoying low imported duty rates. In 1981, "Thailand's trade policy shifted explicitly in the direction of export promotion. Remaining export taxes were reduced and the bath was devalued. The government also began to reduce protection of local industries and to lower tariffs. The maximum duty rate was reduced from 100% to 60% (World Bank 1993)".

During three decades (1961-1991) Agricultural GDP grew more than 12 times, in the same period non-agriculture sectors even more substantial increase, it increase by about 56 times. Agricultural production contribution of overall national GDP declined from 39% in 1961 to 12% in 1991. However, agricultural sector still remain an important sector in this country because the majority of labor force still work in this sector. Since 1961, the government set agriculture sector in the priority sectors; the budget for development agriculture was ranking the third-largest in the national budget after educations and national defense. The share of the agricultural budget in the total national budget in the total national budget varied between 7.4% and more than 10%, depending on the agricultural policies in force. For about 40-60% of the total agricultural but get contributed for infrastructures development, 12-16% use for extension and technological transfer, 8-14% for resources procurement, 6-8% use for development and research, a rest of that use for general administration.

Historical study on rice export is the best way to explain the policy for exports of agricultural products in Thailand before 1986. During that periods there are four direct and indirect taxes for exports: rice premium, export duty, quota and reserve requirement.

Until 1965, In Thailand the premium significantly contributed to the budget revenue it cover around 10% of the total budget. Because the premium plays a critical role in the budget, so the rates of premium have to be fixing in order to stabilize domestic prices. In 1975, "government policy shifter away from the pro-consumer slant of previous years since the Government began to

establish higher support prices to help farmers. The motivation for these programs was the desire to divert resources originating from rice export taxes to the millers, who wielded a considerable influence over individual members of Parliament, as financiers of political campaigns and as controllers of important blocs of votes (Siamwalla 1991)". In 1983, the government made a serious attempt to liberalize the rice trade. Many taxes related to agricultural export were gradually dismantled, and in the early year 1986, Thai's rice export was freed of all restrictions (this is a first time since the end of World War II).

The major contributions to the development of Thai agriculture sector as follow:

1. During the period 1993 to 2003 the public spending on agriculture was declined from 17% to 12% of agricultural output, but public good like road, health, electricity, and education still play an important role on Thai's agricultural growth; at the same time capital spending on other public good in infrastructure, health and education can indirectly improve agriculture's output growth.
2. Thai Farmers are responsive to price incentives and adjust their production according to long-term price trends, which are dictated by world prices and the adoption of new technology. Although the Thai agriculture may lose its competitiveness in some commodities, it can still provide surplus large enough to maintain low cost of living and competitive wages for the industrial sector.
3. Irrigate farm land was substantial increased; it's rising for more than double during the period 1960 to 2000s. The improvement of irrigated farming is due to more intensive application of fertilizer and farm mechanization.
4. Institutional factors also explain the increase in the agricultural productivity. "The government's assets-to-capital conversion scheme has permitted farmers to use their land-right certificates as collateral for bank loans since 2004. Securing property rights can give rise to

productivity due to investment incentives arising from owning land titles which can be used as collateral to access institutional credit market (Bhanupong, 2004)".

5. Technological progress in agricultural sector during 1960 to 1977 was move from "labor-saving through mechanization and land-saving technology through the application of fertilizer, which leads to more productivity".

6. Processed food industry is one of the most important part of agricultural export because through the processed of food with the new and high technology it can guaranty the quality of the products and it's also can generate more valued added than producing ordinary agricultural products.

7. All of industries in Thailand also have their own policy. Most of them are not rely heavily on certain market or some agricultural commodities.

8. During the period 1976 to 1986, the industry in Thailand responded very fast in terms of value and quantity. Export of fruit and vegetable can showed illustrate the flexibility of the agricultural export sector. Due to the processed fruit and vegetable industry have abundant skilled labor, so they can enjoy substantial gains in the world market share.

9. Since the last three decades, Thai's agriculture has to face with many diseases especially the Avian influenza the most dangerous disease that can affect to agricultural products export. In order to deal with this disease, the government has to shifting from export in frozen meat to cook meat or to different kind of can meat. At the same time, the government also invests more on farm and processing plants in order to improve the sanitary condition.

However, the most important agriculture policy was come from the recent King, of Thailand. The new policy of the King was promotes sustainable agriculture with the farm households. At first this policy is focus on small individual farmers, the next stage the government encourages those farmers into farmers' cooperatives, when trade becomes a profitable venture. The

new policy also aims to encourage the farmers to modified export agriculture from raw material to export of finished products, because finished products can bring higher prices and higher returns. The government and private sector work together with farmers in order to promote value-added agro-processing for many different type of product, for instant, rubber can be processed into toy products, road surfacing, rubber tyre etc. Different kind of fruits can be made into dry fruit or sliced into ready-to-eat packages.

Although the agricultural sector in Thailand has performed well in the last three decades, but the income gap between substantial income gap between agriculture and manufacture still large. In fact, the agriculture productivity grows at a slow pace compare to manufacture grow. Thai farmers was enjoyed the cheaper imported of machinery and fertilizers; this is the direct benefit from free trade agreements (FTA). Agricultural productivity was improved substantially. On the other hand, most of the labor force was remain in the rural area, along with this high wage rate and labor shortages in urban areas would hamper Thai's agriculture export competitiveness.

Most of the agriculture sector are rely on exports of agricultural products we also can say that "the key for the survival of the agriculture sector is export". Agricultural sector much find the ways to add more value added by processed food industry, and build up the link between urban and rural sectors. Most of firms who processed food for exports have to upgrade their own food quality, and safety standards. Currently, only firms who have dynamic schemes of quality improving can complete and survive in the world markets.

The government is play a critical role in providing investment in agricultural research and infrastructure to make sure that farm inputs are available without price distortions. The Bank of Agriculture and Agricultural Cooperatives has been successful in providing agricultural credit. The current support of the rural sector has gone too far by injection money to rural areas without

considering the basic benefit-cost principle and the concern over alternative uses of limited financial resources.

3.2 Development of agriculture and agricultural policies in Vietnam.

Vietnam is developing country located in South East Asia. Currently the population is approximately 82 million people, 70% of Vietnam population lives in rural area and they are largely dependent on agriculture and natural resources for their livelihoods. According to Nguyen Ngoc De "Agriculture is the main sector in the economy of Vietnam, employs more than 77% of the total labor force, contributes for about 27% of GDP and more than 30% of export values". The major incomes of export on agricultural product are from rice, perennial crops (coffee, rubber and tea) and fisheries products, those agricultural products export mainly to Cuba, Malaysia, Indonesia, China, EU and United State.

Agriculture sector is very important for Vietnam's economy; Nguyen Thi Thu Huong also noted that "Vietnam very dependent on its agriculture and natural resources, agriculture and natural resource based products are also the predominant source of Vietnam merchandise exports". The economy of Vietnam developed rapidly since renovation policies was introduce or hear after "Doi Moi" policies during 1986 in the sixth Party Congress of the Communist Party. The new agricultural policies had been introduced towards this direction; this policy covers the first foreign Investment Law in year 1987, this is the first time of Vietnam's government announce the open-door policy. Another policy was set up at that time and also play an important role at that time is Land Law which established agricultural land-use right.

First foreign investment law it doesn't work effectively for the agriculture export because at that time the government mainly focused on office building, hospital, school, real estates and service. During 1990-1993 the foreign investment law was amended and modified, until 1994, the new investment law was approved with a new trend that focused on investment for industrial

productions. After that, many export processing zones and industrial estates was establishing in Vietnam.

With the renovation policy, Vietnam agriculture continually improved and gained significant results. With the land law in 1986, the right to use land was handed over to the farmers. Vietnam agriculture began the transition from self-sufficient and self-supporting production to an agricultural production to meet needs of export. Farmers were free to produce, exchange their knowledge and experiences among farmers in term of production process. So, agricultural food production increased quickly especially for the rice yields. Sikor and Rourke, (1995) mention that "during 1987 and 1989 Vietnam moved from a position of a net importer to a net exporter of rice". According to Phan Chi Thanh (2004), "Vietnam was the second largest rice exporter in 1999, exporting more than 4 million tons of rice and accounting for 16% of total world exports compared to just over one percent of total world exports in 1986" In 2010, Vietnam become the first largest rice exporter, export more than 39 million tons of rice.

To become the major agriculture exporter, and the largest rice exporter. Vietnam also have to go through a hard time, especially after the reunification of the country in 1975, there was a crisis in Vietnam's agriculture sector especially in rice production, the most important food crop in Vietnam. Pingali and Vo (1992) estimated that "although total agricultural output increased by an average growth rate of 4.5% during 1976-1980, there was actually a reduction in both rice output and rice yield in the same period. Rice output per capita in 1980 was less than that in 1976 by 8%. In the mean time, rice yield reduced by 7%. There was food shortage and low agricultural productivity in Vietnam in late 1970 and early 1980s, indicating the failure of the collectivization in agriculture".

In order to overcome this crisis, the government announced some agricultural reforms. "In 1981, Vietnam collectivized agricultural system to a household-oriented contract system. It allowed

households to have short-term (three year) use right with their allocated plot and required them to meet output contracts with the state (Vu Hoang Linh, 2009)". "The switch from the collectivized system to the contract system provided the first stimulus to Vietnamese agriculture. For example, rice yield increased by 34% from 1980 to 1985. However, the output and input markets were still under state control and farmers were required to sell outputs and buy inputs from the state (Vu Hoang Linh, 2009)".

"Despite certain successes in the wake of this reform, the picture of Vietnamese agriculture was still very depressing before *Doi Moi* (Renovation) time in 1986. Compared to the amount in 1942, rice output capita in 1986 was only 93% for the whole country, 105% for the North and 79% for the South (Pingali and Vo 1992)".

In December, 1986, the 6th Vietnamese Communist Party Congress was publicly announced *Doi Moi* reform strategy. Industrial sector was the first priorities of *Doi Moi* policy, by giving more autonomy to state-owned enterprises. In April, 1988, the Resolution 10 (Politburo promulgated Resolution 10) was reform the agricultural economy. According to Vu Hoang Linh (2009), "Resolution 10 allowed farming households to have long-term (15 years) contracts on land and permitted them to make all decisions with regard to their farming activities. This policy resulted in the decollectivization process, in the dominant force in agriculture". Late of 1988, the government accepted tax obligation on agricultural output, farmers were free to sell their products to the state companies as well as to private traders in the markets. "Private traders were guaranteed equal treatment as state trading companies. The Government also dropped its subsidy of food grain to government employees, thus dropping the two-tier price system and enabling liberalization in the agricultural output market (Vu Hoang Linh, 2009)". In addition, the agricultural input market was finally liberalized by December, 1988. Private traders were allowed to sell fertilizers, machinery, and other to farmers. In 1989, the government also dropped direct subsidies to state owned

enterprises. Vietnam's economy liberalization was introduced in the future policy reform. Most of prices controls including party rates and interest rates were abolished. Government's direct subsidies to state-owned enterprises were also dropped.

The combination of trade liberation and Resolution 10 had encouraged and support to agricultural export and agricultural production. "During 1985 to 1989, agricultural output increased by 18%, rice output by 22%, and rice yield by 18%. Vietnam, which had been a net importer of rice for two decades, can export 1.5 million tons of rice in 1989, (Dang et al. 2006)".

Vietnam has a long history in agricultural development policy, we can divide in to many periods as below:

Before 1986, the Renovation policy or "Doi Moi" was not established. Vietnam's government not yet realizes the important of agriculture sector. At that time the picture of Vietnamese agriculture was still depressing.

After "Doi moi", Vietnamese economy and agriculture began to improve and outstanding achievements especially in many field like development on production, reformation of the economic structure and improvement of farmers' living standard. The farmers at this time had more opportunities to improve their knowledge by learnt from other farmer and researchers. Farmers at this time were free to cultivate on their own land and also the knowledge and experiences were used in production.

In 1990, Vietnam started to transform towards a market oriented economic development based on agriculture. Agricultural production at this stage not only aimed to ensure the consumption but also have a new goal that for export. This required higher levels of technology. With the new goal, the government issued Decree 13 about the agricultural mission in year 1993.

"The Extension System was officially set up in all provinces in the country with general functions indentified to (i) disseminate advanced techniques and experiences from successful

production models; (ii) strengthen the production management knowledge and skills of farmers; and (iii) provide market information for farmers (Hoang Xuan Thanh & Nguyen Viet Khoa, 2003)". At this time the farmer had more chances to learn new technologies from extension and researchers in order to improve their agricultural production.

The agricultural extension system has separated in to three levels: national, provincial, and district. Hoang Xuan Thanh & Nguyen Viet Khoa (2003) mention about the extension approach that have been used in the formal systems in Vietnam as follow:

"Technology promotion: This has aimed to promote advanced techniques for farmers nation-wide, often through the national agricultural extension programs. National Agricultural Extension Center (NAEC) under Ministry of Agriculture and Rural Development (MARD) supervises the implementation of these programs through construction of demonstration models on a larger scale, with little room for flexibility or budgeting on implementation (Hoang Xuan Thanh & Nguyen Viet Khoa , 2003)".

"Socio-Economic development: This form implies that the technique that is used is only one of the factors influencing agriculture and farmers' livelihoods. Therefore, introduction of new techniques is frequently combined with support in term of material supply, loan arrangements or infrastructure. Government programs to promote agriculture and poverty reduction at provincial levels normally employ this form of agricultural extension (Hoang Xuan Thanh & Nguyen Viet Khoa , 2003)".

"Risk mitigation: Risk mitigation in agriculture covers management of harmful insects and disease on livestock (stipulated in the Law of Production of Vegetation and Veterinary Services). This function is often fulfilled by the Plant protection and Veterinary Service systems. Typical activities are training on IPM model and providing communal and village veterinary services.

However, the concern of how to mitigate risks for the poor farmers is still hardly addressed by the government's extension systems (Hoang Xuan Thanh & Nguyen Viet Khoa, 2003)".

"Commercial services promotion: Commercial services promotion for production materials has been done partly by the MARD and partly by corporations. This form of agricultural extension claims higher consumption of input materials leads to improved productivity and greater development of agriculture. Farmers are seeds and fertilizers that farmers should pay for at agreed prices. The Government agricultural extension mechanism acts as a link in the promotion process and hardly acts as material distributor. However, in many cases there is a commercial company bias among extension agents (Hoang Xuan Thanh & Nguyen Viet Khoa, 2003)".

"Agriculture commodity promotion: this is 'contract farming' promotion in which the farmers commit themselves to sell agricultural products to the companies and in turn the farmers can receive support in term of training, materials or credit (Hoang Xuan Thanh & Nguyen Viet Khoa, 2003)".

"Participatory technology development (PTD): through participatory studies and experiments, new technologies are developed and proven by the local farmers, often with the help of the technicians or researchers. Then these technologies can be widely diffused among the farmers through formal and informal channels (Hoang Xuan Thanh & Nguyen Viet Khoa, 2003)".

"Several participatory approaches, besides PTD, have been introduced by Non-government organizations (NGOs) to support farmers in improving their production. These include participatory planning, farmer-to-farmer extension and farmers' associations. Mostly, there is no clear distinction among the three approaches, as they are integrated at commune and village levels (Hoang Xuan Thanh & Nguyen Viet Khoa, 2003)".

The extensions system that have been use is not only have positive side but those extensions system also have it own negative side especially the extension methodology. Below are some opinions from extension researchers about current extension situation in Vietnam.

"Most extension work has just stopped at the stage of introducing new and appropriate technologies and educating farmers through demonstration plots. No proper program or service action has facilitated the adoption and supported farmers in expanding such adapted technologies. Farmers have been left to make their own decisions after observing good results from demonstration plots. As a result, the rate of adoption has slow and sometimes biased. There has also been little feedback from local people to research and extension organizations, and so the efficiency of extension is uneven (Tran Thanh Be, 2000)."

"The strong intervention of upper level administration through national programs that retains a top-down approach and division of national funds has caused many difficulties to local extension activities. The top-down approach in agricultural extension is still prevailing. National programs and provincial plans in agricultural extension are mainly based on the national strategies; little attention is paid to local resource endorsement and the real need of the farmers (Nguyen Ngoc De et al., 2005)."

"Normal extension services often promote 'good farmers' who have the necessary conditions in term of land, capital, labour and counterpart contribution, can bear risks, and normally have bigger voice. Until now, biases in favour of targeting the better-off come from the argument that only the better-off can apply new technologies and resource-intensive models. The poor, with their own difficulties and needs, often find impossible to replicate to their better-off neighbours (Hoang Xuan Thanh & Nguyen Viet Khoa, 2003)."

"Extension approaches have not actually assessed and met farmers' needs. Extension activities have mainly focused on demonstrations without concerns for self-organization and self-solving of farmers' problems (MARD, 2005)."

"Extension methods need to change from top-down to bottom-up approach using participatory methods. Extension activities also need to improve and diversify in simple and practical manners to be more attractive and easy to local farmers. Extension works are not only introducing, demonstrating, training the technologies but also supervising farmers to make farm business plans and market their products; resource mobilizing and coordinating farmer groups, clubs and cooperatives (Nguyen Ngoc De, 2005)."

A part from that, extension methods need to comprise the participation of many actors whom involved in agricultural extension activities. According to Hellin, Rodriguez and Coello, "the provision of unsubsidized farmer-to-farmer extension approaches available can currently be relevant for farmers in Vietnam and especially for farmers in the Mekong Delta". In the real practice, extension approaches have to be adjusted or replaced by other extension approaches in order to fulfill farmers' needs as well as market's demands.

3.3 Lessons learned from Thailand and Vietnam in development of agricultural sector

The outcomes and successful result of Thailand and Vietnam's agriculture export can be drawn as a good lesson for the agricultural development of Laos as well as lessons for agricultural export, it can be concluded that:

1. Agricultural production has to focus on export, needs to realize the role of agricultural sector in contributing needs to be based on this importance. In fact, the experience of the two countries indicates that any country does not realize the importance of agricultural sector, not invest appropriately in this field, the development of this sector often lags behind and is unfruitful in the future.

2. It must carry out new industrialized, modernized agricultural policies; the development of agricultural sector needs to start from self-reliant production to market-oriented production; industrializing and emphasizing on the country's advantages. However, in order to ensure high successful development of agriculture sector, it need to foresee the characteristic species diversity at the same time it also need to realize disadvantage results of modernization of agriculture sector so as to avoid its adverse consequence that may affect the environment and human being. Vietnam has so far experienced negative and positive consequences resulting from the implementation of modernized agriculture policy.
3. It has to improve agriculture management due to this sector is quite different from other sectors. The management plan is mainly designed by characteristic of production. For Laos, household economy is adequate to and widely implemented.
4. To ensure effective and strong export, it needs to enhance the correlations for processing in order to generate between production, processing, consumption and system design.
5. Processed food industries were play an important role in the raising of value added. The industries can gain more interest than producing in the traditional products.
6. It needs to create investment promotion, change machine for processing in order to generate conditions for reaching potentials. Moreover, its needs to invest more essential infrastructure (machines, equipments...)
7. The government should have policies to promote potentials of agriculture sector, indicates clearly the importance of other sectors that enhance agricultural sector. The agriculture development should be priority in the central economic development mechanism, especially industrial sector and trade. By doing so, it can be advantage in competition in the world market.

CHAPTER IV

CONCLUSION AND RECOMMENDATIONS

4.1. Conclusion

This research has as a major objective to study the potential and challenges of export on agriculture products in Lao PDR and to highlight the importance role of agriculture sector that contribute to economic development in this country. How to maintain high agricultural sector growth rates and achieve good welfare and equity impacts with this growth remain important challenges for economic policy and management.

Lao's productivity in the agriculture grows at a slower pace than the other sectors like mining and hydro-electricity. Unless there is a substantial improvement in the agricultural productivity, the majority of labor force would still remain in the rural sector. The problems of labor shortages and lack of technology in both urban and rural areas would hamper Lao's export competitiveness in agriculture.

Exports of agricultural products are the key for the survival of the sector. Agricultural sector must be linked to processed food industry to add more value added and create linkage between rural and urban sectors. Most of process food exports firms have to continue upgrading their quality and food-safety standards. Only firms that have dynamics schemes of quality improving can survive in the new round of competition in the world markets. The role of government is crucial in providing investment in infrastructure and agricultural research to make sure that farm productivity can be enhanced continuously. At the same time policies generating growth in the agricultural sector may not be enough to support agricultural export.

To this end, the government needs to play more attention on great potential agriculture products like rice, coffee, maize, green tea, fruit and vegetable in term of quality and quantity in

order to meet demand of the market and the minimum requirement of the international standard. The government need to develop their policy and encourage the farmers participate in farming these crops as well as processing industry.

4.2. Recommendations

Through the analysis of the problems and challenges discussed earlier as well as on the development strategy framework of Lao's government, policy recommendations for promoting export of agricultural products are made as follows:

Regulation and procedure

It takes longer in Laos than any other countries in Asia to start a business. So in order to reduce the number of procedure, time and cost first of all the government needs to learn the experience from neighboring countries like Thailand and Vietnam in drafting the law or regulation that related to agriculture sector. By doing so the government can set up the most suitable import and export policy for they own country. Secondly, government should streamline clearance procedures by cutting off unnecessary documents and establish a one-stop service to facilitate to the private sectors, so when they needs the export license or related certificate they don't have to go to many concern departments. By doing so, the government can help private sector reduce time and cost, at the same time the government can also attach more foreign direct investment.

Promotion and Support

The government, especially the Ministry of Agriculture will play an important role in promoting and supporting the development of agricultural products. The government can set up the small business program to promote brand development by support to smallholders who have good business ideas but do not have capability to carry out those ideas due to the lack of capital and certain basic business knowledge and skills that can be learnt. A small business program that assists small and mid-sized farms in brand development will enable some small family farms to vertically

integrate agriculture business operations and increase total revenue. Although only some small family farms will be able to take advantage of the program and succeed in brand development, the program will not only contribute to distributing growth across individual households, it will create an environment to foster faster specialty agriculture development that will also gradually benefit all farmers from higher values.

Human Resource Development

The government have to invest more in education especially farmer's education and expand the number of man power in order to meet the needs of new labour market and international standard. The government as well as ministry of Agriculture and Forestry need to set up long and medium term activity and program for instant build up the school for farmers in some province to train skills to farmers. Firstly, the training initially has to focus on the potential crops like rice, vegetable and cassava and expand to fruit and other crops. Besides that, the governments have to pay attention on training of trainer and many other file researches like prevalent insect pests and diseases, field support functions and off-season vegetable production. By doing so, government not only can expand man power and meet the need of international standard but they can help farmers enhance with farmer's ability to use of fertilizer and machinery, market access and off-farm works.

Food Safety Standard

The government and exporters association plays a major role in raising food safety standard. Indirect subsidies through public spending on raising food safety standard by the government can reduce short-run adjustment cost. At the same time, the government should spend some budget to buy some necessary testing equipment to facilitate to the firms inside country. Further more in order to enhance food safety standard, the government can banning imports of forbidden preservatives and antibiotic. In addition, exporters and producers' association should cooperate closely with

government through supply vital information of industry. This kind of information is very important when the government engage in policy formulation and in international negotiations.

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