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Regional Experiences and Lessons on Contract Farming and Other Inclusive Agribusiness Models

Mekong Region Land Governance (MRLG)
Alliance for Responsible Agriculture Investment in Cambodia

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ACRONYMS

AC	Agricultural Cooperatives
ADB	Asian Development Bank
ARDB	Agricultural and Rural Development Bank
ASEAN	Association of Southeast Asian Nations
BOP	Base of the Economic Pyramid
CACA	Cambodia Agricultural Cooperative Alliance
CDRI	Cambodia Development Resource Institute
CF	Contract Farming
CPS	Centre for Policy Studies
CPSA	Cambodia Partnership for Sustainable Agriculture
DAI	Department of Agro-Industry
GA	Grow Asia
GAP	Gross Agricultural Product
GDP	Gross Domestic Product
GIZ	Deutsche Gesellschaft für Internationale Zusammenarbeit
FAO	Food and Agriculture Organization
FDI	Foreign Direct Investment
FNN	Farmer and Nature Net Association
IB	Inclusive Business
IFAD	International Fund for Agricultural Development
IISD	International Institute for Sustainable Development
Lao PDR	Lao People's Democratic Republic
MAFF	Ministry of Agriculture, Forestry and Fisheries
NERI	National Economic Research Institute
NGO	Non-Governmental Organization
NSDP	National Strategic Development Plan
PDAFF	Provincial Department of Agriculture, Forestry and Fisheries
RAI	Responsible Agriculture Investment
RGC	Royal Government of Cambodia
R&D	Research and Development
SDG	Sustainable Development Goals
SHF	Smallholder Farmers
SOP	Standard Operating Procedures
UAC	Union of Agricultural Cooperative
4Ps	Public-Private-Producer Partnership

EXECUTIVE SUMMARY

Contract farming (CF) involves production by farmers under agreement with buyers in advance on terms and conditions for production and markets of agricultural products. These conditions usually specify the price to be paid to the farmer, the quantity and quality of the product demanded by the buyer and the date for delivery to buyers. This arrangement can help integrate small-scale farmers into modern agricultural value chains, providing them with inputs, technical assistance, and assured markets. Although CF has been in existence for decades, in recent years, it has become more interesting and popular among the development agencies and governments, especially in developing countries in response to food security, the rise in demand and supply, and improving the rural economy. CF is viewed as a mechanism for poverty reduction and livelihood improvement for the smallholder farmers who are predominantly living in rural areas contracted to produce for large processing firms. In the context of globalization, agricultural sector has played a significant role in economic development and poverty reduction, particularly in developing countries.

Additionally, CF can help to connect smallholder farmers to buyers. It gives farmers the possibility of knowing in advance regarding business partners, timeframes and agreed prices both parties will sell and receive products. This helps to reduce the unpredictability of agriculture and allows them to make better plan for production. It reduces the risks associated with fluctuating prices and can also help protect farmers against losses associated with natural disasters and climate change as these risks can be shared with the buyer under a contract. When buyers also provide access to inputs, including finance and technical assistance, CF can lead to significantly increased yields and profits. Although CF may experience disadvantages in some cases for both farmers and buyers due to some reasons, including risk of indebtedness from loans, late payment or loss of flexibility to sell to alternative buyers when prices increase, the increase in contracting occurring many countries seems to indicate that the positive aspects tend to outweigh the negative ones as CF contributes to solving issues concerning food value chains and markets.

Countries selected in the literature review include Cambodia, Indonesia, Laos, Myanmar, Thailand and Vietnam. Findings from the six countries show that there are five types of CF currently in practice, including centralized, nucleus estate, multipartite, informal and intermediary models. Countries selected showed that each country implements similar and different CF models depending on the nature of the contract, geographical locations, and socioeconomic situation of the smallholder farmers. For instance, Cambodia, Laos, Myanmar and Indonesia practice mostly formal and informal contracts, although the other models apply case by case. On the other hand, these nations try to change its practice from verbal to written, informal to formal and unregistered to registered with third parties as witness to be more transparent and confident from parties in the contract. Thailand seems to be the one of the pioneers in CF in the region due to the coordination mechanisms and regulation strengthens. Thai CF experiences to practice up to the five the models, plus hybrid (combining intermediary and nucleus estate). Vietnamese CF is likely to be better as various agricultural commodities are made contracts and CF process is supported and coordinated from the government.

CF models in Cambodia showing that it has quite a long experience in CF, but implementation in this country are mostly formal and informal contracts. It is similar to other countries in the region, Cambodian CF brings advantages and disadvantages. In spite of facing some challenges, including finance, knowledge shortages, disagreements or disputes occurring from CF, producers and buyers still gain remarkable benefits from CF to contribute to improving

agricultural quality and productivity and market stability resulting in domestic job creation and income increases for smallholder farmers and AC members. These fruitful results can be happened due to having interventions from the government, developmental agencies and private sector. Various laws and regulations of CF have been creating over the last decade, sub degree of CF and NSDP, etc.

Conflicts between contractors and farmers sometimes cause arguments due to quality standards, prices and time. If market prices rise, contracted farmers may be tempted to sell on the market rather than to the buyer. Contractors may be tempted to falsify quality testing as a way of reducing the price they pay to farmers under contract, particularly when market prices have fallen. To deal with this challenge, as part of dispute settlement, third parties play significant roles in addressing conflicts via facilitating all relevant parties to find a common agreement. Nonetheless, the court mechanism is done if both parties still disagree, while it may take more time and costly.

Inclusive business (IB) models promote the integration of smallholders into markets, with a principle of mutual benefits for poor farmers and the business community. The range of business models that make up an agricultural value chain include farm enterprises, traders, agro-processors, wholesalers, transporters, warehouses and retailers. An inclusive business model approach reinforces the value chain by focusing exclusively on strengthening business models that link small farmers to value chains. IBs provide livelihood opportunities and close access gaps for people living at the base of the economic pyramid in commercially and financially self-sustaining by focusing on poor and underserved individuals across their value chain as supplier, employee, distributor, retailer, or customer. IBs play a fundamental role in reducing poverty and increasing shared prosperity. There are some different models of IB from one to another institution. To provide further perspectives, IBs are identified and selected from World Bank, UNs ESCAP, Grow Asia, IBAN and GIZ.

Besides this, to expand understanding of CF and other inclusive business models, some commodities, namely cashews, cassava, vegetables, sugarcane and rubber, are selected to show comparative advantages, lessons learnt, practices and intervention from relevant partners within this literature as part of case studies from the region. Lessons learnt from a cashew commodity show how by organizing small farmer households in cooperatives, the latter have an opportunity to receive capacity building and improve their produce quality, environmental and labor practices. Furthermore, cooperatives help establish direct supply chain linkage between the cashew cooperatives-processors-buyers through long-term contractual arrangement and support in terms of credits and trainings for the farmers. Another example is in Thailand smallholder farmers participate in one or more agricultural groups, the probability in CF under cooperatives will increase over 21%. The cost of one kilogram of cassava product of non-contractors was calculated to be 35% more expensive than that for contractors. Similarly, the average selling price of cassava in one kilogram of non-contractors is 15% lower than that of contractors. Another case study from Vietnam is that CF contributes to the sugar industry via receiving stable materials sources, supervising easily, managing and monitoring production, and reducing the transaction cost. Moreover, farm households have capital for production, have more bargaining power (through cooperatives), and have access to production technology.

1 INTRODUCTION

With the goal to support relevant Departments of Ministry of Agriculture, Forestry and Fisheries (MAFF) to promote improved compliance and accountability of agricultural investment and raise stakeholder awareness of best Responsible Agricultural Investments (RAI) practices, in 2020 the “RAI Alliance” was created and is composed of Mekong Region Land Governance (MRLG), the Centre for Policy Studies (CPS), Oxfam Cambodia, Farmer and Nature Net (FNN) and the Cambodia Partnership for Sustainable Agriculture (CPSA). The Alliance has agreed on a two-year Strategic Work Program to support the government in gathering evidence from the ground to provide inputs to the development of the CF law and explore other agribusiness investment models; document farmers experiences and build awareness and capacity of key stakeholders on RAI principles and good practices with a specific focus on private sector.

In February 2021, the Alliance launched the project “Generating evidence-based dialogues on agribusiness models that ensure secure land rights, equitable benefit sharing and inclusiveness of smallholder farmers (SHF), in the framework of CF law and related policies”. The project has three main outcomes:

1. Formulate recommendations for an improved regulatory framework of CF and other Agriculture Investment (AI) business models based on a review of experiences of SHF and Agro-investors.
2. Support Policymakers in promoting more inclusive AI models based on a good understanding of opportunities and risks for SHF and developing improved regulations for AI in policies and practices.
3. Raising Governments, Agro-investors and Farmer Organizations awareness of RAI principles and good practices

1.1 Objectives of the research

This research aims to document lessons on agribusiness models and CF in the Southeast Asia. The report, written by CPSA and validated by the Alliance, complements another activity of the Alliance, namely a Comparative Study undertaken by CPS. Together these documents contribute to the Project’s Outcome 1, whereby recommendations are formulated for an improved regulatory framework of CF and other AI business models based on a review of experiences of SHF and Agro-investors.

This desk review synthesizes regional experiences on CF and other inclusive business models, wishing to provide additional input to enrich the national research. The ultimate objective of the report is to draw lessons learned from the region that can inform Cambodia’s policymakers.

1.2 Methodology

This report is designed primarily based on secondary data exploring from government agencies, developmental agencies, research institutes and peer review articles. Additionally, in light of the pandemic, our team uses virtual communications to ask perspectives from our working partners, including governments, NGOs and private sector in Cambodia and other regional country partners (Grow Asia’s country partners), which have knowledge, skills and experience related to agribusiness models. This reflects real practices for CF in Cambodia and the region.

2 GENERAL PERSPECTIVES ON CONTRACT FARMING

CF is an agreement between farmers and buyers: both partners agree in advance on the terms and conditions for the production and marketing of farm products. These conditions usually specify the price to be paid to the farmer, the quantity and quality of the product demanded by the buyer, and the date for delivery to buyers. The contract may also include more detailed information on how the production will be carried out or if any inputs such as seeds, fertilizers and technical advice will be provided by the buyer (FAO, 2017). Another perspective of CF, according to Eaton and Shepherd (2001), CF can be defined as an agreement between farmers and processing and marketing companies for the production and supply of agricultural produce under forward agreements, frequently at predetermined prices.

CF has occurred over the last century. Contracts were employed by the Japanese colonial state for sugar production in Taiwan in the period after 1885 and by the USA banana companies in central America in the early part of the twentieth century (Rehber, 2007). In advanced capitalist states, it seems that CF was widely used by the vegetable canning industry in North America and by the seed industry in the Western Europe in the 1930s and 1940s. Rehber (2007) by the late twentieth century, nonetheless, across much of the Western Europe, North America and Japan CF became an integral part of food and fiber industry in 1878.

The purpose of CF is to help farmer leaders, farmer organizations and facilitators working with smallholders to achieve a correct understanding of the legal and operational aspects of CF (FAO/IFAD, 2015). CF is viewed as a mechanism for poverty reduction and improvement for the smallholder producers who are predominantly rural farmers contracted to produce for large processing firms (World Bank, 2008). According to Olomola (2010), CF “is a major agrarian institution” which is “capable of removing market imperfections in produce, credit, land, labor information and insurance markets.” Farmers in less-developed countries like Cambodia face severe credit constraints, a gap that CF helps fill, and through vertical coordination with agribusinesses, smallholder farmers have access to new technology. CF provides credit in the form of inputs, extension services and markets for produce, hence its potential to raise production and incomes as well as to fight poverty for the rural poor (Bijman, 2008).

2.1 Global Overview on Contract Farming

In the context of globalization, agricultural sector has played a significant role in economic development and poverty reduction, particularly in developing countries. There is a growing in competition in food market relating to supply and demand which is seen as the economic liberalization. CF has become more interesting and popular among the development agencies and governments, especially in less developed countries in response to food security, the rise in demand and supply, and improving the rural economy. CF has been developed and widely practiced for decades not only in developed countries, but also developing countries. It is believed that CF may be an important strategy in reducing poverty, economic and social development.

CF might be a useful approach in promoting and improving crop system which means that farmers could overcome market imperfection or market failure related price as it is done under the specific agreement. In the agreement, farmers will promise to provide the required quantity of agricultural productions with the specific period set by the buyers, while the buyers will require to provide farmers the necessary inputs in terms of technical support, the type of crops and land preparation. Therefore, the food insecurity and inequality between supply and demand could be dealt by promoting and encourage smallholder farmers to take part in CF. Another

perspective of CF, it helps to maximize the profitability for farmers with a small-scale farming to access the market economy. Small-scale farmers in Philippine have increased their income through CF as they can produce and sell the crops or production to the buyer with the favorable price and financial support (Philexport, 2014). The farmers could get the suitable price and profit as set in the contract for their products.

While CF is widely applied to reduce poverty, promote rural development and economic development, it has resulted in some problems particularly to the farmers. Due to an increase in agricultural productivity in competitive market, it requires advanced technologies and cost-effective production in producing a high-quality product. This could be challenging for farmers, particularly smallholder farmers to access the market chain due to the lack of skills, knowledge and experience in using modern technologies, credit and information asymmetries. For instance, economy in the Nigerian has increased significantly with market-oriented and private sector by applying CF in this country. Small-scale farmers, however, have faced with some challenging issues associated with limited access to market information, advanced technologies, credit facilities, product quality and high transaction costs (Olomola, 2010). Farmers are more vulnerable to risks in practicing CF if they do not have enough knowledge, skills and support from the local government in agricultural sector. According to GIZ (2013), farmers are prone to the risk in investments such as labor, land and money with the companies, buyers or the third parties in the CF. Policies and legislations should be made and implemented by the local government to prevent some issues during and after the process of CF between farmers and buyers such as the abuse of rights and power.

2.2 Contract Farming Models

CF has developed and forms in various models due to different crops or farm products, social and physical environments, the resources of the company and the need of the local farmers. The CF model is mainly applied due to different types of crops, dairy products, product quality, and price of the products. CF (Eaton, C. and Shepherd, A., 2001) was classified into five different categories, depending on the product type, companies, the number of actors involved and degree of integration between the activities of the sellers and the buyers, as detailed below.

2.2.1 Centralized Model

Under the centralized model, a company focuses mainly on getting involved with smallholder farmers and the company provides support to them to produce certain products and purchase commodities. Control quality checks are frequently done by the company. This model is used for crops, such as tobacco, cotton, sugar cane, banana, tea, and rubber. A top-down structure means that everything is prepared by a contractor and farmers just follow advice and instructions. Although centralized CF schemes engage individual farmers, they mostly involve farmer organizations. Small-scale farmers can gain more benefits from the centralized model than from the informal model.

2.2.2 Nucleus Estate Model

A company is less dependent on smallholder farmers for purchasing agricultural commodities, but the company manages a plantation to supplement smallholder production and provide minimum work amounts for the processing plant. This is a model whereby the company has close supervision of production. The estate provides outgrowers with inputs, technical assistance and close production monitoring or credit. This model is commonly used for the farming of perennial crops, primarily tree crops, but it is also used to produce fresh vegetables

and fruits for export, perishable products that often require a fast and high degree of processing after harvest.

2.2.3 Multipartite Model

The multipartite CF model generally gets involved with multi-stakeholders, such as farmers, private companies, developmental agencies—governments and developmental agencies. For instance, farmers, agribusiness companies, public or private providers of credit, government statutory bodies, extension services and inputs suppliers are part of the arrangement.

2.2.4 Informal Model

Verbal agreement between individual farmers and individual contractors is reached on a seasonal basis. Although these are usually just seasonal arrangements, they are often repeated annually and usually rely for their success on the proximity of the buyer to the seller. This model is widely practiced at community level because of its straightforward coordination and management. Farmers, however, often face market risks due to price variations caused by changes in supply and demand¹. Joining an informal CF scheme does not automatically maximize benefits for farmers because stable prices, production inputs, extension services, skill and technology transfer, and reliable markets are rarely in place. This model is used particularly to produce crops that require only a minimal amount of processing and is often chosen when quality control is not the main concern.

2.2.5 Intermediary Model

Intermediary model is to cooperate between farmers and the agribusiness to join a business venture. Bijman (2008), for example, stated “The intermediary model, which can be considered as a combination of the centralized and informal models, is common practice throughout Southeast Asia. Both parties agree to work together, respond job duties, share profits and take risks based on production and markets.

It is concluded that no one type fits all contexts, and no one type is intrinsically more successful than another. So, although different models are defined, the promoter of CF needs to focus on the specific situation, rather than the generic institution. There can be hybrids between the above models; for example, an agribusiness may use agents to supply a specific crop in an intermediary model, but the same agents may also supply inputs and market other crops in an informal model.

¹ It is often claimed that this model is very important to many small farmers in developing countries where village traders supply small groups of farmers with inputs and reclaim their value at harvest when they market their produce.

3 CONTRACT FARMING AND OTHER INCLUSIVE AGRIBUSINESS MODELS IN THE REGION

3.1 Contract Farming in the ASEAN Region

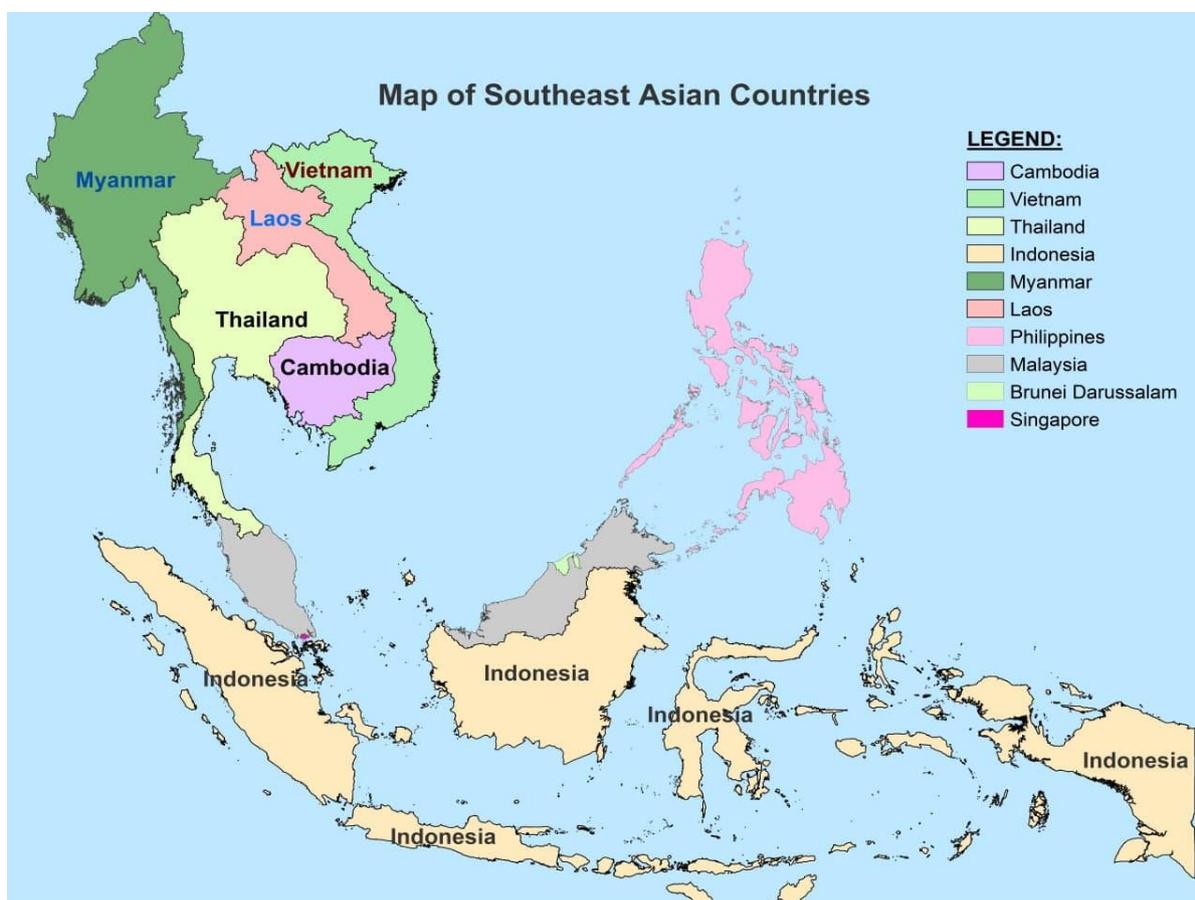
The existence and development of CF schemes in Southeast Asia is linked to the agriculture industrialization which has led to the “development of contractual arrangements between producers and other in the marketing chain” (FAO, 2002). In this context, “CF and outgrowers schemes have become wide-spread in Asia and other parts of the developing world over the last ten to twenty years. Of particular importance are the schemes financed in whole or in part by the Commonwealth Development Corporation; these frequently involve both government agencies and private firms, the latter often receiving management or technical assistance contracts” (David, G. and Lim Teck, G., 1992). Shepherd (2001) reports that the intermediary CF scheme (as described in the Question 1) is one of the predominant models in Southeast Asia: “Throughout Southeast Asia the formal subcontracting of crops to intermediaries is a common practice. In Thailand, for example, large food processing companies and fresh vegetable entrepreneurs purchase crops from individual “collectors” or from farmer committees, who have their own informal arrangements with farmers. In Indonesia, this practice is widespread and is termed plasma”.

The FAO (2002) notes that the trends towards vertical integration have led to the development of larger-scale and highly controlled contracting schemes: “In specific sectors, CF has shifted from small farmers to large/ medium producers: this happens in industries that are highly vertically integrated in the countries of the Asia-Pacific region such as the livestock industries. For example, the poultry industry of both Thailand and Indonesia has undergone industrialization over the last three decades with 80% of poultry production in Thailand in the mid-1990s coming from only ten large, vertically integrated companies supplying feed and day-old chicks to medium- and large-scale producers under contract.

Vertical integration does not appear to be a particularly prominent feature of the cropping industries, although it has been used in Thailand's canned corn industry and in that country's cashew industry, as well as for some plantation crops in Malaysia, the Philippines, Sri Lanka and Indonesia. There are differences across countries in the way that integration arrangements operate, but typically it displaces the decision-making authority from the farmer to the downstream producer or processor, turning farmers into quasi-employees. In the Philippines, the contracts that have been used for pork production are based upon the farmers possessing labor and the production facilities such as housing for the animals. These facilities are often built with finance provided by the firms involved in meat processors. High financing costs for the development of production facilities and for the purchase of stock are said to be behind the high-cost structure of that part of the Philippine broiler industry in the hands of the small independent growers.

3.2 Contract Farming Overview of Select Countries

This Chapter explores experiences in CF from various countries of Southeast Asia, including Indonesia, Lao PDR, Myanmar, Thailand and Vietnam. Moreover, the literature review focusing on specific commodities (vegetables, cashews, cassava, rubber, and sugarcane) is presented. The research that has been analyzed shows that CF practices present both challenges and opportunities in these countries.



CF has become more and more widespread in Southeast Asia and is one of the responses to the many challenges that smallholders face. As a buyer-driver approach to link farmers to market, CF “has resurged recently as a workable mechanism to govern transactions in modernizing supply chains” (Mekong Institute, 2018). The literature reviewed highlights a huge diversity in CF arrangements between countries, but regardless of the variety of arrangements, commodities and geographies, benefits and challenges presented by CF mechanisms are not too dissimilar. In fact, though CF is mostly known for improving farmers' livelihoods and income, power imbalances are a recurring challenge in CF negotiations (Cotula, L. and Polack, E., 2012). Contracts are an appealing mode of governance: evidence suggests that potential advantages outweigh potential disadvantages.

The table below summarizes the general advantages and disadvantages for both farmers and agribusinesses common to Cambodia, Lao PDR, Myanmar and Vietnam, as highlighted by the Mekong Institute (2018):

	Agribusiness Firms	Farmers
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<p>Advantages</p>	<ul style="list-style-type: none"> • Greater regularity of supplies • Greater conformity to desirable product quality attributes and to safety standards • Access to land is facilitated • Input costs per unit are reduced • Access to agricultural credit and eventual financial incentives and subsidies is facilitated • Labor costs are reduced • Expansion and contraction of production is facilitated 	<ul style="list-style-type: none"> • Inputs can be provided (less uncertainty regarding availability, timing, credit, etc.) • Services can be provided (mechanization, transportation, etc.) • Technological assistance can be provided • Production and management skills enhanced • Market outlet is secured • Income stabilization is promoted • Credit access enhanced (in kind or via banks)
<p>Disadvantages</p>	<ul style="list-style-type: none"> • Risk of contractual hold-ups • Transaction costs of dealing with large numbers of farmers are high • Risk of misuse or deviation of supplied inputs and of final products • Internalization of support service costs • Loss of flexibility to seek alternative supply sources 	<ul style="list-style-type: none"> • Firms might renege on contractual terms • Vulnerability to output and productivity manipulation by agribusiness firms • Delivery schedules might be set by firms so as to influence prices paid to farmers • Unintentional lack of transparency in price discovery • Loss of flexibility in enterprise choice

The next few sections illustrate detailed experiences documented in Indonesia, Lao, Myanmar Thailand and Vietnam.

3.2.1 Indonesia



Indonesia is well known as an agricultural country with agricultural areas comprising around 47 million hectares or around 74 percent of the total area. Agricultural commodities are classified into food crops, horticulture, estate crops and livestock. Agricultural sector is one of the important economy sectors in Indonesia. In order to increase competitiveness, Indonesian farmers have made improvement in various aspects of agriculture.

According to the case study of CF in Bali, Indonesia, while CF has a long history much of it has been in traditional estate crops. CF is a new concept for Bali. Nonetheless, similar or equivalent practices have been used in the past. Formal written contracts have not been common due to literacy issues and strong community pressure to satisfy verbal agreements. The basis of the contract has been an oral agreement, or mutual understanding. For a number of reasons, in particular high labor and land costs, CF is not as widespread in Bali as in other parts of

Indonesia. Successful examples include contracts to grow seed rice, seed corn and broiler chickens. There are also examples of less formal partnerships that are successful. These include farmer cooperatives and traders supplying fruit and vegetables for the tourist and supermarket sectors.

Four types of CF model are commonly found in Indonesia: plasma nucleus partnership, sub-contracting, harvest and pay, and operational cooperation (IISD, 2012). The first model is Plasma–Nucleus Partnership “core periphery” partnership which is the most popular form of CF arrangement in Indonesia. This scheme has been credited with improving the welfare of smallholder farmers, or the plasma, through a partnership they establish with an agricultural firm. Under this model, agribusinesses often provide inputs, such as capital, seeds, fertilizers, pesticides, and technical expertise, to farmers or farmer cooperatives. Smallholder farmers involved in this arrangement are usually required to produce the required commodities at an agreed quantity, quality, and price.

The second model of CF is Subcontracting. It refers to an agreement between an agribusiness firm and a third party in the food chain. An agribusiness firm normally subcontracts the production of the agricultural produce to smallholder farmers based on a pre-agreed quantity, quality, and price. For the contractors, subcontracting arrangements offer the benefits of low labor costs and a more efficient working environment, but there are also risks, such as the quality and delivery of products. For farmers, subcontracting arrangements provide the benefits of production continuity, technical and management guidance, the supply of raw materials, and, in some cases, they potential additional assistance from the government; however, there are also risks for farmers, such as late payments, mismanagement and low prices.

Thirdly, Harvest and pay generally occurs in small-scale agricultural production. It involves a local trader who provides credit to smallholder farmers to purchase inputs. At harvest time, the farmers will be required to pay back their loans, at an amount that is determined by the cost of the credit and the spot market price. The form of partnership has helped address the difficulty that smallholder farmers often face in accessing credit.

Lastly, Operational Cooperation—Kerja Sama Operationa (KSO) normally involves a firm acting as a contractor that provides inputs and fees to farmers in exchange for land use usually at the market rental value of the land, for a season or more. This model is paid at the beginning of the contract (usually with advanced cash payment), which serves as a base payment to be topped up depending on the outcome of the harvest.

In terms of CF commodities, pineapple is the major commodity for CF in Indonesia. There are up to 356 companies signed CF with estimated export volume of \$700 million (2019) exported to some destination countries, such as Vietnam, China, Malaysia, Hong Kong and India and it provides up to 30 million employments. The second largest CF product is natural rubber. In 2019, total natural rubber production in Indonesia was an estimated 3.4 million tons (2nd largest natural rubber producer in the world) with a total plantation area of 3.2 million hectares (ASEAN-Janpan Center, 2021). Atonally, there are some remarkable agricultural commodities, including seed rice, seed corn and broiler chickens, produced under CF schemes and these are likely more successful as it is done formally (written contracts), while fruits (Rockmelon and Mangosteen) and vegetables (ginger) are likely less formal contracts—verbally.

From another study conducted in Indonesia by the Australian Centre for International Agricultural Research (ACIAR) in 2010, based on 200 interviews, it emerged that there are a range of contractual types that can be mutually beneficial to both smallholders and agribusiness.

Two are the main benefits for Indonesian firms and farmers deriving from CF: greater returns to capital and increased demand for labor. Agribusinesses further highlighted how contract negotiation can be expensive (due to maladaptation costs, running costs and maintaining relationships with smallholders), however such costs are low enough to allow satisfactory margins.

The government has played an enabling role to encourage CF at macro and micro levels. At the macro level, it started to improve the commercial environment in which contracting occurs, and even more improvements can be achieved through banking regulation, farm credit arrangements, foreign direct investment regulations, competition policy, export policy and taxation policy for multi-national corporations and export firms. Lastly, micro reforms to facilitate CF that have been implemented are training, arbitrating disputes, undertaking research and providing extension services. The research recommends for the government to continue its enabling role, and especially it stresses the importance of providing training programs to smallholders in areas such as literacy, accounting and cash management, in order to reduce miscommunication and informal ways in contracts.

The literature on CF in Indonesia reveals a mix of risks and benefits for investors and local communities. In some cases, CF has given farmers better access to markets, more stable wages, and assistance in the form of credit, inputs and expertise. However, issues around fair pricing, the standardization of products, and the consistent quality of output have also led to problems under these arrangements.

3.2.2 Lao PDR



The Government’s objectives for the agriculture sector, as set out in the 6th National Economic-Social Development Plan (2006-2010), include the “continued shift in the structure of the agriculture and rural economy towards promotion of commercial agriculture”. More specifically, the Plan states that “private initiatives including those by foreign investors and traders from neighboring countries to promote CF, especially in horticulture and tree crops are being encouraged”.

Lao PDR has promoted CF as a strategic policy to improve farm income, modernize agriculture and as the preferred alternative to the large size farming or concessions. So, the government highlighted CF as the preferred alternative to concessions and plantations and launched the “2+3” CF policy widely practiced across the country. The term “2+3” stands for the partnership that exists in contract farmers, whereby investors and villagers should share responsibilities and benefits. Under a simple contract, farmers contribute 2 things, land, and labor, while investors contribute 3 things, inputs, technical advice and access to markets (FAO, 2007). This policy emphasizes the sharing of cost and benefits agribusinesses (investors) and farmers and has resulted in large inflow of investments from neighboring countries and others in agricultural production and processing as intermediate and final products for export and domestic consumption for major crops, such as cassava, rubber, maize, sugarcane and vegetables (Ministry of Planning and Investment, 2014).

Capitals	Contract Farming	
Land Labor	2	Producers
	+	
Money Technology Market	3	Buyers

In addition to the above model, other examples of CF models were implemented in Laos (IISD, 2012). The Centralized model are implemented with a local sweet corn and fruit and trader operates under this arrangement in Vientiane Province involving with a processing or packing plant and buy from farmers under formal contract. The Nucleus Estate model is practiced with sugar cane farming in the south of Laos, where farmers were approached to grow sugar cane to supplement the investor's plantation. The Multipartite model is seen via investors, farmers and other organizations are involved in CF contracts (e.g., corn growing contracts in Bokeo). The Informal model is applied with small companies which committed to buying produce from individual farmers, with informal or verbal contracts (e.g., corn marketing in Luang Namtha). The Intermediary model is done via middlemen collect produce from farmers and sell on to investors (e.g., chili farming in Bokeo). However, most CF practices between farmers and small traders in Lao PDR are not in a formal arrangement but operate outside legal boundaries via verbal or informal agreement (Soukhamthat, 2015).

Findings from NERI² (2015) on the impact of CF on poverty indicated that CF generally followed government policy, and major crops CF practices demonstrated financial gain above the poverty line and varied greatly among the difference crops. Successful contracts for such crops will typically be made by buyers who value stable supply and high quality over low prices. Contracts can also be appropriate for commodity crops, such as maize, banana and cassava which demonstrated financial gain above the poverty line and varied greatly among the difference crops. Farmers were still able to earn positive net returns despite some of the problems associate with CF, for instance, unfavorable land rental fee, inflated pricing on crop inputs, high cost of land clearing supplied by the investors and many farmers did not understand the detail of signed contracts. There is a concern that if it is not carefully managed, several weaknesses of CF could lead farmers being exploited (NERI, 2015b).

CF is a strategy with good potential to modernize agriculture and reduce rural poverty in Lao PDR. According to UNDP (2015), evidence from case studies has shown that CF generally follows government policy, but there are several weaknesses that have resulted in farmers being exploited. Except for very special cases, as in cassava, CF leads to rural poverty reduction. Commercialized large-scale agricultural investments are likely to deteriorate land resources and impact the environment. Unless appropriate measures are in place, the economic costs of CF may outweigh the economic gains.

3.2.3 Myanmar

For the case of Myanmar CF schemes present a relatively novel mode of production due to the country's challenging political and economic context, as well as a government and private sector bias against farmers³. However, Myanmar tries to scale up its smallholders into regional and global agro-food supply chains. As a result, several global firms, foreign government development agencies and international finance institutions have committed intentions to implement CF schemes. It is worth noting that most CF agreements are implemented both types, formal and informal or verbal and written contracts although the other models recommended by FAO applied in Myanmar.

² National Economic Research Institute, Ministry of Planning and Investment, Laos

³ For example, Chinese companies investing in rubber production under China's opium substitution program use a contract farming scheme in northern Laos, but rely on large-scale concession model for northern Myanmar (see Kramer, T. and K. Woods, 2012)



In January 2020, the Myanmar Ministry of Agriculture, Livestock and Irrigation (MoALI) announced Standard Operating Procedures (SOP) for CF. The aim of SOP is to improve cooperation and functioning between relevant parties (farmers, private sector and governments) to follow instructions as stated below.

Farmers must have evident document of land ownership and are expected to study the terms on the contract in advance and in detail to have a good understanding on the procedures. Farmers have to follow standard good agricultural practices to meet the agreed products quality. Agricultural inputs are to be used only for the agreed land-area, as stated in the specific contract. According to the agreed contract, either the amount

of crops equivalent to the value supported, or all of the produced number of crops, must be sold to the contractor for the guaranteed price. However, surplus crops over the amount set can still be sold freely.

Private sector must explain the detailed procedures of business, profit, rules and regulations to the farmers and the relevant governments before finalizing a contract. Furthermore, private sector must be trained to understand agricultural inputs and expenses for production of farmers. For the seeds production business, all the seeds produced must be checked by the relevant departments in order to apply for seed certification. Companies are also responsible for bearing the costs for running the tests needed for certification. Again, according to the contract, either the number of crops or seeds, equivalent to the value supported, or all the produced number of crops or seeds must be bought at the agreed price. Both parties must sign an agreement in front of the responsible persons from relevant departments of the Myanmar government.

The relevant departments of Myanmar government play an important supervisory role to oversee the implementation of State's legal procedures. When relevant parties of CF break the agreed rules, the departments have the responsibility to coordinate and solve the issue according to the agreement terms and conditions. For the seeds production business, they ensure that the standard quality is met, and the companies follow the seed law, rules and regulations, guidance, notification and procedures laid down by the government. Moreover, relevant departments must monitor in line with Stakeholder Participatory Monitoring System. Additionally, these businesses need to announce their qualification standard, rules and regulations and information of local and export markets.

The literature reviewed on CF in Myanmar raises the need for improvement of CF practices in the country, stating that CF should not be thought of as a panacea to eliminate rural poverty, and that the practice only makes sense for certain commodities in certain markets (Grow Asia, 2018). Furthermore, just as in other countries, when improperly managed, CF in Myanmar led to a plethora of problems, including abuse of power, market failure, side - selling, detrimental environmental and gender effects, and falling incomes. Therefore, experts have put forward a series of recommendations to ensure CF's success. First, they advocate for the organization of farmer groups, which would facilitate more equitable profit-sharing schemes among farmers, intermediaries (local representatives in this case) and contractors. Second, they stress how the public sector needs to improve rural infrastructure for better connectivity and to promote legal trade. Third, beyond promoting foreign direct investment (FDI) and commercial agriculture,

the Myanmar government is encouraged to focus on CF agreements that favor resource-poor farmers.

Rice is the major commodity for CF in Myanmar. In June 2020, the government started helping paddy farmers negotiate CF deals with agricultural companies for more than 80,000 hectares of cultivation to maintain productivity and farmers' incomes. Furthermore, the government also increased the minimum price of rice, which is now set at \$316 for every 100 baskets (weighing 2 metric tons). Maize is also an important commodity for CF. More than 400,000 hectares of maize under a CF arrangement and this plan will be expanded over 50% in next five years of CF and exported mainly to China and Thailand (Thura Swiss, 2021). There are some commodities made CF schemes, including beans and pulses, vegetables, coffee, sesame and fruits.

Some lessons learnt from Myanmar's CF is that although private sector see CF as an instrument for managing raw materials, the government considers it as a road to develop markets, to transfer technology and to provide inputs to farmers. Only a few companies practice formal written contracts with individual farmers, while others apply written or verbal contracts with group of farmers. Basically, smallholder farmers receive agricultural inputs and technical support from the contracted companies, and they have more stable market access as compared to the conventional production system. Contracting process and involvement of a third-party are key for the success and fairness of the CF arrangements. To settle disputes related to breach of CF, juridical procedures are usually too expensive for the producers. Therefore, a contract shall include non-juridical, locally available resources for dispute resolution. The third party shall be responsible to get involved in case of any disputes (FAO & IISD, 2018).

3.2.4 Thailand



From various literature reviews illustrate that in Thailand, one of the pioneers in CF in Asia, has seen it practiced very widely and intensively, largely due to the active promotion of this mechanism of co-ordination of agricultural production and marketing by the state since the mid-1980s (Singh, 2021).

CF is one of the mechanisms that can assist small-scale farmers to access the modern supply chain market and help to stabilize their income (Sriboonchitta, S. & Wiboonpoongse, A., 2008). Nonetheless, in some cases, either farmers or companies fail to meet their obligations. Understanding best practices under different contract

arrangements, and the factors that contribute to success, provides insights for policymakers in regulating and promoting CF.

The government has advanced CF concept since 1987, and it was widely promoted during the implementation of Thailand's Sixth Economic and Social Development Plan (1986-1991). Since the 1990s, there has been an increasing trend towards the adoption of CF. The ADB Institute (2008) conducted a thorough study on CF projects in Thailand, and their research shows that CF can be used as an intermediate step in the transition from subsistence to modern production, however the country has had mixed results. What distinguishes Thailand's CF implementation from other countries in Southeast Asia is the very strong intervention and promotion of the Thai government in this field. This is explained by Thailand's nature as an

agro exporting country, which led to agribusinesses dominating policymaking. With agriculture dominating the Thai policy scene, better overall agricultural growth and development effects were achieved in this industry.

CF has been one of the key elements of the Thai Government's development plan, reflecting a strategy of private-led integrated agricultural development (ADB Institute, 2008). Some authors pointed out that the government has relied too much on the private sector to provide new technology through the CF practice (which was not always successful), however the key takeaway from Thai model vis-à-vis best practices in agricultural growth via CF is that the private sector in Thailand has played a significant if not leading role, especially when interacting with farmers.

In Thailand, there is not a single type of the model works well for any specific crop. This relies on the context, such as the type of crop, the resources of buyers and farmers, and the relationships and experience of farmers engaged in CF. The characteristics of success classified by CF models. Firstly, the Centralized model is a vertically coordinated model where the sponsor purchases the crop from farmers and processes or packages and markets the product (e.g., Thai sugar industry). Secondly, the Nucleus estates are a variation of the centralized model. In this case the sponsor of the project also owns and manages an estate plantation, which is usually close to the processing plant (rice, shrimp, hog and broiler business). Additionally, the Multipartite model usually involves statutory bodies and private companies jointly participating with farmers. Multipartite CF may have separate organizations responsible for credit provision, production, management, processing and marketing (soybean, green beans, sweet corn, carrot, spinach, etc.). Moreover, the Informal model applies to individual entrepreneurs or small companies who normally make simple, informal production contracts with farmers on a seasonal basis, particularly for crops (e.g., vegetable, soybean, tomato, fresh vegetables or cabbage, etc.). Besides this, the Intermediary model is that it is good for sellers in remote areas and low logistic costs. Additionally, this model strengthens farmers' organization through production collection and management mechanisms (organic rice, asparagus, banana and corn). Another model is also practiced in Thailand, called: the hybrid model which is combination of intermediary and nucleus estate. This hybrid model applied only in the case of Hom Thong banana (Pornsiri, 2021).

Benefits of CF to smallholder farmers are highlighted that CF can help to integrate small farmers into the modern value chain and give them opportunities to reach wider markets, such as export markets and the modern retail trade. Once the price is guaranteed, so farmers can reduce price risk and they could gain increased income from improved prices and yield. Moreover, farmers can access to modern technology, skills and knowledge for agricultural techniques. When the buyer is a cooperative, contracting farmers can gain access to credit. The cooperative also provides cash compensation in cases of natural disasters, such as high winds. Another benefit of CF is to strengthen the social capital of farmer groups and enhance the management of group activities towards post-harvest activities. It is believed that producer groups will improve bargaining power via CF mechanisms.

Unfortunately, some key constraints for Thai CF indicate that most Thai farms are small-scale cultivation areas. Farmers face higher costs of production because of the higher agricultural input prices and labor. Labor costs have increased sharply because of the labor shortages, resulting from a move out of agriculture and ageing. There are small-scale farmers with a lack of household labor, knowledge and technology, resulting in low agricultural productivity. The cost of technology is still too high to justify the additional productivity gains of small farms.

Additionally, very few farmers or farmer groups can supply products that meet the high standards of the supermarkets (Poapongsakorn and Bunyasiri, 2017).

Conflict resolution mechanisms in Thailand occur mostly regarding the quality of products. When the quality of the products is lower than the agreement, the company reduces the price. Contract farmers could negotiate contracts with companies based on their best opportunity till 2017. After the CF Promotion and Development Act it has been enacted since 2017, the CF operations need to be under this Act. When a dispute arises from the performance of a CF agreement, if any party intends to resort to dispute mediation proceedings, both contractual parties shall first embark upon dispute mediation proceedings as provided in this Act before referring the dispute to arbitration or bringing an action before the Court (Section 29). For alternative dispute resolution mechanisms, the contractors organize a face-to-face meeting between the contractors and farmers to inform them about the market and production situation and to negotiate prices. To resolve or reduce conflicts, the company provides extension staff to visit fields more often and clarify the rice department's information input. The government can assist in a conflict resolution mechanism to solve problems. The local and provincial authorities act as intermediaries to openly coordinate both parties (farmers and contractors) to discuss production and operation costs. Both parties may find a satisfactory price.

For the outcome of mediating disputes, it shall be made into compromise agreement. In case where parties do not agree, the dispute will be dismissed but does not deprive the parties of their rights to bring the case to court. Another point is that in case where there are several farmers suffering, the Rights and Liberties Protection Department will carry out.

Even though the Act has come into force for 4 years, there are still challenges for implementation, promotion and development of this Act. This may be the channel for some agricultural business entrepreneurs allotting the contracts or finding other approaches to avoid the access to practice according to this Act (Pornsiri, 2021).

Some lessons learnt drawn from other literature reviews are summarized as the follow. Contracting firms and farmers had long-term relationships for CF, both parties had the same understanding of the quality standards, thus provoking less conflict and maintain stable markets. Besides this, price incentives can motivate farmers to produce high-quality products. Sharing information about production, domestic and international demand, market prices and competitors, as well as providing extra price premiums during times when the market price is high, can help to reduce side-selling. Another point is suggested that close monitoring should be done through extension services, and a timely response to solve problems and to build trust for both parties. Furthermore, governments and universities have a key role in providing infrastructure, supporting R&D and transferring knowledge and technology, and by strengthening the capacity building of farmer groups. Basically, they can act as a coordinator between the company and farmers, boosting the trust both parties have in CF. Lastly, ICT technology contributes to improving market prices and market information for farmers.

Overall, smallholder farmers involved in CF gain benefits from having market access with guaranteed prices, stabilized incomes, and access to technical support via extension services. They are also able to learn about new production techniques and acquire credit or inputs from contractors. However, challenges have occurred during CF implementations. To seal with the issue, governments and developmental agencies play important roles in implementing the existing policy framework and providing further support of farmer groups.

3.2.5 Vietnam



CF was formally introduced in Vietnam in 2002 when the Vietnamese government issued the Decision. The government also has issued many related policies to support CF, such as financing value chains, insurance coverage, and attracting private investment in agriculture.

There are four main types of CF, including the multipartite model; the centralized model; the nucleus estate model; and the intermediary and informal models applied in Vietnam (Lonn, P. and Chem, P., 2021). However, there is no specific model of CF that is appropriate for certain commodities, locations and farmers, and each type has its own advantages and

disadvantages. The multipartite model is likely to be most appropriate for small farmers while the centralized model often engages large-scale enterprises, particularly foreign and joint-venture companies, and farmers who are better off. In the nucleus estate model, sponsors often used to be the state-owned farms and they have been equitized and the reallocated land has been placed under farmer management. The intermediary and informal models are based on verbal contracts or trust among various types of contract partners. In general, there is no specific model of CF that is appropriate for certain products, locations and farmers. In Vietnam, CF covers almost major agricultural commodities, including rice, maize, cassava, coffee, rubber, pepper, cashew, coconut, fruits, and vegetables, etc. Each type of CF has its own advantages and disadvantages.

Key success factors for CF in Vietnam shows that enterprises prove their importance in providing appropriate input materials, technical guidance, monitoring mechanisms, purchasing output, and ensuring farmers' income. Meanwhile, cooperatives and farmer groups act as a bridge between enterprises and farmers. Cooperatives play an important role in managing, organizing farmers, and sharing good practices among their members. Also, the cooperatives can support enterprises to monitor quality standards, to coordinate harvest schedules, to ensure the delivery of contracted products, and to maintain consensus among farmers about the terms of the contract. Finally, the support of local government, as the recognized and respected third party of the contract, significantly contributes to initiating and promoting CF in terms of agricultural production and sale.

The experiences documented from Vietnam, showcase another example of the key role played by the government in promoting CF. In fact, in Vietnam, the government has implemented specific policies and legislative measures (e.g. policy for land use), and it provided support services and incentives (e.g. credit from VBARD; construction of infrastructure; improved market place) that resulted in success stories for parties involved in CF. Success factors that emerged include: writing contracts with clear responsibilities for both parties; the provision of inputs and technical knowledge; and effective dispute resolution mechanisms (Ministry of Agriculture and Development).

CF covers almost all major agricultural products in Vietnam, from rice, maize, cassava, rubber, pepper, cashew, sugarcane, coconut, fruit, and vegetables; to livestock, forestry and fishery products (ibid). However, the benefits of practicing CF seem to vary according to the commodity under study: for example, a case study showed that the technical efficiency of tea

production of contracted farmers is higher than that of other types of farmers by almost 5 per cent and that CF has a positive influence on tea productivity in the province of study. These results are not generalizable, especially due to the diversity in geography/ weather existing in the country.

However, some challenges occurred during implementing CF. Contracts relating to agricultural products reveal low legal enforcement between sellers and buyers. Meanwhile, the role of solidarity between the “four parties” is neither tight, nor synchronized. The government has no specific sanctions to punish a breach of contract between the parties. Therefore, contract breaches between enterprises and farmers occur frequently when there is market volatility in prices or consumption. In addition, the issues of small, scattered production, a lack of funds, backward farming practices, low education levels, and a lack of production experience, especially the capacity for household economic management, also greatly affect the development of CF in Vietnam (World Bank 2016).

Conflicts between enterprises and farmers frequently revolve around quality standards and prices. DARD An Giang revealed that contract conflict occurs when product quality does not meet the requirements of enterprises, or when market prices fluctuate in comparison with the price in the contract. If market prices rise, contracted farmers are tempted to sell their products on the market rather than to the buyer named in the contract. Enterprises, meanwhile, try to classify quality testing to reduce the price they pay to farmers under the contract, particularly when market prices have fallen, or when weather conditions have a negative effect on product quality.

There are some conflict resolution mechanisms in Vietnam. When product quality does not meet enterprises’ requirements or market prices, The participating parties try to discuss ways of minimizing economic loss. In cases that remain unresolved, despite negotiation, any party can seek support from taking the matter to court using the relevant laws. Another point is that contract parties usually stop implementing the contract instead of negotiating or settling through the legal system because of the high costs and the length of time involved. To reduce conflict, the company assigns technical staff to directly guide and supervise crop growing.

Lessons learnt from CF in Vietnam show that clear and simple terms in the contract with the terms of risk-sharing and conflict resolution mechanism included. The support of the farmers to understand the terms and conditions often come through open and participatory discussion. This process takes time, but this is the only way to make farmers properly aware of the contract benefits, thus supporting the sustainable implementation of CF. Secondly, selecting potential private partners with enough capacity in terms of financial and technical support is important. enterprises participating in CF should consider their own capacity in terms of supplying input materials, technical guidance, and monitoring mechanisms before joining in CF models. Moreover, the long-term commitment of contractors should be established, especially in the centralized model, because contract farmers in this model often need to make a high basic investment in the infrastructure for production. Obviously, long-term investment also requires enterprises to prepare well for land use planning for the input-supply zone and the selection of appropriate farmers.

Therefore, CF can be a potentially effective way to draw the poor into a more commercialized agriculture. CF is profitable for farmers, collectives and enterprises, resulting in benefits for the whole society.

3.3 Commodity Focus

The next sections explore case studies from the region focusing on specific commodities relevant to Cambodia.

3.3.1 Cashews

In the cashew industry, a due diligence study conducted in 2018 in Vietnam on labor practices and sustainability (Norad & IEH) shows the value of having contracts between processors/exporters and cooperatives.

The study identified a main problem faced by farmer households fluctuating productivity. This fluctuation seemed to be that farmer households, who operate mainly individually, lack knowledge and skills and are vulnerable to manipulation by middlemen, and lack access to trainings on good agricultural practices. Not only household farmers faced fluctuation in productivity, but also in price: cashew prices fluctuated by 60% between the beginning and end of the harvest season, leaving many farmers indebted to creditors and middlemen (drop in price attributed to both lower quality of cashew nut harvested and the pressure of the middlemen to bring the prices down).

By studying the relationships between processors and cooperatives of cashew farmers, Norad and IEH found that cooperatives offer a good mechanism to link farmers and processors, as cooperatives provide trainings for farmers on good agricultural practices, chemical safety and labor standards, contributing to increased productivity. Moreover, the cooperatives also signed direct procurement contracts with exporting processors securing better prices for the farmers. The latter has been one of the many attempts by the processors/exporters to eliminate the middlemen. Some bigger processors, instead, have sent their procurement teams to the farming regions to buy directly from the farmers. Lastly, when the cooperatives cooperated with the exporting processing firms to ensure the full purchase of the produce, the processors also supported them with machineries and planting techniques to improve the productivity and quality of the cashew.

The number of challenges were identified by this study with respect to cashew small farmer households:

- They are sometimes reluctant to join the cooperatives (as they may not have sufficient resources to commit to complying with international farming, quality, environmental and labor standards).
- Their access to low-cost credits is limited: to meet the international standards, the small farmers need low-cost and long-term loans to improve their farming conditions. However, small farmers' access to credits from the banks has been limited due to the mortgage requirement and the onerous administrative procedures.

In conclusion, the lessons learnt from this case study show how by organizing small farmer households in cooperatives, the latter have an opportunity to receive training in good agricultural practices and to improve their produce quality, environmental and labor practices. Moreover, the cooperatives help establish direct supply chain linkage between the cashew cooperatives-processors-buyers through long-term contractual arrangement and support in terms of credits and trainings for the farmers. Lastly, it was reported that the cooperatives were successfully collaborating with the local governments and organizations such as the Farmers' Unions and VINACAS⁴ (Vietnam Cashew Association), who support with scaling up these

⁴ VINACAS : <http://www.vinacas.com.vn/>

models while addressing the institutional barriers (such as access to low-cost credits from banks).

3.3.2 Cassava

In 2013 Tongchure and Hoang conducted a study on cassava smallholders' participation in CF in Nakhon Ratchasima Province, Thailand, to assess the impact of contract participation in the living standards for smallholders. The evidence produced by the two researchers shows that CF can be viewed as an alternative way to improve living standard.

Tongchure and Hoang stated that choosing CF may be the best solution for cassava production because contracting may decrease the cassava production costs, reduce transaction cost in markets, lower interest rate, decrease risk management and symmetric information⁵. For their study, 127 cassava farmers under contracts and 130 cassava farmers non-under contracts were interviewed. The research illustrates their findings in relation to (i) income and gross margin; and (ii) determinants of contract participation.

Firstly, the data showed large significant differences between the contractors and non-contractors in production activities. The cost of one kilogram of cassava products of non-contractors was calculated to be 35% more expensive than that for contractors. Similarly, the average selling price of cassava in one kilogram of non-contractors was also lower than that of contractors (53% gross margin to the selling price vs 69% respectively).

With respect to the determinants of contract participation, the research found that female household heads have greater likelihood of participation in CF under cooperatives than male household heads. Moreover, the number of agricultural groups was highly significant and positive which indicates that, if smallholders participate in one or more agricultural groups, the probability in CF under cooperatives will increase over 21%. In addition, the number of agricultural groups to impart useful information to farmers could result in increased knowledge, productivity and income. Lastly, the findings show that the farmers who do not get credit from financial institutions have an opportunity to participate in CF more than the farmers who have access to credit.

The household members' level of education was found to positively influence farmers' likelihood to participate in contract participation. This means that farmers who complete higher education would find it easier to understand the information given when receiving advice from the extension agents.

Thus, from the findings on cassava production in Thailand, participating in CF under cooperatives can increase income and as such, richer households may be better disposed toward participating in CF.

3.3.3 Vegetables

The case study for Vegetables presented in this section is by Baqutayan et al. (2017), who report that CF in Malaysia has been identified as a system capable of stimulating agricultural production and was given a central role in the latest strategy by the government to encourage the production of vegetables and fruits. CF was also considered a means of fostering smallholder participation in new high value product markets and improving quality standards, contributing to smallholder increased incomes. The main findings of Baqutayan indicated that

⁵ In Thailand there are difficulties arising from cassava production such as the quality of raw materials, lack of labour, aphid infestation in cassava crops, and some agricultural marketing problems (Tongchure and Hoang, 2013).

the Malaysian government plays a crucial role in fostering the CF of fresh vegetables of smallholders, by developing programs (such as the CF Programme) that facilitate economic growth and improve farmers' standards of living in Malaysia (government support is complemented by effective management method, and a strong commitment from all the players).

Among the factors that led Malaysia to initiate CF for fresh vegetables was the inconsistency of agriculture production, resulting in failure to meet the market demand in terms of production quality, poor market infrastructure, the globalization of hypermarkets and uncompetitive farm price set by middlemen who make profit from small farmers (National Agro-Food Policy 2010-2020). As a response, the Government launched the CF Programme to help small farmers get return for investment on their farm. The program was implemented by several agencies and integrated under the Ministry of Agricultural and Agro-based Industry (MOA).

Other programs were introduced to assist small and medium-scale farmers in marketing their products and generate income, improve the quality of fruits and vegetables, fulfil market needs as well as improve technology transfer throughout the supply chain. For example, in the implementation of its program, the Federal Agricultural Marketing Authority (FAMA) acts as a buyer and responsible to assure the existence of a market (based on crop type, variety, quality, grade as well as packaging and production schedule) (Baqtayan et al., 2017). Beside ensuring buyers, FAMA also provides support services such as farm infrastructure, market information, advisory, consultancy and market development.

The challenges in CF in Malaysia highlighted by this study are including. Firstly, financing and management issues: if the responsibility of implementing CF is solely on the government side, this would be unsustainable in the long-term, as they will face financial constraints. Moreover, often the bureaucracy associated with government practice can slow down the mechanism. Secondly, disaster Risk (Force Majeure) issues: constraints associated with force majeure in Malaysia can be considered as minor issues. However, in some areas, floods are damaging farm infrastructure such as stores and roads. Finally, legal issues: most of the participants in the government programs are lacking knowledge in legal matters. This leads to misunderstanding among the players and can later create an unsupportive environment to the production.

3.3.4 Sugarcane

Research from Indonesia (Susilowati et al. 2020) in the sugar industry has demonstrated that CF can give benefits to both farmers and companies and to the economy if there are interdependence and cooperation which are symmetrical and mutually beneficial. Specifically, the sugar factories of the study adopted strategies to achieve two goals: obtain loyalty from sugarcane farmers and create supply sustainability. First, the sugar factories provided various facilities, such as credit, inputs, guidance and counseling as well as technological assistance, and market guarantees for the products produced. This practice contributes to maintaining the continuity and loyalty of sugarcane farmers to the company. The provision of incentives and facilities to partner sugarcane farmers is not merely for helping them meet their needs, but also for binding the farmers so that the sugarcane farmers are willing to sell all their sugar to the Sugar Factory. Second, to create supply sustainability of the sugar cane, the factory made several efforts including giving rewards to farmers with the best performance, providing sympathetic service and guidance, prioritizing loyal farmers and maintaining farmers' trust (ibid).

Another case study from Vietnam, on Lamson Sugar Company, shows other lessons learned in the sugar industry. Through its business model, based on the integration in sugarcane production process of farmer's organizations, and a production contract system between processor and sugarcane growers, the company (i) has stable materials sources, (ii) can easily supervise, manage and monitor production, and (iii) reduces the transaction cost. Moreover, farm households have capital for production, have more bargaining power (through cooperatives), and have access to production technology.

3.3.5 Rubber

An example from the literature review of how CF may not add value to smallholder farmers can be found in the Rubber industry in Lao PDR. In a discussion paper from SUMERNET (2009), one of the challenges in the Lao Rubber sector was found to be ensuring concrete benefits and access to land for villagers. Although the so-called "2+3" CF described in Chapter 4.1.2 has been promoted as a win-win scenario, it faces several constraints in practice. Moreover, the schemes observed showed that it is difficult to facilitate technical transfers from investors to villagers. Lastly, other research shows how CF can lead to land loss via the pathway of indebtedness (Helvetas, 2016).

In the last decade, Lao PDR has experienced a rapid and largely uncontrolled expansion of rubber cultivation; the Northern region of the country also saw a rapid influx of Chinese rubber companies, most of which entered into CF agreements with local farmers (SUMERNET, 2009). The "2+3" model is the most heavily promoted rubber farming approach in Lao PDR, where the investor supplies capital, technology and a secure market, while the farmer provides land and labor. Nonetheless, while the "2+3" is officially promoted, CF seems to take a variety of shapes and forms in practice. In the "2+3", the investment companies sign contracts directly with individual farmers or with farmer associations, who are required to plant rubber under the supervision of experts provided by the companies. When the trees start to produce latex, yields should be shared at a ratio generally of 70% for the farmer and 30% for the company. In practice, in current agreements most farmers receive less than 70% of the profits.

According to the study, farmers are motivated by a variety of reasons to participate in CF schemes (e.g., they want to plant rubber but lack funds and technical know-how). In extreme cases, however, farmers face the difficult choice of participating in CF or risk losing their land to concession. Using the threat of land concession to facilitate CF has been observed in Luang Namtha as well as Oudomxay regions.

Farmers expressed the following concerns about CF:

- They are unsure about how rubber will be integrated into their existing livelihood system
- If labor shortages arise, they may have to reduce their shares of the proceeds in exchange for the company's support with managing plantations
- They are worried of the uncertainties triggered by long-term investments (vis-a-vis production, sales, pricing)
- In remote, mountainous areas, where farmers are new to commercial crops, they may have concerns on food security and alternative income sources during the pre-tapping years. In Luang Namtha, this emerged as one of the reasons why many contract-farming schemes dissolved from "2+3" to "1+4"; farmers prefer to obtain immediate compensations for their labor input (Shi, 2008)
- Both investors and Lao government's technical extension services are often inadequate (SUMERNET, 2009).

Investors also expressed have their concerns such as:

- Farmers sometimes ignore signed contracts
- It is difficult to control the quality of villagers' work
- Labor shortages, particularly after tapping begins

SUMERNET (2009) concludes that the concession model favored for rubber development in southern Lao PDR should be reconsidered. Not only are these monoculture plantations threatening the environment, but also villagers are losing ownership and access to agricultural and forest land resources. The CF models as practiced in Lao PDR should also be improved to ensure a more equal sharing of risks and benefits between farmers and companies. Another option could be “introducing a land taxation system, where land tax per hectare increases with increasing land ownership. Very large parcels of land would therefore attract more tax, providing an incentive to promote smallholder farming over large concessions” (ibid).

In conclusion, the research shows that CF models as currently practiced in Lao PDR should be improved to ensure a more equal sharing of risks and benefits between farmers and companies. Recommendations include ensuring that an acceptable latex price is set down in the contract; and more strictly implementing the “2+3” model for benefit sharing. Company CF schemes may offer a solution, ensuring access to land and livelihood for farmers, while giving companies a higher level of control over a portion of their plantations (SUMERNET, 2009).

3.4 Other Inclusive Agribusiness Models in the Region

An inclusive business (IB) model is a type of business model that seeks to create value for low-income communities by integrating them into a company's value chain on the demand side as clients and consumers, and/or on the supply side as producers, entrepreneurs or employees in a sustainable way (UNDP, 2008). While CF is institutional arrangement for agricultural production carried out based on a prior agreement between an agribusiness company/investor (buyer) and smallholder farmers (landholders) for the supply and purchase of a particular agricultural commodity at the specific time for a given quantity, quality, and price (Eaton & Shepherd, 2001); (ActionAid, 2015); (CPS, 2020).

IBs provide goods, services, and livelihoods on a commercially viable basis to people at the Base of the economic Pyramid⁶ (BoP), while most private sector firms work with low-income people with enhanced income opportunities or with goods and services relevant to overcome poverty and exclusion, called: IB models (Nations, Association of Southeast, 2017). Similarly, according to the World Bank, IBs provide livelihood opportunities and close access gaps for people living at the base of the economic pyramid in commercially and financially self-sustaining by focusing on poor and underserved individuals across their value chain as supplier, employee, distributor, retailer, or customer. IBs play a fundamental role in reducing poverty and increasing shared prosperity. There are some different models of IB from one to another institution. Below are examples of IB models and lessons from UNs ESCAP, Grow Asia, IBAN, GIZ and World Bank.

⁶ The term Base of the economic Pyramid (BoP) refers to those who lack access to basic goods, services or livelihood opportunities, typically earning less than USD 8.44 per day in Purchasing Power Parity (PPP) terms (the threshold used in the World Bank's Global Consumption Database).

3.4.1 Inclusive Businesses from UNs ESCAP

According to UNs ESCAP⁷, best practices to support Inclusive Businesses are emerging across the globe. In Southeast Asia, governments are promoting IB companies by acting in eight key areas:

1. Awareness: Fostering information sharing and awareness raising through events, workshops, publications, promotional materials, websites, IB awards, etc.
2. Coordination: Establishing special IB focal points in government agencies and among private sector associations and establishing Steering Committees for aligned action
3. Accreditation: Creating registration or accreditation systems to enhance participation of companies and monitor social impact of the private sector in the country
4. Procurement: Embedding pro-poor targets into government contracts and prioritizing procurement from IB companies, especially those that have obtained accreditation
5. Incentives: Together with the private sector, designing suitable incentive systems, including tax incentives, to stimulate the adoption and growth of IB models
6. Finance: Developing financial products for the needs of IBs, such as de-risking for investors, and fostering suitable investments linkages, such as by facilitating impact investment
7. Technical Assistance: Creating facilities specifically dedicated to supporting IBs by providing business coaching, supporting business development and fostering innovation exchanges, as well as to support actors to strengthen the overall ecosystem for IBs
8. Monitoring & Report: Developing strong monitoring systems and systematically reporting on the contributions of IBs to the SDGs.

3.4.2 Model Lessons from Grow Asia and IBAN

For long-term investment in agriculture is required sustainable attention, often with the close coordination of multiple stakeholders that needed to build inclusive business. Successful IBs require coordinated action of multiple partners clearly playing roles in the project activities (productivity, certification, finance, aggregation, etc.). In the knowledge paper of Grow Asia and IBAN has been focus on “How smallholder farmer in Asia can be suppliers in national and international agricultural value chance”, and investigate the perspective of private sector on “How can businesses work with low-income communities to create IB model?” This need to be occurred at the three levels the first one is On-farm Productivities and Profitability, Market Assesses and Development Along the value chain and Enabling Market condition (Partners, 2019). This is important to those who intend to solve problem or support IB model in agriculture should be consider all these three levels of engagement. Despite of this, for most agriculture-based businesses it is not easy to work with smallholder’s farmer due to some problem include high cost of transportation, living condition of poor people, informally and difficulty in transection, high perceive risk, etc. From Grow Asia experience, businesses that want to work with low-income communities to build IB business need to familiar with these four sections.

- 1- Align stakeholders: before started aligning stakeholders businesses have to clarify the purpose and terminology between business and stakeholder, sharing objective and aligned incentive with interesting group, identify all value opportunities and challenges for designing the most viable business model and make sure that all the key data are based on

⁷ The Economic and Social Commission for Asia and the Pacific (ESCAP) serves as the United Nations’ regional hub promoting cooperation among countries to achieve inclusive and sustainable development.

information, prioritized agenda with strategic rational and clarify the roles and responsibility, etc.

- 2- Design the model: in the process of design business model need to identify the highest value opportunities and address the key challenges. The next step is to develop model and market invention that can benefit to all players and smallholder farmer, address policy and regulatory constrain and consider all element of inclusivity.
- 3- Build the business case: for building the business case convening and coordination is required full attention and dedication. And the need for strong coordination requires partner aside for financial resource for the roles. Inclusive business financing model is also needed in building business case that financial institute must be educated, and loan need to be structure around mechanic and economics of crop. Furthermore, financial institute should provide basic skill for group of farmers.
- 4- Execute, measure and scale: the last section in the process of working with the low-income communities is to implementation the project ensure that inclusive market are in place and eliminate risk that curse smallholder's farmer to vulnerable position, measurement and evaluation the project.

3.4.3 Inclusive Business Models from GIZ

According to GIZ, Private Sector Development Programs can focus on stimulating local business start-ups that apply IB models 'start', encouraging existing companies to adopt IB models 'adopt' or supporting the scaling up of existing IB models to achieve greater outreach and development impacts 'scale' (Ulrike et al., 2013). This model is summarized as below:

- 1- Start: Stimulating local business start-ups that pursue IB models, which enter into new local markets, there-by avoiding the trap of yet another 'me-too' enterprise with low revenues.
- 2- Adopt: Encouraging local companies to adopt IB models by integrating poor and small-scale producers, suppliers, distributors and workers into their value chain, thereby contributing to employment and income creation, or by designing new products and services for poor customers.
- 5- Scale: Scaling up existing IB models to achieve broader outreach and a greater development impact, and to foster the growth of these companies, thereby creating employment and affecting incomes.

3.4.4 Accelerating Inclusive Businesses from World Bank

The IB Model approach is characterized by commercial funding, market-rate return expectations, and a core value chain relationship with people at the base of the pyramid. IB is a private sector approach to providing goods, services, and livelihoods on a commercially viable basis, either at scale or scalable, to people at the base of the pyramid by making them part of the value chain of companies' core business as suppliers, distributors, retailers, or customers. There are seven models identified and summarized by World Bank as the follows:

- 1- Micro Distribution and Retail: reaching base of the pyramid end consumers who tend to make small, frequent purchases through retailers who need small, frequent deliveries and the ability to buy on credit.
- 2- Experience-Based Customer Credit: lending to customers the company knows are credit-worthy through the previous experience.

- 3- Last-Mile Grid Utilities: extending infrastructure grid coverage to more distant and often lower-income neighborhoods.
- 4- Smallholder Procurement: turning geographically dispersed smallholder farmers into reliable sources of quality supply.
- 5- Value-for-Money Degrees: making university education accessible to low-income students.
- 6- Value-for-Money Housing: making home ownership possible for low-income buyers through a combination of high-value-for-money housing and facilitated access to mortgage financing.
- 7- E-Transaction Platforms: enabling low-income people to pay for goods and services electronically, at lower cost and risk than paying in cash.

4 CONTRACT FARMING IN THE CAMBODIAN CONTEXT

4.1 Overview of Agriculture Sector

Agriculture remains the dominant sector in the Cambodian economy which contributes 22.8% to GDP and employs 35.5% of the workforce in 2020⁸. About 61% of Cambodian population live in rural areas⁹, and 65% depend on the sector for their livelihoods¹⁰. Within agriculture, rice accounts for over 90% of the cropped area, the production from which is mostly consumed domestically and is partly exported to international markets.

Data from agricultural sub-sectors in the past 10 years shows that crop production has contributed the biggest share, at 57.4% of total agricultural production in 2020. In the last decade, rice farming has accounted for 75% of the total cultivated area of agriculture land, while that of other crops and vegetables was only 25%.

According to the annual report from MAFF (2021), average growth in the volume of paddy rice produced over the past 10 years has been about 3.1% per annum, with production growing from 8.2 million tonnes in 2010 to 10.94 million tonnes in 2020. With paddy rice yields increasing from 2,970 kg/ha in 2010 to 3,345 kg/ha in 2020, the paddy rice surplus has grown substantially, 5.92 million tonnes in 2020, equivalent to 3.79 million tons for milled rice and export.

The top three agricultural products exported between 2015 and 2018 were cassava, with a share of 37.36%; rice, semi-milled or wholly milled, with 28.62%; and cashew nuts in the shell, at 9.45% (FAO and IFPRI, 2021). However, a considerable amount of remaining paddy has been traded informally to neighboring countries, especially to Vietnam (Chhim, Theng, and Nou, 2020). An assessment showed that the official paddy-rice exportation to the neighboring countries was about 2 million tons per year. As it can be seen, the official rice export cannot achieve the target of exporting 1 million tons in 2015, as stated in the Policy Document on Promotion of Paddy Rice Production and Export of Milled Rice.

The Agricultural Sector Master Plan 2030 by MAFF (2020), regional market demand and supply are expected to grow significantly, and this represents an excellent opportunity for Cambodia to develop its agricultural production to fulfil market needs, exploiting its potential and its competitive and comparative advantages. Cambodian agricultural exports can strategically target international markets, in particular Europe, India, Association of Southeast Asian Nations (ASEAN) countries, China, Korea and Japan. This would primarily include rice, rubber, cassava, corn, cashew nuts, pepper, mangos, bananas and other agro-industry products.

According to Agricultural Development Policy, MAFF (2021-2030), The leaders of the ASEAN countries have developed a roadmap and rolled out their 2025 vision of highly integrated, cohesive, competitive, innovative, and dynamic ASEAN states. Within this, it is vital to empower producers, and in particular agricultural cooperatives, to deal with the challenges and to enhance their role in agricultural global value chains (ASEAN Secretariat, 2018).

Amid the COVID-19 crisis, the Royal Government of Cambodia (RGC) has recognized agriculture as the most resilient and a strategic sector for not only economic growth but also contributing to the improvement of livelihoods and poverty reduction of rural people.

⁸ Report of Cambodia Socio-Economic Survey 2019/20 by Ministry of Planning, December 2020

⁹ Annual Report, Ministry of Agriculture, Forestry and Fisheries, 2021

¹⁰ USAID, Agriculture and Food Security, updated in March 2021

According to FAO Representative to Cambodia highlighted that “the agriculture sector has a strong role to play in the recovery from the pandemic and we recognize that COVID-19 influenced both the elaboration process and the content of the ADP, 2021-2030¹¹.”

4.2 Contract Farming Situation

CF was practiced in Cambodia in the 1950s through informal arrangements, verbal agreement or without official or legal documents signed by the firms and the farmers or farmer associations (Sum, S. and Khiev, P., 2015). Later, during the dark period of 1975-1979, all economic infrastructure, formal associations, and markets were demolished. Some formal CF has been used for the production of various crops through agricultural cooperatives, but it stopped during the civil war (Couturier, J., Savun, S. O. & Ham P, 2006). Formal CF practices were reintroduced only recently, in 2011, through the Sub-Decree number 36 on CF, which aims to support farmers in shifting from subsistence to commercial agriculture. The effectiveness of this sub-decree will be seen over the next decade. There is much to be done and improved; specifically, there is a need for more research at the local level to develop policies and action plans that can promote CF.

According to FAO, there are five basic models for CF: centralized, nucleus estate, multipartite, informal, and intermediary. Refer to the NGO Forum’s study (2018), CF schemes in Cambodian worked best under the centralized and the multipartite models, rather than other models¹². By contrast, the informal and intermediary models are less able to provide security to farmers including access to reliable markets and a fixed pricing structure. The centralized model involves a centralized processor or packer buying from many farmers, while the multipartite model is usually based on participation from other relevant stakeholders, including governments, authorities or developmental agencies to be witness for the contract. In case, confliction between farmers and buyers in terms of the contract, these institutions would play important roles in exploring solutions. Nevertheless, in real practice in Cambodia, there is less mechanism to solve the challenge once the contract issue has occurred.

There are two aspects of the implementation of CF, namely formal and informal contract. Formal and informal CF are practiced at the community level. Formal contract is known as an agreement buyer and producer by involving of government as coordinator as well as witness in signing the contract. Informal contract is known as the agreement without involving from government. Although, the formal contract was introduced since that time but there are still informal contracts being implemented by two parties.

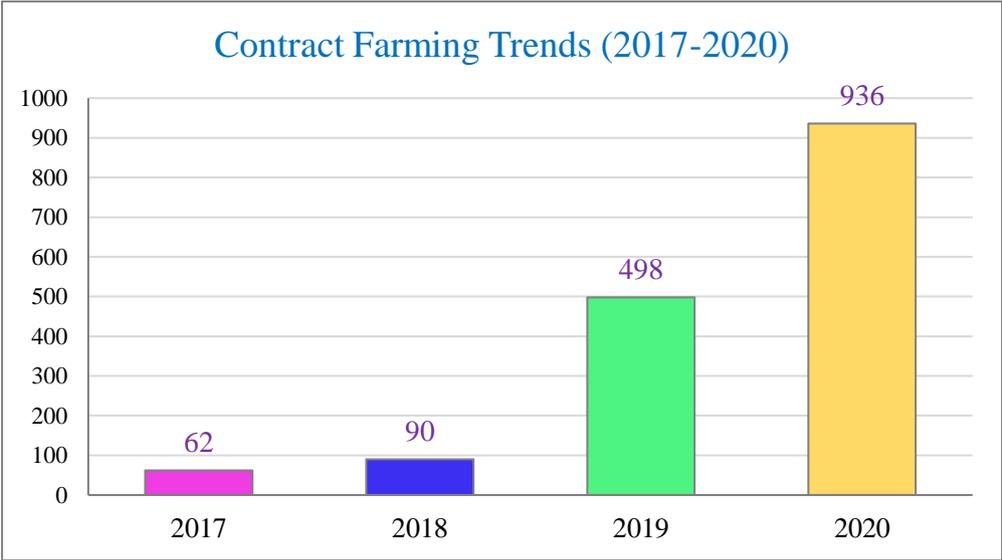
It is believed that with the strategic plan, the environment of business, including agricultural diversification and commercialization, and CF will be much more improved. This can be seen through there was a gradual increase in the number of CF starting at 62 contracts in 2017; 90 contracts in 2018; 498 contracts in 2019 and 936 contracts in 2020.

In terms of commodities, rice was overwhelming numbers of 186 CF signed with volume of 82,197 tons, followed by cassava with 26 contracts accounting for 54,272 tons, and cashew nuts stood at 9 contracts, the third rank, with the number of 105 tons. Returning to animals, pigs were in the top, accounting for 235 contracts with the figure of 34,845 tons, followed by chickens with 208 contracts amounting to 2,76,8891 heads and other products, including crop,

¹¹ A new development policy is in place for agriculture: Strong prospects for the sector in the next 10 years <http://www.fao.org/cambodia/news/rss/detail-events/en/c/1392052/>, March 2021

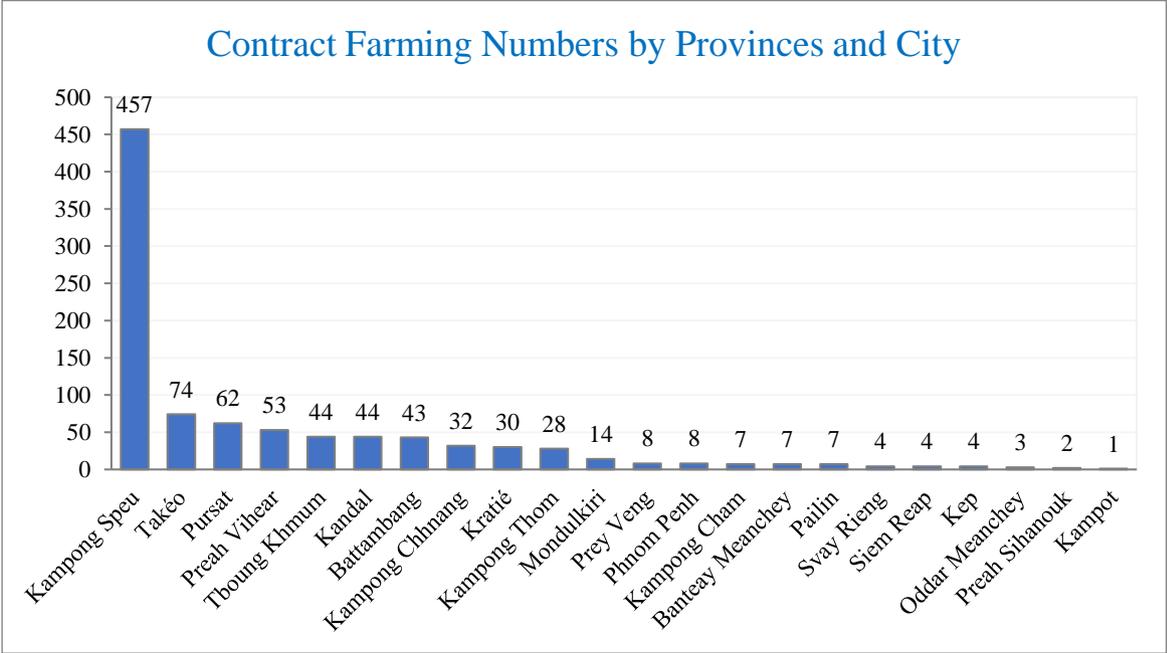
¹² Study finds best contract farming models for Cambodia, Khmer Times, February 2018: <https://www.khmertimeskh.com/110165/study-finds-best-contract-farming-models-cambodia/>

fruits, livestock, vegetable and aquaculture products, and agricultural inputs as well as other products.



(Source: MAFF, Annual Report, 2021)

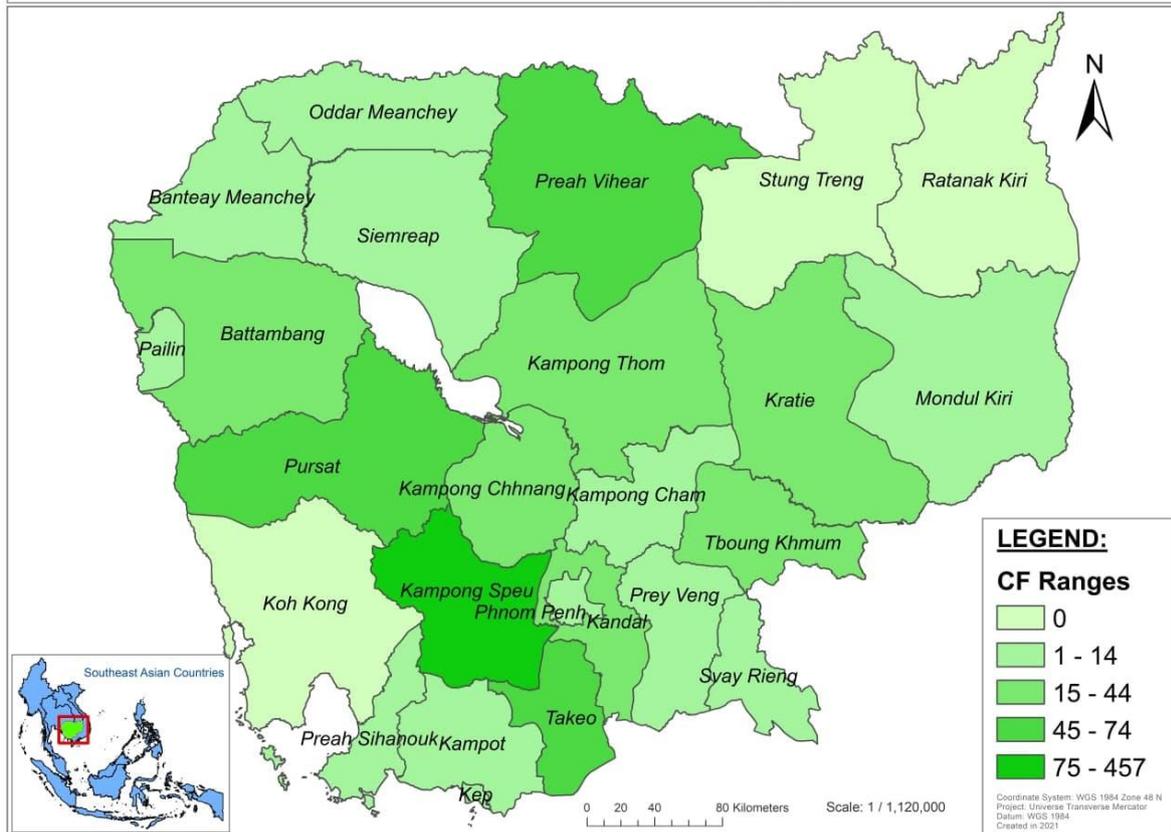
There were the greatest number of CF signed at 457 in Kampong Speu in 2020, other 21 provinces and cities were also signed contracts ranging 1 to 74. Currently, CF agreement with amount of less than 200 million Riels shall be filed to PDAFF, and CF agreement with amount of 200 million Riels or more shall be filed to DAI¹³.



(Source: MAFF, Annual Report, 2021)

¹³ Government Intervention on Contract Farming to Enhance the Confidence of Agricultural Investments in Cambodia: <http://iserd.net/12Icerdposters/ru04.pdf>

Distribution of Contract Farming in Cambodia



In terms of the best practice of CF models in Cambodia showing that it has quite a long experience in CF, but implementation in this country are mostly formal and informal contracts (Lonn, P. and Chem, P., 2021). However, the other five models are implemented in the country retrieved from other case studies and summarized the follows. The Multipartite model was practiced and signed between REMIC and Tasei AC¹⁴ in Battambang province in March 2020 to support vegetables the whole year to the company. This contract was also participated from third parties (stakeholders), including MAFF, PDAFF, CACA, ARDB and other companies. Another example is that the Multipartite contract in terms of agro-industrial crops and organic rice agreements was done between Cambodia Rice Federation with 59 ACs across 8 provinces and it was participated from key relevant stakeholder in September 2020 at the MAFF. In terms of the Intermediary CF model, it was applied as part of semi-formal contract rice farming between Angkor Kasekam Roongroeng¹⁵ with directly more than 32,000 households in 2004¹⁶ to supply Neang Malis organic rice. Additionally, the Centralized Model involves a centralized processor from farmers and fully relies on them for the supplies of the agricultural outputs. The model is highly centralized in that production quotas are assigned to each individual farmer and that the quality is tightly controlled by the company. The scheme is usually found in the production of tobacco, cotton, sugarcane, banana, coffee, tea, rubber. Example in Cambodia: CF proposed by FUCHS in Kampong (CPS, 2020). Another model is Nucleus Estate Model which is practiced by Santana Agro Products related to cashew nut products in Preah Vihear.

¹⁴ CF agreement between Tasei AC and REMIC, retrieved from: <http://aspirekh.org/bat-contractout/>

¹⁵ Small Landholder Farmer and Agribusiness Engagement by NGO Forum, retrieved from https://www.ngoforum.org/kh/wp-content/uploads/2018/02/Layout-Small-Landholder_Eng.pdf

¹⁶ Rice Contract Farming in Cambodia: Empowering Farmers to Move Beyond the Contract Toward Independence, ADB Institute, June 2008: <https://www.adb.org/sites/default/files/publication/156748/adbi-dp109.pdf>

The company is not fully reliant on smallholder farmers for the supplies of agricultural outputs. In contrast, the company manage its own central estate or plantation that can usually guarantee a throughput threshold for the processing plant (CPS, 2020). Lastly, the informal model is usually a seasonal arrangement, without a formal written contract, between smaller buyers and farmers. Typically, contracts take the form of an informal registration or a verbal agreement. For instance, most farmers in Sa'Ang district, Kandal province, have individual verbal agreements to produce seasonal vegetables (Sum, S. and Khiev, P., 2015). It is worth noting that rice, cashews cassava, maize and rubber, vegetables and fruit are main crops which are produced under CF (Sum, S. and Khiev, P., 2015).

4.3 Contract Farming Challenges

There are some key challenges for CF in Cambodia as the follows:

- Access to finance and credit: Accessing finance is the main challenges for the rural farmers and ACs. The Agriculture and Rural Development Bank of Cambodia (ARDB) provides a credit package for CF that still presents a high-interest rate (Lonn, P. and Chem, P., 2021). Payments from contractors to farmers/ACs have also been slow, which has made it difficult for farmers to access capital to invest back into their farms (CDRI 2020). Improving access to finance and more timely payment for the farmers/ACs is one of the strategies suggested for improving CF in Cambodia. Lacking financial support in production stage to access agricultural inputs, including seed, fertilizer, insecticides, agricultural machineries, and equipment. Within this stage, producers are difficult to satisfy the requirement of buying company since they lack knowledge and traditionally practices in farming¹⁷.
- Quality seeds and required standards: The better the seed, the better the product. High-quality seed is the primary element in producing a high-quality product for the CF collaborators and the firms. But quality seed is costly. There are grades of products, and the price points reflect those grades. The contractors usually provide poor seeds that result in low germination. The Royal Government of Cambodia and other relevant stakeholders should invest more in the Research and Development (R&D) with the aim to produce high-quality seeds for farmers at a more competitive price (Lonn, P. and Chem, P., 2021).
- Complicated legal steps and procedures: A formal CF agreement is very encouraging, but it faces several constraints, such as legal, knowledge-intensive document preparation between the parties (farmers, firms and the government). Simplifying the legal procedures in completing a CF agreement is urgently required, and the RGC should train local authorities, e.g., commune councils or members of the ACs, in the right procedures in forming and operating CF. Making lawyers accessible to local communities for CF consultation would be an ideal solution.
- Lack of knowledge among key players: CF agreements are all about law, regulations and procedures. There is a need for more dissemination of relevant technology and capacity building relating to CF. Providing capacity building to relevant stakeholders, including farmers, ACs, private companies and local governments is necessary, so that everyone understands the concept and the procedure of CF and all have a common understanding about it and its practices.

¹⁷ Government Intervention on CF to Enhance the Confidence of Agricultural Investments in Cambodia

4.4 Policy Framework for Contract Farming

The National Strategic Development Plan (NSDP, 2014-2018), agriculture was the priority sector. This can be seen via the promotion of paddy production and export of milled rice up 1 million tons in 2015 has helped to increase the number of CF arrangements. This new policy is a useful tool in guaranteeing the market and price for the small- and medium-farmers, which has ultimately helped to provide higher incomes and to reduce poverty (Sum, S. and Khiev, P., 2015).

Likewise, improved productivity, diversification and commercialization were the priority under the agriculture. It is believed that to achieve this strategy, the government promoted farmers to work together to expand production and empower negotiation with private sector. As the result, the Law on ACs was created in 2013 and there were 875 ACs planned to establish by 2018, stated in the previous NSDP.

Based on the Article 4 of the Law on ACs,¹⁸ ACs provided for in this law refers to private legal entity and agricultural-based economic enterprise which is voluntarily established by natural entities with their joint investment, joint ownership and joint democratic management in order to improve agricultural production capacity, agroindustry, agribusiness, or services related to agricultural production aimed at enhancing economic, social and cultural status of members. The Law on ACs allows a group of farmers to establish a farming-based enterprise they can jointly own, manage, and monitor through collective shareholding, collective business (buying & selling and marketing) and gain various benefits. This includes economic growth, promoting micro, small enterprises in the rural areas, mutual protection of the farmers' group interest, promoting social and cultural values, promoting agricultural production/ diversification, and helping contribute to government policy on rice exportation.

Moving to the NSDP (2019-2023), the policy reform is focused on promoting economy diversification (business and investment), private sector participation (SMEs) and inclusive and sustainable development (agriculture). Once again, the government still pushes to create other 875 ACs by 2023. In 2020, up to 1,200 ACs has been formed across the country. Moreover, so far, 11 Unions of AC (UAC) and one Cambodian Agricultural Cooperative Alliance (CACA) were established (MAFF, 2021).

The government has encouraged CF as a means of linking small-scale farmers to markets. The government established a sub-decree number 36 on CF in 2011, consists of five chapters and 13 articles. Significantly, it defines the implementation framework for contract-based agricultural production in Cambodia. Article 2 in Chapter 1 sets out the following four objectives:

- Strengthening responsibility and trust between producing and purchasing parties based upon the principles of equality and justice
- Ensuring the accuracy of prices, purchases and supply of agricultural products quantitatively and qualitatively
- Increasing the purchasing, processing and exporting of agricultural products; and
- Contributing to national economic development and poverty reduction.

MAFF has taken responsibility to lead the implementation of the sub-decree, which required another sub-decree (No.78) in 2017 creating a “Coordination Committee for CF”. This is the

¹⁸ The Law of Agricultural Cooperatives: <http://extwprlegs1.fao.org/docs/pdf/cam172382.pdf>

inter-ministerial collaboration mechanism, consisting of 19 members from 19 ministries and institutions of the government. The main duties of this committee are the following:

- Developing policy and strategic plans that support and promote CF
- Facilitating and strengthening accord between contracting parties
- Intervening in or reconciling quarrels or conflicts relating to agricultural production contracts that expert institutions are unable to resolve or help settle conflicts between institutions.

In 2017, MAFF established a new secretariat for CF within the Department of Agro-Industry (under Decision No. 560) and issued a Circular (No.196) as a guide to implementing CF activities. It has assigned the department of agro-industry to coordinate, facilitate and record all CF implementation in Cambodia. At the sub-national level, all 25 provinces have created a CF sub-committee, of which the provincial government is the head, and all the leaders of departments are the members.

The Sub-decree defines the roles and responsibilities of contract farmers and contractors and the formalities and implementation of an agricultural production contract as the following:

Table: Roles and responsibilities of farmers and contractors as stated in the CF sub-decree

Roles and Responsibilities of Farmers	Roles and Responsibilities of Contractors
<ul style="list-style-type: none"> • Comply with the terms and conditions set out in the agreement. • Proceed production activities based on seasonal and required timeframe • Supply on time a minimum quantity of products with specified grade/quality. • Accept payment in line with the product value as set out in the agreement. 	<ul style="list-style-type: none"> • Comply with the terms and conditions set out in the agreement. • Specify quantity and quality of products, delivery date and place of delivery, and acceptance procedures. • Provide producers with agricultural inputs, such as propagation materials, seeds, aquatic species and animal breeds, credit advances, technical services and other support as agreed to achieve desired results. • Buy agricultural products in specified quantities and quality at agreed prices. • Pay producers for commodities within the time frame and in accordance with the terms and conditions specified in the contract.

(Source: Sub-decree on CF, MAFF)

5 CONCLUSIONS

CF contributes to poverty reduction and livelihood improvement for the smallholder farmers, producer groups and agricultural cooperatives benefitting from this model of agricultural practices. Basically, CF is a way of doing business, in which both contract partners aspire to make profit through improved security of access to supplies and markets. CF can help connect relationship between smallholder farmers and buyers. CF can also allow farmers to be aware beforehand of timeframe, business partners and prices, so both parties are well-prepared plans that can minimize risks concerning price fluctuations and productivity. With this mechanism, farmers may receive both financial and technical support from partners—contractors and third parties—to improve production and the market aspect.

CF is providing opportunities for smallholder farmers in developing nations to generate income through their agricultural activities. Farmers use their own resources, including land and labor, as the main investment in agriculture when entering a contract with companies and middleperson. Governments also gains benefits from larger companies both foreign and locally owned that create rural employment, market for local products, particularly economic growth through exports.

CF contexts in some Southeast Asian countries selected showed that each country implement different CF models. It depends on the nature of the contract, geographical locations, and socioeconomic situation of the smallholder farmers. Among selected countries for the literature review, Thailand is a country which is strong CF implementation as up to the five CF models, plus another one (hybrid CF model) practiced in the country, followed by Vietnam, while Cambodia, Laos, Indonesia and Myanmar practice mostly quite similar CF models—formal and informal contracts, while the other models are practiced case by case.

Unfortunately, not all CF will receive success, fair and equitable business relations between firms and smallholder farmers. Main challenges on cultivation range from weather condition, lack of knowledge and experience in using modern technologies, limited capital, labor shortages, high production costs, market fluctuations and information. Farmers are considered to face greater vulnerable than companies in overall. In this regard, they need support from different stakeholders including the government, the private sector, and civil society organizations. The public and the private sector can work together in public-private partnership mode to disseminate technology, knowledge and inputs to farmers.

In conclusion, it can be drawn from this literature review is that of CF in the regional countries suggest that it almost always results in higher income compared to that of similar farmers not on contract. This review has also identified a number of conditions that would support smallholder participation in and benefit from CF arrangements, such as supportive state policies, a balanced power relationship, a sellers' market, support from NGOs, and collective action in producer organizations. Unfortunately, quality standards and prices of commodities are the main issues posing threats to CF. Dispute settlements through the legal system is impractical due to high costs and time-consuming. In this regard, alternative dispute resolutions are recommended to address any conflict occurred.

6 RECOMMENDATIONS

Lessons learnt from CF and other inclusive agribusiness models in the region illustrate that the key to success for CF focuses mainly on relationship between involved parties based on trust, confidence and mutual understanding. All actors involved need to work together on finding more markets, improving negotiation skills to get a higher price of commodities for farmers, exploring new techniques to produce higher yield, and building stronger relationships. Legal and incentive systems from the government based on reward and penalties can be used creating trust and mutual confidence.

Based on the literature review of CF model in Cambodia and the region, there are some recommendations provided as the follows.

- Strengthening the Public-Private-Producer Partnership mechanism: collaboration between private sector, non-governmental organizations and development partners in the area of agricultural modernization, especially agricultural mechanization, and market expansion for Cambodian agricultural products should be improved through 'Public-Private-Producer Partnership' (4Ps) mechanism. This will transform producers/agriculture cooperatives as a supplying hub of raw materials for agro-industry and to link them to markets through CF mechanism.
- Agricultural input supply and technical support from stakeholders to farmers: governments, NGOs and companies work together to provide technical support to farmers. Providing agricultural input supply and capacity building to producers is important to improve agricultural productivity, value chains, business operations or market strategies.
- Promote agricultural value chains among producers and cooperatives: farmers face challenges with price instabilities and less market opportunities, while agricultural commodity costs experience frequently fluctuations in harvest seasons due to some combined factors, including low production capacity, processing, market information and participations from relevant actors. Once farmers understand the whole value chain connectivity from A to Z, they will come up strategies to prepare plans to not only produce commodities consisting of good quality and quantities, but they also come up with market concepts. Consequently, farmers' products can meet market needs leading to make CF.
- Cultivation plans connects with harvesting plans: relevant partners could help cooperatives/producers prepare farming production plans connecting with market plans by providing technical supports, including agricultural techniques, production and harvesting plans, and market facilitation toward business agreements. Therefore, farmers could understand and apply how to make production and market plans, resulting in their products have high yields, good markets and price increases, particularly there is more remaining products.
- Loan access among CF partners: engagement of producers/cooperatives and private companies to have access loans with low interest rate and convenient terms and conditions from banks will provide them a chance to expand CF and solve some production and market budget problems, such as late payment bringing to confident lose and lack of capital for producing.
- CF participated from third parties is more effective: official CF via having written contract and involving a third party as witness shows that this model is an effective way for CF.

This mechanism will help both contracted partners to solve a dispute once they have disagreements over prices, quantities and quality stated in the contract. The third-party component is from governments, developmental agencies or local authorities.

- The government could also raise awareness about laws and regulations related to CF among farmers and companies. This awareness would help both parties to arrange CF more effectively to provide better benefits for smallholders. The CF agreement requires law enforcement, including terms and conditions and conflict resolution mechanisms.
- Best practices of CF conflict resolution mechanisms from the regional countries, including Thailand, Vietnam and Myanmar, reveal that the conflicts between contractors and farmers are frequently about quality standards and prices. To deal with this issue, settling disputes through various ways including the legal system. However, resolving frequent conflicts both parties through the legal system is costly and time-consuming. This note, therefore, explores the experience of alternative dispute resolution mechanisms in resolving issues out of court. For instance, under the CF Promotion and Development Act in Thailand, both contractual parties shall first embark upon dispute mediation proceedings, third parties, before referring the dispute to arbitration or bringing to the courts.
- Working with diverse stakeholders to do research and development: governments play leading roles in research and dissemination regarding the agribusiness models and CF models. The findings and feedback will be provided concerning agricultural strategic development plans contributing to addressing key constraints for demand and supply for farmers and the government. So, farmers could identify cultivation and harvest plans connecting with market demand and they could be well-prepared for coping with climate change, while the government would improve business competitiveness in the region and global markets.

REFERENCES

- ADB Institute. (2008). *Overview of Contract Farming in Thailand: Lessons Learned*. Tokyo.
- ASEAN Secretariat. (2018). "ASEAN Roadmap for Enhancing the Role of Agricultural Cooperatives in the Global Value Chain 2018-2025". Retrieved from <https://asean.org/storage/2012/05/ASEAN-Roadmap-Agricultural-Cooperatives.pdf>
- ASEAN-Japan Center. (2021). *Non-Equity Modes of Trade in ASEAN: Promoting new forms of trade between Japan and ASEAN*. Retrieved from <https://www.asean.or.jp/ja/wp-content/uploads/sites/2/NEM-Indonesia-Paper-3-full-web.pdf>
- Bijman, J. (2008). Contract Farming in Developing Countries: An Overview. *ResearchGate*.
- Chhim, Theng, and Nou. (2020). The Supply of Fertiliser for Rice Farming in Takeo.
- Cotula, L. and Polack, E. (2012). The global land rush: what the evidence reveals about scale and geography.
- Couturier, J., Savun, S. O. & Ham P. (2006). "Inventory of Farmer Organisations in Cambodia", Cambodia.
- CPS. (2020). *Research on Agricultural Investment Business Models in Cambodia*.
- David, G. and Lim Teck, G. (1992). *Contract Farming in Southeast Asia: Three Country Studies*. Kuala Lumpur. Retrieved from <https://idl-bnc-idrc.dspacedirect.org/bitstream/handle/10625/10972/91544.pdf?sequence=1>
- Eaton, C. and Shepherd, A. (2001). *Contract Farming: Partnership for Growth*. Food and Agriculture Organization. Retrieved from <http://www.fao.org/3/i2858e/i2858e.pdf>
- FAO & IISD. (2018). *Model agreement for responsible contract farming: with commentary*. Rome: FAO.
- FAO. (2017). *Contract farming and the law: What do farmers need to know?* Rome. Retrieved from <http://www.fao.org/3/i7581en/i7581en.pdf>
- Fullbrook, D. (2007). *Contract Farming in Lao PDR: Cases and Questions*. Retrieved from <https://www.scribd.com/document/45197933/Contract-Farming-Laos-LEAP-Fullbrook-2007>
- Grow Asia. (2018). *Contract Farming: Challenges and Opportunities*. Retrieved from <https://www.growasia.org/post/2018/08/14/contract-farming-challenges-and-opportunities>
- Helvetas. (2016). *Falling Rubber Prices in Northern Laos: Local Responses and Policy Options*. Retrieved from <https://data.opendevlopmentmekong.net/dataset/0f57f662-5932-470c-8d9a-8b2dc2df947f/resource/ec25e158-2df4-4221-8de5-5013b0a8097f/download/FT-MRLG-Inception-Report---Annex-5a-Lao-Rubber-Study.pdf>
- IISD. (2012). *A Survey of Business Models for Agricultural Investment in Indonesia*. IISD. Retrieved from https://www.iisd.org/system/files/publications/survey_business_models_ag_indonesia.pdf
- IISD. (2012). *Business Models for Foreign Investment in Agriculture in Laos*. Retrieved from https://www.iisd.org/system/files/publications/business_models_ag_investment_laos.pdf
- Lonn, P. and Chem, P. (2021). *Contract Farming in Mekong Countries: "Best Practices" and Lessons Learned*. Phnom Penh: CDRI.
- Nations, Association of Southeast. (2017). *Definition of Inclusive Businesses adopted by ASEAN member states in their ASEAN Inclusive Business framework*.

- NGO Forum. (2017). *Small Landholder Farmer and Agribusiness Engagement*.
- Olomola, A. (2010). *Enhancing productivity, income and market access of rural procedures in Africa: The case of contract farming in Nigeria*. Mombassa.
- Partners, A. (2019). *Inclusive Business Models: Lessons from Grow Asia's Experience*. Grow Asia. Retrieved from http://exchange.growasia.org/system/files/Grow%20Asia%20x%20iBAN%20Knowledge%20Paper_FINAL_0.pdf
- Patrick, I. (2004). *Contract farming in Indonesia: Smallholders and agribusiness working together*. Canberra: ACIAR, Australia.
- Philexport. (2014). Contract farming improves farmers' profit, says report.
- Pornsiri, S. (2021). *Contract Farming Regulations and Situations in Thailand*. Chiangmai University. Retrieved from <https://ap.fftc.org.tw/article/2842>
- Rehber. (2007). A Global Overview of Contract Farming. *ICFAI University Press*, pp 3-38.
- Shi. (2008). *Rubber investments and market linkages in Lao PDR: approaches for sustainability*. Retrieved from <https://landmatrix.org/media/uploads/a8ed9e75-3fa2-4c0c-b7bd-800bc34cd3fc.pdf>
- Singh, S. (2021). *State, Agribusiness Firms, and Farmers in Thailand: A Study of Contract Farming System*. Retrieved from http://webcache.googleusercontent.com/search?q=cache:HjtHSKZac8MJ:www.asianscholarship.org/asf/AnnualFellows/download_Third/Sukhpal%2520Singh-%2520State,%2520Agribusiness%2520Firms,%2520and%2520Farmers%2520in%2520Thailand.doc+&cd=22&hl=en&ct=clnk&gl=kh;
- Soukhamthat, T. (2015). *The majority of CF practices between farmers and small traders in Lao PDR are not in a formal arrangement but operate outside legal boundaries*. Retrieved from <https://core.ac.uk/download/pdf/145786793.pdf>
- Sriboonchitta, S. & Wiboonpoongse, A. (2008). *Overview of Contract Farming in Thailand: Lessons Learned*. ADB Institute.
- Stefanie, K. & Hla Myo, T. (2020). *Facilitating a fair and socially responsible contract farming scheme in the rice sector in Myanmar*. Helvetas Swiss Intercooperation.
- Sum, S. and Khiev, P. (2015). *Contract Farming in Cambodia: Different Models, Policy and Practice*. Phnom Penh: CDRI.
- SUMERNET. (2009). *Rubber investments and market linkages in Lao PDR: approaches for sustainability*. Retrieved from https://www.iucn.org/downloads/lao_rubber_investments___final_en___20_mar_09.pdf
- Thura Swiss. (2021). *Rapid Market Assessment of Agriculture Sector in Myanmar*. Retrieved from https://pdf.usaid.gov/pdf_docs/PA00XDJX.pdf
- Ulrike et al. (2013). *Inclusive Business Models: Options for Support through PSD Programmes*. Bonn: GIZ. Retrieved from https://www.enterprise-development.org/wp-content/uploads/131014_giz_ib-models_rz_01_web.pdf
- UNDP. (2008). *Creating Value for All - Strategies for Doing Business with the Poor*. New York.
- UNDP. (2015). *The Impact of Contract Farming on Poverty and Environment in Lao PDR*. Retrieved from <https://www.google.com/url?sa=t&rct=j&q=&esrc=s&source=web&cd=&ved=2ahUKEwj4J>

DDrbTyAhVZ63MBHZXYBck4FBAWegQICxAB&url=http%3A%2F%2Fwww.la.undp.org%2Fcontent%2Fdam%2Fflaopdr%2Fdocs%2FProject%2520Briefs_Fact%2520Sheets%2FEnvironment%2FCF_Issue%2520Brif_ENG.pdf

Will/GIZ, M. (2013). *Contract farming handbook*.

World Bank. (2008). *Agriculture for Development*. Washington, DC.