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SMALL LANDHOLDER FARMER AND AGRIBUSSINESS ENGAGMENT

IMPLICATIONS FOR CORPORATE PERFORMANCE AND IMPACT ON RURAL LIVELIHOODS IN CAMBODIA



SMALL LANDHOLDER FARMER AND AGRIBUSSINESS ENGAGMENT

Implications For Corporate Performance And Impact On Rural Livelihoods In Cambodia

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$\ensuremath{\mathbb{C}}$ The NGO Forum on Cambodia, March 2017

Preface

This document is the Final Report for "SMALL LANDHOLDER FARMER AND AGRIBUSSINESS ENGAGMENT". The study is undertaken under the guidance of the NGO Forum on Cambodia (NGOF). The Consultant Team¹ would particularly like to thank the guidance of Mr. Sin Sokhomony and Ms. Im Phallay.

The report is based on series of agribusiness and stakeholder interviews, and field surveys conducted from January to March 2016. The Consultant Team is grateful to the numerous persons met in Phnom Penh and in the provinces for sharing their ideas and generously giving their time.

The views in the report are those of the Consultants and do not necessarily reflect the views of the NGOF.

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Abbreviations

AC	Agriculture Cooperative	
AFD Agence Française de Développement		
AKR	Angkor Kasekam Roongroeung Co Ltd	
AQIP	Agriculture Quality Improvement Project	
CARDI	Cambodia Agricultural Research and Development Institute	
CCAPC	Coordination Committee for Agricultural Production Contract	
CEDAC	Cambodian Centre for Study and Development in Agriculture	
COrAA	Cambodian Organic Agriculture Association	
ELC	Economic Land Concession	
FGD	Focus Group Discussion	
GI	Geographical Indication	
GDA	General Directorate of Agriculture	
IFC	International Finance Corporation	
КРС	Kampot Pepper Cooperative	
KPPA	Kampot Pepper Promotion Association	
KSPA	Kampong Speu Palm Sugar Promotion Association	
LASED	Land Allocation for Social and Economic Development Project	
LASSP	Land Administration Sub-Sector Program	
LDC	Least Developed Country	
LMAP	Land Management and Administration Program	
MAFF	Ministry of Agriculture, Forestry and Fisheries	
MoC	Ministry of Commerce	
MFI	Micro Finance Institution	
RDB	Rural Development Bank	
RGC	Royal Government of Cambodia	
SLC	Social Land Concessions	
SMC	Seed Management Committee	
SNEC	Supreme National Economic Council	
UNDP	United National Development Program	
USD	United States dollar	

Executive Summary

The economic growth that Cambodia has experienced over the last 20 years has transformed the country, bringing with it rapid infrastructure development, economic empowerment, and cultural change. However, this transformation has been unevenly experienced across the country. Away from the country's urban centres, rural economies remain dependent on small-scale farming as the primary means for sustenance. A large segment of the population in rural communities have largely missed out on the benefits of growth – including access to electricity, clean water, health services, education, and economic opportunity.

Cambodia's growing economic divides – between rural and urban and between rich and poor – impact all Cambodians and significantly increases the vulnerability of a majority of the country's population to economic and environmental shocks. The most vulnerable segment of Cambodia's population is also its more numerous; an estimated 67 percent of Cambodia's labour force is primarily engaged in agriculture cultivation and a majority are small landholders farming one or two hectares of land.

ASEAN integration presents a new opportunity and challenge for Cambodia. Without a sufficient legal framework and social protections, small landholder farmers could face increased exposure to potentially exploitative market forces. However, these same market forces have the potential to create positive impacts for the rural household economy.

Long-term, sustainable growth in Cambodia requires greater inclusion of small landholder farmers into the country's economic systems. The NGO Forum on Cambodia recognizes that the Private Sector has the opportunity to take a leadership role in ensuring that all Cambodians benefit from equitable and sustainable economic growth.

To better asses this opportunity, the Agricultural Policy Monitoring Project of The NGO Forum on Cambodia has commissioned the following Study. The Study examines contract farming based engagement models between small landholder farmers and agribusiness companies and the supporting policy framework.

The Study aims to address the following key questions:

- To identify good practices and lesson learnt among private agribusiness companies in supporting small landholder farmers especially women.
- To understand the impact of Responsible Agriculture Investment executed by Agri-business Companies on small landholder farmers, particularly female farmers and determine the policy implication.
- To understand how Agriculture Responsibility and Corporate Social Responsibility are implicated and translated into law and legal instruments in Cambodia.
- To draw policy priorities and recommendations to support men and women as small landholders in Responsible Agriculture Investment and CSR practices.

Key findings of the Study are:

• Contract farming can benefit both small landholder farmers and agribusiness companies the most when programs are properly designed for a long-term relationship.

- Even poorer, marginal farmers can take advantage of contract farming opportunities.
- Agribusiness companies experience high costs in designing and maintaining contract farming programs.
- Royal Government of Cambodia (RGC) policy is focused on tying the promotion of Agriculture Cooperatives (AC) to contract farming, yet this is only one model for contract farming.
- RGC policies that impact access to seeds and land rights are not sufficient for the current needs of both small landholder farmers and agribusiness companies.

Key recommendations of the study are:

- The donor community should do more to encourage long-term, mutually beneficial contract farming programs as well as other small landholder farmer / agribusiness engagement modalities.
- Multiple models for contract farming, rather than a single model, must be encouraged by policy makers.
- ACs require significant donors and RGC assistances to realize their potential to benefit small landholder farmers.
- Policy reform with regard to access to seed and land rights is critical to the future of Cambodia's agriculture sector and must be accelerated.

After first presenting the methodology and objectives in Section 1, the Study then examines the context for small landholder farmers and agribusiness engagement in Section 2, and presents a framework for various engagement models in Section 3. Then the Study presents a review of the impact of policy in Section 4, Next, the Study presents series of case studies based on interviews with small landholder farmers and Agribusiness by the Consultant Team in Section 5, followed by a summary of key findings and implications in Section 6. Finally, the Study presents recommendations in Section 7.

1 Introduction

1.1 Objective of the Study

The Study was commissioned by The NGO Forum on Cambodia with the aim to assess how agribusiness companies engage with small landholder farmers in Cambodia and to identify examples of positive engagements that could be replicated. Additionally, the Study was commissioned to assess Cambodia's regulatory and policy framework for small landholder farmer engagement and to identify policy priorities to further encourage win-win outcomes between agribusiness companies and small landholder farmers.

1.2 Methodology

The Study aimed to assess small landholder farmer / agribusiness company engagements across a diverse set of agriculture crops, thus allowing the Study to draw lessons from multiple agriculture commodities.

The Study involved four primary components of data collection and synthesis:

- **Desktop Research** included a thorough review of existing analysis of agribusiness engagement with small landholder farmers in Cambodia.
- Agribusiness Company Interviews were conducted with ten international and domestic agribusiness companies. Agribusiness companies were selected on the basis of input from The NGO Forum on Cambodia with the objective of selecting a diverse group of companies that represent the forefront of agribusiness / small landholder engagement in Cambodia. The ten companies selected range in size from small to large. Each company was selected to be included in the Study because they each have a different model for engaging with Cambodian small holder farmers. The selected companies are arguably among the best managed and best organized agribusiness companies operating in Cambodia which does expose the Study to a bias that was necessary given the limited scope of the Study. It is recommended that follow on studies allow for surveys of a broader group of companies. The following agribusiness companies were surveyed:
 - 1) AMRU Rice (rice miller and exporter)
 - 2) Angkor Kasekam Roongroeung (rice miller and exporter)
 - 3) CEDAC (diversified agriculture focused social enterprise)
 - 4) Confirel (high quality organic food products manufacture)
 - 5) East-West Seed (vegetable seed producer and distributor)
 - 6) Entrée Baitang / Golden Eagle (organic grocer)
 - 7) Golden Rice (rice miller and exporter)
 - 8) Lors Thmey (agriculture focused social enterprise)
 - 9) Mong Reththy Group (diversified agriculture planation operator and exporter)
 - 10) Natural Garden (organic grocer)
- Stakeholders Interviews were conducted with a cross-section of 11 Stakeholders including government agencies, banks, Micro Finance Institutions (MFIs), Development Partners, and Non-Governmental Organizations. Stakeholders were selected on the basis of input from The NGO Forum on Cambodia. Stakeholder provided useful background information to develop the Study. The following stakeholders were surveyed:

- 1) Ministry of Agriculture Forestry and Fisheries (MAFF)
- 2) Ministry of Commerce (MoC)
- 3) Rural Development Bank (RDB)
- 4) BASF (multinational chemical and agribusiness company)
- 5) Cambodian Organic Agriculture Association (COrAA)
- 6) Grow Asia (World Economic Forum supported NGO)
- 7) International Finance Corporation (IFC)
- 8) Oiko Credit (international microfinance investment organization)
- 9) SNV (Netherlands-based international NGO)
- 10) Supreme National Economic Council (SNEC)
- 11) United National Development Program (UNDP)
- Small Landholder Farmer Interviews were conducted with 70 small landholder farmers who are currently engaged with six different contract farming programs. The Consultant Team interviewed farmers individually across Cambodia in the following provinces: Kampong Cham, Kampong Chhnang, Kampong Speu, Kampot, Kandal, Preah Vihear, and Takeo. The aim of the farmer surveys was to develop case studies that highlight different models for agribusiness / small landholder engagement in Cambodia. Farmers were selected with the support of leaders of ACs and/or village heads. Approximately ten farmers were selected for interviews per case study. The basis for the number of farmers interviewed was the intention to balance the need to meet with a diverse group of farmers for each case study with the limitations on the scope of the Study. It is recommended that follow on studies allow for surveys of a larger number of farmers. Farmer interviews were conducted for the following six case studies which are detailed in Section 4 of the report:
 - 1) AMRU Rice
 - 2) Angkor Kasekam Roongroeung
 - 3) Confirel
 - 4) Golden Rice
 - 5) Lors Thmey
 - 6) Kampot Pepper Cooperative

2 Context of the Study

2.1 Why Focus on Small Landholder Farmers?

Cambodia is an agrarian economy that is in rapid transformation. Cambodia has one of the world's fastest growing economies and was one of the few countries that was able to meet its Millennium Development Goals. Over the last decade, the country was able to cut in half its poverty rate and is now entering lower-middle income status. Performance of agriculture in Cambodia over the past decade has been similarly impressive. Over 2001-2011, in tandem with rising global commodity prices, annual agricultural GDP growth averaged 4.6 percent, one of the highest in the world. Both the increased diversification of crops produced and the growth in production of many crops has been spectacular. In the case of rice, the main subsector of agriculture, over the past ten years, production has doubled through a combination of land expansion and yield increase.

The recent growth in agriculture production has generally benefited the poor. According to World Bank research, Cambodia's official poverty headcount declined from 50 percent in 2007 to 21 percent in 2011, with the number of poor declining from 7 million to three million². Most poverty reduction took place in rural areas. More than 60 percent of the poverty reduction was attributed to the agriculture sector³; higher agriculture prices and improved access to markets stimulated production responses that increased farm wages.

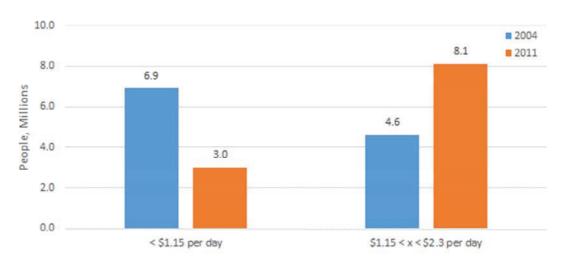


Figure 1: Shifting from 'abject' to 'average' poverty

Source: World Bank, 2015

Despite Cambodia's impressive growth more than half of the population are still very poor and most of these people are in rural communities where the only economic prospect is farming. While the number of people living in abject poverty reduced by 3.9 million from 2004 to 2011, nearly the equivalent number (3.5 million) shifted to the next lowest bracket; those living on between USD 1.15 and USD 2.30 per day.⁴

The focus of this Study, and much development assistance activity in Cambodia, is on small landholder farmers because most Cambodians are small landholder farmers. Out of Cambodia's 15.4 million population, according to the World Bank as of 2011, 11.1 million earned the equivalent of USD 2.30 per day or less. The major share of this highly vulnerable population is Cambodia's small landholder farmers. Nearly half of all agriculture households – and nearly 30 percent of Cambodia's national population – have less than one hectare. Given the impact on a large share of the country's population, the ongoing transformation of Cambodia's rural agriculture economy has significant policy implications.

² Cambodian Agriculture in Transition: Opportunities and Risks, Economic and Sector Work, Report No. 96308-KH, World Bank, May 2015.

³ Ibid.

⁴ Ibid.

2.2 What is a 'Small Landholder Farmer'?

To start a discussion about small landholder farmers is not simple because "small" is a relative concept. Although 'smallholder' or 'small landholder' are useful phrases, they are hardly descriptive when in fact we are often talking about the rural poor who farm because it is the only available option to procure sustenance for themselves and their households.

While 'small farms' are typically defined by size this is an over-simplification. Research often follows the World Bank's Rural Development Strategy which holds that small landholder farmers as those with a low asset base, operating less than two hectares of cropland.⁵ However, what constitutes a small farm, as it is meant, depends on many factors including the crop or livestock being produced or raised, as well as agro-ecological and socio-economic considerations such as access to markets. What may be considered a small farm in most countries in Latin America and the Caribbean would be considered large in most countries in Sub-Saharan Africa or in Asia. As Dixon et al. (2004) write: "The term 'smallholder' refers to their limited resource endowments relative to other farmers in the sector. Thus, the definition of small landholder farmers differs between countries and between agro-ecological zones. In favourable areas with high population densities they often cultivate less than one hectare of land, whereas they may cultivate ten hectares or more in semi-arid areas, or manage ten head of livestock".⁶ To further illustrate; the average Cambodian farmer has more land than the average farmer in Vietnam or Thailand but on average s/he does not have the same standard of living.

In Cambodia, amongst the 1.88 million agricultural households (8.6 million people) with separate agricultural land⁷, the average of total land holding according to the 2013 Cambodia Agriculture Census was 1.64 ha.⁸ Of these households approximately 47 percent had plots of land measuring less than one hectare in size. A further 45 percent of farmers comprised agricultural land measuring between one hectare and 3.99 ha. However even within the Cambodia there are significant regional differences based on a range of environmental, economic, political, and cultural factors. For example, the average landholding in Tonle Sap Lake Zone is approximately double that of the Plains Zone.

⁵ Land Policies for Growth and Poverty Reduction. World Bank, 2003

⁶ Smallholders, Globalization and Policy Analysis. FAO, AGSF Occasional Paper 5, 2004

⁷ A definition used by the 2013 Cambodia Agriculture Census to quantify a farm.

⁸ Census of Agriculture of the Kingdom of Cambodia 2013, National Institute of Statistics, Ministry of Planning, December 2015.

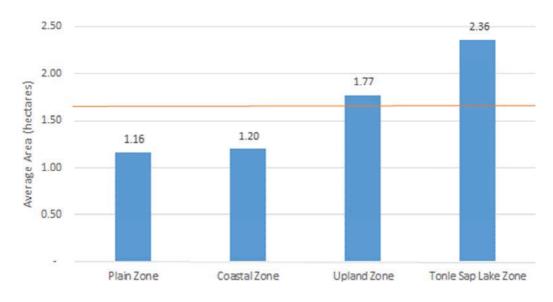
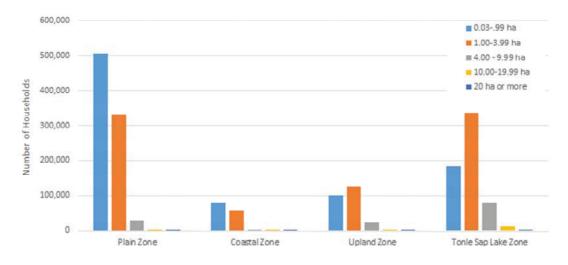


Figure 2: Average household land holdings in Cambodia's four agricultural zones

Source: Census of Agriculture in Cambodia 2013

Figure 3: Segmented household land holdings in Cambodia's four agricultural zones



Source: Census of Agriculture in Cambodia 2013

Adding further complexity to the question of what is a small landholder farmer, is the issue of how "holder" is defined. In Cambodia, as is the case in most other LDCs, most small landholder farmers lack actual title to the land that they farm. Especially in Cambodia's Upland Zone farmer sizes have increased significantly in recent years at the expense of forest land. Yet most of these farmers do not have title to their land. Without land title, it is not possible to secure most forms of financing which makes planning for the long term more difficult. For such farmers, larger 'landholdings' do not equate to increased financial security.

For the following Study, we generally use a threshold of four hectares to define a small farm (and a small landholder farmer is a person who derives their primary livelihood from that farm). We acknowledge that in Cambodia this constitutes nearly all farms and a nearly half of the national population. The primary consideration for this threshold is the objective to analyse how small landholder farmers and agribusiness companies engage. The reality is that there is generally little direct engagement with the smallest farms. To focus only on farmers with less than two or one hectares would miss the significant changes impacting a slightly less poor but still extremely vulnerable and very large share of Cambodia's population. Moreover, it would ignore the important trend over the past decade of larger farms getting larger and smaller farms getting smaller.

2.3 Farming in Transition

Cambodia's agriculture sector is in rapid transition as it further integrates into the world economy and as economic development drives ahead. A key theme of this transition is the move from subsistence agriculture to farming as a business. While RGC policy focus has been mainly on improvements to rice production and exports, there is a growing consensus that the current rice-based traditional agriculture system that dominates Cambodia's rural sector is not sustainable – and there is evidence that Cambodian farmers are producing a more diversified crop.

Cambodia's agriculture sector is undergoing a transition toward greater diversification, more mechanisation, and improved productivity. There are, however, multiple paths that this transition can take and the impact this will have on the millions of small landholder farmers remains to be seen. One set of paths could lead to the displacement of million from their land creating an unstable landless peasantry. An alternative set of paths could lead to improved productivity and market access for small landholder farmers, for example, through their participation in successful ACs, though access to improved seeds and other inputs, and through their placement in improved value chains to market.

Cambodian farmers have already made significant improvements in production growth. However, the majority of the production gains are the result of a significant increase in land under cultivation rather than through yield improvement. ⁹ Overall, the agricultural sector is becoming both more specialized and more diversified. Diversification means farmers grow other crops and engage in other agricultural activities rather than focusing only on rice. More and more farmers are growing non-rice crops compared to ten years ago. This trend is reflected in official MAFF data on cultivated land showing that in the last decade paddy cultivated land has decreased from 86 percent to 74 percent of total cultivated land, during a period in which total cultivated land has itself increased by a remarkable average growth rate of five percent, as shown in Table 1.

⁹ Diagnostic Study Cambodia Agriculture in Transition: Opportunities and Risks, prepared for World Bank by Agrifood Consulting International, April 2014.

		2002		2012		Annual Average Growth Rate (%)			
Crop	Production (ton)	Harvested Area (ha)	Yield (ton/ha)	Production (ton)	Area (ha)	Yield (ton/ha)	Production (ton)	Area (ha)	Yield (ton/ha)
Rice	3,822,509	1,994,645	1.916	9,290,940	2,980,297	3.117	9.3%	4.1%	5.0%
Maize	148,897	80,470	1.850	950,909	215,442	4.414	20.4%	10.3%	9.1%
Cassava	122,014	19,563	6.237	7,613,697	337,800	22.539	51.2%	33.0%	13.7%
Vegetables	163,175	34,433	4.739	411,435	54,155	7.597	9.7%	4.6%	4.8%
Soybean	38,661	33,438	1.156	120,165	70,972	1.693	12.0%	7.8%	3.9%
Sugarcane	173,105	9,581	18.068	1,220,255	36,722	33.230	21.6%	14.4%	6.3%

Table 1: Production, Area, and Yield and Growth of Major Crops between 2002 and2012

Source: Agrifood Consulting International, 2014

Over the past ten years, many larger farms have become even larger, partly as the outcome of land policies and improved infrastructure. The trend toward larger farm has been both a driver and outcome of growth in agriculture production. A significant part of this trend had been expansion of upland crops. Areas under maize and cassava cultivation have increased by about two-folds in the past ten years. Improved accessibility to low-population density regions through better road access has increased the availability of land for agricultural production. The expansion of land for rice cultivation was more limited as it is contingent on two main key factors: increased irrigation to allow dry season rice production and protection against flooding for wet season rice production. Irrigation has the potential of increasing the areas under cultivation through an increase of the crop cycle per year. The relatively low rate of increase in the average cultivated rice areas denotes the continued shortage of irrigation and flood protection infrastructures. For vegetables, the increase was limited to about five percent. In addition to the constraints on the availability of good land for vegetable production, technical complexity and irrigation would be additional limitations to land expansion. With poor knowledge about crop management and dependence on rainfall for water, farmers may get very low productivity thus vegetable farming may be risky to the average farmer.

A corollary to the growth of larger farms is that smaller farms have, on average, become smaller, partly as a result of population growth and partly because of other factors such as access to irrigation and better roads can increase returns to scale, and thus prompt relatively wealthier or more ambitious farmers to seek to acquire more land. In general, the productivity of most small traditional farms has remained low, as agricultural extension and other public services have not reached them at a large scale. Low productivity of smaller farmers is driving force behind the shift of labour away from farming to cities and to neighbouring countries.

During the past ten years, the trade in private land has become more active. Farmers buy, sell, or rent land for a number of reasons including family needs and external incentives. Transactions were fuelled by the higher agricultural prices received by farmers, better access to credit, and the development of public investment in infrastructure. Additionally, land titling programs may have helped fuel the increase in land transactions because land titles make land more marketable. Finally, access to contract farming agreements with agribusiness companies

may have provided some farmers with the financial security to increase their landholdings by either purchasing or renting additional land.

In many cases, farmers who sold land are those facing social and economic distress. One recent World Bank funded study that included 36 focus group discussion (FGD) conducted in 24 villages found that two out of three FGDs reported that farmers who sold land did so because they were in default in reimbursing loans from MFIs and banks, about half reported death or serious illness of family members as reasons for selling land.¹⁰ About one third identified different reasons such as the need for cash for family obligations (e.g. marriage) and change of activities (e.g. family moving out of agriculture production).

Agricultural land transactions are likely to result in (i) increased average farm size (ii) lower labour/land ratios (iii) increase gap between small and large farmers. In the long term, because of their agricultural land transaction strategies, large farmers would accumulate more land with better quality. Sellers of their land become landless, owners of farms with fragmented land may face more difficulties in farm management, and owners of farms with poor soil fertility will result in lower agricultural profitability. A further consequence is the increase of the number of the extremes: on one hand very small farms struggling to make agricultural livelihood economically viable and on the other end, large farms with better quality assets and able to benefit from new technologies for their agricultural production. This results in a widened social and economic gap between small and large landholder farmers in rural areas.

2.4 Agribusiness in Transition

The transformation towards a more commercialized agriculture requires a set of measures that focus not only on farmers, but also on private enterprises involved in the commercialization of agricultural products and services. Multiple types of business could be termed agribusinesses. They include; input providers, producer companies, marketing cooperatives, storage operators, logistic companies, agro-processors, importers and exporters of agricultural and food products, distributors, traders, and agricultural service providers (including financial service providers, insurance providers, business service providers). Agribusiness covers multiple industries, it includes food, beverages, tobacco, and rubber plants.

In spite of the impressive growth in agriculture production, both input and post-harvest systems are nascent in their development. Cambodia's agroindustry is basic and most commodities are exported in raw form. Cambodia's agribusiness sector remains dominated by small traders and informal agro-enterprises. A modern agroindustry has started to emerge in the case of rice, but this is a recent phenomenon. Still, Cambodia realizes only about one quarter of its potential milled rice exports due to direct exports of rice paddy and internal post-harvest losses, despite there being sufficient modern milling equipment installed over the past ten years to process the entirety of the country's surplus paddy. This suggests serious weaknesses in value chains, particularly in the post-harvest system of supply chain management (collection of raw material, storage, finance, logistics, transportation, and information). These challenges constrain profit margins furthering a cycle of low productivity. Further constraining the sector, very few agribusinesses have some degree of formality (registration, accounting systems), including some of the largest domestic Cambodian rice milling companies.

¹⁰ Ibid.

Apart from rice milling, commercial-scale agro-processing activity is scant, resulting in very little value-added for the Cambodian agriculture sector. This has ramifications across valuechains. Those companies that do engage in agro-processing are generally underfunded and lacking in professional management and technical capacity. Apart from Economic Land Concessions (ELC), there has been relatively little foreign investment in agriculture.

Most investment in businesses that source agriculture stock from farmers has been domestic. The more established businesses generally source through agents or traders with whom they have long term relationships. The agents and traders also have long-term relationships with smaller suppliers or farmers. Supply networks are therefore generally well established but also opaque, and they provide little feedback to farmers.

As with agro-processing there has been little foreign investment in the supply of inputs. Large multi-national supply companies have found the market is too small or too complex to navigate. The time delay and unofficial payments required for the registration of seeds has been cited as a significant constrain on new market entrants as well as on the general quality of seeds that Cambodian farmers can access.

While the investment in rice milling capacity has been robust, overall progress of agribusinesses development has been far below its potential. The profitability of the sector, especially rice mills, is generally modest, leaving agribusiness companies with little capacity to fund extensive farmer engagement, even when this might provide higher incomes both for farmers and businesses over the long-term.

3 Engagement Models

A majority of rural small landholder farmers in Cambodia and around the world exist mainly outside the mainstream economy and are unable to take advantage of the opportunities offered by an exchange economy. For these farmers, reliance on subsistence farming may appear to be the only viable means of survival against challenges caused by market failures of various kinds. The market linkages offered by agribusiness engagement presents an opportunity to integrate small landholder farmers into market mechanisms, facilitating higher living standards and reduced vulnerability.

Cambodian economic policy takes a *laissez-faire* approach toward agriculture as with much of the rest of the economy. The RGC is eager to improve the productivity and competitiveness of the country's agriculture sector, and the private sector is universally seen as being the necessary engine of agricultural development. Agriculture policy is geared toward helping farmers integrate into the market economy which will require farmers to adopt commercial approaches to what has been a substance lifestyle. Based on the results of this Study, neither the private sector nor farmers expect, or possibly even welcome, direct government involvement in their general affairs.

Notwithstanding a major focus on improvements for rice productivity, both RGC policy and the private sector have generally practiced benign neglect of the country's agriculture sector. Until recently, the situation of farmers in Cambodia's provinces has been generally far removed from that of city dwellers. Agriculture as practiced by small landholders has largely been a family

affair as the option of last resort. Surplus crops would most often be sold to traders who would most often have networks to buyers in Thailand or Vietnam where value-added processing would occur.

Stemming in large part from the country's general economic growth and integration into the global economy and to a less extent from the RGC's 2010 Rice Policy, in recent years Cambodia has experienced a massive investment in its rice milling capacity and a tremendous agriculture productivity response from farmers, Cambodia's private sector has started to realize that the country's agriculture sector presents a potentially attractive investment opportunity. The result has been a gradual increase in direct engagement between agribusiness companies and small landholder farmers.

Vermeulen and Cotula in "Making the most of agriculture investment"¹¹ provide a useful framework of business models for small landholder engagement. These are classified under five broad headings: contract farming, management contracts, tenant farming and sharecropping, joint ventures, farmer-owned business and upstream/downstream business links.

While there a many different models for engagement between small landholder farmers and agribusiness companies, in Cambodia, the principle model has been contract farming. In this respect, the Cambodian experience mirrors that of many other countries. Among the various models, contract farming is the one that is best adapted into a system of agriculture where there are many small landholder farmers and generally weak property rights and legal infrastructure, as exists in Cambodia.

Model	Description				
Contract farming	Entails pre-agreed supply agreements between farmers and buyers. Usually, local farmers grow and deliver agricultural produce for specified quantity and quality at an agreed date. In exchange, the company provides upfront inputs, such as credit, seeds, fertilisers, pesticides and technical advice, all of which may be charged against the final purchase price; and agrees to buy the produce supplied, usually at a specified price.				
Management / lease contracts	Describes arrangements under which a farmer or farm management company work agricultural land belonging to someone else. Management contracts may take the form of a lease or tenancy, but carry the connotation of stewardship, of managing the land on behalf of the owner. To provide incentives for the farm management, the contract often entails some form of profit-sharing rather than a fixed fee.				
Tenant farming / sharecropping	These are versions of management contracts in which individual farmers work the land of large-scale agribusinesses or other farmers. In tenant farming the usual arrangement is a fixed rental fee while in sharecropping the landowner and sharecropper split the crop (or its proceeds) along a pre-agreed percentage.				

Table 2: Agribusiness / small landholder farmer Models for Engagement

¹¹ Making the Most of Agriculture Investments, FAO and IIED, 2010

Joint ventures	Entails co-ownership of a business venture by two independent market actors, such as an agribusiness and a farmers' organisation. A joint venture involves sharing of financial risks and benefits and, in most but not all cases, decision-making authority in proportion to the equity share.
Upstream /	This is an umbrella expression for the set of business opportunities beyond
downstream	direct agricultural production that exist for both agribusinesses and small
business links	landholder farmers and small local enterprises.

Source: Adapted from Vermeulen and Cotula (2010)

3.1 Contract Farming Business Models

The common denominator for all forms of contract farming models is the linkage-dependent relationship wherein a company provides inputs and technical advice to farmers who in turn supply their produce. Access to quality inputs and technical advice is a critical factor for successful farmer production. Contractor will often help farmers to overcome their financial constraints by providing advance credit or in-kind credit or by acting as guarantor to the commercials banks. The close relationship between farmers and companies allows the latter to have a comparative advantage over banks in monitoring and enforcing credit contracts. Usually, companies recover their credit when they take delivery of the farmers' harvests.

Critical ingredients for the sustainability of contract farming are mutual trust and the honouring of agreed upon contracts both of which will be assured if terms are fair; on the one side, reliable and fast payments by buyers and on the other side, reliable and prompt product deliveries by farmers. Another critical ingredient for success is the underwriting of a fair and clear contract that takes into consideration contingencies and anticipated problems; for example, a contract that includes a clause on compensation for production risks or crop insurance. However, no contracting scheme can be successful or remain sustainable if the institutional and political setting is not conducive to it.

Contract farming arrangements can be structured in a variety of ways and are country-cropcompany specific. Eaton and Shepherd (2001) classified contract farming into five different categories¹², depending on the type of product, type of company, number of actors involved and degree of integration between the activities of the sellers and the buyers, as detailed below.

• The centralized model. Often referred to as an outgrower scheme, the centralized model is the traditional model by which a company (buyer, processor, packer) buys produce from a large number of (small-scale) farmers. The level of involvement of the company during production may vary. Usually, quantity is determined at the start of the season, while price is fixed to be competitive for the company and to be attractive to farmers so they will commit to selling their produce. Quality is strictly controlled and direct linkages exist between the farming and processing activities, which are undertaken by the same business entity (vertical integration). Generally, commodities produced and traded under this model are those requiring a high degree of processing (e.g. sugar cane, tea, coffee, paprika,

¹² Contract Farming: Partnerships for Growth. FAO Agricultural Services Bulletin 145, 2001

banana, cocoa, rubber, horticulture products). Given the specificity of the commodity, the risk of opportunistic behaviour is greater and mutual trust is crucial to the success of a longlasting relationship. The relationship can be reinforced by respecting the terms of the contract and through an ongoing dialogue between parties regarding changes and issues arising during the production cycle. In Cambodia, this has often been a preferred model to procure certified organic produce.

- The nucleus estate model. This is a model whereby the company has close supervision of production: the company supplements its own production (on an estate plantation) with the production of outgrowers, who farm on their own/rented land under contract. Typically, the nucleus estate guarantees the bulk of the produce required by the processing plant (70–80 percent) and can be used as well for research and breeding. The estate provides outgrowers with inputs, technical assistance and close production monitoring and, in some cases, credit. It offers outgrowers a reliable market and a pre-agreed final sale price. This model is commonly used for the farming of perennial crops, primarily tree crops, but it is also used for the production of fresh vegetables and fruits for export, perishable products that often require a fast and high degree of processing after harvest. In Cambodia, the nucleus estate model is being promoted by a number of proposed foreign agri-processing projects involved in commodities such as cassava, cashews, and coconuts. Other companies such as Mong Reththy Group have implemented this for swine production and mango cultivation, where relatively advanced technologies are required.
- The multipartite model. This model usually involves government agencies and private companies which jointly participate with farmers. Farmers, agribusiness companies, public or private providers of credit, government statutory bodies, extension services and inputs suppliers are part of the arrangement. They undertake credit provision, production, management, processing, and marketing. There is usually significant public involvement of donors in schemes using the multipartite model. The multipartite model was often used by many developing countries in their efforts to liberalize national markets in the 1980s and 1990s. They are particularly common in Indonesia and Malaysia (rubber, oil palm) and in Africa (oil palm, sugar, tea). In Cambodia, the multipartite model is currently actively promoted by the RGC (primarily for rice cultivation) in tandem with initiatives to promote the formation of ACs.
- The informal model. This is a model whereby an informal, verbal agreement between a company and farmers is reached on a seasonal basis; the company may provide seeds and other inputs. This model is used particularly for the production of crops that require only a minimal amount of processing and is often chosen when quality control is not the main concern. It is considered to be one of the most speculative models of contract farming as it involves a high risk of default on both sides. Typically, problems that may arise are side-selling (i.e. selling contracted crops to a third party) or input diversion by farmers. The informal model is actively employed by many smaller Cambodian rice mills.
- The intermediary model. This is a model whereby a company (trader, processor) has formal contractual arrangements with various intermediaries (collector or middle person), who then informally contract a larger number of farmers. This model blends elements of the centralized and the informal models. This is a model used by traders who may act as agents for Thai or Vietnamese buyers.

3.2 Contract Farming in Practice

Contract farming is often cited as means to promote commercial agriculture and to link farmers to markets. However, the value of contract farming in development has also been the subject of intense debate. Opponents argue that large agribusiness companies are prone to exploiting the low labour cost of small landholder farmers and transfer production risks to farmers, others argue that small landholder are often altogether excluded from contract farming schemes. The result can be that such schemes actually produce greater income inequality and social tensions in rural areas, particularly due to land grabbing.

Proponents see contract farming as a means of (i) linking small landholder farmers to expanding local and export markets, thus removing some of challenges faced by small landholder farmers (ii) directing investment to agriculture to support/promote more inclusive business models with small landholder farmers. Contract farming has also been used in rural development strategies as a tool for: (i) linking small landholder farmers to supply chains (ii) overcoming factors that constrain small landholder farmer commercialization, such as institutional deficiencies (lack of access to inputs, technology and credit) (iii) providing the secure market and fixed prices necessary for sustainable crop intensification. Such arrangements have the potential for securing markets for some crops, particularly those that need processing and may otherwise not be produced.

Agribusiness companies may find that contract farming is a useful strategy to reduce transaction costs and uncertainty that would exist if certain types of crops or crops of a certain quality standard were purchased on the spot market. Researchers have found that agribusiness companies generally prefer spot market transactions to contract farming arrangements and other coordination mechanisms when: (i) the produce is non-perishable and the quality of the produce is standard and easily verifiable (ii) the farmers and/or producers are familiar with production techniques and quality requirements (iii) the market transaction costs are low.¹³ In most countries, commodities such as grains, root crops and pulses are usually traded through the spot market rather than contract farming arrangements.

Globally, it has been observed that contract farming is most often adopted by agribusiness companies for relatively high-value produce such as fresh vegetables for export or supermarkets, dairy products, poultry, rubber, palm oil, sugar, tea, tobacco and cotton. For such commodities there are generally few competing buyers.¹⁴ Typically, both farmers and companies benefit from the contract; the company ensures its raw supply, while farmers receive fixed prices, which reduces their income uncertainty. A guaranteed and fixed price structure is broadly negotiated between the parties based on prevailing spot market prices or as a percentage of world prices, and in some cases it is even indexed to stock market prices (e.g. tea, coffee, rubber).

¹³ Contract Farming in Developing Countries: An Overview, Department of Business Administration, Wageningen University, Wageningen, Holland, 2008

¹⁴ In Cambodia, RGC policy has heavily promoted the multipartite model of contract farming, and the policy focus has been particularly on rice. This would seem to be a departure from the norm internationally where rice is most often procured through spot market purchases. The adoption of rice contract farming in Cambodia appears to be a reaction to the country's lack of efficient and transparent spot market which is largely a result of the massive exports at harvest of rice paddy to Vietnam and Thailand.

SMALL LANDHOLDER FARMER AND AGRIBUSSINESS ENGAGMENT

Farmers may prefer contract farming when agriculture value chains are complex and multilayered and where there is weak flow of information from market to farm. Farmers who lack power vis a vis traders and collectors will likely prefer a contract when that contract is backed by an entity that is trusted and known in the community and when the terms of the contract are deemed to be fair. Contracts typically provide farmers with security that the contractor will purchase everything they grow within the quantity and quality set in the contractual agreement. As well as having access to a wide range of managerial, technical and extension services, farmers can also use a contract agreement as collateral against credit to buy inputs for the next planting, diversify their production and invest in their farms. The main advantages for farmers are: (i) provision of inputs and production services (ii) access to credit (iii) introduction of appropriate technology (iv) skill transfer (v) guaranteed and fixed pricing structures (vi) access to reliable/stable markets.

A disincentive for agribusiness companies to engage with small landholder farmers appear to be the high transaction costs associated with monitoring production due to the dispersion of farms, the disloyalty of farmers and the unreliability of supply both in term of quantity and quality. To facilitate working with small landholder farmers and to reduce transaction costs derived from land fragmentation and/or participant dispersion, companies sometimes organize participating farmers into small groups and around a certain crop. In general, these groups, driven by the farmers' common interests, are officially registered as associations or cooperatives. This happens at a time when the number of farmers is significant. In Cambodia, the agribusiness companies that have taken a long-term approach to developing relationships with farmers have had more success in engaging with small landholder farmers.

4 Impact of Policy

4.1 Policy in Context

The Cambodian economy is exposed to a liberal policy environment which leaves farmers and businesses to make decisions about production, trade and respond to incentives outside the constraints or control of government policy or regulation. The light touch of government policy has been said to allow market forces to dictate pricing decisions that are based on supply and demand. This liberal policy (combined with weak customs enforcement at the borders) has allowed Cambodian farmers to benefit from the demand for agricultural commodities from neighbouring countries. On the negative side, the lack of depth of and inconsistencies in government policy or regulation coupled with weak enforcement are not conducive for the long-term growth and high-grading required of Cambodia's agriculture sector. A lack of clarity of certain regulations limits the attractiveness of long-term capital investment in the sector and maintains a system whereby Cambodian farmers are largely reliant on sales to traders who supply demand for raw produce in Vietnam and Thailand.

The light touch of government policy can be said to be at least partly a legacy of Cambodia's historical past which left a popular distrust for government in general as well as weak institutions for the creation and enforcement of policy and regulation. For most small landholder farmers, government policy is a distant abstraction. The impact of policy decisions in terms of the right to titled land and access to quality seeds may be directly felt but for most small landholder farmers cannot be controlled.

Similarly, the private sector has mixed feelings about Cambodia's free market approach to regulation. The agribusiness companies interviewed were unanimous in saying that they did not expect, or even necessarily want, any government support for their activities. However, they did suggest that the government could to do more to create a more stable enabling environment for investment. The feedback from agribusiness interviews was that a lack of clear, transparent, and consistent approach to regulation creates costly roadblocks to long-term investment. For foreign investors, this lack of regulation and regulatory clarity can be daunting and explains why so few prominent multinational companies have made investments in Cambodia.

From the small landholder farmer perspective, government policy is effective when it provides a framework for inclusive business models that bring real economic benefits and accord some degree of shared power to farmers. For the agribusiness perspective, government policy is effective when it provides a framework that protects property rights and is clear without being restrictive. More broadly with respect to supporting the engagement of small landholder farmers and agribusinesses companies, to be effective, policy must meet the needs of both parties and it must allow for fair, balanced, and predictable remedies for both sides of a transaction in event of breach by either party. In this respect, Cambodian policy is generally not sufficient to meet the needs of both small landholder farmers and agribusiness companies. Where power rather than rule of law dictates a contractual relationship, neither side should be expected to be willing to enter into that relationship, despite the potential advantages to both sides.

In the following section, we identify the existing policy framework from three perspectives: contract farming, access to seeds, and land rights.

4.2 Policy Framework for Contract Farming

In recent years, RGC policy had been to encourage the adoption of contract farming programs by agribusiness companies and other buyers of agriculture commodities. This policy has largely been promoted in tandem with a policy to encourage the formation of ACs. For RGC planners, contract farming and ACs go hand-in-hand, providing reduced transaction costs to agribusiness buyers and a collective approach to farmers.

A driving force behind these measures has been a focus on increasing rice production, domestic milling, and exports as established in the 2010 "Policy Document on the Promotion of Paddy Rice Production and Export of Milled Rice", better known as the Rice Policy. The Rice Policy aims to promote diversification of Cambodia's economic sectors by catalysing growth in paddy rice production and milled rice export to match the growth seen in the garment and service sectors. The Rice Policy advocated the adoption of a three-pronged strategy focused on productivity enhancement, diversification and agricultural commercialization through implementing a package of interrelated measures: (1) infrastructure building and enhancement (roads, irrigations, energy/electricity and informational technology and communications) (2) improvement in the provision of extension services and agricultural inputs (3) land management reform (4) finance (5) marketing (6) farmer organization and (7) institutional building and coordination. As part of the rice policy, the RGC set a target of official rice exports of one million tons by 2015.

Viewed from the perspective of the Rice Policy, recent policy actions on contract farming come into focus. Recent policy actions can be summarized as a series of fixes aimed at helping rice mills access higher quality rice paddy. These policy actions directly address the RGC's aim to

improve rice mill productivity by improving millers' access to higher quality rice paddy. To access higher quality rice paddy, the RGC has encouraged mills to shift from buying rice paddy spot from traders or via informal contract farming programs to sourcing from ACs (the multipartite model of contract farming reviewed in Section 3). However, these policy measures may leave gaps in the promotion of other agriculture commodities and other models of contract farming, because (i) in many cases the multipartite model of contract farming will not be the most suitable contract farming model and (ii) few ACs are currently prepared to take on the responsibility of being a counterparty to a contract.

There are a number of special legislation related to agriculture that impact policy and regulation on contract farming, including;

- Royal Decree on the Establishment and Functioning of Agricultural Cooperatives adopted in July 2001
- Law on the Management of Crop Species and the Rights of Crop Breeders adopted in June 2008
- Sub-Decree on Contract Farming adopted in February 2011
- Law on Establishment of Agricultural Cooperative adopted in May 2013

Official government support for ACs has been practised in Cambodia for many decades. In the 1950s and 1960s, hundreds of cooperatives were established under the control and administration of the Royal Office of Cooperatives of Cambodia, with supervision by the Ministry of Agriculture. By 1965, agricultural cooperatives owned a total trading turnover of USD 13 million.¹⁵ Under the regime of Democratic Kampuchea (1975-1979), all of the cooperatives were transformed into "Popular Communes" that operated on a collectivized basis. After 1979, under the People Republic of Kampuchea, collective cooperatives were transformed into "Solidarity Groups" for collective production.

After a period of absence in Cambodia in 1979-1999, in 2001, a Royal Decree on the Establishment and Functioning of Agricultural Cooperatives was approved by the RGC. The Royal Decree, which was consented by the Council of Ministries and signed by the King of Cambodia, was issued on July 17, 2001 (Royal Decree No. 0701/234). In 2003, MAFF prepared a Prakas on the promulgation of the Royal Decree on the establishment and function of agricultural cooperatives in Cambodia.

The Law on ACs (effective since 06 June 2013), 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.

These policy measures on ACs have had the aim of bringing informal farmer organizations within the orbit of RGC (primarily MAFF) oversight with the aim of supporting development of ACs into well-managed, efficient organizations. Since 2003, the number of ACs has markedly increased, however there are still few success stories. Although RDB has a mandate under the Law on ACs to provide a guarantee on bank and MFI loans to cooperatives, to-date no such guarantees have been issued. According to RBD, they have not seen any ACs that meet minimal

¹⁵ Contract Farming in Cambodia: Different Models, Policy and Practice, Sum Sreymom and Khiev Pirom, Working Paper Series No. 104, CDRI, August 2015.

credit worthiness standards.¹⁶ Similarly, Oiko Credit, an international MFI lending organization, has had the same experience.¹⁷ Oiko Credit has not directly leant to any AC due to lack of professional bookkeeping and poor profitability, including Kampot Pepper Cooperative, which is otherwise commonly cited as a success.

Like ACs, various forms of contract farming have been practiced in Cambodia for many decades, however primarily under informal arrangements and largely in the absence of specific government regulation or policy. The RGC has promoted contract farming as a means of linking farmers to markets, principally via ACs. The Sub-Decree on Contract Farming, announced in February 2011, defines the implementation framework for contract-based agricultural production in Cambodia. Article 2 in Chapter 1 sets out four objectives as follows:

- Strengthening the responsibility and trust between producing and purchasing parties based upon the principles of equality and justice
- Ensuring the accuracy of the prices, purchases, and supply of agricultural crops, both on quantity and quality
- Increase purchasing, processing and exporting of agricultural crops
- Contribute to national economic development and people's poverty reduction pursuance (sic) of the policies of the Royal Government.

The Sub-decree defines the obligations of contract farmers and contractors (Chapter 3, Article 8), and the formalities and implementation of an agricultural production contract (Chapter 4, Articles ten and 11).

Table 3: Sub-decree on Contract Farming: Farmer and Contractor Obligations

	Obligations of farmer	Obligations of contractors				
A A A A	Comply with the terms and conditions set out in the agreement Produce required commodities based on seasonal conditions and within required time frame 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. Comply with the terms and conditions set out in the agreement	A A A	Provide producers with agricultural inputs such as propagation materials, seeds, aquatic species and animal breeds, credit advances, technical services and other supports 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.			
>	Specify quantity and quality of products, delivery date and place of delivery, and acceptance procedures					
	Formalities and implementation of the agricultural production contract					
AA						

Conflict between producers and contractors relating to contract implementation shall be settled in compliance with the terms and conditions as set out in the agreement

¹⁶ Consultant Team interview with Mr Kao Thach, CEO, RDB.

¹⁷ Consultant Team interview with Mr Kok Kao, Cambodia Country Director, Oiko Credit.

- Where conflict cannot be resolved, the disputing parties shall comply with the ruling of the CCAPC.
- > The sub-decree also mentions the institutions and coordination mechanisms led by the MAFF, which is responsible for communication and coordination and providing technical guidance and services. It states that MAFF should monitor and evaluate all functions and report to the government, and collaborate with relevant ministries and institutions.

Source: Sub-decree on Contract Farming

The Sub-decree confirms a significant role for the state in supporting contract farming arrangements (Chapter 2, Articles 4), including a specific reference to the linkage of contract farming to the promotion of ACs.

Table 4: Sub-decree on Contract Farming: Role the State

Roles of the State

- Bridge investors and farmers, producers, processors in the framework of Contract-based Agricultural Production.
- Promote and encourage the formation of associations, agricultural communities, or agricultural organizations as the bases to develop contract-based agriculture.
- Involve in addressing conflicts and problems pertaining to the implementation of Contract-based Agricultural Production on the basis of existing laws and interests of parties of the contract.
- Facilitate access to on land legal right to producing and farming parties and adequate financing to conduct agri-business and agro-industry.
- Provide enabling environment to access technical supports, good quality crop seeds, aquatic animal species, vegetation species, animal breeds, means of production, high quality of fertilizers, pesticides.
- Enhance intensive production and agricultural diversification and competitiveness of produce and transform low to high-priced products to serve domestic market and exportation.
- > Facilitate agri-business, agro-industry, and exportation.
- > Strengthen and expand the capacity and facilitate sanitary and phytosanitary inspection.

Source: Sub-decree on Contract Farming

The Sub-decree articulates its objectives, key terms, obligations of farmers and contractors, responsibilities of the coordination committee and mandated institutions in leading and implementing the Sub-decree and promoting contract farming. However, actually implementation of the Sub-decree is less clear. Although the Sub-decree was signed in 2011, policy, strategic framework and action plans for promoting contract farming are still not available for implementation.¹⁸ Furthermore, it is administratively burdensome. Among the agribusiness companies interviewed, those that started their contract farming programs before the Sub-decree was made into law unanimously reported that it had no impact on their contract farming activities. Only AMRU Rice said that it had had a significant impact on the company's decision to establish a contract farming program through ACs.

4.3 **Policy Framework for Seeds**

RGC policy toward seeds is a well-known issue with a direct, generally negative, impact on both farmers and agribusiness. Particularly, small landholder farmers are impacted by restrictive access to high-quality seeds that could improve productivity. RGC has a stated policy to

¹⁸ Contract Farming in Cambodia: Different Models, Policy and Practice, Working Paper Series No. 104, CDRI, August 2015

improve farming productivity and diversification, and there is a general recognition that current seed policy is not sufficient for the needs of the sector.

Current seed regulations do not prohibit the importation of seeds as long as the imported seeds have met the phytosanitary and quality standards set by RGC. There are no tariffs on imported agriculture materials such as seeds, fertilizers, pesticide, and agricultural equipment. As of August 2014, there were 32 active import permits, seven of which were held by CARDI for the import of rice seed for experimental purposes.¹⁹ Of the remaining 25 import permits, 14 were held by private sector companies, eight of which have permits for importing maize seed. Maize is the most widely traded seed type, and maize seed is imported primarily from Vietnam and Thailand. The very active trade in rice seed is largely informally.

At present, seed production and trade are primarily governed by the following law and regulations:

- The Law on Seed Management and Plant Breeder's Right (Seed Law). Ratified by the Senate in April 2008 to regulate production and trade of seeds, and protect breeders' rights.
- *Sub-decree 69.* Identified as "Legal Framework for Agricultural Materials and Products in Trade" aims to ensure high quality agricultural material inputs such as fertilizers, seeds, pesticides, feedstuff... to enhance agricultural productivity.
- *Sub-decree 15.* Identified as "Legal Framework for Phytosanitary Inspection" aims to prevent the introduction of quarantine and dangerous pest into the country through plants or parts of plant, plant products, seed and seed materials.
- *Sub-decree 118.* Assigns responsibilities for seed management to the General Directorate of Agriculture (GDA) under the Ministry of Agriculture Forestry and Fisheries (MAFF).

Access to quality seeds is limited by an incomplete and confusing legal framework, coupled with the observation that much of the seeds that are traded are done without adequate government oversight or seed quality monitoring. There is ambiguity in Cambodian legal framework and a discrepancy between what is required by law and actually happens in practice. For example, Cambodia's Seed Law and Sub-decree No. 69 are both mentioned as primary authority for regulating aspects of Cambodia's seed sector. These overlapping authorities confuse traders. Further complicating the compliance landscape are the overlapping inspection mandates contained in Sub-decree No. 15 (which relates to phytosanitary inspection) and Sub-decree No. 118 (which relates to plant protection and sanitary and phytosanitary issues). Constraints in the seed variety registration system create highly variable time delays and costs. Reportedly, the registration time and cost depend on the amount of unofficial fees paid, and in turn the speed at which those officials are willing and able to move the application through the system.

Access to seed is amongst the greatest constrains on Cambodia's agriculture sector and possibly amongst its easiest to solve. Representatives from both BASF and Syngenta, two of the world's leading seed distribution companies both told the Consultant Team that their companies would be unable to establish a direct presence in Cambodia due mainly to the high prevalence of unofficial fees. East-West Seed told the Consultant Team that it had taken more than a year for

¹⁹ Assessment of the Enabling Environment for Cross-border Trade of Agricultural Inputs in Thailand, Vietnam, and Cambodia, Enabling Agriculture Trade, USAID, October 2015.

their official registration as a seed trader in Cambodia. Golden Rice, a large and well-networked rice milling company, has also experienced the negative impact of Cambodia's current seed policy. However, the group that is most impacted are farmers, especially small landholder farmers, who lack access to the quality seeds necessary to improve productivity.

Within Cambodia MAFF is leading efforts to draft laws and regulations to supplement the existing legal framework governing the seed sector, these new laws include:

- Cambodian Seed Policy. Provides long-term vision and framework for seed sector development to ensure food security and agricultural productivity. The primary objective of this policy is to ensure that farmers have access to high quality seeds and a range of varieties through the most reliable and economic supply channels. MAFF will establish a Seed Management Committee (SMC) to oversee and monitor the development of the seed sector.
- National Seed Standards. Sets minimum standards required for the certification of seeds for genetic purity and identity of the variety, with a focus on standards of rice, maize, mungbean, soybean, pumpkin seeds. This document will cover the requirement, conditions and procedures of seed production and seed certification.
- Prakas on Procedure for Providing Seed Quality Certification. Aims to provide the
 procedure for granting certification of seed quality for any varieties, including existing and
 new varieties of crops that are subject to quality control for the purpose of management and
 marketing of seed production in order to protect agricultural production and increase
 agricultural productivity.

These new laws would clearly be a step in the right direction. However, their effectiveness will of course depend on how they are implemented.

4.4 Policy Framework for Land Rights

The unfinished state of land reform is another major constraint on Cambodia's agriculture sector in general, and in particular on ensuring engagements between small landholder farmer and agribusiness companies are positive for both sides. Small landholder farmers who lack title to their land are unable to borrow against their land, unable to feel secure on their land, and potentially disadvantaged when dealing with agribusiness companies that seek to engage their service on contract. For agribusiness companies, weak land tenure security and poor land administration and governance deter private investments. There are few international agriculture companies that are able to invest in Cambodia due to the potential reputational risk issues related to land rights, whether valid or not. Lack of land title by farmers also has negative ramifications for agribusiness companies. Farmers without land title are less likely to invest in their land to improve productivity.

Changing political regimes in Cambodia have left their mark on land distribution. During the Democratic Kampuchea (1975-1979) private property rights were abolished. Agriculture was collectivized and industry placed under state control. After 1979, under the People Republic of Kampuchea, the new government initiated communal production schemes and solidarity groups on agricultural land. Beginning in 1989, the government began shifting toward a market economy, initially recognized ownership rights in residential property, followed by a redistribution of collective farmland. In pursuit of equity, the government distributed agricultural land based on household composition, i.e., larger families would receive more land. Village

chiefs were responsible for land allocations, and in some areas the distribution served political rather than equitable interests. Countrywide, families received an average of 1.4 hectares.²⁰ The right to hold land was made conditioned on use of the land with the government holding a right to repossess land that lay idle.

Since the redistribution of collective farmland, Cambodia has seen significant socioeconomic changes, including refugee repatriation, urbanization, and economic and population growth, which have increased the pressure on land. The RGC holds about 75-80 percent of the country's territory under the status of "state land".²¹ The United Nations Capital Development Fund estimated that in 2010 as much as 30 percent of Cambodia's land was owned by only one percent of the population.²²

The Cambodian Constitution stipulates that all persons, individually or collectively, have the right to land ownership, so long as it is not in conflict with public interests. All Khmer legal entities and citizens of Khmer nationality have the right to own land. Foreigners are not allowed to own land in Cambodia. They may hold up to 49 percent interest in land via a Cambodia registered company (RGC Constitution 1993; RGC Foreign Ownership Law 2010a; RGC Land Law 2001). The ELC concept allows foreigners to take effective control with a 99-year lease over concessions on land that has been determined to be owned by the state control.

Key laws and regulations impact land rights include the following:

- 2001 Land Law; extends private ownership rights to residential and agricultural land, establishes a system for the systematic titling of land and creates a comprehensive dispute-resolution system. The law also governs lease rights (RGC Land Law 2001a). The 2001 Land Law recognizes the right of indigenous communities to collective ownership of their land and the right to assert and enforce their interests against third parties. Indigenous community land includes residential and agricultural land and encompasses land reserved for shifting cultivation. Under the law, indigenous communities may continue to manage their community land according to their traditional customs. The Sub-decree on Procedures for Registration of Land of Indigenous Communities (2009) requires communities to register as legal entities before registering their land rights.
- Sub-decree on Social Land Concessions (2003); was established to accompany the implementation of the World Bank-led Land Allocation for Social and Economic Development Project (LASED). Social Land Concessions (SLC) are a mechanism to grant state private land to poor landless families for residential and farming purposes.
- Sub-decree No. 146 on Economic Land Concessions (2005); establishes the legal and regulatory framework for the grant and management of concessions of land for large-scale, market-oriented development, including requirements to conduct public consultations and environmental and social impact assessments.
- Sub-decree No. 118 on State Land Management (2005); restricts ELCs to state private land. If the land is classified as state public land, the state must re-classify it as state private land before granting a concession. Sub-decree No. 118 establishes the specific authorities and institutions responsible for identifying, classifying, converting, and registering state lands,

²⁰ Cambodia – Property rights and resource governance. USAID Country Profile. Phnom Penh: USAID. <u>http://usaidlandtenure.net/usaidltprproducts/country-profiles/cambodia/cambodia-</u>

countryprofile.pdf

²¹ ibid

²² Local development outlook Cambodia: Trends, Policies, Governance. Phnom Penh: United Nations Capital Development Fund (UNCDF), 2010.

provides a basis for inter-ministerial collaboration on determining the use and management of state land, and includes some procedures for public comment.

- Regulation No. 42 on State Land Identification, Mapping and Classification (2006); provides detailed guidance for the process of state land identification, mapping and classification. To date, only partial efforts to enforce the law through mapping and classification and registration of state land have occurred.
- 2008 Land Policy Declaration; sets forth a vision of land policy in Cambodia, which includes administering, managing, utilizing and distributing land in an equitable, transparent, and sustainable manner in order to contribute to achieving the national goals of: poverty alleviation, food security, natural resources and environmental protection, and socioeconomic development oriented towards a market economy. As part of this policy, the Land Administration Policy recognizes the importance of developing an appropriate land administration system to support the post-conflict country's overall social and economic development. The goals of land administration are: to clearly register ownership and other rights over immovable properties (state and private), to conduct official transfer of those rights, to prevent and resolve land disputes in order to strengthen land-tenure security, and to ensure reliability and efficiency of the land market.

Land is accessed in Cambodia through sale, exchange, land distribution, succession, lease, gift, and concession. Under the Land Law, any person who had enjoyed peaceful, uncontested possession of land – excluding state public land – for at least five years prior to the law's promulgation has the right to request a definitive title of ownership. Those who had enjoyed such possession for less than five years may obtain a definitive title of ownership after five years.

Rights to land that does not have a certificate of title are often evidenced by Letters of Possessory Right or other documentation, referred to as a soft title. District Chiefs issue the Letters of Possessory Right evidencing the interests held and the transfer of the interest. These informal transactions are not recorded at the Land Office. In some cases, however, holders of possessory rights can apply to have their interests converted into a certificate of title.

Cambodia has had two major land titling programs – LMAP and LASSP – both of which ended abruptly. Land Management and Administration Program (LMAP) began operations in 2002 and was originally planned to run for five years, although in 2007 the project was extended for a further two years. The extension of LMAP ended prematurely in acrimonious circumstances after a disagreement between the World Bank and the Cambodian Government regarding the application of the project's resettlement policy.²³ The overall goal of the project was to reduce poverty, promote social stability, and stimulate economic development. In order to achieve this broad goal, the project had the specific objectives of improving land tenure security and promoting the development of efficient land markets. Before the program ended, it had issued more than 1.1 million land titles, mostly to poor people in rural areas.

Although financing for LMAP was cancelled, the titling program continued under Land Administration Sub-Sector Program (LASSP) which had similar objectives. LASSP continued until it was abruptly suspended by Cambodian Prime Minister Hun Sen on 11 June, 2013, until after national elections scheduled for 28 July, 2013. It was never revived. By the end of LASSP,

²³ World Bank, Statement from the World Bank on Termination by Royal Government of Cambodia of the Land Management and Administration Project, 6 September 2009.

http://web.worldbank.org/WBSITE/EXTERNAL/COUNTRIES/EASTASIAPACIFICEXT/CAMBODIAEXTN/0,,contentMDK:22303344~menuPK:293861~pagePK:1497618~piPK:217854~theSitePK:293856,00.html

the two programs had registered or where in the registration process for 3.5 million land parcels.²⁴ In late 2015, Germany, the Land Management Ministry's last remaining international partner on land rights projects ended its support, citing that "it has not been possible to find a consensus on certain major issues", according to Friedrich Kitschelt, a state secretary at Germany's Ministry for Economic Cooperation and Development in a September 2015 letter to Land Management Minister Im Chhun Lim.²⁵ Millions of parcels remain unregistered. According to USAID, it is estimated that it will take approximately 30 years for the remaining parcels to be registered.²⁶

As detailed above, the land titling process has been a particular failure for Cambodia. The poor have been systematically deprived of their rights and prevented title land that for many has been now held for decades or longer. Similarly, the SLC program has not reached its potential. Overall, weak enforcement of tenure rights has made it possible for influential individuals and groups to acquire large landholdings to the exclusion of millions of landless or marginally landless rural households.

The 1989 land reform is often criticized for having an unintended adverse effect on womenheaded households (which tend to have fewer adult labourers) because the distribution of agricultural land was based on family size. Women-headed households often received less land and land of inferior quality, handicapping their ability to provide for their families and generate income from the land. War widows own less land than the general population, of those that own land, 84 percent own less than 0.5 hectare and nearly half of all war widows do not have access to any land. ²⁷An Oxfam land study found that, landlessness was significantly higher for women-headed households. In Oxfam's survey sample, one in eight families was landless, but the figure for women-headed households was 21 percent, or one in five.²⁸ Land rights is an issue with direct impact to women.

Control and ownership of land presents many challenges. While the ELC program has finally been suspended, so has the land titling program. The necessary policy framework exists to grant land titles to the rural poor but the implementation is lacking.

USAID. http://usaidlandtenure.net/usaidltprproducts/country-profiles/cambodia/cambodiacountryprofile.pdf

²⁷ Ibid.

²⁴ http://www.finnmap.com/projects/land-titling-program-development-modern-multi-purpose-cadastralsystem-lassp/

²⁵ In Frustration, Germany Ends Key Land Rights Work, Cambodia Daily, February 4, 2016, https://www.cambodiadaily.com/news/in-frustration-germany-ends-land-rights-work-107406/

²⁶ Cambodia – Property rights and resource governance. USAID Country Profile. Phnom Penh:

²⁸ Cambodia Gender Assessment – A Fair Share for Women, Asian Development Bank, 2004

5 Case Studies

The Consultant Team identified six different models of contract farming to document best practices and practical lessons learned about how small landholder farmers and agribusiness companies engaged in Cambodia. To undertake the following case studies, the Consultant Team interviewed leaders within each agribusiness company and then interviewed a diverse group of farmers (by gender and size of landholding) that are currently engaged with those companies on contract.

The case studies are organized as follows:

- Contract Farming through ACs (Multipartite Model). In 2013, AMRU Rice initiated a contract farming that is highly adapted to recently RGC policy actions. AMRU Rice expects to involve as many as 6,000 households through at least 13 ACs.
- Semi-Formal Contract Rice Farming (Intermediary Model). Angkor Kasekam Roongroeung (AKR originated large-scale contract farming in Cambodia when the company was first established in 1999. AKR's contract farming program now directly reaches as many as 40,000 households through a semi-formal seed supply based contract.
- Developing New Models for Contract Rice Farming (Multipartite Model). In 2014, Golden Rice initiated a contract farming program with three ACs that relied on the introduction a new high-yield rice seed. By the end of 2015, the program had been suspended by MAFF over registration issues with the seed variety.
- **Creative Value from a Domestic Artisanal Product (Centralized Model)**. Confirel was established with the objective to make a profit while also creating value for rural Cambodians though the exploitation of palm sugar. Confirel requires strict quality standards and has high monitoring costs for its outgrower contract farming model.
- Creating Market Linkages for Vegetables (Centralized Model). Lors Thmey is a Cambodian social enterprise dedicated to sustainably improving the lives of small landholder farmers. In 2015, the organization started a pilot vegetable outgrower program whereby Lors Thmey with partner World Vision aim to provide farmers with security and training to take greater risks.
- Agriculture Cooperatives as Market Maker (Multipartite Model). Kampot Pepper has become a tremendous success for Cambodia and a potential model for other artisanal products. Kampot Pepper Cooperative has the task of making a market for its members' produce and for managing the supply of Kampot Pepper. The Kampot Pepper Cooperative is recognized as one of Cambodia's most successful cooperatives and serves as an example of how an AC can act as intermediate between agribusinesses and small landholder farmer.

5.1 Contract Farming through ACs – AMRU Rice

AMRU Rice is among the largest and best established domestic Cambodian agribusiness companies. AMRU Rice was originally founded by the Ly family in 1968, who established one of the biggest mills in Cambodia and began by supplying mostly to the domestic market. In 1996, AMRU Rice began exporting crops such as paddy rice, soy bean, yellow corn, and green beans to Vietnam and Thailand. By 2009, AMRU Rice started to export Cambodian rice to Malaysia, China, European Union, Africa, and the North America. Initially, the company was focused on trading rice milled by other processors but in 2012 it completed its first rice milling plant by which time it was the fourth-largest rice exporter in Cambodia. AMRU Rice now operates the three rice milling plants. Total 2015 output was 80,000MT milled rice per year and

100 MT on output of rice paper and rice noodle. The company achieved total of USD 32 million in 2015 with 250 permanent staff and 80 temporary employees. Throughout its operating history, AMRU Rice has focused on procuring rice paddy through a network of trusted suppliers who aggregate from farmers. In 2013, the company initiated its first contract farming program.

In 2013, AMRU Rice initiated its first contract farming program. Of the six contract farming programs, the Consultant Team found that AMRU rice's model is the one that is best adapted to RGC policy with regard to both contract farming and ACs. With initial support from GIZ, AMRU Rice established partnerships with selected ACs in Preah Vihear province, an area of Cambodia that has experienced rapid deforestation and expansion of farmland in recent years. Under the program, AMRU rice engages in direct partnerships with ACs for the supply of certified organic rice paddy. Contracts between AMRU Rice and ACs stipulate targets for quantity and quality of rice paddy supplied. AMRU Rice pays AC's directly for rice paddy and AC's then pay farmers less a service fee of 20-30 Riel/kg.

AMRU Rice provides Pka Rumduol seed, a high-quality, MAFF registered variety of jasmine rice seed that is adapted to the upland growing conditions in Preah Vihear province. AMRU Rice has procured its seed from AQIP Seed Co. a for-profit company, associated with state-owned Cambodian Agricultural Research and Development Institute (CARDI), that is Cambodia's only successful seed supply company. AQIP Seed Co. was established by the Australia-funded Agriculture Quality Improvement Project (AQIP). AMRU Rice also funds ECOCERT organic certification for farmers who are members of the program through each AC. AMRU Rice has an on-going partnership with Supreme National Economic Council (SNEC) and Cambodian Organic Agriculture Association (COrAA) which provide support to ACs and direct organic farming extension services to farmers.

AMRU Rice pledges to purchase rice paddy at either a fixed price or 15-30 percent premium to the market price for similar rice paddy depending on the contract. Additionally, AMRU Rice pays for transportation of rice paddy to its Battambang rice mill for processing.

AMRU Rice's contract farming program started with five ACs and 800 households and then expanded to eight ACs the following year, then to 13 in 2015, comprising 2,000 households. The program aims to expand to 6,000 households in 2016 and 8,000 households by 2020. The rate of expansion has been primarily limited by the requirement to certify paddy land as organic. In 2014, the eight ACs that were then partnered with Amru Rice signed an agreement with the company to produce and supply 1,800-2,300 tons of organic rice. Ultimately, nearly 1,500 tons of high-quality certified organic rice (18.6 percent less than agreed) was supplied to the company. Organic rice was sold between 1,170and 1,450 Riel/kg, depending on quality (the average price was 1,253.53 Riel/kg). The eight ACs earned gross income of 1,837,294,530 Riel (about USD 459,000) and USD 65,000 worth of bonus compared to rice of similar quality. In 2015, the 13 ACs signed an agreement with Amru Rice to produce and supply 5,000 tons of organic rice in compliance with E.U. and U.S. standards to Amru Rice (2,500 tons of fragrant rice and 2,500 tons of white rice). In 2015, the ACs supplied nearly 4,000 (20 percent less than agreed) of the 5,000 tons of organic rice called for in the agreement. The 13 ACs supplied nearly 4,000 tons of organic rice to Amru Rice. Organic rice was sold for between 1,260 and 1,510 Riel/kg depending on quality (the average price is 1,385 Riel/kg). The 13 ACs supplying organic rice earned gross income of 5,600,000,000 Riel (about USD 1,400,000) and USD 360,000 worth of bonus compared to rice of similar quality.

The Consultant Team interviewed 15 farmers who participate in AMRU Rice's contract farming program. All farmers reported that they had received training from COrAA under the SNEC's project. No farmers reported that they have title to the land that they farm. Responses to the question of whether agribusiness companies prefer to engage with men or women was split with all women saying that they prefer to work with women and all men saying that they prefer to work with men. Only about half of the farmers (mostly women) interviewed knew that the ultimate buyer of their rice paddy was AMRU Rice.

All farmers reported that they had taken a loan through their AC of either one or two million Riel (USD 250 / 500) which was primarily used to pay for fuel and labour. The two million Riel is available if the borrower is willing to name their house's title as collateral. The rate of interest is 2.5 percent per month with a one-year term. Finally, all farmers reported that they do not wish for their children to continue to work as farmers.

Farmers reported a wide range of rice paddy yields, ranging from 0.25 to 2.5 tons per hectare, however, most farmers said that they got about one ton per hectare. Many farmers cited lack of labour availability as a primary factor for lower than expected yields. Farmers generally earned about 1250 Riel/ kg depending on the quality of their rice paddy. AMRU Rice fixes four categories of quality in advance. Certified organic rice paddy received added price from 125 Riels/kg to 260 Riels/kg depending on the quality classification.

Despite the variability of yields, all farmers reported that they are happy with AMRU Rice's contract farming program. At the start of the program, some farmers reported that the majority of the neighbours hesitated and wanted to see the experience of other farmers before engaging. Even farmers, who engaged in the program at the beginning, had doubt and did not engage their entire rice field. However, after two years of success in production and higher prices, more farmers are trying to join the program and those who's already members want to increase their land size in order to increase the capacity of the production.

Overall, AMRU rice's contract farming program has been a success for AMRU Rice, ACs, and farmers within the program. AMRU Rice has been able to develop an alternative supply for high-quality organic rice paddy. The position of ACs has been strengthened by the program and their ability to serve their members expanded. Farmers have benefited from a stable buyer willing to offer a premium price. AMRU Rice was the only agribusiness interviewed that reported that the introduction of the Law on ACs and clarification of regulation of contract farming have been important to its willingness to engage directly with ACs. The program has also benefited from a focus on organic certified rice paddy which allows AMRU Rice to capture higher margins that it can partially pass on to farmers. Finally, the program has also benefitted from its focus on Preah Vihear province which is not an area that is famous for rice paddy cultivation and thus AMRU Rice may have less competition from other buyers. Further, farmer in Preah Vihear tend to be relatively large since they are mostly located on land that was only recently cleared of forests.

AMRU Rice's contract farming appears to be a successful model for the RGC concept for contract farming. However, AMRU Rice has invested considerable effort in the establishment of

the program. Moreover, AMRU Rice is, by all accounts, a very well-managed company. Although the program supplies only a small fraction of the company's annual volume, there appears to be considerable opportunity for its expansion.

Name	Sex	Age	Family Size	Contracted Land (ha)	2015 income (USD)
In Sdeung	Female	45	11	7.5	2,125
Phong Sophy	Female	28	4	5.0	1,780
Khy Sokhom	Female	51	5	2.5	1,625
Tey Khim	Female	50	4	4.0	325
Say Kheang	Female	33	3	3.5	875
Yong Sok Kean	Male	37	6	2.0	620
Kang Rumdoul	Male	38	11	1.0	324
Va Savang	Female	62	4	2.0	250
Soth Pan	Male	31	4	2.5	1,750
Say Roeung	Female	40	6	1.5	1,240
Duong Khan	Female	52	4	2.0	794
Mai Soeum	Male	30	4	2.5	934
Chan Vanline	Female	48	6	2.0	1,750
Yim Naing	Female	57	6	3.0	1,750
Chhun Eng	Female	48	6	1.0	597

Table 5: AMRU Rice contract farming program members

5.2 Semi-Formal Contract Rice Farming – Angkor Kasekam Roongroeung

Angkor Kasekam Roongroeung (AKR) has been milling rice in Cambodia since 2000, making it one of the longest-established milling operations in Cambodia. The company is notable for having pioneered contract farming of rice paddy in Cambodia, having started its contract farming program even before its rice mill was operational. AKR has historically been primarily focused on sourcing and milling a specific variety of aromatic rice, namely Neang Malis. Before the company was established, AKR's founder researched and isolated their Neang Malis rice variety from among the hundreds of varieties that are locally and informally cultivated in Cambodia. Over time, the desirability and brand value of Neang Malis rice has grown and other millers have attempted to market their product as Neang Malis. In an attempt to protect its brand, and out of concern for a perception of lower quality standards at other mills, in 2012, the Company secured exclusive rights from Cambodia's Ministry of Commerce to name its rice Neang Malis.

AKR's contract farming program is based on the intermediary model whereby a company has formal contractual arrangements with various intermediaries who then informally contract a larger number of farmers. AKR management said that they estimate that up to 50,000 farmer households are currently within AKR's "Angkor Agriculture Association" (AAA), though it does not maintain records of its membership beyond the commune level and as explained below most of these farmers no long have any relationship with AKR. The company establishes commune associations to help enforce contracts. Each commune association consists of a head, a deputy and the village head. The head and deputy are trained by the firm to understand the

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basic technical aspects of organic farming and the farming of Neang Malis. AKR channels its policies through the associations and provides extension services via its agents.

Under ARK's contract farming program, the company manages the distribution of Neang Malis seeds on "loan" to AAA members and guarantees a floor price of Riel 500/kg for Neang Malis rice paddy. (Note, the floor price has never changed since the start of the program more than 15 years ago.) The Company provides 40kg of seed per hectare planted with Neang Malis seed. Neang Malis seed is actually recycled paddy that is sourced from AKR's most trusted farmers. At harvest during November-December, AKR purchases Neang Malis paddy from farmers who are required to pay for delivery to the rice mill. ARK takes a nominal "cut" of an equivalent weight in paddy as was loaned as compensation for the seed provided. Farmers who do not deliver their paddy to the company are supposed to be charged a fee for the seed that they received, however since there is now so much Neang Malis paddy this is no longer actively enforced. Additionally, at harvest AKR pays a commission of Riel 20/Kg of AAA member paddy directly to the commune chief in exchanges for his effort to organize farmers in the commune.

AKR stipulates that farmers should not use chemical pesticides and fertilizers but the company has not directly certified its products as organic or chemical free, and it has little control over the actual use of chemicals because it does not directly monitor their use. The company had historically focused on sourcing from Kampong Speu province though AKR also sources form other neighbouring provinces. Most of Kampong Speu is a relatively high plateau where growing conditions are thought to be very good for varieties of jasmine rice. Given that the province has limited irrigation, almost all farmers are only able to produce a single wet season harvest.

Over the past 15 years, cultivation of AKR's Neang Malis variety has greatly expanded. Management said it believes that 100,000 to 200,000 tons of Neang Malis paddy is produced each year. AKR do not currently have the resources to purchase the entire Neang Malis paddy produced using its seed from AAA members. As competitive pressure for paddy has increase and AKR has expanded the capacity of its rice mill, the company has not been able to maintain its contract farming based supply chain. To smooth its operations and because its informally maintained contract farming program has become large, cumbersome, and disorganized only around half of rice paddy milled is Neang Malis. AKR estimates that only about ten percent of its rice paddy is purchased through the company's contract farming program, with the remainder sourced from traders and collectors. Even a majority of Neang Malis is now sourced from traders and collectors rather than through the contract farming program.

The Consultant Team met with 14 "AAA" farmers in two villages. Both villages are in Preah Sre commune, Oudong district, Kampong Speu province. The Consultant Team met with ten farmers in Kbal O village and with four farmers in Trapaing Sangke village. Amongst the farmers, none said that they have title to their land. Total landholdings of the 14 farmers ranged from a high of four hectares to a low of just 1 hectare. Land used to produce Neang Malis ranged from three hectares to just one half hectare. The Consultant Team met with eight female farmers. Views on whether agribusiness companies favour men or women were widely mixed; all female farmers said that women are preferred and men said that either they did most of the work or that there is not preference. No farmers said that they would like for their children to

also become farmers though a number of them said that they do not expect they will have other options.

Kbal O village farmers started contract farming with AKR in 2000. A high degree of mutual trust has been established between AKR, the head of the commune, and village farmers. Rice paddy from this community is selected and kept for seed distribution to other AKR farmers. Amongst the farmers in the village, all 100 households grow Neang Malis on contract. About 70 percent of production is Neang Malis and the remaining 30 percent is a white rice variety preferred for family consumption. The farmers form a local community to work with AKR under the leadership of the head of commune. The head of Preah Sre commune, Mr. Khoy Hun, who is based in Kbal O village, manages farmers in a total of 18 different villages who also cultivate Neang Malis for AKR. He said that he does not plan to register the community with MAFF to become an AC. In 2015, Kbal O village farmers earned approximately 1,500 Riel/kg for rice paddy delivered to the AKR rice mill. Starting in 2015, payment was made directly from ACLEDA Bank, Oudong branch which is near to the village. AKR issues a receipt to farmers that they used to claim their cash at the bank. Farmers reported an average yield of two tons/ha.

Approximately 50 farmers in Trapaing Sangke village, which is about 5 km away from Kbal O village, started to cultivate Neang Malis with AKR in 2011. Yields in 2014 were not good. When the village brought their rice paddy to the AKR rice mill, they were disappointed that the company deducted 30 kg/ton (3%) because AKR said that they detected some disease. For the 2015 growing season, farmers remained on contract with AKR and received seed for cultivation. However, at harvest they were reluctant to bring their rice paddy to AKR fearing that the company would again make a deduction. Farmers also reported to the Consultant Team that they were told by the head of their village that the AKR price of Neang Malis rice had reduced to 1,280 Riel/kg. Farmers were disappointed with this price and decided to sell to a trader at the price of 1,200 Riels/kg because if they brought to AKR, they would pay 50,000 Riel/ton for the transport. The farmers of Trapaing Sangke village were distrusted when they were informed by the Consultant Team that AKR had offered 1,500 Riel/kg at the 2015 harvest. These farmers said that they had checked with Kbal O village who had confirmed the erroneous price of 1,280 Riel/kg. It is notable that the head of Trapaing Sangke village is the son-in-law of Mr. Khoy Hun, head of Preah Sre commune who lives in the Kbal O village. The head of commune has a relative who is a trader who bought rice paddy from farmers to sell to AKR. Farmers in some other villages got the price of 1,200 Riel/kg too.

None of farmers said that they took any micro-finance loans to augment their production, except for Mr. Ros Pao of Kbal O village who said he had taken a USD 10,000 loan at 1.5 percent per month. With this loan, he said that he purchased about 30 tons of Neang Malis from other farmers at 1,400 Riel/kg and then he sold the rice paddy to AKR for 1,500 Riel/kg, for a marginal benefit of 100 Riel/kg less transportation costs. Given that his earnings would have been minimal as described and in light of the Trapaing Sangke village, it could be speculated that he was actually purchasing rice paddy at 1,200 Riel/kg.

AKR management acknowledges that its contract farming program has become unwieldy and poorly managed. The company is currently in process of implementation a Management Information System (MIS) to enabling active tracking and monitoring of AAA farmers. Whether

such a system would enable the company to avoid incidents like the Consultant Team uncovered in Trapaing Sangke village remains to be seen. That this could happen is because of the evident deficiencies in AKR's current informal approach to contract farming. It needs to be pointed out that Trapaing Sangke village farmers did cheat on their contract with AKR, however in their defence they did so because they believed they would lose money if they delivered their rice paddy to AKR. The intermediary model of contract farming coupled with the company's lax approach to monitoring prevented sufficient, reliable information flow to farmers, to the detriment of both AKR and to the farmers of Trapaing Sangke village.

Name	Sex	Age	Family Size	Contracted Land (ha)	2015 income (USD)
Khoy Hun	Male	62	7	2.0	1,500
Ros Pao	Male	38	6	3.0	2,062
Rin Sokha	Male	50	8	1.5	1,125
Khim Phan	Female	65	6	2.5	1,800
Ann Rom	Female	62	7	3.0	1,687
Yeay On	Female	70	3	1.0	750
Ros Ran	Female	40	4	1.0	750
Mao Nang	Female	54	6	1.2	937
Heng Khun	Male	72	5	1.5	1,200
Chen Theng	Female	70	2	0.7	450
Pheth Kry*	Female	39	5	0.5	N/A
Yom Mao*	Male	37	4	1.0	N/A
Moay Hak*	Female	48	6	1.3	N/A
Moay Heng*	Female	45	5	0.5	N/A

Table 6: AKR contract farming program members

* Trapaing Sangke village farmer

5.3 Developing New Models for Contract Rice Farming – Golden Rice

Golden Rice is a Cambodian rice miller and exporter, specialized in producing high-quality Cambodian Jasmine rice. The company was founded in 2008 with initial support from French development finance institution, Proparco. Golden Rice was established with the intention of helping to catalyse Cambodia's rice milling and export sector. Currently, the company has a processing capacity of more than 200,000 tons of paddy per year and is staffed by 350 people. Golden Rice exports around the world, primarily to the EU. Throughout its operating history, Golden Rice has focused on procuring rice paddy through a network of trusted suppliers who aggregate from farmers. In 2014, the company initiated its first contract farming programs.

Golden Rice's model for contract farming has been to work in partnership with three ACs: Kampong Prasat AC in Kandal province (the majority of its members who engaged in the contract farming with Golden Rice are in Batheay district, Kampong Cham province), Chey Chumneas AC in Kampong Chhnang province, and Sanok Soksenchey AC in Takeo province. The company focused on the development and deployment of a high-yielding variety of non-photosynthetic jasmine rice, called Pka Kravan that the company imported from Vietnam. Under the program, Golden Rice supplied (150kg/ha) seed directly to farmers on credit. Farmers were offered a fixed price of 1,020 Riel/kg at harvest for wet rice paddy, less 100 Riel/kg in

service fee to the AC for all rice paddy sold to Golden Rice. Farmers, who do not sell their entire Pka Kravan crop to Golden Rice, would be penalized through a (relatively modest) fee of 6,000 Riel/kg for the seed initially provided.

Golden Rice developed its contract farming program with support provided by SNEC. The company provides training to farmers to grow its Pka Kravan variety. Golden Rice required that farmers contract the company three days before harvest. At harvest it would collect wet rice paddy at the farmgate, and then make payment via bank transfer to the AC of which the farmer is a member. The AC then would make cash payment to the farmer.

Farmers reported that they were very satisfied with Golden Rice's contract farming program and particularly with the seed variety. Farmers reported yields of between 4-6 tons/ha which far exceeds typical yields in Cambodia using other varieties. Additionally, farmers benefited from being able to obtain two harvests from the seed. Whereas farmers would typically only earn 700 – 750 Riels/kg for wet paddy, Golden Rice offered 1,020 Riels/kg. The quantity of Pka Kravan seed used was also less than traditional seed (150 kg/ha vs 350 kg/ha). For example, farmer in Chey Chumneas AC in Kampong Chhnang province found the program very attractive. During the program's first phase 18 households were engaged in the program on a total land of 54 ha, using 10,800 kg (200 kg/ha) of seed which yielded 213 tons paddy. During the second phase 54 households were engaged in program on 104.6 ha. Before the program was suspended, 250 additional households intended to join. As a further testament to the desirability of the program, three of the ten farmers interviewed reported that they took out loans to rent additional rice land to cultivate Pka Kravan.

Golden Rice's experience with contract farming highlights the challenge that Cambodia's agriculture sector in general faces vis a vis access to quality seeds. In particular, there are ten approved and registered varieties of rice in Cambodia, developed with the intent to support the propagation of native rice varieties. At the end of 2015, Golden Rice was forced to suspend its contract farming program because MAFF determined that the seed variety being used has not been officially approved.

The Consultant Team interviewed ten farmers – five in Kandal province and five in Kampong Chhnang province – who had been members of Golden Rice's contract farming program. All farmers in Kandal reported that they hold title to their land, but all farmers in Kampong Chhnang reported that they do not hold title to their land. Most farmers reported a total landholding of less than two hectares. Seven of ten farmer reported that they did not wish for their children to continue farming with many noting that their children had already moved away. Mr. Chey Saloun, who is also head of the Chey Chumneas AC and the owner of nine hectares, said that he would like his children to continue to farm but he also admitted that his children are not very interested in it. Most farmers interviewed either said that agribusinesses do not care whether they engage with men or women or that they prefer to engage with women. No interviewee suggested that they prefer to engage with women.

Several farmers reported accessing microfinance loans. Three of five members of Chey Chumneas AC interviewed (including the head and two others who rented land for the program) reported that they had borrowed money from the AC at 2.8 percent per month. Mr. Than Tao who has 0.8 hectares of rice land rented an additional three hectares for USD 200 per year. He

took a loan of five percent per month from private money lender to finance land rental and other costs.

The farmers who were part of Golden Rice's contract farming program all expressed frustration about the program's suspension. They had little understanding of the reason for the suspension and primarily blamed Golden Rice. Clearly, both Golden Rice and farmers benefited from the program. The suspension underscores the challenges that even relatively large and successful agribusinesses can face in operating in Cambodia where regulations can be unclear and where official approval can require a long lead time.

Name	Sex	Age	Family Size	Contracted Land (ha)	2015 income (USD)
Chea Chim	Male	54	12	1.0	1,530
Than Tao	Male	48	5	3.8*	3,876
Touch Non	Male	50	3	0.7	964
Nhem Penh	Male	45	5	4.0	2,550
Sek San	Male	38	4	3.0	1,887
Khan Srey Nich	Female	20	6	3.0*	3,250
Srey Savan	Female	40	5	1.0*	1,500
Ong Horm	Male	46	8	2.5	1,750
Chey Saloun	Male	47	8	7.0	10,750
Vong Sam-ol	Male	48	7	0.8	1,250

Table 7: Golden Rice contract farming program members

*Rented land

5.4 Creative Value from a Domestic Artisanal Product – Confirel

Confirel was founded in 2001 with the objective of creating value from the country's domestic artisanal products. At the start Confirel aimed to be a for-profit business that would be capable of improving livelihoods of local populations by creating value from the sugar palm tree. The sugar palm tree, 'skor t'not' (Borassus flabellifer), is one of Cambodia's national icons. It is found throughout Cambodia and plays a very important role in providing a source of income for many Cambodians as well as providing material for many traditional home uses. Today, the company earns about 50 percent of sales from primarily branded packaged products in Cambodian and about 50 percent from primarily bulk export. In addition to products made from palm sugar and sap, the company also focuses on pepper products. Most of Confirel's products are certified as organic by ECOCERT.

Confirel provides farmers with training and specific guidelines to ensure the produce complies with stipulated international criteria. For example, when collecting the palm sap from the trees, small wood chips (which must also be certified organic) are placed inside the liquid to prevent early fermentation or any bacteria entering the liquid. No chemical fertilisers can be used on the trees, which are individually selected and tested. Farmers must also make a daily register of procedures and are audited annually to ensure standards are continuously met.

Confirel sources palm sugar from Small Landholder Farmers in Kampong Speu province, which in 2010 was awarded Geographical Indication (GI) status for palm sugar following a push by the company. Kampong Speu Palm Sugar Promotion Association (KPSA) manages the GI protection with funding provided by private companies such as Confirel. Confirel only sources a minimal quantity (5-15 tons per year) of its supply from KPSA (versus around 300 tons produced through the association in 2015). The company has focused on marketing its products as organic but has seen little value in the Kampong Speu GI label for its palm sugar.

Confirel currently contracts about 30 farmers for its supply. The company first entered into contracts with 15 producers in 2008 in Rorng Damrey village, Phnom Toch commune, Oudong district, Kampong Speu province. Initially, Confirel trained producers to make high-quality, organically produced dry sugar from palm sap. Confirel provided all necessary equipment for producing dry palm sugar such as table for drying sugar, filter, platter, record book, and other materials.

At the time that Confirel started to source on contract, producers had no option other than to sell to local middlemen. The price of palm sugar paste was around 2,000 Riels/kg, however prices and purchase volume were not stable and producers could generally not sell all their production. The Confirel contract provided producers with a stable and high price and a guaranty on sale volume. The price provided by Confirel in 2008 was 3,200 Riels/kg (1,200 Riels higher). Confirel has since increased the price for producers by 200 Riels per year to the current 2016 price of 4,600 Riels/kg. Confirel has gradually increased the purchasing capacity and has expanded the production area, however growth has been limited by a slower than expected growth of the company's palm sugar product sales. In 2015, 8 new producers were selected and in 2016, Confirel selected 5 more. In the past, producers in this village had contracted Confirel but the company could not take them on contract due to their limited demand.

Producers generally exploit from 20 palm trees to 40 palm trees, and several said that they have rented trees to earn more income. The rental fee is generally 5kg of sugar paste per tree per year. Confirel requires producers to adhere to strict quality standards. Confirel procures weekly during the dry season harvest at which time each producer's produce is tested for quality.

The Research Team met with ten producers who sell on contract to Confirel. All but one of the interviewees, Ms Yoeung Da, who described herself as being a housewife, were men. All interviewees, including Ms Yoeung Da said that in their agribusiness companies prefer to engage with men. A possible reason for this feeling is that the job of collecting palm sap is traditionally only for men, while women are traditionally in charge of cooking the sap. All producers said that they have title to their land, and all but two had 1 hectare or less of rice land. None of the interviewees said that they would like their children to continue to rely on farming for their livelihood.

Producers who have engaged with Confirel have been satisfied with the relationship. While middlemen buyers currently offer 2,000 – 2,500 Riels/kg for palm sugar paste, Confirel purchases for 4,600 Riels/kg for dry palm sugar (10 kg of palm sugar paste is equivalent to 7 kg of dry palm sugar). However, some producers still told the Research Team that they feel that the increase price of 200 Riels/kg/year has been too little, despite the wide gap between the Confirel and middlemen price.

Several of the producers were relatively sophisticated in thinking about farming as a business. Several said that they have recently sold some of their rice land. They said that if they keep rice

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land, they will earn less income because the yield and price of rice are low. However, by selling they can earn money to invest in other opportunities that bring more benefits.

Confirel's contract farming model relies on direct relationships with farmers because the company's strict quality standards. This type of engagement is more expensive than sourcing from an AC but allows Confirel greater control over its quality. While the Kampot Pepper Association has focused on quality standards, this has been more challenging for KPSA largely because palm sugar is a much more ubiquitous product in Cambodia that still has only limited international appeal. The standards required by Confirel could not be met by local ACs.

Name	Sex	Age	Family Size	Palm Trees	2015 income (USD)
Mang Than	Male	49	4	20	2,000
Yoeung Da	Female	44	7	25	2,500
Sam Khon	Male	56	5	25	2,200
Rin Chhon	Male	43	6	30	2,200
Outh Roeun	Male	55	5	30	2,200
Nov Nheuk	Male	57	6	10	1,100
Ty Vanna	Male	52	6	20	1,980
Sok Pheakdey	Male	37	5	35	2,500
Hoeung Uy	Male	32	6	30	2,030
Sao Am	Male	38	8	40	3,300

Table 8: Confirel contract farming program members

5.5 Creating Market Linkages for Vegetables – Lors Thmey

Lors Thmey—meaning 'New Growth' in Khmer—is a franchise company that aims to create value for small landholder clients through high-quality advice, products, and service. The company is a social enterprise in that it has objectives for both financial achievement and positive social impact with a particular focus on improving the livelihoods of small landholder farmers. Lors Thmey is owned by iDE, an international non-profit development organization, which began developing the micro-franchise approach for agricultural products and services in 2005. The aim was to develop a commercial model that could improve small-scale farmers' ability to access affordable, high-quality agricultural inputs and advice. Core revenue generating activities centre around the sale and distribution of agricultural products through a network of franchised Farm Business Advisors (FBAs).

Lors Thmey provides centralized services to the franchise network including: strategy, promotion, ICT systems, bulk purchase, quality control, and agronomy training. FBAs are franchisees who earn income by selling inputs and services to their small landholder clients. FBAs provide advice as an embedded service at the time of sale and throughout the growing season. Lors Thmey's product mix is designed to reduce risk, improve productivity, and increase income from rice and vegetable crops: seeds, fertilizer, pest control, and others. Produce collection and marketing services are also being developed.

The franchise model has focused on generating income at three different points along the supply chain of agricultural production. Small landholder farmers can earn higher incomes

through use of quality supplies and up-to-date methods. As independent entrepreneurs, FBAs earn margins on the sale of products and build their customer base by providing advice that works. Finally, Lors Thmey earns a profit selling products to its franchises enabling the company to become financially sustainable.

In 2015, Lors Thmey started a pilot project for a fourth model of income generation whereby its serves as market maker for farmers growing vegetables on contract. Working in partnership with World Vision, the pilot project has engaged 13 farmers, and another 19 farmers are in the process of joining the program. To-date, the pilot project has focused on cucumber farming but plans are in place to expand to other varieties of vegetables.

Under the pilot, farmers can access subsidiaries from World Vision for their initial costs as well as a loan. The subsidy is generally approximately 30 percent of total investment for purchase seed, pesticides, fertilizers, and materials (drip irrigation, plastic cover, etc.), but some farmers (including two of the ten farmers interviewed) received a 100 percent subsidy (because they are in the category of poor farmer). For a 2,000m2 farmer, the initial investment is approximately USD 1,050, before 30 percent subsidy. Farmers can also access loans from VisionFund for pumping machine, fuel, and other materials at 1.9 percent interest per month. Lors Thmey expects that a farm can produce 4,000-,5000kg/1,000m2 with a typical farming being 2,000m2. Lors Thmey guarantees to purchase the entire crop at prevailing market prices. Farmers have received between 800 Riel/kg to 1,500 Riel/kg for a profit per crop of around USD 2,000. Currently, Lors Thmey can buy about 1,500 kg to 2,000 kg of cucumbers per day which are sold only in Takeo markets. Lors Thmey typically earns a profit of 200 Riels/kg, however the company occasionally takes a loss when there is a surplus of cucumber in the markets and prices are down.

The Consultant Team interviewed ten farmers participating in Lors Thmey's contract farming program. Of these, three had already had two cucumber harvests and five had not yet had a harvest. The yields for three farmers were roughly in-line with Lors Thmey's expectation but two farmers reported disappointing yields. Of the five farmers who had not yet had a harvest all expected yields of at least 4,000kg/1,000m².

World Vision has been operated in the area for an extended period. The benefits of their engagement could be seen in that all farmers interviewed reported that they have title to their land. All but one farmer reported that agribusinesses do not care if they engage with female or male farmers; the exception said that they prefer to engage with women. Lors Thmey and World Vision are focused on their mission of improving the livelihoods of small landholder farmers. The farmers who have been able to participate in the program are poor. All reported having around 0.5-0.8 hectares of rice land and up to about 2,000m2 of chamkar land. Despite their advantage relative to many farmers of having title to their land all farmers reported that they do not wish for their children to continue farming due to the difficulty of the work and low income.

The majority of farmers reported that they have been satisfied with the contract farming program because it provides a guarantee that they can sell all of their produce. Several women farmers said that the contract with Lors Thmey is very important because it creates local work for their husbands. The contract allows for their husbands to remain on the farm rather than seeking

construction work elsewhere. The farmers also reported frustration that they cannot get a fixed price for their produce.

For Lors Thmey, the program is an experiment in developing a more direct engagement with farmers. Lors Thmey believes that farmers need access to markets to be encouraged to take the risk to grow higher value crops. The farmers interviewed appear to have generally benefited. Four out of five farmers were able to recoup their entire initial investment on their first crop – and they would have been able to even without the World Vision subsidy. However, the upfront investment is significant and this first group of farmers have received significant training. Additionally, to achieve long-term behavioural change, Lors Thmey will need to demonstrate that it will be able to play the role of market maker into the future.

Name	Sex	Age	Family Size	Contracted Land (m2)	Cucumber Yield (kg)
Sar Sroeun	Male	39	5	1,350	1,100
Hak Mao	Male	40	8	300	1,400
Plong Sopheap	Female	53	8	1,300	8,000ª
Phat Dim	Male	40	6	2,000	N/A
Ek Chan	Female	25	5	2,000	N/A
Phan Hong	Female	51	6	1,450	N/A
Von Mala	Female	33	3	800	3,700 ^b
Leang Srorn	Female	31	5	1,500	5,000 ^c
Seng Sarann	Female	35	7	2,000	N/A
Chhang Von	Male	38	6	750	N/A

Table 9: Lors Thmey contract farming program members

a) On first harvest, and 3,000kg second which the interviewee attributed to poorer quality seed supplied.

b) On the first harvest, and 5,000kg on the second.

c) On the first harvest, and 4,000kg on the second.

5.6 ACs as Market Maker – Kampot Pepper Cooperative

Starting with the introduction of the Law on Cooperatives in 2003, the RGC has sought to strengthen the position of ACs as a means to improve agriculture productivity. ACs, it is believed, can organize farmers and allow them better access to inputs, credit, and markets than they might have as individuals. ACs also lower the transaction costs and risks for agribusinesses which source raw materials from farmers. One element of this strategy is the national policy of "One Village, One Product" as currently promoted by Ministry of Agriculture, Forests, and Fisheries (MAFF). The Agricultural Cooperative of Kampot Pepper has been a model for the development of the RGC strategy on ACs and for its aim to promote a specialized cluster approach to the production of high value agriculture commodities.

Kampot Pepper Promotion Association (KPPA) was established in October 2008 with the support of Agence Française de Développement (French Development Agency, AFD). The creation of KPPA aimed to set up a GI system to promote pepper production in Kampot, and the branding of "Kampot Pepper". Kampot province has long been locally recognised for its pepper plantations. Farmers from several generations of planters grew pepper using traditional techniques and sold it to local middlemen for a lower price until in KPPA was established, and

obtained the protected GI in 2010. It was the first Cambodia product to attain the internationally accepted standard. The GI protects the intellectual property right of a product from a specific geographical region. KPPA is responsible for defining the book of requirements, validating the land plots, implementing the internal controls, inspecting the promotion and ensuring the correct use of branding in compliance with GI requirements. KPPA pays about USD 8,000 per year for GI certification, which is provided by ECOCERT.

The Kampot Pepper Cooperative (KPC) was established in 2009 as an affiliate organization to KPPA, with the aim to improve the linkage of pepper farmers to pepper buyers. KPC procures Kampot pepper from its members and effectively sets the price each year for the entire crop. KPC is a member organization which uses invested share capital to trade in pepper on behalf of its members. The cooperative was created in the form of a collective business, while KPPA is responsible for managing GI. KPC currently has 342 members (325 farmers and 17 companies) covering over 90 hectares and six districts. Pepper producers who are interested in becoming members can apply. The members must reside in one the six GI districts and have at least 100 bundles of pepper plants. The association committee does an assessment to determine whether a plantation meets the required quality and productivity standards. KPC collects USD 0.5/ kg (USD 0.25 from farmers and USD 0.25 from buyers) of pepper sold through its operations for the running of KPC and for support to KPPA for the maintenance of the GI Certification. KPC also takes USD 0.5/ kg for all pepper purchases made by other companies within the GI zone.

The initiative to brand Kampot pepper has been a significant success. In 2006, the price of Kampot pepper was USD 1.50/ kg. Many farmers abounded the plantation. By 2009, after the establishment of KPC, Kampot pepper regained its value. The price increase progressively and in 2015, the price of black pepper was USD 14/ kg, USD 24/ kg for red pepper, and USD 27/ kg for white pepper. Farmers within the GI zone have revived their plantations and increase the size of plantation. In addition to investment by domestic small landholder farmers in Kampot, individuals people in Phnom Penh and abroad, and some private enterprises have also invested in Kampot Pepper plantation. GI protection and the recognition of the quality of Kampot pepper has had a similarly dramatic impact on land prices: the value of one hectare has increased from USD 2,000 – 3,000 to USD 20,000 – 25,000 over the past decade. Additionally, there has been a spill-over effect to other regions of Cambodia where pepper cultivation has increased.

The majority of KPC member farmers have on average one hectare of chamkar land²⁹ which is suitable for pepper plantation. A typical farmer will plant around 1,000 poles (requiring 0.40 ha). Each pole can yield 1-2 kg depending on the age of pepper. A new pepper plant gives yield after three years and farmers can keep it for more than a hundred years. Farmers do not need new seeds; they believe that seed from their ancestors is the best.

Farmers within the GI zone primarily sell to either KPC or to private companies such as FARMLINK³⁰. Both KPC and FARMLINK provide pepper farmers with loosely termed contracts. The contract with FARMLINK is renewed every three years which states that farmers have to sell pepper to the company during three years at market based prices. The contract with KPC is renewed every year with purchases also based on prevailing market prices. Neither contract

²⁹ Land used for growing crops other than rice in lowland areas

³⁰ FARMLINK is a private company established in 2006 to procure, package, and brand high quality agriculture Cambodian products. FARMLINK supported the initial formation of the Kampot Pepper AC.

requires that a farmer sell their entire crop to either entity but they do stipulate quantity targets. KPC effectively sets the price each year for the entire Kampot Pepper crop through its annual contracts.

KPC currently has contracts with 17 mostly domestic buyers. During the harvest season, FARMLINK buys pepper at farm gate and makes immediate payment to farmers. For KPC, the payment is generally after ten to 15 days. In 2015, FARMLINK was unable to buy all their black pepper under contract from farmers as its supply exceeded its own demand. Several small landholder farmers told the Consultant Team that they would prefer to sell to KPC in the future as it offers greater flexibility given the now larger demand for Kampot pepper. In effect, the current supply – demand imbalance of Kampot pepper provides farmers with significant power.

The Consultant Team interviewed 11 farmers who are members of KPC. Many of these farmers also work with FARMLINK. In addition to an average of 0.5 to 1.0 hectares chamkar land devoted to pepper cultivation, all farmers had between 1-1.5 hectares of rice paddy land. All farmers reported that money invested in new plantation and in farm (natural fertilizers, natural and chemical pesticides, shelters, labours.) is from their own resources.

Farmers said that they are either not interested in getting loans from microfinance or bank to expand pepper cultivation because the interest rate is very high, or unable to do so because the 3-year lead time to a mature harvest or because of the lack of land title. No farmers surveyed reported that they have title to their land. Lack of access to credit puts these small landholder farmers at a disadvantage relative to larger investors with potentially better access to credit. KPC does not offer loans to its members. For farmers who are already members of the KPC, the value of the organization is in providing quality control, constricting supply of GI protected Kampot Pepper, and setting a price that has consistently increased every year.

Almost all farmers reported that they want their children continue pepper farming since the prices are high and their livelihood has been improved progressively. However, several farmers also reported that they would prefer that their children can hire other outside labour to do the actual farming since it is difficult work.

All farmers, except one female head of household, reported that agribusinesses including KPC prefer to sign contracts with men. Sim Yong, age 44, was the only female among four surveyed who is head of her household. While she earns a relatively higher income from pepper cultivation, her experience may be an exception to a rule.

The branding of Kampot pepper has been a great success for Cambodia. Although the Kampot pepper crop is very small on the world market, the quality of the product has been recognized and farmers have benefitted. It is less clear is KPC has been a success for farmers. Although the AC has done an effective job at the difficult task managing supply and setting prices, it has made relatively little actual contribution to the branding of Kampot pepper or to its farmer members. More could be done such as providing training and loans to members to support improved pepper, or even diversification into other high value crops.

Name	Sex	Age	Family Size	2015 Pepper Income (USD)
Sim Yong	Female	44	5	9,560
Kao Dom	Male	32	4	10,395
Aun Thy	Male	44	6	10,305
Tep Yoeun	Male	62	8	5,190
Buth Samoeun	Male	58	3	19,610
Un Buth	Male	39	9	13,380
In Chan	Female	46	6	9,037
Chean Ouk	Female	44	6	2,595
Chean Touch	Female	35	7	2,256
Ing Mean	Male	44	8	2,256
Un Ror	Male	58	5	3,520

Table 10: Kampot Pepper AC members

6 Findings and Implications

The Study focuses on examining contract farming based models of engagement between small landholder farmers and agribusiness companies because contract farming is the most common form of direct engagement in Cambodia and the form most actively promoted by the RGC. Within the scope of the Study, the engagements were found to varying degrees to have been positive to both parties. In reality few contractual arrangements of any nature are completely fair and balanced between all parties, however contracts that are more fair and balanced are generally found to offer the most benefits over the long-term to all sides.

Of the five contract farming models identified, the more formalized models – centralised and multipartite – are found to provide the greatest benefits to both small landholder farmers and agribusiness companies. Informal and intermediary models are less able to provide security to farmers such as access to reliable markets and fixed pricing structures. Similarly, they are less able to provide security to agribusiness companies. However, this finding must not be taken to imply that these models of contract farming should be avoided or prevented. As reviewed in Section 3, for certain types, quantities, and qualities of crops these models may be preferred; although the benefits to farmers and contractors may be less than more formalized models, there is likely to still be some incremental benefit.

Key findings of the Study are summarized below and elaborated on in the following section.

- Contract farming can benefit small landholder farmers the most when programs are designed for a long-term relationship. Small landholder farmers benefit the most from contract farming engagements that are established over the long-term; a fact well understood by farmers. The Consultant Team came across several cases in which farmers reported that they had rejected contract farming offers when they had already been engaged in a contract for some period. Farmers value trust and reliability. Especially, for small landholder farmers, short-term contracts may be highly costly. For example, the suspension of Golden Rice's contract farming program has been costly to those farmers who had started to a plan for a long-term engagement.
- Contract farming can benefit agribusiness companies the most when programs are designed for a long-term relationship. Agribusiness companies also benefit the most from

the establishment of long-term agreements with farmers that are based on mutual trust and fair treatment. Trust lowers transaction costs of securing new farmers on contract and cheating by farmers. Even though the suspension of Golden Rice's contract farming program was apparently beyond the company's control and despite the attractive income that farmers earned under the contract, several farmers said that they had lost confidence in the company.

- Even poorer, more marginal farmers can take advantage of contract farming opportunities. It is often cited small landholder farmers are typically shut out of contracts because of their small landholdings, however this statement is found to be a gross oversimplification. For example, the typical Cambodian small landholder farmer will refuse to entirely give up cultivation of rice paddy intended for their own consumption (for example, of a preferred variety based on a taste preference), even if they could earn more money by growing a different variety that has a high market price. In this case the obstacle may be cultural and not the result of some exclusionary practice of the contractor. Beyond rice, small landholder farmers have been shows to benefit the most from contracts for higher value crops. In this case, ACs and other farmer organizations may play an important role in reducing agribusiness companies transaction costs such as farmer training, input distribution, collection and, quality control.
- Agribusiness companies experience high costs in designing and maintaining contract farming programs. Agribusiness companies have multiple options for sourcing crops. The option they choose must be the most cost effective way to source over a long-term. It must be adapted to the type, quantity, and quality of crops required. Contract farming will only be chosen if the cost of the program is less than the cost of alternative options for procurement.
- *RGC policy is focused on tying the promotion of ACs to contract farming, yet this is only one model for contract farming.* The multipartite model of contract farming is one among several potential models; however, it is the model that the RGC policies actively promotes to the potential exclusion of other models that can benefit both farmers and agribusinesses. For example, Confirel's quality standards require an outgrower model. A restrictive, one-size-fits-all policy approach may generate adverse consequences.
- RGC policies that impact access to seeds and land rights are inadequate for the needs of both small landholder farmers, agribusiness companies. Both farmers and agribusinesses are negatively impacted by limited access to seeds and land rights. These are primarily issues of inconsistent and inadequate policy as wells as ineffective implementation of existing policies. Both issues are significant roadblocks toward a virtuous future for Cambodian agriculture. Failure to address these issues is more likely to lead to a future in which small landholder farmers see their landholdings further diminished and where domestic Cambodian agribusiness companies continue to fail to thrive.

6.1 Engagement Implications for Small Landholder Farmers

During the Study the Consultant Team interviewed 70 small landholder farmers that have sold produce on contract with six different Cambodian agribusiness companies. The experiences reported were universally positive, despite certain issues. Farmers reported that contracts enabled them to sell their produce at a higher price and to produce more, relative to their alternative option of selling to traders. Productivity improved significantly for farmers with access to contracts. The contracts provided the financial security to enable a number of farmers to take on credit to invest in inputs and equipment to improve their productivity. Contracts also enabled a number of farmers to rent land to further increase their sales under contract. Contracts provided farmers with access to superior inputs and markets that allowed them to take a level of risk not possible without a contract.

Within the scope of the Study, the Consultant Team did not uncover any instances where farmers had been cheated directly by an agribusiness company or where they felt abused by a contract or contactor, however there were some negative comments from farmers. One came from farmers in Kampot who said that FARMLINK had been unable to honour its contracted offtake quantity in 2015. Those farmers said they would switch to KPC for their supply. A second was about the suspension of Golden Rice's contract farming program, but as reviewed this was essentially beyond the company's control, and the complaint was about the loss of potential income from the contract not the quality of the contract or any unfair treatment by Golden Rice. A third comment was from one farmer who has experienced a low yield on a second harvest for Lors Thmey. She complained that she had received a different quality of seed, however no other farmer made this complaint, and overall both harvests were profitable. Finally, the unfortunate experience of Trapaing Sangke village farmers who were cheated by the head of their village and his father-in-law, the head of the commune, demonstrates the harm that agribusinesses companies can do to both communities and to themselves from lax monitoring of their engagements with farmers.

Nearly all small landholder farmers interviewed said that they view farming as an option of last resort. With the exception of pepper farmers in Kampot province and a couple other relatively wealthy farmers no interviewee said that they would want their children to become farmers. In recent years, pepper farmers within the GI protected zone of Kampot province have benefited from rising land and pepper prices. It remains to be seen if the coming surge of new supply once recently planted vines reach maturity will not moderate prices. Generally, interviewees expressed a hope that their children would be able to find other higher paying less laborious professions. However, many also said that they expected their children would eventually have to return once they became too old to continue work in garment factories or on construction sites.

The above findings imply that contract farming must be good for farmers. However, it also must be acknowledged that the Consultant Team interviewed farmers working with a relatively small subset of Cambodian agribusiness companies that have the managerial and organizational capacity to implement and manage an effective contract farming program. A more accurate generalization would be that properly implemented contract farming programs are beneficial. The experience of Trapaing Sangke village farmers highlights the risk to both small landholders and agribusiness companies from informal approaches to contract farming. Clearly, not all contract farming programs produce the same beneficial outcome, but there is evidence that better managed program do benefit small landholder farmers.

6.2 Engagement Implications for Agribusiness Companies

During the Study, the Consultant Team interviewed ten agribusiness companies. (Summaries of the agribusiness interviews are presented in Annex A). All but one of these companies, East-West Seed, an international seed company focused on supplying high quality vegetable seeds to

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small landholder farmers in tropical lowlands, is a domestic Cambodian company. The other nine companies interviewed included three export focused rice millers (AKR, AMRU, and Golden Rice), one specialty products company (Confirel), four vegetable market makers (CEDAC, Natural Garden, Entrée Baitang, and Lors Thmey), and one diversified agro-planation operator (Mong Reththy Group).

Amongst these organizations, several were established with a mission of working with small landholder farmers (East-West Seed, Confirel, CEDAC, and Lors Thmey). The other companies source from small landholder farmers by default rather than as a priority.

Although each of the domestic companies interviewed has achieved some level of success, none with the exception of Mong Reththy Group could be characterized as being a great success. Rice milling and vegetable trading are not especially profitable sectors. Confirel has yet to get international markets to take note of its many fine palm sugar based products.

Contract farming is an expensive and risky endeavour for agribusinesses. For a private business the cost of any undertaking must be less than the return on that undertaking. Cambodian rice mills have traditionally sourced from trusted traders and collector who have deep networks to farmers. Under this model, there is very little feedback between mill and farmer. In recent years, as investment and competition has come into the rice sector, millers have needed to become more creative to grow profits. This need, coupled with greater clarity on working with ACs and contract farming regulation, is a reason that AMRU Rice and Golden Rice have recently started pilot projects to source rice paddy on contract, however these programs still only provide a small fraction of their requirement (less than 2% in the case AMRU Rice). For a company like Confirel, which requires high-quality, organic palm sugar, contract farming has been the obvious sourcing strategy from the start. However, Confirel is a small company and its procurement is only a fraction of the total production volume in Kampong Speu's GI protected zone.

The six contract farming programs studied offer benefits to all parties. As noted above, farmers benefited from better prices and guaranteed off-take. Agribusinesses benefited from access to secure supply of higher quality agriculture produce than they could procure on the spot market. Presumably, the higher quality supply is worth the higher prices that they pay farmers. Among the six contract farming models studied, the Consultant Team did not see any instances of abuse of the contract by the contractor. The risk might be greater on the other side with a number of agribusinesses reporting that they had to expend considerable resources to monitor cheating by farmers.

6.3 Impact on Women

Strengthening the position of women in households and society has been widely shown to lead to more positive development outcomes. Contract farming has been criticized by some observers as being potentially detrimental to the position of women. The potential detrimental impact to women largely derives from an alleged preference that agribusiness companies have for signing contracts with men rather than women which reinforced or promotes a patriarchy.³¹

³¹ Making the Most of Agriculture Investments, FAO and IIED, 2010

Over the course of the study, the Consultant Team found a wide range of perceptions of the impact on women that more direct engagement with agribusinesses can have. All agribusiness companies, except Lors Thmey, said that they do not actively distinguish between men or women. Lors Thmey, a social enterprise with a for-profit sustainability model, was established with the objective of improving rural livelihoods. Amongst the stakeholders interviewed the general theme among donors and other non-governmental organizations was a prioritization of women, as would be expected. Among government stakeholders (Ministry of Commerce, Ministry of Agriculture, Forestry and Fisheries, and Rural Development Bank), none expressed a prioritization of the role of women as a mechanism to accelerate the rate of development. One government stakeholder explained that it would only be natural for men to be preferred due to their higher level of education and superior physical strength.

Small landholder farmers were mixed in their perception of whether agribusinesses prefer women or men, however the most common answer was that agribusinesses do not have a preference. Whilst it may be that across Cambodia, men have historically had better access to education, it is also traditional in rural households for women to control the cashbox. Whether contracts were signed with women or men was generally determined by role in household and level of contribution to the activity, rather than an overt preference by the contractor. All farmers reported that in their experience access to contracts provided a net benefit. Additionally, some women reported that they were happy with their contract farming arrangement since it provided enough income so that their husbands and children did not have to seek work away from home, thus keeping their family together.

7 **Recommendations**

The Cambodian agriculture sector has tremendous potential; the land is rich and like all people, Cambodians are industrious. In recent years, the country's agriculture sector has registered tremendous growth in production and there has been massive investment in rice milling capacity. However, most of this growth has been the result of an increase in land under cultivation rather than from productivity gains, and therefore is not sustainable. While there has been a massive investment in rice milling capacity, still only a fraction of the country's rice paddy is milled in Cambodia and most mills operate at dismally low utilization levels. Although it can be said that in recent years millions have been lifted out of abject poverty, most of these millions shifted to the next lowest category: extremely poor and vulnerable. There is still much to be done in Cambodia to put the country on a virtuous path of sustainable growth.

Over the course of the Study, several ideas were put forward by farmers, agribusinesses and supporting agencies, as well as those drawn from this research and analysis, to support more beneficial engagements between small landholder farmers and agribusiness companies. Key recommendations based on the findings of the Study are highlighted below:

1) The donor community should do more to encourage long-term, mutually beneficial contract farming programs as well as other small landholder farmer / agribusiness engagements.

The donor community should provide further support for small landholder farmer / agribusiness engagements including contract farming. Contract farming, which is just one

form of engagement between small landholder farmers and agribusiness companies, is found to be beneficial to small landholder farmers and also pro-poor. When contracts were less structured the benefits were relatively less, however this must also be approached on a case by case basis, since contracts must be tailed to the specific requirement of type, quantity, and quality of crop sources.

The first step for greater donor community support for such engagements is for the donor community to create better relationships with agribusiness companies. Much could be gained on both sides from a more constructive dialogue. The donor community needs to understand the impact that its actions can have in distorting workings of the market and displacing the private sector. Donor programs are and should be temporary, whereas private investment is and should be permanent, at least into the foreseeable future.

The Consultant Team found a general distrust of the private sector by much of the donor community. The donor community generally attributes with a level of organization and power to the private sector that is not justified by reality. Most agribusiness companies in Cambodia are underfunded, poorly managed, and only marginally profitable. Of the agribusiness companies interviewed all reported that they prioritize long-term profitability over short-term profits. If some of their actions suggest otherwise, it is more likely that poor planning and foresight is the cause. The donor community capacity building for agribusiness companies could have significant positive impact for both small landholders and the viability of these agribusiness companies.

Agribusinesses were found to generally approach the donor sector on transactional basis or avoid interactions altogether. While several said they would welcome more direct engagement, the short duration of donor programming and oversized expectation of results were cited as obstacles. The more structures engagements, as might be expected, were found to be more successful such as AMRU Rice's Preah Vihear contract farming program.

2) Multiple models for contract farming, rather than a single model, must be encouraged by policy makers.

For RGC policy to be focused on just one form on contract farming is misguided. While not specifically examined in the Study, the informal model of contract farming is the most widely practiced in Cambodia. Additionally, the informal model exposed both farmers and agribusinesses to the greatest risks. However, as described in Section 3 contracts must be tailed to a specific sourcing requirement. Because, informal contract farming model are not going to disappear from Cambodia any time soon, the donor community and policy makers should put more effort into strengthening the viability of *all forms* of contract farming.

The multipartite model of contract farming is also problematic because there are few ACs that are ready for the challenge, and will likely be years into the future until they are ready.³² More near-term successes can potentially come from greater support of the centralized model and other models of contract farming.

³² Documenting Best Practices for Farmers' Cooperatives, Project for Agriculture Development and Economic Empowerment, (PADEE), SNV, February 2014

Beyond a reordering of contract farming priorities, the donor community should work with the private sector to encourage policy makers to follow through with implementation of existing policies. There should be more support for ACs to engage with agribusiness companies for contract farming. Additionally, to promote the stability of markets and to improve transparency of transactions and market competition, as well as to protect both parties, model contract templates for formal contract farming should be developed.

3) ACs requires significant donor and RGC assistance to realize their potential to benefit small landholder farmers.

RGC policy of encouraging the formation of ACs is well placed but is still lacking in follow through. There are few success stories of ACs that have been able to create significant value for their members. ACs do have a significant role to play in the on-going transformation of Cambodia's agriculture sector but much capacity building work is required.

A network of well-managed, financially secure ACs could do much good for the sector in generally and particularly in supporting the engagement of small landholder farmers and agribusiness companies. However, a country of poorly-managed, parasitic ACs will almost certainly do more harm than good with the most vulnerable small landholder farmers bearing the brunt of the harm.

The donor community should engage with government organizations and agribusiness companies to further strengthen the position of ACs, through management skills training, member workshops, and finally technical assistance to farmers.

4) Policy reform with regard to access to seed and land rights is critical to the future of Cambodia's agriculture sector and must be accelerated.

Both policy reform with respect to access to seeds and land rights and then putting that reform into action are critical for the future of Cambodia's agriculture sector. Reform on both issues would be both pro-poor and pro-business and would help accelerate sustainable economic growth in Cambodia.

Recognized weaknesses in Cambodia's current seed sector could be addressed by clearer policy, including the need for:

- A better translation of the seed law and regulations to implement them
- A program to ensure continuity of new variety creation and foundation seed production
- Private sector to produce rice seeds at higher quality and affordable prices
- o Improvement of seed quality standards and enforcement mechanisms to control quality

Land rights reform requires focused action. Land titling programs should be re-initiated following a review of past successes and failures of LMAP and LASSP. Additionally, the SLC program requires review and potential acceleration.

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