

Contract farming in ASEAN countries A fact finding study

Important note :

This study is commissioned by Oxfam Novib. It does not represent the position of Oxfam Novib.

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Introduction

Important note :

At the request of Oxfam Novib this report is not written as a publication in its own right, but as a resource base that Oxfam can draw on when investigating or positioning or assisting partners in work related to contract farming.

This fact finding study was carried out for Oxfam Novib to better understand the role of contract farming in poverty alleviation in ASEAN countries. The literature study is guided by a set of questions provided by Oxfam Novib.

1. What forms does contract farming take (recent FAO literature identifies amongst others three categories: nucleus-plasma, input-credit with a sales mandate, and on demand at a fixed price)?
2. On what scale is contract farming practised and how is it organised in the region?
3. In what specific commodities, countries, agribusiness sectors seems contract farming relatively more prominent?
4. Is contract farming spreading or diminishing over time?
5. What is the impact of public or direct investment on contract farming?
6. What activities are taking place to promote contract farming?
7. Is there a link between contract farming, empowerment and improved export performance?
8. What are commercial motivations behind contract farming (business models and/or business-related motivations)?
9. What best practices exist on contract farming in SE Asia (i.e. cases that show evidence that small farmers (rural livelihoods) benefited from the practice)?
10. What are the negative impacts of contract farming schemes in SE Asia?

The literature on contract farming is abundant. Most generalist documents can be found at the FAO. Contract farming schemes in the SE Asia region is reasonably well documented, but the information provided is almost exclusively qualitative. As a result, information on the scale and evolution of the schemes in the area could not be given because of the absence of quantitative data for the region. Also the documents about contract farming in SE Asia consist in a majority of case studies, therefore an exhaustive and accurate overview of the situation for the whole region is very difficult to provide. Moreover, it is difficult to judge if the situation reported in documents gives an accurate picture of the reality at a regional scale: the contract farming schemes which are well documented might not be the ones that are the most common or the most important in the region.

Most experts who agree to be contacted for further details by Oxfam Novib are generalists (meaning not-areas specific, see first table below). When an expert had specific knowledge about one of the questions, his/her name is mentioned at the end of the paragraph, on top of the references tables. A list of local contact points is also provided in the second table below. This might help Oxfam Novib overcoming information issues (more specifically quantitative information issues) when necessary.

When writing this report, it was in some cases judged that sources should not be summarised. In this case, the information is either quoted or is referred to as a document to read (see mainly Question 3). In the quoted extracts, it should be noted that the references to other authors have been erased to ease the reading. Before using any of the quoting given in this document, those original references should be traced back. All the documents referred to are either attached to this report or accessible through a hyperlink.

In order to complete the overview of contract farming schemes in SE Asia, the reading of the following documents as background information on contract farming and the agricultural sector in ASEAN countries is recommended:

- Charles Eaton and Andrew W. Shepherd (2001), Contract Framing, Partnerships for growth, FAO agricultural service Bulletin 145.

- Carlos Arthur B. da Silva (2005), The growing role of contract farming in agri-food systems development: drivers, theory and practice, FAO

- World Bank (2007), Agriculture for Development in East Asia: Lessons from the World Development Report 2008

http://siteresources.worldbank.org/INTEAPHALFYEARLYUPDATE/Resources/550192-1194982737018/Special_Focus_AG-EAP-Update-Nov2007.pdf

- Baumann (2000), Equity and Efficiency in Contract Farming Schemes: The Experience of Agricultural tree Crops, Overseas Development Institute

- Simmons (2002), Overview of Smallholder Contract Farming in Developing Countries, FAO, pp19, chapter 6

<http://www.fao.org/docrep/007/ae023e/ae023e00.htm>

Also to be followed as a potential interesting source of information, a study that compares contract and non-contract growers of selected horticultural crops and poultry in Thailand, Indonesia, China, and India

<http://www.ifpri.org/IFPRIAsia/qi19.pdf> (pp3)

Note : in march 2008 the FAO has launched a internet site dedicated to contract farming :

<http://www.fao.org/ag/ags/contract-farming/index-cf/en/>

Experts (agreed to be contacted)	Field	Contact
Andrew W. Shepherd, FAO, Rural Infrastructure and Agro-Industries Division	Generalist	Andrew, Shepherd@fao.org
Carlos Arthur B. da Silva , FAO, Rural Infrastructure and Agro-Industries Division	Generalist	Carlos.DaSilva@fao.org
Jesper Clausen	Aquaculture	Jesper.Clausen@fao.org
David Glover, founding director of the Economy and Environment Program for Southeast Asia	Contract Farming in Asia Note : His studies are a little dated but his contribution to the contract farming literature was important	dglover@idrc.org.sg

Phil Simmons, FAO, Agricultural and Development Economics Division	Generalist	psimmons@pobox.une.edu.au
S.R. Vellema, Wageningen Agricultural University	Contract Farming – agricultural supply chain / The Philippines	Sietze.Vellema@wur.nl' Note : S.R. Vellema also recommended the following sources for latest updates on the Philippines : IBON Databank, AFRIM (research NGO in Mindanao), possibly the websites of newspapers such as Philippine Daily Inquirer of Business Week. Also, “since contract farming is an important issue in the context of land reform, the Department of Agrarian Reform may have data available”.
Experts (did not respond yet)	Field	Contact
Jo Bernardo, Asian Productivity Organization in Tokyo	Quantitative data	JBernardo@apo-tokyo.org
Lena Ornberg, PHD Student	Thailand	Lena.Ornberg@ekh.lu.se'

In the table below, a list of local contact points is provided where further (quantitative) information, can be found.

Other possible local contacts, not contacted by CREM	Contact Points
Initiatief Duurzaam Handel, Dutch government (Ministerie van Buitenlandse Zaken)	Aquaculture is one of the topics to be covered by this initiative.
FAO local contact persons	Since FAO local contacts can be difficult to get a hold on, Andrew W. Shepherd (see contact above) and Jo Cadilhon (Jo.Cadilhon@fao.org) offered to provide Oxfam Novib with a list of suitable informants on specific issues if needed.
FAO Fisheries and Aquaculture Department Aquaculture Management and Conservation Service (FIMA)	Rohana.Subasinghe@fao.org (in cc of the correspondence with Jesper Clausen, FAO) List of possible contact persons : ftp://ftp.fao.org/FI/DOCUMENT/staff/staffima.pdf
Dr. Michael Phillips, Network for Aquaculture centres in Asia-Pacific (NACA)	NACA is currently doing quite some work on clusters and groups of small-scale farmers (but not contract farming specific). Michael.Phillips@enaca.org http://www.enaca.org/
FAO Regional Data exchange system	http://www.faoap-apcas.org/lao/index.htm
ADB Local antennas	http://www.adb.org/Countries/ For every country, contact data are provided on the link corner at the bottom of the page.
Indonesian Ministry of Agriculture	http://www.deptan.go.id/

Malaysian Ministry of Agriculture and Agro-based Industry	http://agrolink.moa.my/moa/
Thai Ministry of Agriculture and Cooperatives	Narim Somboonsarn Tel : 66-2-9406102 Fax : 66-2-9406103 E-mail : LEKDOA@hotmail.com http://www.moac.go.th/builder/moac/eng/
Lao PDR Statistic Centre	http://www.nsc.gov.la/
Myanmar Ministry of Agriculture	http://www.myanmar.gov.mm/ministry/agri/default.asp
Cambodia Ministry of Agriculture, Forestry and Fisheries	http://www.faorap-apcas.org/cambodia/index.htm
Philippines Bureau of Agricultural statistics	http://bas.gov.ph/
Vietnam Ministry of Agriculture and Rural Development	http://www.mard.gov.vn/ (no English version) Contact : bbtweb.vp@mard.gov.vn
Brunei Department of Agriculture	http://www.agriculture.gov.bn/

Question 1: What forms does contract farming take?

Preliminary remark : In an attempt to simplify the categorisation of contract farming schemes, the FAO typology has been used as a reference in this chapter. However, even if this typology is highly referred to in the literature about contract farming, most authors adapt those definitions to the actual schemes they are studying, and sometimes give them different names. This is why the typology provided below is meant as a frame to understand and analyses contract farming schemes. This also explains why the names of the contract farming types provided in this first section are not strictly used in the other sections.

From the sources of literature reviewed, a first broad definition of contract farming can be provided: Contract farming is a binding agreement between private companies (also called sponsor) – a central processing or exporting unit for example - and independent farmers. This agreement specifies conditions for production and marketing. It covers, in a more or less detailed form, provisions on the product quantity and quality, its price, the production technology (in terms of trainings and/or inputs provided to farmers) and other element such as risk sharing, transaction conditions.

In economic terminology, contract farming can be seen as a form of:

- Vertical coordination which provides linkage to markets for farmers. It is a mechanism to govern transactions between farmers and traders, exporters, processors, retailers, etc. (Shepherd, 2007).
- Semi-(vertical) integration (in a vertical integration, a firm takes control by ownership of two or more stages in the supply chain) (FAO, 2002).
- Horizontal integration between the agri-business industry and farmers. Horizontal integration involves relationships between farms at the same stage in the production process. (FAO, 2002). The nucleus-plasma scheme that was developed in Indonesia is a typical form of horizontal integration- see for more details Questions 2 and 3.

Contract farming schemes can take numerous forms, so a rigid categorisation is a difficult exercise. In the literature, those schemes are referred to according to different features:

- the provisions and type of transaction specified in the contract
- the organisation of stakeholders within the scheme

The first typology, which focuses on the **contract obligations of and the transaction** between the stakeholders, is provided by the FAO (Da Silva, 2005):

The “market specification” scheme:

The transaction between growers and buyers is agreed on terms of what to be produced (product and quality attributes) and what are the commitments for future sale (timing, location and price).

The “resource providing” scheme:

The second modality adds the provision of farming inputs to the former contract type. Beyond specifying what to produce and what the conditions for marketing are, in-kind credit is offered via the provision of key inputs, often with cost recovery upon farm product delivery.

The “production management” scheme:

Under production management contracts growers agree to follow precise technological guidance on how to produce.(Da Silva, 2005)

In a second typology, which focuses on the **organisation of stakeholders within the scheme**, the FAO (Shepherd, 2001) identifies 5 models of contract farming. One can note that this categorisation also refers to the above-mentioned typology since it also highlights the most applied contract obligations and transaction for each of the contract farming schemes.

The centralized model

- Involves a centralized processor and/or packer buying from a large number of small farmers.
- Popular in many developing countries for high value crops: Is used for tree crops, annual crops, poultry, dairy. Products often require a high degree of processing, such as tea or vegetables for canning or freezing.
- Is vertically coordinated, with quota allocation and tight quality control.
- Sponsors' involvement in production varies from minimal input provision to the opposite extreme where the sponsor takes control of most production aspects.

The nucleus estate model

- Is a variation of the centralized model where the sponsor also manages a central estate or plantation.
- The central estate is usually used to guarantee throughput for the processing plant but is sometimes used only for research or breeding purposes.
- Recommended for tree crops, e.g. oil palm, where technical transfer thorough demonstration is required.
- Is often used with resettlement or transmigration schemes.
- Involves a significant provision of material and management inputs.

The multipartite model

- May involve a variety of organizations, frequently including statutory bodies.
- Can develop from the centralized or nucleus estate models, e.g. through the organization of farmers into cooperatives or the involvement of a financial institution.

The informal model

- Is characterized by individual entrepreneurs or small companies.
- Involves informal production contracts, usually on a seasonal basis: common for short-term crops: i.e. fresh vegetables to wholesaler or supermarkets.
- Normally minimal processing and inputs to farmers.
- Often requires government support services such as research and extension.
- Involves greater risk of extra-contractual marketing.

The intermediary model

- Involves sponsor in subcontracting linkages with farmers to intermediaries.
- There is a danger that the sponsor loses control of production and quality as well as prices received by farmers.

(Shepherd, 2001)

A detailed description and some examples of each of those schemes can be found in the following document (from pp46): Carlos Arthur B. da Silva (2005), [The growing role of contract farming in agri-food systems development: drivers, theory and practice.](#)

Glover(1990) also mentions : “Many contract-farming schemes in less developed countries are multipartite arrangements involving private firms (usually foreign, but occasionally local), the host-country government, and international aid or lending agencies, such as the U.S. Agency for International Development (USAID), the World Bank, or the Commonwealth Development Corporation (CDC). The CDC has been particularly active in this type of scheme. [...] A national or regional development bank may also provide growers with credit for the purchase of fertilizer, seeds, and other inputs. “

As a whole, because the FAO typology provided above is wide enough and flexible enough to match to any kind of contract farming scheme, it seems to be the most officially used categorisation in the literature. In most cases, authors do not attempt to strictly define contract farming in their reports, unless contract farming schemes correspond to a predefined format such as the Indonesian Nucleus-Plasma contracts for the Malaysian FELDA land schemes (see Question 3 for references to those specific schemes). Finally, it should be also noted that contract farming is currently analysed as part of the broader concept of farmers-to-market linkages (Shepherd, 2007, "Approaches to linking producers to markets", FAO)

Experts:	<ul style="list-style-type: none"> - Andrew W. Shepherd, FAO, Rural Infrastructure and Agro-Industries Division (Andrew, Shepherd@fao.org) - Carlos Arthur B. da Silva , FAO, Rural Infrastructure and Agro-Industries Division (Carlos.DaSilva@fao.org)
Sources:	<ul style="list-style-type: none"> - FAO (2002), <u>Some issues associated with the livestock industries in the Asia Pacific region,</u> http://ftp.fao.org/docrep/fao/005/ac448e/ac448e00.pdf - Charles Eaton and Andrew W. Shepherd (2001), <u>Contract Framing, Partnerships for growth,</u> FAO agricultural service Bulletin 145. - Carlos Arthur B. da Silva (2005), <u>The growing role of contract farming in agri-food systems development : drivers, theory and practice,</u> FAO - David Glover (1990), <u>Contract Farming and Commercialization of Agriculture in Developing Countries</u> http://www.ifpri.org/pubs/books/vonbraun94/vonbraun94ch10.pdf - Andrew W. Shepherd (2007) , <u>Approaches to linking producers to markets,</u> FAO http://www.fao.org/ag/ags/subjects/en/agmarket/linkages/agsf13.pdf

Question 2:	On what scale is contract farming practised and how is it organised in the region?
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The scale to which contract farming is practiced in SE Asia is difficult to assess since quantitative data are missing. The literature review that was made on the internet can give an indication on the importance of such schemes in the ASAEN countries. Lots of studies were found about Thailand and Indonesia which may indicate that this type of linkage is of significance in those countries. Malaysia, the Philippines and Vietnam were a bit less documented. Information on Lao PDR and Cambodia is fragmented, and no information was found on Brunei, Myanmar, Singapore (with reason since it is not an agricultural oriented country). An estate of the current organisation of contract farming schemes in SE Asia can be sketched through the descriptions found in the literature. This patchwork of information may not be an accurate and exhaustive illustration of the actual situation of contract farming schemes in the SE Asian region.

The existence and development of contract farming schemes in SE Asia is linked to the agriculture industrialization which has lead to the “development of contractual arrangements between producers and other in the marketing chain.” (FAO, 2002). In this context, “contract farming and outgrower schemes have become wide-spread in Asia and other parts of the developing world over the last ten to twenty years. Of particular importance are the schemes financed in whole or in part by the Commonwealth Development Corporation (CDC - <http://www.cdcgroup.com/>); these frequently involve both government agencies and private firms, the latter often receiving management or technical assistance contracts” (David Glover, 1990)

Shepherd (2001) reports that the intermediary contract farming scheme (as described in the Question 1) is one of the predominant models in SE Asia: “Throughout Southeast Asia the formal subcontracting of crops to intermediaries is a common practice. In Thailand, for example, large food processing companies and fresh vegetable entrepreneurs purchase crops from individual “collectors” or from farmer committees, who have their own informal arrangements with farmers. In Indonesia, this practice is widespread and is termed plasma”.

The FAO (2002) notes, in a report focused on the Livestock industry in SE Asia, that the trends towards vertical integration has lead to the development of larger-scale and highly controlled contracting schemes : “In specific sectors, contract farming has shifted from small farmers to large / medium producers: this happens in industries that are highly vertically integrated in the countries of the Asia-Pacific region such as the livestock industries. For example, the poultry industry of both Thailand and Indonesia has undergone industrialization over the last three decades [...] with 80 percent of poultry production in Thailand in the mid-1990s coming from only ten large, vertically integrated companies supplying feed and day old chicks to medium- and large-scale producers under contract [...]. Vertical integration does not appear to be a particularly prominent feature of the cropping industries, although it has been used in Thailand's canned corn industry and also in that country's cashew industry, as well as for some plantation crops in Malaysia, the Philippines, Sri Lanka and Indonesia. There are differences across countries in the way that integration arrangements operate, but typically it displaces the decision making authority from the farmer to the downstream producer or processor, turning farmers into quasi-employees [...]. In the Philippines, the contracts that have been used for pork production are based upon the farmers possessing labour and the production facilities such as housing for the animals. These facilities are often built with finance provided by the firms involved in meat processors. High financing costs for the development of production facilities and for the purchase of stock are said to be behind the high cost structure of that part of the Philippine broiler industry in the hands of the small independent growers [...]”.

The same report describes another contract farming structure that is common in SE Asia and which follows a horizontal integration model: The nucleus farm arrangements that have been used in Indonesia and elsewhere in South-east Asia are a form of horizontal integration.

Horizontal integration, unlike vertical integration, involves relationships between farms at the same stage in the production process. For example, a large company owned farm producing pigs could be horizontally integrated with a small operation owned and operated by an independent producer. The large farms

provide technical expertise and other variable inputs such as animal feed and veterinary services to the small farm. The operator of the small farm provides labour and fixed inputs such as land and housing for the livestock. The large farms avoid incurring high fixed costs through this form of arrangement and the operator of the small farm learns how to manage livestock in a manner likely to increase the marketability of the livestock product produced on that farm. [...] The nucleus plasma scheme (Pola Inti Rakyat) was first introduced in 1993. It was aimed at improving smallholder farmers in partnership with the live cattle import industry. Programmes used in the cropping industry and in the chicken industry motivated the development of the programme.” (FAO, 2002)

As a conclusion, the regional organisation of contract farming has multiple forms and seems to be linked with the development level of each country. Therefore, the description given above should be looked at under the light of the case studies provided as reference in Question 3 below. Finally, the scale to which contract farming is practiced in the region still needs to be clarified. For this purpose, local organisations have been contacted. Their expected responses will be transmitted to Oxfam Novib.

Experts:	- Andrew W. Shepherd, FAO, Rural Infrastructure and Agro-Industries Division (Andrew, Shepherd@fao.org)
Sources:	- FAO (2002), <u>Some issues associated with the livestock industries in the Asia Pacific region.</u> ftp://ftp.fao.org/docrep/fao/005/ac448e/ac448e00.pdf - David Glover (1990), <u>Contract Farming and Commercialization of Agriculture in Developing Countries</u> http://www.ifpri.org/pubs/books/vonbraun94/vonbraun94ch10.pdf - Charles Eaton and Andrew W. Shepherd (2001), <u>Contract Framing, Partnerships for growth</u> , FAO agricultural service Bulletin 145.

Question 3:	In what specific commodities, countries, agribusiness sectors seems contract farming relatively more prominent?
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As a preliminary comment, one can say that, because each commodity is associated with specific conditions of production and labour regimes, there is a direct link between the type of commodities and the existing contract farming schemes (Glover, 1990), and therefore a common pattern of contract farming schemes in the region (and also globally).

<p>Contract farming for traditional tropical commodities: Those commodities such as sugar, rubber, or oil palm, are generally produced at lowest cost on large tracts of land. Contract farming involves a large number of growers, tight central control, and provision of numerous services by the central processing unit (for example, irrigation, harvesting, and aerial spraying). There is usually heavy involvement of external donors in these schemes. Many such schemes originated as resettlement schemes. These large projects, often referred to as outgrower schemes, are particularly common in Indonesia and Malaysia (rubber and oil palm).</p> <p>Contract farming for fruit and vegetable production: Usually on a smaller scale and with more private-sector involvement and less tight centralized control particularly in Thailand. Most frequently, this type of scheme entails the export of high-value items, such as asparagus, cucumbers, melons, or strawberries, with the company providing quality control, brand names, and marketing channels. Business-oriented growers, cooperatives, and individual small farmers are all involved. (Adapted from Glover, 1990)</p>
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An inventory of contract farming schemes per commodities and per country is provided below. This overview was made according to the information found in the available literature and might therefore not exhaustive. Moreover it is hard to judge if the most documented commodities under contract farming are actually the most common or the most important in the region. Once again, because of missing quantitative data, it is often difficult to assess the relative importance of the different schemes and the different commodities concerned in each country.

Notes: In the tables to follow, literature is referred to without being summarised, since the documents found are comprehensive and provide a good understanding of the situation of contract farming in different countries (please check the page number to go directly to the referred part of the document). Documents were quoted in boxes when it appeared that reading them all is not necessary. In that case, only the interesting elements were extracted. Here again, no information was found on Brunei, Myanmar, Singapore.

Country	Commodity	CF scheme	Remarks	Source
Thailand	Overview of the emergence of contract farming schemes in Thailand			Pari Baumann (2000), <u>Equity and Efficiency in Contract Farming Schemes: The Experience of Agricultural tree Crops</u> , Overseas Development Institute, p39
	Idem			Wiboonpoongse, 2003, <u>The Roles of Contract Farming in Agricultural Transition in Thailand</u> , Chiang Mai University
	Idem			Singh Sukhpal, 2005, <u>Contract Farming System in Thailand</u> , Economic and Political Weekly

	Vegetable	Intermediary	See box below	Charles Eaton and Andrew W. Shepherd (2001), <u>Contract Framing, Partnerships for growth</u> , FAO agricultural service Bulletin 145
	Sugar cane	Centralised	See box below	Idem
	Vegetables and flower	Informal	See box below	Idem
	Poultry	Centralised		- FAO (2002), <u>Some issues associated with the livestock industries in the Asia Pacific region</u> , pp60
	Poultry, pork and prawn	Centralised , contracted by the Charoen Pokphand Group		- FAO (2002), <u>Some issues associated with the livestock industries in the Asia Pacific region</u> , pp69
	Potato	Multipartite		Ornberg, L (2003) " <u>Farmers' Choice: Contract Farming, Agricultural Change and Modernisation in Northern Thailand</u> ", paper presented at the 3rd International Convention of Asia Scholars (ICAS3), Singapore 1
	Oil palm, pineapple, fruit, vegetables, broiler	various		David Glover (1992), <u>Contract farming in SE Asian, tree country studies</u> , University of Malaya
	Chicken and Pig			Isabelle Delforge (2007), <u>Contract Farming in Thailand: A view from the farm</u> , Focus on the Global South
	Aquaculture / tilapia			Belton et al.(2006), Red tilapia cage culture in central Thailand, pp 28
	Aquaculture (ex : Red Tilapia and shrimp)	Credits / feeds	CP Group and others	There are several examples on aquaculture producers getting their feed from feed companies or processing plants on credit. They then sign a contract with the feed/ processing plant on their harvest. Tilapia and shrimp. (source : Clausen, FAO, personal communication)
	Aquaculture		Aquastar Company	Farmers working on a base salary + yearly bonus linked to performance /number of shares. All farmers having a

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<http://66.102.1.104/scholar?hl=nl&lr=&q=cache:q2QWdP50HDAJ:www.ekh.lu.se/sekh/papers/LenaOrnberg.pdf+contract+farming+asia>

				number of shares in the company. (source : Clausen, FAO, personal communication)
	Sea bass		Siam Natural Resources (SNR)	Producing sea bass on contract farming arranged around technical input and implementation of better management practices (BMP's). . (source : Clausen, FAO, personal communication)

Box : Vegetables production by contract farming in Thailand

In the snap-frozen vegetable industry in Northern Thailand, two companies directly contract out to middlemen, or "collectors", who organize over 30 000 farmers to grow soybeans, green beans and baby corn, primarily for the Japanese market. Each collector normally controls and supervises from 200 to 250 farmers. Collectors are responsible for all field activities from sowing to harvesting. They are paid a commission based on the total production of the farmers they supervise. The sponsors' agronomists dictate the varieties and fertilizer to be used as well as the sowing programmes and crop husbandry methods. The companies also employ field officers to provide technical support to the collectors and their subcontracted farmers.

(Sheperd, 2001)

Box : Sugar-cane production by contract farming in Thailand

Contract farming under the centralized processing and marketing model is common throughout the Thai sugar industry. Forty-six individually owned sugar mills in the country produced 4 080 000 tonnes of sugar in the 1997/1998 season, of which 57 percent was exported. Over 200 000 farmers grow sugar cane for these mills, on approximately 914 000 hectares. There are also many farmers who grow crops for large-scale farmers through agreements with intermediaries. In theory, the Thai Government closely regulates prices, issues quotas and monitors the operations of the private sugar-milling companies. The Government has introduced a net revenue sharing system under which growers receive 70 percent and the millers 30 percent of total net revenue. The Government also promotes and manages technical research centres and encourages growers' associations.18

(Sheperd, 2001)

Box : Vegetables and flowers production by contract farming in Thailand

In the northern provinces of Thailand farmers grow chrysanthemums and fresh vegetables for the Chiangmai and Bangkok markets, under verbal agreements with individual developers. No technical inputs are provided but in most cases the developers advance credit for seed, fertilizer and plastic sheeting. All agronomic advice to farmers is given by government agencies that also organize training courses for the growers. Farmers expressed a preference for growing chrysanthemums as this was more profitable and they thought there was also less risk that the developer would abscond, as had happened in the fresh vegetable trade.

(Sheperd, 2001)

Country	Commodity	CF scheme	Remarks	Source
	Overview of the contract farming schemes in Indonesia			Ian Patrick (2004), <u>Contract farming in Indonesia: Smallholders and agribusiness working together</u> , Australian Centre for International Agricultural Research
Indonesia	Idem			Contract farming in Indonesia ftp://ext-ftp.fao.org/AG/Data/ags/CFRC%20website/Contract_farming_in_Indonesia.pdf
	Oil palm	Mainly nucleus-	Pp6-12 + pp35:	Vermeulen et al. (2006), <u>Small holder schemes for palm oil in Indonesia and Malaysia</u> , IIED

		plasma scheme	Extensive description can be found in the doc.	
		pp4 : "In 2000, small farming plantations consisted of 32.7 percent of total plantations, while state-owned enterprises and large businesses respectively shared 16.6 percent and 50.7 percent of the total plantations"		Alimi et al, 2006, <u>Trade and Environment Dimensions in the Food and Food Processing Industries in Asia and the Pacific A Country Case Study of Indonesia</u>
	Rubber and Dairy	Nucleus Plasma schemes		Dillon (1992), <u>Contract farming in Indonesia : Dairy and rubber industries</u> , pp119 http://idinfo.idrc.ca/archive/Corpdocs/091544/91544.pdf
	Poultry Poultry	Centralised	No specific information	- FAO (2002), <u>Some issues associated with the livestock industries in the Asia Pacific region</u> , p60
	Shrimp			- Crem (2003), Shrimp production in Indonesia: characteristics and sustainability performance
		Project : Investigation of contract farming options for shrimp production		http://www.aciar.gov.au/project/SMAR/2007/226 Contact : r_oktavi@indo.net.id
	Aquaculture	Depasena and CP Prima		Large scale contracting farming schemes (number of employees) (source : Clausen, FAO, personal communication)

BOX : Nucleus plasma schemes in Indonesia

To be effective, production of palm oil requires significant resource inputs. A palm oil mill requires the raw material input from a 6,000 hectare plantation. A small-size plantation in Indonesia usually has three to four mills, and requires 18,000 to 24,000 hectares of palm oil plantation. Export of palm oil (crude or processed) requires technologies, capital intensive plants and high standards of quality. Therefore, palm oil is only effective and efficient if it is produced by large companies. Involvement of workers or cooperatives in the palm oil business is limited to becoming supplying farmers or temporary labourers for cultivation and harvesting of palm trees. The government of Indonesia introduced a system of "nucleus-plasma" or "core-periphery" according to which the large companies are the nucleus surrounded by the plasma of supplying farmers. The farmers who live near the mills—usually migrants from Java—supply fresh palm fruits to the mills. The farmers grow palms on the land given by the government under the transmigration programme. In non-transmigration areas, the indigenous communities grow palms on their own lands or common lands. In 2000, small farming plantations consisted of 32.7 percent of total plantations, while state-owned enterprises and large businesses respectively shared 16.6 percent and 50.7 percent of the total plantations.
(Alimi, 2006)

Country	Commodity	CF scheme	Remarks	Source
Malaysia	Overview of the emergence of contract farming schemes in Malaysia			- Pari Baumann (2000), <u>Equity and Efficiency in Contract Farming Schemes: The Experience of Agricultural tree Crops</u> , Overseas Development

				Institute, p40
	Oil palm	mainly nucleus-plasma scheme	Pp6-12 + pp35:: Extensive description can be found in the doc	Vermeulen et al. (2006), <u>Small holder schemes for palm oil in Indonesia and Malaysia</u> , IIED
	Oil palm, Rubber	Felda land schemes		Teck Ghee and Richard Dorall, <u>Contract farming in Malaysia with special reference to felda land schemes</u> http://idinfo.idrc.ca/archive/corpdocs/091544/b-91544.pdf
	Aquaculture		Aquastar Company	Farmers working on a base salary + yearly bonus linked to performance /number of shares. All farmers having a number of shares in the company. (source : Clausen, FAO, personal communication)

Country	Commodity	CF scheme	Remarks	Source
Vietnam	Contract farming in Vietnam			ftp://ext-ftp.fao.org/AG/Data/ags/CFRC%20website/Contract_farming_in_VietNam.pdf
	About the current attempt of the government to create linkage through contract farming			Asian Development Bank, http://www.adb.org/Documents/news/vrm/vrm-200501.asp
	Vegetable, Tea, Fruit (Grapefruit, Pineapple), Cotton, Honey, Pig, Coffee, Milk	See pp12 in the document mentioned as link.	All those contract farming examples are fully described in the document.	Asian Development Bank, 2005, <u>30 Cases of Contract Farming - An Analytical overview</u>
	"In Vietnam there are indications that 90% of cotton and fresh milk, 50% of tea and 40% of rice are being purchased by enterprises through contracts"			Carlos Arthur B. da Silva (2005), <u>The growing role of contract farming in agri-food systems development : drivers, theory and practice</u> , FAO, p11
	Catfish			Binh (2006), Before and after the Catfish War: Market analysis, Centre for Asian Studies http://webh01.ua.ac.be/cas/PDF/CAS50.pdf
	Shrimp			Deshingkar (2006), <u>Productive Strategies for Poor Rural Households – shrimp farming in Viet Nam</u> , Pp8
	Aquaculture (ex : Red Tilapia and	Credits / feeds	CP Group and others	There are several examples on aquaculture producers getting their feed from feed companies or processing plants on credit. They then sign a contract with the feed/

	shrimp)			processing plant on their harvest. Tilapia and shrimp. (source : Clausen, FAO, personal communication)
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Country	Commodity	CF scheme	Remarks	Source
Philippines	General			ftp://ext-ftp.fao.org/AG/Data/ags/CFRC%20website/Contract_farming_in_Philippines.pdf
				S.R. Vellema (2002) <u>Making contract farming work? Society and technology in Philippine translational agribusiness</u> , Wageningen Agricultural University. Hard copy available upon request from the author ;Sietze.Vellema@wur.nl
	Flower, asparagus			S.R. Vellema, (1999) <u>Agribusiness control in Philippine contract farming: from formality to intervention</u> , Wageningen Agricultural University, pp95
	livestock	Soro-Soro cooperative	See example before conclusion of the document mentioned as link.	Christopher Delgado, Nicholas Minot, and Nikolas Wada (2001), <u>High-Value Agriculture</u> , International Food Policy Research Institute http://www.ifpri.org/2020/focus/focus08/focus08_06.asp
	Aquaculture / Tilapia			ADB (2004), <u>Overview of freshwater aquaculture of Tilapia in the Philippines</u> http://www.adb.org/Documents/Reports/Evaluation/sst-reg-2004-07/phi-case4.pdf

Country	Commodity	Contract farming scheme	Remarks	Links
Lao PDR	Rice, maize and higher-value agriculture products	Government incentive for contract farming		http://www.adb.org/documents/csps/lao/2005/csp202.asp
	Various commodities for exports	A inventory and analyse of the contract farming schemes		Anthony M. Zola (2007), <u>Contract Farming for Exports in ACMECS: Lessons & Policy Implications</u> , World Bank

Country	Commodity	Contract farming scheme	Remarks	Links
Cambodia	Various commodities for exports	A inventory and analyse of the contract farming schemes		Anthony M. Zola (2007), <u>Contract Farming for Exports in ACMECS: Lessons & Policy Implications</u> , World Bank

Contact data of local experts are also listed at the beginning of this report.

Question 4:	Is contract farming spreading or diminishing over time?
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Evidence of the evolution of the practice of contract farming is difficult to find since quantitative data are missing. It seems that this type of linkage have proved to be successful in some cases, in other cases it happened to be a failure. So it does not seem that there is a general trend in diminution or progression of contract farming schemes in the SE Asian region. Still here are some insights into specific countries contract farming schemes:

- In Thailand, contract farming remains a well known form of cooperation between private companies and farmers. The industrialisation of the agriculture and the vertical integration of the agri-business chain have established a strong base for contract farming, even if it is practiced at a larger scale (often with larger farming entities) than in other countries of the region.
- In Malaysia and Indonesia, contract farming under the nucleus plasma model are also strongly integrated in the oil palm and rubber industry.
- In ASAEN countries where development objectives are a priority, it is likely that contract farming schemes will developed in the near future since they are frequently promoted through local or regional programmes. For example, the Viet government and the Asian Development Bank are currently working on a programme to develop contract farming (see <http://www.adb.org/Documents/news/vrm/vrm-200501.asp>). Same goes for the ACMECS' "Memorandum of Understanding on the Promotion of Bilateral Contract Farming" (see more information in Question 6). An increase in the number of contract farming schemes is also reported for the rice cultivation in Cambodia, Laos and Myanmar, but there is no indication if this is valid for other crops. (Wilson, 2005)

Glover wrote in 1990, when comparing contract farming for traditional tropical commodities and contract farming for fruit and vegetable production (see Question 3) the following : "Total developing-country employment in contract farming of these non traditional crops is much less than in traditional crops, such as bananas and sugar. However, there is some evidence that contract farming of non traditional crops is expanding at a faster rate and that these labor-intensive products are more promising outlets for small farmers." This statement was made more than 15 years ago, but from various sources in the literature, it seems that this trend is still valid: governmental and non-governmental institutions have indeed tried to promote income generation in poor farming areas through the development of contract farming scheme for cash crops, mostly in an export purpose.

Sources:	<ul style="list-style-type: none"> - David Glover (1990), <u>Contract Farming and Commercialization of Agriculture in Developing Countries</u> http://www.ifpri.org/pubs/books/vonbraun94/vonbraun94ch10.pdf - Wilson M., 2005, Presentation <u>Working for a world free of Poverty</u>, World Bank, pp27 http://www.usarice.com/industry/meetings/Mark_Wilson.pdf
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Question 5:	What is the impact of public or direct investment on contract farming?
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When contract farming schemes are implemented in poor areas and/ or for small farmers, or for high value commodities, or on a large scale, the availability of financing means and investments is a pre-condition of successful functioning of the schemes. Those investments can be required at different level and degrees from the farmers, the private sector or the public sector as shown in the table below.

Shepherd (2007) notes that when large-scale investments are needed as in the case of some tree crops, such as oil palm (where no production for several years once plantations are established). These “tend to be financed by governments and international financial institutions and few companies make large upfront investments in contracted farmers”. Shepherd (2007)

Table: types of investments and investment-related facilities required in contract farming

Farmers	Private sector	Institutions (governmental and /or non-governmental)
Land tenure (irrigation equipment, soil improvement and infrastructure)	Land / plantation (in some cases of Nucleus-plasma schemes)	Land provision, property rights to farmers
Credit facilities	Credit to farmers	Credit facilities / micro-credit schemes
Inputs (seeds, fertilisers...)	Inputs to farmers (seeds, fertilisers...)	Public utilities & services : Roads, public transport, telephones, electricity supply, water supply, hospitals & health, schools, government agencies, quarantine services (see also box below)
Collecting, packaging facilities, transportation	Processing, distribution, export facilities (transports, conditioning, packaging, storage...)	Climate favourable for investment (legal system, tariff and tax systems, reliable market structure...)
Technology, mechanization services	Technology, mechanization services to farmers	Extension services (education, communication, technology...)

Adapted from Shepherd (2007 and 2001)

Box: Utilities and communications

A major precondition for agricultural investment in rural areas is the existence of an adequate communication system that includes roads, transport, telephones and other telecommunication services. Reliable power and water supplies are particularly vital for agro-processing and exporting of fresh produce. The availability of suitable educational and medical services is also important for those who participate in contract farming, whether they be direct employees of the sponsor or the farmers themselves. Sponsors will need to be assured that farm produce can be easily transported and that inputs can be delivered to their farmers. While major road infrastructure may be adequate, approach (or feeder) roads to farms may not. This is particularly important in the case of perishable crops that need to be processed soon after harvest (e.g. tea, oil palm and sugar) or stored in a suitable environment (e.g. cut flowers). Where local transport access is inadequate, sponsors must decide whether the problems can be resolved or whether alternate areas should be selected. Sometimes farmer groups are given the responsibility for ensuring that company transporters can reach the fields. Before the start of any project, the sponsor, farmers and local government agencies must agree on who will ensure access to and maintain feeder roads. A precondition for the export of horticultural crops under

contract is the availability of regular airfreight schedules; fresh vegetables and cut flowers depend on adequate cargo space to international markets.

(Shepherd, 2001)

Because financing and investments is so crucial to the success of contract farming, finance providers have the means to influence the workings of contract farming to certain extends. Shepherd (2007, p45) explains how the policy environment should be build to favour optimal investments in contract farming:

Box The policy environment for private investments in farmer-to-market linkage.

Governments should concentrate on developing an environment that can enable the private sector to function in a competitive way. Incentives to invest are provided by good monetary policies, which can lead to low interest rates and stable exchange rates. Attention may also need to be paid to existing taxation and tariff structures that may discourage investment. Unfortunately, governments often seek to move beyond facilitation towards direction, by taking over decisions about areas in which investments are made. The choice of target enterprise is often made in association with the international financial institutions. Loans for new or existing industries tend to distort competitive advantage, with investments being made in some sectors and in some chain actors on the basis of political rather than economic criteria. This acts as a disincentive for purely commercial investment and, if misguided investments promote market surpluses, can also increase the risks that both the “beneficiaries” and other farmers face.

Service provision by governments can also undermine commercial service providers. As an example, some governments continue to involve themselves in input supply in competition with the private sector, despite the theoretical liberalization of the input sector in most countries. Also, there is talk about reintroducing agricultural development banks, thus minimizing any incentive commercial financial institutions may have for developing loan products suitable for farmers. Provision of services by governments is best justified for demonstration purposes when there is clear example of market failure, i.e. in the, possibly rare, cases when viable economic activities are not being carried out. Even here, governments would first need to assure themselves that market failure was not due to failings in the enabling environment.

(Shepherd, 2007)

Interestingly enough, the Indonesian government has created the nucleus/ plasma scheme in 1984 to try and regulate the impact of direct investment on the agri-business industry of the poultry industry, and help small, independent producers which were disadvantaged by the rapid industrialisation of industry. (FAO, 2002)

Private investments in relation with contract farming can also have far-reaching implication on the local farming landscape. A typical example of such an influence can be seen where direct investments are translated in an increasing vertical integration. In this case, contract framing schemes can shift from small farmers to the advantage of larger scaled producers. This is the case if the livestock sector in South East Asia: small farmers have for example difficulties to meet the stringent quality and security requirements imposed by sponsors companies that want to control the bio security risk. This is supposed to give “capital-intensive and medium and large sized farm operations the advantage in contract farming that is a part of integration arrangements.”(FAO, 2002, p63) In this sense, direct investment pushes the development of a more industrialised form of production for the contracted farms which have therefore “greater access to capital and skilled management and labour than the family operated farms”. The impact of direct investment on those smaller family farmers which are excluded from contract farming schemes is suspected to “displace small family farms, [...] harm the environment and [...] result in profits flowing away from the local community”. (FAO, 2002, p65) Evidence on this point still needs to be provided.

The effects of foreign investments on contract farming are also considered significant: “As to capital flow mobility, foreign direct investments in food and agriculture are considered as the strongest driver of globalization in this economic sector. Agri-food chain assets are being acquired internationally by foreign investors in unprecedented numbers”. (Shepherd, 2001, pp7) In this context, contract farming makes a “dramatic linking of smallholder and national/ international capital” (Baumann, 2000, p9) which can be beneficial to small farmers if they are able to match the expectancies of its sponsors. But it can also be

critical as it can lead to the marginalisation of farmers who do not have the capacities or ability to adapt to international markets.

Another consequence of foreign investments is the increased quality and safety standards imposed on contract farming farmers. (See box below)

Box: Production standards

Markets for fresh and processed agricultural produce require consistent quality standards. Moreover, these markets are moving increasingly to a situation where the supplier must also conform to regulatory controls regarding production techniques, particularly the use of pesticides. For fresh produce there is a growing requirement for “traceability”, i.e. suppliers to major markets increasingly need to be confident of identifying the source of production if problems related to food safety arise. Both estate and contracted crop production require close supervision to control and maintain product quality, especially when farmers are unfamiliar with new harvesting and grading methods. Often, large numbers of crops within a single project have to be transplanted, harvested and purchased in a uniform manner so as to achieve product consistency. Distinct varieties of produce in the desired quality and quantities are often not available on the open market. For example, a multinational that invested in the Indian State of Punjab found that the local varieties of tomatoes were unsuitable for processing into paste or ketchup. This was one of the factors that made it decide to go into contract farming. FAO, 2001

Finally, “Though adapted to local idiosyncrasies, the business models of foreign investors tend to be reproduced in the host countries, thereby influencing systems organization and performance.” (FAO, 2001, pp7) When investing in a contract farming cooperation, a multinational may require crops or produce that are not usually used on the local market. Therefore they can introduce new crops, transgenic species, new farming patterns, new technologies at the level of small scale farmers. Those can be more or less adapted to local practices and have variable level of success chances on the long term. This issue is not specific to contract farming schemes but refers more generally to the consequences of the globalisation of the agribusiness on local agriculture.

As a whole, one can say that investments (and to a larger extend financing means), either public or private, either from local or foreign origin are an essential element in the contract farming scheme organisation and functioning. They therefore have a direct influence on the farmers, farming methods and agricultural landscape.

Sources:	<ul style="list-style-type: none">- FAO (2002), <u>Some issues associated with the livestock industries in the Asia Pacific region.</u> ftp://ftp.fao.org/docrep/fao/005/ac448e/ac448e00.pdf- Alimi et al, 2006, <u>Trade and Environment Dimensions in the Food and Food Processing Industries in Asia and the Pacific A Country Case Study of Indonesia</u>- Andrew W. Shepherd (2007) , <u>Approaches to linking producers to markets</u>, FAO http://www.fao.org/ag/ags/subjects/en/agmarket/linkages/agsf13.pdf- Charles Eaton and Andrew W. Shepherd (2001), <u>Contract Framing. Partnerships for growth</u>, FAO agricultural service Bulletin 145.- Pari Baumann (2000), <u>Equity and Efficiency in Contract Farming Schemes: The Experience of Agricultural tree Crops</u>, Overseas Development Institute
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Question 6:	What activities are taking place to promote contract farming?
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Government and non-governmental institution in SE Asia consider contract farming as a way to support the social and economic development of rural community and support the agri-business sector. Therefore contract farming is strongly promoted.

Ornberg (1996) explains: "Promotion of export-oriented agriculture was an important part of the World Bank's structural adjustment programs in the 1980s, with contract farming as an important component". Also, "many states see contract farming as a possible development strategy, even without pressure from the World Bank, and have given its support to the agricultural industry."

In the ASEAN region, countries with high economic development priorities highly value contract farming schemes: In Lao PDR for example, contract farming is a way to avoid the "marginalisation of farmers through transition from subsistence crops to cash crops, in parallel with the social and economic transition toward increased industrialisation". Contract farming is a way to "promote income generation activities for rural people and improves stallholders' access to new market opportunities and services required to support intensified production". (Source: www.adb.org)

Same goes for Cambodia as described here: "In a contract farming scheme for tropical fruit, the Royal Government of Cambodia (RGC), aims to increase family income and reduce poverty through diversified crop production, with high yield and low production cost. Additionally, the RGC considers rural malnutrition within communities, especially among children and women. Accordingly, the national investment plan for additional rural nutrition has been set up which involves several sectors. The programme for increasing of production of fruit tree needs to take into account sustainable development and economic efficiency. Productivity would increase as a result of better yield and improved product quality ". (ADB, 2004).

Baumann (2000) gives precision on motivation of states to promote contract farming: "Smallholder schemes are attractive to many governments because it provides a useful mechanism for a variety of explicit and implicit political objectives such as earning foreign exchange, moving populations to new settlements, redistributing land and gaining the political support of the middle peasantry. Most national governments became involved in smallholder schemes and/or in taking over plantations after Independence. In almost all countries where there had been plantations, governments are using tax incentives and credit facilities to influence the plantation sector in line with development objectives. The most common form of public sector support for contract farming manifests itself in a 'nucleus estate' which encourages the expansion of smallholders around it. In some cases, the plantation itself provides finance training and technology. [...] In Indonesia, the Nucleus Estates Smallholders Program has made the market for palm oil and tea accessible to smallholders. The Philippines, for example, introduced more crops such as coffee, banana, and pineapple to break dependence on sugar. In Malaysia during the 1960–70s there was a shift from rubber towards palm-oil, although rubber recovered its leading role in the 1980s when it was decided the competitive position of synthetic rubber would not decline. [...]

BOX: Contract farming promotion in Thailand
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Thailand has an extensive experience of contract farming with the highest degree of private sector involvement and foreign direct investment. Contract farming has been a central component of the government development plan and its strategy of integrated agricultural development generated through the private sector. The proliferation of contract farming is part of a larger national agrarian restructuring which has shifted Thai agriculture from its traditional dependence upon primary commodities to an integrated agro-food system.

(Baumann, 2000)

BOX: Contract farming promotion in Vietnam

In order to increase participation of the poor in value chains in Vietnam and to empower them as suppliers, the Ministry of Agriculture and Rural Development (MARD) has promoted contract farming. Government Decision 80 on contract farming (2002), the Cooperative Law and the draft Law on Associations all encourage a well organized system that links suppliers at the base of the pyramid with markets. This has been effective in the case of specialized products such as Japanese rice and baby corn. Although the success of contracts for more general commodities has been lower, there are still some notable exceptions, such as that of the Lam Son Sugar Company in Thanh Hoa, which has developed an effective and harmonious relationship between poor producers and the rest of the value chains.⁴

(ADB, 2006)

BOX: Contract farming promotion in the Philippines

The Philippines Government, with assistance from an FAO project, promoted contract farming for small-scale farmers who were allocated land under the agrarian reform programme. A major feature of this was a “market matching” exercise. This involved organizing forums where agribusiness entrepreneurs could meet farmers’ representatives to discuss their requirements. The forums were followed by more detailed discussions between individual sponsors and individual cooperatives or farmer organizations. By 2000 at least 27 companies had established contractual relationships with farmers as a result of the programme. Other activities carried out by the Department of Agrarian Reform included dissemination of market information, highlighting the products for which there was a commercial demand that could be satisfied through contract farming operations. The Department also agreed to act as arbitrator in the case of disputes.

(Shepherd, 2001)

Beyond the establishment of agricultural policies to promote contract farming, the states have an important role to play as a facilitator by preparing the necessary climate for the development of contract farming (see box below).

BOX: Facilitating linkages between farmers and enterprises for contract farming according to ADB

- Create a more favourable business environment to encourage both domestic and foreign enterprises to invest in agrifood trading.
- Improve the legal environment, particularly articles on punishment of contract violations to improve contract performance
- Encourage and assist the development of farmers' organizations as a linkage channel between farmers and enterprises
- Encourage and create a favourable environment for enterprises and collectives coordination in improving product quality and establishing trademark for each commodity

(ADB, 2005, <http://www.adb.org/Documents/news/vrm/vrm-200501.asp>)

Currently promotion programmes are being developed with assistance of the FAO, the UNDP or the Asian Development Bank: For the Asian Development Bank, the promotion of contract farming schemes at a regional level can help accelerating sub-regional growth and reducing poverty, particularly for small producers who can increase their income by being linked to sub-regional and regional markets through contract farming arrangements, market access to small holders (Source: www.adb.org).

The Commission on the Private Sector & Development of the UNDP also offers support to the development of contract farming. See for example “Proposed Project (Viet Nam): Effective contract farming through public-private partnership mechanism”, pp174 of the following document: <http://www.undp.org/cpsd/countrylaunches/eastasia8.pdf>

It is interesting to notice that promotion or facilitation strategies of contract farming are currently examined by different authors, who look for ways to optimising the involvement of third parties (governmental or non governmental institutions) in those schemes.

BOX: involvement of third parties in contract farming

"When contract farming is promoted within the scope of a development strategy, mechanisms to lessen the potential disadvantages for the contracting parties should be put in place. This review has suggested a number of options to be considered in this context, among which the role of third parties in facilitating the initiation of contracts and in acting as conflict mediators deserves special consideration. The experiences of NGO's and other organizations functioning as brokers in linkages between farmers and agribusinesses have been highlighted by FAO in a number of case studies [...]. Yet, these are mostly recent experiences - research is still needed to provide a better understanding of their modes of operation and on the sustainability of their involvement as the contractual relationship matures. Research is also needed in a related issue, namely the role of private-public partnerships in promoting and sustaining contract farming. Is there a role for public funding of NGO's and organizations that act as brokers in farm agribusiness linkages?"

(Da Silva, 2005)

The promotion of contract farming is also done through Inter-governmental agreements in the SE Asian region. The ACMECS (Ayeyawady-Chao Phraya-Mekong Economic Cooperation Strategy- a cooperation framework gathering Cambodia, Lao PDR, Myanmar, Thailand and Vietnam) is currently working on a "Memorandum of Understanding on the Promotion of Bilateral Contract Farming" (source: <http://www.acmecs.org/>), as illustrated in the box below:

BOX: Thailand, Myanmar ink contract-farming pact.

Thailand and Myanmar have signed a Memorandum of Understanding (MoU) which clarifies that Thai contract farmers will get access to 44 million rais (7 million hectares) of arable land in Myanmar. The MoU aims at meeting the demand for high crop yield in Thailand while creating employment in Myanmar. The two countries hope to begin the project next year. A number of Thai companies will be selected by the Government of Thailand to invest in crops for which there is unmet local demand in Thailand, such as corn, rubber, sugarcane, tapioca and palm oil. The MoU is in line with the Bangkok Declaration on Cooperation concluded at last month's summit of the Ayeyawady-Chao Phraya-Mekong Economic Cooperation Strategy (ACMECS). Thailand is seeking to conclude similar contract-farming agreements with the other three ACMECS members, namely Cambodia, Lao People's Democratic Republic and Viet Nam.

(United Nations Economic and social commission for Asia and the Pacific, 2006)

As a whole, governments and non-governmental institutions have played a great role in the spreading of contract farming schemes in SE Asia through various promotion programmes. Currently, those programmes are still being developed, and it seems there is an greater attempt to try and find a balance between economic motivations and social development (as indicated in the documents from the ADB for example), probably in consideration of the controversial effects of contract farming on poverty alleviation.

Sources:

- Ornberg, L (1996): 'Farmers' Choice in a Society under Transition: Contract Farming of Potatoes as an Alternative for Farmers in the Chiang Mai Region of Northern Thailand' in Proceedings of the 6th International Conference on Thai Studies, Theme 1: Globalisation-Impact on and Coping Strategies in Thai Society, held in Chiang Mai, October 14-17, pp16.
- Asian Development Bank (2004), Technical; assistance for the marketing support for organic produce of ethnic minorities.
<http://www.adb.org/Documents/TARs/LAO/tar-lao-37297.pdf>
- Asian Development Bank (2004), Feasibility Study of Contract Farming of Tropical Fruits in Cambodia
www.adb.org/Documents/Profiles/GMS/Data/agr029.doc
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<http://www.unescap.org/tid/tisnet/news106.asp#itinfo>

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| | <ul style="list-style-type: none">- ADB, 2005, workshop, "Making Markets Work Better for the Poor, Vietnam
http://www.adb.org/Documents/news/vrm/vrm-200501.asp- Charles Eaton and Andrew W. Shepherd (2001), <u>Contract Framing, Partnerships for growth</u>, FAO agricultural service Bulletin 145.- Carlos Arthur B. da Silva (2005), <u>The growing role of contract farming in agri-food systems development : drivers, theory and practice</u>, FAO |
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Question 7:	Is there a link between contract farming, empowerment and improved export performance?
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Contract farming schemes have been established in order to link farmers to markets at a local and most importantly at an international level. Therefore, where contract farming schemes are working successfully, they generally influence exports positively. The literature does not provide sufficient quantitative data to give an overview of this interaction at the level of the all ASEAN region.

The document from Zola ([Contract Farming for Exports in ACMECS: Lessons & Policy Implications](#), 2007, World Bank, enclosed as attachment) gives an example of the way such interactions can be build. The box below also illustrates this point, more specifically in Thailand:

BOX: Contract farming and export in Thailand

Since 1986, the Thai government has developed a scheme in favour of export-oriented agro-companies. Once of the measures allowed Agro-processing industries to benefit from the extension of subsidized credit to farmers who participate in contract farming and outgrowing schemes [...]. For one, processed agricultural exports grew at an annual average rate of 33.75 percent between 1986 and 1993. Still, the link between the promotion of contract farming and improved export performance has not been strictly established.

(Sundaram et al.)

The link between contract farming and empowerment is highly documented. It refers to the concept of agricultural extension (understood as communication and learning activities organised for rural people by professionals from different disciplines, including agriculture, health, and business studies).

The public sector has generally an important role to play in developing countries for agricultural extension. But under the contract farming schemes, the private sector has been given an increasing role. Glover (1990) explains: "the company has a direct interest in providing effective extension services because it wants high-quality, low cost produce. Public extension services have no such incentive and regulate their performance in accordance with bureaucratically defined criteria (for example, number of farmers served, quantity of inputs distributed). These criteria are much less effective in assessing performance and providing incentives than the profit-related criteria used by contracting companies. A priori, then, one would expect the quality of extension provided in contract farming to be superior to that found in purely public or market-oriented systems. In most private contract-farming schemes, extension tends to deal only with the contract crop, although some of the multipartite schemes [...] use a multi-crop approach. Some of the production techniques learned in contract-farming schemes are highly crop specific and are not transferable to other commodities. Management skills learned through participation in an agribusiness scheme are more widely applicable, however, and include accounting practices, negotiating skills, and awareness of the importance of quality, characteristics of export markets, and contract provisions. Generally speaking, there tends to be some transfer of contract-farming induced production and management skills to other cash crops and to the farm enterprise as a whole."

BOX: contract farming and farmer's knowledge in Thailand

On the technical know-how, the contract vegetable soybean, cucumber and maize seed farmers had learned new knowledge directly from the firms' extension staff. For potato and tomato farmers, they had experiences and knowledge prior to contract. However, potato farmers did receive knowledge from universities under firms' support. The knowledge of fertilizer and chemical applications as well as intensive and scheduling production could be transferred to other crops. The potato farmers mentioned that they applied the same production techniques to potato produced for fresh market. Manarangsana and Suwanjindar (1992) reported differently that the farmers participating in contract farming projects of oil palm, pineapple and asparagus gained new technical knowledge from input suppliers who launched sale promotion (e.g. demonstration plot). The pineapple canneries were found to be most active among the others in disseminating knowledge to the farmers. The oil palm farmers were able to adapt the knowledge to rubber production. However, Manarangsana and Suwanjindar (1992) noted that the knowledge learned from broiler production was difficult to apply to other type of agricultural production. As the farmers were closely supervised and instructed, they hardly

exercised their decision in crop management, input purchasing, and marketing their output. The contract farming could lessen farmers' entrepreneurial ability, but increase precise managerial skill. The farmers in contract prawn production in southern region (OAE, 1989) and duck contract (OAE, 1991) in eastern region expressed that they lost their freedom in farm management. This drew back their knowledge development and decision ability. Besides, they lost freedom to acquire inputs. The advantages and disadvantages were indicated in several contract farming studies (Table 8).
(Wiboonpoongse, 2003)

Other aspects of empowerment are associated with contract farming schemes, as described below:

BOX: Empowerment of women and Development of a Commercial Culture Empowerment of women
A not uncommon outcome of contracts is that women and younger family members provide much of the labour while cheques are paid to the (male) household head who holds title to the contracts (Glover & Kusterer, 1990; Torres, 1997). Porter and Phillips-Howard (1997) report an African case study where women, despite being the principal farmers, held titles to contracts only when they had no husbands and where additional labour demands arising from contracts were met by women and children. While this indicates that contracts have the potential for exploitation in some family situations, the importance of women in contracts may raise the power of women in the family by increasing the dependence of the family unit on their production.

Development of a Commercial Culture
Farmers are likely to benefit from the learning process that underlies contract participation. By participating in contracts, smallholders are involved in negotiations over production, storage, delivery and communication that often lie outside of traditional farming experience. While much of this decision-making may be facilitated by participation in groups, farmers bear the final responsibility for these decisions. In the context of pressures from the new cash economy, urbanisation and reduced government support associated with liberalisation of domestic markets, contracting then becomes a facilitating component in a broader shift in developing country agriculture towards a cash exchange culture. In his study of contract farming in Africa, Ponte (2000) argues a major effect of modernisation has been replacement of traditional exchange mechanisms based on mutual obligation, kinship and class structure with cash exchanges. Farm families now need cash for school fees, weddings and funerals and basic items such as food, clothing and medicine. Farm contracts can provide the cash to meet these needs and should facilitate adjustment to modernisation by increasing smallholders' awareness of options and knowledge of commercial practice.
(Simmons, 2002)

As a conclusion one can say that the link between exports and contract farming is suspected to be high, since most of contract farming schemes are developed for crops or livestock that target foreign markets. The evidence should be provided through data which are missing in the literature, but might be available through local contacts (see list of local contact points at the beginning of this report). Finally empowerment and contract farming is well documented on a case-by-case basis. Thanks to agricultural extension provided in general by the sponsor company, farmers can improve their management skills (accounting, negotiation...) and their technical skills (high quality production with appropriate technologies and inputs). Still it seems that the interaction between contract farming and empowerment can not be generalised (see Question 10).

Experts:	- Phil Simmons, (2002), Overview of Smallholder Contract Farming in Developing Countries, FAO http://www.fao.org/docrep/007/ae023e/ae023e00.htm
Sources:	- Charles Eaton and Andrew W. Shepherd (2001), Contract Framing, Partnerships for growth, FAO agricultural service Bulletin 145. - Carlos Arthur B. da Silva (2005), The growing role of contract farming in agri-food systems development : drivers, theory and practice, FAO - Phil Simmons (2002), Overview of Smallholder Contract Farming in Developing Countries, FAO http://www.fao.org/docrep/007/ae023e/ae023e00.htm - Jomo K. Sundaram and Michael Rock, <u>Resource Exports and Resource Processing</u>

	<p>for Export in Southeast Asia. United Nation university, http://www.unu.edu/hq/academic/Pg_area4/Jomo.html</p> <p>- Wiboonpoongse, 2003, <u>The Roles of Contract Farming in Agricultural Transition in Thailand</u>, Chiang Mai University http://www.mcc.cmu.ac.th/agbus/data/research%20paper/CONTR_JISSAAS98.pdf</p> <p>- David Glover (1990), <u>Contract Farming and Commercialization of Agriculture in Developing Countries</u> http://www.ifpri.org/pubs/books/vonbraun94/vonbraun94ch10.pdf</p>
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Question 8:	What are commercial motivations behind contract farming (business models and/or business-related motivations)?
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The subject of the commercial motivations of contract farming is widely addressed in the literature. Those motivations are analysed under a pragmatic and empirical angle and/ or theoretical and conceptual angle.

First of all, a few authors have made an attempt to try and assess the economic impact of contract farming in terms of extra (if any) revenue or yield generated versus non-contract forms of production. The information provided is always related to case studies, which means that a general trend can not be sketched. The documents listed below describe in detail the positive or negative economic impact of contract farming:

<p>Box : List of studies related to economic impacts of contract farming</p> <ul style="list-style-type: none"> • Pari Baumann (2000), Equity and Efficiency in Contract Farming Schemes: The Experience of Agricultural tree Crops, Overseas Development Institute, pp31, pp40 (Malaysia) • Ian Patrick (2004), Contract farming in Indonesia: Smallholders and agribusiness working together, Australian Centre for International Agricultural Research, pp X (end 1st paragraph), pp 7 (Benefits and risks...), pp 38 (table 5), pp 40 (second paragraph), pp 57 (table 13) • Teck Ghee and Richard Dorall, Contract farming in Malaysia with special reference to felda land schemes (detailed economic analysis of Felda CF schemes, more specifically pp 91, pp 93., pp 147) • Vermeulen et al. (2006), Small holder schemes for palm oil in Indonesia and Malaysia, IIED, more specifically pp 16 • Asian Development Bank, 2005, 30 Cases of Contract Farming - An Analytical overview • Singh Sukhpal, 2005, Contract Farming System in Thailand, Economic and Political Weekly, pp 5584 • Isabelle Delforge (2007), Contract Farming in Thailand: A view from the farm, Focus on the Global South, from pp 14, pp 21 • Wiboonpoongse, 2003, The Roles of Contract Farming in Agricultural Transition in Thailand, Chiang Mai University, pp 23

Da Silva (2005, p15) also describes the empirical motivations for engaging in a contract farming schemes, first from the sponsors' point of view and then for the farmers' point of view. The decision for engaging in contract farming is looked at under two angles:

- The cost-benefit analysis for the aspects related to the private decision
- The stakeholder analysis for the aspects related to the public decision

Here is a summary of the farmers' and sponsor's advantages in contract farming (from Shepherd 2001 and Da Silva 2005):

Advantages for the sponsor	Advantages for the framers
Production reliability and shared risk	Provision of inputs and production
Quality consistency	Access to credit
Reduced input costs	Guaranteed and fixed pricing
Reduced labour costs	Income stability
Flexible production capacity	Access to reliable and /or new markets
Promotion of farm inputs	Possibility to make use of by-products and residues
Political acceptability	Introduction of appropriate technology
Access to agricultural credit, financial incentives and subsidies	Skill transfer
Overcoming land constraints	
Better inputs (for high value, labour intensive agricultural enterprises)	

Contract farming is one of the ways for agri-business companies to better synchronise the vertical stages of agri-food value chains as they try to lower costs by improving productivity, improve and ensure quality throughout the chain, control risks associated with markets and food safety and enhance responsiveness to demand (Da Silva, 2005). For agri-business firms, contract farming is also a way to set up market conditions that may be structurally missing in developing economies: provision of inputs, credit, farming technology, information and access to markets.

Even if contract farming is generally not referred to as a business model per se, it can be associated with different concepts of business models: It was already mentioned above that contract farming can be a form of vertical coordination, or horizontal integration. However it can also be described as a form of backward integration. In a backward integration business model, a company set up subsidiaries that produce some of the inputs that are used in the production of its final products. The purpose is to ensure a stable supply of inputs and the consistent quality of their final product (Source: Wikipedia). "Backward integration through contract farming offers the possibility to control supply without investing large amount of capital in creating physical infrastructure. Backward integration imparts greater cost efficiency due to operation synergies, economics of scale and increased control over supply chain functions". (Source : http://indore.nic.in/Global_Investor_Summit/PDF/Contract_farming.pdf)

In economics theory, the transaction cost is the conceptual framework that is most commonly used to study the motivations of contract farming. This analysis is based on the assumption that firms seek to minimize transaction costs that result from any exchange process and therefore examine the characteristics of transactions related to asset specificity, uncertainty and frequency. In a FAO document, Carlos Arthur B. da Silva (2005, pp11) gives an overview of this theoretical analysis framework.

Finally the rationale of contract farming schemes is discussed at a conceptual level with a policy making purpose. The economic motivations of contract farming are then linked to development functions. One of the most recent discussions defines contract farming as a framework to implement the "Base of the Pyramid" principles. The concept of the "Base of the Pyramid" (BOP) asserts that poor people can be integrated with national and global markets, both as consumers of high quality goods and services and as producers of reliable inputs to industrial processes and value chains. [...] The BOP model shows that as businesses recognize the poor's potential as producers and consumers, the market mechanism can deliver effective development results directly to the poor(ADB, 2006).

As a whole, the commercial motivations behind contract farming are one of the most essential aspects in the reviewed literature. The analysis revolves around the attempt to find a win-win situation between private agri-business firms and farmers and it seems that most authors agree to say that there is still a potential for contract farming to achieve this goal, but in practice (see Question3) this proves to be a challenge in numerous cases.

Sources:	<ul style="list-style-type: none"> - Carlos Arthur B. da Silva (2005), <u>The growing role of contract farming in agri-food systems development : drivers, theory and practice</u>, FAO - Asian Development bank, 2006, <u>Making Markets Work Better at the Base of the Pyramid</u>, Market and development bulletin http://www.ifc.org/ifcext/mekongpsdf.nsf/AttachmentsByTitle/MDB-11-Eng/\$FILE/MDB-11-Eng.pdf
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Question 9:	What best practices exist on contract farming in SE Asia (i.e. cases that show evidence that small farmers (rural livelihoods) benefited from the practice)?
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Contract farming best practices are to be found in the documents referred to in Question 3. Those documents provided various examples of contract farming schemes per countries. Not all of those examples can be considered as best practices since failures are also reported (but this also offers interesting learning points).

Shepherd 2007 (annexe 1, p45) also gives some example of successful farmers-to-markets linkage. (As explained p6, most types of linkages can be associated to contract farming schemes, even if the paper does not define them as contract farming per se).

Other best practices can be found under those links:

- Lao, ABD, small older development project
<http://www.adb.org/Documents/PIDs/31351013.asp>
- Technical assistance to Lao DRP for the marketing support of organic produce of ethnic minorities project
<http://www.adb.org/Documents/TARs/LAO/tar-lao-37297.pdf>

Question 10:

What are the negative impacts of contract farming schemes in SE Asia?

The objective of this chapter is to outline negative impacts of contract farming based on SE Asian cases. Most institutional or academic documents attempt to give a balanced overview of positive and negative impacts. Those balanced analyses are referred to in this chapter together with more critical reports. The impartiality of those sources (either neutral or radical) and the accuracy of the information provided can not be assessed here and should be verified.

It is important to notice that lots of critiques about contract farming do not only refer to its negative impacts, but also to the fact that its format and workings have inherent failures or imperfections. Since Oxfam Novib is assessing contract farming in the context of a possible campaign, it is important to actually distinguish the imperfections of the scheme from its actual negative impacts. As a result, the scheme's imperfections will be quickly reviewed in a first part. The actual negative impacts of contract farming will be reviewed in a second part, with an attempt to give tangible case-based evidence of those negative effects in our study area, ie SE Asia.

Note: The list of documents that is referred to in this chapter is not exhaustive, but provides a good overview of the polemic on contract farming.

1. Inherent failures or imperfections of contract farming schemes

This overview is kept short since those issues are not specific to our study area but relates to a more general discussion about the different farm-to-market linkage mechanisms, their advantages and disadvantages. This issue is largely documented by organisations and academics that are involved in such schemes in developing countries. The literature identifies several elements to which the failure or imperfection of contract farming can be attributed: the market environment, the farmers, the contractors, the nature of the agreement.

First, contract farming agreements may not be easily enforceable or legally binding, especially in countries where contractual enforcement is weak (Patrick, 2004). This can enhance an opportunistic attitude of both parties that do not respect their engagements when market conditions change or when alternative markets develop (Bijman, 2002 and Patrick, 2004). "If market prices at product delivery time are substantially different from prices agreed in the contract, contractors may force renegotiation or may just reject product delivered. [...] A farmer may be compelled to sell all, or part of his or her production, to a third party when prices are perceived to be higher outside the contractual bond." (Bijman, 2002). Farmers may then fail repaying input credit to the contractor (Patrick, 2004). Another issue called input diversion "occurs when farmers are tempted to use inputs supplied by the firm for non-intended purposes" (Patrick, 2004). Farmers may also resell the inputs.

"While the applicability [of contract farming] is fairly general, there is evidence that the most successful schemes are associated with agricultural products that are high-valued or produced for processing and /or exports. Products for which there is high local demand may be more susceptible to side selling and thus may be less suitable for contract farming"

<http://www.fao.org/ag/ags/contract-farming/faq/en/#q3>

Contract farming is also reported to be a heavy scheme to manage for the sponsor industry, especially given frequently poor organisational capacity of farmers and when the bridge of producers' organisation is missing to facilitate the relationships between farmers and the company. The responsibilities that are put on the private partner are reported to be a source of failure of contract farming. It is interesting to highlight those aspects since they put in perspective the chapter to follow on the negative impacts of contract farming for farmers.

- “Contractors face high transaction costs of dealing with large numbers of farmers. Managing a commercial relationship with a myriad of partners is a complex task, requiring investments in personnel, in controls and in monitoring systems” (Bijman, 2002)
- “Contract farming requires high-level managerial skills on the part of the agro-business firms. [...] Poor management and a lack of communication among contractual parties may lead to farmer dissatisfaction and a breakdown in contractual agreements.” (Patrick, 2004)
- “Firms are required to bear increased risk in contract farming. Most contracts stipulate that the firm will purchase all the produce, usually at a price higher than the prevailing market price. The firm may bear the price risk as well as the risk of crop failure due to poor management or seasonal factors. To ease potential losses, the firm may maintain tight control over management and offer seasonal or annual contracts so as to exclude unproductive farmers from the future contracts (Patrick, 2004).
- “Contractors internalize the cost of support services, such as extension, transportation, quality monitoring and financial services, which in competing regions may be provided free of charge by public agencies”. (Bijman, 2002)
- “Contract farming’s prospects are dim without competent traders or firms to manage farmers and their own staff, i.e. to keep production on track, solve problems quickly and prevent corruption.” (Fullbrook D, 2007 – Lao)

Case Study : Chillies under contract farming in Lao

The following example offers a interesting illustration of critiques that are directed not at the negative impacts of contract farming, but at the inherent imperfections of failures of this type of farm-to-market linkage:

The company Phet Houng Heuang contracted Lao farmers (formerly rice producers) for a new production : chilly, which has an intense cultivation pattern and demand a constant attention from farmers. On top on agreement on price an quantity of chillies, the company provided cultivation training to the contracted farmers, plus inputs (fertilizers and pesticides). Still the quality and quantity production did not meet expectancies of both parties. The company claimed that supervision and follow-up of farmers was a real issue: “You cannot just tell them, you have to lead them, they have not had any experience like this”: The company also suspected that the poor quantity was due to the fact that farmers sold the chillies to other traders. Some of the farmers admitted that they paid their employees in kind with chillies, since the payment of the companies came too late. The farmers also complained that the fertilizers provision came too late, forcing them to improvise and causing crop failure. Plus, they accused the company of over-charging the fertilizers. More over, they expressed doubts on the purchasing price due to the lack of competition : “I’m afraid with only one company the price will be pushed down, if more companies made contracts prices would rise”.

In order to avoid failure of their agreements, both parties pointed out some lessons:

- The company mentioned : “Next year I want to invest more in preparation and training prior to planting so the villagers understand better. I will only make contracts with a group that has a strong leader who invests 50 percent. I’m also going to register each contract with the courts.”
- The farmers stated : “At every stage the authorities should be involved. If the contract changes everybody should be involved so it’s clear. Contracts should be detailed and clear.” Farmers also reflected on their shortcomings. “We need to keep better records, we should make a record whenever we do things according to the company technical staff’s instructions”.

Fullbrook concluded : “Furthermore, in the absence of established relationships between both sides, such as those based on blood or friendship and in the absence of a capable legal system, there is a significant risk that one or both sides may decide to exploit the relationship for short term gain in the absence of concrete signs of long-term commitment and incentives.”

2. Negative impacts of contract farming

Farmers can potentially be better off within contract farming schemes because, amongst others, it potentially offers broader access markets and fix revenues (see first part of this report). But the literature also illustrates cases of contract farming where farmers are worse off with this arrangement. An underlying question is the fairness of contract farming for farmers. This raises deontological issues which are important in a development perspective. In a paper on Contract farming in Thailand, Delforge writes : “Even though contract farming looks quite attractive for farmers as well as for private companies, this system raises serious concerns regarding social justice, environmental sustainability and corporate control. Very often, instead of being the win-win agreement promised by its promoters, it becomes an elaborate way of exploiting small farmers.” (Delforge, 2007). An observer of shrimp contract farming in Indonesia even mentions: “Smallholders live in state of total dependency of unfair and shady company practices and in condition of semi-slavery.” (Raja Siregar, 2004)

The negative impacts of contract farming in SE Asia that appear in the literature are highlighted below in different categories:

2.1. An unbalanced partnership

The question of the difficult power relationship between the sponsor company and the farmers is one of the most debated (and agreed upon) issues about contract farming:

- “Contract farming as a development tool has been criticized for the exploitative effects of monopsony control, whereby farmers are tied to one purchaser [...]. The firms generally possess more information, resources, and organizational ability than small farms. Their strong bargaining position enables them to potentially extract significant rents from smallholders, leaving them only marginally better off.” (Setboonsarng, 2008)
- “Small-scale isolated farmers are usually not in a position to negotiate a fair contract with large transnational companies, their agents, their technicians and their lawyers. [...] Farmers have to follow the conditions set by the processing factory which are not equitable”. (Delforge, 2007 – Thailand)
- No negotiation space or arbitration body is generally available to settle those disputes (in the case for example of conflicts with the company on the quality of the feed and the inputs provided, on delays in payment, on the length of the break between the production cycles, etc.) (Delforge, 2007 – Thailand)
- More generally, farmers are isolated, which hamper their negotiation power in the partnership. They are rarely gathered in trade unions or producer associations. “Many contract farmers seem to be willing to raise their concerns collectively, but the only place where they meet is at gatherings held by the company itself.” (Delforge, 2007 – Thailand)

Some more examples of this unbalance relationship is given below:

- In a contract with the company Frito Lay Thailand, farmers agree to sell their produce exclusively to the company, but on the other hand, the company is not committed to buy the product from the farmers. (Delforge, 2007, commodity not specified – Thailand)
- Contract farmers do not receive a copy of the contract when it is signed. Such cases are reported for CP poultry contract farmers in Thailand (Delforge, 2007 – Thailand), Phoenix Eucalyptus contracts farmers in Thailand (Carrere, 1996, p171 - Thailand)

- During the bird flu crisis in Thailand in 2004, some farmers under contract with CP did not receive any chicks for more than 6 months, without receiving any compensation or even any explanation for this long delay. (Delforge, 2007 – Thailand)

2.2. Agricultural transition

Contract farming introduced new agricultural patterns that sometimes do not prove to be beneficial. Those issues relates to the transition from local (subsistence) crop to cash / export crops; to the expansion of monoculture as opposed to crop diversification. Bijman (2008) analyses the impacts of contract farming on agricultural patter : “Farmers lose flexibility in their choice of farming activities. Bound to a crop or livestock enterprise by a contract, farmers cannot adjust production mixes so as to benefit from market opportunities. The risks normally associated with monoculture practices are increased. Intensified production of single agricultural crops, or the concentration of animal herds, increases the chances of diseases.” (Bijman, 2008)

In a report about contract farming in Asia Setboonsarng (2008) specifies : “The transition from subsistence farming to cash crop production has the potential to render households vulnerable to food shortages and nutritional loss. Many contract farming arrangements are based on monocropping of a non-traditional crop, causing farmers to become reliant on income from the sole cash crop. If the firm does not live up to it’s the contractual obligations, farming households may thus be vulnerable, since they no longer grow a variety of edible crops and lack the funds to purchase food [...] Farmers also face greater production risk in the case of newly introduced crops which may take time to adapt to new growing environment and required new growing techniques which are new to farmers. For example, cashew nuts contract farming in Thailand had initial success but failed after a few years due to unanticipated pest outbreak associated with non-traditional crop.” (Setboonsarng S, 2008)

2.3. The Farmers’ empowerment and independence in question

In a development perspective, one attribute of contract farming that is generally valued is the empowerment of farmers through agricultural extension, management skills transfer, potential spill-over effect in the community and for other crops. Still some observers note that farmers rather loose their managerial autonomy and independence.

As mentioned in Question 7, a few authors reported that under close supervision of the private sponsor some farmers loose their entrepreneurial abilities (Wiboonpoongse, 2003 – Thailand, prawn and duck) as a result of restricted possibility to make decision, to acquire inputs, to manage their crops and market their ouput.

“In practice, contract farmers are effectively workers for the company. They work full time for the company and they depend entirely on the company for the inputs, the technology and the marketing of their whole production. The company makes all the decisions related to the production and the workers’ job is to raise animals. [...] With the support of international institutions and national governments, contract farming is also leading to the privatisation of extension services. Company agents are visiting farmers more regularly than government extension officials, promoting some technologies, providing inputs and giving access to credit and markets. The technologies they are promoting answer the needs of the industry, which can be radically different from small farmers’ needs for low cost and locally controlled modes of production.” (Delforge, 2007 – Thailand)

About loss of autonomy of farmers, Delforge (2007) goes one step beyond as she denounces the overwhelming influence of contract farming in Thailand: “Finally, it seems to be increasingly important to defend the right to be a “non-contract farmer”, and to produce food in a non-industrial way. In Thailand, the promotion of industrial farming is getting so overwhelming that small scale traditional farming is becoming either impossible or illegal. For example, the Ministry of Agriculture and Cooperatives is providing some financial incentives for fruit growers on the condition that they are under contract with a company. The quality requirements imposed on farmers are becoming so strict and complex that contract farming is

becoming the only way for producers to comply with the standards. Some farmers are concluding that it is becoming almost illegal not to be bound with any company.”
(Delforge, 2007 – Thailand)

2.4. Social and cultural issues

Contract farming is also reported to bring along undesirable social and cultural changes in the communities where it develops. Those issues are linked to the modification of patterns linked to employment, land ownership, social status.

Analysing the situation of contract farming on Lao, Fullbrook (2007) refers to the analysis of Simmons (2002) :” Simmons study of contract farming in developing countries notes that demand for land, labour and other goods and services may rise in communities where contract farming becomes significant potentially upsetting traditional balances which may displace other crops while narrowing markets for some product or services. This may result in a change in relative incomes, disturbing social hierarchies and leading to a decline in reciprocal relations holding communities together The poor are particularly vulnerable to experience negative consequences of these changes, especially those with little land or unable to partake in contracting (Simmons 2002, p.21). Poverty may deepen for those unable to engage in contract farming (p.19).

Talking about shrimp contract farming in Indonesia, Siregar (2004) reports:”This modern and large scale shrimp farming create a major socio-economic problems to the local people. There is often a strong relationship between such problems and the intensity of the farming system [...] Local people can not fully play the important role on the shrimp industry. A few of them can participate as low skill workers, and the others have to find new job, and migrate to city. In conclusion, the change from traditional to industrial shrimp farming that is rapidly taking place might in the short term benefit the government and the large-scale shrimp investors due to foreign currency generation, but the environmental and social costs associated with the industry by far outstrip the benefits. Local communities are particularly marginalised and exploited and local social structures are threatened by growing tensions and conflicts. “
(Siregar, 2004)

Land conflicts are also generated by contract farming when it involves large scales farming. Such conflicts are reported by Raja Siregar (2004) about shrimp farming in South Sumatra : “Wahyuni Mandira Co. now possesses 30,500 ha and is planning to expand to 170,000ha. Prior to its operations in 1997, part of the land belonged to the local people and the other was a conservation area. 2,200 farmers were forced to give up their land for very small compensation as the Provincial Government claimed that the land was government asset and the local people didn't have land rights. Only 10% of them were invited to become smallholder farmers and the others were asked to migrate. More than one thousand resisted and stayed on in neighbouring land and in mangrove areas.” Raja Siregar (2004)

2.5. Financial / economic aspects

The review of the contract farming literature shows that the calculation of the farmer's revenue is use both as the ultimate proof that farmer's are better off or...worse off. It is difficult to make general conclusions on this basis, even if it seems that when heavy infrastructure investments are required from the farmers (livestock, aquaculture) they have less change to benefit from the scheme.

Farmers are required to make investments, which in the case of industrial agriculture is “is obviously much higher than for traditional farming“ (Delforge, 2007 – Thailand). “The company invests in the production costs (by providing the inputs), but farmers bear the burden of the infrastructure and fixed costs”. (Delforge, 2007 – Thailand, pig production) Loan for investments are contracted by the farmers on a several-year basis while most contract are signed on a one year basis. Contract farming therefore represents an extremely risy investment if the sponsor company stop the partnership before the farmers has paid back his debts (Delforge, 2007 – Thailand).

Revenues are also a question point. Bijman (2008) makes the following remark: “Contractors may influence prices paid to farmers by setting delivery schedules, particularly when prices are rapidly changing and contractors can adjust the delivery schedule to benefit from market volatility.[...] Contractors might intentionally avoid transparency in the price determination mechanisms of the contract, making it very difficult for the farmer to assess whether he has received a proper remuneration” (Bijman, 2008). The contract can also stipulate complex calculation formulas that do not allow the farmer to anticipate its revenue. Revenues to farmers are often lower than expected. (Delforge, 2007 – Thailand).

Example of revenues for a broiler farmer contract farming in Thailand:

“Our case study shows that the stability expected in such an agreement is actually a myth. Incomes are fluctuating and extremely difficult to anticipate and monitor. In terms of income, broiler farmers are in a very precarious situation, earning an average of 3,485 baht per month (approx. US\$87), generally for two workers. This is less than the minimum wage and the average income in agriculture at the national level. In our sample, layer and pig farmers were getting higher incomes on average, even though some of them also were in deficit” (Delforge, 2007)

Goos (2000) in a study about shrimp contract farming on Thailand also notes that “making the move to working on a shrimp farm is not necessarily an advancement”. One of the reason are financial:” continuous wages during the crop depend on successful harvests, and with the very high rates of crop loss in the industry, there are no guarantees of income. [...] the rates of bankruptcy at the farm level are very high. [...] More importantly, even if all the right conditions are met and there is a good harvest, farm workers, if their incomes were to be spread out over a single year, would not even receive Thailand’s legal minimum wage (about US\$4 a day).”

Because of low revenues, farmers can find themselves in structural debt situation. Debts create a financial dependence of farmers to the contracting company. This financial dependence is increased if the company requires continuous investments (Delforge, 2007 – Thailand) or if the company also provides inputs (seeds, fertilisers...). In the case of shrimp production in Indonesia, Raja Siregar (2004) notes :”Theoretically, the smallholders are expected to pay back their debt to the company within 7-8 years and to become independent owners of the pond and a small home. In reality, all the conditions and prices are set by the company, the accounts are kept by the company and the smallholders get trapped into a vicious cycle of poverty and debt.”

2.6. Labours rights and human rights

Social issues, and even human rights issues, are also associated to contract farming. The ILO conventions defines specific rights for plantation workers and duties to their employers: (World Rain Forest Movement, 1996)

- Rights relating to Freedom of Association and Protection of the Right to Organize (as set out in ILO Convention 87 (1948))
- Rights relating to the Right to Organize and Collective Bargaining (as set out in ILO Convention 98 (1949))
- Rights concerning Conditions of Employment of Plantation Workers (as set out in ILO Convention 110 (1958))
- Rights specific to Rural Workers’ Organizations (as set out in ILO Convention 141 (1975))

In a statement on the rights and welfare of plantations workers the World Rain Forest Movement (1996) notes : “The trend towards the divestment of lands and reliance on contract farming and smallholder nucleus estates has had very varied effects. In some countries, small farmers have been able to benefit, by organising as cooperatives and through effective collective bargaining with processing and exporting industries. In other countries, however, where small-farmers are weakly organised or their rights to organise and bargain collectively are suppressed, companies have been able to increase their profits by

shifting onto small-farmers the costs of health, schooling, pension and insurance provisions as well as the risks associated with spoiled crops and injuries.

One of the important critiques of contract that can be found in the literature relates indeed to failing social benefits for farmers since their status under the contract farming scheme is compared with the one of employees.

Delforge (2007) notes the following about broiler contract farming schemes in Thailand : “In the case of the formal centralised model of contract farming, farmers effectively become the workers of the company (“Our job is to raise the chickens that belong to CP. We build the farm and we simply do what they tell us to do.”) But the company does not provide any of the obligations under a typical employment contract such as minimum wages, sick leave or severance pay.”

Goss (2000) highlights the precarity of employment under shrimp contract farming in Thailand: “Most shrimp is grown over a four-month period, with a one- or two-month break in between each crop, during which there is no employment. [...] the rates of bankruptcy at the farm level are very high, and there is often little security of employment, with workers often changing farms every year.” (Goss, 2000)

A related issue is the informal employment in the family circle of the contracted firm with its repercussion on women and children (see also “BOX: Empowerment of women and Development of a Commercial Culture Empowerment of women” in Question 7). Setboonsarng (2008) also reports : “Contract farming practices may also lead to exploitation since family labor is inclusive of women and children. White’s (1997) study of dairy contract farming ventures in West Java determined that in “family” run dairy farms women and children provided an estimated 60% of all labor inputs (White, 1997). However, contractual agreements are often signed and the proceeds controlled by the male head of the household. The burden of farming practices may be placed on the most vulnerable members of the household”. (Setboonsarng, 2008) Talking about shrimp contract farming in Indonesia, Raja Siregar (2004) explained that “The NESS system is also very biased against women. In large-scale shrimp farming only adult and educated man can hope to get a job. In case of death or inability to work of the smallholder males, women must leave the farming estate, leaving behind all the assets that they had been paying for by credit instalment.” (Raja Siregar, 2004)

2.7. Exclusion of poorest farmers

In numerous developing countries, contract farming is promoted as a way to foster the transition of traditional agriculture and to link small farmer to larger market, possibly to export markets. In order to enter in such contractual agreements, farmers must demonstrate the capacity and ability to level up to the requirements of the agro-industry. In this context, contract farming is reported to exclude poorest farmers while agro-business firms seeks contract with large-scale farmers to reduce transaction costs. (See more about small holders exclusion in Question 5)

Setboonsarng S (2008) brings a nuanced vision to this statement: “Agro-business firms prefer limited land size to ensure easier maintenance and greater quality control over a given crop as is the case with asparagus and cucumber farming in Thailand. Often smallholders can produce a high-quality, labor-intensive crop if given the appropriate technical supports. Nevertheless, although contract farming appears to involve small farms, such arrangements may exclude the poorest of the poor. Landless peasants and households possessing only limited marginal lands tend to be overlooked by firms. ” (Setboonsarng, 2008)

Fullbrook, (2007) makes a similar comment about contract farming in Lao : “Generally, however, a farmer who has secure access to land of good quantity and quality, in close proximity to sealed roads that connect with thriving markets or a factory, is better placed to benefit from contracts, especially those for higher value, more intense, niche or specialist crops. This can in some circumstances leave the poorest farmers at a disadvantage as their farms may include some or all of the following features: small plots, poor soils, marginal land such as hillsides. They may also be far from sealed roads with regular, cheap, reliable

transport to thriving markets or processors. Moreover as contract farming typically requires farmers to provide land it generally precludes landless people, often among the poorest in any given region.

Patrick (2004) reports that in broiler contract farming schemes in Lombok, Indonesia, contractor farmers are generally better off than non-contractors in terms of sanitation and housing. Also “Contractors had spent twice as long at school as non-contractors and 70% of contractor households had at least one member who had completed senior high school compared to only 20% in non-contractor”. (Patrick, 2004). Talking about rice contract farming in Malaysia, this observer also notes: “The fact that households with greater irrigated land tend to be selected into contracts suggests, on equity grounds, a need to seek mechanisms to improve the attractiveness of households with less irrigated land.” (Patrick, 2004)

2.8. Environmental issues

Contract farming schemes have also been denounced for their impacts on the environment as a consequence to the introduction of new production patterns. Contract farming involves in most cases a transition from traditional to intensive and mono-crop agriculture, meaning an high-input production (in water and agro-chemicals) creating more effluents. Contract farming may also lead to land conversion (involving loss in biodiversity and eco-systems functions). It is to be noted that such effects are not exclusively found under contract farming schemes and that traditional agriculture also causes environmental impacts². Still the high demands that the private sponsor directly puts on the farmers may foster the negative effect of intensive agriculture.

Singh (2005) gives an overview of potential environmental impacts under contract farming: “The overexploitation of groundwater, salination of soils, soil fertility decline, and pollution are typical examples of environmental degradation due to contract farming [...].The firms tend to move on to new growers and lands after exhausting the natural potential of the local resources, particularly land and water, or when productivity declines due to some other reason [...]. (Singh, 2005)

Several SE Asian cases were found in the literature to illustrate those environmental impacts.

“In many cases, contract farming has led to an increase in the use of pesticides, with the associated environmental damage. The company imposes the amount and the type of chemicals that should be applied. As it does not have any long term commitment to the farmers, it tends to overexploit their land. Moreover, the widespread use of some industrial seeds or animal species is also a major threat to the environment. Local varieties are wiped out, undermining biodiversity.” (Delforge, 2007 – Thailand)

Setboonsarng (2008) noted the specific impact of contract farming cash crops (monocropping) with a heavy reliance on agro-chemicals: “Yields generally increased substantially during the initial period [...], but yields tended to stagnate or decline as soil conditions deteriorated due to excessive use of agro-chemicals. The heavy use of these chemicals has also led to serious health conditions for farmers while threatening environmental resources, including water resources and aquatic animals. Many of the pesticides that are banned or strictly controlled in the West have been introduced to farmers in developing countries through contract farming, resulting, for example, in negative health impacts on farmers.” (Setboonsarng S, 2008 – multi crops, Asia)

As mentioned above, environmental damages are also observed when contract farming involves important land use conversion. One example is the conversion of mangrove for aquaculture into industrial ponds. An important natural protection against erosion and natural disaster is removed, which is often associated with loss of habitat and biodiversity. The industrial ponds also can generate a new source of pollution in coastal area (effluent and chemical). (CREM, 2003 – Shrimp farming in Indonesia). Goss (2000) also illustrates this points in the case of contract farming in Thailand : Shrimp farms [...] have caused significant pollution through the silting of tidal zones and the increased presence of organic matter. The net effect has been to

² For an overview of major environmental impact per commodity, refer to Clay J, 2004, World Agriculture and the Environment, Island Press, Washington DC.

reduce coastal fisheries and thus damage the possibilities for local fisherfolk, generally meaning they must seek alternative sources of income.
(Goss J, 2000)

Another example, more anecdotic, about environmental impacts generated by contract farming is the following refers to Thai eucalyptus growers who have been contractually required by the sponsors company to use its waste water for irrigation. "The effluent has not only contaminated and salinated the soil on which eucalyptus was growing, but has also seeped into lower-lying rice fields of non-participating farmers, killing seedlings, full-grown plants, and trees." (Carrere, 1996, p171 - Thailand)

3. Do negative impacts outweigh positive impacts?

The review of the critiques of contract farming gives a contrasted picture of this scheme that is generally promoted as an efficient development tool. It demonstrates that some warnings should be stressed at the attention of the different parties to insure optimal cooperation and benefit. Singh reports about contract farming in Thailand "Though contracting leads to better incomes and employment in the beginning, the relations between firms and farmers worsen over time to the disadvantage of the growers, and the system results in ecological and economic degradation of local production systems. Most of the studies find contracts inequitable, short-term, and ambiguous. But, it is not the contract per se which is harmful but how it is practised in a given context." (Singh, 2005). Conversely Bijman (2008) notes that many studies of CF in Asia recently found positive income benefits. The different points that were addressed in this report and the referred studies did actually highlight the potential of contract farming to build a bridge between small holders and the market economy in a win-win situation.

As a result, it seems inappropriate to make general conclusion about the actual positive or negative impact of those schemes in SE Asia on the basis of this literature review. It is important to highlight that contract farming and their impacts can differ between sectors, that not all benefits can be directly measurable and that total benefits may not be distributed equally between producer and contractor. (Bijman, 2008) Moreover "Contract farming schemes need to be assessed in a national and regional context as their effects on non-scheme farmers, towns and villages are important. What is favourable for the scheme and its participants may harm other actors and sectors of the regional economy". (Baumann, 2000).

Additional ad-hoc researches, both quantitative and qualitative, are needed to analyse the actual economic, social, environmental impacts of contract farming. Different social sciences' perspectives should be used to analyse the various aspects of contract farming: economics (micro, meso and macro), political economy, environmental science, development and governance theories. A summary of important analysis criteria found in the literature is given in annex as a guideline for further research, focusing on the development aspects for farmers.

Moreover those results should be put in perspective with other farmer-to-market linkage mechanisms or alternative development models. They should also be analysed in the broader context of local and international development, trade, agriculture and environmental policies. The role and influence of foreign aid agencies, development bodies and multi-lateral trade agreements should be considered (ex: IMF, World Bank or regional development banks, WTO...).

Sources:	<ul style="list-style-type: none">- Delforge I. (2007), <u>Contract farming in Thailand, a view from the farm</u>, Focus on the Global South. http://www.focusweb.org/pdf/occasional-papers2-contract-farming.pdf- Carrere et al. (1996), <u>Pulping the South: Industrial Tree Plantations in the World Paper Economy</u>, World Rainforest Movement, p166 http://www.wrm.org.uy/plantations/material/PulpingSouth.pdf- Patrick I. (2004), <u>Contract farming in Indonesia: Smallholders and agribusiness working together</u>, Australian Centre for International Agricultural Research. http://www.aciar.gov.au/sites/aciar/files/node/533/tr54.pdf- Setboonsang S (2008), <u>Global Partnership in Poverty Reduction: Contract Farming and Regional Cooperation</u>, ADB institute http://www.adbi.org/files/dp89_global_partnership_poverty_reduction.pdf- Bijman J. (2002), <u>Contract farming in developing countries: an overview</u>, Wageningen University
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Note : Marja Spierenburg (VU Amsterdam) is conducting a research on social and anthropological aspects of transition of small holders to conventional agriculture in South Africa. Her study might contribute to gaining insights in aspects that are rarely documented in the case of contract farming.

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Other suggested documents (not accessed for this report) :

- Singh Sukhpal, 2007, Contract farming: theory and practice in the 21st century, 2007

- Mike Hagler, 1997, Shrimp - The Devastating Delicacy, Geenpeace international
<http://archive.greenpeace.org/oceans/shrimpaquaculture/shrimpreport.html>

- World rainforest Movement, various studies on shrimps farming:

<http://www.wrm.org.uy/deforestation/shrimp.html>

Annexes

The reviewed literature suggests that the following criteria should be investigated to assess the positive or negative impacts of contract farming for farmers. In development perspective, the point of view of the sponsor company is not considered here.

- Economic aspects
 - o Pricing mechanism and profit margin
 - o Payment modality
 - o Investments, loan recovery, debt
 - o Access to market and marketing arrangements
 - o Risk allocation
 - o Access to credit and input
- Agricultural production and management
 - o Extension services
 - o Farmer empowerment (technical and managerial skills)
 - o Cropping patterns
 - o Inputs
 - o Outputs quality and productivity
 - o Spill over on other crops
- Governance
 - o Transparency of the contract (especially for price determination)
 - o Bargaining power
 - o Compliance with agreement
 - o Dispute resolution
 - o Existence and role of producer' s organisation
- Social aspects
 - o Working conditions
 - o Living standard and wellbeing
 - o Gender effect and family labour
 - o Land tenure
 - o Social status, cultural transition and community cohesion
- Environmental aspects
 - o Inputs (water, agro-chemicals)
 - o Land conversion, biodiversity, habitat
 - o Soil erosion and pollution
 - o Solid waste and effluents
 - o Quantity and quality of fresh water and costal water
 - o GHG emissions
- Development aspects
 - o Scope of the contract (geographic, inclusion of small farmers)
 - o Fairness of the financial agreement
 - o Fairness of the governance scheme (flexibility / autonomy of the farmer)
 - o Equity and distribution of impacts
 - o Relevance with regional food security