



Forestry products have traditionally contributed more to exports, with US\$153 million worth of timber exported in 2006 (UNCTAD, 2010). It is unclear how much of this is from perennial tree crops, and it is likely that much of this export value is derived from extraction of resources from primary forests.

## 1.4 Employment in Agriculture

Agriculture employs or supports the livelihoods of approximately 75 per cent of the population (Ministry of Planning and Investment [MPI], 2010). This figure has come down from approximately 80 per cent in 2005 and would indicate a development trend of increased growth in other sectors and subsequent urban migration (World Bank, 2006). The majority of employment is in crop and livestock production, with forestry accounting for less than 1 per cent of employment (Tong, 2009).

## 1.5 Value Adding

Minimal value adding currently takes place for agricultural commodities, with most sold unprocessed at both a farmer and national level (MAF, 2010a). Significant capacity building of the Lao workforce (i.e., education and training) and infrastructure would be required to add more value to its agricultural exports. Given that its major trading partners have established manufacturing and processing industries to process the raw commodities produced in Laos, its competitive advantage may at least temporarily come in the form of cheaper labour and energy costs.

Nevertheless, the sector is becoming better organized, and a number of trade or industry associations have been formed in recent years including (MAF, 2010a; Tong, 2009):

- Lao Coffee Association
- Coffee Exporters Association
- Association of Coffee Producers Groups
- Lao Wood Processing Industry Association
- Lao Tree Plantation and Cash Crop Business Association.

By 2020, it is expected that commodity associations will be in place for maize, coffee, rubber, rice and livestock (MAF, 2010a).

## 1.6 Food Security

Food security is an ongoing issue. Food security is defined as the ability of:

all people, at all times, [having] physical and economic access to sufficient, safe and nutritious food to meet their dietary needs and food preferences for an active and healthy life (FAO, 1996).

Despite economic growth over the last 15 years, food security has not been achieved for the bulk of the rural population. The FAO's 2007 Comprehensive Food Security & Vulnerability Analysis (WFP, 2007) found that:

- Chronic malnutrition affects every second child in rural areas.
- The nutritional status of the rural population has not improved in the last 10 years.
- Two-thirds of rural households are at risk of food insecurity if subjected to external shocks, (e.g., crop failure).
- People at risk of food insecurity tend to live in upland areas in the north of the country and along the mountainous parts of the south, particularly non-Lao Tai ethnic minorities.





- 3. More sustainable production systems, including the stabilization of shifting cultivation, climate change adaptation and improved targeting of production based on socioeconomic and agro-economic conditions of different regions.
- 4. More sustainable forest management to improve the quality and quantity of national forestry cover and allow for mixed-uses of forest resources.

## Agriculture Master Plan (AMP)

In order to achieve the four goals outlined in the ADS, the Ministry of Agriculture and Forestry will implement eight programs covering the following areas:

- 1. Food production
- 2. Commodity production and farmer organization
- 3. Sustainable production patterns, land allocation and rural development
- 4. Forestry development
- 5. Irrigated agriculture
- 6. Other agriculture and forestry infrastructure
- 7. Agriculture and forestry infrastructure
- 8. Human resource development

#### Agriculture Investment Plan (AIP)

The AIP outlines the potential for development partners and the private sector to enter into partnerships to finance the implementation of the eight programs outlined above (MAF, 2010b).

The AIP outlines three potential scenarios for investment in the agricultural programs run by the MAF: realistic, conservative and optimistic. Each scenario estimates a different mix of funding sources for running the eight programs within the Ministry of Agriculture and Forestry.

Under a "realistic" scenario, FDI is expected to contribute 46 per cent (US\$0.85 billion) of all investment into the sector by 2015. Overseas development assistance (ODA) is estimated to contribute 48 per cent (US\$0.89 billion), with only minor contributions from government budgets, (MAF, 2010b).

TABLE 1: SCENARIOS FOR SOURCES OF AGRICULTURAL INVESTMENT TO 2015

	INVESTMENT SOURCE (% OF TOTAL FUNDING FOR MAF PROGRAMS)		
SCENARIO	LAO GOVERNMENT INVESTMENT	ODA	FDI
Realistic	6	48	46
Conservative	12	88	0
Optimistic	3	34	63

Source: MAF (2010b, p. 3)

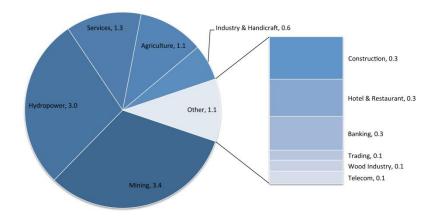




## 3.0 Foreign Direct Investment in Agriculture

## 3.1 Trends in and Sources of FDI

The Lao economy was opened to FDI in the mid-1980s and has grown strongly through the 1990s and 2000s. Since 2005, projects with foreign investment valued at between US\$10.7-12.7 billion<sup>6</sup> have been approved. The sectors receiving the most FDI have been mining (US\$3.4 billion), hydropower (US\$3 billion), services (US\$1.3 billion) and agriculture (US\$1.1 billion).



#### FIGURE 3: FDI INFLOWS TO LAOS BETWEEN 2005 AND 2011, BY SECTOR (US\$ BILLIONS)

Source: Based on data from Lao Statistics Bureau (2012).<sup>7</sup>

Foreign investment in agriculture was restricted until 2005 (FAO, 2011), but has since expanded rapidly, with nearly 250 projects approved with a combined valued of between US\$1.1 billion and US\$1.7 billion.

<sup>&</sup>lt;sup>6</sup> The Lao Statistics Bureau data does not always include sub-totals for the foreign investment row. The lower range of the estimate (US\$10.7 billion) is based on stated foreign investment amounts for the various sectors. The upper range of the estimate (US\$12.7 billion) is based on total investment over the period.

<sup>&</sup>lt;sup>7</sup> Some information was also provided by the Ministry of Planning and Information to confirm figures provided by the Lao Statistics Bureau.





## **Extent of Land by Province**

Preliminary findings of work to compile information about land use and concessions have been made available to compile the table below, which shows the estimated agricultural concession areas by province.

TABLE 3: GTZ'S ESTIMATED AGRICULTURAL CONCESSION AREAS BY PROVINCE

PROVINCE	ESTIMATED AGRICULTURAL CONCESSION AREAS (HA)*
Attapeu	17,591
Bokeo	1,896
Bolikhamxai	2,761
Champasak	41,146
Houaphan	NA
Khammouane	1,143
Luangnamtha	12,191
Luangphrabang	9,275
Oudomxai	1,399
Phongsali	2,769
Saravan	14,130
Savannakhet	45,286
Sayabouri	3,767
Sekong	495
Vientiane Capital	1,980
Vientiane Province	62,551
Xiengkhouang	14,929
Total	233,309

<sup>\*</sup> Preliminary findings of MNRE project

#### Extent of Land by Agro-Ecological Zone

To give some sense of the agricultural zones to which FDI is being directed, we attributed the figures from the table above into five of the six agro-ecological zones within Laos. This analysis shows that the Vientiane Plain, Mekong Corridor, Bolvan Plateau and Central-Southern Highlands are where nearly 80 per cent of concessions are held. This compares with just over 20 per cent in the Northern Highlands and Northern Lowlands.



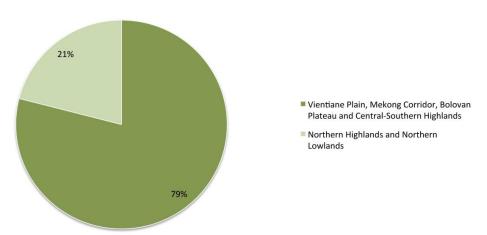


FIGURE 5: AGRICULTURAL CONCESSIONS BY AGRO-ECOLOGICAL ZONE

Source: Ecolarge analysis using data from Table 3 above.

## **Extent of Land by Crop Type**

The chart below is compiled from Land Matrix data and shows that eucalyptus and rubber plantations account for the vast majority of land concessions. Although food crops account for a small amount of total area, this may be partly due to the focus on concessions that tend to be used more prominently for tree crops. Annual crops often utilize contract farming and so may be underestimated in the data presented below.

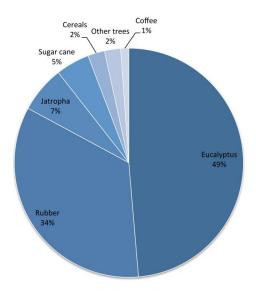


FIGURE 6: AREA OF LAND CONCESSIONS, BY CATEGORY

 $Source: Land\ Matrix\ data.\ Available\ online\ at\ http://landportal.info/landmatrix/get-the-detail/by-target-country/lao?mode=table\&limit=0$ 





# 5.0 Business Models for FDI in Agriculture

## 5.1 Business Models for FDI

Broadly speaking, a business model refers to the way in which a business is structured to make money. Business models investigated for this research nearly all aim to produce commercial commodities for the export market. The exception to this was the livestock investor who intended to focus on domestic demand and Sinouk Coffee, which also sells some domestically, although primarily to foreign tourists. This section will look primarily at how foreign investors secure rights to use the natural resources of Laos and how the different factors of production (land, labour, and capital) are divided between stakeholders. Although this paper is focused on business models used by foreign investors, the investment plan for the sector forecasts significant (nearly 50 per cent of the total) investment from ODA. Despite this, FDI is expected to contribute relatively more to commodity production and irrigated agriculture.

#### Land Investment Models

Foreign investors in Laos generally utilize one of two business models to acquire productive land: land concessions and contract farming.

#### **Land Concessions**

Land concessions grant the use of land and associated water resources to an investor for a period of time. Concessions are common in Lao agriculture because, under the constitution, all land is technically owned by the state and so the sale of land is not possible (see Section 4.5). While the concept is simple, Dwyer (2007a, p. 1) points out that there are many different arrangements and interpretations of "concession" and offers this working definition:

A land concession is the limited concession of a land-based right (or rights) by the state to an investor in order to lower the investor's assumed risk to a level that will permit further action in the investment process.

Dwyer emphasizes that the land-based rights in question can be different, including;

- i) The right to use the land
- ii) The right to negotiate with villages for the use of land
- iii) The right to exclusive survey of an area of land—most relevant to mining concessions

Central or provincial governments typically grant agricultural concessions in Laos and give investors exclusive land use rights for periods of around 30 or 35 years. The extent of concessions in Laos is discussed in more detail in Section 3.3. Because the government owns all land by law, local landholders generally have no commercial ownership of the enterprise, and their involvement is limited to that of wage labourers (Wright, 2009). Sometimes, households cede their land for compensation and trade their subsistence farming entirely for wage labour, while in other cases farmers' existing land can still be cultivated, and wage labouring forms a smaller part of their new livelihood (Wright, 2009). Many problems have been encountered with landholders not receiving adequate (or any) compensation for loss of land rights, making concession agriculture a controversial topic. See Dwyer (2007b) for a review of many studies on concession agriculture, particularly rubber plantations.

#### **Contract Farming**

Contract farming is a common strategy of foreign investors in Lao agriculture across a wide range of commodities and geographical areas. Contract farming involves agreements between farmers and downstream agricultural companies whereby the farmers agree to supply a certain quantity of agricultural commodities at a certain price





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(Eaton & Shepherd, 2001). In addition, contract farming typically involves the agricultural company providing certain inputs to farmers including seed, fertilizer and technical advice. Contract farming is intended to reduce the risk for both buyers and sellers by providing fixed prices and so a greater certainty of a return on investment.

Given the variety of contract farming arrangements, various attempts have been made to categorize different models. In the context of Lao agricultural investment, the most commonly discussed models are the "2+3" and "1+4."

#### TABLE 8: 2+3 AND 1+4 MODELS FOR CONTRACT FARMING IN LAOS

2+3 Model	The landholder provides labour and land (the "2"), while the investor provides capital, technology and marketing (the "3"). This is the model type promoted by the Lao government, which hopes that villagers' access to land can be maintained, while securing more reliable income, improved technology and agricultural productivity (Manorom et al., 2011; Wright, 2009)
1+4 Model	The landholder provides the labour or the land (the "1"). The investor provides capital, technology and marketing and potentially obtains the land (the "4"). Where access to land is transferred to investors (Wright, 2009), this model comes to resemble concession farming. This has occurred in parts of Laos where investors have wanted greater control over plantations and/or where farmers have wanted to be compensated for their labour (Schoenweger & Ullenberg, 2009).

With the ambiguity of 2+3 and 1+4 models it can be helpful to refer to more formal definitions of contract farming. Eaton & Shepherd (2001) outline five broadly defined models of contract farming, all of which can be found to some degree in Laos.

#### **TABLE 9: OTHER MODELS FOR CONTRACT FARMING IN LAOS**

Centralized Model	Investors are involved with a processing or packing plant and buy from a large number of farmers under formal contract. Generally used with commodities that require rapid or extensive processing, such as vegetable and fruit canning. Quotas are allocated and quality control is strict. Investors' involvement in production varies, from minimal, with only seed provision, to controlling most aspects of crop production. A local sweet corn and fruit and trader operates under this arrangement in Vientiane Province.	
Nucleus Estate Model	Investors have a processing or packing plant as with the centralized model, but also have a plantation managed for their plant. Contract farming is used to guarantee adequate supply for the plant. See Case Example 4, on sugar cane farming in the south of Laos, where farmers were approached to grow sugar cane to supplement the investor's plantation.	
Multipartite Model	In addition to investors and farmers other organisations are involved in the project, often government agencies and grower cooperatives. Under this model investors may have little contact with individual farmers, instead farmers interact with their group or local government, often with very informal contracts, who in turn are responsible for delivering product to investors. See Fullbrook's (2007) case study of corn growing in Bokeo, where the local production group manages 280 growers.	
Informal model	Individual entrepreneurs or small companies commit to buying produce from individual farmers, with informal or verbal contracts. Entrepreneurs may provide seeds or some technical advice, but government extension is often required. There is a high risk that investors or growers do not honour their agreement. See Fullbrook's (2007) case study of corn marketing in Luang Namtha as an example.	
Intermediary model	Intermediaries or middlemen collect produce from farmers and sell on to investors. Investors may have little control over quality and prices and farmers can be open to exploitation. See Fullbrook's (2007) case study on chili farming in Bokeo for a similar model.	





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Few investments will conform strictly to any one of these models, but they are useful to discuss general trends. Some investments change through the course of the project. For example, Fullbrook (2007) shows an interesting example in Savannaket, where a Thai sugar company wanted to farm through a concession, but was forced into contract farming due to problems establishing the concession. The change caused a lot of problems, as farmers unfamiliar with sugarcane tried growing it in places that had not been thoroughly investigated.

#### Contract Details for Land Concessions

As the land rights that concession holders acquire vary, so too do their obligations. Cotula, Shemberg, and Polack (2012) were able to review the contents of contracts relating to six land concessions granted by central and one provincial government. These contracts were Project Development Agreements or Memoranda of Understanding, rather than final concession agreements, but provide a rare glimpse of the different models of concession investment in Laos. The authors discuss how the reviewed contracts vary in terms of obligations for local engagement, contribution to local livelihoods, infrastructure provision, taxation and revenue raising.

## Local Engagement

While official policy emphasizes the role of smallholders in sustainable development (see Section 3), Cotula, Shemberg, and Polack (2012) found that there is considerable variation and ambiguity in contracts for how concession holders will engage with local people. Requirements for local involvement in feasibility studies, environmental and social impact assessment and project planning differ widely.

Several contracts included mention of outgrowers—engaging local farmers in production, in arrangements similar to contract farming (see below). However, all contracts that mentioned such arrangements contained "little specific language" (Cotula, Shemberg, & Polack 2012, p. 20). Reluctance to commit to procurement with local farmers was echoed in interviews for this report, particularly in relation to livestock and their feed and to a lesser extent coffee processing (see Case Studies 1 and 3).

The degree of processing to be conducted locally also varies between concessions. Cotula, Shemberg, and Polack (2012) believe that investment models and contracts requiring more local processing could be beneficial to local development. Few contracts, however, require such investment, with many including ambiguous terms such as factories that "may be established" (Cotula, Shemberg, & Polack, 2012, p. 22). Case examples in this report show that some investors process extensively within Laos—coffee, livestock and sugar cane in Case Studies 1, 3 and 4—while lack of local processing facilities were a constraint to the rice contract farming investment in Case Example 2.

#### Contribution to Local Livelihoods

Different concession investments envisage different roles for local labour requirements. In an interview with a coffee plantation owner, we were told that the biggest constraint most growers faced was labour shortages at harvest time, prompting many to look to mechanical harvesting (Case Example 1). Cotula, Shemberg, and Polack (2012) found that the perception of local labour shortage is often used to allow use of foreign labour, and that there is evidence of rural unemployment and underemployment in many areas. While intending to use all-local labour, the livestock investor in Case Example 3 was aiming to use mainly automated production to avoid future labour cost uncertainty.





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## Case Example 1: Coffee

Name of Person:	Sinouk Sisombat	
Title:	General Manager / President	
Name of Company:	Sinouk Coffee / Lao Coffee Producers Association (LCPA)	
Region: What region is the project located in?	Champasak (Boloven Plateau), Salavan, Sekong, Attapu (soon)	
What Country is FDI from? What country is the foreign partner/ company from?	Thailand, Singapore, China, Vietnam	
Production Focus: What crop or livestock production is the project focused on?	Coffee (Arabica)	
Business Model:  What is the business/investment model for this project? (contract farming, leasing etc.)  Business models vary. Some contract farming, but larger FDI tends to be contract for this project? (contract farming, leasing etc.)  Business models vary. Some contract farming, but larger FDI tends to be contract farming, but la		
Form of FDI: What form of FDI did the project take? (cooperation by contract, joint venture or 100 per cent foreign ownership)	100 per cent foreign ownership, with some cooperation by contract farming. Where joint venture used, Laos partner is typically a token component of the project.	
Target Market: What is the target market for the projects products?	Traditionally Europe but now more diversified. Vietnam, USA, Korea, Singapore, Japan. Domestic market only absorbs about 5 per cent of total production, so vast majority for export.	
Value Chain: What stage of the value chain is the project focused on?	Sinouk Coffee does all aspects—growing, roasting and export/trading. For exports, Sinouk tends to focus on bulk quantities. However across Laos, it varies with some companies focusing on production, others on roasting and others just on trading.	
Land Area: How big is the area of the project?	Sinouk has 30 hectares. But across Laos size varies from small areas up to concessions of 3,000 hectares. Significant projects are currently slated totally as much as 6,000 hectares:  • Thai (Beer Chang Group)—3,000 hectares  • Singaporean—1,100 hectares  • Vietnamese—typically between 500 and 1,000 hectares  • Chinese—typically between 100 and 1,000 hectares	
Investment Source: What is the contribution of different sources to the project? (FDI, ODA, PIP)	Sinouk Coffee is a purely domestic business. Large-scale production tends to be FDI while smallholders will sometimes get PIP and ODA assistance. Overall, FDI is the more influential type of investment when it comes to policy.	

Sinouk Sisombat is the owner and Managing Director of Sinouk Coffee. Sinouk is a 100 per cent Laos-owned company started by Mr. Sinouk in the 1990s after he moved to Laos from France, where he grew up. Mr. Sinouk is also the President of the Lao Coffee Growers Association, and most of the interview was from his perspective in this role.

The Lao Coffee Growers Association is comprised of 39 growers, roasters and traders in Laos. Only members of the association are permitted to export, and there are five international members. The Association and all industry participants are currently debating the future structure of the association and links between industry players. Some smallholder groups, with the backing of Ministry of Agriculture and Forestry, are considering distancing themselves from the larger players and the association to focus on attracting ODA to develop their part of the industry. Sinouk





hoped that they would stay with the association, as he feels that there is great potential for transfer of knowledge and technology from bigger FDI players to smallholders if encouraged by policy and a culture of corporate social responsibility. He points out that the international agribusinesses have far greater power and financial clout than any donor in the agriculture sector. The members of the association try to influence policy to encourage this transfer, but feel their influence is limited.

The Association is supportive of larger plantations and processors setting up contract farming along the lines of a nucleus estate model, and Sinouk feels such arrangements can benefit local agricultural development. However, such arrangements need to be considered when concessions are being granted, and the association has little influence at that stage, as investors are negotiating directly with governments.

Technological improvement and investment is important for the industry, as Sinouk believes the major limiting factor for Lao coffee production is lack of labour at harvest. Some Vietnamese and Thai investors have been looking to mechanical harvesting methods, common in Brazil, to improve productivity.

Sinouk acknowledges the difficulty with land concessions and the need to engage communities in their planning. He is all too aware of examples where inadequate community consultation and compensation have occurred, and the association calls for more transparent processes. They urge that conditions for infrastructure provision must be included in concession agreements for communities to benefit from infrastructure and development of plantations. A culture of engagement and corporate social responsibility needs to be developed. At a recent UNDP conference on corporate social responsibility (CSR), Sinouk pointed out that the "bad" investors were not at the conference and that more needs to be done to force compliance through legislation and encourage CSR principles.

Many coffee producers of all sizes are feeling insecure about the development of bauxite mining on the Bolevan Plateau. While their tenure arrangements are secure by Lao standards, they are concerned that a government deal with bauxite miners could severely affect the industry.





## Case Example 2: Rice

Name of Company:	Lao Arrowny Corporation
Name of Project:	Contract Japanese Rice Farming
Region: What region is the project located in?	Vientiane Province
What Country is FDI from? What country is the foreign partner/company from?	Japan
<b>Production Focus:</b> What crop or livestock production is the project focused on?	Organic Japanese rice
Business Model: What is the business/investment model for this project? (contract farming, leasing etc.)	Japanese-Lao investors contract farming local landholders under a "2+3"/multipartite model.
Form of FDI:  What form of FDI did the project take? (cooperation by contract, joint-venture or 100 per cent foreign ownership)	Joint venture, Japan-Lao (95 per cent-5 per cent ), capital, technology and extension provided by Japanese partner, some capital, logistics and processing arrangements by Lao partner.
Entity Type: Is the entity used a partnership or a company?	Joint venture company
Target Market: What is the target market for the projects products?	Japan/Japanese expatriates in SE Asia
Value Chain: What stage of the value chain is the project focused on?	Planting to wholesale
Capital Value: What is the capital value of the project?	Starting capital of US\$500,000 in 2002
Land Area: How big is the area of the project?	At peak 2,700 hectares
Size of Production: What volume of output will the project produce?	Potentially over 6,000 tonnes, but generally under 1,000
Investment Source: What is the contribution of different sources to the project?	FDI: 95 per cent

Lao Arrowny was founded in 2002 and produced organic Japanese rice though contract farming arrangements with farming households in Vientiane Province. The project was described by the Ministry of Agriculture and Forestry (2006) and was the main case study of Setboonsarng, Leung, and Stefan (2008), who conducted an extensive survey of nearly 600 participating and non-participating farmers in the project area. Setboonsarng, Leung, and Stefan's survey and quantitative analysis produced interesting results—they found that while contract farming was more profitable, the contracted farms would have performed worse out of contract than non-contracted farmers. Despite such nuanced results, they concluded that:

The results of the empirical analysis support the claim that contract farming is an effective tool to increase the incomes of smallholder farmers in rural areas where market failure is prevalent. The findings show that the sampled contract rice farmers cultivated higher-yielding, improved rice varieties and earned higher incomes than non-contract rice farmers under similar agro-ecosystem and socioeconomic conditions. (Setboonsarng, Leung, and Stefan, 2008, p. 17)





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Given the positive conclusions of these authors, we were surprised to find that the Lao Arrowny project ceased operations in 2009. The former manager discussed with us that supply from contracted farmers had increased rapidly due to the high yields and prices they were receiving. This placed continual logistical pressure on their operation, as rice needed to be milled and stored in Thailand prior to export. In 2009, flooding in Laos made production difficult and farmers were unable to pay debts to Lao Arrowny for inputs. Political turmoil in Thailand changed border policies and exporting to the mill in Thailand became difficult and expensive. The Japanese partner had run into financial difficulties around this time and was unable to deliver approximately US\$600,000 to continue financing the project. Bad timing may have played a role, given that this occurred around the time of the global financial crisis, but we were unable to confirm this with the Japanese investor.

The Lao operator is seeking funds to recommence the project and claims to have the strong support of growers and local government. He is, however, keen to raise funds from Lao government and domestic investors or ODA, rather than relying on a Japanese partner.

## Case Example 3: Livestock

Name of Person:	Withheld on request
Position:	Proprietor
Name of Company:	Withheld on request
Name of Project:	Withheld on request
Region: What region is the project located in?	Champasak province and Northern provinces
What Country is FDI from? What country is the foreign partner/company from?	EU/United States
Production Focus: What crop or livestock production is the project focused on?	Livestock
Business Model: What is the business/investment model for this project? (contract farming, leasing etc.)	Leasing and land concession
Form of FDI:  What form of FDI did the project take? (cooperation by contract, joint-venture or 100 per cent foreign ownership)	Cooperation by contract and joint venture
Entity Type: Is the entity used a partnership or a company?	Company
Target Market: What is the target market for the projects products?	Domestic primarily. May look to export in the future.
Value Chain: What stage of the value chain is the project focused on?	From production through to retail
Capital Value: What is the capital value of the project?	Over US\$30 million
Land Area: How big is the area of the project?	In southern provinces area will be over 1,000 hectares including crop production. In northern provinces area is smaller, less than 10 hectares.
Employees:	Expects to employ 30–50 locals.
Investment Source: What is the contribution of different sources to the project? (FDI, ODA, PIP)	Foreign and local investment.





Another promising initiative of the government is the requirement for environmental and social impact assessments for projects. These are now officially required where a project might impact significantly on the environment or communities. In practice, however, agricultural projects have tended to avoid such assessments for a number of reasons. Ongoing work to create a database of agricultural investments is another positive initiative, and a report will be published in 2012 based on work done to compile this database.

There is great interest in continued investment in Lao agriculture through various business models. While there are indeed great opportunities to expand agricultural production and modernize practices, enormous challenges remain to ensure investments contribute to broader economic development objectives.

Although business models do have a role to play, they alone will not be a panacea to developing the agriculture sector in Laos. Our research suggests that aligning FDI directly with development objectives has so far been unsuccessful. ODA has a potential role to play here and can contribute to the development potential of foreign-owned agriculture projects. The Lao government should therefore encourage greater collaboration between FDI and ODA. Similarly, the government of Laos should be careful not to over-incentivize foreign investment to the point that the government fails to receive any benefits by way of taxes and duties.

It is not surprising that foreign capital is the first thing to arrive in a country undergoing market reforms, since it is highly mobile. But attracting capital is the easy part. Attracting quality capital, building strong economic institutions and developing skills and education will be the real challenges for Laos in the coming decade. Having proven it can attract FDI, Laos now needs to ensure that FDI into agriculture is contributing not just to economic growth but to economic development.

#### Key recommendations

- Improve information collection and collation regarding investments.
- Improve data collection of trade and production statistics, with a focus on separating food crop production from non-food crop production. Currently, it is often difficult to disaggregate broad agricultural statistics between food crops, tree crops and forestry, livestock and fisheries.
- Better align economic development (as opposed to economic growth) objectives with approvals process for agriculture investments. This will require increased cooperation between foreign investors, the government and overseas development agencies.
- Improve coordination and communication between Ministry of Planning and Ministry of Agriculture and Forestry.
- Improve clarity of land tenure that remains an ongoing source of uncertainty for rural populations and investors.
- Take a broader perspective of food and livelihood security when assessing project impacts on rural communities—consider ecosystem services and non-market/informal economy values.
- Conduct further reviews of the effectiveness of specific agriculture projects in achieving stated development goals. This will require improved measurement of baseline indicators prior to a project and continual assessment over the project's lifespan.