Steering Committee for the Agricultural Census
Agricultural Census Office

LAO CENSUS OF AGRICULTURE 2010/11
HIGHLIGHTS

Vientiane, May 2012

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PREFACE

This report presents results of the Lao Census of Agriculture 2010/11. It highlights the major findings of the census, featuring commentary and graphical presentations, as well as some summary tables. Results are shown for each province. The report is available in Lao and English as separate documents.

The Lao Census of Agriculture 2010/11 was the second agricultural census undertaken in Lao PDR; the first was conducted in 1998/99. Since the first census, there have been significant changes in the agricultural sector and these changes needed to be captured in another census.

The Lao Census of Agriculture 2010/11 covered the whole of Lao PDR, including all 143 districts in the country. The census had three components:

- *Village component: a survey of all villages in the country to collect data from village heads on rural infrastructure and services.*
- *Household component: a survey of all households in Lao PDR to collect basic data on crops and livestock.*
- *Sample farm household component: a sample survey of 41,660 farm households to collect detailed data on agricultural production activities.*

The census data collection was undertaken in March 2011. Crop data were collected in respect of the 2010 wet season and the 2010/11 dry season. Information on the census methodology is given in Chapter 3.

This report presents only summary data from the Lao Census of Agriculture 2010/11. Further results are available on request and can be made available in hard copy or electronic form. For more information, contact the Centre for Statistics and Information, Department of Planning, Ministry of Agriculture and Forestry (phone 021 416556).

There are differences between the some census results shown in this report and data from other sources. This is mainly because of different data collection methodologies, but might also reflect data quality problems. For more information, see Section 3.11 on Page 22.

The Lao Census of Agriculture 2010/11 was undertaken under the overall control of the Agricultural Census Steering Committee, chaired by Mr Somsavat Lengsavad, Deputy Prime Minister, Standing Member of Lao Government. The work on the census was undertaken by the Agricultural Census Office, which was established in the Department of Planning of the Ministry of Agriculture and Forestry. The Department of Statistics of the Ministry of Planning and Investment provided technical assistance with this work.

I would like to thank all those who have contributed to the success of the census, especially members of the public who willingly participated in the census, without whose support and co-operation the census would not have been possible. The Government of Lao PDR is also appreciative of the support for the census provided through FAO by SDC and to other donors – IFAD, AusAID, AFD and GIZ – who supported the census data collection and processing. Financial assistance was also received from the Sustainable Natural Resource Management and Productivity Enhancement Project.

Director-General
Department of Planning, Ministry of Agriculture and Forestry
Agricultural Census Office
Vientiane, May 2012

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LAO CENSUS OF AGRICULTURE 2010/11: RESULTS IN BRIEF

Farm household characteristics	1998/99	2010/11
Farm households		
No. of households (‘000)	798	1,021
No. of farm households (‘000)	668	783
Farm households as percent of all households (%)	84	77
Rural households as percent of all households (%)	..	69
Farm population (‘000)	4,058	4,501
Average household size	6.1	5.7
Area of land holdings		
Area of agricultural land (‘000 ha)	976	1,623
Average area of holding (ha)	1.6	2.4
Farm households by area of holding (%)		
• Less than 1 ha	36	22
• 1-2 ha	36	32
• 2 ha and over	27	46
Average parcel size (ha)	0.77	0.90
Area of agricultural land by main use ('000 ha)		
Temporary crops	765	1,230
Left fallow	112	198
Permanent crops	81	168
Grazing land	18	26
Land tenure		
Land tenure (% of land area)		
• Owned	97	93
• Other	3	7
Rice cultivation		
Rice area planted by season (‘000 ha)		
• Wet season lowland	481	714
• Wet season upland	199	215
• Dry season	56	57
Rice growers by season (‘000)		
• Wet season lowland	419	535
• Wet season upland	260	240
• Dry season	93	87
Glutinous rice (% of rice area)	93	92
Improved varieties (% of growers)	30	41
No. of farm households growing other crops ('000)		
Vegetables	233	317
Cassava	71	48
Sugar cane	22	13
No. of farm households with permanent crops ('000)		
Mango	152	188
Banana	109	70
Rubber	-	49

Farm household characteristics	1998/99	2010/11
Use of inputs (% of temporary crop growers)		
Chemical fertilizers	29	42
Organic fertilizers	34	41
Pesticides	11	17
Livestock and poultry ('000 of animals)		
Cattle	944	1,586
Buffaloes	992	774
Pigs	1,036	978
Local chickens	9,379	8,665
Ducks	1,351	1,791
Number of farm households with livestock ('000)		
Cattle	208	297
Buffaloes	322	226
Pigs	328	306
Local chickens	487	488
Ducks	191	213
Average animals per livestock holding		
Cattle	4.5	5.3
Buffaloes	3.1	3.4
Pigs	3.2	3.2
Local chickens	19.3	17.8
Ducks	7.1	8.4
Use of vaccination (% of livestock holdings)		
Cattle	36	56
Buffaloes	48	60
Pigs	8	18
Farm machinery (% of farm households)		
Owned two-wheel tractor	7	34
Used two-wheel tractor	20	61
Owned water pump	2	2
Used water pump	4	4
Number of farm households engaged in fisheries ('000)		
Aquaculture	55	68
Capture fisheries	472	526
Farm labour		
Farm occupations (% employed persons 15 & over)	92	89
Main occupation on holding but also did work off holding (% 15 & over with main occupation on holding)	24	40
Farm households using outside labour (%)	26	45
Sale of farm produce (% of farm households)		
Main purpose for sale	6	30
Sold some produce	35	71

LAO CENSUS OF AGRICULTURE 2010/11: RESULTS IN BRIEF (continued)

Characteristics of rural villages	Percent of rural villages, 2011		
	With road	Without road	Total
General infrastructure			
Primary school less than 1 hour walk	89	69	85
Dispensary or hospital less than 2 hours walk	61	33	57
Electricity available	70	39	65
Connected to electricity grid	55	16	48
Safe water supply	43	20	39
Piped water supply available	5	1	4
Agricultural infrastructure			
Irrigation facilities	49	39	48
Permanent market	2	-	2
Agricultural produce market	36	23	33
Agricultural input shop	4	1	3
Credit facilities	47	31	44
Veterinary clinic	2	-	2
Agricultural conditions			
UXO-affected agricultural land	16	19	16
2010 wet season dryer than normal	80	81	80
Recent years' rainfall less than normal	79	79	79
Recent years' wet season later than normal	74	72	73
Prone to flood	32	26	31
Prone to drought	70	73	70
Other			
Lack of land an agricultural constraint	30	26	29
Lack of irrigation an agricultural constraint	60	54	59
Lack of markets an agricultural constraint	22	36	25
Contract farming in the village	16	5	14
Living standards improved in last 2 years	86	75	84

CHAPTER 1
SUMMARY OF FINDINGS
KEY FARM HOUSEHOLD RESULTS

1.1 Farm households (*Tables A1.1-A1.3*)

Lao PDR continues to be a predominantly rural country, with 69% of households living in rural villages, including 85,000 households living in rural villages without road access.

In 2010/11, there were 783,000 farm households in the country. A farm household is a household engaged in agricultural production activities; that is, growing crops, raising livestock, or engaged in aquaculture (see Section 3.9).

Of the 783,000 farm households, 209,000 live in upland villages and 188,000 live in villages in plateau areas. In rural villages, 90% of households are farm households.

Table 1.1: Number of farm households ('000) by village and land type, 2010/11

	Land type			
Village type	Lowland	Upland	Plateau	Total
Urban	95.1	20.2	32.6	147.8
Rural with road	263.6	150.4	142.3	556.3
Rural without road	27.2	38.8	12.7	78.8
Total	**385.9**	**209.4**	**187.6**	**782.8**

In 2010/11, the number of farm households was 115,000 higher than in 1998/99, an increase of 17%. However, the importance of agriculture has declined relative to other sectors, with increasing urbanization and alternative employment opportunities. In 2010/11, 77% of households in Lao PDR were farm households, compared with 84% in 1998/99.

The number of non-farm households in Lao PDR increased sharply between 1998/99 and 2010/11 – from 130,000 to nearly 240,000. Nearly 90,000 non-farm households live in Vientiane Capital; over 70,000 live in rural villages.

Agriculture continues to be the predominant livelihood in northern provinces, with 89% of households engaged in agricultural production in 2010/11. In Phongsaly, the percentage is as high as 96%, with only just over 1,000 non-farm households in the province.

Table 1.2: Number of farm households by province, 1998/99 and 2010/11

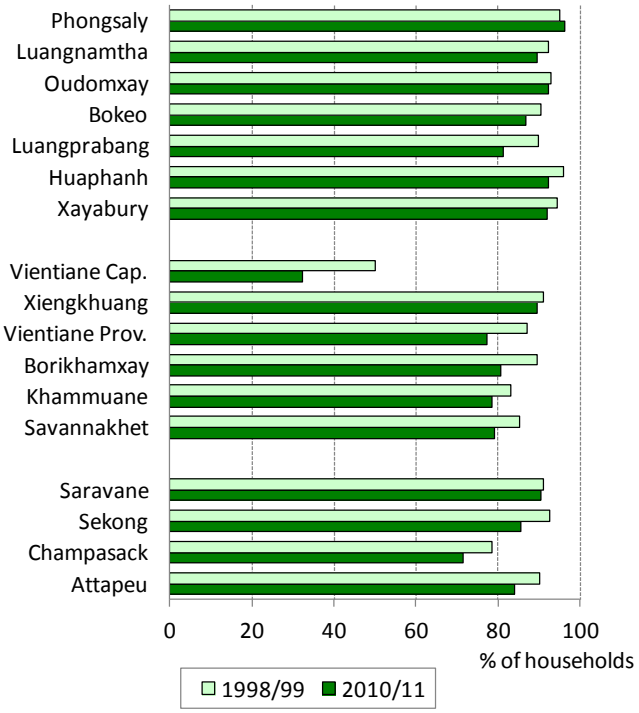
Province	No. of farm h'holds ('000)		Change
	1998/99	2010/11	(%)
North	**238.4**	**288.9**	**21%**
Phongsaly	24.4	28.4	16%
Luangnamtha	19.8	26.2	33%
Oudomxay	33.4	44.6	34%
Bokeo	18.8	24.8	31%
Luangprabang	55.7	59.5	7%
Huaphanh	36.9	42.3	14%
Xayabury	49.4	63.1	28%
Centre	**293.5**	**336.4**	**15%**
Vientiane Capital	48.6	42.8	-12%
Xiengkhuang	28.1	36.2	29%
Vientiane Province	43.7	62.7	44%
Borikhamxay	26.5	35.0	32%
Khammuane	43.6	51.1	17%
Savannakhet	95.4	108.6	14%
Xaysomboon SR	7.6	..	..
South	**136.0**	**157.5**	**16%**
Saravane	41.3	50.1	21%
Sekong	9.7	12.9	32%
Champasack	70.2	75.4	7%
Attapeu	14.8	19.1	29%
Lao PDR	**668.0**	**782.8**	**17%**

In the south, only 71% of households in Champasack are farm households. In Attapeu, the percentage is 84%, down from 90% twelve years earlier.

In 2010/11, less than a third of households in Vientiane Capital were farm households, compared with a half in 1998/99. There were 5,800 fewer farm households in the Capital in 2010/11 than in 1998/99.

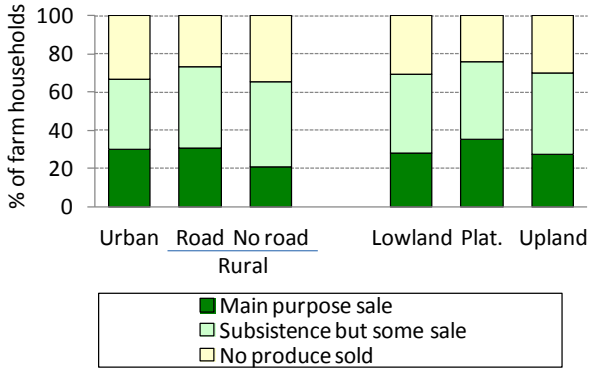
The last ten years in Lao PDR has seen a major shift from subsistence to market-oriented agriculture. In 1998/99, only 6% of farm households produced mainly for sale and now that figure has risen to 30%. This trend is most apparent in the north: 54% of farm households in Xayabury and 45% in Luangprabang produce mainly for sale.

Figure 1.1: Farm households as a percent of all households, 1998/99 and 2010/11



Increasing numbers of subsistence farmers are marketing some farm produce, especially those living near towns and in border areas. In 2010/11, 71% of farm households sold some farm produce, compared with only 35% in 1998/99. Sale of farm produce is highest in northern provinces, especially Oudomxay, Luangprabang, Huaphanh and Xayabury. It is lowest in Borikhamxay, Khammuane and Savannakhet. In Xiengkhuang, 59% of farm households sell some livestock produce.

Figure 1.2: Sale of agricultural produce, 2010/11



1.2 Land (*Tables A1.4-A1.8*)

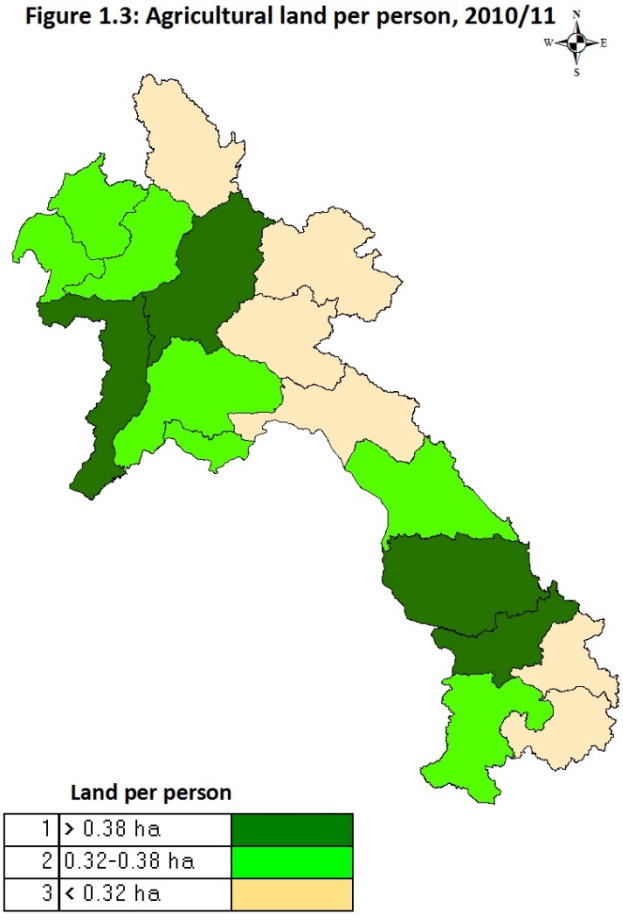
The total area of agricultural land in 2010/11 was 1.62 million hectares, compared with 976,000 ha in 1998/99. Thus, an additional 647,000 ha of land were brought under cultivation over the twelve-year period. The area under permanent crops more than doubled to 168,000 ha.

Table 1.3: Land use of farm households, 1998/99 and 2010/11

Land use	Area ('000 ha)	
	1998/99	2010/11
Agricultural land	**976**	**1,623**
Land under temporary crops	*765*	*1,230*
Land temporarily fallow	*112*	*198*
Land under permanent crops	*81*	*168*
Meadows and pastures	*18*	*26*
Non-agricultural land	**72**	**247**
Forest and other wooded land	*54*	*122*
Other land	*18*	*125*
Total	**1,048**	**1,870**

The increase in agricultural land is more than enough to meet the needs of an increasing population. For the farm population in Lao PDR, there was an average of 0.36 ha of agricultural land per person in 2010/11, compared with 0.24 ha in 1998/99. The figure was lowest in Huaphanh (0.20 ha per person).

Figure 1.3: Agricultural land per person, 2010/11



The 777,000 farm households with land in Lao PDR in 2010/11 averaged 2.4 ha in size. This compares with 1.6 ha in 1998/99. The average area of agricultural land per farm household was 2.1 ha in 2010/11, compared with 1.5 ha in 1998/99.

Farm sizes are highest in Savannakhet (3.1 ha) and lowest in Huaphanh (1.3 ha). For the country as a whole, 22% of farm households are less than 1 ha in size; 27% have 3 ha or more land. The largest 25% of farm households have well over half of the land; the smallest 40% have less than 15% of the land.

A typical farm in Lao PDR consists of two or three separate land parcels. Only 4% of farm households have more than five parcels. The average parcel size was 0.90 ha in 2010/11, compared with 0.77 ha in 1998/99. Land is most fragmented in the northern provinces. In Phongsaly, there is an average of 3.8 parcels per farm household with an average parcel size of 0.43 ha. In Sekong, there are 1.9 parcels per farm household and the average parcel size is 1.25 ha.

For farm households, 93% of land is operated under "owner-like" tenure. However, land rental has become more common: in 2010/11, 9% of farm households rented in some land, compared with only 5% in 1998/99. In 1998/99, most land was rented under share cropping arrangements (63%); this figure was only 21% in 2010/11.

The number of land holdings not operating any of their own land is increasing. In 1998/99, only 16,000 farm households did not own any land; this had risen to 46,000 by 2010/11.

A quarter of farm households in Vientiane Capital rent in some land. Land rental is also common in Oudomxay, Huaphanh, Xiengkhuang and Vientiane Province. Land rental is more common for small holdings: 18% of those of size less than 1 ha rent in land, compared with 6% for those size 1 ha or more.

1.3 Crops (*Tables A1.9-A1.17*)

In 2010/11, 1.23 million hectares of temporary crops were planted on 1.43 million hectares of arable land in Lao PDR. This represents a cultivation intensity of 86%, slightly lower than in 1998/99. Cultivation intensity was highest in Vientiane Capital and Champasack (each 99%) and lowest in Luangprabang (59%). Cultivation intensity is higher on small holdings.

Rice

The predominant crop in Lao PDR is rice: 724,000 farm households grew rice in 2010/11, 71% of all households in the country. This is down from 77% in 1998/99.

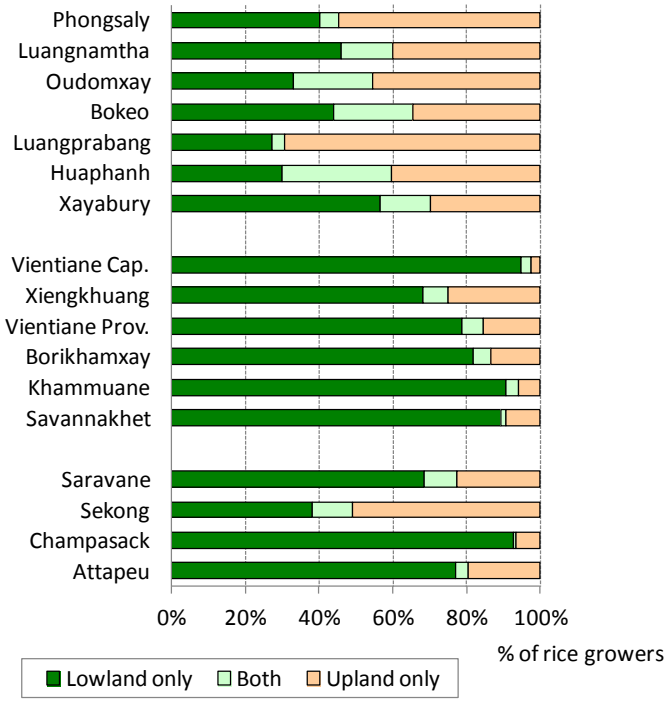
The total area of rice planted in 2010/11 was 987,000 ha: 714,000 ha of wet season lowland rice, 215,000 ha of upland rice, and 57,000 ha of dry season rice. The most important rice growing provinces are Savannakhet (220,000 ha) and Champasack (101,000 ha).

The number of wet season rice growers increased from 607,000 in 1998 to 718,000 in 2010. There were 17,600 more wet season rice growers in Vientiane Province and 16,300 in Savannakhet. There were 1,800 fewer wet season rice growers in Vientiane Capital.

The average size of wet season rice holding increased over the twelve year period: from 1.12 ha in 1998 to 1.30 ha in 2010. Rice farms tend to be smaller in the north, averaging less than a hectare, compared with 1.5 ha in the rest of the country. The average in Savannakhet is 2.0 ha.

Upland rice is cultivated mainly under a rotating cultivation system. Of the 215,000 ha of upland rice,

Figure 1.4: Rice cropping system, 2010/11



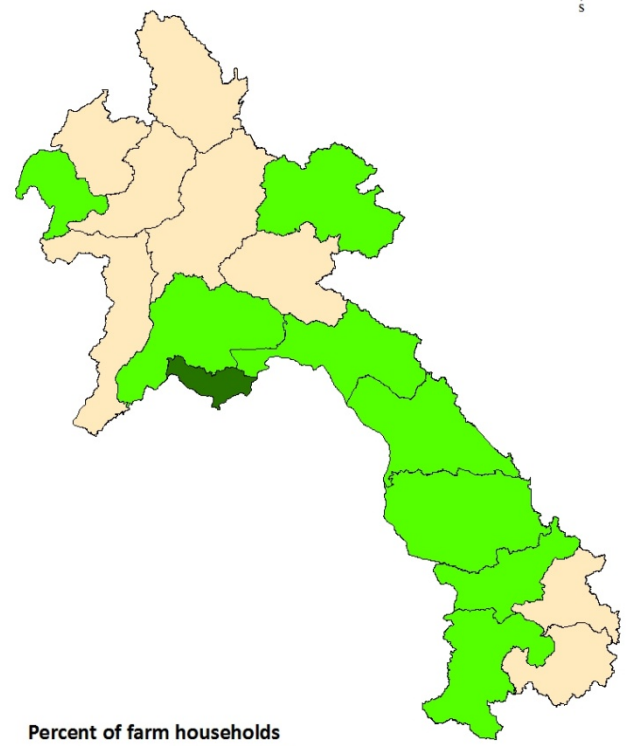
rotating cultivation was used for an estimated 169,000 ha. There was an estimated 32,000 ha of rice grown using shifting cultivation.

In Northern Region, 57% of the rice crop is upland rice, compared with only 9% in the centre and 12% in the south. In Huaphanh, 30% of rice growers grow lowland rice only, 30% grow both lowland and upland rice, and 40% grow upland rice only.

The number of dry season rice growers fell between 1998/99 and 2010/11: from 93,000 to 87,000. There were 3,700 fewer dry season rice growers in Vientiane Capital; in Saravane, there were 2,000 more dry season rice growers. The average dry season rice grower in 2010/11 planted 0.65 ha of dry season rice. This was slightly up on the 1998/99 figure of 0.59 ha.

One in eight rice farmers plant a dry season rice crop, slightly down on twelve years ago. Nearly half the rice farmers in Vientiane Capital grow rice in the dry season. Elsewhere, the figure is much lower: in Savannakhet, only one in ten rice farmers plant a dry season rice crop rice.

Figure 1.5: Dry season rice growers, 2010/11



Overall, 92% of rice grown in Lao PDR is of the glutinous variety. This percentage has changed little over the last twelve years. Non-glutinous rice is most common in Phongsaly and Luangnamtha, where it represents 39% of the rice crop.

In 2010/11, improved varieties accounted for 45% of rice planted in Lao PDR, compared with 29% in 1998/99. Improved varieties were most widely used in Champasack (82% of rice growers) and Savannakhet (74% of rice growers).

Other temporary crops

Cropping is becoming more diversified in Lao PDR. In 2010/11, there were 59,000 farm households not growing rice. In the north-west, increasing numbers of farmers are growing other crops such as vegetables in response to the opening up of new markets. In Phongsaly, there are 3,200 non-rice growing farm households, compared with only 700 in 1998/99.

After rice, maize is the most common temporary crop in Lao PDR. In 2010/11, there were 187,300 maize growers, who planted a total of 134,500 ha of maize, a five-fold increase in area planted from 1998/99. Maize is mainly grown in the north of the country. More than half of all farm households in Phongsaly, Oudomxay, Huaphanh and Xiengkhuang grow maize.

There are 47,900 cassava growers in Lao PDR. The main cassava producing provinces are Borikhamxay, Vientiane Capital and Saravane. Cassava farms in

Table 1.4: Temporary crops other than rice, 1998/99 and 2010/11

Crop type	No. of growers		Area[1] (ha)	
	1998/99	2010/11	1998/99	2010/11
Maize	149,900	187,300	25,500	134,500
Sweet potato	19,600	10,200	200	700
Cassava	71,000	47,900	7,400	18,900
Yam	8,900	3,800	200	300
Mung bean	3,100	2,600	700	600
Sugar cane	22,400	13,000	3,100	6,400
Groundnut	21,400	28,500	4,900	8,300
Soybean	4,800	6,900	800	1,900
Sesame	19,000	25,700	600	9,900
Cotton	9,300	1,100	2,500	100
Tobacco	18,400	14,800	2,700	3,400
Chinese cabbage	88,200	105,900	2,100	1,700
Watermelon	11,000	7,500	1,800	2,000
Chili	127,500	126,200	2,100	2,600

1. Area excludes crops planted in plots of less than 100 sm.

the Capital average 4.3 ha in size; elsewhere, they average 0.3 ha.

The area under sugar cane more than doubled between 1998/99 and 2010/11. There are now 13,000 sugar cane producers in Lao PDR, including 2,800 in Phongsaly and 2,100 in Luangnamtha.

Vegetable crops are also common in Lao PDR, often planted in small kitchen gardens or on river banks. In 2010/11, 317,100 farm households grew some vegetables; this represents 41% of all farm households, compared with 35% in 1998/99. The most commonly grown vegetables are chili, cabbage, cucumber, onion and melons. There were 2,000 ha of watermelons planted in 2010/11.

Groundnut (28,500 growers), tobacco (14,800 growers) and sesame (25,700 growers) are other important temporary crops in Lao PDR. The area planted to sesame rose sharply between 1998/99 and 2010/11 to 9,900 ha.

Permanent crops

Coffee has been the most important permanent crop, mainly grown on the Bolaven Plateau and in other southern provinces. In 2010/11, there were 25,200 coffee growers in Lao PDR, with 45,900 ha of coffee planted. This is an increase of 11% in area over the previous twelve years. There are 29,200 ha of coffee in Champasack and 10,000 ha in Saravane.

Table 1.5: Permanent crops, 1998/99 and 2010/11

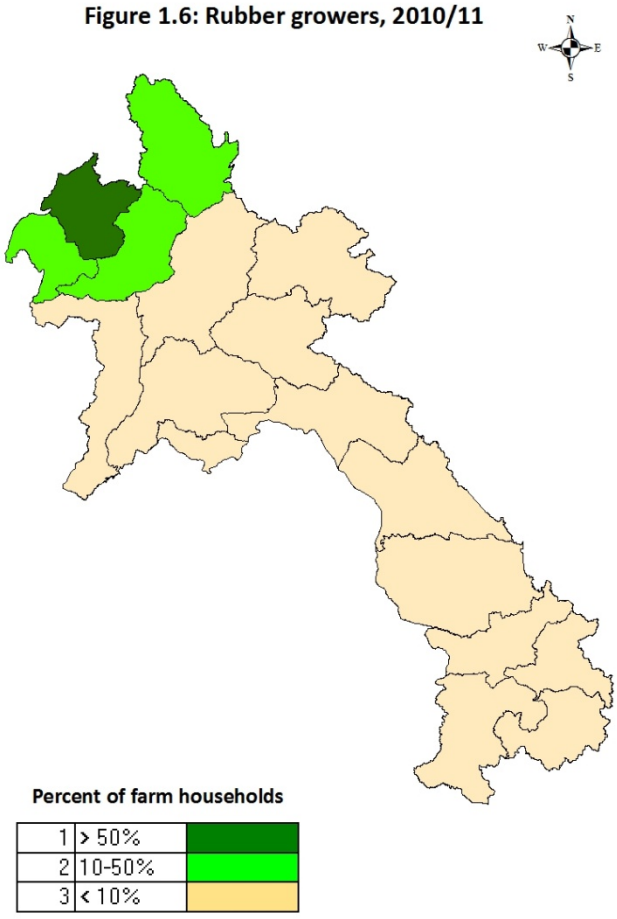
Crop type	No. of growers		Area[1] (ha)	
	1998/99	2010/11	1998/99	2010/11
Banana	109,000	70,400	13,400	9,300
Mango	152,000	187,600	3,800	3,300
Papaya	23,000	14,000	500	200
Pineapple	25,900	12,200	2,300	2,100
Tamarind	68,000	76,500	1,500	1,000
Coffee	23,700	25,200	41,200	45,900
Tea	1,700	6,300	500	2,500
Coconut	109,100	110,700	900	900
Cardamom	6,100	13,300	5,200	6,400
Rubber	100	49,000	-	66,500

1. Area excludes crops planted in plots of less than 100 sm.

In recent years, the development of the rubber industry has been a feature of the agricultural sector. There was almost no rubber in Lao PDR at the time of the last agricultural census in 1998/99; by 2010/11, there were 49,000 farm households growing rubber and 66,500 ha under rubber plantations. Most rubber is in the north, especially in Phongsaly, Luangnamtha and Oudomxay. Those three provinces account for 59% of the total rubber area. In Luangnamtha, well over half the farm households are growing rubber.

Fruit trees are common in Lao PDR, but are usually only scattered trees, rather than plantations. The most common fruit trees are mango, banana, jackfruit and tamarind. There are just over a million mango trees in the country.

Figure 1.6: Rubber growers, 2010/11



1.4 Irrigation (*Tables A1.18-A1.19*)

Irrigation means purposely providing land with water, other than rain, for agricultural purposes. In the Lao Census of Agriculture 2010/11, farm households were asked about whether they used irrigation for their crops during the 2010 wet season and the 2010/11 dry season. This included irrigation through Government irrigation schemes as well as other irrigation facilities.

In all, 22% of the 1.62 million hectares of agricultural land was irrigated during 2010/11. A total of 192,000 ha of rice were irrigated during 2010/11; 15% of the wet season rice crop was irrigated in 2010.

Table 1.6: Area of rice ('000 ha) by use of irrigation, 1998/99 and 2010/11

	1998/99	2010/11
Wet season rice	680	930
Irrigated	206	135
Not irrigated	473	795
Irrigated dry season rice	56	57

1.5 Livestock (*Tables A1.20-A1.26*)

Cattle are becoming increasingly important in Lao PDR. Buffaloes are kept for use as draught animals, especially in the south, but, with increasing farm mechanization, their numbers are declining. Pig raising is prevalent in upland areas. Many households raise a few chickens or ducks.

Table 1.7: Main livestock and poultry types, 1999 and 2011

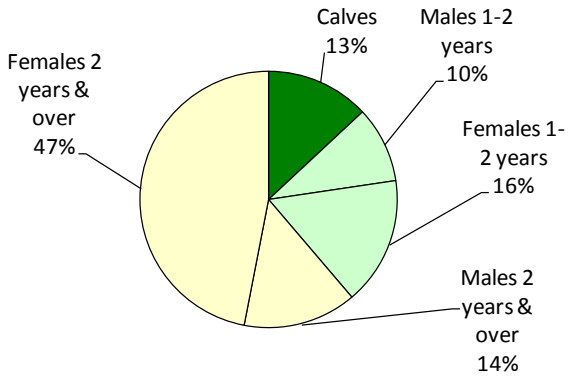
Livestock type	Farm h'holds with ('000)		No. of livestock ('000)	
	1999	2011	1999	2011
Cattle	208	297	944	1,586
Buffaloes	322	226	992	774
Pigs	328	306	1,036	978
Goats	26	43	94	216
Local chickens	487	488	9,379	8,665
Com. chickens	4	4	290	649
Ducks	191	213	1,351	1,791

Cattle numbers increased by two-thirds between 1999 and 2011, with 38% of all farm households in Lao PDR now raising cattle, up from 31% twelve years earlier. Less than 1% of cattle are improved breed. Only 10% of households raising cattle did so for draught purposes. Cattle herd sizes are increasing: the average cattle holding in 2011 had 5.3 cattle, compared with 4.5 in 1999.

Cattle raising is now common in both lowland and upland areas, and has become increasingly important in the centre: in 2011, 50% of farm households in Central Region were raising cattle, up from 37% in 1999. Herd sizes are also bigger in the centre, averaging 5.7 animals. Cattle raising is especially prominent in Xiengkhuang, where 62% of farm households in the province are raising cattle.

Over 60% of cattle are aged two years or more; amongst these, females outnumber males by more than three to one. Calves make up only 13 percent of cattle numbers.

Figure 1.7: Age-sex structure of cattle, 2010/11



In 1999, nearly half of the farm households in Lao PDR had buffaloes. By 2011, this figure had fallen to less than a third. Of farm households with buffaloes, 36% raise buffaloes for draught purposes; 37% raise buffaloes for meat. Nearly half of those with buffaloes have only one or two animals.

In the south, 41% of farm households are raising buffaloes, compared with 59% twelve years ago. In Vientiane Capital, where the use of farm machinery is highest, only 6% of farm households have buffaloes.

Nearly 60% of buffaloes are aged three years or over; amongst these, there are 3.5 females for every male. Calves make up only 7% of buffalo numbers.

Pig raising is still a major livestock industry but its growth appears to be waning. Fewer households were raising pigs in 2011 than in 1999. Pig numbers fell slightly over this period. In all, 61% of upland farm households raise pigs, compared with only 28% of lowland farm households. The average number of pigs kept in 2011 was 3.2, the same as in 1999. Over 60% of those raising pigs keep only one or two pigs; only 5% have 10 or more pigs.

In 2011, 62% of farm households kept local chickens, compared with 73% in 1999. Local chicken numbers fell by over 700,000 between 1999 and 2011. However, the number of commercial chickens rose by 359,000 over that period. More than two-thirds of the commercial chickens are in

Vientiane Capital. Of the adult local chickens, 37% were layers.

In 2011, 27% of farm households kept ducks, a similar rate to 1999. Between 1999 and 2011, duck numbers rose by a third to 1.8 million. Nearly 60% of ducks are broilers.

There are also 63,000 other poultry, mainly turkeys and geese.

Livestock producers in Lao PDR are now using better animal health practices. Vaccination rates increased sharply between 1998/99 and 2010/11: from 36% to 56% for cattle, from 48% to 60% for buffaloes and from 8% to 18% for pigs.

Vaccination of cattle and buffaloes is less common in the north: in Oudomxay, only 27% vaccinated their cattle, compared with 70% in Khammuane. However, the north is showing the most significant improvements in vaccination. The vaccination rate for cattle in Oudomxay more than doubled between 1998/99 and 2010/11.

The vaccination rate for pigs in the north is similar to the rest of the country. As in 1998/99, the lowest pig vaccination rate in 2010/11 was in Huaphanh (8% compared with 2% twelve years previously). In Phongsaly, the pig vaccination rate increased from 3% to 17% over the twelve-year period.

The majority of livestock producers feed their animals on natural pasture, fodder crops such as maize, or crop by-products such as rice straw. Less than 2% have improved pasture grasses.

1.6 Farm practices (*Tables A1.27-A1.29*)

A significant feature of farm practices in Lao PDR is the increasing farm mechanization. The percent of farm households using a tractor increased three-fold between 1998/99 and 2010/11. Over a third of all farm households now own a two-wheel tractor, compared with only 7% twelve years before.

The most mechanized farms are in central provinces along the Mekong, where well over 80% use a two-wheel tractor. Use of farm machinery is still rare in upland farming in the north: only 25% of Phongsaly farm households use a tractor. Tractors are used less commonly on small holdings.

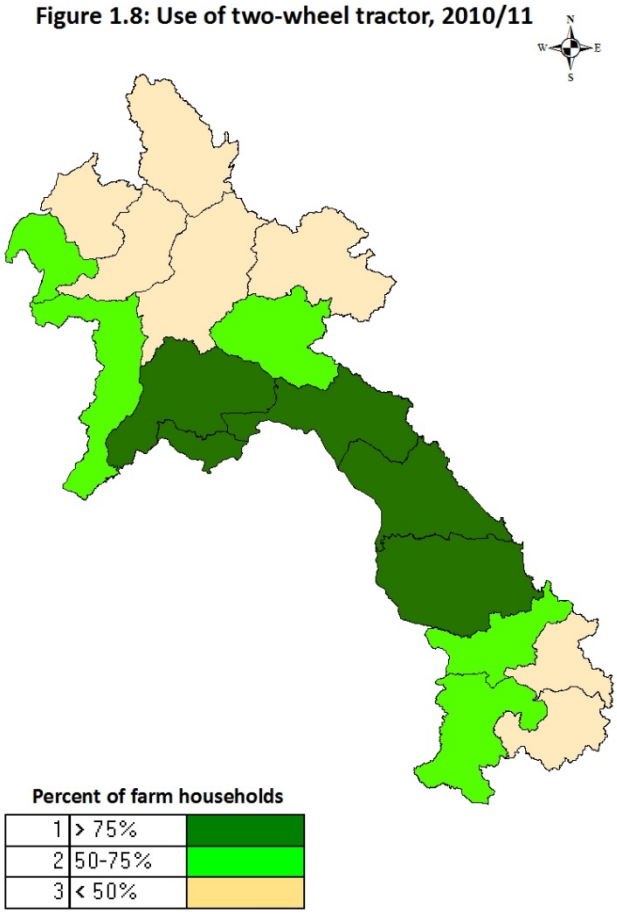
Table 1.8: Percent of farm households using farm machinery, 1998/99 and 2010/11

Type of machinery	1998/99	2010/11
Truck	n.a.	14%
Generator	1%	2%
Four-wheel tractor	2%	9%
Two-wheel tractor	20%	61%
Water pump	4%	4%

Farmers are increasingly using chemical fertilizers. In 2010/11, 42% of temporary crop growers used chemical fertilizer, compared with 29% twelve years earlier. More than half of crop growers in Southern and Central Provinces used chemical fertilizer. Only 16% did so in Northern Provinces.

Chemical fertilizers are often used in conjunction with organic fertilizers such as manure: 63% of those using chemical fertilizer also use organic fertilizer. In 1998/99, 59% of temporary crop growers used no fertilizer at all; by 2010/11, this had fallen to 43%.

Figure 1.8: Use of two-wheel tractor, 2010/11



For rice, chemical fertilizer is often used in conjunction with improved seeds. Of those rice growers using improved seeds in 2010/11, 67% applied some chemical fertilizer, compared with 27% of those using a local rice variety.

Only 17% of land holdings used pesticides in 2010/11, up from 11% in 1998/99.

In March 2011, 104,000 farm households had some agricultural credit, 13% of all farm households. More than a quarter of farm households in Oudomxay have agricultural credit. More than half of all credit was obtained without collateral; 61% of the rest used the household's land as collateral.

In all, 55% of agricultural credit was obtained through public banks and 40% through Village Development Funds. Credit is mainly used to buy crop inputs (51%) or to buy farm animals (30%). Only 16% is used credit to buy farm machinery. In the north, credit is more likely to be used for livestock purposes: in Luangprabang, 59% used credit to buy livestock, 25% to buy crop inputs and 14% to buy livestock inputs.

The bigger the farm, the more likely it is to have credit: 16% of those of size 3 ha or more have credit compared with 8% of those with less than 0.5 ha of land. Large holdings are more likely to receive credit from banks; small holdings are more likely to receive credit from Village Development Funds.

Farmers in Lao PDR receive agriculture-related information from a variety sources. The most common sources of information are other farmers (55% of farm households) and the media, especially television (52%) and radio (43%).

1.7 Farm population (*Tables A1.30-A1.31*)

In March 2011, the farm population in Lao PDR was 4.5 million, an increase of 443,000 since the previous agricultural census in March 1999. This represents an increase of 0.9 percent per year, compared with an estimated population growth rate of 2.1% for Lao PDR as a whole over the same period[1]. This reflects the increasing importance to the Lao economy of non-agricultural sectors.

Farm household sizes are decreasing in line with lower fertility rates. The average size of farm households was 5.7 in 2011, compared with 6.1 in the previous agricultural census in 1999 and 5.8 for all private households in the Population and Housing Census 2005.

The sex ratio (number of males per 100 females) for farm households is 101.1, higher than for the general population. This may reflect different immigration patterns for men and women in farm households. The sex ratio is high in the north and most of the centre, but low in the south.

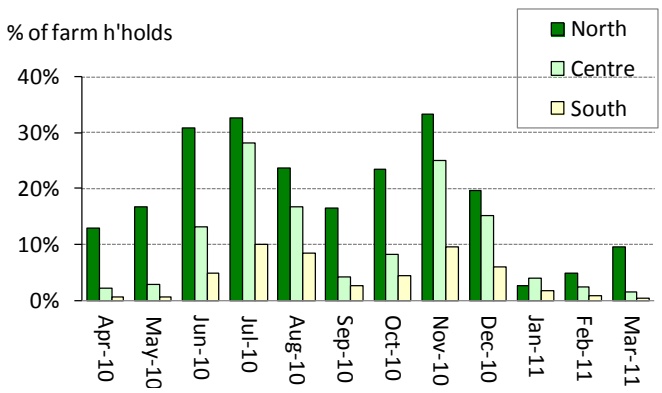
The dependency ratio (ratio of population aged 0-14 and 65 and over to the population aged 15-64 years) for farm households was 0.60 in 2011. This is consistent with the decreasing dependency ratio observed in the Population and Housing Census 2005. The dependency ratio for farm households is highest in Sekong, Saravane and Huaphanh.

1.8 Farm labour (*Tables A1.32-A1.35*)

In Lao PDR, most farm labour is still provided by household members, but the use of outside labour is increasing: 45% of farm households used outside labour in 2010/11, up from 26% in 1998/99. Of those employing outside labour, 56% do so on a labour exchange basis; 57% employ outside labour for cash payment, compared with 50% in 1998/99. Payment with farm produce is not common.

There are major differences across regions in the use and payment of outside labour. In the north, use of outside labour is more common (58% of farm households) but cash payment is less common (35%). In the south, only 25% of farm households used outside labour and it was generally on a cash basis (73%). As would be expected, larger holdings more commonly use outside labour; also, they are more likely to pay in cash.

Figure 1.9: Employment of outside farm labour for rice growing, 2010/11

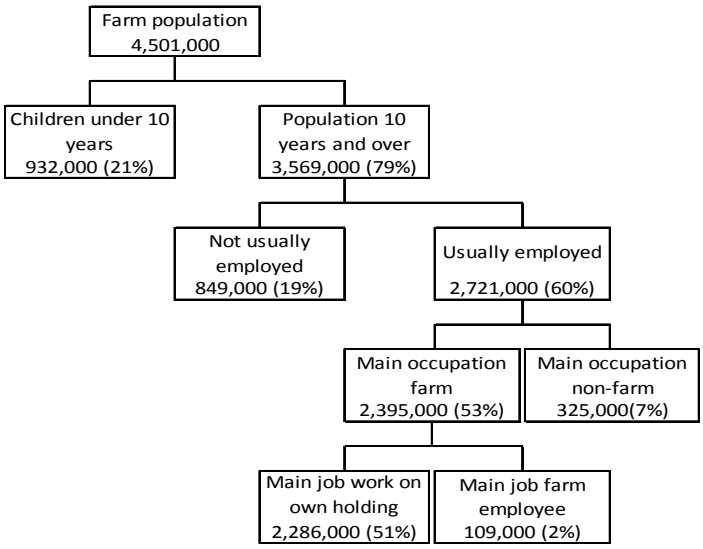


[1] Source: Population and Housing Census 2005.

The demand for outside labour is highest at the time of planting and harvesting the main rice crop. In the north, the peak labour demand is in June/July and November. Some labour is also needed in March-May to help with land preparation in upland areas. In the centre and south, the highest demand for labour is in June-August and November-December.

In 2011, there were 3.57 million people aged 10 years and over living in farm households. Of these, 2.72 million were usually employed in 2010/11. Most of those had a farming occupation, usually working on their own family farm. Only 109,000 worked in paid agricultural work. Only 325,000 had a non-farm occupation.

Figure 1.10: Farm population by main economic activity, 2010/11



Only 36% of the farm population aged 10-14 were usually employed in 2010/11. The remaining 369,000 were students, unemployed or otherwise not employed. Of these, a quarter did some work on the family farm.

For the farm population aged 15 years and over, 84% were usually employed in 2010/11. Of these, 89% were employed in a farm occupation, down from 92% in 1998/99. There was little difference between males and females. Over 95% of the employed farm population aged 15 years and over in Sekong and Saravane have a farm occupation.

Household members mainly working off the holding also provide some farm labour during peak planting and harvesting periods. For persons aged 10 years and over, 152,000 usually employed in another job and 216,000 usually not employed also do some work on the family farm. This is on top of the 2.29 million mainly employed on the family farm.

Table 1.9: Composition of household farm labour, 2010/11

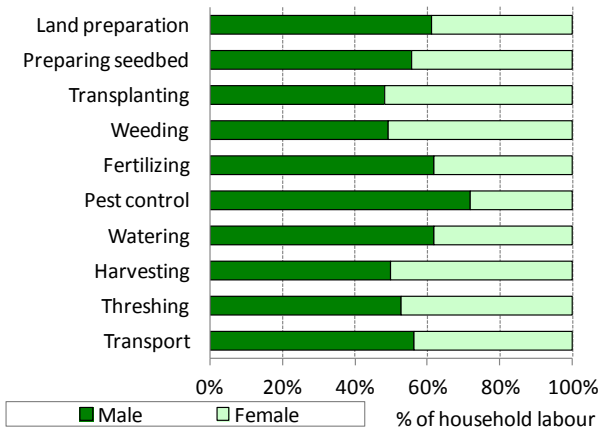
	'000	%
Farm population 10 years and over	**3,569**	**100**
Total doing some work on holding	**2,655**	**74**
Main job work on holding	2,286	64
Other main job but some work on holding		
Main job own non-farm business	*69*	*2*
Main job farm employee	*36*	*1*
Main job other employee	*47*	*1*
Not usually employed: some work on holding	216	6

There are now more alternative employment opportunities in rural areas and many people have secondary jobs. In 1998/99, only 24% of the farm population aged 15 years and over with main job work on own holding did some other work. By 2010/11, this had increased to 40%. Many work in other family businesses; 249,000 work as non-farm employees.

Farm work is seasonal and does not usually provide "full-time" work: only 11% of those aged 10 years and over with main job work on own holding work 9-12 months a year on the family farm; 45% work for only 3-6 months. Caring for livestock usually requires less than an hour a day.

Men and women both provide labour for rice growing. Land preparation work is more likely to be performed by men. Both men and women work on transplanting and harvesting tasks.

Figure 1.11: Labour inputs to rice growing by men and women, 2010/11



1.9 Farm management (*Table A1.36-A1.37*)

In the previous agricultural census, the "agricultural holder" was defined as the main person responsible for managing farm operations. For the Lao Census of Agriculture 2010/11, households reported on the primary decision makers for the farm operations. This could be one or two persons.

Two-thirds of farm households reported that the farm operations were jointly managed. This was usually by husband and wife. More than 80% of single-management holdings were managed by men.

There are 51,300 agricultural holdings operated entirely by women, either solely or as co-holders. These are more likely to produce for their own use and have other sources of income. They are less likely to have livestock or engage in fishing.

1.10 Fisheries (*Table A1.38*)

Fishing is an important secondary activity for many farm households as a source of extra income or to supplement the family's food supply.

In 2010/11, 68,200 farm households in Lao PDR were engaged in aquaculture, up from 55,500 in 1998/99. Usually, fish are cultivated in ponds. One in four farm households in Huaphanh and one in five in Xiengkhuang practise aquaculture.

Two thirds of farm households in Lao PDR engage in capture fisheries. Of these, 92% fish in rivers, 40% in lakes and 37% in rice fields. Capture fisheries is widespread around the country: in Phongsaly in the far north, 79% of farm households fish; in Attapeu in the far south, 74% of farm households fish.

Fishing is usually carried out for the household's own consumption. Only about a thousand aquaculture producers have aquaculture as the main source of income. A third sell some aquacultural products. There are about 6,000 farm households with main source of income capture fisheries, while another 111,000 sell some capture fisheries products.

Table 1.10: Number of farm households engaged in fisheries activities by type, 2010/11

	'000
No. of farm households	**782.8**
No. engaged in aquaculture	**68.2**
Main source of income aquaculture	1.0
Other main source of income	67.2
Sold some aquacultural produce	*21.3*
Did not sell any aquacultural produce	*45.8*
No. engaged in capture fisheries	**526.3**
Main source of income capture fisheries	5.9
Other main source of income	520.3
Sold some capture fisheries produce	*111.2*
Did not sell any capture fisheries produce	*409.1*

1.11 Forestry (*Tables A1.39-A1.40*)

Forest land is widely exploited in Lao PDR: 69% of farm households exploit public forest land. Most of those use the forest as a source of wood for fuel. Non-timber food products are also important: 49% of all farm households collect fruit and vegetables from the forest; 55% collect mushrooms from the forest.

Forestry activities are common in upland areas: 78% of upland farm households exploit public forests, compared with 64% in lowland areas. In the north, 86% of farm households in Phongsaly and 81% in Luangprabang exploit public forests. Nearly three-quarters of all farm households in Phongsaly collect some food products from the forest.

Forestry activity on the household's own land is not common. In 2010/11, forest land on agricultural holdings amounted to 122,300 ha. Only 12% of farm households have some forest land on their holding.

Forest products often provide a source of income for farm households. Overall, 44,200 farm households reported that forestry was their main source of income. Over 200,000 farm households sold some forestry products from public forest land.

CHAPTER 2
SUMMARY OF FINDINGS
VILLAGE INFRASTRUCTURE

2.1 General

In March 2011, there were 8,662 villages in Lao PDR, compared with 11,251 at the time of the last agricultural census in March 1999. There were 1,362 urban villages and 7,300 rural villages.

Of the rural villages, there were 6,031 with road access and 1,269 without road access. The average rural village with road access consisted of 104 households; the average size of rural villages without a road was 68 households.

Also, 2,651 rural villages were in lowland areas, 2,908 were in upland areas, and 1,741 were classified as plateau or mixture of land types.

Table 2.1: Number of villages by village type and province, 2011

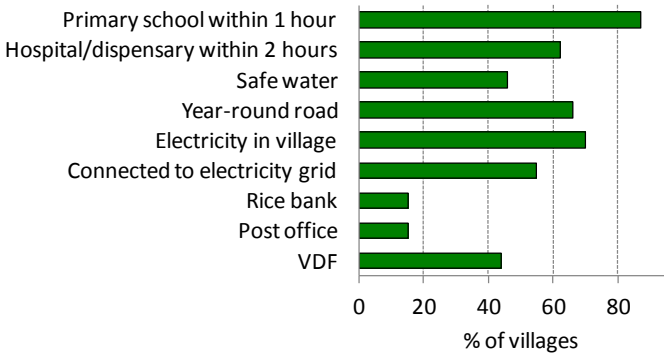
Province	Urban	Rural	Total
North	**457**	**3,144**	**3,601**
Phongsaly	52	489	541
Luangnamtha	37	319	356
Oudomxay	49	422	471
Bokeo	35	248	283
Luangprabang	160	623	783
Huaphanh	28	693	721
Xayabury	96	350	446
Centre	**731**	**2,699**	**3,430**
Vientiane Capital	263	227	490
Xiengkhuang	69	443	512
Vientiane Province	87	419	506
Borikhamxay	56	267	323
Khammuane	111	476	587
Savannakhet	145	867	1,012
South	**174**	**1,457**	**1,631**
Saravane	31	574	605
Sekong	20	213	233
Champasack	101	542	643
Attapeu	22	128	150
Lao PDR	**1,362**	**7,300**	**8,662**

2.2 General infrastructure *(Tables A2.1-A2.4)*

Infrastructure in Lao PDR is rapidly improving alongside economic development. As would be expected, urban areas have better infrastructure than rural areas. Lowland areas also have better infrastructure than upland and plateau areas.

In March 2011, 87% of all villages in Lao PDR were within an hour's walk of a primary school and 62% were within a two-hour walk of a dispensary or hospital. One in six have a rice bank and 44% have a Village Development Fund.

Figure 2.1: Villages with selected infrastructure, 2011



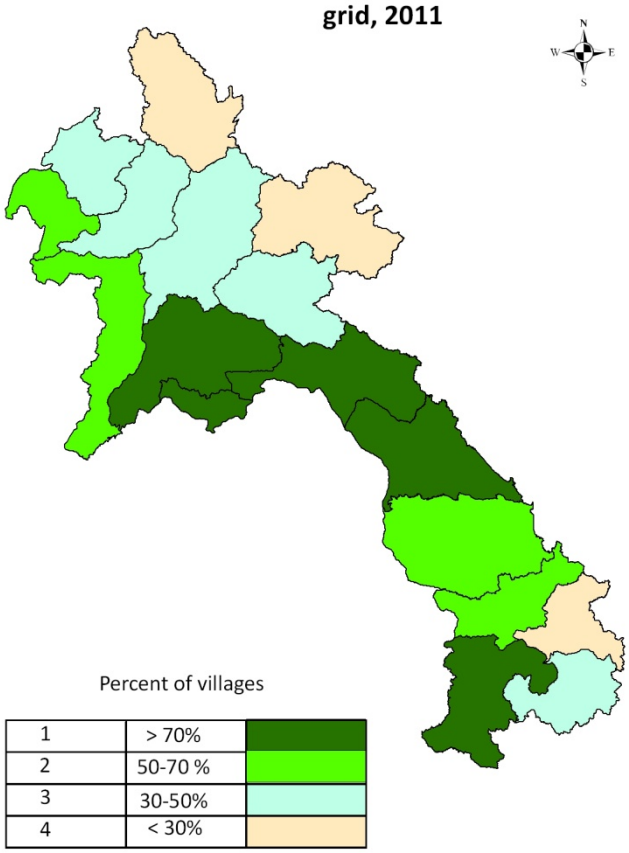
Many rural villages still lack basic infrastructure, especially in more remote areas. Whereas 96% of urban areas have some electricity supply, only 70% of rural villages with road access and 39% of rural villages without road access have electricity. Rural villages often rely on small-scale generation facilities. Only 16% of rural villages without a road are connected to the national electricity grid; 20% use a hydro-generator.

Most urban villages (80%) have access to safe water[2], compared to 43% of rural villages with road access and only 20% of villages without road access.

Safe water is much less common in villages in the north (19%), compared with 59% in the centre and 75% in the south. A similar discrepancy exists in upland areas: only 18% of upland villages have safe water compared with 75% of lowland areas. Nearly half of all rural villages use a river, stream or dam as a source of household water, and over a third use water from a rainwater tank.

[2] Safe water is piped water or a protected well/ borehole.

Figure 2.2 : Villages connected to electricity grid, 2011



People in many rural villages still face transport problems. Nearly 3,000 villages in the country – a third of all villages – do not have year-round road access to the district centre. As many as 55% of upland villages do not have year-round road access.

Generally, infrastructure in Phongsaly is poorer than other provinces. Only 11% of villages in that province are connected to the electricity grid and only 23% have safe water supply. Only 34% of villages have year-round road access. Two thirds of villages are more than two hours walk away from a dispensary or hospital.

Figure 2.3: Villages with electricity by village/land type, 2011

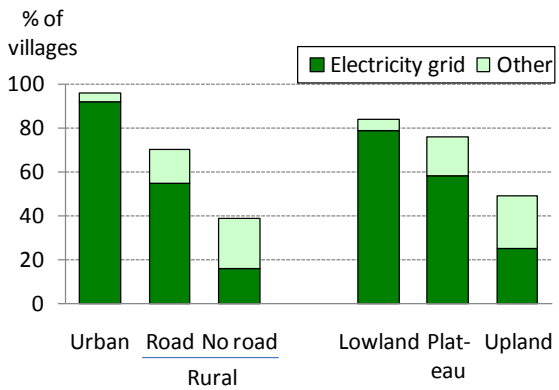
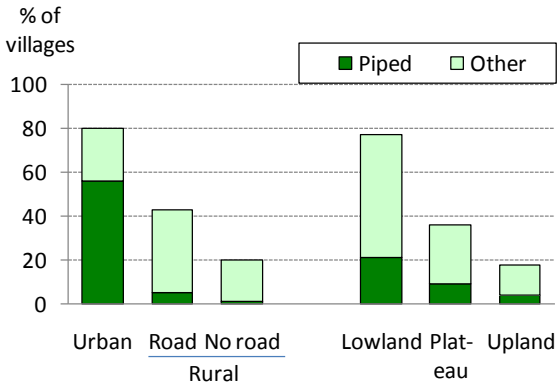


Figure 2.4: Villages with safe water by village/land type, 2011



Nearly 900 villages in Lao PDR have been resettled in the last ten years, including one in five upland villages. Resettlement has been highest in Oudomxay where more than 120 villages (a quarter of all villages) have been resettled in the last 10 years. Current planning provides for the resettlement of over 300 villages in the future.

2.3 Agricultural infrastructure

(Tables A2.5, A2.8, A2.10)

Very few rural villages have a permanent market. However, a third have a temporary market used to sell agricultural produce. Phongsaly (18%), Huaphanh (19%) and Sekong (13%) have the fewest agricultural produce markets. Agricultural produce markets are twice as common in lowland areas than upland areas.

Few rural villages have an agricultural input shop or a shop selling agricultural machinery. However, there is a petrol station in 28% of rural villages, including 18% of upland villages and 15% of villages without road access.

There are credit facilities in 44% of rural villages. Public banks are present in 17% of rural villages, including 14% of upland villages. There are few private banks in rural areas.

Village Development Funds are used for credit purposes in 32% of rural villages, including 26% of upland villages. Nearly 60% of rural villages in Bokeo have a Village Development Fund, compared with only 14% in Sekong.

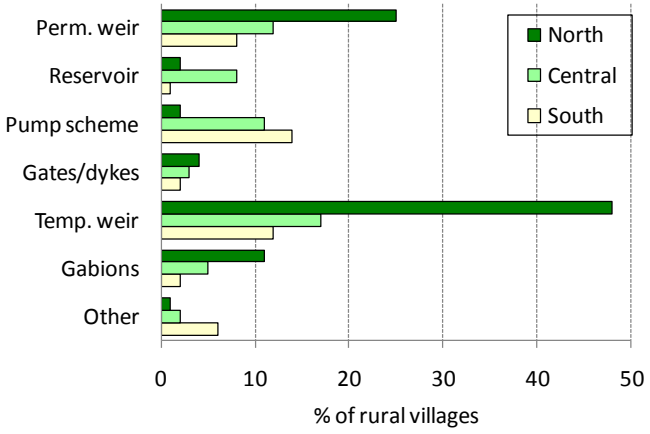
A quarter of village heads in rural areas reported that there is some form of traditional or community fisheries management programme in the village.

2.4 Irrigation *(Tables A2.6, A2.9)*

Nearly half of the rural villages in Lao PDR have some irrigation facilities. Irrigation facilities are most common in Xayabury, where 74% of rural villages had some irrigation facilities. In Attapeu, only 15% of rural villages had irrigation facilities.

About 17% of rural villages have a permanent weir and 29% have a temporary weir. Only 7% have a pump scheme. In Xayabury, 42% of rural villages have a permanent weir and 62% have a temporary weir. Weirs are more common in the north.

Figure 2.5: Irrigation infrastructure in rural villages, 2011



2.5 Climate and natural disasters *(Tables A2.13-A2.14)*

During the Lao Census of Agriculture 2010/11, the enumerators asked village heads for their overall assessment of changes in weather patterns. For rural areas, 79% reported that recent wet seasons have been drier than 10 years ago; 73% felt that the rains were coming later than they used to.

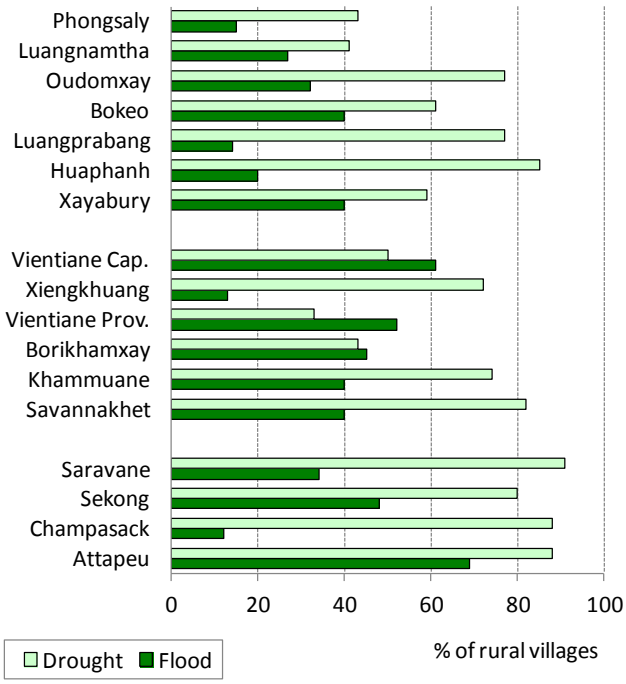
The geographical dimensions of this will need to await more detailed analysis of the data. However, there may be more positive rainfall perceptions in certain central provinces in the Mekong valley – especially Vientiane Capital, Vientiane Province and Xayabury – and in Sekong where 22% of village heads in rural areas felt that recent wet seasons had been better than before.

There is a widespread perception around the country that farmers are at risk from natural disasters. Over 80% of heads of rural villages reported that the village was prone to natural disaster: 31% were prone to flooding and 70% were prone to drought conditions. Moreover, the majority felt that such episodes occurred every one to two years.

The Central Region is most prone to flooding – 40% of rural villages, compared with 24% in the north and 31% in the south. Drought problems were more commonly reported in the Southern Region – 88% of villages, compared with 67% in the north and 65% in the centre. Attapeu is prone to both flood (69% of villages) and drought (88% of villages).

Two thirds of rural villages report that farmers are prone to pest attack, including over 80% of villages in the south.

Figure 2.6: Rural villages prone to flood and drought, 2011



2.6 Environment *(Table A2.9)*

There is some rotating or shifting cultivation practised in two-thirds of rural villages around the country. Rotating cultivation is found in 53% of rural villages and shifting cultivation is found in 18% of rural villages. Nearly three quarters of rural upland villages have rotating cultivation and 29% have shifting cultivation. In Luangprabang, 95% of rural villages practise rotating or shifting cultivation.

In the census, village heads in rural villages were asked for their general assessment of the degree of soil degradation in the village. About 30% indicated that some soil degradation was present; 9% considered it moderate or severe. In Sekong, 55% of rural villages reported soil degradation: 11% considered it severe and 24% considered it moderate.

2.7 Socio-economic conditions *(Table A2.7)*

During the census, enumerators asked village heads whether they considered that living standards in the village had improved over the previous two years. This was a subjective assessment only.

Over 80% of village heads in rural areas felt that living standards had improved over the previous two years. This perception tended to be more prominent in central provinces. Southern provinces tended to be less positive. In Sekong, only 55% of rural villages reported improved living standards. Lowland areas were slightly more likely to report improving conditions that upland areas.

2.8 Agricultural marketing *(Table A2.10)*

The agriculture sector in Lao PDR is becoming increasingly market oriented. Most rural villages reported farmers selling some agricultural produce. Sale of agricultural produce was highest in the north (94% of rural villages), compared with 87% in the centre and 84% in the south.

Farming is solely subsistence in 15% of rural upland villages. A third of rural villages in Sekong and Attapeu have solely subsistence agriculture.

In 33% of rural villages, farmers sell agricultural produce in the local village market. In 54% of villages, farmers sell though a broker in the village and 71% sell through a broker in another village.

Contract farming is present in 14% of villages. Contract farming is common in the north: over half of Huaphanh villages have contract farming.

2.9 Agricultural constraints
(Tables A2.9, A2.11)

During the census, village heads in rural areas were asked about the main constraints or problems faced

Figure 2.7 : Rural villages with a produce market, 2011

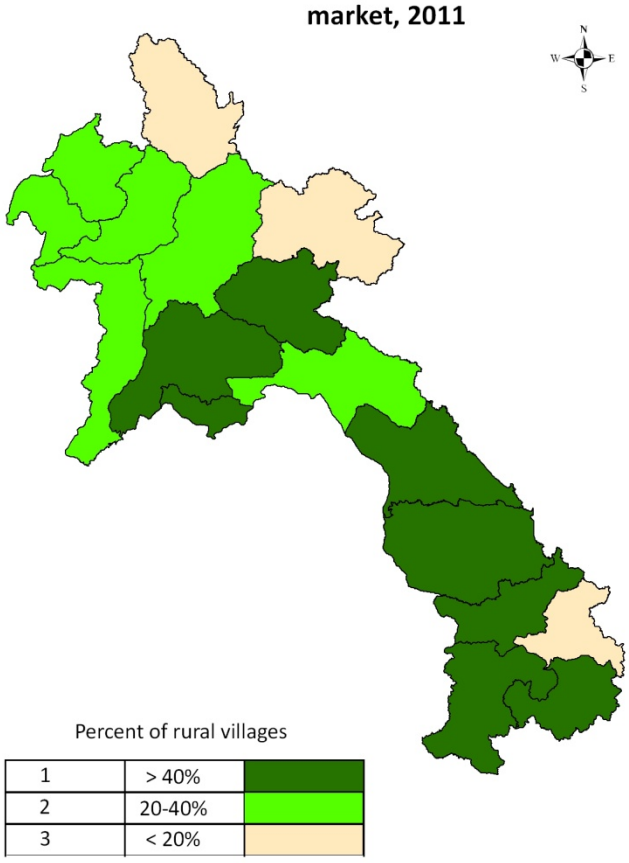
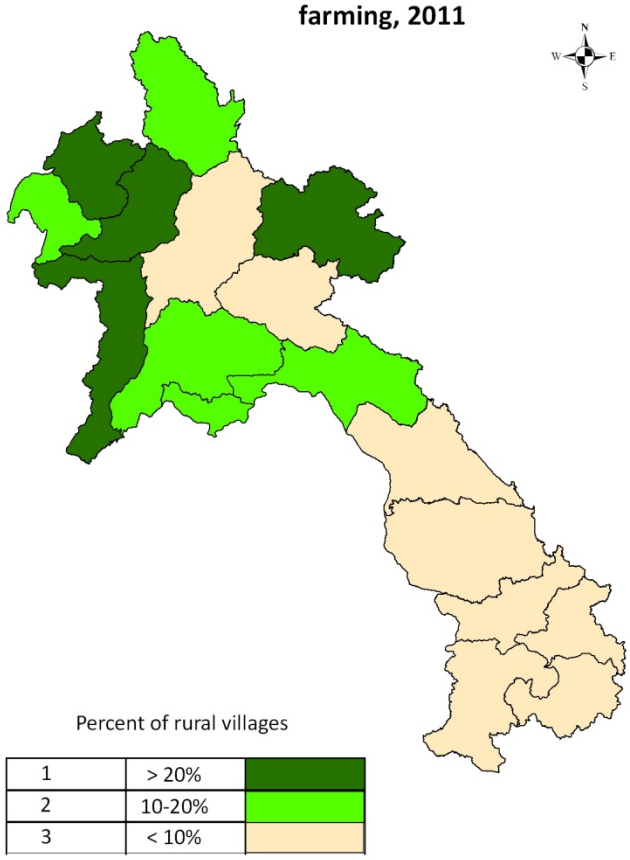


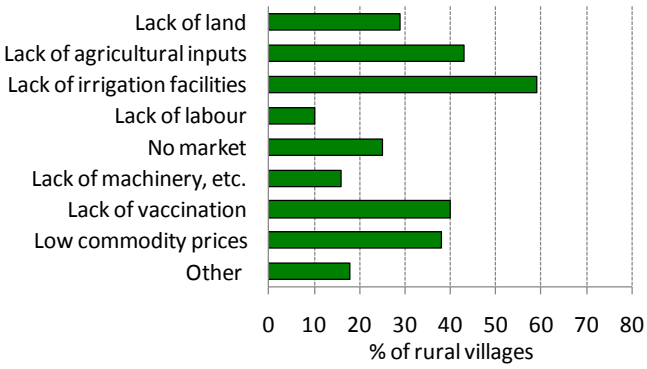
Figure 2.8 : Rural villages with contract farming, 2011



by farmers in the village. Problems were widely reported. The most common problem is lack of irrigation (59% of villages). Lack of vaccination was reported as a constraint by 40% of villages. This is a major problem in upland areas. Low commodity prices were also often mentioned.

Over 1,100 rural villages in Lao PDR – one in six rural villages – have agricultural land affected by UXO. The worst affected provinces are Xiengkhuang (54% of villages) and Sekong (58%). The total area of agricultural land affected by UXO in all areas (urban and rural) is estimated at over 170,000 ha.

Figure 2.9: Agricultural constraints/problems reported by rural villages, 2011



CHAPTER 3
TECHNICAL NOTES ON LAO CENSUS OF AGRICULTURE 2010/11

3.1 Organizational arrangements

The Lao Census of Agriculture 2010/11 was undertaken under the overall control of the Agricultural Census Steering Committee, which was chaired by Mr Somsavat Lengsavad, Deputy Prime Minister, Standing Member of Lao Government. The work on the census was undertaken by the Agricultural Census Office (ACO), which was established in the Department of Planning of the Ministry of Agriculture and Forestry (MAF). The Department of Statistics (DoS) of the Ministry of Planning and Investment provided technical assistance with this work.

3.2 Outline of census methodology

The Lao Census of Agriculture 2010/11 covered the whole of Lao PDR, including urban areas in Vientiane and elsewhere. The census covered private households only. Agricultural activities of institutional units such as government farms, private companies and schools were excluded.

The census had three components:

- Village component: a survey of all villages in the country to collect data from village heads on rural infrastructure and services.
- Household component: a survey of all private households in Lao PDR to collect basic data on crops and livestock.
- Sample farm household component: a sample survey of 41,660 farm households to collect detailed data on agricultural activities.

3.3 Topics covered in the census

The census was developed based on the guidelines given in *A system of integrated agricultural censuses and surveys; Volume 1: World Programme for the Census of Agriculture 2010* (FAO 2005), taking into account the circumstances in Lao PDR.

A list of all data items collected in the census is shown in Appendix 3. The main items were:

- Village component: presence of electricity, irrigation facilities, credit facilities, schools, health facilities, agricultural market, public services and community facilities; transport links; sale of agricultural produce; shifting cultivation practices; sources of drinking water; UXO affected agricultural land; resettlement; soil degradation; weather patterns; natural disasters; and changes in living standards.
- Household component: identification of farm households; area of agricultural land; area irrigated; area of each temporary crop by season; area of productive and non-productive permanent crops; livestock numbers by type; purpose of agricultural production; sale of agricultural production; ownership of tractor and water pump; aquaculture and capture fisheries; household size; sex, age and ethnic group of household head; presence of forest land; and main source of income.
- Sample farm household component: farm size; land tenure; land fragmentation; land use; shifting and rotating cultivation; use of crop inputs; age, sex and purpose of livestock by type; vaccination; use of credit; agricultural marketing; certified agricultural produce; farm population by age and sex; employment of farm population; farm management; forestry activities; and types of fishing activities.

3.4 Sample design and selection

The sample for the sample farm household component was selected using two-stage sampling: a sample of villages was first selected, and then a sample of farm households was selected in each sample village.

In most districts, a sample of between 16 and 22 villages was selected, with 16 farm households selected in each sample village; that is, a sample of between 256 and 352 sample farm households in each district. The more villages or farm households in a district, the bigger the sample that was taken. A

smaller sample was taken in urban districts and districts containing few villages or households.

In each district, the sample of villages was selected using stratified systematic probability proportional to size (PPS) sampling. A list of all villages in Lao PDR was prepared. Villages were divided into urban and rural strata, with rural strata being sampled more heavily than urban strata because of their agricultural importance. The estimated number of households in each village was used as the size measure for PPS sampling.

The sample of farm households in each sample village was selected using stratified systematic random sampling based on a list of all farm households in each village prepared following the household component of the census.

Altogether, 2,620 villages and 41,660 sample farm households were selected in the sample. The sample sizes for each province are shown in Table 3.1.

Table 3.1: Lao Census of Agriculture 2010/11, sample size by province

Province	Districts	Villages	Sample villages	Sample farm h'holds
Phongsaly	7	541	131	2,094
Luangnamtha	5	356	93	1,488
Oudomxay	7	471	135	2,159
Bokeo	5	283	93	1,488
Luangprabang	12	783	219	3,491
Huaphanh	8	721	155	2,479
Xayabury	11	446	189	3,024
Vientiane Cap.	9	490	136	2,062
Xiengkhuang	8	512	148	2,332
Vientiane Prov.	13	506	231	3,728
Borikhamxay	7	323	124	1,984
Khammuane	9	587	168	2,683
Savannakhet	15	1,012	289	4,566
Saravane	8	605	159	2,544
Sekong	4	233	71	1,133
Champasack	10	643	191	2,997
Attapeu	5	150	88	1,408
TOTAL	143	8,662	2,620	41,660

3.5 Census field organization

There were four levels of census field organization.

Central coordinators, recruited from MAF, DoS and other central agencies in Vientiane, had overall responsibility for the census enumeration in a province. There were one or two central coordinators in each province. ACO provided a two-week training course for central coordinators.

Provincial coordinators, one from each of the provincial MAF and DoS offices, were appointed to assist the central coordinators. Provincial coordinators were trained at the same time as the central coordinators.

District supervisors were appointed to work under the control of the central and provincial coordinators to supervise the enumeration work. There were 312 district supervisors: two in most districts and three or four in larger districts. District supervisors were district-level staff from MAF and DoS. District supervisors were trained in a two-week training course given by the central/provincial coordinators.

Some 2,333 census enumerators were recruited to collect the census data. The enumerators were government staff from districts, as well as teachers, students, police officers and military personnel. Enumerators received five days of training provided by the district supervisors.

3.6 Census enumeration

The list of villages was sent to provinces and districts to identify villages for the census enumeration.

The census data collection was undertaken from 28 February to 8 April 2011. The enumerator's task in each village was to:

- interview the village head to enumerate the village component;
- list all private households currently living in the village;
- interview each private household in the village to enumerate the household component;
- prepare a list of farm households in the village, based on responses to the household component; and
- (sample villages only) select a sample of farm households for enumeration in the sample farm household component, and interview sample households to collect the required data.

3.7 Census processing

Completed questionnaires were returned to ACO in Vientiane for processing. Processing involved:

checking that the census enumeration was complete; manually checking that questionnaires had been correctly filled out; coding of descriptive responses (such as crop types); entering data into the computer (using keyboard methods); running computer checks to identify and correct errors; and producing tabulations of census data.

There were nearly 1.2 million questionnaires and therefore it took some for the processing to be completed. Preliminary checking and coding was done from May-September 2011; data entry was done from June-December 2011; and error checking was done from August 2011-February 2012. Tabulations were prepared by April 2012.

3.8 Data presented in this report

This report presents results of all components of the census.

Appendix 1 shows tables for the household and sample farm household components. Appendix 2 shows tables for the village component. Some commentary and key findings are presented in Chapter 1 (household and sample farm household components) and Chapter 2 (village component).

Most of the data in the household tables in Appendix 1 are obtained from the sample farm household component. However, some tables include data from the full enumeration household component. Tables are shown classified by province.

The village tables in Appendix 2 present the main village characteristics classified by province, together with national totals for village type (urban, rural with road, rural without road) and land type (lowland, upland, plateau, and mixture of land types). General infrastructure data are shown for all villages. Data related to agriculture are shown for rural villages only.

More detailed tables not shown in this report are also available on request.

3.9 Definitions of terms used in this report

Household and farm household data

A household is a group of people making common arrangements for food, shelter and other acts of daily living. A household usually consists of relatives such as a husband, a wife, children and parents, but sometimes includes unrelated people such as live-in household or farm workers. Only private households were covered in the census; collective households – that is, households living in multiple accommodation units such as in hotels, temples, schools and hospitals – were excluded. A household is not the same as a family, which consists of related persons. Usually, a household consists of a single family or contains more than one family.

A farm household is a household that:

- operated 0.02 ha or more of agricultural land in the 2010 wet season or the 2010/11 dry season; or
- was raising 2 or more cattle or buffaloes, 5 or more pigs or goats, or 20 or more poultry at the time of the census; or
- was raising any other livestock at the time of the census; or
- had aquaculture facilities at the time of the census.

Agricultural land is land used for growing any temporary or permanent agricultural crops in the 2010 wet season or the 2010/11 dry season, land temporarily fallow during that period, or land under pasture.

To operate land means to have management control over growing crops or other activities on that land. Thus, land operated by a farm household includes land owned and operated by the household, as well as land operated by the household but rented from someone else. Land owned by the household but rented out to someone else is excluded.

Most farm households have some land, but a few raise livestock without having any land. A land holding is a farm household with some land. A livestock holding is a farm household that is not a land holding.

Area of holding is the area of all agricultural and non-agricultural land operated by the farm household. Non-agricultural land includes forest land, fish ponds, grazing land and wasteland. A livestock holding has zero area of holding.

A land parcel is any piece of land entirely surrounded by land, water, forest, road, etc. not forming part of that holding. A land holding consists of one or more parcels.

Land tenure refers to whether land is owned, rented or operated on another basis. Owned land means land owned outright or in owner-like possession, such as land under perpetual or long-term lease, land operated without interruption for many years, or land given to a household under certain land use conditions. Rented land means land rented from someone else – usually for a limited period – for cash or in-kind remuneration such as a share of the produce or exchange of labour. Under land tenure, other includes squatter land, land not authorized for cultivation, or land borrowed from someone else. A farm household may have land of different tenure types.

Land use refers to the main use of the farm household's land during the 2010 wet season and the 2010/11 dry season. Where permanent and temporary crops are grown as a mixture, the predominant crop is taken. Land under water during the wet season, but used for growing crops during the dry season, is assigned to temporary crops.

Arable land is land that has been cleared and is capable of being used for growing temporary crops. Arable land includes land on which temporary crops were grown in the 2010 wet season or the 2010/11 dry season, as well as fallow land. Arable land does not include land under permanent crops.

Fallow land is land normally used for growing temporary crops, but not so used during the 2010 wet season and the 2010/11 dry season. Land left idle for more than five years is not fallow. Land cultivated on a two- or three-year rotating basis is fallow if it was not cultivated during the reference year. Land abandoned altogether under shifting cultivation is not fallow.

Temporary crops are crops with a less than one-year growing cycle. Land used for temporary crops refers to land on which temporary crops were grown during the reference year, whereas area of temporary crops planted refers to the total area of all crops planted during the reference year. The area of temporary crops planted may be greater than the area under temporary crops because of double cropping. For mixed crops – that is, crops grown at the same time in a field as a mixture or inter-planted – the sum of the areas of the crops is the same as the area of the field. Crops grown in a particular season means that the main growing period for that crop was in that season. Crop area refers to planted area, not harvested area. Temporary crops that are not planted in a systematic manner or sufficiently densely to permit the area to be measured, or are less than 100 square metres in area, are not included in crop area figures but are included in the number of grower figures.

Rice data are shown by season, land type, seed type, rice type and maturity. Land type refers to whether it is lowland or upland. Upland rice is that grown under dry land conditions, including land permanently cultivated as well as shifting cultivation. Seed type refers to whether it is local or improved. Improved varieties are those that MAF has released as high yielding varieties or that farmers have acquired from Thailand, or elsewhere, believing them to be high yielding varieties. Rice type refers to whether the rice is glutinous or non-glutinous. Maturity refers to the length of the growing period: short maturing rice matures in about three months, medium maturing in about four months and long maturing in about five months.

Permanent crops are crops with a greater than one-year growing cycle, such as fruit and nut trees, bananas, coffee, tea and cardamom. Data on permanent crops refer to the crops present on the day of enumeration. Many permanent crops are not grown in a compact plantation but scattered around the holding. Scattered permanent crops or crops not planted in a systematic manner or sufficiently densely to permit the area to be measured are not included in crop area figures but are included in the number of grower figures.

Grazing land is land used for grazing livestock, including cultivated and naturally grown pastures, and permanent and temporary pasture land.

Forest land includes natural and planted timber tracts that have, or will have, value as wood, timber, other forest products, or for protection. Two types of forestry data were collected in the census: forest land that forms part of the land owned or operated by the household, and public forest land exploited by the household. Forest land owned by the household may be economically exploited or may be present for environmental or other purposes.

Other land includes land under water, land occupied by buildings or roads, wasteland, and other uncultivated land.

Cultivation intensity is the sum of the area of all temporary crops planted divided by the area of arable land, expressed as a percentage. For example, 1 ha of land used for growing 1 ha of wet season rice

and 0.5 ha of dry season rice has a cultivation intensity of 150%.

Livestock refers to animals and poultry raised mainly for agricultural purposes. To raise livestock means to have primary responsibility for looking after the animals on a long-term basis and to make day-to-day decisions about their use. Livestock numbers refer to those present on the day of enumeration. Average animals per holding is the average for those farm households with the particular type of livestock (not the average for all farm households).

Use of vaccination means administering an animal with a substance to control or eliminate disease. The reference period is the 2010/11 agricultural year. Vaccination is shown as being used even if only some animals of the given type had been vaccinated, or if the vaccination was not up-to-date.

Agricultural machinery used refers to use of machinery for agricultural purposes during the reference year, regardless of ownership. Machinery means farm equipment driven by electricity, petrol/diesel engines, batteries, wind or water, as well as equipment used with such devices (such as tractor-driven ploughs). It does not include hand or animal operated equipment such as animal-pulled ploughs and hand sprayers. Data are also presented on agricultural machinery owned.

Fertilizers are mineral or organic substances, natural or manufactured, which are applied to soil to supply plants with nutrients or to enhance plant growth. Fertilizers contain the three primary nutrients (N, P_2O_5 and K_20). Data on fertilizers refer to their use during the reference year. Chemical fertilizers are fertilizers prepared from inorganic materials manufactured through an industrial process. Organic fertilizers are fertilizers prepared from processed plant or animal material and/or unprocessed mineral materials (such as lime, rock or phosphate). This includes animal manure and compost.

Pesticides are materials intended to mitigate, control or eliminate pests in plants or animals, including insecticides, herbicides, fungicides and rodenticides. Data on pesticides refer to their use during the reference year.

Agricultural credit refers to any type of loan of money received for purposes related to crop, livestock or aquaculture production activities. This includes credit for purchasing crop and livestock inputs, constructing farm buildings and purchasing farm machinery. For the agricultural census, the term "credit" refers to whether the household had debt existing at the time of the census enumeration; that is, the household still owed money on the loan.

Household size is the number of persons who usually live in the household. Farm population is the number of members of farm households.

A person is usually employed if he or she was usually engaged in an economic activity during the reference year 2010/11. It refers to work done in paid employment, on the family farm, or in another family business or profession. Persons who are students, unemployed, home-makers, retirees or too old or too sick to work are not employed.

An employee is a person working in paid employment; that is, he or she works in a job for which they receive payment either in money or in another form. A farm employee is someone working in paid employment in a farming occupation.

Main job refers to the main occupation of a usually employed person. Farm occupation means the person's main job was a farm employee or work on the family farm.

In the Lao Census of Agriculture 2010/11, data were collected on usual employment and secondary employment. Thus, household members could have a main job off the family farm but work on the family farm at peak periods as a secondary activity.

Outside labour means the employment of people, other than household members, to do agricultural work on the holding during the reference year. Type of payment refers to how outside workers are paid.

Aquaculture is the raising of fish in captivity. Aquaculture data refer to facilities present on the day of enumeration. Capture fisheries refers to all fishing other than aquaculture undertaken during the reference year.

Village data

The percentages in the village tables are measured relative to the total number of villages in the class as shown in the first column of the table. Thus in Table A2.1, the *percent of villages connected to electricity grid* is the number of villages connected to the electricity grid as a percent of all villages in the

province, village type or land type class. It is not the number of villages connected to the electricity grid as a percent of households with electricity.

Data on infrastructure and services refer to whether the particular type of infrastructure or service is present, or is available to or used by people in the village.

Village type (urban; rural with road; rural without road) is based on DoS definitions determined according to the availability of services (roads, electricity, water supply and public services).

Land type (lowland; upland; plateau; mixture) is based on the village head's assessment of land conditions in the village. Only 31 villages reported a mixture of land types and these are included under plateau.

Primary school less than one hour's walk means that either:

- there is a primary school in the village; or
- there is no primary school in the village, but there is a primary school within one hour's walk of the village.

Dispensary or hospital less than two hours' walk means that either:

- there is a dispensary or hospital in the village; or
- there is no dispensary or hospital in the village, but there is a dispensary or hospital within two hour's walk of the village.

Safe water means that the village has either a piped water supply or a protected well or borehole.

Data on living standards refer to the village head's overall assessment of conditions in the village.

UXO affected land refers to agricultural land affected in some way by UXO. It includes agricultural land not cultivated because of the presence of UXO, as well as land that is still cultivated despite the presence of UXO.

Soil degradation refers to the decline in soil quality, such as soil erosion and loss of soil fertility. This is based on the village head's overall assessment of soil conditions in the village.

Rotating cultivation and shifting cultivation refer to the practice of farming a piece of land for one or more years before abandoning it. Under rotating cultivation, the land is cultivated on a rotating basis; that is, the land is left for some years to regain fertility before being cultivated again. Under shifting cultivation, the land is abandoned permanently.

Assessment of weather conditions is based on the village head's assessment of the change in weather conditions. Three aspects are considered: (i) the rainfall in the last few years compared with normal; (ii) the rainfall in 2010 compared with normal; (iii) the timing of arrival of the wet season in the last few years compared to normal. Normal means the situation about ten years ago.

3.10 Non-response

In the village component, data were collected from all 8,662 villages in the country. However, some villages did not report all data. For most items, responses were received from over 99% of villages. Village data in the report are presented as percentages, based on the number of reporting villages.

In the household component, all 8,662 villages in the country were enumerated, but 6,030 household questionnaires were missing. This represents a non-response rate of only 0.6%.

In the sample farm household component, only 29 selected sample households were not enumerated – a non-response rate of only 0.1%.

In both the household and sample farm household components, some households did not report all data. For most items, the response rate was over 95%. For some items, it was possible to "impute" for missing data. This was done based on responses to other questions taking account of data reported in neighbouring households.

Because non-response is so low, it should have little effect on the reliability of the census results.

3.11 Reliability of data

The census data presented from the sample farm household component are based on a sample and are therefore subject to sampling errors. Because of the sample design used, sampling errors on provincial and national estimates are generally quite small.

Apart from sampling errors, census results may not be consistent with data from other sources because:

- The census covers only the household sector. Crops grown or livestock raised by private companies, government farms, etc. are excluded. Also excluded are crops or livestock of collective households.
- Census data for a province refer to land operated, or animals raised, by households living in the province, not the land or animals located within the province. Other agricultural statistics in Lao PDR are based on land or livestock located in the province. This effect may be significant in large urban areas.
- Rice area data exclude the land of those households who do not have 0.02 ha or more agricultural land. This should have little effect.
- The census livestock data refer to the number of animals on the day the household was enumerated in the census. Livestock data from other sources may have different reference periods.
- The census only covers livestock raised by farm households. Thus, households with just a few animals or a little agricultural land are excluded.

The census estimate of upland rice area is higher than the official statistics. Different data collection methodologies are used: in the census, data were collected directly from households, whereas the official statistics are obtained from reports of local agricultural officials. This makes it difficult to make comparisons. The census confirms the decline in slash-and-burn cultivation, and suggests a shift to permanent upland cultivation. One factor could be the planting of temporary crops in newly planted permanent crop plantations in upland areas. The reasons for the differences will be further studied, including an evaluation of data quality.

The census estimate of dry season rice area is lower than the official statistics. Again, the different methodologies make comparisons difficult, and there could be data quality problems. Also, in the reporting system, the data might be based on expected planting or pumping potential, rather than actual planted areas. Further in-depth studies will be undertaken.

Generally, the quality of data in the village component was good because of the simple factual nature of the data collected and the willingness of the village heads to participate in the census. The data collection for households was more difficult to control because of the large number households enumerated.

Every effort was made to ensure that reported data were of high quality. Provincial and District Steering Committees closely managed the data collection operation; enumerators were well-trained; the enumeration work was closely supervised; and reported data were checked in the field and during processing.

Comparisons between 1998/99 and 2010/11 agricultural census data for provinces are affected by changes in provincial boundaries. Xaysomboon Special Region has been abolished and the districts within it were assigned to Luangprabang, Xiengkhuang and Vientiane Province.

3.12 Notes on the tables

The data presented in the report are often rounded to make it easier to read. Much of the household data are shown in thousands. Percentages are usually shown in whole numbers. There may be minor discrepancies in the tables – such as in totals or percentages – because of this rounding.

The symbol "-" in a table means that the figure is nil or negligible (less than one half of the unit indicated).

The symbol ".." in a table means that the item is not applicable.

The symbol "n.a." in a table means that the figure is not available.

APPENDIX 1

OUTPUT TABLES: FARM HOUSEHOLDS

Table A1.1: Number of households by farm/non-farm, village type and province, 2010/11
('000)

	All households			Urban			Rural with road			Rural without road		
Province	Total	Farm	Non-farm	Total	Farm	Non-farm	Total	Farm	Non-farm	Total	Farm	Non-farm
Northern Region	***323.0***	***288.9***	***34.0***	***80.3***	***54.7***	***25.6***	***205.9***	***198.4***	***7.5***	***36.7***	***35.8***	***0.9***
Phongsaly	29.5	28.4	1.1	5.4	4.7	0.7	18.2	17.8	0.4	5.9	5.8	0.1
Luangnamtha	29.2	26.2	3.0	6.5	4.6	1.9	20.3	19.3	1.0	2.5	2.4	0.1
Oudomxay	48.3	44.6	3.7	9.7	6.8	2.9	30.6	30.0	0.6	7.9	7.8	0.2
Bokeo	28.5	24.8	3.7	5.7	3.2	2.5	20.9	19.7	1.2	1.8	1.8	-
Luangprabang	73.2	59.5	13.7	25.7	14.8	10.9	33.8	31.5	2.3	13.7	13.2	0.5
Huaphanh	45.7	42.3	3.4	6.2	3.3	2.9	37.2	36.7	0.5	2.3	2.3	-
Xayabury	68.5	63.1	5.4	21.1	17.2	3.9	44.9	43.4	1.5	2.6	2.5	0.1
Central Region	***499.7***	***336.4***	***163.3***	***189.5***	***70.8***	***118.7***	***286.7***	***244.4***	***42.3***	***23.5***	***21.2***	***2.3***
Vientiane Capital	132.3	42.8	89.5	91.3	14.6	76.7	40.9	28.0	12.8	0.2	0.2	-
Xiengkhuang	40.4	36.2	4.2	11.3	7.9	3.4	27.1	26.3	0.8	2.0	2.0	-
Vientiane Province	81.2	62.7	18.5	21.8	12.9	8.9	56.8	48.2	8.7	2.6	1.6	1.0
Borikhamxay	43.3	35.0	8.3	13.0	8.3	4.8	28.9	25.4	3.5	1.4	1.3	-
Khammuane	65.1	51.1	14.0	17.3	9.0	8.3	40.0	35.0	4.9	7.8	7.2	0.7
Savannakhet	137.3	108.6	28.7	34.8	18.2	16.7	93.0	81.5	11.5	9.5	9.0	0.6
Southern Region	***198.8***	***157.5***	***41.3***	***44.1***	***22.4***	***21.8***	***129.6***	***113.4***	***16.3***	***25.0***	***21.7***	***3.3***
Saravane	55.4	50.1	5.3	5.1	2.8	2.2	48.8	45.8	3.0	1.6	1.5	0.1
Sekong	15.0	12.9	2.1	3.1	1.6	1.5	9.6	8.9	0.6	2.3	2.3	-
Champasack	105.7	75.4	30.2	30.1	14.1	15.9	57.2	46.1	11.2	18.4	15.3	3.1
Attapeu	22.7	19.1	3.6	5.9	3.8	2.1	14.1	12.7	1.5	2.7	2.6	0.1
Total	***1,021.4***	***782.8***	***238.6***	***313.9***	***147.8***	***166.1***	***622.3***	***556.3***	***66.0***	***85.2***	***78.7***	***6.5***

Table A1.2: Number of households by farm/non-farm, land type and province, 2010/11
('000)

	All households			Lowland			Upland			Plateau		
Province	Total	Farm	Non-farm	Total	Farm	Non-farm	Total	Farm	Non-farm	Total	Farm	Non-farm
Northern Region	***323.0***	***288.9***	***34.0***	***82.7***	***66.2***	***16.5***	***139.8***	***133.2***	***6.6***	***100.4***	***89.5***	***10.9***
Phongsaly	29.5	28.4	1.1	2.6	2.5	-	21.1	20.4	0.7	5.8	5.4	0.4
Luangnamtha	29.2	26.2	3.0	10.5	8.5	2.0	13.2	12.6	0.7	5.5	5.2	0.3
Oudomxay	48.3	44.6	3.7	5.2	4.2	1.0	31.1	29.2	1.9	12.0	11.2	0.8
Bokeo	28.5	24.8	3.7	13.6	11.9	1.7	5.2	4.8	0.3	9.8	8.0	1.7
Luangprabang	73.2	59.5	13.7	22.5	14.5	8.1	30.2	28.3	1.9	20.4	16.7	3.7
Huaphanh	45.7	42.3	3.4	3.9	3.2	0.7	20.7	20.1	0.6	21.2	19.0	2.1
Xayabury	68.5	63.1	5.4	24.5	21.4	3.1	18.3	17.8	0.5	25.7	23.9	1.8
Central Region	***499.7***	***336.4***	***163.3***	***354.7***	***209.7***	***145.1***	***71.3***	***64.4***	***6.9***	***73.6***	***62.3***	***11.3***
Vientiane Capital	132.3	42.8	89.5	125.8	37.6	88.2	0.4	0.4	0.1	6.2	4.9	1.3
Xiengkhuang	40.4	36.2	4.2	2.5	1.6	0.9	13.2	12.8	0.3	24.7	21.8	2.9
Vientiane Province	81.2	62.7	18.5	37.1	24.6	12.6	29.6	26.0	3.6	14.5	12.1	2.4
Borikhamxay	43.3	35.0	8.3	22.0	16.5	5.5	8.1	7.0	1.0	13.2	11.5	1.8
Khammuane	65.1	51.1	14.0	54.5	42.7	11.8	1.4	1.3	0.1	9.1	7.1	2.0
Savannakhet	137.3	108.6	28.7	112.8	86.8	26.0	18.6	16.8	1.8	5.9	5.0	0.9
Southern Region	***198.8***	***157.5***	***41.3***	***146.4***	***110.0***	***36.3***	***12.3***	***11.7***	***0.6***	***40.2***	***35.7***	***4.4***
Saravane	55.4	50.1	5.3	37.7	33.3	4.4	4.0	3.9	0.2	13.6	12.9	0.7
Sekong	15.0	12.9	2.1	1.9	1.3	0.6	5.3	5.1	0.3	7.8	6.5	1.3
Champasack	105.7	75.4	30.2	87.5	59.6	27.9	0.9	0.9	0.1	17.2	14.9	2.3
Attapeu	22.7	19.1	3.6	19.2	15.7	3.4	2.0	2.0	-	1.5	1.4	0.2
Total	***1,021.4***	***782.8***	***238.6***	***583.8***	***385.9***	***197.9***	***223.4***	***209.3***	***14.1***	***214.2***	***187.6***	***26.6***

Table A1.3: Number of farm households by sale of agricultural produce and province, 2010/11
('000)

Province	No. of farm h'holds	Main purpose of production		Sell some agricultural produce	Type of agricultural production sold		
		Sale	Other		Rice	Other crops	Livestock products
Northern Region	***288.9***	***105.9***	***183.0***	***230.4***	***103.9***	***162.5***	***123.6***
Phongsaly	28.4	6.3	22.1	19.7	8.5	15.5	9.5
Luangnamtha	26.2	9.8	16.4	18.0	11.1	10.5	9.6
Oudomxay	44.6	13.3	31.3	37.7	16.5	27.9	17.4
Bokeo	24.8	5.7	19.1	16.9	11.9	6.7	8.5
Luangprabang	59.5	26.6	32.9	48.5	20.2	34.2	29.1
Huaphanh	42.3	9.8	32.5	34.4	13.8	23.7	21.5
Xayabury	63.1	34.4	28.8	55.2	21.9	44.0	27.9
Central Region	***336.4***	***82.9***	***253.5***	***213.1***	***122.9***	***96.2***	***133.3***
Vientiane Capital	42.8	13.3	29.4	25.0	16.5	8.8	12.7
Xiengkhuang	36.2	7.4	28.8	29.6	13.2	20.2	21.5
Vientiane	62.7	19.0	43.7	46.6	27.3	27.5	28.0
Borikhamxay	35.0	10.0	25.0	21.6	10.8	9.5	13.4
Khammuane	51.1	8.2	42.9	28.4	15.4	8.4	18.7
Savannakhet	108.6	24.8	83.7	61.8	39.7	21.8	39.0
Southern Region	***157.5***	***42.2***	***115.3***	***113.0***	***49.6***	***65.8***	***65.7***
Saravane	50.1	9.1	41.0	37.5	17.2	23.4	24.1
Sekong	12.9	2.0	10.8	8.0	1.5	6.5	3.1
Champasack	75.4	29.3	46.2	55.8	26.5	30.3	29.7
Attapeu	19.1	1.8	17.3	11.7	4.4	5.7	8.8
Total	***782.8***	***231.0***	***551.8***	***556.5***	***276.4***	***324.6***	***322.5***

Table A1.4: Land use by province, 1998/99 and 2010/11
('000 ha)

	Area of holdings		Arable land		Permanent crop land		Grazing land		Forest land		Other	
Province	1998/99	2010/11	1998/99	2010/11	1998/99	2010/11	1998/99	2010/11	1998/99	2010/11	1998/99	2010/11
Northern Region	***324.4***	***649.8***	***296.5***	***509.3***	***11.9***	***73.7***	***0.9***	***4.2***	***11.8***	***30.6***	***3.3***	***32.1***
Phongsaly	21.1	46.5	20.2	27.5	0.8	17.3	-	0.1	0.1	0.6	-	1.0
Luangnamtha	21.8	56.6	20.4	34.6	0.2	18.4	-	1.7	0.7	0.8	0.5	1.2
Oudomxay	62.0	105.3	56.8	80.8	0.9	13.6	0.4	0.2	3.5	2.5	0.5	8.1
Bokeo	20.0	51.0	17.8	38.8	1.2	8.9	-	0.1	0.8	1.8	0.2	1.4
Luangprabang	98.1	163.2	87.5	123.5	4.0	8.0	0.4	0.6	5.1	18.9	1.1	12.2
Huaphanh	40.2	55.2	38.0	51.4	1.5	2.0	-	0.1	0.1	0.3	0.5	1.5
Xayabury	61.0	172.0	55.7	152.7	3.2	5.6	0.1	1.4	1.7	5.6	0.4	6.6
Central Region	***445.3***	***864.2***	***373.4***	***665.1***	***14.5***	***29.7***	***14.7***	***21.6***	***33.1***	***72.6***	***9.6***	***75.1***
Vientiane Capital	83.3	97.6	70.2	69.6	4.0	4.7	2.1	10.9	4.0	8.2	3.0	4.2
Xiengkhuang	38.7	73.8	34.9	62.1	1.3	2.0	0.3	1.4	1.2	0.9	1.1	7.4
Vientiane Province	73.1	164.4	56.2	113.0	3.8	8.1	9.7	8.2	1.9	6.8	1.6	28.3
Borikhamxay	45.2	77.2	40.9	59.9	1.4	5.0	0.2	0.3	1.6	8.5	1.0	3.5
Khammuane	54.9	119.0	52.2	101.6	0.9	6.2	0.3	0.1	1.0	5.4	0.6	5.8
Savannakhet	150.0	332.2	119.1	258.9	3.1	3.6	2.1	0.8	23.4	42.8	2.4	26.1
Southern Region	***268.2***	***356.3***	***198.7***	***253.8***	***54.5***	***65.1***	***1.6***	***0.7***	***9.0***	***19.1***	***4.3***	***17.6***
Saravane	84.5	130.6	67.6	101.5	10.7	15.5	0.6	0.3	3.8	5.8	1.8	7.4
Sekong	18.2	30.3	11.8	15.5	4.8	10.9	0.1	0.1	1.1	3.4	0.3	0.4
Champasack	146.7	158.8	102.1	107.9	38.2	38.0	0.8	0.1	3.6	5.8	2.0	7.0
Attapeu	18.8	36.6	17.2	28.9	0.9	0.7	-	0.2	0.5	4.1	0.1	2.7
Total[1]	***1,047.7***	***1,870.2***	***877.3***	***1,428.2***	***81.3***	***168.5***	***17.6***	***26.4***	***54.1***	***122.3***	***17.5***	***124.8***

Table A1.5: Number of farm households by size of holding and province, 2010/11 ('000)

Province	No. of farm households	Size of holding						
		No land	0.01-0.49 ha	0.50-0.99 ha	1.00-1.49 ha	1.50-1.99 ha	2.00-2.99 ha	3.00 ha & over
Northern Region	***288.9***	***1.3***	***18.3***	***43.4***	***54.6***	***39.4***	***57.5***	***74.3***
Phongsaly	28.4	-	2.6	6.7	6.1	4.6	5.0	3.3
Luangnamtha	26.2	-	0.9	3.2	5.7	4.0	7.0	5.4
Oudomxay	44.6	0.1	1.8	5.3	8.9	6.4	10.7	11.3
Bokeo	24.8	0.1	1.6	3.3	5.4	4.2	5.3	4.9
Luangprabang	59.5	0.2	1.8	4.9	8.6	6.8	12.5	24.7
Huaphanh	42.3	0.1	5.7	12.0	10.5	6.2	5.2	2.5
Xayabury	63.1	0.7	3.8	8.0	9.5	7.2	11.8	22.2
Central Region	***336.4***	***3.2***	***31.7***	***50.6***	***60.9***	***35.1***	***59.5***	***95.3***
Vientiane Capital	42.8	2.0	10.4	7.9	6.6	2.8	4.2	8.8
Xiengkhuang	36.2	-	2.7	7.2	7.6	5.4	6.3	7.1
Vientiane Province	62.7	0.1	6.1	10.8	10.2	6.5	10.6	18.6
Borikhamxay	35.0	0.5	2.4	5.1	8.3	3.6	6.9	8.2
Khammuane	51.1	0.4	4.8	7.9	9.9	5.4	10.0	12.8
Savannakhet	108.6	0.2	5.4	11.6	18.4	11.5	21.5	39.9
Southern Region	***157.5***	***1.7***	***8.0***	***19.6***	***33.1***	***22.4***	***33.5***	***39.2***
Saravane	50.1	0.1	1.7	6.0	8.8	7.0	10.7	15.8
Sekong	12.9	0.2	0.5	2.2	3.2	1.5	2.0	3.2
Champasack	75.4	1.2	4.6	9.1	16.2	11.2	16.4	16.8
Attapeu	19.1	0.2	1.2	2.3	4.9	2.7	4.3	3.4
Total	***782.8***	***6.2***	***58.1***	***113.6***	***148.6***	***97.0***	***150.5***	***208.8***

Table A1.6: Area of holdings by size of holding and province, 2010/11
('000 ha)

Province	Area of holdings	Size of holding						
		No land	0.01-0.49 ha	0.50-0.99 ha	1.00-1.49 ha	1.50-1.99 ha	2.00-2.99 ha	3.00 ha & over
Northern Region	***649.8***	**..**	***5.4***	***31.3***	***64.1***	***66.3***	***134.3***	***348.5***
Phongsaly	46.5	..	0.9	4.8	7.4	7.8	11.9	13.8
Luangnamtha	56.6	..	0.3	2.4	6.6	6.6	16.0	24.7
Oudomxay	105.3	..	0.6	3.9	10.4	10.8	25.4	54.1
Bokeo	51.0	..	0.6	2.4	6.3	7.1	12.5	22.1
Luangprabang	163.2	..	0.5	3.3	9.7	11.2	28.4	110.1
Huaphanh	55.2	..	1.5	8.7	12.3	10.3	11.9	10.5
Xayabury	172.0	..	1.2	5.8	11.4	12.4	28.1	113.2
Central Region	***864.2***	**..**	***9.7***	***36.1***	***70.4***	***58.8***	***138.8***	***550.4***
Vientiane Capital	97.6	..	3.6	5.9	7.5	4.7	9.6	66.2
Xiengkhuang	73.8	..	0.8	5.3	8.9	9.1	14.6	35.1
Vientiane Province	164.4	..	1.6	7.8	12.0	10.9	24.8	107.3
Borikhamxay	77.2	..	0.7	3.6	9.4	6.0	16.0	41.6
Khammuane	119.0	..	1.4	5.5	11.3	9.0	23.4	68.4
Savannakhet	332.2	..	1.6	7.9	21.2	19.2	50.5	231.8
Southern Region	***356.3***	**..**	***1.9***	***13.3***	***37.5***	***37.1***	***77.3***	***189.2***
Saravane	130.6	..	0.5	4.2	10.4	11.9	25.6	78.1
Sekong	30.3	..	0.1	1.5	3.5	2.5	4.5	18.2
Champasack	158.8	..	1.0	6.1	18.1	18.2	37.2	78.2
Attapeu	36.6	..	0.2	1.5	5.5	4.5	10.1	14.7
Total	***1,870.2***	**..**	***16.9***	***80.6***	***171.9***	***162.2***	***350.4***	***1,088.0***

Table A1.7: Fragmentation of land by province, 2010/11

Province	No. of farm h'holds ('000)	No. of land holdings ('000)	Area of holdings ('000 ha)	Average size of land holding (ha)	No. of parcels ('000)	Ave. no. of parcels per land holding	Average parcel size (ha)	Number of land holdings consisting of parcels:			
								1	2-3	4-5	6 & over
Northern Region	***288.9***	***287.6***	***649.8***	***2.3***	***903.3***	***3.1***	***0.72***	***35.0***	***158.9***	***70.5***	***23.3***
Phongsaly	28.4	28.4	46.5	1.6	107.3	3.8	0.43	0.9	13.3	9.8	4.4
Luangnamtha	26.2	26.2	56.6	2.2	72.3	2.8	0.78	4.3	15.8	5.4	0.7
Oudomxay	44.6	44.5	105.3	2.4	145.4	3.3	0.72	5.2	23.4	11.3	4.6
Bokeo	24.8	24.7	51.0	2.1	66.1	2.7	0.77	4.3	15.0	4.7	0.6
Luangprabang	59.5	59.3	163.2	2.8	175.0	3.0	0.93	7.0	35.7	13.6	2.9
Huaphanh	42.3	42.1	55.2	1.3	119.4	2.8	0.46	7.8	22.8	9.1	2.4
Xayabury	63.1	62.5	172.0	2.8	217.7	3.5	0.79	5.6	32.8	16.5	7.6
Central Region	***336.4***	***333.2***	***864.2***	***2.6***	***819.2***	***2.5***	***1.05***	***55.4***	***233.2***	***37.0***	***7.6***
Vientiane Capital	42.8	40.7	97.6	2.4	62.7	1.5	1.56	25.5	13.9	1.2	0.2
Xiengkhuang	36.2	36.2	73.8	2.0	111.9	3.1	0.66	2.1	24.5	7.3	2.3
Vientiane Province	62.7	62.6	164.4	2.6	189.9	3.0	0.87	2.0	44.7	13.0	3.0
Borikhamxay	35.0	34.5	77.2	2.2	77.9	2.3	0.99	9.2	21.4	3.5	0.4
Khammuane	51.1	50.8	119.0	2.3	116.3	2.3	1.02	10.6	34.9	4.5	0.8
Savannakhet	108.6	108.4	332.2	3.1	260.4	2.4	1.28	6.0	94.0	7.6	0.8
Southern Region	***157.5***	***155.8***	***356.3***	***2.3***	***366.6***	***2.4***	***0.97***	***27.5***	***110.1***	***15.3***	***2.9***
Saravane	50.1	50.0	130.6	2.6	143.5	2.9	0.91	1.2	37.9	8.6	2.2
Sekong	12.9	12.7	30.3	2.4	24.3	1.9	1.25	4.4	7.7	0.6	-
Champasack	75.4	74.2	158.8	2.1	156.9	2.1	1.01	18.3	50.6	4.7	0.6
Attapeu	19.1	18.9	36.6	1.9	42.0	2.2	0.87	3.6	13.9	1.4	0.1
Total	***782.8***	***776.7***	***1,870.2***	***2.4***	***2,089.1***	***2.7***	***0.90***	***117.9***	***502.3***	***122.7***	***33.7***

Table 1.8: Land tenure characteristics of land holdings by province, 2010/11

Province	No. of land holdings	Land holdings ('000) with:			Area of holdings	Area ('000 ha) of:			No. of rented parcels	Rental arrangement (%)				
		Owned	Rented	Other		Owned	Rented	Other		Total	Agreed	Share	Exchange	Other
	('000)	land	land	land	('000 ha)	land	land	land	('000)		money	produce	services	
Northern Region	***287.6***	***270.8***	***23.8***	***11.9***	***649.8***	***606.9***	***33.0***	***9.9***	***45.6***	***100***	***21***	***9***	***14***	***56***
Phongsaly	28.4	27.8	1.4	0.2	46.5	44.6	1.8	0.1	3.5	100	11	8	23	59
Luangnamtha	26.2	25.1	2.1	0.9	56.6	52.3	3.0	1.2	3.4	100	21	36	19	23
Oudomxay	44.5	41.8	5.2	0.8	105.3	97.1	7.4	0.8	9.4	100	26	6	25	43
Bokeo	24.7	22.9	2.4	0.5	51.0	47.0	3.6	0.4	4.7	100	16	6	5	73
Luangprabang	59.3	55.3	5.4	1.0	163.2	152.7	9.4	1.1	10.3	100	18	7	15	59
Huaphanh	42.1	37.2	4.5	7.5	55.2	45.2	4.4	5.6	9.7	100	21	2	2	76
Xayabury	62.5	60.7	2.9	1.1	172.0	168.0	3.3	0.8	4.6	100	27	20	17	36
Central Region	***333.2***	***311.5***	***32.2***	***6.1***	***864.2***	***795.4***	***59.3***	***9.4***	***52.9***	***100***	***14***	***26***	***4***	***55***
Vientiane Capital	40.7	32.7	9.8	0.9	97.6	75.8	20.7	1.0	12.4	100	13	48	4	35
Xiengkhuang	36.2	32.9	3.9	1.4	73.8	62.9	8.6	2.3	9.4	100	10	9	8	73
Vientiane Province	62.6	60.6	6.8	1.5	164.4	152.6	10.3	1.5	10.6	100	19	27	7	46
Borikhamxay	34.5	32.0	3.2	0.6	77.2	71.3	5.1	0.8	5.3	100	5	18	2	75
Khammuane	50.8	47.4	4.5	0.8	119.0	110.8	7.3	0.9	8.4	100	18	21	-	61
Savannakhet	108.4	105.8	4.1	0.9	332.2	322.0	7.3	2.9	6.8	100	18	19	4	58
Southern Region	***155.8***	***148.4***	***12.9***	***1.5***	***356.3***	***336.1***	***18.4***	***1.8***	***19.7***	***100***	***14***	***37***	***6***	***43***
Saravane	50.0	48.3	3.6	0.4	130.6	125.4	4.8	0.4	6.2	100	7	24	6	62
Sekong	12.7	11.6	1.0	0.3	30.3	28.3	1.9	0.1	1.8	100	33	45	6	16
Champasack	74.2	70.7	6.9	0.7	158.8	148.4	9.3	1.1	9.4	100	5	51	4	40
Attapeu	18.9	17.8	1.5	0.1	36.6	34.1	2.4	0.1	2.4	100	57	4	14	25
Total	***776.7***	***730.8***	***68.9***	***19.6***	***1,870.2***	***1,738.4***	***110.7***	***21.1***	***118.2***	***100***	***17***	***21***	***8***	***54***

Table A1.9: Number of growers for selected temporary crops by province, 2010/11
('000)

Province	No. of land holdings	No. of growers planting:							
		Rice	Maize	Cassava	Sesame	Tobacco	Sugar cane	Groundnut	Watermelon
Northern Region	**287.6**	**265.8**	**118.5**	**20.8**	**25.0**	**4.4**	**7.7**	**14.4**	**1.8**
Phongsaly	28.4	25.2	15.9	5.5	3.7	0.7	2.8	4.4	0.2
Luangnamtha	26.2	24.7	5.6	0.9	0.6	0.1	2.1	1.3	0.5
Oudomxay	44.5	41.0	23.5	1.6	3.2	1.0	0.8	1.4	0.4
Bokeo	24.7	23.9	5.8	0.5	1.4	0.1	0.1	0.3	-
Luangprabang	59.3	52.4	17.3	5.7	10.5	1.1	0.8	1.3	0.1
Huaphanh	42.1	40.4	23.3	5.4	0.1	0.2	0.7	0.2	0.1
Xayabury	62.5	58.2	27.2	1.3	5.5	1.3	0.5	5.5	0.5
Central Region	**333.2**	**319.9**	**47.2**	**15.9**	**0.6**	**5.2**	**3.3**	**5.4**	**4.5**
Vientiane Capital	40.7	37.4	0.8	0.9	0.1	0.2	0.2	0.0	0.2
Xiengkhuang	36.2	35.1	19.6	4.3	0.2	-	1.1	2.6	0.5
Vientiane Province	62.6	58.0	5.2	2.3	0.4	0.3	0.6	1.1	0.9
Borikhamxay	34.5	33.3	2.3	5.2	-	0.9	0.4	0.7	0.2
Khammuane	50.8	49.7	7.6	1.4	-	2.1	0.5	0.1	1.0
Savannakhet	108.4	106.5	11.5	1.8	-	1.8	0.5	0.9	1.8
Southern Region	**155.8**	**137.9**	**21.7**	**11.2**	**0.2**	**5.1**	**2.0**	**8.7**	**1.2**
Saravane	50.0	47.8	10.2	5.2	-	1.8	0.7	5.5	0.3
Sekong	12.7	11.9	4.6	3.3	-	1.9	0.9	0.5	0.1
Champasack	74.2	60.3	2.9	0.3	-	0.6	0.2	2.6	0.4
Attapeu	18.9	17.9	4.0	2.3	0.1	0.8	0.2	0.1	0.4
Total	**776.7**	**723.5**	**187.3**	**47.9**	**25.7**	**14.8**	**13.0**	**28.5**	**7.5**

Table A1.10: Area of selected temporary crops planted by province, 2010/11
('000 ha)

Province	Area of arable land	Total area of all temp. crops	Area planted							
			Rice	Maize	Cassava	Sesame	Tobacco	Sugar cane	Groundnut	Watermelon
Northern Region	**509.3**	***419.3***	***255.3***	***109.1***	***4.3***	***9.7***	***0.9***	***3.5***	***2.5***	***0.8***
Phongsaly	27.5	26.8	19.3	3.5	0.7	0.2	0.1	1.6	0.1	-
Luangnamtha	34.6	33.6	28.7	2.0	0.3	-	-	1.5	0.1	0.4
Oudomxay	80.8	73.0	41.8	25.4	0.1	0.8	0.3	0.3	0.3	0.1
Bokeo	38.8	35.5	27.6	6.2	-	0.3	-	-	0.1	-
Luangprabang	123.5	73.1	50.2	4.7	1.8	5.6	0.3	-	0.2	-
Huaphanh	51.4	49.0	34.8	12.4	1.1	-	-	-	-	-
Xayabury	*152.7*	128.1	52.8	55.0	0.2	2.7	0.1	-	1.8	0.1
Central Region	**665.1**	***579.0***	***514.0***	***23.5***	***11.1***	***0.2***	***2.2***	***2.8***	***1.0***	***1.1***
Vientiane Capital	69.6	68.7	61.5	0.9	3.8	-	0.1	0.1	0.0	0.1
Xiengkhuang	62.1	52.0	32.9	16.1	0.8	0.1	-	0.1	0.2	0.1
Vientiane Province	113.0	95.0	70.9	4.3	1.6	0.1	-	0.2	0.3	0.2
Borikhamxay	59.9	54.6	47.0	1.2	4.4	-	1.0	0.2	0.3	0.1
Khammuane	101.6	83.9	81.8	0.4	0.1	-	0.9	-	-	0.1
Savannakhet	258.9	224.9	220.0	0.6	0.2	-	0.2	2.2	0.2	0.6
Southern Region	**253.8**	***232.9***	***217.2***	***1.9***	***3.5***	***-***	***0.4***	***0.1***	***4.9***	***0.1***
Saravane	101.5	88.4	81.0	0.9	2.5	-	-	0.1	2.9	-
Sekong	15.5	13.6	12.3	0.2	0.6	-	0.1	-	0.1	-
Champasack	107.9	107.2	100.7	0.7	0.4	-	0.3	-	2.0	0.1
Attapeu	28.9	23.7	23.2	0.1	0.1	-	-	-	-	-
Total	**1,428.2**	***1,231.1***	***986.6***	***134.5***	***18.9***	***9.9***	***3.4***	***6.4***	***8.4***	***2.0***

Table A1.11: Number of rice growers by season, land type and province, 2010/11
('000)

Province	No. of land holdings	Total			Wet season			Dry season lowland
		Total	Lowland	Upland	Total	Lowland	Upland	
Northern Region	***287.6***	***265.8***	***145.0***	***160.9***	***265.7***	***144.4***	***160.9***	***20.0***
Phongsaly	28.4	25.2	11.4	15.1	25.2	11.4	15.1	0.7
Luangnamtha	26.2	24.7	14.8	13.3	24.6	14.7	13.3	1.7
Oudomxay	44.5	41.0	22.3	27.5	41.0	22.3	27.5	1.4
Bokeo	24.7	23.9	15.6	13.4	23.9	15.6	13.4	2.4
Luangprabang	59.3	52.4	16.0	38.1	52.3	15.8	38.1	3.1
Huaphanh	42.1	40.4	24.1	28.3	40.4	24.0	28.3	6.4
Xayabury	62.5	58.2	40.8	25.3	58.2	40.7	25.3	4.4
Central Region	***333.2***	***319.9***	***283.9***	***47.6***	***315.6***	***279.1***	***47.6***	***47.5***
Vientiane Capital	40.7	37.4	36.3	2.0	35.0	33.8	2.0	17.4
Xiengkhuang	36.2	35.1	26.3	11.1	35.1	26.3	11.1	0.3
Vientiane Province	62.6	58.0	49.1	12.4	57.5	48.6	12.4	7.5
Borikhamxay	34.5	33.3	28.8	6.0	32.9	28.3	6.0	3.5
Khammuane	50.8	49.7	46.7	4.6	49.1	45.9	4.6	8.3
Savannakhet	108.4	106.5	96.7	11.4	106.0	96.1	11.4	10.5
Southern Region	***155.8***	***137.9***	***113.7***	***31.1***	***136.7***	***111.5***	***31.1***	***19.8***
Saravane	50.0	47.8	37.0	15.0	47.5	35.8	15.0	8.8
Sekong	12.7	11.9	5.8	7.4	11.9	5.7	7.4	0.8
Champasack	74.2	60.3	56.4	4.5	59.5	55.6	4.5	9.1
Attapeu	18.9	17.9	14.4	4.1	17.8	14.3	4.1	1.2
Total	***776.7***	***723.5***	***542.6***	***239.6***	***717.9***	***535.0***	***239.6***	***87.4***

Table 1.12: Area of rice planted by season, land type and province, 2010/11
('000 ha)

Province	Total				Wet season				Dry season
	Total	Lowland	Upland		Total	Lowland	Upland		lowland
Northern Region	***255.3***	***109.8***	***145.5***	***#***	***246.7***	***101.3***	***145.5***	***#***	***8.6***
Phongsaly	19.3	6.8	12.6		19.2	6.6	12.6		0.1
Luangnamtha	28.7	12.1	16.5		28.0	11.5	16.5		0.7
Oudomxay	41.8	14.6	27.3		41.2	13.9	27.3		0.7
Bokeo	27.6	15.5	12.1		26.1	13.9	12.1		1.5
Luangprabang	50.2	14.7	35.5		48.2	12.7	35.5		2.0
Huaphanh	34.8	13.5	21.3		33.2	11.9	21.3		1.6
Xayabury	52.8	32.6	20.1		50.8	30.7	20.1		1.9
Central Region	***514.0***	***470.0***	***44.1***		***478.9***	***434.9***	***44.1***		***35.1***
Vientiane Capital	61.5	59.2	2.3		49.2	47.0	2.3		12.2
Xiengkhuang	32.9	22.6	10.3		32.7	22.4	10.3		0.2
Vientiane Province	70.9	58.2	12.8		66.2	53.4	12.8		4.7
Borikhamxay	47.0	41.6	5.4		44.8	39.4	5.4		2.2
Khammuane	81.8	78.7	3.1		75.7	72.7	3.1		6.0
Savannakhet	220.0	209.7	10.3		210.2	199.9	10.3		9.8
Southern Region	***217.2***	***191.4***	***25.9***		***204.1***	***178.2***	***25.9***		***13.1***
Saravane	81.0	68.5	12.5		75.7	63.2	12.5		5.3
Sekong	12.3	5.6	6.6		11.7	5.1	6.6		0.6
Champasack	100.7	97.4	3.3		94.3	91.1	3.3		6.4
Attapeu	23.2	19.8	3.4		22.4	18.9	3.4		0.8
Total	***986.6***	***771.1***	***215.4***	***#***	***929.8***	***714.3***	***215.4***	***#***	***56.8***

Table 1.13: Number of rice growers by seed type, glutinous/non-glutinous, maturity and province, 2010/11 ('000)

Province	No. of land holdings	No. of rice growers	Type of seed		Glutinous/non-glutinous		Maturity (glutinous)		
			Local	Improved	Glutinous	Non-glutinous	Short	Medium	Long
Northern Region	***287.6***	***265.8***	***241.5***	***41.6***	***234.8***	***43.8***	***77.4***	***74.3***	***129.8***
Phongsaly	28.4	25.2	24.4	1.6	15.2	11.0	1.3	4.7	9.7
Luangnamtha	26.2	24.7	21.8	4.8	17.3	9.7	6.7	3.6	10.7
Oudomxay	44.5	41.0	40.2	1.6	37.4	4.8	13.5	8.3	24.3
Bokeo	24.7	23.9	20.5	6.5	22.0	3.5	9.0	10.2	9.0
Luangprabang	59.3	52.4	49.4	5.0	48.8	7.3	16.5	20.3	21.3
Huaphanh	42.1	40.4	39.0	4.5	38.2	4.4	8.3	9.9	28.1
Xayabury	62.5	58.2	46.3	17.6	56.1	3.2	22.0	17.3	26.8
Central Region	***333.2***	***319.9***	***194.8***	***163.2***	***305.7***	***32.7***	***139.0***	***168.0***	***82.8***
Vientiane Capital	40.7	37.4	21.0	23.4	36.9	3.7	22.2	17.2	5.9
Xiengkhuang	36.2	35.1	34.5	0.9	30.3	7.4	3.8	8.3	20.6
Vientiane Province	62.6	58.0	41.6	21.2	52.3	7.6	14.2	30.3	14.8
Borikhamxay	34.5	33.3	24.2	11.5	30.0	4.4	8.4	18.3	6.0
Khammuane	50.8	49.7	31.2	27.6	49.6	4.3	28.4	31.2	11.1
Savannakhet	108.4	106.5	42.4	78.7	106.5	5.5	62.0	62.7	24.5
Southern Region	***155.8***	***137.9***	***72.1***	***90.5***	***131.9***	***23.0***	***84.5***	***75.3***	***22.6***
Saravane	50.0	47.8	29.5	29.7	47.6	4.5	27.7	29.5	11.5
Sekong	12.7	11.9	8.5	4.1	9.9	2.9	5.3	3.8	1.9
Champasack	74.2	60.3	18.9	49.6	59.8	5.2	44.0	32.1	4.6
Attapeu	18.9	17.9	15.3	7.1	14.6	10.5	7.5	9.8	4.6
Total	***776.7***	***723.5***	***508.4***	***295.3***	***672.5***	***99.6***	***300.8***	***317.6***	***235.2***

Table A1.14: Area of rice planted by seed type, glutinous/non-glutinous, maturity and province, 2010/11 ('000 ha)

Province	Total area of rice planted	Type of seed		Glutinous/non-glutinous		Maturity (glutinous)		
		Local	Improved	Glutinous	Non-glutinous	Short	Medium	Long
Northern Region	***255.3***	***223.9***	***31.4***	***218.0***	***37.3***	***54.8***	***56.3***	***106.9***
Phongsaly	19.3	18.7	0.7	11.4	8.0	0.7	3.5	7.2
Luangnamtha	28.7	24.9	3.8	17.9	10.7	5.7	2.2	10.0
Oudomxay	41.8	40.8	1.0	37.0	4.8	9.3	6.5	21.3
Bokeo	27.6	22.0	5.6	25.1	2.5	8.0	8.9	8.2
Luangprabang	50.2	46.1	4.2	44.7	5.5	11.5	17.2	16.0
Huaphanh	34.8	32.8	2.1	31.6	3.2	4.3	6.1	21.2
Xayabury	52.8	38.7	14.1	50.2	2.5	15.3	11.9	23.0
Central Region	***514.0***	***238.1***	***275.9***	***483.9***	***30.1***	***172.3***	***225.3***	***86.4***
Vientiane Capital	61.5	30.1	31.3	57.5	4.0	26.8	23.7	7.1
Xiengkhuang	32.9	32.2	0.6	27.3	5.6	2.8	7.2	17.2
Vientiane Province	70.9	45.2	25.7	63.0	7.9	14.9	32.7	15.3
Borikhamxay	47.0	32.1	14.9	42.5	4.5	10.1	24.4	8.1
Khammuane	81.8	39.4	42.4	77.8	3.9	30.6	36.4	10.9
Savannakhet	220.0	59.1	160.9	215.8	4.2	87.1	100.9	27.8
Southern Region	***217.2***	***76.0***	***141.2***	***201.8***	***15.5***	***100.8***	***82.4***	***18.6***
Saravane	81.0	33.7	47.3	78.1	2.9	33.3	34.4	10.3
Sekong	12.3	8.1	4.2	10.5	1.8	5.2	3.7	1.6
Champasack	100.7	18.3	82.4	97.9	2.8	57.3	36.9	3.7
Attapeu	23.2	15.9	7.3	15.3	7.9	5.0	7.3	3.0
Total	***986.6***	***538.0***	***448.5***	***903.7***	***82.9***	***327.8***	***364.0***	***211.9***

Table A1.15: Number of rice growers by cropping system (season and land type) and province, 2010/11 ('000)

Province	No. of land holdings	No. of rice growers	Season			Land type		
			Wet season only	Dry season only	Both wet & dry seasons	Lowland only	Upland only	Both lowland & upland
Northern Region	***287.6***	***265.8***	***245.8***	***0.1***	***19.9***	***104.9***	***120.7***	***40.2***
Phongsaly	28.4	25.2	24.5	-	0.7	10.1	13.8	1.3
Luangnamtha	26.2	24.7	22.9	-	1.7	11.4	9.9	3.5
Oudomxay	44.5	41.0	39.7	-	1.4	13.6	18.7	8.7
Bokeo	24.7	23.9	21.6	-	2.3	10.5	8.3	5.1
Luangprabang	59.3	52.4	49.2	-	3.1	14.3	36.4	1.7
Huaphanh	42.1	40.4	34.1	-	6.3	12.1	16.3	12.0
Xayabury	62.5	58.2	53.8	-	4.4	32.9	17.4	7.9
Central Region	***333.2***	***319.9***	***272.4***	***4.3***	***43.2***	***272.3***	***36.0***	***11.7***
Vientiane Capital	40.7	37.4	19.9	2.4	15.0	35.3	1.0	1.0
Xiengkhuang	36.2	35.1	34.8	-	0.3	23.9	8.8	2.4
Vientiane Province	62.6	58.0	50.5	0.4	7.1	45.6	8.9	3.5
Borikhamxay	34.5	33.3	29.8	0.4	3.1	27.2	4.5	1.6
Khammuane	50.8	49.7	41.4	0.6	7.6	45.1	3.0	1.6
Savannakhet	108.4	106.5	96.0	0.5	10.0	95.1	9.8	1.6
Southern Region	***155.8***	***137.9***	***118.0***	***1.1***	***18.7***	***106.8***	***24.2***	***6.9***
Saravane	50.0	47.8	39.0	0.3	8.5	32.8	10.8	4.2
Sekong	12.7	11.9	11.1	-	0.8	4.5	6.0	1.3
Champasack	74.2	60.3	51.2	0.8	8.4	55.8	3.9	0.6
Attapeu	18.9	17.9	16.7	0.1	1.1	13.8	3.5	0.6
Total	***776.7***	***723.5***	***636.2***	***5.6***	***81.8***	***483.9***	***180.9***	***58.7***

Table A1.16: Number of growers for selected permanent crops by province, 2010/11
('000)

Province	No. of land holdings	No. of perm. crop growers	No. of growers with:							
			Banana	Mango	Tamarind	Coffee	Tea	Coconut	Cardamom	Rubber
Northern Region	***287.6***	***127.7***	***23.0***	***52.3***	***17.4***	***0.7***	***6.1***	***23.5***	***10.2***	***43.3***
Phongsaly	28.4	19.8	3.3	4.6	0.9	0.4	4.5	0.6	8.8	8.9
Luangnamtha	26.2	16.5	0.3	2.3	1.1	-	-	0.6	0.7	15.0
Oudomxay	44.5	16.7	3.7	5.9	1.8	-	0.3	1.9	0.6	8.2
Bokeo	24.7	8.8	1.2	2.0	0.6	-	-	0.7	-	5.9
Luangprabang	59.3	18.5	4.7	8.6	2.5	0.2	0.1	5.0	-	2.3
Huaphanh	42.1	16.2	3.0	9.1	1.9	-	0.2	1.1	-	-
Xayabury	62.5	31.1	6.8	19.8	8.5	-	1.0	13.6	-	3.1
Central Region	***333.2***	***143.7***	***30.4***	***91.7***	***34.9***	***0.2***	***0.2***	***54.5***	***0.1***	***5.2***
Vientiane Capital	40.7	7.9	1.1	5.2	1.5	-	-	3.8	-	0.2
Xiengkhuang	36.2	21.4	7.0	12.8	3.3	0.1	0.1	1.8	0.1	0.1
Vientiane Province	62.6	32.8	6.3	21.2	5.7	-	-	16.7	-	2.1
Borikhamxay	34.5	6.4	1.6	3.0	0.7	-	-	0.4	-	1.2
Khammuane	50.8	19.9	3.7	14.3	5.0	-	-	8.4	-	1.1
Savannakhet	108.4	55.3	10.7	35.4	18.7	-	-	23.5	-	0.5
Southern Region	***155.8***	***96.5***	***17.1***	***43.6***	***24.3***	***24.3***	***0.1***	***32.8***	***3.0***	***0.6***
Saravane	50.0	31.3	7.0	16.3	10.0	6.2	-	10.6	0.9	0.2
Sekong	12.7	7.5	1.4	1.9	0.5	4.8	-	0.6	0.8	0.1
Champasack	74.2	45.3	5.2	18.1	8.8	12.7	-	15.8	1.2	0.2
Attapeu	18.9	12.4	3.5	7.3	5.0	0.6	-	5.7	0.1	0.1
Total	***776.7***	***367.8***	***70.4***	***187.6***	***76.5***	***25.2***	***6.3***	***110.7***	***13.3***	***49.0***

TableA1.17: Area of selected compact permanent crops by province, 2010/11 ('000 ha)

Province	Total area of all perm. crops	Area of compact plantation							
		Banana	Mango	Tamarind	Coffee	Tea	Coconut	Cardamom	Rubber
Northern Region	***70.1***	***1.6***	***2.6***	***0.7***	***0.2***	***2.4***	***0.4***	***2.7***	***53.5***
Phongsaly	15.9	0.2	-	-	0.1	1.9	-	2.2	10.9
Luangnamtha	18.5	-	-	-	-	-	0.1	0.2	17.9
Oudomxay	12.5	0.2	0.1	-	-	0.2	-	0.3	10.6
Bokeo	8.3	0.1	-	-	-	-	-	-	7.7
Luangprabang	7.4	0.7	1.3	0.2	0.1	0.1	0.1	-	3.1
Huaphanh	2.3	0.2	0.8	-	-	-	-	-	0.1
Xayabury	5.2	0.2	0.3	0.5	-	0.2	0.1	-	3.2
Central Region	***24.0***	***4.8***	***1.7***	***0.3***	***0.3***	***0.1***	***0.3***	***-***	***12.5***
Vientiane Capital	2.5	0.4	0.2	-	0.2	-	-	-	1.3
Xiengkhuang	1.9	0.2	0.8	-	-	0.1	-	-	0.1
Vientiane Province	7.5	1.0	0.2	0.1	-	-	0.2	-	4.7
Borikhamxay	4.7	0.6	0.1	-	-	-	-	-	3.1
Khammuane	3.5	0.5	0.2	-	-	-	0.1	-	2.4
Savannakhet	3.8	2.1	0.2	0.1	-	-	0.1	-	0.8
Southern Region	***56.4***	***2.9***	***0.2***	***0.1***	***45.4***	***-***	***0.2***	***3.7***	***0.5***
Saravane	13.9	2.2	0.1	-	10.0	-	-	0.8	0.1
Sekong	7.6	0.2	-	-	5.6	-	-	1.5	0.1
Champasack	33.8	0.5	0.1	0.1	29.2	-	0.1	1.3	0.3
Attapeu	1.1	0.1	-	-	0.6	-	-	0.1	0.0
Total	***150.5***	***9.3***	***4.5***	***1.1***	***45.9***	***2.5***	***0.9***	***6.4***	***66.5***

Table A1.18: Number of rice growers by season, use of irrigation and province, 2010/11
('000)

Province	Total number of rice growers	All rice growers		No. of wet season rice growers	Wet season rice growers			No. of dry season rice growers
		Irrigated	Not irrigated		Irrigated	Not irrigated		
Northern Region	***265.8***	***104.4***	***161.4***	***265.7***	***101.1***	***164.6***	***#***	***20.0***
Phongsaly	25.2	9.6	15.6	25.2	9.5	15.7		0.7
Luangnamtha	24.7	11.9	12.8	24.6	11.6	13.0		1.7
Oudomxay	41.0	12.9	28.2	41.0	12.6	28.4		1.4
Bokeo	23.9	10.4	13.5	23.9	9.6	14.3		2.4
Luangprabang	52.4	11.5	40.9	52.3	11.0	41.3		3.1
Huaphanh	40.4	22.0	18.4	40.4	21.5	18.9		6.4
Xayabury	58.2	26.2	32.1	58.2	25.2	33.0		4.4
Central Region	***319.9***	***88.9***	***231.0***	***315.6***	***56.5***	***259.1***		***47.5***
Vientiane Capital	37.4	18.2	19.2	35.0	6.2	28.8		17.4
Xiengkhuang	35.1	14.7	20.4	35.1	14.6	20.5		0.3
Vientiane Province	58.0	25.4	32.6	57.5	21.9	35.6		7.5
Borikhamxay	33.3	8.2	25.1	32.9	5.8	27.1		3.5
Khammuane	49.7	9.2	40.5	49.1	2.5	46.5		8.3
Savannakhet	106.5	13.4	93.2	106.0	5.3	100.7		10.5
Southern Region	***137.9***	***25.0***	***112.9***	***136.7***	***11.6***	***125.2***		***19.8***
Saravane	47.8	10.6	37.2	47.5	4.8	42.7		8.8
Sekong	11.9	3.0	8.9	11.9	2.8	9.1		0.8
Champasack	60.3	9.7	50.6	59.5	3.1	56.4		9.1
Attapeu	17.9	1.7	16.2	17.8	0.9	16.9		1.2
Total	***723.5***	***218.3***	***505.2***	***717.9***	***169.1***	***548.8***	***#***	***87.4***

Table A1.19: Area of rice planted by season, use of irrigation and province, 2010/11
('000 ha)

Province	Total area of rice planted	Total			Area of wet season rice planted	Wet season			Area of dry season rice
		Irrigated	Not irrigated			Irrigated	Not irrigated		
Northern Region	***255.3***	***77.3***	***177.9***	***#***	***246.7***	***68.8***	***177.9***		***8.6***
Phongsaly	19.3	5.9	13.4		19.2	5.8	13.4		0.1
Luangnamtha	28.7	9.9	18.8		28.0	9.2	18.8		0.7
Oudomxay	41.8	8.6	33.2		41.2	8.0	33.2		0.7
Bokeo	27.6	9.6	18.0		26.1	8.1	18.0		1.5
Luangprabang	50.2	10.6	39.7		48.2	8.6	39.7		2.0
Huaphanh	34.8	12.4	22.4		33.2	10.8	22.4		1.6
Xayabury	52.8	20.3	32.5		50.8	18.4	32.5		1.9
Central Region	***514.0***	***91.3***	***422.8***		***478.9***	***56.2***	***422.8***		***35.1***
Vientiane Capital	61.5	17.8	43.7		49.2	5.6	43.6		12.2
Xiengkhuang	32.9	13.0	19.9		32.7	12.9	19.9		0.2
Vientiane Province	70.9	26.9	44.1		66.2	22.1	44.1		4.7
Borikhamxay	47.0	7.8	39.2		44.8	5.6	39.2		2.2
Khammuane	81.8	7.9	73.8		75.7	1.9	73.8		6.0
Savannakhet	220.0	17.8	202.2		210.2	8.1	202.2		9.8
Southern Region	***217.2***	***23.2***	***194.0***		***204.1***	***10.1***	***194.0***		***13.1***
Saravane	81.0	9.8	71.2		75.7	4.5	71.2		5.3
Sekong	12.3	2.8	9.5		11.7	2.2	9.5		0.6
Champasack	100.7	8.7	92.0		94.3	2.4	92.0		6.4
Attapeu	23.2	1.8	21.4		22.4	1.0	21.4		0.8
Total	***986.6***	***191.8***	***794.7***	***#***	***929.8***	***135.0***	***794.7***	***#***	***56.8***

Table A1.20: Number of farm households with selected livestock/poultry types by province, 1999 and 2011 ('000)

	Number of farm households with:													
	Cattle		Buffaloes		Pigs		Goats		Local Chickens		Comm. Chickens		Ducks	
Province	1999	2011	1999	2011	1999	2011	1999	2011	1999	2011	1999	2011	1999	2011
Northern Region	***56.1***	***78.6***	***100.7***	***66.4***	***151.4***	***163.7***	***15.4***	***16.1***	***187.1***	***201.1***	***0.8***	***1.4***	***58.2***	***68.9***
Phongsaly	5.5	5.2	11.6	8.9	15.6	22.8	0.5	0.7	18.8	23.7	-	0.4	3.5	5.0
Luangnamtha	5.0	4.2	8.4	3.9	12.7	15.3	0.8	0.8	13.6	18.0	0.1	0.1	3.9	4.9
Oudomxay	8.7	9.4	14.7	8.8	22.5	26.1	4.9	3.2	26.2	31.6	-	0.2	7.2	9.0
Bokeo	4.1	9.2	7.2	6.1	11.8	14.8	0.7	1.4	15.8	16.8	-	0.1	5.1	7.3
Luangprabang	10.9	15.5	19.1	12.6	29.8	26.9	4.3	4.7	42.0	38.5	0.1	0.2	11.8	12.5
Huaphanh	10.7	16.4	19.9	15.4	30.4	28.9	3.4	3.5	30.8	31.7	0.1	0.1	12.1	10.6
Xayabury	11.3	18.7	19.9	10.7	28.5	29.0	0.8	1.7	40.1	40.9	0.4	0.3	14.6	19.5
Central Region	***107.1***	***168.4***	***136.8***	***95.6***	***106.8***	***91.4***	***7.7***	***20.1***	***196.2***	***193.5***	***2.3***	***1.8***	***83.1***	***97.2***
Vientiane Capital	9.2	14.9	8.9	2.8	4.8	1.1	0.3	1.3	29.7	15.1	0.7	0.3	16.8	9.3
Xiengkhuang	16.5	22.4	15.4	10.7	21.8	22.6	2.1	1.8	24.4	29.9	0.3	0.2	11.2	14.7
Vientiane Province	15.1	28.9	14.5	12.2	17.7	16.5	0.6	1.9	31.6	45.5	0.6	0.2	18.7	26.4
Borikhamxay	7.1	15.4	8.9	7.0	11.6	8.9	0.3	1.7	21.7	17.8	0.3	0.2	8.6	7.6
Khammuane	12.7	24.7	24.4	16.4	10.2	12.5	0.4	3.2	19.3	27.9	-	0.3	5.9	11.9
Savannakhet	46.5	62.0	64.7	46.6	40.7	29.9	4.0	10.2	69.6	57.3	0.4	0.6	21.9	27.4
Southern Region	***40.8***	***50.1***	***79.7***	***64.4***	***64.0***	***51.3***	***2.0***	***7.0***	***96.7***	***92.9***	***1.3***	***0.8***	***46.7***	***46.6***
Saravane	16.1	21.6	24.8	19.5	22.4	22.4	0.9	3.8	31.9	31.5	0.4	0.3	13.0	14.6
Sekong	2.0	4.1	4.5	4.3	6.1	6.4	0.5	1.3	7.4	7.4	0.1	0.1	2.3	1.9
Champasack	21.2	21.3	42.3	31.4	31.3	14.2	0.5	1.3	50.9	40.9	0.7	0.4	29.2	25.3
Attapeu	1.4	3.2	8.2	9.2	4.1	8.3	0.2	0.5	6.6	13.0	-	0.1	2.2	4.8
Total[1]	***208.1***	***297.0***	***322.1***	***226.4***	***327.5***	***306.4***	***25.6***	***43.2***	***486.5***	***487.5***	***4.4***	***4.0***	***190.8***	***212.8***

1. Totals for 1998/99 include Xaysomboon Special Region.

Table A1.21: Number of livestock/poultry by type and province, 1999 and 2011
('000)

	Number of livestock													
	Cattle		Buffaloes		Pigs		Goats		Local Chickens		Comm. Chickens		Ducks	
Province	1999	2011	1999	2011	1999	2011	1999	2011	1999	2011	1999	2011	1999	2011
Northern Region	***198.6***	***355.3***	***296.6***	***211.8***	***553.8***	***542.1***	***50.5***	***68.9***	***3,759.9***	***3,685.0***	***6.7***	***94.5***	***321.7***	***538.0***
Phongsaly	13.7	14.0	28.7	20.2	48.9	68.1	1.0	2.4	228.2	275.8	-	5.8	17.2	29.0
Luangnamtha	13.8	13.8	20.6	8.8	39.9	45.3	2.2	3.4	192.0	239.4	0.9	3.7	20.4	27.9
Oudomxay	30.8	31.5	43.0	21.2	83.2	71.2	16.6	10.7	506.1	497.6	0.1	10.9	36.0	55.3
Bokeo	16.1	44.7	21.6	20.5	34.7	50.0	2.0	5.6	274.1	300.2	-	3.3	25.7	55.9
Luangprabang	36.5	65.7	54.4	44.0	120.3	113.1	14.2	22.9	809.4	856.0	0.4	34.7	65.0	107.0
Huaphanh	39.0	74.5	62.2	53.2	138.1	98.8	10.9	16.7	713.8	553.1	0.5	2.5	65.7	58.9
Xayabury	48.7	111.2	66.1	43.8	88.7	95.7	3.6	7.2	1,036.3	962.9	4.7	33.6	91.7	204.0
Central Region	***522.2***	***958.2***	***437.4***	***355.7***	***318.5***	***327.5***	***34.8***	***116.0***	***3,749.4***	***3,613.5***	***278.3***	***544.2***	***694.3***	***912.9***
Vientiane Capital	47.6	108.2	32.2	15.1	14.8	32.8	1.7	11.8	693.5	483.1	239.1	469.6	237.4	196.3
Xiengkhuang	95.9	134.9	46.4	38.1	73.6	69.1	7.1	8.1	506.4	661.5	12.4	8.2	61.8	120.7
Vientiane Province	92.3	192.2	58.5	61.2	65.1	70.2	2.2	11.1	711.1	945.7	17.5	33.4	182.7	263.1
Borikhamxay	34.2	99.7	34.5	33.6	35.6	40.6	1.7	12.5	414.8	346.4	6.3	5.9	46.3	75.5
Khammuane	48.2	110.2	82.3	59.7	35.4	42.0	2.5	16.1	322.0	314.2	-	16.7	32.1	73.0
Savannakhet	204.1	313.0	183.4	148.0	94.0	72.8	19.5	56.5	1,101.7	862.6	2.9	10.4	134.0	184.3
Southern Region	***199.0***	***272.7***	***238.4***	***206.7***	***143.8***	***108.7***	***7.7***	***30.7***	***1,738.1***	***1,366.3***	***4.6***	***10.1***	***317.6***	***340.1***
Saravane	66.4	97.6	67.9	57.1	51.6	43.7	3.2	14.6	474.5	380.0	1.9	2.5	76.9	78.1
Sekong	8.1	14.9	16.5	13.1	22.8	16.4	1.7	4.6	115.0	81.1	0.2	0.5	12.8	10.8
Champasack	116.2	134.2	114.4	99.7	55.0	30.3	1.9	8.3	997.2	665.8	2.3	5.1	213.2	216.7
Attapeu	8.3	26.0	39.5	36.8	14.4	18.3	0.9	3.2	151.5	239.4	0.2	2.0	14.7	34.5
Total[1]	***944.1***	***1,586.2***	***991.9***	***774.2***	***1,036.3***	***978.3***	***94.4***	***215.6***	***9,379.0***	***8,664.9***	***289.7***	***648.9***	***1,351.3***	***1,790.9***

1. Totals for 1998/99 include Xaysomboon Special Region.

Table A1.22: Farm households by cattle herd size and province, 2011

Province	No. of farm households ('000)	No. of farm households with cattle ('000)	Cattle herd size (percent of cattle holdings)						Ave. cattle per cattle holding
			Total	1-2 head	3-4 head	5-9 head	10-19 head	20 & over head	
Northern Region	***288.9***	***78.6***	***100%***	***42%***	***25%***	***22%***	***8%***	***2%***	***4.5***
Phongsaly	28.4	5.2	100%	69%	18%	10%	2%	1%	2.7
Luangnamtha	26.2	4.2	100%	54%	26%	17%	3%	1%	3.3
Oudomxay	44.6	9.4	100%	58%	23%	14%	4%	1%	3.3
Bokeo	24.8	9.2	100%	37%	27%	24%	9%	2%	4.9
Luangprabang	59.5	15.5	100%	45%	24%	21%	8%	2%	4.2
Huaphanh	42.3	16.4	100%	37%	28%	26%	8%	1%	4.5
Xayabury	63.1	18.7	***100%***	***30%***	***24%***	***28%***	***14%***	***4%***	6.0
Central Region	***336.4***	***168.4***	100%	27%	27%	31%	13%	3%	***5.7***
Vientiane Capital	42.8	14.9	100%	17%	25%	35%	17%	5%	7.2
Xiengkhuang	36.2	22.4	100%	26%	24%	31%	15%	3%	6.0
Vientiane Province	62.7	28.9	100%	23%	24%	31%	16%	5%	6.6
Borikhamxay	35.0	15.4	100%	21%	25%	34%	16%	4%	6.5
Khammuane	51.1	24.7	100%	36%	29%	25%	8%	1%	4.5
Savannakhet	108.6	62.0	***100%***	***29%***	***29%***	***31%***	***11%***	***2%***	5.0
Southern Region	***157.5***	***50.1***	100%	33%	27%	26%	10%	3%	***5.4***
Saravane	50.1	21.6	100%	37%	28%	26%	8%	2%	4.5
Sekong	12.9	4.1	100%	49%	27%	18%	5%	1%	3.7
Champasack	75.4	21.3	100%	27%	26%	29%	13%	5%	6.3
Attapeu	19.1	3.2	100%	25%	22%	27%	15%	10%	8.2
Total	***782.8***	***297.0***	***100%***	***32%***	***26%***	***28%***	***11%***	***3%***	***5.3***

Table A1.23: Farm households by buffalo herd size and province, 2011

Province	No. of farm households ('000)	No. of farm households with buffaloes ('000)	Buffalo herd size (percent of buffalo holdings)						Ave. no. of buffaloes per buffalo holding
			Total	1-2 head	3-4 head	5-9 head	10-19 head	20 & over head	
Northern Region	***288.9***	***66.4***	***100%***	***54%***	***26%***	***16%***	***3%***	***-***	***3.2***
Phongsaly	28.4	8.9	100%	72%	19%	7%	1%	-	2.3
Luangnamtha	26.2	3.9	100%	71%	21%	7%	1%	-	2.3
Oudomxay	44.6	8.8	100%	68%	21%	9%	1%	-	2.4
Bokeo	24.8	6.1	100%	50%	27%	18%	4%	-	3.4
Luangprabang	59.5	12.6	100%	51%	26%	18%	5%	1%	3.5
Huaphanh	42.3	15.4	100%	44%	32%	20%	3%	-	3.4
Xayabury	63.1	10.7	100%	39%	30%	24%	7%	1%	4.1
Central Region	***336.4***	***95.6***	***100%***	***44%***	***31%***	***20%***	***5%***	***1%***	***3.7***
Vientiane Capital	42.8	2.8	100%	25%	30%	32%	11%	2%	5.4
Xiengkhuang	36.2	10.7	100%	45%	30%	20%	4%	-	3.6
Vientiane Province	62.7	12.2	100%	32%	28%	29%	10%	2%	5.0
Borikhamxay	35.0	7.0	100%	31%	30%	28%	10%	1%	4.8
Khammuane	51.1	16.4	100%	45%	30%	20%	4%	1%	3.6
Savannakhet	108.6	46.6	100%	49%	32%	16%	2%	-	3.2
Southern Region	***157.5***	***64.4***	***100%***	***49%***	***32%***	***16%***	***2%***	***-***	***3.2***
Saravane	50.1	19.5	100%	56%	28%	13%	2%	-	2.9
Sekong	12.9	4.3	100%	56%	26%	15%	3%	-	3.1
Champasack	75.4	31.4	100%	46%	35%	17%	2%	-	3.2
Attapeu	19.1	9.2	100%	41%	30%	22%	6%	1%	4.0
Total	***782.8***	***226.4***	***100%***	***48%***	***30%***	***18%***	***4%***	***1%***	***3.4***

Table A1.24: Farm households by pig herd size and province, 2011

Province	No. of farm households ('000)	No. of farm households with pigs ('000)	Pig herd size (percent of pig holdings)						Ave. pigs per pig holding
			Total	1-2 head	3-4 head	5-9 head	10-19 head	20 & over head	
Northern Region	***288.9***	***163.7***	***100%***	***57%***	***21%***	***17%***	***4%***	***1%***	***3.3***
Phongsaly	28.4	22.8	100%	57%	24%	15%	3%	-	3.0
Luangnamtha	26.2	15.3	100%	57%	24%	15%	3%	-	3.0
Oudomxay	44.6	26.1	100%	66%	19%	12%	3%	-	2.7
Bokeo	24.8	14.8	100%	55%	23%	17%	5%	1%	3.4
Luangprabang	59.5	26.9	100%	48%	21%	21%	8%	2%	4.2
Huaphanh	42.3	28.9	100%	51%	23%	22%	4%	-	3.4
Xayabury	63.1	29.0	100%	63%	18%	13%	5%	1%	3.3
Central Region	***336.4***	***91.4***	***100%***	***63%***	***17%***	***14%***	***4%***	***1%***	***3.6***
Vientiane Capital	42.8	1.1	100%	38%	14%	16%	15%	17%	30.1
Xiengkhuang	36.2	22.6	100%	60%	21%	15%	3%	-	3.1
Vientiane Province	62.7	16.5	100%	54%	18%	18%	7%	2%	4.3
Borikhamxay	35.0	8.9	100%	48%	21%	21%	8%	2%	4.6
Khammuane	51.1	12.5	100%	64%	17%	14%	4%	1%	3.4
Savannakhet	108.6	29.9	100%	75%	14%	8%	3%	1%	2.4
Southern Region	***157.5***	***51.3***	***100%***	***80%***	***12%***	***6%***	***2%***	***-***	***2.1***
Saravane	50.1	22.4	100%	82%	12%	5%	1%	-	2.0
Sekong	12.9	6.4	100%	67%	20%	10%	3%	-	2.6
Champasack	75.4	14.2	100%	85%	8%	4%	1%	1%	2.1
Attapeu	19.1	8.3	100%	77%	14%	7%	2%	-	2.2
Total	***782.8***	***306.4***	***100%***	***63%***	***19%***	***14%***	***4%***	***1%***	***3.2***

Table A1.25: Farm households by local chicken flock size and province, 2011

Province	No. of farm households ('000)	No. of farm h'holds with local chickens ('000)	Local chicken flock size (percent of local chicken holdings)						Ave. chickens/ local chicken holding
			Total	1-4 head	5-9 head	10-19 head	20-49 head	50 & over head	
Northern Region	***288.9***	***201.1***	***100%***	***12%***	***17%***	***32%***	***31%***	***8%***	***18.3***
Phongsaly	28.4	23.7	100%	18%	28%	36%	16%	2%	11.7
Luangnamtha	26.2	18.0	100%	19%	24%	33%	21%	4%	13.3
Oudomxay	44.6	31.6	100%	15%	19%	35%	26%	5%	15.8
Bokeo	24.8	16.8	100%	13%	17%	33%	29%	8%	17.9
Luangprabang	59.5	38.5	100%	8%	13%	31%	36%	12%	22.3
Huaphanh	42.3	31.7	100%	11%	17%	33%	34%	6%	17.4
Xayabury	63.1	40.9	100%	7%	9%	29%	41%	14%	23.5
Central Region	***336.4***	***193.5***	***100%***	***14%***	***16%***	***30%***	***33%***	***7%***	***18.7***
Vientiane Capital	42.8	15.1	100%	6%	7%	19%	53%	15%	31.9
Xiengkhuang	36.2	29.9	100%	8%	13%	30%	38%	11%	22.1
Vientiane Province	62.7	45.5	100%	10%	13%	32%	37%	9%	20.8
Borikhamxay	35.0	17.8	100%	9%	13%	30%	40%	8%	19.5
Khammuane	51.1	27.9	100%	26%	24%	30%	17%	2%	11.3
Savannakhet	108.6	57.3	100%	18%	20%	31%	27%	4%	15.1
Southern Region	***157.5***	***92.9***	***100%***	***20%***	***20%***	***30%***	***25%***	***5%***	***14.7***
Saravane	50.1	31.5	100%	27%	22%	28%	19%	3%	12.1
Sekong	12.9	7.4	100%	28%	23%	30%	16%	2%	11.0
Champasack	75.4	40.9	100%	15%	19%	31%	30%	5%	16.3
Attapeu	19.1	13.0	100%	16%	17%	29%	31%	8%	18.4
Total	***782.8***	***487.5***	***100%***	***14%***	***17%***	***31%***	***31%***	***7%***	***17.8***

Table A1.26: Vaccination rates by type of animal and province, 2010/11

Province	Cattle		Buffaloes		Pigs		Poultry[1]	
	No. of farm h'holds with cattle ('000)	Percent vaccinating cattle	No. of farm h'holds with buffaloes ('000)	Percent vaccinating buffaloes	No. of farm h'holds with pigs ('000)	Percent vaccinating pigs	No. of farm h'holds with poultry ('000)	Percent vaccinating poultry
Northern Region	***78.6***	***38%***	***66.4***	***44%***	***163.7***	***18%***	***210.3***	***8%***
Phongsaly	5.2	18%	8.9	24%	22.8	17%	24.1	8%
Luangnamtha	4.2	44%	3.9	35%	15.3	20%	18.8	10%
Oudomxay	9.4	27%	8.8	34%	26.1	16%	32.9	5%
Bokeo	9.2	40%	6.1	48%	14.8	21%	17.8	11%
Luangprabang	15.5	34%	12.6	50%	26.9	18%	40.3	10%
Huaphanh	16.4	27%	15.4	42%	28.9	8%	32.6	5%
Xayabury	18.7	62%	10.7	65%	29.0	27%	43.8	11%
Central Region	***168.4***	***62%***	***95.6***	***62%***	***91.4***	***20%***	***205.6***	***13%***
Vientiane Capital	14.9	79%	2.8	81%	1.1	49%	16.7	20%
Xiengkhuang	22.4	54%	10.7	58%	22.6	13%	30.9	10%
Vientiane Province	28.9	50%	12.2	54%	16.5	18%	47.9	12%
Borikhamxay	15.4	62%	7.0	58%	8.9	35%	18.9	13%
Khammuane	24.7	70%	16.4	71%	12.5	29%	30.2	20%
Savannakhet	62.0	63%	46.6	61%	29.9	16%	61.1	10%
Southern Region	***50.1***	***63%***	***64.4***	***75%***	***51.3***	***19%***	***99.5***	***10%***
Saravane	21.6	62%	19.5	68%	22.4	17%	33.6	6%
Sekong	4.1	40%	4.3	37%	6.4	14%	7.8	17%
Champasack	21.3	69%	31.4	87%	14.2	21%	44.5	11%
Attapeu	3.2	61%	9.2	63%	8.3	24%	13.6	16%
Total	***297.0***	***56%***	***226.4***	***60%***	***306.4***	***18%***	***515.5***	***10%***

1. Poultry includes local chickens, commercial chickens and ducks.

Table A1.27: Farm households with agricultural credit by sources of credit and province, 2010/11

Province	No. of farm households ('000)	No. of farm h'holds with credit ('000)	Sources of credit (% of farm households with credit)					
			Public bank	Foreign bank	Private domestic bank	Micro-finance	Village Development Fund	Other
Northern Region	***288.9***	***49.3***	***52%***	***1%***	***3%***	***5%***	***42%***	***7%***
Phongsaly	28.4	3.0	61%	-	-	5%	35%	3%
Luangnamtha	26.2	5.1	59%	2%	-	11%	33%	4%
Oudomxay	44.6	12.7	58%	-	1%	9%	40%	4%
Bokeo	24.8	5.6	55%	-	-	-	50%	6%
Luangprabang	59.5	9.4	60%	1%	-	1%	45%	4%
Huaphanh	42.3	5.4	30%	2%	2%	0%	59%	10%
Xayabury	63.1	8.3	41%	-	12%	5%	34%	17%
Central Region	***336.4***	***38.0***	***51%***	***-***	***4%***	***2%***	***47%***	***7%***
Vientiane Capital	42.8	10.4	55%	-	3%	-	57%	8%
Xiengkhuang	36.2	5.3	68%	-	-	-	34%	3%
Vientiane	62.7	6.3	48%	-	7%	2%	38%	12%
Borikhamxay	35.0	4.3	67%	-	1%	-	36%	3%
Khammuane	51.1	7.1	40%	-	3%	1%	56%	7%
Savannakhet	108.6	4.6	33%	-	7%	14%	50%	2%
Southern Region	***157.5***	***16.7***	***74%***	***2%***	***2%***	***2%***	***21%***	***7%***
Saravane	50.1	5.3	77%	4%	1%	-	18%	9%
Sekong	12.9	1.8	81%	-	4%	-	9%	7%
Champasack	75.4	7.6	69%	-	3%	2%	26%	5%
Attapeu	19.1	2.1	75%	-	-	5%	19%	9%
Total	***782.8***	***104.0***	***55%***	***1%***	***3%***	***3%***	***40%***	***7%***

Table A1.28: Farm households by sources of agricultural information and province, 2010/11

Province	No. of farm households ('000)	Sources of agricultural information (% of farm households)							
		Public announce-ments	Extension services	Radio	Television	Newspapers	Input suppliers	Other farmers	Other
Northern Region	***288.9***	***39%***	***20%***	***44%***	***49%***	***9%***	***34%***	***54%***	***28%***
Phongsaly	28.4	56%	16%	39%	44%	10%	35%	60%	30%
Luangnamtha	26.2	28%	21%	28%	33%	8%	25%	61%	27%
Oudomxay	44.6	33%	30%	48%	50%	12%	32%	55%	27%
Bokeo	24.8	47%	23%	49%	56%	9%	34%	50%	19%
Luangprabang	59.5	37%	21%	51%	45%	6%	31%	47%	31%
Huaphanh	42.3	13%	8%	30%	38%	7%	24%	47%	37%
Xayabury	63.1	56%	19%	53%	67%	9%	49%	63%	25%
Central Region	***336.4***	***30%***	***18%***	***41%***	***54%***	***9%***	***16%***	***54%***	***33%***
Vientiane Capital	42.8	34%	14%	39%	62%	9%	7%	53%	32%
Xiengkhuang	36.2	37%	39%	32%	43%	19%	29%	54%	25%
Vientiane	62.7	25%	21%	39%	62%	9%	17%	69%	29%
Borikhamxay	35.0	35%	14%	37%	55%	9%	14%	56%	36%
Khammuane	51.1	35%	15%	26%	46%	5%	7%	36%	40%
Savannakhet	108.6	23%	15%	54%	54%	6%	18%	54%	33%
Southern Region	***157.5***	***35%***	***16%***	***43%***	***54%***	***7%***	***20%***	***57%***	***29%***
Saravane	50.1	33%	14%	52%	52%	7%	30%	55%	29%
Sekong	12.9	21%	11%	22%	22%	4%	7%	55%	30%
Champasack	75.4	33%	11%	40%	61%	6%	17%	63%	29%
Attapeu	19.1	60%	40%	47%	53%	12%	13%	40%	28%
Total	***782.8***	***34%***	***18%***	***43%***	***52%***	***8%***	***23%***	***55%***	***30%***

Table A1.29: Use of fertilizers by province, 2010/11
('000)

Province	No. of land holdings	Percent of land holdings							
		Use of fertilizers			Fertilizer type		Combination of fertilizers		
		Total	Did not use fertilizers	Used fertilizers	Chemical fertilizer	Organic fertilizer	Chemical only	Organic only	Both chemical and organic
Northern Region	***287.6***	***100%***	***75%***	***25%***	***16%***	***14%***	***11%***	***9%***	***5%***
Phongsaly	28.4	100%	69%	31%	15%	24%	7%	16%	8%
Luangnamtha	26.2	100%	66%	34%	13%	29%	4%	20%	9%
Oudomxay	44.5	100%	91%	9%	4%	6%	3%	5%	1%
Bokeo	24.7	100%	75%	25%	7%	20%	5%	18%	2%
Luangprabang	59.3	100%	85%	15%	12%	6%	8%	3%	3%
Huaphanh	42.1	100%	75%	25%	19%	12%	14%	6%	6%
Xayabury	62.5	100%	62%	38%	29%	16%	22%	8%	8%
Central Region	***333.2***	***100%***	***28%***	***72%***	***53%***	***51%***	***21%***	***18%***	***32%***
Vientiane Capital	40.7	100%	17%	83%	45%	70%	13%	39%	32%
Xiengkhuang	36.2	100%	34%	66%	60%	28%	38%	6%	21%
Vientiane	62.6	100%	40%	60%	43%	41%	19%	17%	24%
Borikhamxay	34.5	100%	61%	39%	25%	25%	15%	14%	10%
Khammuane	50.8	100%	25%	75%	61%	43%	33%	15%	28%
Savannakhet	108.4	100%	16%	84%	65%	67%	16%	19%	48%
Southern Region	***155.8***	***100%***	***26%***	***74%***	***50%***	***49%***	***25%***	***24%***	***24%***
Saravane	50.0	100%	30%	70%	52%	45%	25%	17%	28%
Sekong	12.7	100%	60%	40%	37%	9%	32%	3%	5%
Champasack	74.2	100%	19%	81%	43%	64%	17%	37%	26%
Attapeu	18.9	100%	21%	79%	76%	21%	58%	4%	18%
Total	***776.7***	***100%***	***43%***	***57%***	***40%***	***38%***	***18%***	***16%***	***22%***

Table A1.30: Number of farm households by household size and province, 2010/11 ('000)

Province	No. of farm households	Household size					Average household size
		1 person	2-3 persons	4-5 persons	6-9 persons	10 or more persons	
Northern Region	***288.9***	***0.8***	***42.7***	***110.6***	***115.7***	***19.1***	***5.69***
Phongsaly	28.4	0.2	4.6	11.1	10.5	2.0	5.62
Luangnamtha	26.2	0.2	3.8	9.3	11.2	1.8	5.76
Oudomxay	44.6	0.1	5.0	15.6	19.6	4.3	6.11
Bokeo	24.8	0.1	3.9	9.4	9.7	1.7	5.73
Luangprabang	59.5	0.2	8.7	22.8	24.2	3.6	5.65
Huaphanh	42.3	0.1	4.2	14.0	20.5	3.5	6.16
Xayabury	63.1	0.1	12.6	28.4	19.9	2.2	5.11
Central Region	***336.4***	***1.7***	***44.6***	***128.4***	***139.0***	***22.7***	***5.75***
Vientiane Capital	42.8	0.1	6.5	19.7	14.8	1.6	5.30
Xiengkhuang	36.2	0.1	3.7	13.3	16.0	3.1	6.06
Vientiane	62.7	0.3	9.5	25.8	23.7	3.4	5.49
Borikhamxay	35.0	0.1	3.9	14.3	14.3	2.4	5.85
Khammuane	51.1	0.3	7.7	19.0	21.3	2.8	5.60
Savannakhet	108.6	0.9	13.3	36.2	48.8	9.3	6.00
Southern Region	***157.5***	***0.9***	***21.3***	***55.3***	***68.5***	***11.4***	***5.86***
Saravane	50.1	0.3	7.1	17.1	21.0	4.6	5.96
Sekong	12.9	-	1.2	3.2	6.6	1.8	6.78
Champasack	75.4	0.5	10.1	29.1	31.9	3.7	5.64
Attapeu	19.1	-	2.8	6.0	8.9	1.3	5.85
Total	***782.8***	***3.4***	***108.7***	***294.3***	***323.2***	***53.2***	***5.75***

Table A1.31: Farm population by sex, age and province, 2010/11
('000)

Province	Total	Age group							
		0 to 9 years	10 to 14 years	15 to 24 years	25 to 34 years	35 to 44 years	45 to 54 years	55 to 64 years	65 years & over
				PERSONS					
Northern Region	***1,644.8***	***364.5***	***215.3***	***348.5***	***244.5***	***181.1***	***145.8***	***84.3***	***60.9***
Phongsaly	159.5	39.0	20.5	31.1	23.2	18.0	13.6	8.2	6.0
Luangnamtha	151.2	32.9	19.0	33.2	22.5	16.0	14.5	8.5	4.6
Oudomxay	272.4	64.4	38.3	58.1	40.0	27.8	22.3	12.9	8.6
Bokeo	141.9	33.0	18.2	29.8	20.3	15.9	12.7	7.0	4.9
Luangprabang	336.2	78.1	47.1	69.9	48.9	35.4	28.2	17.1	11.5
Huaphanh	260.7	59.7	39.1	54.2	35.3	27.3	22.0	12.4	10.7
Xayabury	322.9	57.4	33.2	72.2	54.2	40.8	32.4	18.3	14.5
Central Region	***1,933.6***	***362.1***	***242.3***	***435.9***	***299.7***	***233.5***	***180.3***	***101.9***	***78.0***
Vientiane Capital	226.9	28.8	19.5	53.6	43.8	31.0	25.1	14.4	10.6
Xiengkhuang	219.4	46.9	30.1	51.4	30.3	22.3	17.8	10.4	10.0
Vientiane Province	344.5	67.8	41.1	73.0	55.3	41.5	33.1	18.7	14.0
Borikhamxay	204.6	38.7	27.6	48.3	29.5	23.9	18.5	9.9	8.1
Khammuane	286.5	58.2	38.3	62.3	41.9	33.9	25.7	14.5	11.7
Savannakhet	651.7	121.8	85.6	147.2	98.8	80.9	60.1	33.9	23.5
Southern Region	***922.6***	***205.0***	***122.1***	***194.4***	***128.2***	***103.0***	***82.7***	***49.7***	***37.5***
Saravane	298.5	72.4	39.8	59.4	42.0	31.7	26.3	15.8	11.2
Sekong	87.3	23.6	12.0	18.8	11.6	8.1	6.2	4.0	3.0
Champasack	425.1	83.0	55.3	92.4	59.2	50.7	41.0	24.9	18.7
Attapeu	111.6	25.9	15.1	24.0	15.4	12.5	9.1	5.1	4.6
Total	***4,501.0***	***931.5***	***579.7***	***978.9***	***672.4***	***517.6***	***408.7***	***235.9***	***176.4***
				MALES					
Northern Region	***830.4***	***183.9***	***110.6***	***173.6***	***123.2***	***91.5***	***72.7***	***45.0***	***29.8***
Phongsaly	80.6	19.7	10.6	15.9	11.4	9.4	6.8	4.1	2.7
Luangnamtha	75.8	16.2	9.9	17.0	11.4	7.8	7.1	4.3	2.1
Oudomxay	137.5	32.9	19.0	28.7	20.3	14.1	11.2	7.1	4.1
Bokeo	71.6	16.9	9.4	14.8	10.3	7.7	6.4	3.7	2.3
Luangprabang	169.4	39.1	24.9	33.5	24.4	18.0	14.0	9.3	6.2
Huaphanh	132.7	30.5	20.4	27.2	18.3	13.4	10.9	6.5	5.5
Xayabury	162.8	28.5	16.5	36.5	27.1	21.1	16.4	9.8	6.9
Central Region	***973.7***	***185.3***	***126.1***	***215.9***	***145.7***	***115.7***	***90.8***	***53.7***	***40.6***
Vientiane Capital	116.1	15.4	10.5	26.4	22.5	15.2	12.5	8.0	5.7
Xiengkhuang	110.9	23.2	15.3	25.6	15.5	11.3	8.8	5.8	5.3

Table A1.31 (cont.): Farm population by sex, age and province, 2010/11 ('000)

Province	Total	Age group							
		0 to 9 years	10 to 14 years	15 to 24 years	25 to 34 years	35 to 44 years	45 to 54 years	55 to 64 years	65 years & over
				MALES (cont.)					
Vientiane Province	177.3	35.4	22.2	36.9	26.4	21.1	17.3	10.4	7.6
Borikhamxay	103.8	20.4	13.8	24.1	14.6	11.4	9.7	5.3	4.4
Khammuane	141.4	30.3	19.2	30.1	19.5	17.1	12.5	7.2	5.5
Savannakhet	324.3	60.5	45.1	72.7	47.2	39.6	30.1	17.0	12.2
Southern Region	***458.2***	***103.8***	***62.0***	***95.4***	***62.6***	***50.1***	***40.9***	***25.2***	***18.3***
Saravane	146.9	36.1	20.8	28.6	20.0	14.8	13.1	8.1	5.3
Sekong	43.2	11.6	5.5	9.3	5.9	4.2	3.1	2.0	1.5
Champasack	210.9	42.6	27.3	45.6	28.9	24.7	20.3	12.6	9.0
Attapeu	57.3	13.5	8.4	11.9	7.7	6.4	4.4	2.5	2.4
Total	***2,262.4***	***473.0***	***298.7***	***484.9***	***331.5***	***257.3***	***204.4***	***123.9***	***88.6***
				FEMALES					
Northern Region	***814.4***	***180.6***	***104.7***	***174.9***	***121.2***	***89.6***	***73.1***	***39.2***	***31.1***
Phongsaly	78.9	19.3	9.9	15.2	11.8	8.6	6.8	4.0	3.2
Luangnamtha	75.4	16.7	9.1	16.2	11.1	8.2	7.4	4.2	2.6
Oudomxay	134.9	31.5	19.2	29.4	19.7	13.7	11.2	5.8	4.5
Bokeo	70.3	16.1	8.8	14.9	10.0	8.1	6.3	3.3	2.7
Luangprabang	166.8	39.0	22.2	36.4	24.5	17.4	14.2	7.7	5.3
Huaphanh	127.9	29.2	18.7	27.0	17.0	13.8	11.2	5.8	5.2
Xayabury	160.1	28.8	16.7	35.7	27.1	19.7	16.1	8.4	7.6
Central Region	***959.8***	***176.8***	***116.2***	***220.0***	***154.0***	***117.8***	***89.4***	***48.2***	***37.4***
Vientiane Capital	110.8	13.4	9.1	27.2	21.3	15.8	12.6	6.5	4.9
Xiengkhuang	108.5	23.6	14.8	25.8	14.8	11.0	9.1	4.7	4.7
Vientiane Province	167.2	32.4	18.8	36.0	29.0	20.4	15.8	8.4	6.4
Borikhamxay	100.8	18.3	13.8	24.2	14.9	12.5	8.7	4.6	3.8
Khammuane	145.2	27.9	19.1	32.2	22.4	16.8	13.2	7.3	6.2
Savannakhet	327.4	61.2	40.6	74.5	51.5	41.3	30.0	16.8	11.4
Southern Region	***464.4***	***101.1***	***60.1***	***99.0***	***65.6***	***52.9***	***41.8***	***24.5***	***19.2***
Saravane	151.6	36.3	18.9	30.7	22.0	16.9	13.3	7.6	5.9
Sekong	44.1	12.0	6.5	9.5	5.7	4.0	3.1	2.0	1.5
Champasack	214.3	40.4	28.0	46.8	30.3	26.0	20.8	12.3	9.7
Attapeu	54.4	12.4	6.7	12.1	7.7	6.1	4.7	2.6	2.2
Total	***2,238.6***	***458.5***	***281.0***	***494.0***	***340.8***	***260.2***	***204.3***	***112.0***	***87.7***

Table A1.32: Employed farm population aged 10 years and over by main job, sex and province, 2010/11 ('000)

Province/sex		Farm population aged 10 years and over	Employed persons aged 10 years and over	Own account or unpaid family workers				Other	Employees		
				Total	On family agricultural holding				Total	Farm employee	Non-farm employee
					Total	Own account worker	Unpaid family worker				
Phongsaly	Male	60.9	48.0	45.5	43.6	7.9	35.6	1.9	2.6	0.8	1.7
	Female	59.5	46.7	44.4	42.4	2.7	39.7	2.0	2.2	0.7	1.5
	Total	120.4	94.7	89.9	86.0	10.7	75.3	3.9	4.8	1.6	3.2
Luangnamtha	Male	59.6	46.5	42.8	39.4	2.4	37.0	3.4	3.6	1.7	1.9
	Female	58.8	45.0	42.4	38.9	2.3	36.6	3.5	2.5	1.6	0.9
	Total	118.3	91.4	85.3	78.3	4.7	73.6	7.0	6.1	3.3	2.8
Oudomxay	Male	104.6	76.1	69.7	64.4	34.8	29.6	5.3	6.4	1.0	5.4
	Female	103.5	75.9	72.6	67.6	21.5	46.1	5.0	3.2	0.5	2.8
	Total	208.0	152.0	142.3	132.0	56.4	75.7	10.3	9.6	1.4	8.2
Bokeo	Male	54.7	42.7	37.3	34.8	4.2	30.6	2.4	5.5	2.7	2.8
	Female	54.2	42.4	40.6	37.4	4.0	33.4	3.2	1.7	1.1	0.6
	Total	108.9	85.1	77.9	72.3	8.2	64.0	5.7	7.2	3.8	3.4
Luangprabang	Male	130.3	92.2	85.6	80.5	30.9	49.6	5.1	6.6	2.3	4.4
	Female	127.8	92.5	89.1	84.4	18.9	65.5	4.7	3.4	1.6	1.8
	Total	258.1	184.7	174.7	164.9	49.8	115.2	9.8	10.0	3.9	6.1
Huaphanh	Male	102.2	72.2	69.0	65.7	13.6	52.1	3.3	3.2	0.9	2.3
	Female	98.7	70.7	69.2	65.6	13.4	52.2	3.6	1.5	0.5	1.0
	Total	201.0	142.9	138.2	131.3	27.0	104.3	6.9	4.7	1.4	3.3
Xayabury	Male	134.3	106.4	95.9	92.0	18.4	73.6	3.8	10.5	4.1	6.4
	Female	131.3	105.0	99.5	94.6	17.2	77.4	4.8	5.5	2.8	2.7
	Total	265.6	211.4	195.4	186.7	35.7	151.0	8.7	16.0	6.9	9.1
Vientiane Capital	Male	100.7	68.6	45.1	39.5	19.4	20.0	5.7	23.4	7.5	15.9
	Female	97.4	65.1	51.1	43.8	18.8	25.0	7.3	14.0	4.5	9.5
	Total	198.1	133.7	96.2	83.2	38.2	45.0	13.0	37.5	12.0	25.5
Xiengkhuang	Male	87.6	66.4	57.9	52.4	7.1	45.3	5.5	8.5	4.3	4.2
	Female	84.9	63.8	60.1	55.2	7.9	47.3	4.9	3.7	2.3	1.5
	Total	172.5	130.2	117.9	107.6	15.0	92.6	10.4	12.2	6.6	5.7

Table A1.32 (cont.): Employed farm population aged 10 years and over by main job, sex and province, 2010/11 ('000)

Province/sex		Farm population aged 10 years and over	Employed persons aged 10 years and over	Own account or unpaid family workers				Other	Employees		
				Total	On family agricultural holding				Total	Farm employee	Non-farm employee
					Total	Own account worker	Unpaid family worker				
Vientiane	Male	141.9	103.9	84.6	74.9	14.6	60.3	9.7	19.3	10.8	8.5
	Female	134.8	99.4	87.4	76.5	13.4	63.0	10.9	12.0	7.4	4.6
	Total	276.7	203.3	172.0	151.4	28.0	123.4	20.6	31.3	18.2	13.1
Borikhamxay	Male	83.3	61.6	54.1	48.1	23.2	24.9	6.0	7.5	2.6	4.8
	Female	82.5	61.1	55.6	49.5	17.2	32.3	6.2	5.4	2.1	3.3
	Total	165.9	122.6	109.8	97.6	40.4	57.2	12.2	12.9	4.7	8.2
Khammuane	Male	111.0	87.0	75.8	68.2	14.1	54.1	7.6	11.3	6.1	5.2
	Female	117.3	89.4	82.3	74.3	15.2	59.1	8.1	7.1	4.0	3.1
	Total	228.3	176.5	158.1	142.4	29.3	113.1	15.7	18.4	10.1	8.3
Savannakhet	Male	263.8	213.3	195.8	178.5	34.7	143.8	17.3	17.6	11.3	6.2
	Female	266.1	215.5	202.3	183.3	26.6	156.7	18.9	13.3	9.3	3.9
	Total	529.9	428.9	398.0	361.9	61.3	300.5	36.2	30.8	20.7	10.2
Saravane	Male	110.8	90.8	85.6	81.8	10.2	71.6	3.7	5.2	2.4	2.8
	Female	115.3	96.8	93.4	89.4	9.4	80.0	4.0	3.3	2.2	1.2
	Total	226.1	187.6	179.0	171.3	19.7	151.6	7.7	8.5	4.6	4.0
Sekong	Male	31.6	23.3	21.8	21.0	3.2	17.7	0.8	1.5	1.2	0.3
	Female	32.1	22.9	21.8	21.1	3.0	18.2	0.7	1.1	0.9	0.1
	Total	63.7	46.2	43.6	42.1	6.2	35.9	1.5	2.5	2.1	0.4
Champasack	Male	168.3	130.6	120.7	109.1	66.3	42.9	11.6	9.9	3.4	6.5
	Female	173.8	133.4	126.3	114.7	49.5	65.2	11.6	7.1	2.3	4.8
	Total	342.2	263.9	247.0	223.8	115.8	108.1	23.1	17.0	5.7	11.3
Attapeu	Male	43.7	33.7	28.4	26.3	3.3	22.9	2.2	5.2	1.6	3.7
	Female	42.0	32.0	29.9	27.0	1.9	25.1	2.9	2.1	0.8	1.3
	Total	85.7	65.6	58.3	53.3	5.3	48.0	5.0	7.3	2.3	5.0
Total	***Male***	***1,789.3***	***1,363.2***	***1,215.6***	***1,120.2***	***308.5***	***811.7***	***95.3***	***147.6***	***64.7***	***82.8***
	Female	***1,780.1***	***1,357.3***	***1,268.1***	***1,165.8***	***243.1***	***922.7***	***102.3***	***89.2***	***44.4***	***44.8***
	Total	***3,569.4***	***2,720.5***	***2,483.7***	***2,286.0***	***551.6***	***1,734.4***	***197.7***	***236.8***	***109.1***	***127.6***

Table A1.33: Farm population aged 10 years and over by main job, work on own holding, sex and province, 2010/11 ('000)

Province/sex		Total farm population aged 10 years and over	Did some work on family holding						No work on holding
			Total	Main job work on holding	Other main job but some work on holding			Usually not employed but some work on holding	
					Main job own non-farm business	Main job farm employee	Main job non-farm employee		
Phongsaly	Male	60.9	47.7	43.6	0.7	0.5	0.7	2.2	13.2
	Female	59.5	45.8	42.4	0.7	0.4	0.5	1.8	13.8
	Total	120.4	93.5	86.0	1.4	0.9	1.2	4.0	27.0
Luangnamtha	Male	59.6	47.8	39.4	1.4	1.4	1.1	4.5	11.8
	Female	58.8	46.4	38.9	1.5	1.3	0.5	4.2	12.4
	Total	118.3	94.2	78.3	2.9	2.7	1.5	8.7	24.1
Oudomxay	Male	104.6	76.6	64.4	1.9	0.1	2.7	7.5	28.0
	Female	103.5	77.1	67.6	1.5	0.0	1.3	6.6	26.3
	Total	208.0	153.7	132.0	3.4	0.1	4.0	14.1	54.3
Bokeo	Male	54.7	39.9	34.8	0.8	0.3	0.4	3.6	14.8
	Female	54.2	41.9	37.4	1.0	0.2	0.1	3.2	12.3
	Total	108.9	81.8	72.3	1.7	0.5	0.5	6.8	27.1
Luangprabang	Male	130.3	90.5	80.5	1.1	1.3	1.3	6.3	39.9
	Female	127.8	92.0	84.4	1.2	0.7	0.5	5.2	35.7
	Total	258.1	182.5	164.9	2.3	2.0	1.7	11.6	75.6
Huaphanh	Male	102.2	76.0	65.7	1.0	0.4	1.0	7.9	26.2
	Female	98.7	74.8	65.6	1.1	0.2	0.3	7.5	24.0
	Total	201.0	150.8	131.3	2.1	0.6	1.3	15.4	50.2
Xayabury	Male	134.3	104.2	92.0	1.1	1.8	2.6	6.7	30.1
	Female	131.3	103.7	94.6	1.5	1.4	1.1	5.1	27.6
	Total	265.6	207.9	186.7	2.6	3.2	3.7	11.8	57.7
Vientiane Capital	Male	100.7	60.0	39.5	2.2	3.0	7.5	7.9	40.7
	Female	97.4	59.6	43.8	2.6	1.5	3.7	8.0	37.8
	Total	198.1	119.6	83.2	4.8	4.4	11.3	15.9	78.5
Xiengkhuang	Male	87.6	61.8	52.4	1.5	2.0	1.4	4.5	25.9
	Female	84.9	62.4	55.2	1.3	1.0	0.5	4.4	22.5
	Total	172.5	124.1	107.6	2.8	3.0	1.9	8.9	48.4

Table A1.33 (cont.): Farm population aged 10 years and over by main job, work on own holding, sex and province, 2010/11 ('000)

Province/sex		Total farm population aged 10 years and over	Did some work on family holding						No work on holding
			Total	Main job work on holding	Other main job but some work on holding			Usually not employed but some work on holding	
					Main job own non-farm business	Main job farm employee	Main job non-farm employee		
Vientiane	Male	141.9	91.1	74.9	3.8	0.6	3.2	8.7	50.8
	Female	134.8	90.9	76.5	4.5	0.6	1.7	7.7	43.9
	Total	276.7	182.0	151.4	8.3	1.2	4.9	16.4	94.7
Borikhamxay	Male	83.3	55.4	48.1	1.6	0.1	0.9	4.8	27.9
	Female	82.5	55.9	49.5	1.5	0.2	0.5	4.3	26.6
	Total	165.9	111.4	97.6	3.1	0.3	1.4	9.1	54.5
Khammuane	Male	111.0	81.4	68.2	2.8	3.0	1.2	6.2	29.7
	Female	117.3	87.0	74.3	3.1	2.3	0.6	6.7	30.3
	Total	228.3	168.4	142.4	5.9	5.3	1.8	12.9	59.9
Savannakhet	Male	263.8	211.4	178.5	7.8	5.4	2.5	17.2	52.4
	Female	266.1	215.5	183.3	9.9	4.4	1.4	16.5	50.6
	Total	529.9	426.9	361.9	17.6	9.9	3.9	33.7	103.0
Saravane	Male	110.8	92.9	81.8	1.4	0.3	1.4	8.0	17.9
	Female	115.3	98.4	89.4	1.4	0.2	0.5	6.8	17.0
	Total	226.1	191.2	171.3	2.8	0.5	1.8	14.8	34.9
Sekong	Male	31.6	25.9	21.0	0.4	0.6	0.1	3.9	5.6
	Female	32.1	26.4	21.1	0.2	0.4	0.1	4.5	5.7
	Total	63.7	52.3	42.1	0.6	1.0	0.2	8.4	11.4
Champasack	Male	168.3	121.0	109.1	2.4	0.1	1.9	7.4	47.3
	Female	173.8	126.6	114.7	2.6	0.0	1.3	7.9	47.3
	Total	342.2	247.6	223.8	5.0	0.1	3.2	15.3	94.6
Attapeu	Male	43.7	33.7	26.3	0.8	0.1	1.9	4.6	10.0
	Female	42.0	33.0	27.0	1.1	0.0	0.9	4.0	9.0
	Total	85.7	66.7	53.3	1.9	0.1	2.8	8.6	19.0
Total	***Male***	***1,789.3***	***1,317.3***	***1,120.2***	***32.5***	***21.0***	***31.6***	***111.9***	***472.0***
	Female	***1,780.1***	***1,337.4***	***1,165.8***	***36.8***	***14.7***	***15.5***	***104.5***	***442.7***
	Total	***3,569.4***	***2,654.7***	***2,286.0***	***69.3***	***35.7***	***47.1***	***216.4***	***914.7***

Table A1.34: Farm population aged 10 years and over with main job work on family holding by work off the holding, sex and province, 2010/11 ('000)

Province/sex		Main job work on family holding	Did other work				Did no other work
			Total	Own family non-farm business	Employee on other farm	Non-farm employee	
Phongsaly	Male	43.6	7.8	5.9	0.5	1.3	35.8
	Female	42.4	7.8	6.3	0.5	1.1	34.6
	Total	86.0	15.6	12.2	1.0	2.4	70.4
Luangnamtha	Male	39.4	12.3	6.8	3.0	2.5	27.1
	Female	38.9	11.7	7.7	2.7	1.4	27.2
	Total	78.3	24.0	14.5	5.7	3.9	54.3
Oudomxay	Male	64.4	21.8	12.5	1.8	7.5	42.6
	Female	67.6	23.0	15.0	2.0	6.0	44.7
	Total	132.0	44.8	27.5	3.8	13.6	87.3
Bokeo	Male	34.8	27.3	19.8	2.6	4.9	7.6
	Female	37.4	27.4	21.5	2.9	2.9	10.0
	Total	72.3	54.6	41.4	5.5	7.8	17.6
Luangprabang	Male	80.5	27.2	15.4	2.5	9.3	53.3
	Female	84.4	28.0	18.3	2.5	7.1	56.4
	Total	164.9	55.2	33.8	5.0	16.4	109.7
Huaphanh	Male	65.7	24.4	18.5	1.5	4.4	41.3
	Female	65.6	23.9	19.7	1.3	2.9	41.7
	Total	131.3	48.3	38.2	2.8	7.3	83.0
Xayabury	Male	92.0	32.7	19.0	4.0	9.6	59.4
	Female	94.6	31.7	22.2	4.1	5.4	62.9
	Total	186.7	64.4	41.2	8.0	15.1	122.3
Vientiane Capital	Male	39.5	13.3	4.6	1.5	7.2	26.2
	Female	43.8	13.9	5.6	2.7	5.5	29.9
	Total	83.2	27.1	10.2	4.3	12.7	56.1
Xiengkhuang	Male	52.4	13.0	8.5	0.5	3.9	39.4
	Female	55.2	12.1	9.0	0.6	2.6	43.1
	Total	107.6	25.1	17.5	1.1	6.5	82.4

Table A1.34: Farm population aged 10 years and over with main job work on family holding by work off the holding, sex and province, 2010/11 ('000)

Province/sex		Main job work on family holding	Did other work				Did no other work
			Total	Own family non-farm business	Employee on other farm	Non-farm employee	
Phongsaly	Male	43.6	7.8	5.9	0.5	1.3	35.8
	Female	42.4	7.8	6.3	0.5	1.1	34.6
	Total	86.0	15.6	12.2	1.0	2.4	70.4
Luangnamtha	Male	39.4	12.3	6.8	3.0	2.5	27.1
	Female	38.9	11.7	7.7	2.7	1.4	27.2
	Total	78.3	24.0	14.5	5.7	3.9	54.3
Oudomxay	Male	64.4	21.8	12.5	1.8	7.5	42.6
	Female	67.6	23.0	15.0	2.0	6.0	44.7
	Total	132.0	44.8	27.5	3.8	13.6	87.3
Bokeo	Male	34.8	27.3	19.8	2.6	4.9	7.6
	Female	37.4	27.4	21.5	2.9	2.9	10.0
	Total	72.3	54.6	41.4	5.5	7.8	17.6
Luangprabang	Male	80.5	27.2	15.4	2.5	9.3	53.3
	Female	84.4	28.0	18.3	2.5	7.1	56.4
	Total	164.9	55.2	33.8	5.0	16.4	109.7
Huaphanh	Male	65.7	24.4	18.5	1.5	4.4	41.3
	Female	65.6	23.9	19.7	1.3	2.9	41.7
	Total	131.3	48.3	38.2	2.8	7.3	83.0
Xayabury	Male	92.0	32.7	19.0	4.0	9.6	59.4
	Female	94.6	31.7	22.2	4.1	5.4	62.9
	Total	186.7	64.4	41.2	8.0	15.1	122.3
Vientiane Capital	Male	39.5	13.3	4.6	1.5	7.2	26.2
	Female	43.8	13.9	5.6	2.7	5.5	29.9
	Total	83.2	27.1	10.2	4.3	12.7	56.1
Xiengkhuang	Male	52.4	13.0	8.5	0.5	3.9	39.4
	Female	55.2	12.1	9.0	0.6	2.6	43.1
	Total	107.6	25.1	17.5	1.1	6.5	82.4

Table A1.34 (cont.): Farm population aged 10 years and over with main job work on family holding by work off the holding, sex and province, 2010/11
('000)

Province/sex		Main job work on family holding	Did other work				Did no other work
			Total	Own family non-farm business	Employee on other farm	Non-farm employee	
Vientiane	Male	74.9	58.8	31.4	3.2	24.2	16.1
	Female	76.5	59.3	34.7	3.3	21.3	17.2
	Total	151.4	118.1	66.1	6.5	45.5	33.2
Borikhamxay	Male	48.1	21.1	11.1	1.4	8.6	27.0
	Female	49.5	20.8	12.0	2.1	6.7	28.7
	Total	97.6	41.9	23.1	3.5	15.2	55.7
Khammuane	Male	68.2	22.0	11.2	1.5	9.3	46.2
	Female	74.3	21.7	12.2	1.9	7.6	52.5
	Total	142.4	43.7	23.3	3.4	17.0	98.7
Savannakhet	Male	178.5	48.1	24.4	5.7	18.1	130.4
	Female	183.3	43.8	27.5	6.7	9.6	139.6
	Total	361.9	91.9	51.9	12.4	27.6	269.9
Saravane	Male	81.8	39.3	18.3	3.3	17.7	42.5
	Female	89.4	40.1	24.1	3.4	12.6	49.3
	Total	171.3	79.4	42.4	6.7	30.4	91.8
Sekong	Male	21.0	2.8	1.3	0.6	0.9	18.1
	Female	21.1	2.5	1.3	0.6	0.7	18.6
	Total	42.1	5.4	2.6	1.2	1.6	36.7
Champasack	Male	109.1	64.2	40.5	6.0	17.7	44.9
	Female	114.7	65.0	45.6	5.8	13.6	49.7
	Total	223.8	129.2	86.1	11.7	31.4	94.7
Attapeu	Male	26.3	13.2	9.1	0.4	3.7	13.1
	Female	27.0	13.3	9.7	0.6	3.0	13.7
	Total	53.3	26.4	18.8	1.0	6.7	26.8
Total	***Male***	***1,120.2***	***449.3***	***258.2***	***40.1***	***150.9***	***671.0***
	Female	***1,165.8***	***445.9***	***292.3***	***43.5***	***110.1***	***719.9***
	Total	***2,286.0***	***895.2***	***550.6***	***83.6***	***260.9***	***1,390.9***

Table A1.35: Farm households by use of outside labour, type of payment and province, 2010/11

Province	No. of farm h'holds ('000)	Use of farm labour ('000)		Type of payment: percent of h'holds with outside labour			
		Did not use outside labour	Did use outside labour	With money	With farm produce	Exchange of labour	In other ways
Northern Region	***288.9***	***122.8***	***166.1***	***35%***	***6%***	***82%***	***3%***
Phongsaly	28.4	13.4	15.0	21%	3%	88%	3%
Luangnamtha	26.2	9.9	16.3	41%	2%	78%	1%
Oudomxay	44.6	16.9	27.7	25%	6%	88%	2%
Bokeo	24.8	6.5	18.2	40%	13%	83%	4%
Luangprabang	59.5	27.5	32.0	34%	7%	85%	4%
Huaphanh	42.3	26.4	15.9	26%	3%	81%	4%
Xayabury	63.1	22.1	41.0	46%	6%	76%	2%
Central Region	***336.4***	***190.3***	***146.2***	***77%***	***8%***	***34%***	***4%***
Vientiane Capital	42.8	21.1	21.7	90%	7%	14%	2%
Xiengkhuang	36.2	20.1	16.1	38%	5%	72%	6%
Vientiane	62.7	21.6	41.1	68%	10%	61%	5%
Borikhamxay	35.0	18.3	16.6	87%	6%	27%	3%
Khammuane	51.1	31.7	19.5	89%	6%	17%	4%
Savannakhet	108.6	77.5	31.1	89%	11%	7%	4%
Southern Region	***157.5***	***118.0***	***39.5***	***73%***	***10%***	***24%***	***4%***
Saravane	50.1	37.5	12.5	77%	12%	19%	4%
Sekong	12.9	10.1	2.8	14%	1%	85%	17%
Champasack	75.4	56.1	19.3	81%	9%	14%	3%
Attapeu	19.1	14.3	4.8	64%	17%	35%	3%
Total	***782.8***	***431.0***	***351.8***	***57%***	***7%***	***56%***	***3%***

Table A1.34 (cont.): Farm population aged 10 years and over with main job work on family holding by work off the holding, sex and province, 2010/11
('000)

Province/sex		Main job work on family holding	Did other work				Did no other work
			Total	Own family non-farm business	Employee on other farm	Non-farm employee	
Vientiane	Male	74.9	58.8	31.4	3.2	24.2	16.1
	Female	76.5	59.3	34.7	3.3	21.3	17.2
	Total	151.4	118.1	66.1	6.5	45.5	33.2
Borikhamxay	Male	48.1	21.1	11.1	1.4	8.6	27.0
	Female	49.5	20.8	12.0	2.1	6.7	28.7
	Total	97.6	41.9	23.1	3.5	15.2	55.7
Khammuane	Male	68.2	22.0	11.2	1.5	9.3	46.2
	Female	74.3	21.7	12.2	1.9	7.6	52.5
	Total	142.4	43.7	23.3	3.4	17.0	98.7
Savannakhet	Male	178.5	48.1	24.4	5.7	18.1	130.4
	Female	183.3	43.8	27.5	6.7	9.6	139.6
	Total	361.9	91.9	51.9	12.4	27.6	269.9
Saravane	Male	81.8	39.3	18.3	3.3	17.7	42.5
	Female	89.4	40.1	24.1	3.4	12.6	49.3
	Total	171.3	79.4	42.4	6.7	30.4	91.8
Sekong	Male	21.0	2.8	1.3	0.6	0.9	18.1
	Female	21.1	2.5	1.3	0.6	0.7	18.6
	Total	42.1	5.4	2.6	1.2	1.6	36.7
Champasack	Male	109.1	64.2	40.5	6.0	17.7	44.9
	Female	114.7	65.0	45.6	5.8	13.6	49.7
	Total	223.8	129.2	86.1	11.7	31.4	94.7
Attapeu	Male	26.3	13.2	9.1	0.4	3.7	13.1
	Female	27.0	13.3	9.7	0.6	3.0	13.7
	Total	53.3	26.4	18.8	1.0	6.7	26.8
Total	***Male***	***1,120.2***	***449.3***	***258.2***	***40.1***	***150.9***	***671.0***
	Female	***1,165.8***	***445.9***	***292.3***	***43.5***	***110.1***	***719.9***
	Total	***2,286.0***	***895.2***	***550.6***	***83.6***	***260.9***	***1,390.9***

Table A1.36: Number of farm households by sex of manager and province, 2010/11
('000)

Province	No. of farm households	Single person management			Two person management			
		Total	Male	Female	Total	Two males	Two females	Male and female jointly
Northern Region	***288.9***	***85.2***	***76.6***	***8.6***	***203.7***	***7.9***	***1.9***	***193.9***
Phongsaly	28.4	6.2	5.4	0.8	22.2	0.8	0.2	21.2
Luangnamtha	26.2	8.1	7.0	1.1	18.1	0.9	0.2	17.1
Oudomxay	44.6	12.1	11.0	1.1	32.5	1.6	0.5	30.4
Bokeo	24.8	7.7	6.7	1.0	17.1	0.5	0.1	16.5
Luangprabang	59.5	15.5	13.5	2.0	44.0	1.2	0.3	42.5
Huaphanh	42.3	14.6	13.8	0.8	27.7	1.4	0.1	26.2
Xayabury	63.1	21.1	19.1	2.0	42.0	1.5	0.5	40.1
Central Region	***336.4***	***119.1***	***95.8***	***23.3***	***217.3***	***6.1***	***4.5***	***206.7***
Vientiane Capital	42.8	17.8	13.9	3.9	25.0	0.8	0.6	23.7
Xiengkhuang	36.2	7.8	6.7	1.1	28.4	1.1	0.2	27.1
Vientiane	62.7	18.0	15.5	2.5	44.7	1.3	0.4	43.1
Borikhamxay	35.0	13.6	11.6	1.9	21.4	0.4	0.3	20.7
Khammuane	51.1	22.1	17.3	4.8	29.0	0.8	1.1	27.0
Savannakhet	108.6	39.9	30.8	9.1	68.7	1.7	2.0	65.0
Southern Region	***157.5***	***51.7***	***41.0***	***10.7***	***105.8***	***2.5***	***2.2***	***101.0***
Saravane	50.1	15.6	12.2	3.4	34.5	1.1	1.0	32.4
Sekong	12.9	2.6	2.2	0.4	10.3	0.5	0.2	9.6
Champasack	75.4	29.5	23.5	6.1	45.9	0.7	0.9	44.3
Attapeu	19.1	4.0	3.1	0.9	15.1	0.2	0.1	14.7
Total	***782.8***	***256.1***	***213.3***	***42.7***	***526.8***	***16.6***	***8.6***	***501.6***

Table A1.37: Number of persons aged 15 years and over by participation in management of the holding and province, 2010/11 ('000)

Province	All persons				Males				Females			
	Total	Sole manager	Co-manager	Did not manage	Total	Sole manager	Co-manager	Did not manage	Total	Sole manager	Co-manager	Did not manage
Northern Region	***1,065.1***	***85.2***	***407.4***	***572.5***	***535.9***	***76.6***	***209.7***	***249.6***	***529.1***	***8.6***	***197.7***	***322.8***
Phongsaly	100.0	6.2	44.4	49.4	50.3	5.4	22.8	22.1	49.7	0.8	21.6	27.3
Luangnamtha	99.3	8.1	36.3	54.9	49.7	7.0	18.9	23.7	49.6	1.1	17.4	31.2
Oudomxay	169.8	12.1	65.1	92.6	85.6	11.0	33.6	41.0	84.2	1.1	31.4	51.7
Bokeo	90.7	7.7	34.1	48.9	45.3	6.7	17.4	21.1	45.4	1.0	16.7	27.7
Luangprabang	211.0	15.5	88.1	107.5	105.4	13.5	44.9	47.0	105.6	2.0	43.2	60.5
Huaphanh	161.9	14.6	55.4	91.9	81.8	13.8	29.0	39.0	80.1	0.8	26.4	52.9
Xayabury	232.4	21.1	84.1	127.2	117.8	19.1	43.0	55.7	114.6	2.0	41.1	71.5
Central Region	***1,329.2***	***119.1***	***434.7***	***775.4***	***662.3***	***95.8***	***219.0***	***347.6***	***666.8***	***23.3***	***215.7***	***427.8***
Vientiane Capital	178.6	17.8	50.1	110.8	90.3	13.9	25.2	51.2	88.3	3.9	24.8	59.6
Xiengkhuang	142.4	7.8	56.9	77.7	72.3	6.7	29.4	36.3	70.1	1.1	27.5	41.5
Vientiane	235.6	18.0	89.4	128.2	119.7	15.5	45.6	58.5	116.0	2.5	43.8	69.6
Borikhamxay	138.2	13.6	42.8	81.8	69.5	11.6	21.6	36.3	68.7	1.9	21.2	45.6
Khammuane	190.0	22.1	58.0	109.9	91.9	17.3	28.7	45.9	98.2	4.8	29.3	64.0
Savannakhet	444.3	39.9	137.4	267.0	218.7	30.8	68.5	119.5	225.6	9.1	69.0	147.5
Southern Region	***595.5***	***51.7***	***211.5***	***332.3***	***292.4***	***41.0***	***106.1***	***145.4***	***303.1***	***10.7***	***105.4***	***186.9***
Saravane	186.3	15.6	69.0	101.8	90.0	12.2	34.6	43.2	96.4	3.4	34.4	58.6
Sekong	51.7	2.6	20.5	28.6	26.1	2.2	10.6	13.3	25.6	0.4	9.9	15.3
Champasack	286.9	29.5	91.8	165.6	141.0	23.5	45.7	71.9	145.9	6.1	46.1	93.7
Attapeu	70.6	4.0	30.2	36.4	35.3	3.1	15.2	17.0	35.3	0.9	15.0	19.4
Total	***2,989.8***	***256.1***	***1,053.6***	***1,680.1***	***1,490.7***	***213.3***	***534.8***	***742.6***	***1,499.1***	***42.7***	***518.8***	***937.6***

Table A1.38: Farm households engaged in fisheries activities by type and province, 2010/11

Province	No. of farm h'holds with aquaculture ('000)	Type (% of aquaculture h'holds)					No. of farm h'holds with capture fishing ('000)	Type (% of capture fisheries h'holds)						
		Rice-cum-fish culture	Ponds	Cages	Tanks	Other		River	Lake, reservoir	Swamp	Rice field	Irrigation canal	Village pond	Other
Northern Region	***28.9***	***11%***	***94%***	***1%***	***2%***	***4%***	***187.3***	***98%***	***18%***	***14%***	***18%***	***12%***	***2%***	***15%***
Phongsaly	2.3	1%	93%	1%	1%	8%	22.4	99%	5%	4%	1%	5%	-	12%
Luangnamtha	1.1	2%	96%	-	-	1%	16.4	99%	16%	8%	28%	14%	-	10%
Oudomxay	4.6	-	97%	2%	4%	1%	29.5	97%	21%	23%	12%	10%	6%	23%
Bokeo	1.2	4%	86%	5%	6%	10%	15.7	98%	19%	16%	26%	12%	1%	9%
Luangprabang	3.1	6%	89%	3%	6%	8%	33.7	99%	12%	11%	10%	11%	2%	20%
Huaphanh	10.8	24%	93%	-	-	5%	28.8	99%	11%	8%	12%	15%	1%	9%
Xayabury	5.8	2%	97%	1%	3%	1%	40.9	96%	31%	21%	36%	16%	3%	***17%***
Central Region	***30.2***	***19%***	***89%***	***1%***	***4%***	***5%***	***230.3***	***87%***	***52%***	***37%***	***44%***	***14%***	***15%***	***24%***
Vientiane Capital	2.7	5%	87%	3%	14%	1%	20.5	72%	63%	33%	46%	22%	24%	18%
Xiengkhuang	7.3	47%	90%	-	1%	4%	19.0	96%	31%	17%	45%	26%	3%	14%
Vientiane Province	5.0	9%	88%	1%	5%	4%	41.4	91%	54%	35%	49%	25%	11%	20%
Borikhamxay	1.2	5%	54%	3%	26%	17%	27.6	92%	64%	38%	28%	10%	11%	30%
Khammuane	2.0	6%	88%	1%	5%	8%	41.7	88%	62%	54%	43%	9%	28%	23%
Savannakhet	11.9	11%	91%	-	1%	6%	80.1	85%	44%	34%	48%	8%	13%	29%
Southern Region	***9.0***	***11%***	***86%***	***2%***	***11%***	***2%***	***108.6***	***93%***	***51%***	***37%***	***52%***	***16%***	***11%***	***25%***
Saravane	4.1	13%	91%	-	3%	2%	36.6	90%	45%	38%	57%	20%	8%	29%
Sekong	0.7	6%	97%	1%	2%	1%	8.4	91%	39%	15%	9%	9%	3%	8%
Champasack	2.8	10%	80%	3%	15%	1%	49.6	94%	53%	38%	55%	17%	16%	24%
Attapeu	1.4	10%	75%	6%	31%	3%	14.1	99%	66%	40%	54%	6%	5%	26%
Total	***68.2***	***14%***	***90%***	***1%***	***4%***	***4%***	***526.3***	***92%***	***40%***	***29%***	***37%***	***14%***	***10%***	***21%***

Table A1.39: Farm households with forest land on holding by type/sale of products and province, 2010/11

Province	No. of farm h'holds with own forest land ('000)	Farm h'holds with own forest: percent exploiting	Type of products (% of exploiting h'holds)						Sale of products (% of exploiting h'holds)		
			Timber	Fuelwood	Bamboo	Mush-rooms	Fruit and vegetables	Other	Total	Sold forest products	Didn't sell forest products
Northern Region	***39.1***	***50%***	***15%***	***82%***	***46%***	***44%***	***43%***	***43%***	***100%***	***45%***	***55%***
Phongsaly	2.6	68%	-	76%	56%	37%	44%	62%	100%	54%	46%
Luangnamtha	1.6	69%	12%	81%	40%	47%	44%	55%	100%	49%	51%
Oudomxay	4.4	47%	20%	72%	27%	25%	44%	40%	100%	44%	56%
Bokeo	3.1	55%	15%	78%	38%	31%	37%	29%	100%	35%	65%
Luangprabang	17.4	52%	19%	86%	50%	45%	41%	46%	100%	47%	53%
Huaphanh	1.6	40%	14%	89%	48%	23%	63%	50%	100%	25%	75%
Xayabury	8.4	40%	10%	84%	50%	63%	47%	29%	100%	45%	55%
Central Region	***37.1***	***71%***	***14%***	***95%***	***44%***	***73%***	***53%***	***45%***	***100%***	***40%***	***60%***
Vientiane Capital	3.7	44%	7%	94%	48%	37%	34%	29%	100%	32%	68%
Xiengkhuang	1.2	23%	3%	92%	43%	25%	21%	29%	100%	12%	88%
Vientiane Province	4.3	66%	2%	96%	70%	54%	50%	35%	100%	55%	45%
Borikhamxay	5.7	61%	4%	96%	59%	59%	51%	45%	100%	29%	71%
Khammuane	4.1	75%	8%	95%	34%	71%	39%	40%	100%	23%	77%
Savannakhet	18.0	83%	20%	96%	38%	86%	60%	50%	100%	44%	56%
Southern Region	***18.2***	***47%***	***11%***	***91%***	***40%***	***82%***	***57%***	***51%***	***100%***	***41%***	***59%***
Saravane	6.6	51%	2%	94%	42%	89%	80%	78%	100%	58%	42%
Sekong	2.4	22%	11%	82%	50%	37%	53%	47%	100%	23%	77%
Champasack	5.3	44%	20%	89%	44%	78%	20%	20%	100%	37%	63%
Attapeu	3.8	60%	16%	92%	31%	88%	62%	43%	100%	22%	78%
Total	***94.3***	***58%***	***14%***	***90%***	***44%***	***64%***	***50%***	***45%***	***100%***	***42%***	***58%***

Table A1.40: Farm households exploiting public forests by type/sale of products and province, 2010/11

Province	No. of farm h'holds exploiting public forests ('000)	Type of products (% of exploiting h'holds)						Sale of products (% of exploiting h'holds)		
		Timber	Fuelwood	Bamboo	Mush-rooms	Fruit and vegetables	Other	Total	Sold forest products	Didn't sell forest products
Northern Region	***223.1***	***7%***	***95%***	***77%***	***76%***	***78%***	***62%***	***100%***	***45%***	***55%***
Phongsaly	24.3	8%	96%	78%	77%	86%	55%	100%	49%	51%
Luangnamtha	17.8	11%	95%	69%	77%	74%	79%	100%	53%	47%
Oudomxay	34.1	9%	96%	78%	78%	82%	71%	100%	48%	52%
Bokeo	18.4	5%	96%	81%	72%	74%	60%	100%	42%	58%
Luangprabang	48.1	7%	94%	75%	71%	68%	70%	100%	55%	45%
Huaphanh	31.6	1%	97%	79%	72%	83%	59%	100%	43%	57%
Xayabury	48.8	6%	92%	79%	82%	79%	49%	100%	30%	70%
Central Region	***215.6***	***4%***	***91%***	***57%***	***80%***	***63%***	***56%***	***100%***	***33%***	***67%***
Vientiane Capital	11.0	4%	82%	46%	75%	53%	48%	100%	27%	73%
Xiengkhuang	21.9	4%	94%	42%	66%	62%	62%	100%	34%	66%
Vientiane Province	41.8	1%	91%	70%	63%	65%	54%	100%	31%	69%
Borikhamxay	24.6	3%	94%	71%	74%	61%	68%	100%	36%	64%
Khammuane	35.2	5%	92%	62%	90%	69%	59%	100%	28%	72%
Savannakhet	81.2	6%	89%	51%	90%	61%	52%	100%	36%	64%
Southern Region	***100.7***	***4%***	***92%***	***50%***	***90%***	***73%***	***58%***	***100%***	***35%***	***65%***
Saravane	33.4	3%	91%	57%	94%	82%	68%	100%	39%	61%
Sekong	9.1	8%	91%	44%	74%	77%	58%	100%	13%	87%
Champasack	42.9	2%	92%	45%	89%	64%	52%	100%	34%	66%
Attapeu	15.2	11%	94%	52%	92%	78%	57%	100%	39%	61%
Total	***539.4***	***5%***	***93%***	***64%***	***80%***	***71%***	***59%***	***100%***	***38%***	***62%***

APPENDIX 2

OUTPUT TABLES: VILLAGES

Table A2.1: Selected infrastructure by province, village type and land type, 2011

Province/ Village type/ Land type	Number of villages	Type of infrastructure (% of villages)										
		Primary school in village	Incomplete primary school in village	Primary school less than one hour's walk	Pharmacy or drug kit in village	Dispensary or hospital in village	Dispensary or hospital less than two hours' walk	Electricity in village	Village connected to electricity grid	Safe water supply in village	Year-round motorable road to district	No motorable road to district
Northern Region	***3,601***	***61%***	***32%***	***84%***	***73%***	***15%***	***57%***	***64%***	***39%***	***19%***	***56%***	***14%***
Phongsaly	541	39%	56%	63%	66%	13%	35%	54%	11%	23%	34%	35%
Luangnamtha	356	57%	39%	85%	53%	23%	66%	58%	47%	24%	68%	12%
Oudomxay	471	58%	34%	80%	70%	13%	51%	50%	38%	14%	48%	14%
Bokeo	283	57%	27%	88%	77%	19%	62%	70%	62%	17%	67%	15%
Luangprabang	783	64%	27%	89%	77%	13%	60%	64%	46%	16%	52%	17%
Huaphanh	721	62%	33%	86%	77%	12%	54%	79%	24%	9%	54%	3%
Xayabury	446	85%	7%	97%	79%	22%	79%	71%	62%	38%	84%	4%
Central Region	***3,430***	***68%***	***22%***	***89%***	***69%***	***17%***	***69%***	***76%***	***72%***	***59%***	***76%***	***3%***
Vientiane Capital	490	78%	7%	99%	76%	16%	92%	100%	99%	97%	96%	3%
Xiengkhuang	512	56%	27%	85%	69%	17%	68%	58%	45%	15%	56%	6%
Vientiane Province	506	74%	19%	95%	66%	17%	68%	90%	86%	52%	89%	1%
Borikhamxay	323	79%	14%	94%	86%	20%	65%	86%	76%	52%	81%	2%
Khammuane	587	63%	26%	87%	53%	20%	66%	79%	75%	51%	65%	4%
Savannakhet	1,012	65%	28%	83%	70%	16%	62%	64%	61%	74%	73%	2%
Southern Region	***1,631***	***67%***	***26%***	***91%***	***66%***	***16%***	***60%***	***67%***	***56%***	***75%***	***69%***	***8%***
Saravane	605	50%	42%	84%	60%	15%	62%	65%	55%	82%	74%	1%
Sekong	233	79%	12%	90%	64%	16%	46%	58%	24%	42%	54%	15%
Champasack	643	76%	20%	96%	70%	15%	61%	78%	74%	82%	70%	13%
Attapeu	150	85%	11%	95%	79%	28%	67%	41%	37%	71%	69%	3%
Total	***8,662***	***65%***	***27%***	***87%***	***70%***	***16%***	***62%***	***70%***	***55%***	***46%***	***66%***	***9%***
Urban	1,362	75%	9%	99%	68%	24%	92%	96%	92%	80%	94%	2%
Rural with road	6,031	66%	27%	89%	70%	16%	61%	70%	55%	43%	70%	3%
Rural without road	1,269	48%	44%	69%	69%	9%	33%	39%	16%	20%	16%	41%
Lowland	3,566	72%	19%	94%	68%	18%	74%	84%	79%	75%	82%	4%
Upland	3,086	56%	38%	76%	71%	14%	46%	49%	25%	18%	45%	16%
Plateau	1,979	67%	24%	92%	72%	17%	67%	76%	58%	36%	71%	6%
Mixture of land types	31	71%	26%	90%	68%	29%	52%	87%	45%	23%	55%	13%

Table A2.2: Sources of electricity by province, village type and land type, 2011

Province/ Village type/ Land type	Number of villages	Percent of villages with electricity	Source of electricity (% of villages)				
			Electricity grid	Public generator	Private generator	Hydro generator	Solar cells
Northern Region	***3,601***	***64%***	***39%***	***1%***	***2%***	***23%***	***3%***
Phongsaly	541	54%	11%	2%	6%	44%	2%
Luangnamtha	356	58%	47%	2%	1%	7%	5%
Oudomxay	471	50%	38%	1%	1%	9%	4%
Bokeo	283	70%	62%	1%	1%	4%	4%
Luangprabang	783	64%	46%	2%	2%	13%	2%
Huaphanh	721	79%	24%	1%	-	55%	1%
Xayabury	446	71%	62%	1%	3%	5%	6%
Central Region	***3,430***	***76%***	***72%***	***2%***	***-***	***2%***	***2%***
Vientiane Capital	490	100%	99%	3%	-	-	1%
Xiengkhuang	512	58%	45%	-	-	10%	5%
Vientiane Province	506	90%	86%	3%	-	-	1%
Borikhamxay	323	86%	76%	2%	-	7%	2%
Khammuane	587	79%	75%	1%	1%	1%	3%
Savannakhet	1,012	64%	61%	1%	-	-	1%
Southern Region	***1,631***	***67%***	***56%***	***2%***	***1%***	***6%***	***4%***
Saravane	605	65%	55%	3%	1%	3%	6%
Sekong	233	58%	24%	3%	-	28%	3%
Champasack	643	78%	74%	2%	2%	2%	3%
Attapeu	150	41%	37%	1%	1%	1%	1%
Total	***8,662***	***70%***	***55%***	***2%***	***1%***	***12%***	***3%***
Urban	1,362	96%	92%	4%	1%	3%	1%
Rural with road	6,031	70%	55%	2%	1%	12%	3%
Rural without road	1,269	39%	16%	-	2%	20%	4%
Lowland	3,566	84%	79%	2%	1%	2%	2%
Upland	3,086	49%	25%	1%	1%	20%	4%
Plateau	1,979	76%	58%	2%	1%	16%	3%
Mixture of land types	31	87%	45%	6%	3%	26%	3%

Table A2.3: Sources of household water by province, village type and land type, 2011

Province/ Village type/ Land type	Number of villages	Source of household water (% of villages)					
		Piped water	Well or borehole - protected	Well or borehole - unprotected	River, stream or dam	Rain water from tank	Other sources
Northern Region	***3,601***	***10%***	***11%***	***15%***	***49%***	***16%***	***54%***
Phongsaly	541	11%	12%	13%	60%	8%	29%
Luangnamtha	356	12%	14%	13%	45%	16%	66%
Oudomxay	471	8%	7%	16%	44%	22%	65%
Bokeo	283	8%	10%	25%	37%	13%	63%
Luangprabang	783	12%	7%	6%	44%	13%	61%
Huaphanh	721	3%	7%	5%	54%	11%	58%
Xayabury	446	18%	29%	43%	56%	34%	38%
Central Region	***3,430***	***16%***	***51%***	***49%***	***37%***	***39%***	***22%***
Vientiane Capital	490	50%	69%	42%	18%	22%	4%
Xiengkhuang	512	8%	11%	38%	32%	19%	58%
Vientiane Province	506	16%	44%	57%	42%	34%	34%
Borikhamxay	323	14%	47%	48%	39%	28%	33%
Khammuane	587	8%	48%	60%	38%	46%	11%
Savannakhet	1,012	8%	69%	46%	47%	59%	10%
Southern Region	***1,631***	***12%***	***70%***	***21%***	***59%***	***68%***	***14%***
Saravane	605	10%	77%	19%	59%	77%	15%
Sekong	233	13%	37%	15%	47%	30%	26%
Champasack	643	11%	77%	25%	64%	74%	6%
Attapeu	150	19%	68%	23%	60%	68%	22%
Total	***8,662***	***12%***	***38%***	***29%***	***47%***	***35%***	***34%***
Urban	1,362	56%	47%	35%	31%	27%	16%
Rural with road	6,031	5%	40%	31%	48%	38%	36%
Rural without road	1,269	1%	19%	16%	59%	28%	41%
Lowland	3,566	21%	63%	44%	42%	48%	11%
Upland	3,086	4%	14%	14%	49%	21%	54%
Plateau	1,979	9%	30%	27%	52%	33%	42%
Mixture of land types	31	3%	23%	17%	47%	30%	60%

Table A2.4: Selected village services/organizations by province, village type and land type, 2011

Province/ Village type/ Land type	Number of villages	Type of service/organization (% of villages)							
		Rice bank	Livestock bank	Cooperative	Village Development Fund	Trade group	Land allocation programme	Resettled in last ten years	Plan to resettle
Northern Region	***3,601***	***20%***	***7%***	***4%***	***43%***	***9%***	***61%***	***15%***	***4%***
Phongsaly	541	24%	16%	2%	38%	6%	56%	21%	7%
Luangnamtha	356	17%	6%	5%	33%	4%	73%	16%	1%
Oudomxay	471	14%	1%	6%	38%	9%	94%	26%	3%
Bokeo	283	18%	8%	11%	68%	18%	82%	9%	10%
Luangprabang	783	28%	14%	5%	50%	9%	40%	13%	5%
Huaphanh	721	26%	1%	2%	29%	5%	31%	14%	2%
Xayabury	446	4%	3%	2%	55%	14%	97%	5%	3%
Central Region	***3,430***	***11%***	***5%***	***4%***	***49%***	***7%***	***42%***	***6%***	***3%***
Vientiane Capital	490	3%	1%	5%	89%	11%	44%	-	3%
Xiengkhuang	512	20%	9%	4%	46%	7%	29%	12%	4%
Vientiane Province	506	12%	4%	4%	54%	11%	71%	7%	2%
Borikhamxay	323	4%	2%	4%	51%	13%	89%	10%	6%
Khammuane	587	13%	9%	3%	41%	6%	35%	6%	4%
Savannakhet	1,012	11%	5%	4%	31%	4%	21%	4%	1%
Southern Region	***1,631***	***12%***	***3%***	***5%***	***37%***	***6%***	***43%***	***7%***	***4%***
Saravane	605	23%	3%	6%	35%	7%	22%	6%	3%
Sekong	233	12%	4%	2%	22%	3%	44%	20%	9%
Champasack	643	3%	3%	5%	47%	8%	59%	2%	2%
Attapeu	150	7%	5%	9%	27%	3%	57%	17%	10%
Total	***8,662***	***15%***	***6%***	***4%***	***44%***	***8%***	***50%***	***10%***	***4%***
Urban	1,362	7%	3%	4%	65%	12%	41%	3%	2%
Rural with road	6,031	17%	6%	5%	43%	8%	54%	10%	3%
Rural without road	1,269	13%	7%	2%	26%	3%	39%	17%	8%
Lowland	3,566	9%	3%	5%	51%	8%	44%	3%	2%
Upland	3,086	19%	8%	3%	35%	6%	52%	19%	6%
Plateau	1,979	19%	7%	6%	47%	10%	59%	8%	3%
Mixture of land types	31	10%	3%	6%	39%	13%	42%	3%	26%

Table A2.5: Agricultural infrastructure in rural villages by province, village type and land type, 2011

Province/ Village type/ Land type	Number of rural villages	Type of agricultural infrastructure (% of rural villages)									
		Irrigation facilities	Irrigation groups	Permanent market	Shop	Agricultural input shop	Shop selling agricultural machinery and tools	Credit facilities	Veterinary clinic	Petrol station	Traditional/ community fisheries management
Northern Region	***3,144***	***59%***	***22%***	***1%***	***56%***	***1%***	***2%***	***44%***	***1%***	***19%***	***23%***
Phongsaly	489	58%	9%	1%	43%	2%	1%	47%	3%	9%	22%
Luangnamtha	319	63%	20%	1%	48%	1%	2%	47%	-	12%	19%
Oudomxay	422	61%	39%	1%	44%	1%	1%	37%	1%	15%	22%
Bokeo	248	64%	31%	4%	64%	3%	4%	60%	2%	16%	23%
Luangprabang	623	37%	15%	-	65%	1%	1%	49%	1%	18%	24%
Huaphanh	693	67%	22%	1%	53%	-	3%	28%	1%	25%	24%
Xayabury	350	74%	31%	3%	81%	3%	2%	59%	1%	36%	26%
Central Region	***2,699***	***40%***	***25%***	***2%***	***69%***	***5%***	***5%***	***44%***	***3%***	***36%***	***26%***
Vientiane Capital	227	56%	48%	6%	87%	19%	8%	82%	1%	22%	26%
Xiengkhuang	443	46%	29%	2%	52%	1%	2%	50%	2%	28%	26%
Vientiane Province	419	64%	46%	2%	80%	14%	10%	53%	4%	50%	22%
Borikhamxay	267	46%	21%	2%	84%	6%	8%	56%	6%	60%	36%
Khammuane	476	24%	20%	3%	62%	1%	3%	38%	3%	18%	25%
Savannakhet	867	27%	12%	1%	66%	2%	4%	27%	2%	39%	26%
Southern Region	***1,457***	***37%***	***15%***	***1%***	***61%***	***3%***	***3%***	***44%***	***1%***	***31%***	***27%***
Saravane	574	29%	15%	1%	58%	2%	2%	41%	-	25%	31%
Sekong	213	50%	14%	3%	9%	-	1%	30%	-	2%	19%
Champasack	542	46%	16%	1%	87%	6%	6%	54%	1%	50%	24%
Attapeu	128	15%	12%	1%	53%	1%	3%	33%	1%	25%	31%
Total	***7,300***	***48%***	***22%***	***2%***	***62%***	***3%***	***3%***	***44%***	***2%***	***28%***	***25%***
Urban	..	..	..	..	..	..	..	..	..	..	..
Rural with road	6,031	49%	24%	2%	66%	4%	4%	47%	2%	30%	24%
Rural without road	1,269	39%	12%	-	44%	1%	1%	31%	-	15%	28%
Total	***7,300***	***48%***	***22%***	***2%***	***62%***	***3%***	***3%***	***44%***	***2%***	***28%***	***25%***
Lowland	2,651	45%	26%	2%	74%	6%	5%	46%	2%	34%	25%
Upland	2,908	44%	16%	1%	47%	1%	1%	39%	1%	18%	23%
Plateau	1,713	59%	27%	3%	68%	3%	3%	51%	2%	34%	28%
Mixture of land types	28	25%	14%	-	71%	-	-	36%	4%	21%	14%
Total	***7,300***	***48%***	***22%***	***2%***	***62%***	***3%***	***3%***	***44%***	***2%***	***28%***	***25%***

Table A2.6: Type of irrigation facilities in rural villages by province, village type and land type, 2011

Province/ Village type/ Land type	Number of rural villages	Percent of rural villages with irrigation	Type of irrigation facility (% of rural villages)							Villages with irrigation (% with irrigation groups)			
			Perm-anent weir	Reser-voir	Pump scheme	Gates and dykes	Temp-orary weir	Gabions	Other irrigation facilities	No irrigation groups	One irrigation group	Two or more irrigation groups	Total
Northern Region	***3,144***	***59%***	***25%***	***2%***	***2%***	***4%***	***48%***	***11%***	***1%***	***62%***	***16%***	***21%***	***100%***
Phongsaly	489	58%	11%	-	1%	2%	53%	10%	1%	84%	7%	9%	100%
Luangnamtha	319	63%	23%	3%	-	6%	53%	14%	1%	68%	15%	17%	100%
Oudomxay	422	61%	37%	2%	-	8%	46%	9%	1%	36%	22%	42%	100%
Bokeo	248	64%	27%	4%	-	2%	60%	9%	-	52%	21%	28%	100%
Luangprabang	623	37%	13%	1%	-	1%	30%	6%	1%	60%	14%	26%	100%
Huaphanh	693	67%	31%	2%	1%	4%	48%	17%	-	67%	17%	16%	100%
Xayabury	350	74%	42%	9%	10%	4%	62%	7%	2%	59%	20%	21%	100%
Central Region	***2,699***	***40%***	***12%***	***8%***	***11%***	***3%***	***17%***	***5%***	***2%***	***36%***	***33%***	***31%***	***100%***
Vientiane Capital	227	56%	2%	17%	37%	2%	3%	1%	1%	14%	68%	18%	100%
Xiengkhuang	443	46%	25%	6%	-	2%	32%	8%	-	36%	19%	44%	100%
Vientiane Province	419	64%	29%	10%	6%	6%	37%	15%	1%	29%	38%	33%	100%
Borikhamxay	267	46%	11%	6%	9%	3%	21%	9%	-	55%	12%	33%	100%
Khammuane	476	24%	2%	2%	17%	2%	1%	1%	1%	16%	30%	54%	100%
Savannakhet	867	27%	4%	8%	10%	3%	9%	-	4%	55%	31%	15%	100%
Southern Region	***1,457***	***37%***	***8%***	***1%***	***14%***	***2%***	***12%***	***2%***	***6%***	***61%***	***17%***	***22%***	***100%***
Saravane	574	29%	10%	-	8%	1%	14%	2%	1%	50%	26%	25%	100%
Sekong	213	50%	9%	5%	-	6%	36%	8%	1%	73%	6%	21%	100%
Champasack	542	46%	5%	2%	27%	2%	2%	1%	14%	66%	16%	18%	100%
Attapeu	128	15%	5%	-	9%	1%	-	1%	-	21%	30%	49%	100%
Total	***7,300***	***48%***	***17%***	***4%***	***7%***	***3%***	***29%***	***7%***	***2%***	***54%***	***22%***	***25%***	***100%***
Urban	..	..	..	..	..	..	..	..	..	..	..	..	..
Rural with road	6,031	49%	19%	5%	8%	3%	30%	7%	2%	51%	24%	25%	100%
Rural without road	1,269	39%	8%	1%	6%	2%	25%	6%	4%	70%	9%	21%	100%
Lowland	2,651	45%	11%	6%	19%	3%	15%	2%	4%	42%	32%	26%	100%
Upland	2,908	44%	16%	2%	1%	3%	34%	9%	1%	64%	14%	22%	100%
Plateau	1,713	59%	28%	5%	2%	4%	43%	11%	1%	54%	19%	27%	100%
Mixture of land types	28	25%	11%	7%	4%	-	14%	-	-	43%	29%	29%	100%

Table A2.7: Living standards in rural villages by province, village type and land type, 2011

Province/ Village type/ Land type	Number of rural villages	Percent of rural villages								
		Living standards over the last 2 years				Labour cost for females compared with males				
		Improved	Stayed the same	Fell	Total	Male more than female	Male and female the same	Male less than female	Not applicable	Total
Northern Region	***3,144***	***85%***	***9%***	***7%***	***100%***	***1%***	***61%***	***2%***	***35%***	***100%***
Phongsaly	489	80%	15%	5%	100%	1%	57%	2%	40%	100%
Luangnamtha	319	88%	8%	4%	100%	1%	60%	6%	33%	100%
Oudomxay	422	85%	8%	6%	100%	3%	55%	2%	41%	100%
Bokeo	248	89%	6%	5%	100%	2%	75%	2%	21%	100%
Luangprabang	623	83%	9%	8%	100%	2%	70%	2%	27%	100%
Huaphanh	693	78%	11%	11%	100%	1%	41%	3%	55%	100%
Xayabury	350	98%	1%	1%	100%	1%	91%	2%	7%	100%
Central Region	***2,699***	***89%***	***6%***	***5%***	***100%***	***1%***	***75%***	***3%***	***21%***	***100%***
Vientiane Capital	227	92%	4%	3%	100%	1%	91%	3%	5%	100%
Xiengkhuang	443	89%	7%	3%	100%	1%	62%	3%	34%	100%
Vientiane Province	419	92%	5%	3%	100%	-	86%	4%	10%	100%
Borikhamxay	267	94%	4%	1%	100%	1%	78%	1%	19%	100%
Khammuane	476	89%	4%	7%	100%	2%	77%	5%	16%	100%
Savannakhet	867	84%	9%	7%	100%	-	70%	3%	27%	100%
Southern Region	***1,457***	***74%***	***10%***	***16%***	***100%***	***1%***	***66%***	***2%***	***31%***	***100%***
Saravane	574	81%	6%	12%	100%	2%	63%	2%	34%	100%
Sekong	213	55%	24%	21%	100%	-	23%	2%	74%	100%
Champasack	542	74%	9%	17%	100%	1%	88%	3%	9%	100%
Attapeu	128	73%	10%	18%	100%	2%	57%	2%	39%	100%
Total	***7,300***	***84%***	***8%***	***8%***	***100%***	***1%***	***67%***	***3%***	***29%***	***100%***
Urban	..	..	..	..	..	..	..	..	..	..
Rural with road	6,031	86%	7%	7%	100%	1%	70%	3%	25%	100%
Rural without road	1,269	75%	15%	10%	100%	1%	52%	2%	45%	100%
Lowland	2,651	86%	5%	8%	100%	1%	83%	4%	12%	100%
Upland	2,908	79%	12%	9%	100%	1%	51%	2%	46%	100%
Plateau	1,713	88%	7%	5%	100%	1%	70%	3%	26%	100%
Mixture of land types	28	89%	4%	7%	100%	-	54%	7%	39%	100%

Table A2.8: Type of credit facilities in rural villages by province, village type and land type, 2011

Province/ Village type/ Land type	Number of rural villages	Percent of rural villages with credit facilities	Type of credit facility (% of rural villages)					
			Government Bank	Foreign bank	Private bank	Micro-finance	Village Development Fund	Others
Northern Region	***3,144***	***44%***	***14%***	***-***	***1%***	***5%***	***33%***	***3%***
Phongsaly	489	47%	18%	-	1%	4%	31%	2%
Luangnamtha	319	47%	17%	-	-	17%	22%	1%
Oudomxay	422	37%	8%	-	-	5%	27%	2%
Bokeo	248	60%	18%	-	-	-	58%	2%
Luangprabang	623	49%	24%	1%	1%	1%	39%	2%
Huaphanh	693	28%	4%	-	-	-	22%	5%
Xayabury	350	59%	12%	1%	4%	14%	44%	5%
Central Region	***2,699***	***44%***	***16%***	***1%***	***2%***	***2%***	***35%***	***3%***
Vientiane Capital	227	82%	37%	-	1%	-	73%	4%
Xiengkhuang	443	50%	26%	1%	2%	-	33%	4%
Vientiane Province	419	53%	28%	1%	3%	4%	38%	6%
Borikhamxay	267	56%	25%	1%	5%	2%	40%	2%
Khammuane	476	38%	5%	1%	1%	-	35%	1%
Savannakhet	867	27%	4%	-	-	2%	23%	1%
Southern Region	***1,457***	***44%***	***26%***	***-***	***3%***	***2%***	***24%***	***1%***
Saravane	574	41%	25%	1%	4%	-	21%	1%
Sekong	213	30%	17%	-	-	-	14%	1%
Champasack	542	54%	32%	-	4%	2%	33%	1%
Attapeu	128	33%	17%	-	-	9%	18%	1%
Total	***7,300***	***44%***	***17%***	***-***	***2%***	***3%***	***32%***	***2%***
Urban	..	..	..	..	..	..	..	..
Rural with road	6,031	47%	18%	1%	2%	3%	34%	3%
Rural without road	1,269	31%	12%	-	1%	2%	20%	1%
Lowland	2,651	46%	16%	1%	2%	3%	35%	2%
Upland	2,908	39%	14%	-	1%	4%	26%	2%
Plateau	1,713	51%	24%	-	3%	3%	35%	4%
Mixture of land types	28	36%	11%	-	-	-	36%	4%

Table A2.9: Selected agricultural characteristics of rural villages by province, village type and land type, 2011

Province/ Village type/ Land type	Number of rural villages	UXO affected agricultural land		Irrigation (% of rural villages)			Soil degradation (% of rural villages)					% of rural villages	
		Percent of villages	Area ('000 ha)	Wet season only	Dry season only	Both wet and dry seasons	None	Light	Moderate	Severe	Total	Rotating cultivation	Shifting cultivation
Northern Region	***3,144***	***6%***	***14.8***	***38%***	-	***21%***	***66%***	***23%***	***9%***	***1%***	***100%***	***76%***	***21%***
Phongsaly	489	5%	1.6	49%	-	9%	62%	25%	11%	1%	100%	66%	22%
Luangnamtha	319	1%	1.9	44%	1%	18%	80%	16%	4%	1%	100%	60%	24%
Oudomxay	422	6%	0.2	43%	-	19%	51%	29%	17%	3%	100%	85%	17%
Bokeo	248	1%	-	35%	-	28%	80%	17%	3%	-	100%	81%	35%
Luangprabang	623	11%	7.5	23%	-	14%	69%	22%	8%	1%	100%	89%	10%
Huaphanh	693	8%	3.5	36%	1%	30%	61%	27%	11%	1%	100%	77%	34%
Xayabury	350	1%	0.1	42%	1%	32%	77%	18%	6%	-	100%	65%	7%
Central Region	***2,699***	***23%***	***90.7***	***14%***	***7%***	***19%***	***75%***	***18%***	***6%***	***1%***	***100%***	***36%***	***18%***
Vientiane Capital	227	1%	-	1%	14%	40%	89%	7%	3%	1%	100%	21%	3%
Xiengkhuang	443	54%	47.2	31%	-	14%	70%	22%	7%	1%	100%	63%	22%
Vientiane Province	419	3%	13.5	36%	3%	25%	83%	10%	7%	-	100%	59%	22%
Borikhamxay	267	8%	0.6	21%	7%	18%	78%	15%	6%	1%	100%	45%	17%
Khammuane	476	24%	10.6	1%	11%	12%	76%	15%	7%	2%	100%	23%	15%
Savannakhet	867	26%	18.8	3%	9%	16%	69%	25%	6%	-	100%	20%	19%
Southern Region	***1,457***	***27%***	***38.5***	***4%***	***8%***	***25%***	***68%***	***20%***	***10%***	***2%***	***100%***	***34%***	***12%***
Saravane	574	34%	22.8	2%	6%	20%	68%	21%	11%	1%	100%	46%	2%
Sekong	213	58%	8.7	16%	2%	32%	45%	21%	24%	11%	100%	54%	51%
Champasack	542	4%	1.7	2%	13%	31%	81%	17%	3%	-	100%	12%	7%
Attapeu	128	38%	5.4	-	1%	14%	52%	30%	16%	3%	100%	47%	11%
Total	***7,300***	***16%***	***144.0***	***22%***	***4%***	***21%***	***70%***	***20%***	***8%***	***1%***	***100%***	***53%***	***18%***
Urban	..	..	..	..	..	..	..	..	..	..	..	..	..
Rural with road	6,031	16%	108.3	23%	4%	22%	71%	20%	8%	1%	100%	51%	16%
Rural without road	1,269	19%	35.7	19%	4%	15%	65%	23%	10%	2%	100%	61%	27%
Lowland	2,651	11%	15.5	8%	9%	27%	78%	17%	5%	1%	100%	20%	5%
Upland	2,908	18%	85.4	29%	1%	13%	63%	25%	11%	1%	100%	75%	29%
Plateau	1,713	22%	42.6	33%	2%	25%	70%	18%	10%	2%	100%	67%	19%
Mixture of land types	28	11%	0.5	7%	7%	11%	82%	11%	7%	-	100%	75%	14%

Table A2.10: Marketing of agricultural produce in rural villages by province, village type and land type, 2011

Province/ Village type/ Land type	Number of rural villages	Percent of rural villages in which agricultural produce sold	Agricultural produce marketing method (% of rural villages)					
			Contract farming	Sell directly to other processing companies	Sell through broker in own village	Sell through broker in other village	Sell in village market	Sell in other ways
Northern Region	***3,144***	***94%***	***25%***	***4%***	***52%***	***75%***	***24%***	***7%***
Phongsaly	489	86%	16%	4%	38%	74%	18%	11%
Luangnamtha	319	87%	29%	12%	45%	64%	23%	8%
Oudomxay	422	99%	21%	5%	64%	89%	34%	8%
Bokeo	248	97%	19%	2%	60%	77%	20%	3%
Luangprabang	623	97%	4%	5%	67%	84%	28%	9%
Huaphanh	693	93%	52%	2%	27%	57%	19%	6%
Xayabury	350	100%	25%	3%	78%	86%	23%	1%
Central Region	***2,699***	***87%***	***7%***	***4%***	***54%***	***70%***	***41%***	***10%***
Vientiane Capital	227	96%	12%	15%	72%	81%	45%	12%
Xiengkhuang	443	94%	1%	1%	59%	85%	43%	10%
Vientiane Province	419	95%	16%	5%	63%	81%	43%	9%
Borikhamxay	267	86%	13%	7%	46%	69%	30%	7%
Khammuane	476	81%	6%	3%	42%	55%	40%	11%
Savannakhet	867	82%	3%	3%	53%	63%	41%	10%
Southern Region	***1,457***	***84%***	***5%***	***12%***	***56%***	***66%***	***42%***	***10%***
Saravane	574	86%	5%	15%	62%	73%	42%	11%
Sekong	213	65%	2%	2%	22%	43%	13%	5%
Champasack	542	94%	6%	13%	68%	71%	52%	10%
Attapeu	128	73%	-	6%	38%	49%	44%	14%
Total	***7,300***	***90%***	***14%***	***6%***	***54%***	***71%***	***33%***	***9%***
Urban	..	..	..	..	..	..	..	..
Rural with road	6,031	92%	16%	6%	57%	73%	36%	9%
Rural without road	1,269	78%	5%	2%	39%	64%	23%	8%
Lowland	2,651	92%	10%	7%	62%	71%	44%	10%
Upland	2,908	85%	15%	3%	43%	69%	23%	8%
Plateau	1,713	93%	20%	9%	58%	75%	35%	7%
Mixture of land types	28	93%	19%	4%	63%	74%	33%	11%

Table A2.11: Constraints/problems faced by farmers in rural villages by province, village type and land type, 2011

Province/ Village type/ Land type	Number of rural villages	Constraint/problem (% of rural villages)								
		Lack of land	Lack of inputs	Lack of irrigation	Lack of labour	Lack of markets	Lack of draft animals or machinery	Lack of vaccination	Low commodity prices	Other
Northern Region	***3,144***	***37%***	***41%***	***49%***	***8%***	***26%***	***15%***	***43%***	***47%***	***17%***
Phongsaly	489	24%	52%	43%	7%	29%	16%	53%	42%	24%
Luangnamtha	319	38%	48%	54%	7%	30%	19%	36%	32%	13%
Oudomxay	422	50%	52%	62%	15%	30%	26%	48%	52%	14%
Bokeo	248	32%	25%	62%	6%	29%	15%	35%	51%	13%
Luangprabang	623	27%	45%	40%	8%	30%	15%	46%	58%	20%
Huaphanh	693	51%	30%	45%	6%	18%	11%	40%	38%	14%
Xayabury	350	27%	28%	50%	6%	20%	7%	34%	58%	13%
Central Region	***2,699***	***23%***	***37%***	***64%***	***10%***	***24%***	***12%***	***34%***	***30%***	***21%***
Vientiane Capital	227	17%	34%	59%	10%	17%	5%	20%	37%	19%
Xiengkhuang	443	31%	29%	49%	7%	25%	9%	35%	44%	19%
Vientiane Province	419	30%	41%	60%	9%	37%	10%	33%	41%	17%
Borikhamxay	267	25%	30%	63%	11%	30%	15%	28%	27%	15%
Khammuane	476	24%	47%	76%	10%	24%	21%	32%	19%	20%
Savannakhet	867	16%	36%	70%	10%	18%	12%	40%	23%	27%
Southern Region	***1,457***	***23%***	***59%***	***71%***	***16%***	***22%***	***26%***	***44%***	***33%***	***16%***
Saravane	574	17%	53%	76%	12%	24%	26%	39%	37%	21%
Sekong	213	46%	69%	77%	17%	26%	39%	54%	22%	12%
Champasack	542	20%	57%	62%	19%	13%	13%	45%	33%	12%
Attapeu	128	30%	77%	77%	21%	43%	59%	47%	30%	20%
Total	***7,300***	***29%***	***43%***	***59%***	***10%***	***25%***	***16%***	***40%***	***38%***	***18%***
Urban	..	..	..	..	..	..	..	..	..	..
Rural with road	6,031	30%	41%	60%	10%	22%	15%	37%	38%	18%
Rural without road	1,269	26%	53%	54%	9%	36%	22%	52%	38%	20%
Lowland	2,651	20%	42%	67%	12%	20%	14%	34%	31%	19%
Upland	2,908	35%	47%	50%	9%	30%	19%	48%	41%	19%
Plateau	1,713	33%	37%	62%	9%	21%	14%	36%	43%	15%
Mixture of land types	28	25%	21%	54%	4%	32%	11%	36%	68%	29%

Table A2.12: Development projects in rural villages by province, village type and land type, 2011

Province/ Village type/ Land type	Number of rural villages	% of rural villages with projects	Sector (% of rural villages)							Source of funding (% of rural villages)				
			Crops	Livestock	Fisheries	Forestry	Slash-and-burn cropping	Environ-mental protection	Other sectors	Govern-ment	Domestic private	Foreign private	NGO	Other
Northern Region	***3,144***	***51%***	***33%***	***32%***	***2%***	***7%***	***18%***	***10%***	***4%***	***34%***	***6%***	***9%***	***12%***	***5%***
Phongsaly	489	62%	47%	29%	-	-	13%	5%	11%	25%	9%	26%	16%	6%
Luangnamtha	319	37%	24%	24%	-	3%	4%	3%	4%	24%	4%	7%	9%	4%
Oudomxay	422	60%	45%	45%	8%	14%	18%	17%	4%	51%	6%	11%	11%	3%
Bokeo	248	50%	34%	33%	5%	7%	24%	12%	4%	30%	6%	9%	13%	3%
Luangprabang	623	57%	36%	40%	2%	6%	28%	15%	4%	38%	4%	3%	18%	10%
Huaphanh	693	31%	16%	19%	-	3%	6%	6%	2%	22%	5%	5%	3%	2%
Xayabury	350	72%	41%	40%	4%	26%	37%	12%	3%	57%	6%	6%	15%	2%
Central Region	***2,699***	***55%***	***36%***	***32%***	***4%***	***8%***	***24%***	***18%***	***7%***	***38%***	***8%***	***7%***	***8%***	***7%***
Vientiane Capital	227	60%	40%	23%	4%	9%	36%	22%	6%	38%	15%	5%	5%	13%
Xiengkhuang	443	61%	45%	45%	3%	10%	29%	20%	8%	48%	4%	6%	9%	5%
Vientiane Province	419	67%	41%	37%	3%	15%	40%	28%	8%	51%	10%	7%	7%	10%
Borikhamxay	267	67%	44%	32%	3%	11%	38%	31%	7%	47%	14%	11%	4%	7%
Khammuane	476	60%	38%	39%	6%	8%	23%	17%	7%	42%	11%	12%	8%	6%
Savannakhet	867	39%	26%	21%	3%	2%	7%	7%	5%	23%	3%	5%	10%	6%
Southern Region	***1,457***	***43%***	***30%***	***24%***	***3%***	***7%***	***16%***	***14%***	***5%***	***37%***	***2%***	***3%***	***7%***	***3%***
Saravane	574	34%	23%	19%	2%	6%	17%	10%	6%	30%	1%	3%	6%	4%
Sekong	213	57%	44%	34%	2%	9%	20%	18%	2%	50%	2%	4%	16%	2%
Champasack	542	39%	26%	19%	2%	5%	11%	13%	3%	32%	4%	2%	3%	3%
Attapeu	128	77%	61%	51%	13%	13%	29%	29%	16%	69%	2%	6%	12%	5%
Total	***7,300***	***51%***	***34%***	***30%***	***3%***	***7%***	***20%***	***14%***	***5%***	***36%***	***6%***	***7%***	***9%***	***5%***
Urban	..	..	..	..	..	..	..	..	..	..	..	..	..	..
Rural with road	6,031	53%	35%	31%	3%	8%	21%	14%	6%	38%	7%	8%	9%	6%
Rural without road	1,269	42%	27%	26%	2%	4%	13%	9%	4%	30%	2%	4%	12%	3%
Lowland	2,651	45%	29%	23%	4%	6%	16%	13%	5%	30%	7%	7%	6%	6%
Upland	2,908	54%	37%	35%	2%	7%	19%	12%	6%	38%	5%	8%	14%	5%
Plateau	1,713	58%	37%	35%	3%	10%	27%	17%	6%	45%	6%	8%	8%	5%
Mixture of land types	28	32%	14%	18%	-	7%	14%	11%	7%	11%	7%	4%	4%	11%

Table A2.13: Assessment of weather conditions in rural villages by province, village type and land type, 2011

Province/ Village type/ Land type	Number of rural villages	Percent of rural villages											
		Recent years' wet season rainfall				Recent years' wet season timing				2010 wet season rainfall			
		Dryer than normal	Same as normal	Wetter than normal	Total	Earlier than normal	Same time as normal	Later than normal	Total	Dryer than normal	Same as normal	Wetter than normal	Total
Northern Region	***3,144***	***80%***	***11%***	***9%***	***100%***	***14%***	***12%***	***73%***	***100%***	***82%***	***8%***	***10%***	***100%***
Phongsaly	489	78%	14%	8%	100%	13%	21%	66%	100%	80%	11%	9%	100%
Luangnamtha	319	72%	18%	10%	100%	17%	15%	69%	100%	76%	13%	11%	100%
Oudomxay	422	82%	11%	7%	100%	13%	13%	74%	100%	87%	7%	6%	100%
Bokeo	248	78%	15%	8%	100%	15%	15%	70%	100%	77%	14%	9%	100%
Luangprabang	623	80%	11%	9%	100%	13%	9%	78%	100%	82%	7%	11%	100%
Huaphanh	693	92%	4%	3%	100%	9%	5%	86%	100%	94%	3%	3%	100%
Xayabury	350	69%	9%	22%	100%	28%	15%	57%	100%	62%	9%	29%	100%
Central Region	***2,699***	***72%***	***17%***	***12%***	***100%***	***13%***	***16%***	***71%***	***100%***	***74%***	***11%***	***15%***	***100%***
Vientiane Capital	227	56%	29%	15%	100%	20%	22%	58%	100%	62%	17%	22%	100%
Xiengkhuang	443	85%	9%	6%	100%	12%	9%	79%	100%	88%	6%	6%	100%
Vientiane Province	419	37%	32%	32%	100%	27%	34%	39%	100%	40%	20%	40%	100%
Borikhamxay	267	76%	16%	8%	100%	15%	17%	68%	100%	78%	11%	11%	100%
Khammuane	476	81%	11%	8%	100%	10%	10%	80%	100%	86%	5%	9%	100%
Savannakhet	867	79%	13%	7%	100%	7%	12%	81%	100%	78%	11%	11%	100%
Southern Region	***1,457***	***87%***	***6%***	***7%***	***100%***	***13%***	***9%***	***78%***	***100%***	***88%***	***4%***	***8%***	***100%***
Saravane	574	89%	5%	7%	100%	14%	6%	80%	100%	89%	3%	8%	100%
Sekong	213	65%	12%	22%	100%	10%	21%	68%	100%	65%	12%	23%	100%
Champasack	542	95%	3%	1%	100%	14%	7%	79%	100%	96%	2%	2%	100%
Attapeu	128	81%	13%	6%	100%	7%	11%	82%	100%	84%	10%	6%	100%
Total	***7,300***	***79%***	***12%***	***9%***	***100%***	***14%***	***13%***	***73%***	***100%***	***80%***	***8%***	***12%***	***100%***
Urban	..	..	..	..	..	..	..	..	..	..	..	..	..
Rural with road	6,031	79%	12%	10%	100%	14%	13%	74%	100%	80%	8%	12%	100%
Rural without road	1,269	79%	12%	9%	100%	14%	13%	72%	100%	81%	8%	11%	100%
Lowland	2,651	81%	12%	7%	100%	14%	12%	74%	100%	82%	9%	9%	100%
Upland	2,908	75%	13%	13%	100%	14%	15%	71%	100%	77%	9%	14%	100%
Plateau	1,713	81%	11%	8%	100%	13%	11%	76%	100%	82%	7%	11%	100%
Mixture of land types	28	64%	32%	4%	100%	29%	14%	57%	100%	75%	7%	18%	100%

Table A2.14: Natural disasters in rural villages by province, village type and land type, 2011

Province/ Village type/	Number of rural villages	Percent of rural villages prone to natural disasters	Percent of rural villages							
			Floods		Droughts		Landslides		Pests	
			Prone to floods	Floods occur every 1-2 years	Prone to droughts	Droughts occur every 1 to 2 years	Prone to landslides	Landslides occur every 1 to 2 years	Prone to pests	Pests occur every 1 to 2 years
Northern Region	***3,144***	***81%***	***24%***	***20%***	***67%***	***63%***	***19%***	***14%***	***65%***	***60%***
Phongsaly	489	67%	15%	13%	43%	40%	22%	19%	55%	53%
Luangnamtha	319	63%	27%	23%	41%	37%	20%	16%	44%	40%
Oudomxay	422	89%	32%	25%	77%	73%	31%	24%	78%	73%
Bokeo	248	82%	40%	34%	61%	57%	14%	11%	65%	63%
Luangprabang	623	85%	14%	10%	77%	74%	17%	11%	71%	66%
Huaphanh	693	90%	20%	16%	85%	80%	17%	12%	66%	59%
Xayabury	350	86%	40%	34%	59%	55%	13%	7%	69%	60%
Central Region	***2,699***	***82%***	***40%***	***36%***	***65%***	***61%***	***10%***	***7%***	***59%***	***55%***
Vientiane Capital	227	75%	61%	53%	50%	44%	5%	4%	41%	38%
Xiengkhuang	443	81%	13%	10%	72%	68%	14%	10%	58%	54%
Vientiane Province	419	76%	52%	48%	33%	29%	19%	16%	52%	46%
Borikhamxay	267	76%	45%	39%	43%	38%	11%	9%	62%	56%
Khammuane	476	83%	40%	37%	74%	70%	5%	4%	64%	60%
Savannakhet	867	87%	40%	37%	82%	80%	7%	5%	65%	60%
Southern Region	***1,457***	***96%***	***31%***	***23%***	***88%***	***85%***	***14%***	***10%***	***84%***	***80%***
Saravane	574	96%	34%	25%	91%	86%	14%	8%	88%	85%
Sekong	213	98%	48%	34%	80%	79%	46%	38%	78%	74%
Champasack	542	95%	12%	9%	88%	86%	2%	2%	84%	81%
Attapeu	128	96%	69%	51%	88%	81%	10%	5%	75%	69%
Total	***7,300***	***84%***	***31%***	***26%***	***70%***	***66%***	***15%***	***11%***	***67%***	***62%***
Urban	..	..	..	..	..	..	..	..	..	..
Rural with road	6,031	84%	32%	27%	70%	66%	14%	10%	66%	61%
Rural without road	1,269	85%	26%	21%	73%	70%	18%	14%	71%	67%
Lowland	2,651	88%	37%	32%	76%	73%	7%	5%	69%	64%
Upland	2,908	81%	26%	21%	64%	60%	22%	17%	62%	58%
Plateau	1,713	86%	31%	25%	71%	67%	15%	11%	70%	65%
Mixture of land types	28	86%	36%	29%	64%	61%	25%	25%	61%	57%

APPENDIX 3

LAO CENSUS OF AGRICULTURE 2010/11
DATA ITEMS COLLECTED

DATA ITEMS COLLECTED: VILLAGE COMPONENT

1. GEOGRAPHY

V1 Province code
V2 District code
V3 Village code
V4 Kumban code
V5 Village type (*urban; rural with road access; rural without road access*)
V6 Main land type (*lowland; upland; plateau; mixture of land types*)
V7 Land area
V8 Whether village is UXO affected
V9 Area of agricultural land affected by UXO
V10 Area of other land not cultivated that could be suitable for cultivation
V11 Presence of soil degradation (*none; light; moderate; severe; don't know*)

2. WEATHER

V12 Assessment of rainfall in the last three wet seasons compared with ten years ago (*dryer; same; wetter*)
V13 Assessment of arrival of wet season in the last three years compared with ten years ago (*earlier; same time; later*)
V14 Rainfall in 2010 wet season compared with ten years ago (*dryer; same; wetter*)
V15 Whether natural disasters occur
V16 Type of natural disasters (*floods; droughts; landslides; pests; other*)
V17 Whether natural disasters occur frequently (*floods; droughts; landslides; pests; other; none*)

3. SOCIO-ECONOMIC CONDITIONS

V18 Perceived change in living standards of people over the last 2 years (*improved; declined; stayed the same*)
V19 Agricultural labour cost for females compared with males (*above; same; below; no paid labour*)
V20 Presence of shop by type (*food; agricultural machinery and tools; veterinary clinic; agricultural inputs; petrol station; other*)

5. VILLAGE INFRASTRUCTURE

V21 Whether households use electricity
V22 Whether more than 70% of households have electricity
V23 Sources of electricity (*electricity grid; public generator; private generator; hydro-generator; solar cells; other sources*)
V24 Sources of drinking water (*piped water; well/borehole-protected; well/borehole-unprotected; river/stream/dam; rainwater from tank; other*)
V25 Whether more than 70% of households have piped water
V26 Presence of school by type (*primary school; pre-primary school only; neither primary school nor pre-primary school*)
V27 Walking distance from village headquarters to the nearest primary school (*less than one hour; one hour or more*)
V28 Presence of pharmacy or drug kit (*drug kit; pharmacy; neither pharmacy nor drug kit*)
V29 Presence of dispensary or hospital (*hospital; dispensary but no hospital; neither hospital nor dispensary*)
V30 Walking distance from the village headquarters to the nearest dispensary or hospital (*less than two hours; two hours or more*)
V31 Whether a year round motorable road exists from the village to the district headquarters (*both wet and dry seasons; dry season only; neither wet nor dry season*)
V32 Presence of credit facilities
V33 Type of credit facility (*public bank; foreign bank; private domestic bank; microfinance; Village Development Fund; other*)

4. AGRICULTURAL INFRASTRUCTURE

V34 Presence of irrigation facilities
V35 Type of irrigation scheme (*permanent weir; reservoir; pump scheme; gates and dykes; temporary weir; gabion; other*)
V36 Presence of irrigation groups
V37 Number of irrigation groups
V38 Season for use of irrigation (*wet season only; dry season only; both wet and dry seasons*)
V39 Whether any agricultural produce is sold
V40 How produce is sold (*contract farming; direct to processing companies; broker/ trader in own village; broker/trader in other village; village market; other*)

6. VILLAGE ORGANIZATION

V41 Presence of public services (*trade group; rice bank; livestock bank; veterinary worker; cooperative; Village Development Fund; other*)
V42 Whether the village has been resettled since 2000
V43 When the village was resettled
V44 Whether there is a plan for the village to resettle
V45 When the village will be resettled

V46 Whether a land or forest allocation programme has been implemented
V47 Area of land under land or forest allocation programme by type (*construction; conservation forest; protection forest; exploitable forest; other*)
V48 Presence of community facilities (*District or Provincial Office; Village Office; permanent market; temple/meeting hall; Centre for Technical Agriculture and Forestry; sporting facilities; community management of fisheries; post and telecommunication office*)
V49 Presence of development projects by type of project (*crops; livestock; fisheries; forestry; reduction of slash-and burn cultivation; environmental protection; other sectors*)
V50 Source of funding of development projects (*Government funds; domestic private funds; foreign private funds; Non-Government Organization; other*)

7. OTHER

V51 Main constraints/problems faced by farmers (*lack of land for cultivation; lack of seed or other agricultural inputs; lack of irrigation facilities; lack of labour; no market; lack of draught animals or farm machinery; lack of vaccination; low commodity prices; other*)
V52 Whether rotation cultivation is practised
V53 Whether shifting cultivation is practised

DATA ITEMS COLLECTED: HOUSEHOLD COMPONENT

1. HOUSEHOLD ITEMS

H1 Province code
H2 District code
H3 Village code
H4 Household code
H5 Whether household is a farm household
H6 Whether household has aquaculture
H7 Whether household engages in special agriculture (*sericulture; mushroom growing; floriculture; insect raising; beekeeping; crocodile farming; wildlife hunting; other*)

2. FARM HOUSEHOLD ITEMS

H8 Area of agricultural land
H9 Area of non-agricultural land
H10 Whether irrigated
H11 Area of irrigated land
H12 Whether grew wet season temporary crops
H13 Whether grew dry season temporary crops
H14 Whether have permanent crops
H15 Number of cattle
H16 Number of buffaloes
H17 Number of pigs
H18 Number of goats
H19 Number of sheep
H20 Number of local chickens
H21 Number of commercial chickens
H22 Number of ducks
H23 Main purpose of agricultural production (*sale; other*)
H24 Whether any agricultural production sold
H25 Household size
H26 Ethnic origin of household head
H27 Sex of household head
H28 Age of household head
H29 Whether engaged in capture fisheries
H30 Main source of income of household (*agriculture-crops; agriculture-livestock; aquaculture; capture fisheries; forestry [timber]; forestry [non-timber]; other*)
H31 Whether owns a tractor
H32 Whether owns a water pump
H33 Whether household has forest land

3. ITEMS FOR EACH WET SEASON TEMPORARY CROP

H34 Crop type
H35 Area of crop planted
H36 Whether crop is scattered

4. ITEMS FOR EACH DRY SEASON TEMPORARY CROP

H37 Crop type
H38 Area of crop planted
H39 Whether crop is scattered

5. ITEMS FOR EACH PERMANENT CROP

H40 Crop type
H41 Area of crop
H42 Area of crop: productive
H43 Area of crop: not productive
H44 Whether crop is scattered

6. ITEMS FOR EACH LIVESTOCK TYPE (OTHER THAN THOSE IN H15-H22)

H45 Livestock type
H46 Number of livestock

DATA ITEMS COLLECTED: SAMPLE FARM HOUSEHOLD COMPONENT

1. IDENTIFICATION

Household level

S1 Province code
S2 District code
S3 Village code
S4 Household code

2. LAND

(a) Household level

S5 Number of land parcels
S6 Whether agricultural land is affected by UXO
S7 Whether shifting/rotating cultivation is practised (*rotating cultivation; shifting cultivation; neither*)

(b) Parcel level

S8 Parcel ID
S9 When land was cleared (*last year; 1-4 years ago; 4 or more years ago; not cleared*)
S10 Location (*in this village; in other village*)
S11 Land tenure of parcel (*owned; rented; other*)
S12 Terms of rental (*agreed money; share of produce; exchange of services; other*)
S13 Area
S14 Area by main land use (*temporary crops; fallow land; permanent crops; grazing land; forest and other wooded land; other*)
S15 Whether irrigated with Government irrigation scheme
S16 Whether irrigated in other ways
S17 Area irrigated

3. CROPS

(a) Household level

S18 Whether rice grown
S19 Assessment of crop growing conditions in 2010/11 compared with a "normal" year (*better; same; worse; don't know*)
S20 Assessment of crop growing conditions in the last three years compared with "normal" (*better; same; worse; don't know*)

(b) Type of rice level

S21 Rice type: season (*wet*/*dry)* by land type (*lowland/upland*) by type (*glutinous/non-glutinous*) by maturity (*short/medium/ long*)
S22 Rice variety
S23 Area planted
S24 Area irrigated
S25 Production

(c) Crop level (temporary crops)

S26 Temporary crop type
S27 Whether used organic fertilizer
S28 Whether used chemical fertilizer
S29 Whether used pesticides

(d) Crop level (permanent crops)

S30 Permanent crop type
S31 Number of scattered trees: productive
S32 Number of scattered trees: unproductive
S33 Number of compact trees: productive
S34 Number of compact trees: unproductive

4. IRRIGATION

Covered under 2. Land and 3. Crops

5. LIVESTOCK

Household level

S35 Number of local cattle by sex and age (*under 1 year; 1 to 2 years; 2 years and over*)
S36 Number of cross-breed cattle by sex and age (*under 1 year; 1 to 2 years; 2 years and over*)
S37 Purposes of raising cattle (*milk; meat; draught; breeding; other*)
S38 Number of cattle in milk
S39 Number of cattle used for draught purposes
S40 Whether cattle were vaccinated
S41 Number of buffaloes by sex and age (*under 1 year; 1 to 2 years; 2-3 years; 3 years and over*)
S42 Purposes of raising buffaloes (*milk; meat; draught; breeding; other*)
S43 Number of buffaloes in milk
S44 Number of buffaloes used for draught purposes
S45 Whether buffaloes were vaccinated
S46 Number of small-breed pigs by sex and age (*under 3 months; 3-9 months; 9 months and over*)
S47 Number of large breed pigs by sex and age (*under 3 months; 3-9 months; 9 months and over*)
S48 Whether pigs were vaccinated
S49 Number of goats by sex and age (*under 9 months; 9 months and over*)
S50 Purposes of raising goats (*milk; meat; wool; breeding; other*)
S51 Number of sheep by sex and age (*under 9 months; 9 months and over*)
S52 Purposes of raising sheep (*milk; meat; wool; breeding; other*)
S53 Number of local chickens by type (*chicks; adult layers; adult other*)
S54 Number of commercial chickens by type (*layers; broilers*)
S55 Number of ducks by type (*small breed; large breed*)
S56 Whether poultry vaccinated
S57 Activities for which draught cattle used (*land preparation; transport; other*)

S58 Activities for which draught buffaloes used (*land preparation; transport; other*)
S59 Activities for which draught horses used (*land preparation; transport; other*)
S60 Activities for which other draught animals used (*land preparation; transport; other*)
S61 Types of livestock feed (*natural pasture; improved pasture grasses; other fodder crops; paddy; rice stalks; purchased processed food; root crops; other*)

6. FARM PRACTICES AND SERVICES

(a) Household level

S62 Whether sold any rice production
S63 Whether sold any other crop production
S64 Whether sold any livestock production
S65 Whether have certificate for organic agricultural products
S66 Whether have other certified agricultural produce
S67 Sources of credit (*public bank; foreign bank; private domestic bank; microfinance; Village Development Fund; other*)
S68 Use of credit (*buy crop inputs; buy livestock products; buy farm equipment; buy farm animals; construct farm buildings; buy land; other*)
S69 Type of collateral for credit (*own land; other assets; other type of collateral; no collateral*)
S70 Sources of agricultural information (*State organizations; extension services; radio; television; newspapers; input suppliers; other farmers; other*)
S71 Whether technical assistance provided

(b) Machinery item level

S72 Machinery type
S73 Whether machinery used
S74 Whether machinery owned

7. FARM POPULATION

Person level

S75 Household member code
S76 Relationship to household head (*household head; spouse; child; parents; other relative; other*)
S77 Sex
S78 Age

8. FARM LABOUR

(a) Household level

S79 Whether used outside farm employees
S80 How employees were paid (*with money; with farm produce; by exchange of labour; other ways*)
S81 Months of the year in which employees were used (rice growing)
S82 Months of the year in which employees were used (other crops)

(b) Person level (aged 10 years and over)

S83 Main economic activity (*employee; employer; own-account worker; unpaid family worker; other*)
S84 Occupation of main job (*farmer-grow crops; fisher; farmer-raise livestock; mixed farmer; other*)
S85 Secondary activity/occupation (*farm employee; other employee; other family business-agriculture; other family business-other; no other work*)
S86 Whether did work on crops
S87 Duration of work on crops (*less than 3 months; 3-6 months; 6-9 months; more than 9 months*)
S88 Type of work done on rice (*land preparation; seeding; transplanting; weeding; fertilizing; pest control; irrigation; harvesting; winnowing; transportation*)
S89 Duration of work on livestock activities (*none; less than 1 hour/day; 1-5 hours/day; 5 or more hours/day*)

9. FARM MANAGEMENT

Household level

S90 Identification of first manager
S91 Identification of second manager

11. FISHERIES

Household level

S92 Whether aquaculture activities
S93 Types of aquaculture production facility (*rice-cum-fish culture; pond; cage; tank; other*)
S94 Area of aquaculture
S95 Whether aquaculture products sold
S96 Whether engaged in capture fisheries
S97 Where capture fishing was done (*river; lakes/reservoirs; swamps/seasonal floodplain; rice field; irrigation canal; village pond; other*)
S98 Whether capture fisheries products sold

10. FORESTRY

Household level

S99 Whether forest land on holding
S100 Whether own forest land exploited
S101 Own forest products (*timber; fuel wood; bamboo; mushrooms; fruit and other food products; other*)
S102 Whether own forest products sold
S103 Whether public forest exploited
S104 Public forest products (*timber; fuel wood; bamboo; mushrooms; fruit and vegetables; other*)
S105 Whether public forest products sold