# APPENDIX 1 List of Interviews

List of Interviewees Consulted for Study of Lao Freight Sector in Chapter 5

Name	Title	Organisation	Date of meeting	Place of meeting
Mr. James A. Nugent	Country Director	Lao Resident Mission, Asian Development Bank	regulary meetings during 2004-2006	
Ms. Marrianne Tegman	Counsellor	Embassy of Sweden, Lao PDR	regulary meetings during 2004-2006	Vientiane, Lao PDR
Mr. Bounthavy Sisouphanthong	Permanent Secretary	Customs Department, Ministry of Finance	regulary meetings during 2004-2006	Vientiane, Lao PDR
Mr. Khemdeth Sihavong	Director of Trade Facilitation Division	Department of Export and Import, Ministry of Industry and Commerce	regulary meetings during 2004-2008	Vientiane, Lao PDR
Mr. Laohoua Cheuching Ph.D.	Deputy Director General	Ministry of Industry and Commerce	regulary meetings during 2004-2008	Vientiane, Lao PDR
Mr. Songsak Saicheua	Director	ASEAN Division II, Ministry of Foreign Affairs	regulary meetings during 2004-2006	
Mr. Sombath Southivong	Senior Infrastructure Specialist	The World Bank formerly Embassy of Sweden, Lao PD R	regulary meetings during 2004-2008	Vientiane, Lao PDR
Mrs. Fuyo Jenny Yamamoto	Economic Affairs Officer	Infrastructure Section, Transport Division, UNESCAP	regulary meetings during 2004-2008	Bangkok, Thailand
Mr. John Moon Ph.D	Chief	Transport Policy Section, Transport Division, UNESCAP	regulary meetings during 2004-2008	Bangkok, Thailand
Mr. R. Alexander Roehrl	Economic Affairs Officer	Transport Policy Section, Transport Division, UNESCAP	regulary meetings during 2004-2008	Bangkok, Thailand
Mr. Masato Abe Ph.D	Economic Affairs Officer	Trade and Investment Division, UNESCAP	regulary meetings during 2004-2008	Bangkok, Thailand
Mr. Christer Holtsberg	Counsellor, Director	SENSA, SIDA	regulary meetings during 2004-2008	Bangkok, Thailand
Mr. Christopher Edmonds Ph.D.	Rural Devlopment Economist	East Asia Department, Asian Development Bank	regulary meetings during 2004-2008	
Mr. Rattanatay Luanglatbandith	Regional Cooperation Economist	Asian Development Bank	regulary meetings during 2004-2008	
Mr. Manabu Fujimura Ph.D.	Professor	College of Economics, Aoyama Gaukin University	regulary meetings during 2005-2008	
Mr. Peter G. Warr Ph.D.	Professor	Research School of Pacific and Asian Studies, Australian National University	regulary meetings during 2005-2008	
Mrs. Tongta Khiewpaisal	Programme Manager	UNDP	February, 2006	Bangkok, Thailand
Mr. Carlo Filippo Marsico	Attache (Cooperation)	Delegation of the European Commission, Bangkok, Thailand	February, 2006	Bangkok, Thailand
Mr. Olivier Cogels Ph.D.	CEO	Mekong River Commission	March, 2006	Bangkok, Thailand
Mr. Chuchai Udompote	Chief of Maesai Customs House	Royal Thai Customs	April, 2006	Chiang Rai, Thailand
Mr. Chesda Jeratheran ard	Vice President	C.P. Group	April, 2006	Chiang Rai, Thailand
Mrs. Nannapatt Pannathornsate	Deputy Trade Manager	C.P. Group	April, 2006	Vientiane, Lao PDR
Mr. Chula Sukmanop Ph.D.	Senior Expert in Policy & planning		April, 2006	Chiang Rai, Thailand
Mr. Masami Ishida Ph.D.	Senior Research Fellow	Institute of Developing Economies	May, 2006	Tokyo, Japan
Mr. Souknilanh Keola	Research Fellow	Institute of Developing Economies	May, 2006	Tokyo, Japan
Mr. Yoshihiro Araki	Director	Overseas Research Department, JETRO Faculty of Policy Management,	May, 2006	Tokyo, Japan
Mr. Tomoyuki Furutani Ph.D.	Associate Professor	Keio University National Transport Committee,	May, 2006	Tokyo, Japan
Mr. Bounta Onnavong Ph.D.	R&D and International Cooperation	Ministry of Public Works and Transport	regulary meetings during 2006-2008	Vientiane, Lao PDR
Mr. Sengsavang Phandanoungvong	Technical Staff	National Transport Committee, Ministry of Public Works and Transport	regulary meetings during 2006-2008	Vientiane, Lao PDR
Mr. Vichit Sadettan	SalesManager	Lao Freight Forwarder	regulary meetings during 2006-2008	Vientiane, Lao PDR
Mr. Phahlakhone Sy Boon Heung	Marketing Manager	Asia Petroleum Co. Ltd	regulary meetings during 2006-2008	Vientiane, Lao PDR

Mr. Sengxay Phousinghoa	Private Sector Development Specialist	The World Bank	February, 2007	Vientiane, Lao PDR
Mr. Mats Arvesten	Team Leader	Roads for Rural Development Project, SweRoad	February, 2007	Vientiane, Lao PDR
Mr. Phosavang Chasane	Vice-President	K.P Company Limited	February, 2007	Vientiane, Lao PDR
Mr. Sisouphonh Sihalath	General Manager	Dao - Heuang Group	February, 2007	Vientiane, Lao PDR
Mrs. Sounthaly Lengsavath	General Manager	Souksavath Transport Service	February, 2007	Vientiane, Lao PDR
Mr. Somphone Phasavath	Deputy Managing Director	Lao Freight Forwarder	February, 2007	Vientiane, Lao PDR
Mr. Bounhieng Lattanavong	HR & Administration Manager	Laos Representative Office, Unilever Thai Trading Limited	February, 2007	Vientiane, Lao PDR
Mr. Guy Apovy	CEO	Assurances Generales du Laos	February, 2007	Vientiane, Lao PDR
Mrs. Munchula Siricharoen	Officer	Neighbouring Countries Economic Development Cooperation Agency	February, 2007	Bangkok, Thailand
Mr. Choen Krainara	Policy and Plan Anlyst	Office of the National Economic and Social Development Board	February, 2007	Bangkok, Thailand
Mr. Banchong Amornchewin	ong Amornchewin Director Thailand International Development Agency February, 2007		Bangkok, Thailand	
Mrs. Wattanawit Gajaseni	Programme Officer	Thailand International Development Agency	February, 2007	Bangkok, Thailand
Mr. Khamdy Atsayavong	Director	Coffee Research and Experimentation Center KM35	March, 2007	Paksong, Lao PDR
Mr. Sounthone Philavanh	Deputy Director	Lao - Japan Friendship Port, Ministry of Public Works and Transport	March, 2007	Vientiane, Lao PDR
Mr. Khamphou Phomphakdy	Deputy Director	Lao - Japan Friendship Port, Ministry of Public Works and Transport	March, 2007	Vientiane, Lao PDR
Mr. Khamphay Souvatdy	Engineer	Department of Transport, Vientiane Capital	March, 2007	Vientiane, Lao PDR
Mr. Somchith Phengsomphane	Deputy Director	State Land River Transport Enterprise, Ministry of Public Works and Transport	March, 2007	Vientiane, Lao PDR
Mr. Phutthasone Phomvisay	Chief of Trade, Investment Divison	Lao National Chamber of Commerce and Industry	March, 2007	Vientiane, Lao PDR
Mr. Khamphouy Pholsena	President	Savannakhet Association of Road Transport Operators	March, 2007	Savannakhet, Lao PDR
Mr. Bouakham Sisoulath	Governor	Savan-Seno Special Economic Zone Authority (SEZA)	March, 2007	Savannakhet, Lao PDR
Mr. Hong Wei	Principal Economist	Mekong Department, Asian Development Bank	April, 2007	Bangkok, Thailand
Mr. Sounthone Phommachack	Deputy Managing Director	Lao Brewery Co., LTD	April, 2007	Vientiane, Lao PDR
		Department of Industry and		
Mr. Dalivanh Phousavanh	Deputy Director	Trade, Bokeo Province Department of Transport, Bokeo	April, 2007	Houaysay, Lao PDR
Mr. Kham Phay Phetchaleun	Deputy Director	Province Department of Customs, Bokeo	April, 2007	Houaysay, Lao PDR
Mr. Sunsusinh Vongsathone	Deputy Director	Province	April, 2007	Houaysay, Lao PDR
Mr. Vilone Phonsavath	President	Chamber of Commerce, Bokeo Province	April, 2007	Houaysay, Lao PDR
Mr. Kham Phao Syleesouk	Deputy Director	Department of Industry and Trade, Oudomsay Province	April, 2007	Houaysay, Lao PDR
Mr. Chantay Innakhone	Deputy Director	Department of Customs, Oudomsay Province	April, 2007	Houaysay, Lao PDR
Mr. Vong Sack Thammasone	Chief	Department of Transport Louangnamtha	April, 2007	Houaysay, Lao PDR
Mr. Nigel C. Rayer	Director	Transport Division, East Asia Department	October, 2007	Manila, The Philippines
Mr. Ronaldo Antonio Q. Butiong	Economist (Regional Cooperation)	Southeast Asia Department, Asian Development Bank	regulary meetings during 2007-2008	
Mr. Khoun Southammakot	Director General	Department of Export and Import, Ministry of Industry and Commerce	June, 2008	Vientiane, Lao PDR
Mr. Mouavisay Paly	Head of Division	Department of Export and Import, Ministry of Industry and Commerce	June, 2008	Vientiane, Lao PDR
Mr. Khampoun Inpenglasabout	Director	Customs Department, Ministry of Finance	June, 2008	Vientiane, Lao PDR
Mr. Santiphap Phomvihane	Director General	Customs Department, Ministry of Finance	June, 2008	Vientiane, Lao PDR

Ms. Ann-Marie Brathen	Team Leader	Statistics Sweden	cs Sweden regulary meetings during 2004-2006	
Mr. Hans C. Pettersson Ph.D.	Advisor, Consultant	Statistics Sweden	regulary meetings during 2004-2006	
Mr. Phoxai Inthaboualy	Trade Official	Department of Export and Import, Ministry of Industry and Commerce	regulary meetings during 2004-2008	Vientiane, Lao PDR
Mr. Sonemala Nouanthasing	Trade Official	Department of Export and Import, Ministry of Industry and Commerce	regulary meetings during 2004-2008	Vientiane, Lao PDR
Mr. Somboon Siriprachai Ph.D.	Professor	Faculty of Economics, Thammasat University	regulary meetings during 2002-2008	Bangkok, Thailand
Mr. Patrapong Intarakumnerd Ph.D.	Project Manager	National Science and Technology Development Agency	May, 2007	Bangkok, Thailand
Mrs. Sauwalak Kittiprapas Ph.D.	Director	Public Policy Development Office	May, 2007	Bangkok, Thailand
Mr. Wichien Cherdcultrakultong	Vice Chairman	The Federation of Thai Industries Chiang Mai Chapter	April, 2007	Chiang Mai, Thailand

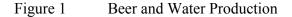
# List of Interviewees Consulted on Issues related to Regional Development and Trade

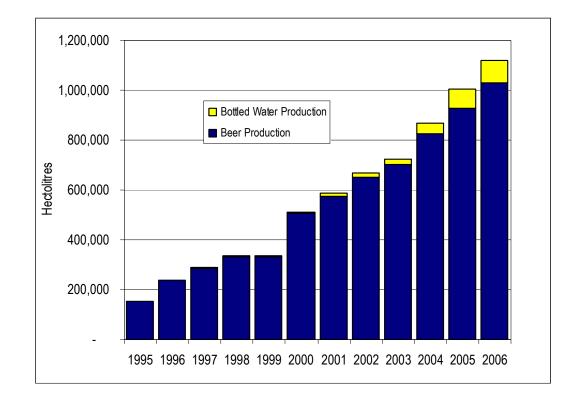
- 1. What are the consequences of the integration with neighboring countries for the domestic freight service sector in Lao PDR?
- 2. Are foreign firms a threat to domestic freight service sector?
- 3. Describe national regional provincial local actors in the sector.
- 4. Which government regulations govern the sector?
- 5. Determination of freight rates within the country.
  - a. Distance
  - b. Size of shipment
  - c. Which products are transported?
  - d. Fuel costs
  - e. Insurance
  - f. Orders and communication with customers
  - g. Truck fleet
  - h. Cooperation and/or competition between actors on different levels in the system
  - i. Seasonal changes in demand and freight rates

#### APPENDIX 3 Company Overview Lao Brewery Ltd.

#### Company overview Lao Brewery Ltd.

The Lao Brewery Ltd. began operations in 1973 as a joint venture between foreign investment and the Government of Lao PDR. Today Lao Brewery has a similar arrangement with Carlsberg Asia owning 25 percent and TCC, a Thai company who is Carlsberg's partner in Thailand owning another 25 percent, with the Lao Government owning 50 percent of the company. The Lao Brewery production of beer holds approximately 99 percent of the market share in Lao PDR in 2006. Beer and bottled water production have increased significantly over the last 10 years. Figure 1 illustrates the very rapid expansion of production.



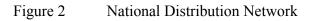


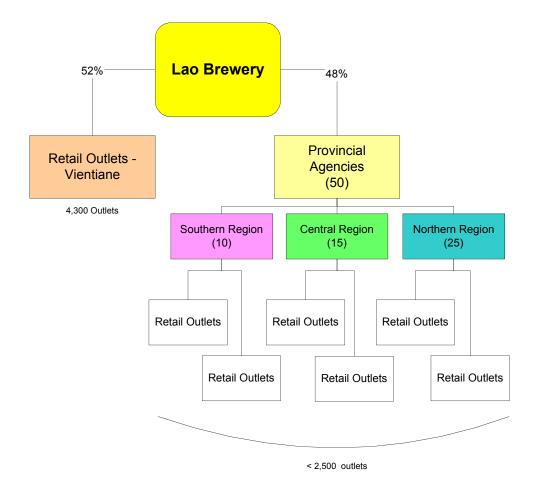
Source: Lao Brewery Ltd

The demand for beer in Lao PDR market exceeds supply. Therefore the Lao Brewery imposes a quota system on the distribution of beer throughout the country. The company also impose strict control of the marketing of beer where price controls to ensure the lack of supply does not drive the prices are used. The two main areas of impact in the near future will be the expansion of capacity of the Lao Brewery (a new production line in at the Vientiane Brewery and the new Brewery at Pakse in the south) and secondly the introduction of competition in 2008 where foreign beer companies invested in Lao PDR and directly compete for market share with the Lao Brewery.

#### **Distribution Network**

The distribution of beer occurs through an extensive distribution network as shown in Figure 2. In Vientiane Lao Brewery delivers directly to retail outlets through trucks owned by the company. In the provinces Lao Brewery contracts 3 trucking companies. The distribution is divided into three regions; Northern, Central and Southern. The trucking delivers to the provincial agencies who in turn distribute to the retail outlets. There are always at least two provincial agencies in each province in order to avoid a monopoly market situation. The distribution of beer is approximately 50/50 between Vientiane and the provinces. The distribution network is represented below. The provincial agencies are private companies who are contracted to Lao Brewery to sell to the retail outlets. The price of beer is controlled and the agencies cannot increase their prices greater than 15 percent of what they buy from Lao Brewery.





Source: Lao Brewery Ltd

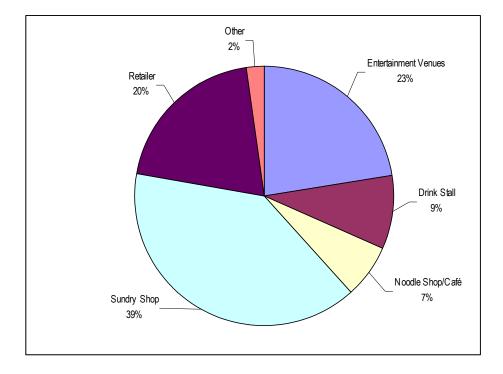
A summary of the outlets is provided in the table below. Most of the retail outlets are in the Vientiane area. The agencies then distribute to the retail outlets in the provinces.

Lao Brewery Distribution Network	Table 1	Lao Brewery Distribution Network
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Location	Number of Agencies	Number of Retailers/Outlets
Vientiane	Direct Distribution	4,300
Northern Region	25	1042
Central Region	15	929
Southern Region	10	562

Source: Lao Brewery Ltd

The main type of retail outlet is predominantly Sundry Shops, Retailers and Entertainment venues (karaoke bars, beer houses, night clubs, restaurants, guesthouses, sports clubs and hotels) as illustrated in Figure 3. The predominant form of selling beer is through what has been defined as Sundry shops. These shops can be described as micro-enterprises – they are family operated businesses providing income for the immediate family and they may not employ other people, except for family members. In this sense the people that work in these shops may be described as deriving income from this business rather than being described as being employed by these businesses. The entertainment venues differ in size (number of employees). Drink stalls are similar to sundry shops in terms of size (perhaps smaller in that they may only employ one person).

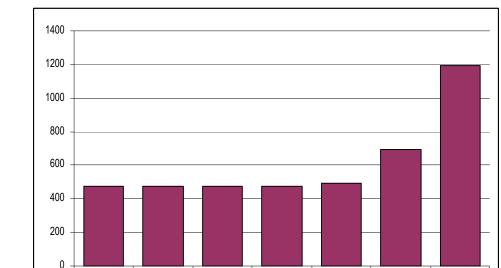


## Figure 3 Type of Supplier of Beer

Source: Lao Brewery Ltd

## Employment

Lao Brewery is not a large employer (direct employment). There are however larger spillover impacts on indirect employment. The Lao Brewery currently employs directly about 500 workers. These include office staff, management staff and workers in the beer production facility.

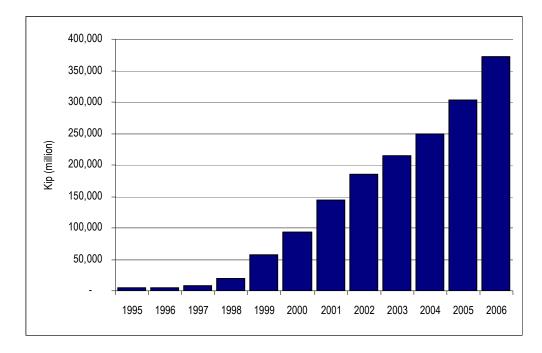


#### Figure 4 Employment Numbers, Lao Brewery

Source: Lao Brewery Ltd

#### **Revenues to Government**

The company is a significant contributor to the revenues of the government. In 2005 the taxes and dividends paid to government was approximately US\$31 million and in 2006 US\$38 million. These revenue levels are expected to increase as a result of the increased production capacity. The advent of competition however has not been factored into the equation. Government revenue could decrease as a result of decreased sales if consumers move away from Beerlao to other beer products.



#### **Inputs to Production**

In terms of cost much of the inputs of production for the Lao Brewery are sourced from overseas. The main inputs sourced locally are transportation, rice, water for beer and bottled water products, packaging for water bottles, cartons and labels. The rest is sourced from overseas, such as the beer bottles, malt, bottle caps etc. The company follows the policy of the government and attempts to source inputs locally as much as possible.

#### **Transportation**

Lao Brewery contracts the services for beer transportation to the provinces to three transport and trucking companies to a value of US\$4.3 million. A competitive bidding process is undertaken and contracts awarded on a two-yearly basis. The three

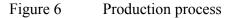
Source: Lao Brewery Ltd

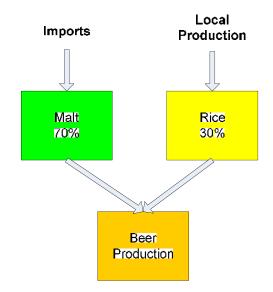
companies service the Northern, Central and Southern regions respectively. Each company is estimated to employee around 50-60 workers, including drivers, handlers, and administration staff. This implies that around 150 to 180 people are employed just in relation to the transportation of Beerlao to the provinces.

The Chansy Transportation Service began its transport contract with Lao Brewery in 2000 and currently employee 20 people. Approximately 80percent of their business is associated with Lao Brewery. As a result the business expanded due to the contract with Lao Brewery and they employed more people (from 2 to 20 people). The contract meant certainty in the amount of work and income the company would have over a given period. This lead to increased employment numbers and an expanding business into other areas (not related to transport). This company services the Northern Region and ships about 6,000 cases of beer per week. They also subcontract to some smaller companies in more remote areas to undertake distribution.

#### **Rice Production**

The production of beer requires raw materials such as malt (70 percent) and rice (30 percent). The malt is imported from Europe where the rice is sourced from local farmers in Lao PDR (in the Vientiane District). Approximately US\$1.9 million is spent on purchasing rice each year. This figure will increase as the Lao Brewery increases its production.





#### Source: Lao Brewery Ltd

In 2005 5,400 tons of rice were purchased and in 2006 6,600 tons of rice were purchased from local farmers. The company does not deal directly with the farmers, instead they contract "traders" to purchase the required amount of rice. There are currently 9 traders who have contracts with Lao Brewery. The company estimates that approximately 1,400 farmers were supplying rice for beer production in 2005.

The price paid for rice is set through a process of negotiation between the Ministry of Agriculture, the Company and the Traders. The price paid to the traders in 2006 was 2,950 Kip per kilogram. This price is negotiated every year. The farmer receives around 2,500-2,600 Kip per kilogram. Therefore the farmers would receive around \$US1.7 million in total or approximately US\$1,250 per farmer in 2006.

In the past there were problems in meeting the supply requirements for rice. Farmers were not able to produce enough and hence imports from Vietnam were required. Another issue in terms of reliability of supply was related to the prices set for rice. If a farmer was offered a higher price (higher than the price offered by the trader) then the rice would be sold to another buyer. The Company did not have a reliable supply as a result and made up the short fall from imports. Increases in general rice production in Lao PDR over the last few years (due to government policy initiatives and programs) meant that supply has been greater and for the last five years or so Lao Brewery has been able to source all the rice they require from local farmers. The reliability of supply has become an issue recently however since the demand for other types of rice (sticky rice) has increased and thus increasing prices, making these types a more attractive crop to produce when compared to the type of rice required for beer production. The price for sticky rice has increased from 2,500 Kip per kilogram to around 3,500 Kip per kilogram. Reliability of supply could be a problem in the future as more farmers substitute towards this higher value crop.

#### Suppliers of cartons, printing and plastics for water bottles

The company purchases inputs locally for cartons, packaging materials and water bottles to the value of approximately US\$2.3 million per annum. The raw materials of plastics, paper and cardboard are imported from Thailand and the requisite products are then produced by Lao companies for supply to Lao Brewery. The procurement department of Lao Brewery estimates that the companies involved employ around 100 workers.

#### **Impact on Local Suppliers**

Suppliers of raw materials and services, such as rice, will have increased incomes. The transportation of the beer is undertaken through an extensive network. The main transport companies (who have direct contracts with Beerlao) also subcontract to other smaller transport enterprises in more rural areas. These downstream linkages provide incomes and jobs for enterprises in rural areas. For example, the subcontracting of other smaller transport enterprises to undertake distribution of the product in more remote areas demonstrates further downstream linkages and potential for flow-on effects or indirect benefits.

Further employment will be generated with the establishment of the new beer production plant in Pakse and the third production line in the Vientiane Brewery. It is estimated that the Pakse plant and the "third line" will create at least 500 more jobs. The total amount of wages and salaries paid to employees in 2004 was approximately US\$1 million, and in 2005 it was US\$ 1.2 million. This will increase progressively over 2007 and 2008. Figures for this increase are not available. This does not include the salaries of the people employed in beer promotion activities. Currently much of the income going to employees is situated in the Vientiane area. Once the Pakse plant begins operations, this will add to the income flows in that region, creating flow-on income effects and further employment generation. When the new Pakse plant is producing beer at the end of 2007 it is estimated that a further 3,000 tons of rice per year will be required. This equates (at current prices) to approximately US\$785,000 being paid to local farmers in the Pakse area.

#### APPENDIX 4 The Lao Expenditure and Consumption Survey 3

The purpose of this appendix is to present the household survey including questionnaire.

The first Lao Expenditure and Consumption Survey (LECS) was conducted in 1992/93. The second survey was conducted in 1997/98. This paper describes the third LECS survey (LECS-3), conducted in 2002/03. The surveys have been conducted as part of the SIDA - financed cooperation project between the National Statistics Department formerly known as National Statistics Center (NSC) of Lao PDR and Statistics Sweden.

Data from the surveys are used for a number of purposes, the most important being to produce estimates of household consumption and production for the national accounts. This includes estimating production in household agricultural activities and business activities. Another important use of the data is for the conduction of poverty analyses.

#### **Measurement of Household Consumption**

Household consumption is an important variable in the survey. In order to get accurate measurements of the consumption it was decided to ask the households to keep a diary of their transactions. The measurement of daily consumption through a diary kept by the household puts a heavy burden not only on the households but also on the field interviewers. Many households, especially in the rural areas, need frequent support in the task of keeping the diary. In order to secure an acceptable quality in the data it was deemed necessary to keep the interviewers in the village for the whole month rather than having the interviewers travelling to the villages for repeated interviews and follow-up.

#### **Measurement of Household Production**

Large parts of the value added and labor input concerns household production in agriculture or informal household activities. In order to capture the production three modules were included in the LECS: 1) A "light" time diary is used to capture time use for members of the household that are 10 years and above. This enables measurement of labor input in hours in the Lao economy. 2) Two modules on agricultural and household business operations were included. This makes it possible to calculate value added in household production in agriculture and informal business activities.

The 'light' time use diary used in LECS-3 has been developed jointly by Statistics Sweden and ESRC Research Centre on Micro Social Change at the University of Essex. The diary contains 22 pre-defined activities with a pronounced emphasis on economic activities. For some of these activities, the interviewer probes for additional information at the time when the diaries are collected. Those who mark time for *worked as employed* are asked whether it is as farm worker, in the governmental sector, in the private sector, or something else. Those who mark time for *own business work* are asked what they do in that business work.

#### The Household Questionnaire

A large part of the household questionnaire remains the same as in previous surveys, except for some modifications in questions that didn't work well in LECS-2. Some topics, mainly housing, health, agriculture and time use, have been expanded. The household interview is consequently somewhat longer in LECS-3. The new modules/variables are <u>underscored</u> in the list below.

#### First week interview:

- Household composition (age, sex, relationship to head of household, marital status, <u>ethnic group</u>),
- Parents education (highest level completed),
- Education (literacy, highest level completed, reasons for not attending school),

- Labour force module (work during last week, <u>reasons for not working</u>, activities last 12 months),
- Victimization module (whether victim of burglary, robbery, theft, violence)

## Second week interview:

- Health check, only children (weight, height),
- Possession of durables (type, value),
- Housing conditions (building material, water, toilet, source of energy forr cooking),
- Construction activities (kind of construction, costs).

## Third week interview:

- Household businesses module (sector, number of employees or family members working, sales),
- Agriculture module (crops, areas, production, fertilizers, livestock, fishery, forestry),
- Time use.

### Fourth week interview:

- <u>Health module (self-rated health, long-term ilnesses or disabilities, health complaints, visits to health care facilities, use of medicines)</u>,
- Purchasing and selling of durables (type of item, value),
- Income and transfers (type of income, type of transfers, value),
- Household borrowing (reasons for borrowing, amount, security, interest rate),
- Household lending (amount, interest rate).

#### **Other Questionnaires**

Three other questionnaires were also administered during the month (new modules/variables for LECS 3 are <u>underscored</u>):

- *Village questionnaire*. A village questionnaire was administered to the head of the village. The questionnaire covers roads and transport, water, electricity, health facilities, local markets, schools etc. This questionnaire is the main source of information of the analysis conducted in Chapter 6. For more information see the village questionnaire below.
- <u>Primary school questionnaire</u>. Interviews were made with the school principal and the teachers. Data were collected on pupils, school facilities, <u>management of the school</u>, finances and sources of support. The principal and the teachers were also asked questions about the decision-making in the school.
- *Price questionnaire*. Collection of local prices on 121 commodities at the village market.

#### Sample Design for LECS-3

The sample consists of 8100 households selected through a two-stage sample design. A random sample of villages was selected in the first stage. The villages were stratified on eighteen provinces and within provinces on urban/rural sector. The rural villages were further stratified on villages with "access to road" and "no access to road". The total first-stage sample consists of 540 villages. 15 households were selected with systematic sampling in each village, giving a sample of 8100 households.

#### **Field Staff and Field Work**

The field staff consisted of 180 interviewers organized in 90 two-member teams. 36 supervisors from the provincial statistical offices and 10 central supervisors from head office supervised the teams. The interviewers are permanent staff at the provincial and district statistical offices.

The field work was spread evenly over a 12-month period starting in February 2002, on average 45 villages were visited each month. The teams' first duty in the village was to present the survey to the village head and to obtain/prepare a list of households. The team then selected a systematic sample of 15 households according to a predefined procedure.

The completed questionnaires were brought to the provincial statistics office after the survey month and further checked. Data entry was done at NSC in Vientiane.

Each team worked in the field six months during the survey year. The team worked in the villages every second month, the other months they performed other duties in the district or provincial office. Each team thus covered six villages. Transportation to and from villages was done by office vehicles and by public transport (mostly buses). Some of the remote villages required travel by foot for several days.

#### Accuracy of the Estimates From the Survey

The survey was designed to provide accurate estimates on national level and estimates of reasonable accuracy on province level. It will not be possible to present estimates on district level. Whether it will be possible to present estimates for certain subgroups depends primarily on the size of the subgroup and the geographical distribution of the subgroup. For example: it will not be possible to present estimates for small ethnic groups confined to a rather small part of the country.

## Questionnaire

	Organizations, services								
Vo.	Question		Alternative Answer			Answei	r cod e		Skip to
						Yes		No	
1	Are there any of the these		1 = Party?			1		2	
	organizations in the village		2 = State power?			1		2	
			3 = Lao Women's union?			1		2	
			4 = Youth league?			1		2	
			~						
			5 = Trade union?			1		2	
			6 = Village community?			1		2	
			7 = Pupils parent committee	?		1		2	
			8 = Other? (Specify)			1		2	
2	Which of these public services are		1 = Trade Union?			1		2	
-	-		2 = Rice b ank?			1		2	
	available in this village				-				
		3 = Cattle bank?			1		2		
			4 = Credit sources of			1		2	
			financial institution?			1		2	
			5 = Farmers group's shop?			1		2	
			6 = Others?	1		2			
3	How many persons live in this			Numb er of	neonle				
2	* *				-				
	village?		(	)f which: fe	emales				
4	How many persons were born in this								
	village during the last 12 months,								
	that is from to			Numbe	r born				
5	How many persons of this village died								
during the last 12 months?				Numbe	er died				
6	How many persons have moved								
0					1.				
	in to and moved out from this		Number moved in						
	village in the past 12 months?			umber mov	ved out				
7	In which type of geographical		1 = Lowland				1		
	area is this village situated?		2 = Upland				2		
	Definitions:		3 = Both lowland and up lan	d			3		
8	Now a few questions about crime.			Pre	oblem:	Major	Minor	No	
	Is a major, minor or		1 = Burglery			1	2	3	
	no problem in the village?		2 = Robbery 3 = Fighting, brawls			1	2 2	3 3	
	ASK ABOUT ALL ALTERNATIVES		3 = Fighting, brawls 4 = Violence against work	nen		1	2	3	
			5 = Killings, murders			1	2	3	
			6 = Illegal abortion			1	2	3	
			7 = Drugs (cultivate, sell, 8 = Other crimes	use)		1	2 2	3 3	
Vo.	Question		Alternative Answer			Answei		<u> </u>	Skip to
I. Gei	neral economic conditions								
				First	See	cond	Thi	rd	
1	What are the three main	l=Agr	iculture, crops						
	sources of income for people	-	iculture, livestock						
	living in this village?	3=For							
		4=Fisl	hing						
	LIST IN ORDER OF	5=Ind	ustry/han dicraft						
	IMPORTANCE	6=Tra	de						
		7=Con	nstructio n						
		1							

	1	1	1	
2	According to you, has the			
	living standard of people in	I = Improved	1	
	this village improved or	2 = Declined	2	
	declined compared to 5	3 = The same	3	
	years ago?			
3	Are there any current development	I = Yes	1	
	projects in this village?	2 = No	2	GO TO III1
	Definition:			
			Yes	No
4	What kinds of develop ment	l = Crops?	1	2
	project? With?	2 = Irrigation?	1	2
		3 = Forestry?	1	2
	(ASK ABOUT ALL ALTERNATIVES)	4 = Commerce?	1	2
	(	5 = Transport?	1	2
		6 = Hand icraft?	1	2
		*	1	
		7 = Education?		2
		8 = Health?	1	2
		9 = Water and sanitation?	1	2
_		10 = Other? Specify	1	2
5	Is this/are these project(s)	<i>l=The village?</i>	1	2
	funded by	$2 = Bank \ loans?$	1	2
	(Projects can have move than one	3 = Government budget?	1	2
	fund. Different projects can have	4 = Int. org loans/grants?	1	2
шт	different funds). Ind and land use in the village	5 = Other? Specify	1	2
1	How big is the total land area		п.	
-	in this village ?	Total area in hectares:		G W
2	What is the total agricultural land in	No agricaltural land:		Go to IV
	the village?	Area in hectares:		
3	How much is grazing land?	Area of grazing land:		
	Forest land?	Area of forest land:		
	Other land?	Area of other land:	На	
No.	Make sure Q2 and Q3 sum up to Q1! Question	Alternative Answer	Answer code	Skip to
4	How much of the agricultural land			eng m
4	was irrigated in the last dry season?	Area of irrigated land:	На	
5	How much of the agricultural land is	Area of irriguied land.	114	
5	located in lowland and upland	Percent in lowland:	Domort	
	-			
	respectively?	Percent in upland:	Percent	
6	Has there been any land and forest			
	allocation program implemented up	1 = Yes		
	to now in this village?	2 = No	2	
IV. In	frastructure			
1	In terviewer ob serve: Has this village access to road?	1 = Yes	1	GO TO 3
1	Definition:	2 = No	2	00103
2	From this village how far is it to the			00 70 7
	nearest road?	Distance:	KM	GO TO 7
2	To be a condition of the second shift of the			
3	Is it possible to reach this village	l = Yes		
	by truck (car) in dry season ?	2= No	2	
3			2	

2			-	
5	Is there any scheduled passsenger	l = Yes	1	
	transport stopping in this village ?	2= No	2	GO TO 6
6	How often is this public transport		/Day	GO TO 8
0			-	
	available according to its schedule?		/Week	GO TO 8
		Time per month:	/Month	GO TO 8
7	How far do the villagers have to go to			
	catch a public transport (that runs all year around)	? Distance:		
8	How far away is the DISTRICT	In village:	1	GO TO 10
	administrative headquarters?	Distance:	KM	
9	How long does it normally take to		Hours	
	get there by the most common way?	Time in dry season:	Minutes	
	In dry season?		Hours	
	In rainy season?	Time in rainy season:	Minutes	
10	How far away is the PROVINCE	In village:	1	GO TO 12
	administrative headquarters?	Distance:	KM	
11	How long does it normally take to		Hours	
	get there by the most common way?	Time in dry season:		
		Time in ary season.		
	In dry season?		Hours	
	In rainy season?	Time in rainy season:	Minutes	
No.	Question	Alternative Answer	Answer code	Skip to
12	Is this village connected to an electric	I = Yes	1	
	n etwork?	2= No	2	GO TO 14
			Yes No	
13	Does this village get electricity from	1= Government network? 2= Government generator?	$ \begin{array}{cccccccccccccccccccccccccccccccccccc$	
		3= Private generator?	1 2	
		4= Battery/Dynamo?	1 2	
		5= Other? (Specify)	1 2	
14	Is there safe water in this	l = Yes	1	
15	village ? Is there a permanent (daily) market	2 = No I = Yes	2	GO TO 18
15	in this village?	1-1es 2=No	2	001018
16	Is there a periodical market	I = Yes	1	
17	in this village ? How often is this periodical market	2=No	2	GO TO 18
17	o pen?	Times per month:	Times	
18	How far is the nearest post office?	In village:	1	
		Distance:	KM	
V. Edu	cation How many children in school age are	Children 6 - 10:		
	there in this village?	Children 11 - 15:		
2	How many girls and boys in the	Girls 6-10: Bours 6-10:		
	village are currently enrolled in school?	Boys 6- 10: Girls 11-15:		
	(In village or elsewhere)	Boys 11-15:		
			Yes No	
3	Is there a located in	<i>l</i> = <i>Primary school</i> ?	1 2	
	this village?	2= Lower second ary school?	1 2	
		3= Upper second ary school?	1 2	
	ASK FOR ALL ALTERNATIVES	4= Technical school?	1 2	
		5= Institute?	1 2	
		6= University?	1 2	
			If primary school:	GO TO 4
			If no primary school:	
ı			in no printary sendor.	

				<u>г</u>
4	Are any teacher text+B188books available	I = Yes	1	
	in the primary school classes? Definition:	2=No	2	
5	How many permanent teachers			
	are working in this school?	Number of teachers:	Pers.	
6	Is this school operating regularly?	I= Yes	1	
		2=No	2	
7	Is this school operating twin classes?	I = Yes	1	
		2=No	2	
8	Is this school operating shift classes?	1= Yes	1	GO TO 10
		2=No	2	GO TO 10
No.	Question	Alternative Answer	Answer code	Skip to
9	How far is the nearest primary school			
	attended by children of this village?	Distance:	КМ	
10	How far is the nearest secondary			
10	school attended by children of this	In village:	1	
	village?	Distance:		
11		Distance.		
11	Has there been any adult literacy	1 = Yes		
	program in this village in the last 5		1	
VI. He	years? alth care	2 = No	2	ļ
1	Is there a Medicine Bag in the	l = Yes	1	
-	village?	2=No	2	
2	Is there a Traditional Birth	l=Yes	1	
2	Attendant (TBA) in this village ?	2=No	2	
3	Is there a traditional healer	l = Yes	1	
5			2	
4	in this village ?	2=No	1	
4	Is there a functioning community	l= Yes		
	health worker living in this village ?	2=No	2	
5	Is there a medical practitioner/trained	l = Yes	1	
	nurse living in this village ?	2=No	2	GO TO 7
6	Do they take care of the people in the	I = Yes	1	
	village?	2=No	2	
7	How far away is the nearest ho spital?	In village:	1	GO TO 9
		Distance:	KM	
8	How long does it normally take to		Hours	
	reach any hospital?	Time for travel:	Minutes	
9	Is it a government or private hospital?	1 =Government	1	
		2 = Private	2	
10	Is there a dispensary or health post in	I = Yes	1	GO TO 13
	this village?	2 = No	2	
11	How far away is the nearest			
	dispensary or health post located?	Distance:	КМ	
12	How long does it normally take to	Time per hours:	Hours	
	reach the nearest dispensary/health	Time per minutes:	Minutes	
	post?	*		
13	Is there a pharmacy located	I= Yes	1	
	in this village ?	2=No		GO TO 15
14	Is it a licensed pharmacy ?	l = Yes		
17	is it a needsed plannacy :			
	1	2=No	2	I

No.	Question		Alternative An	iswer			Ans	wer code	Skip to
* * ***				Yes	No				5.00
15		1. Malaria		1	2	LIST IN O	RDER	OF MAJOR	
		2. Dia rrh oea		1	2	HEALTH	PROB	LEM	
	Which of these health	3. Respiratory	v						
	problems have been	infection		1	2				
	major problems in the	4. Measles		1	2	First			
	village during the last	5. Stomach pa	in	1	2				
	12 months?	6. Liprosis		1	2	Second			
		7. Skin diseas	es	1	2				
		8. Eye infectio	on	1	2	Third			
		9. Nervous sy		1	2			•	
		10. Rheumati.		1	2	Fourth			
		11. Goiter		1	2				
16	Where do most women in		l = In their h					1	
	this village give birth?		2 = In hospite					2	
			3 = Other, sp					3	
17	Has there been any child					•			
- /	immunization program in this villa	7e				,	!= Yes	1	
	during the last 3 years?	-					2 = No	2	
18	Has there been any anti-malaria						2 110	2	
10	program in this village during the la	act					l = Yes	1	
	3 years?	151				-	2 = No	2	
VII. A	griculture						2-10	2	
	lf no agriculture i	n village, if ll	I Question	2 = 1, 6	60 TO	SECTION		IESTION 5 N ORDER OF	
								RTANCE	
1	What are the FIVE major	1 = Rice 2 = Maize	9 = Co				First		
	crops grown by people of this village?	2 = Maize 3 = Cassava/	10 = 0 11 = E	.offee Banana			Secon	1	
	-	sweet potatoe		Other fri					
		4=Vegetables 5 = Soybeans		<i>Other cr</i> v			Third		
		6 = Mungbea					Fourth	1	
		7 = Tobacco 8 = Sugercan	е				Fifth		
_					Yes			NORDER	
2	Is the harvest of the main five crops generally	1 = At village 2 = At distric			1		OF IM First	PORTANCE	
	sold	3 = At provin	ce market?		1	2			
	Definition:	3 = To privat 4 = To neight			1 1	2 2	Secon	i	
		5 Other ways			1	2	Third		
							Fourth		
				2001001001491199119	1212222333333				
No.	Question		Alternati	ve Ansv	ver			Answer code	Skip to
3	How many months has this village								
	suffered from lack of rice during the	e			Ν	umber of m	onths:	Months	
4	last 12 months? Has this village received a visit of								
7	agricultural extension workers duri	nα				,	= Yes	1	
	the past 12 months?						= res r = No	1	GO TO 7
5	What were the two main		g farming prac				LISTI	NORDER	00107
	purposes of the last visit?	2 = Encourag 3 = Promote	e conservation	n			OF IM	PORTANCE	
		3 = Promote 4 = Promote							
		5 = Promote	insecticides				First		
		6 = Promote 7 = Irrigation	1				Secon	1	
		8 = Encourag	e forestry					L	
		9 = Collect st 10 = Other s	atistics pecify						
		10 - Olner, s	pe cijy						

6	Are there any engine powered	I = Yes	1	
	rice-husking machines in this village?	2 = No	2	
7	What agricultural practices are mostly	1 = Rotational	1	
	used in this village?	2 = Pioneering	2	
	Definition:			
	Vages, prices, restrictions and house constructio		W ID	
1	How much is a farm worker paid per	For preparation of land?	KIP	
	day currently	For harvesting?	KIP	
-		For other agricultural work?	KIP	
2	Which is paid best, agriculture or	<u>Non-Agricultural work is paid:</u> 1 = Much more	1	
	n on-agricultural work?	2 = Little more	2	
		3 = The same	3	
		4 = Lower	4	
3	What is the current farm gate price		4 KIP	
5	for pad dy glutinous rice?	Upland rice: Price per KG		
4	What is the current farm gate (paddy)	optional rice. Frice per KG	KIF	
-	price for ordinary rice?	Price nor KG	KIP	
5	What is the current price of white		KIP	
	glutinous rice sold in village market?	Normal quality		
	o		KIP	
		No local village market		
6	What is the current price of white		KIP	
-	glutinous rice sold in markets outside	Normal quality		
	the village?	Low quality		
No.	Question	Alternative Answer	Answer code	Skip to
7	What is the current price of white	First quality	KIP	
	ordinary rice sold in village market?	Normal quality	KIP	
		Low quality	KIP	
		No local village market	1	
8	What is the current price of white	First quality	KIP	
	ordinary rice sold in markets outside	Normal quality	KIP	
	the village?	Low quality	KIP	
9	Is there any non-agricultural			
	employment available for people in	1 = Yes		
<b> </b>	this village?	2 = No		
10	What is the average daily wage for a		KIP	
<u> </u>	labourer?	Adult female:		
11	Is the wage for men and women for	I = Yes		
12	the same work different in this village? Which are the main restrictions	2 = No I = Lack of jobs	2	
12	the people in this village are	1= Lack of saving	2	
	facing for not earning more	3= Lack of credits	3	
	money ?	4= Lack of land	4	
		5 = Lack of seed	5	
	CIRCLE ALL ALTERNATIVES AVAILABLE	6= Lack of irrigated 7= Poor fertility of soil	6 7	
	ATALABLE	8= Unsafe soil	8	
		9= Lack of store	9	
		10 = Lack of knowledge	10	
		11 = Lack of manp ower	11	
		12 = Lack of transports 13 = Lack of mark et	12 13	
		14 = Draught	13	
		15 = Flooding	15	
		16 = In sect	16	