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Vol. 2

LOGISTICS DEVELOPMENT AND TRADE FACILITATION IN LAO PDR

**Prepared by John Arnold
With Assistance from
Dr. Ruth Banomyong and Nipawis Ritthironk**

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ABBREVIATIONS AND ACRONYMS

AFTA	ASEAN Free Trade Area
APB	Agricultural Promotion Bank
BCEL	Banque pour le Commerce Exterior Lao
BOL	Bank of Laos
CAS	Country Assistance Strategy
CEPT	Common Effective Preferential Tariff
DOF	Department of Forestry
ETO	Express Transport Organization
FDI	Foreign Direct Investment
FIMC	Foreign Investment Management Committee
GMS	Greater Mekong Sub-region
ICD	Inland Clearance Depot
LFF	Lao Freight Forwarder
MRC	Mekong River Commission
ODA	Official Development Assistance
RCL	Regional Container Line
SRT	State Railway of Thailand
THC	Terminal Handling Charge

1. Economic Situation.....	1
Background	1
Trade and FDI.....	2
2. Agriculture	6
Rice	7
Coffee and Other Commercial Crops	9
Livestock.....	11
Markets and Credit	12
Forestry	13
3. Industry.....	16
4. Transport Network	19
Road.....	19
Road Type.....	20
Road Condition.....	20
Road Condition.....	20
Inland Waterways	23
Imports through Thailand	25
imports through Vietnam.....	26
exports through Thailand	27
5. Trade Facilitation.....	29
Financing and Financial Institutions	29
Customs Procedures and Duties	30
Thai Customs Procedures	30
Lao Customs Procedures and Duties	32
Unofficial Cross-Border Trade	34
Trade and Transit Agreements.....	35
Bilateral Agreements with Thailand	35
Bilateral Agreements with Vietnam	38
Local.....	39
Trilateral and GMS Agreements.....	39
ASEAN Agreements.....	40
6. Household Consumption and Poverty Concerns	43
7. Logistics Chains.....	47
Fertilizer-Rice	47
Wood-Furniture	50
Paper	52
Paper	53
Paper	54
Fabric-Ready-Made Garments.....	54
Processed Foods.....	57
Coffee Exports	60
8. Proposed Improvements	63

Agricultural and Information Logistics	64
Coffee and Outbound Logistics	65
Wood Industry and Inbound Logistics	66
Garment Industry and Competitive Advantage	66
Transit Routes	67
Border Enclaves	67
Inland Container Depot.....	68
Bilateral Agreements	69
North.....	71

CHAPTER 1

ECONOMIC SITUATION

BACKGROUND

Lao PDR is the sole land-locked country in the South East Asia region. It has a surface area of 236.8 thousand square kilometers and is endowed with abundant forest and water resources. Population density is only 22 people per square kilometers, the lowest in the region. With an estimated per-capita GDP estimated to be \$290, its domestic market is miniscule relative to its neighboring countries. Most of the country's economic activity is confined to the Mekong River corridor.

Despite efforts to promote industry, Laos remains primarily an agrarian country with agriculture, forestry, and fishing accounting for one-half of the GDP (Figure 1). The service sector, primarily wholesale/retail trade and tourism-related activities, accounts for another quarter of GDP. External trade is relatively small, equal to about 50%-60% of GDP versus 85%-125% for Thailand and 90%-100% for Viet Nam. However, the trade figures do not include the substantial informal trade in wood products, rice, vegetables and consumer goods.

Real economic growth in 2000 increased to 5.5% compared with 5.2% in 1999 and 4.0% in 1998. This was a result of a strong agricultural production and more stable macro-economic environment following the Asian Financial crisis. Growth in the industrial sector was 7.3% in 2000, compared with 7.5% in 1999, much lower than the average performance of 13% during 1993–1996¹ (Figure 2).

Figure 1

Components of GDP

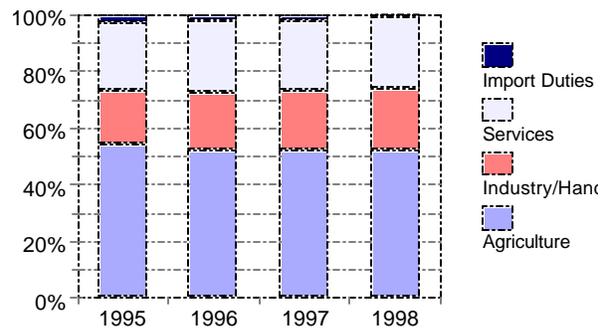
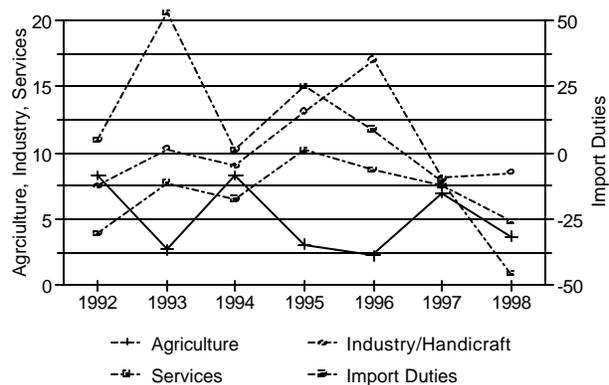


Figure 2

Growth Rate for GDP Components Annual %



¹ Thailand's 1997 financial crisis delayed the start of several hydropower investment projects in Lao PDR. The European Union had withdrawn preferential access for Lao PDR garment exports in late 1995 but reinstated it in late 1997. Industrial growth should accelerate as garment exports to the European Union continue expanding, and gold

The service sector grew by 6.4% on the strength of the tourism and real estate sub-sectors and despite the weakness in the banking sub-sector.

The fiscal deficit has varied between 6% and 12% of GDP over the last decade with a peak occurring in 1998 before dropping to 8% for 2000 and 5% in 2001.² In 1998 and 1999, the fiscal deficits and monetary expansion led to rapid inflation and exchange rate depreciation. Since mid-1999, the government has taken decisive steps to reduce its fiscal deficit and contain monetary expansion so as to restore macroeconomic stability. The broad measure of money supply (M2) grew by 120% during the first half of 1999, contracted by almost 20% during the second half of 1999, and then increased to 36% in 2000. The annual inflation rate, as measured by the consumer price index, has declined from 128.4% in 1999 to 23.2% in 2000 and 7.5% at the end of 2001. The value of the Kip declined by only 13% during 2001 (Figure 3).

Trade and FDI

The total value of exports has grown steadily in the past five years, increasing from \$321 million in 1996 to an estimated \$393 million in 2000. It leveled off in 2001 due to a drop in export prices, especially for wood products. The major factor contributing to growth in exports is the export of electricity, which increased from \$30 million in 1996 to \$112 million in 2000. The largest export by value has been wood products, primarily logs and timber. The garment industry also increased its exports to \$77 million in 2000, however the value-added of this industry is relatively small as imports for the garment sector are estimated to be around \$67 million. Exports to the Greater Mekong Sub-region (GMS)

Figure 3
Exchange Rate 1996-2000

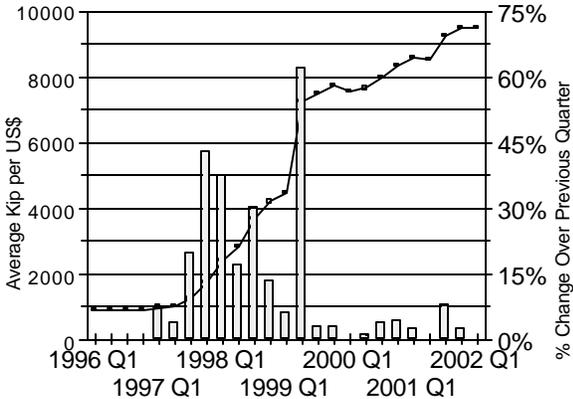
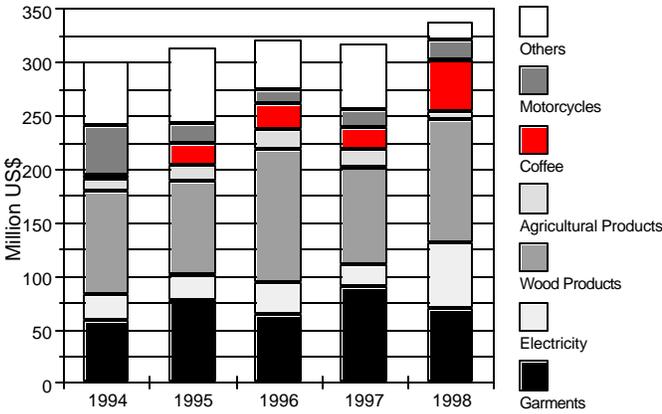


Figure 4

Value of Export Earnings
Major Industrial Exports 1994-1998



and copper mining operations commence in Savannakhet Province. If the Nam Theun II hydropower project proceeds as planned, construction activity will increase significantly.

² The deficit exacerbated by extra-budgetary government expenditures for expansion of irrigation

accounted for about 65% of total exports. Vietnam received about 2/3 and Thailand most of the rest.

Most of the third-country exports are sold FOB Bangkok with the buyer nominating the vessel. In some cases, sales are ex-factory with the buyer nominating the freight forwarder. The goods are transported either directly from the Lao factory using Thai trucks or in Lao trucks and transhipped at Mukdahan. Very few containers are used because of the higher cost of transport. Instead the goods are shipped loose to Bangkok and stuffed at the port

Imports have gradually declined, from \$690 million in 1996 to \$591 million in 2000. Part of this decline is due to the delay in development of hydropower facilities, which affected the imports of machinery, equipment and construction equipment between 1996 and 2000. At the same time, the share of fuel in the total import bill rose in response to an increase in the cost of petroleum products and the number of motorized vehicles in the country. Most of the imports came from the Greater Mekong Subregion, especially Thailand, which provides fuel, textiles, and agricultural products (Table 1)

Table 1 : Cross-Border Trade with Thailand
In Million of Baht

Year	1997	1998	1999	2000	2001
Value	12,893.6	16,483.5	18,750.6	21,042.2	22,076.2
Export	10,893.8	15,000.2	15,928.0	16,960.6	17,656.2
Import	1,999.8	1,483.3	2,822.6	4,081.6	4,420.0
Trade Balance	8,894.0	13,516.9	13,105.4	12,879.0	13,236.2

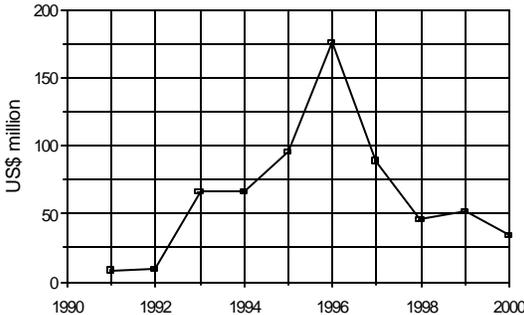
Source: Thai Ministry of Commerce Statistics (2002)

Most of the third country imports are purchased C&F Bangkok. They are initially stored in transit warehouses and then transported on Thai trucks to Nongkhai for inspection of documents and then to the Lao customs warehouse at Thanaleng near the Friendship Bridge where the cargo is inspected.

Only about 5% of third country traffic is shipped through Vietnamese ports. The cumbersome procedures, poor road conditions, less efficient ports and less frequent sailings act as a deterrent to the use of these ports.

Foreign direct investment (FDI) and official development assistance (ODA) increased from \$139 million in 1999 to \$249 million in 2000. Bilateral and multilateral aid amounted to about 80% of the total, about 1/4 of GNP. ADB, Japan and IDA each provide substantial resources. Their contributions currently average US\$90 million, US\$75 million and US\$50 million per year, respectively. A total of 27 IDA credits have been approved since 1977 totaling US\$576 million of which almost 70 percent has been disbursed. About 1/4 of

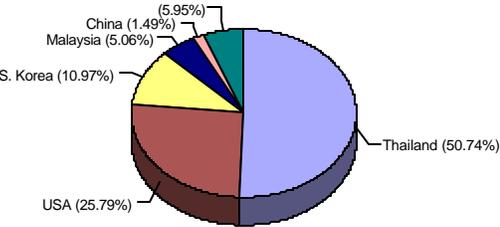
Figure 5
Foreign Direct Investment 1991-2000



the current credits are for transportation and a slightly smaller proportion for rural development. Only 2% is for industry and 19% for energy, however, the latter is likely to increase substantially. Among the ADB project loans currently being disbursed, five involve transport investment, four agriculture and one energy.

Foreign direct investment has declined over the last several years (Figure 5) in response to the Asian Financial Crisis and high domestic inflation as well as the delay in planned hydropower projects. Thailand has account for about half of the FDI over the last decade and the USA about 1/4 (Figure 6). The concentration of investment has shifted from energy to telecoms and industry (Figures 7 and 8). However, given the size of the hydropower projects this trend is expected to be reversed in the near future.

Figure 6
Foreign Direct Investment by Source
1988-1999



The tax revenue from trade accounted for between 1/5 and 1/4 of government revenues through 1997, but has declined significantly since then as shown in Figure 9.³ This reduction has been

Figure 7
Foreign Direct Investment by Sector
1988-1994

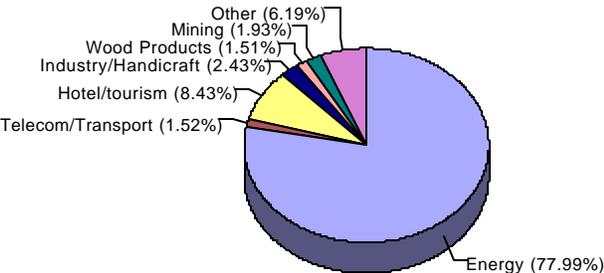
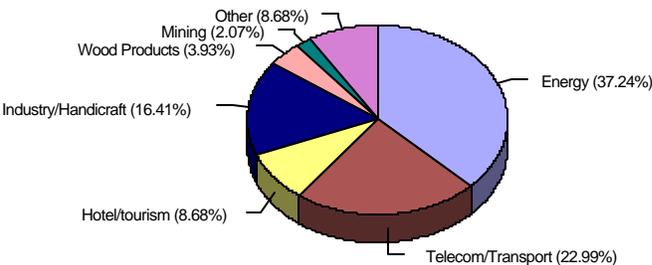


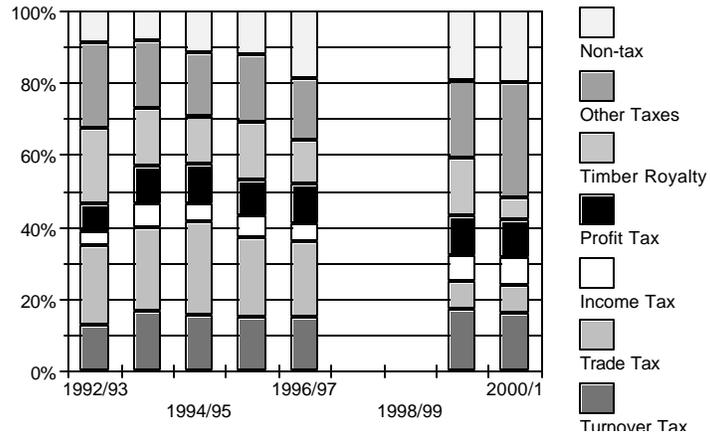
Figure 8
Foreign Direct Investment by Sector
1995-1999



balanced by an increase in grants and other taxes.

³ The 1997 Public Expenditure Review recommended diversification away from trade taxes and royalties and increased reliance on domestic direct and indirect taxes, specifically an increase in the base rate for the turnover tax and a broadening of the income tax base. This does not appear to have been achieved.

Figure 9
Major Government Revenue Categories



Chapter 2

AGRICULTURE

Only 7½% of the land in Lao PDR is under some form of cultivation while 86½% is listed as wooded areas as shown in Table 2. Agriculture is the major economic activity. It employs about 4/5 of the labor force and account for half of the GDP. However, its share of GDP has declined over the last decade. The growing of crops now accounts for only about ¼ of the GDP as shown in Figure 10. Livestock accounts for about 48% and forestry only 5% (Table 3). However, the latter does not include the large amount of illegal logging

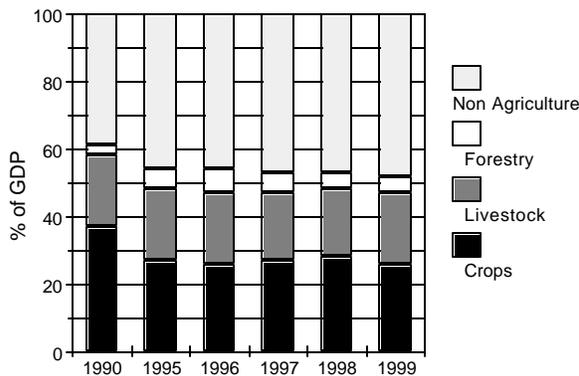
Table 2: Land Use by Region (000 ha)

	North	Central	South
Shifting Cultivation	380	185	115
Permanent Agriculture	125	370	635
Total Agriculture	505	555	750
Grasslands	380	350	130
Other Areas	65	270	145
Total Areas	9,821	7,229	6,630

Source: (1)

Figure 10

Contribution of Agriculture to GDP



Source: World Bank database

Table 3: Gross Domestic Product 1999

Activity	Billion	% GDP
Padi	2.132	20.5
Other Grain	121	1.2
Livestock	1.890	18.2
Commercial Crops	797	7.7
Forestry	524	5.0
Fisheries	78	0.8

Source: RTM7 documents (1)

Rice cultivation is the major agricultural activity. The four farming systems used in Lao depending on topography; lowland rainfed, lowland irrigated, upland and plateau. The lowland areas account for 235 thousand hectares located in the Vientiane, Pecan, Zebang Fai, Xebang Heigh and Xedong plains. There the planting is either double cropping with irrigation or single crop with livestock grazing in the off-season. Most crops produced in the lowlands are rainfed including 83% of the rice. Only about 12% of the cropped area is irrigated. Most of the

irrigation schemes are concentrated along the banks of the Mekong. The potential for irrigation is considerable as most of the country is situated in the Lower Mekong Basin

In the upland area, the principal crop is rainfed rice grown using shifting cultivation. Other annual crops include maize, sweet potato, cassava, ginger, groundnut, soybean, cotton and sugarcane. Most of the commercial crops including coffee, tea, cardamom, fruits and vegetables are grown in the plateaus. Shifting cultivation is practiced in 37% of the villages and covers an estimated 680 thousand hectares. The percentage is highest, 50%, in the Central region. The rainy season lasts from May through October with the heaviest rains occurring in Vientiane Province, the western side of Bolikhaxay province and Boloven Plateau.

Farm sizes are reasonably large, averaging 1.6 hectare per family. The average is greatest in the Southern region, 1.9 hectares, and lowest in the Northern region, 1.1 hectare. About 2/3 of the rural families own their own land. Land ownership is greatest in the Southern region, 80%, and lowest in the Northern Region, 44%. The average size of rural households is 6½ persons. This is relatively constant across the provinces.

RICE

About 2/3 of the agricultural land is cultivated in rice as shown in Table 4. The major rice growing area is the Central Region, which produces over half of the total output (Figure 11). Three provinces, Savannakhet, Champsack, and Vientiane (Province and municipality) account for about half the rice as shown in Table A.1. Rice is grown mainly for domestic consumption. About 90% is glutinous rice. Surpluses are exported primarily to Thailand. The production cost is estimated to be about half that of Thailand due to low labor costs and relatively low use of inputs.

Figure 11

Rice Production 1998

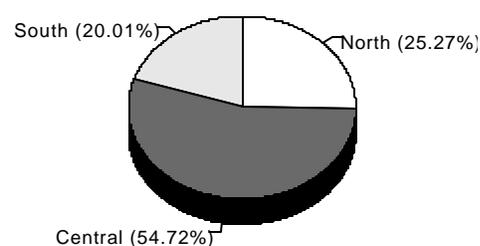


Table 4: Agricultural Area by Land Use (000s hectares)

	North	Central	South	Total
Rice	205	309	166	680
Other Annual Crops	41	34	11	85
Fallow Land	50	39	22	112
Permanent Crops	12	15	55	81
Grazing Land	1	15	2	18
Other Land	15	43	13	72
Total	324	455	268	1,048

Source: Lao Agricultural Statistics, 2000 (1);

Sums may not agree due to rounding

The production of rice increased by about 9% per annum during the second half of the 1990's through expansion of irrigation, which allowed double cropping and an increase in average yield.

As a result, the country has achieved self-sufficiency (Table 5) and is likely to experience increasing levels of surplus in the future.

Current rice yields are estimated to average 2.5 tons per hectare for rainfed lowland rice and 3.5-4.2 tons per hectare for irrigated lowland rice. While yields have steadily increased as shown in Figure 12, the farm surpluses have not grown as rapidly due to the increase in rural population. The rate of increase declined during the 1990s due to a lack of improvement in agricultural practices.

Table 5: Projected Rice Surplus for Year 2000

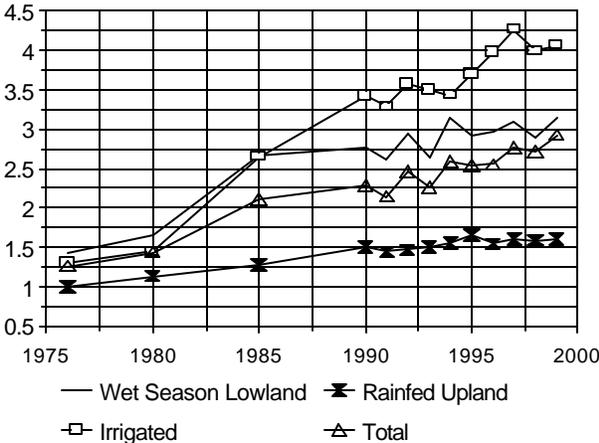
Production	000 tons
Lowland, irrigated	1,553
Upland	259
Irrigated	<u>390</u>
Total	2,202
Seed, Post Harvest Losses (16%)	<u>352</u>
Net Padi milled	<u>1,850</u>
Net Rice Produced (62%)	1,147
Rice for other uses	<u>23</u>
Rice Available	1,124
Total Requirement*	<u>942</u>
Surplus	182

* 180 kg of rice per capita for a population of 5.23 million.⁴
 Source : (1)

The agricultural production system remains at a low level of development. The 1998/9 Lao Agricultural Census indicated that only about 30% of the farm households used improved seeds and chemical fertilizers. About 7% of the rural households own tractors and only 1/5 use them. Similarly, only 7% are reported to own draught animals and 2/5 to use them for agriculture.

In the irrigated areas, the average amount of inorganic fertilizers used in rice cultivation is only 140-150 kg per hectare and few farmers use agricultural

**Figure 12
 Growth in Rice Yields 1975-1999**



⁴ The household survey (LEC-2) indicated an average consumption of about 220 kg which would indicate a slight deficit.

chemicals. For rainfed rice, the average use drops to 90 kg per hectare but is supplemented with manure. The diffusion of new technology, especially the use of fertilizers and improved seeds, is hampered by the lack of available credit facilities and effective government extension service as well as the risk-averse nature of subsistence farmers. The farm households have relatively little debt and relatively little dependence on middlemen for the supply of agricultural inputs.

The rice market is not integrated producing wide price disparities between regions. This is a result of a combination of factors including poor transport and communications, production dispersed over a large area and relatively small quantities of surplus rice produced by individual farmers.

There is a dichotomy in public policy between promoting rice cultivation and food security and encouraging crop diversification and commercial farming. In the flatlands, both lowlands and plateaus, the focus is on diversification and commercialization. In the sloping lands, the emphasis is on stabilization through reduction of shifting agriculture. It is anticipated that the production of rice will continue to increase but only at a rate sufficient to meet domestic demand. There is little future in Lao PDR becoming a rice exporter since it is surrounded by two of the largest exporters, both of whom have significant competitive advantages. There is some potential for cross border trade where there are adjoining areas of surplus and deficit, but these are limited.

COFFEE AND OTHER COMMERCIAL CROPS

The production of non-rice crops has grown at a faster pace (Table 6) averaging slightly less than 10% per annum in value added terms since the mid-90's. However, yields remain relatively low (Table 6). About 170 thousand hectares are planted in non-rice crops, half in maize and vegetables. Maize is grown for both human consumption and fodder. Vegetables are grown for household consumption and sale in the urban centers. In Champasack/Savannakhet, they are also grown for export. Most of the remaining crops are commercial crops including coffee, sugar cane, tobacco, peanuts and cotton. Coffee is grown in the Southern region for export. Sugar is grown in Pongsalay and Lunagnamtha for export to China. Cotton is grown in the Northern Region for both local use and export to Thailand.

Table 6: Growth in Agricultural Production 1995-1998

	000 metric tons			
	1995	1996	1997	1998
Rice	1,418	1,414	1,660	1,675
Maize	48.3	76.6	77.8	105.1
Vegetables	61.7	88.9	100.0	117.3
Sugarcane	61.3	87.1	95.0	170.2
Tobacco	26.6	26.0	28.0	26.6
Coffee	8.6	10.0	12.3	17.0

NSC, Dept of Agriculture

Coffee production has risen from 10 thousand tons in 1996 to 17.5 thousand tons in 2000 and is expected to reach 18 thousand in 2002. It is the major export crop in terms of value. It is cultivated on 26 thousand hectare in the three plateau areas. The best known is the coffee produced in Bolovens, which encompasses parts of the provinces of Sekong, Champasak and Attapeu. Robusta is the main type of coffee bean being cultivated in Lao PDR but there has been an increasing portion of Arabica (15%) and Liberica (5%) to meet international demand. The season for harvesting Robusta is between January and March while for Arabica is between November and December. Although Arabica offers a higher price, Robusta continues to be preferred by the farmers because the plant can be harvested for more years and thus provides a more stable income to the farmers.

Table 7: Harvested Area and Yield, Average 1996-2000

	000 ha	tons	tons/ha
Vegetables	43.5	235.6	5.4
Maize	42.3	95.8	2.3
Coffee	26.8	16.1	0.6
Root Crops	17.7	98.5	5.6
Peanut	12.8	13.0	1.0
Tobacco	6.5	27.3	4.2
Cotton	6.5	6.0	0.9
Sugarcane	5.1	164.6	32.3
Soybean	5.1	4.2	0.8
Mung bean	1.8	1.4	0.8
Tea	0.6	0.2	0.3

Source : DOP, MAF (1)

The typical coffee plantation is 1-3 hectares. The new plantings have lowered production costs and improved yields. The average yield of green beans, about $\frac{3}{4}$ tons per hectare, is limited by the agricultural practices. The plants are not pruned, lack shade for weed control, and receive little fertilizer. With improved practices, including pruning fertilizing and weeding, yields could increase by 30%-50%. The current harvesting technique reduces quality by picking a mix of immature and overripe berries and drying them on the ground.

Coffee producers in the Bolovens plains have received financial support from the French Agency for Development. This support has enabled Lao coffee producers to improve the quality and yield of their coffee beans. The main market for Lao coffee is Europe. Coffee is exported all year round. The price of coffee has fluctuated these past years from a high of US\$ 1500/ton in 1998 to around US\$ 380/ton at the end of 2001 for Robusta beans. Arabica beans are more expensive and less subject to fluctuations. Roasting of the coffee beans is usually done in the importing country. Lao coffee beans have been recognized as good quality but the quality control on exports is poor.

Table 8: Coffee market price (FOB Bangkok)

November 2001	Robusta	US\$ 380/ton
	Arabica	US\$ 970/ton
April 2002	Robusta	US\$ 530/ton
	Arabica	US\$ 1050/ton

Source: Compiled from Industry Sources

There are currently 3 major types of plantation for coffee in Lao PDR.

- Exclusive coffee plantation, with area between 4 to 10 hectares. These plantations employ seasonal labor for maintenance and harvest.
- Coffee plantation mixed with other types of agricultural products such as cabbage, garden vegetables, etc.
- Coffee cultivated only as an accessory to other agricultural products. There is variable yield but can supplement income when coffee prices are high.

Foreign investment in the sector has been increasing along with the volume of exports to Europe. However, the future for coffee exports is somewhat bleak. With prices at historic lows and no immediate end to the overcapacity in world coffee production, it is expected that farmers will turn towards more profitable crops. Lao also faces direct competition with Vietnam, which also produces Robusta and is the second largest coffee exporter in the world. Without improvements in its logistics, it is unlikely that it can sustain a significant growth in exports.

The Boloven plateau also produces a variety of vegetables including cabbage, potato and ginger and also some tea. The fertility of the soil and the weather allow for year-round growing with relatively few inputs. The Thai merchants supply seed, fertilizers and chemicals

LIVESTOCK

There is a substantial amount of livestock raised by the farmers in Lao PDR. Water buffalo are raised for plowing and cattle for transportation and meat. Pigs are grown to produce meat for sale while poultry are primarily for home consumption. There are some large-scale producers of pigs, chickens and ducks near Vientiane but these are small compared to the industries in Thailand. The number of poultry is estimated at about 13 million and has been increasing at about 3% per annum over the last five years. The number of buffalo, cattle and pigs were estimated to be 1, 1.1 and 1.4 million, respectively, in 2000. These numbers have been declining at between 0.8% and 3.7% per annum. The decline is due to a combination of sales of productive stock to Thailand during periods of high inflation and the lower cost of imports from Thailand.

Livestock generates about ½ the farm household income, but the commercial market for livestock remains small. Most of the livestock are fed through foraging but the limited availability of forage in the dry season reduces the quality of the livestock. A limited number of licensed brokers and state-owned corporations purchase livestock from the farmer and transport

them to the licensed slaughterhouse, of which there is one in each district. From there the meat is sold to wholesalers and retailers who transport the product to market. Livestock for export are purchased by three licensed private companies and the State Provisions Company.

MARKETS AND CREDIT

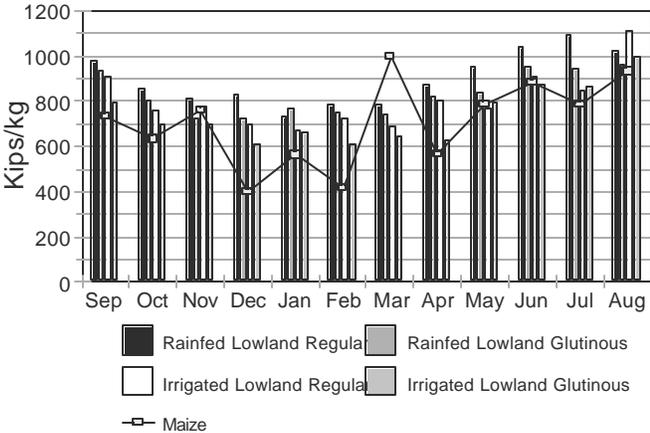
Agriculture is largely a private sector activity, but government continues to set acceptable price ranges for rice and meat. The government owns the land but a legal framework has been established for land tenure. The current procedure for allocation of land is based on the number of full-time family labor. There are no significant farm cooperatives. The government’s attempt to collectivize agriculture in the late 1970’s through the formation of cooperatives failed within a year of its initiation. Subsequent efforts to establish cooperatives for supplying inputs and marketing surpluses has had limited success. Some water users’ groups have been established to manage irrigation systems. These have been successful where they were structured around the existing village authority.

Marketing of farm products remains small-scale. The government or private traders purchase padi from the farmers and transfer it to mills where it is milled, graded and shipped to market. Dry season padi is harvested at the beginning of the wet season and requires some machine drying. The government has the only large storage and drying facilities, but these have experienced significant losses due to insects and rats. Because of the lack of storage, most of the surplus rice is sold after harvest. As a result, the price of padi varies over the year by $\pm 25\%$ as shown in Figure 13.

The agricultural markets in the Northern, Central and Southern regions are separated by poor transport and communications. The lack of regional markets leads to disparities in market price between provinces and contributes to the volatility of prices for rice and other basic agricultural commodities.

Government expenditure on agriculture has varied significantly over the last two decades. It declined from 12% of total government spending in 1988 to 7.8% in 1995/96 and then 6.3% in 1999, but increased to 7.1% in 2001. The government does not provide direct subsidies for inputs or guarantee prices for outputs. One exceptions is imported fertilizer which is subsidized through Japanese project funds. The government rations fertilizer at a “state” price, which is only half the market rate. Most of the support for agriculture is through indirect subsidies incorporated into agricultural credit schemes

Figure 13
Variation in Market Prices During Year
 Sept 99-Aug 00



implemented through the Agricultural Promotion Bank (APB).

The APB has three roles: it lends at subsidized rates under government instruction, it provides subsidized credit to private farmers on an arms-length basis, and it imports improved fertilizers, tractors and equipment for farmers. The bank lends primarily to groups. The group guarantee substituting for more tangible collateral. The interest rates on loans for padi cultivation, irrigation, livestock and food production is currently

between 10% and 12% in 1999. Other APB loans carry interest rates of 30% to 32%. Both are negative in real terms. Despite these favorable terms, most farm households are too poor or lack proper access to obtain these loans. Only about 5% of the eligible households actually receive these loans and these tend to be the wealthier farmers. Since the demand for the subsidized credit exceeds the supply of loans, informal credit remains a major source of funding for farmers.

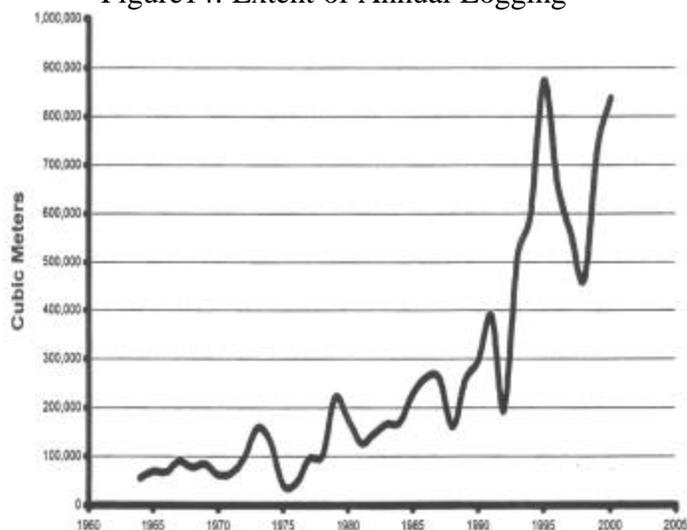
APB's lending is financed through the BOL with assistance from donors. BOL provides 60% of the banks requirements at interest rates between 5% and 7%. Because of the APBs mixed mandate, its banking activities have not been sustainable. It does not issue audited statements and its current financial condition is unclear. It is highly leveraged with a loan-to-deposit ratio of around 330% at the end of 1999.

FORESTRY

The 1992 statistics of the Department of Forestry estimated that 47% of the country had some forest cover with higher percentages in the Central and Southern regions. Of this, about 40% was classified as high density, the remainder being mixed disturbed and mixed mosaic. Approximately 85% of the forest area contains evergreens.

The logging production peaked in 1994 with DOT reporting a production of 819 thousand cubic meters (Figure 14) and exports of wood products equal to almost US\$ 100 million. The DoF estimated that approximately 7.9 million cubic meters of logs were harvested between 1980 and 1996 from about 460 thousand hectares (Table 9). More than ½ the logs were from the province of Khammuane. Under the quota system in 1998/9, about 600 thousand cubic meters was cut of which 40% came from Khammuane and another 15% from the area controlled by the Phoudoi conglomerate. However, given the large amount of illegal logging, these figures are well below the actual quantities harvested.

Figure 14: Extent of Annual Logging



The sustainable level of cutting has been estimated to be somewhere on the order of 700 thousand cubic meters per year. The official estimate of the annual rate of deforestation is 0.6%-0.8%. Other estimates range as high as 1½%. The reduction in forest area is caused not only by unsustainable logging practices but also by the cutting of fuelwood and shifting cultivation.

The government has designated a total of 2 ½ million hectares of forests as production forests. However, these have not been mapped nor has any criteria been given as a basis for their selection. In fact, logging is not confined to these forests but continues throughout the country.

The government has promoted the establishment of forest plantations for teak (15 year), acacia and eucalyptus. However, only about 57 thousand hectares of forest plantation were established during the last decade, about half in the Central Region. Of these, only half are available for production. The rest are reserved for reforestation and other purposes. The productivity of these plantations is relatively low, less than 5 cubic meters per hectare per year on smallholdings and 10-12 cubic meters per hectare per year in established eucalyptus plantations.

Table 9: Production Forest and Log Harvest 1980-96

	Production forests 000 ha.	Amount Harvested	
		1980-1996 000 ha.	1998/99 000 cu.m.
North			
Phongsaly	65.1	17.3	61.4
Luang Namtha	13.0	6.4	24.0
Oudomsai	54.4	12.8	59.4
Bokeo	97.5	41.3	193.0
Luang Prabang	2.8	1.2	4.8
Houaphan	306.4	27.8	221.7
Sayaboury	430.0	46.7	729.1
Central			
Vientiane	56.0	7.6	160.0
Xieng Khoang	223.3	11.8	154.3
Vientiane Munic.	122.7	30.3	491.9
Bolikhamsai	268.9	26.7	233.4
Khammouane	196.1	84.6	4,269.8
Savannahkhet	332.2	52.1	512.3
Saysomboune	101.6	47.5	391.7
South			
Salavane	72.7	14.7	203.5
Sekong	45.5	6.9	62.6
Champassak	53.0	7.0	54.9
Attapeu	45.9	14.3	27.7
Total	2,487.1	457.0	7,855.5

Note: 1998/99 does not include 132 thousand cubic meters from special areas including Phoudoi reserve
Source: Lao PDR Production Forestry Policy, IBRD et al, 2001

The annual volume of logs to be cut is established through quotas issued by the Prime Minister's Office. These quotas are set in consultation with the provincial authorities and coordinated through the Ministry of Agriculture and Forestry. The criteria for setting these quotas have not been presented to the public and there are no clear procedures or assignment of responsibility. The process of granting quotas to private companies also lacks transparency. More problematic, additional quotas can be issued during the logging season at the request of the wood processing industry through an administrative allocation. The uncertainty associated with the current system constrains the growth of the wood processing industry, adds to the cost of the production

and makes it difficult for exporters to make long-term commitments or to expand their businesses.

The current system of charges for commercial cutting of trees involves three forms of payment:

1. A royalty paid to the central government for the amount of logs cut based on cubic meters,
2. A reforestation fee paid to the central government for each tree cut, and
3. A fee paid to the province for the cutting of the tree.

The royalty price was set by the Ministry of Commerce based on the type of wood, but order 10/PM/2000 transferred this responsibility to the provincial authorities. It also allowed them to establish prices in negotiations with the buyers, but with the Ministry setting a floor price. It has been proposed that competitive pricing be introduced for the right to cut the logs, but the initial attempts had problems because the buyers colluded and the bids were wood below the regulated price.

Three state-owned companies perform logging. The provincial authority selects the logging company for each cutting and pays it a standard rate from the proceeds of the cutting fee paid by the buyer of the wood.

The Forestry Law addresses the classification and management of the forests, the regulation of the forest industry, tree planting, forest conservation, and the rights of the forest user. However, implementing rules and regulations have yet to be issued. In their place, the Prime Minister's Office issued two orders. Order 11/PM/1999 delineates the role of the Ministry of Agriculture and Forestry, the Ministry of Commerce and Trade, and other agencies involved in forest management, regulation of timber and wood processing industries, and collection of revenues generated from forest-related activities. Order number 10/PM/2000 prohibits logging in areas other than infrastructure development sites and production forests that have a proper management plan. It also introduces controls on the cutting of forests, bans the export of logs and reduces the amount of exports of roundwood and rough sawn wood allowed in favor of plywood and furniture. Other features of this Order are to:

- Close specific forest areas
- Ban cutting of four valuable species
- Forbid local authorities from issuing logging permits without approval of central government
- Require that logging be carried out only by state logging enterprises
- Forbids the private sector to enter forest the for logging

Unfortunately, these efforts have had limited impact because this is no adequate demarcation of protected areas. Furthermore, the framework for controlling logging is complex, inconsistent and difficult to implement. Since the administrative requirements are confusing, they have encouraged corruption and authorities that do not have the power to issue permits continue to do so.

CHAPTER 3

INDUSTRY

The formal private sector in Lao PDR is small both in the number and size of firms. There are less than 1000 registered private firms with assets greater than \$100,000. Less than 100 of the firms have more than 100 employees. The largest firms are the garment factories, which employ an average of about 400 workers. Industrial activity is also highly concentrated. Of the 560 firms with 10 or more employees, about ½ are located in Vientiane (municipality and province) (Table 10).

The development of the industry in Laos is constrained by four factors:

- Small size of the domestic market in terms of population and wealth
- Wide distribution of production and markets which combined with the difficult terrain create relatively high transport costs
- Insufficient public infrastructure
- Problems accessing markets and ports in adjoining countries

Because of the first two, industrial development has focused on export-oriented activities that take advantage of the natural resources and low labor costs.

About half of the private firms are trading companies. Others are involved in wood processing and products, construction, tourism, and commercial agricultural and forestry. In terms of the value of total output, 5 sectors, food processing, wood processing, garments, tobacco processing, and mineral processing account for approximately three-quarters of total output. The first two account for about 2/5, but the garment industry is the most dynamic and the largest source of exports as shown in Figure 15. Among the industries in which Laos PDR appears to have some comparative advantage are vegetable and animal products, mineral products, garments and footwear.

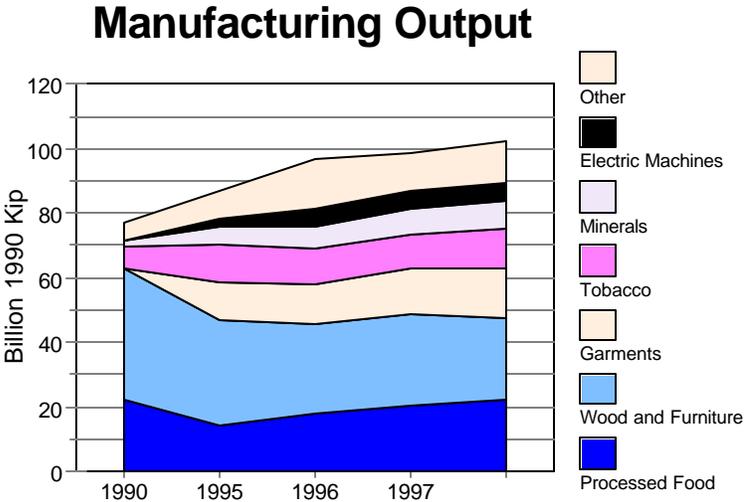
Table 10: Size of Industries by Employment

	Employees	
	>100	10-99
Vientiane Munic.	60	134
Luang Prabang		3
Oudomsai		51
Vientiane	1	46
Bolikhamxai	3	22
Khammouane	19	8
Savannahkhet	10	41
Saravane		19
Champasak	6	53
Other Provinces		85
Total	99	462

Source: 1998 Survey of Industries and

Wood products remain the largest export earner followed by garments (Table 11). There are estimated to be approximately 181 wood processing businesses in Lao. These have an operating capacity that is estimated to be between .6 and 1.2 million cubic meters of logs per year. Most of these are located in the central region. About ½ are joint ventures. Another 1/3 is privately owned. Since they have a greater capacity than the supply of raw materials, a large number of mills are operating at a loss. The existing sawmills also have problems with outmoded technology that reduces the yields of lumber to as low as 50%. Also they are not able to cut with the precision required for European standards.

Figure 15



The medium term prognosis for the wood industry in Lao PDR is not good. While there is a reasonable amount of forests, much of the good quality wood has been cut. There is also little evidence that the government has been able to do anything more than slow the illegal trade in logs. With plantation-based wood industries coming on-stream in Indonesia and Thailand, Laos will be at a competitive disadvantage. Without improvements in its productivity and technology, there will be relatively little opportunity for expansion of this industry.

There are about 65 companies involved in garment manufacture. They cut, sew, and trim imported yarns and fabrics and export both knitwear and other garments. Most involve foreign investment, with Thai participation being significant. Nearly all of their output is exported. The foreign partners control the purchase of inputs and sale of the outputs.

This industry has developed largely as an outlet for the adjoining countries, which are not able to expand production under the existing quota system. Laos enjoys some advantage in terms of low cost labor but this has much less importance given the widespread introduction of computers in the design, cutting, sewing, trimming, accessorizing activities. Future growth will be limited by the termination of the MultiFiber Agreement (MFA), the absence of economies of scale, difficulties with importing inputs and exporting product, and the problem of obtaining credit for capital investment. Furthermore, Laos has no competitive advantage relative to China or Vietnam, which have sizeable garment industries. It is likely that this sector will begin declining within a few years when the MFA is terminated.

The exploitation of the country’s mineral deposits has proceeded relatively slowly. It is expected to increase as the availability of inexpensive hydropower increases. However, growth in exports will continue to be hampered by the cost of transport. The size and production costs for the known deposits are not sufficient to justify the necessary investment in bulk handling transport systems using rail, large trucks or slurry pipelines.

The principal constraints on production for exports are transport costs and lack of information on export markets in prices. Formerly, there was a problem of trade finance, but this appears to have been mitigated through the expanded role of Thai banks in Lao commercial activities. For exports to Thailand, there remain the problems of high tariffs and the unregulated practices of local Thai customs officers at the border. Thailand’s tariffs under the regional CEPT agreement remain high relative to other ASEAN countries, nearly three times higher for agricultural products. The tariffs for selected agricultural products from Lao PDR have been reduced, provided they are accompanied by a certificate of origin.

Inconsistent government policies and procedures continue to hamper the growth of industrial activity. These increase the risks to entrepreneurs due to

- Lack of a comprehensive enabling environment for the private sector
- Poor coordination of policies between the central and provincial authorities
- Cumbersome approval procedures for FDI
- Lack of transparency in the legal environment and bureaucratic procedures
- Inflation affecting both the ability to sell in the domestic market and foreign exchange exposure

Growth in the country’s exports will be sustained in the medium-term by improvements in transport, the availability of natural resources, labor costs that are expected to remain below those in the region, improved access to markets in the EU and US and liberalization of trade tariffs and policies within the region.

Efforts to encourage export competitiveness that have been implemented since 1986 as part of the New Economic Mechanism include:

- Unification of the exchange rate,
- Simplification of the tariff structure,
- Harmonization of the customs code, and
- Introduction of a foreign investment code facilitating foreign direct investment

Table 10: Value of Major Industrial Exports (1998)

Garments	70
Electricity	61
Wood Products	115
Agricultural Products	8
Coffee	48
Motorcycles	18
Others	17
Total	337

Source: IMF Statistics

CHAPTER 4

TRANSPORT NETWORK

Effective transport is critical to the development of the Lao economy. It must overcome the low population density and hilly terrain. In particular, it must provide efficient connection between the economic centers of the three regions; Luang Prabang in the North, Vientiane in the center and Savannakhet and Pakse in the South.

ROAD

The Lao road network is relatively limited. The current network of some 23.9 thousand kilometers includes about 6.5 thousand kilometers of national highways, and 7.2 thousand kilometers of provincial roads. The two most important national highways are Route 13 the major north-south corridor from north of Luang Prabang through Vientiane to Savannakhet, Pakse and on to the border with Cambodia (about 1500 km), and Route 9 from Savannakhet across to Lao Bao (209 km). A third, which is currently under construction, is Route 3 connecting China to Thailand, a total length of 237 km. Less than 20% of these roads are paved (Table 12).

Table 12: Road Network 000s km

Bitumen	4.7
Gravel	6.1
Earth	13.2
Total	23.9

Source : ADB Road Infrastructure for Rural Development Project, 4/2000

More than half of all public investment in the period from 1990-1995 went for the rehabilitation and upgrading of 2000 kilometers of road. A high level of investment continued through the rest of the decade covering an additional 1000 km. These investments focused on national highways and urban roads.⁵ Despite extensive development of local roads, about 2/5 of the population are still more than six kilometers from the nearest road.

Only half the National highway network is paved and only about 70 percent is open throughout the year. Very few of the provincial and local roads are paved (Table 13) and only about a quarter are accessible during the rainy season. . The condition of the roads is similar for national, provincial and local with about 1/3 classified as good-to-fair condition. The paved roads are in better condition than the dirt roads but the gravel roads are better than both with almost 1/2 in good-to-fair condition.

The road network is relatively extensive given the size of the population and the amount of traffic. Volumes on the primary roads are on the order of 250-500 vehicles per day, while traffic on the rural roads are 1/10 of these levels. Vehicle ownership is also low. Only 150 thousand

⁵ The World Bank's 1997 Public Expenditure Review recommended that transport expenditure focus on a maintainable core network within a resource envelope of 3.5% - 4% of GDP.

motorcycles, 30 thousand cars and light trucks and 10 thousand heavy trucks and buses are currently registered. The majority of these are registered in the Vientiane Municipality.

Table 13 Condition of National Road Network

<i>Road Type</i>	National	Provincial	Local
Bitumen	51%	11%	1%
Gravel	25%	23%	20%
Earth	24%	66%	79%

<i>Road Condition</i>	Good	Fair	Poor/Bad
National	16%	23%	61%
Provincial	19%	16%	65%
Local	16%	28%	55%

<i>Road Condition</i>	Good	Fair	Poor/Bad
Bitumen	23%	17%	60%
Gravel	26%	22%	53%
Earth	13%	25%	62%

Source: ADB

Foreign assistance for transport has totaled to about US \$500 million between 1983 and 1996. This assistance covered between 65% and 80 % of capital expenditure for individual projects, but the local contribution has been declining since the mid-1980s. The cost for road building varies considerably depending on the terrain. In mountainous terrain, two-lane paved roads cost about \$265,000 per kilometer. In flat terrain, the cost is less by about 1/3. Dirt roads in flat land cost only about \$25,000. Despite low traffic levels, the new and rehabilitated roads have deteriorated more rapidly than expected (about half their expected economic life). This is attributable to poor design and construction as well as damage from overloaded trucks. There has also been a lack of maintenance, responsibility for which has devolved to the provincial governments.

Currently the vehicle load limit for trucks operating in Lao PDR is 8.2 tons per axle versus 9.1 tons in Thailand and Vietnam. However, overloaded trucks can enter Lao by paying a relatively modest informal charge.⁶ There are proposals to increase the limit in Lao. The current taxes on heavy vehicles are much less than the marginal cost of the damage they cause the roads.

The trucking in Lao is provided by relatively small private companies. The few large trucking companies that provide common carrier service include:

⁶ Officially trucks are not allowed in Lao PDR if the axle load is more than 8.2 ton. Thai trucks are usually overloaded even for Thailand with loads of up to 12-13 ton per axle. When these trucks enter into Lao PDR, they bribe their way at the weigh-in and during the transit to Thanaleng in order not to have their goods transhipped.

- Societe Mixte de Transport which provides local transport for movement of export/import cargo to/from Nong Khai and project cargo imports
- Lao Freight Forwarder
- Lane Xang Transport

A large amount of the trucks are owned by firms that use them to carry their own cargo. Most of the other trucks are owned by individuals. The largest trucks are 10 wheel, rigid body trucks, but more common are the six wheel rigid body trucks. The trucks operate with a driver and helper. The trucking companies hired out on a single or multiple trip basis to the cargo owners. Most of the trips involve an empty backhaul. The operating costs for a typical Lao trip are summarized in Table 14.

Table 14: Truck Operating Costs

Item	6 wheel	10 Wheel	Units
Vehicle Life			Years
Typical Utilization			Kms/year
			% Empty kms
Average Load			Tons
Capital Costs			
New Truck			000 Kip/Vehicle
5-Year Old Truck			000 Kip/Vehicle
Amortized Costs			
New Truck			Year
5-Year Old Truck			Year
Labor			
Driver			Year
Helper			Year
Fuel and Lube			
Fuel Consumption			Liters/km
Fuel Cost			Liter
Lube Consumption			Liters/km
Lube Cost			Liter
Tires			
Cost			Per tire
Life			Kms
Average Cost			Kip/truck Km
Maitenance			
Regular			Kip/km
Overhaul			Kip/100,000 km
Administration			% Operating Cost
Average Operating Cost			
Total			Kip/Km
Loaded			Kp/ton km

At present, Lao trucks are allowed into Thailand only within the province adjoining the crossing point, e.g. Nong Khai for Vientiane. Transport between Nong Khai and Thanaleng generally involves an empty backhaul, whether performed by Lao or Thai trucks. Carriage of Lao transit cargo through Thailand can be done only through designated and licensed road hauliers.⁷ Originally this was limited to Express Transport Organization (ETO), the state-owned enterprise not noted for the quality of its services. This was eventually expanded to include two trucking firms, Ubonsahatham (Thai) and TL Enterprises (a Lao operator in joint venture with TEC) and two transport companies, Regional Container Line (RCL) and State Railway of Thailand (SRT), which contract services from ETO. Cargo shipped to or from Thailand can be transshipped at Nongkhai between any Thai truck and any Lao truck. Containers can be stuffed/unstuffed at this location but there are no facilities for doing this.

Typical rates for containers transiting between Laos and Bangkok port are shown in Table 15. The rates do not include the terminal handling charge (THC), which is Baht 2600/3900 for (20’/40’) and the D/O Fee of Baht 500/set. These rates are inclusive of the port gate charge, customs guard fee, third party risk premium at Laos, and the fee for returning the empty container to Bangkok, but do not include the charges for Unloading /Un-stuffing at destination or for customs formalities at Laos, import tax and duty at Laos.

Table 15: Typical Road Transport Cost For Export And Import via Thailand

	20’(USD)	40’(USD)
Import (Bangkok transit shed to)		
Thanaleng	1050	1250
Vientiane	1100	1300
Thakhek/Khamoua	1200	1400
Savannakhet	1200	1400
Chongmek	1150	1350
Pakse	1300	1500
Bolikhamxay	1450	1550
Champasak	1450	1550
Salavan	1450	1550
Sekong	1500	1600
Attapeu	1700	1800
Export (from Bangkok)		
Thanaleng	1050	1250
Vientiane	1100	1300

Source: Compiled from industry sources
 Notes : Discharge port : Bangkok PAT,
 Mode of transportation: Trailer Transit Time
 Overnight, ‘Bond’ for container: US\$ 1250/ 20’ & 40’
 Free time: 3 days, Detention charge: 5\$ (20’) & 8\$ (40’)/day/container

⁷ This was intended to be 5 Thai and 5 Lao companies but only one Lao company is currently involved

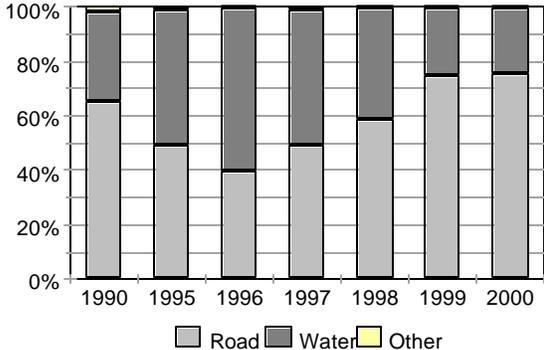
The rates for exports from Thanaleng and Vientiane to Bangkok are for non- wood product and include round-trip transport, custom clearance in Bangkok, and a customs guard fee (though no guard). These rates do not include export customs formalities in Laos or container stuffing charge at Vientiane

Given the limited amount of resources available for the development of the road sector within Laos, two critical issues need to be addressed:

- whether to concentrate investments in rural access roads or on the primary roads connecting the major market centers, and
- whether to emphasize investment in new roads or maintenance/renewal of existing roads

One approach for resolving these issues is to stretch budget resources through more appropriate design and maintenance of rural roads. Low-volume roads should be designed for labor-based construction and maintenance methods. The construction and maintenance should be done with local inputs to ensure that the roads are our meeting the needs of the villages. Provincial roads should be primarily gravel since these are easier to construct and maintain and well suited for low-volume traffic. Some of the national highways, in particular the transit corridors Routes 3 and 9, should be toll roads with the toll revenues used to maintain the roads.

Figure 16:
Modal Share for Freight Transport



INLAND WATERWAYS

River transportation in Lao PDR is primarily along the Mekong River. The Mekong River runs through Yunnan province in China, Myanmar, Lao PDR, Thailand, Cambodia and Vietnam. The section within Lao PDR is 1, 970 km of which 1, 865 km is navigable to some degree. Most of the traffic is between Vientiane and Sayabhoury, about 400 kilometers. The main commodities handled along this route include sand, rock and wood products shipped south from Sayabhoury and food grains and steel products shipped north from Vientiane. Barges are also used to carry logs from the Northern provinces to the sawmills around Luang Prabang and Vientiane.

The majority of river traffic is ferries crossing between Lao and Thailand and local transport along the riverbank. There are five main designated river ports: Vientiane, Savannakhet⁸, Pakse, Paksan (in the South) and Tarket (in the North). These are used for handling bulk cargoes and logs as well as for ferry crossing between Thailand and Lao PDR.

⁸ Cargo used to be transported to from Vientiane to Savannakhet by the Mekong river from June to October but with the new road the majority of the cargo is transported by trucks.

Most vessels are self-propelled barges with an average draft of 1.3 meters. During the rainy season, the river provides an alternative to road transport along the western border of the country and in the Northern region. On the northern section of the Mekong River, vessels up to 400 DWT can operate year round. Elsewhere, operations are limited to barges of 200 DWT or less. In the dry season, most of the river is navigable only by the small, shallow-draft, narrow-beam passenger vessels.

Before the completion of the Australian-built Friendship Bridge between Nongkhai and Vientiane in 1994, all cargo transiting to/from Thailand had to be transported across the Mekong on barges. At that time, most of the exporters had their manufacturing facilities along the bank of the river where barges could come and collect the goods directly. The market share for inland water declined significantly in the period following the construction of the Friendship Bridge and again following rehabilitation of Route 13 (Figure 16). An additional decline is expected following the completion of the bridge between Savannakhet and Mukdahan. Current government statistics estimate that about three-quarters of the 175 million ton-kms of freight traffic move by road and 1/4 by inland waterways.

The Mekong River Commission (MRC), which is based in Phnom Penh in Cambodia, is looking at how to enhance the role of the river in international transportation of goods. A plan for freer flow of goods along the Mekong River was endorsed at a meeting of officials in Yangon with Thailand, Myanmar, China and Lao PDR⁹ in March 2000. This would facilitate navigation on the upper part of the river to boost trade in the four countries. It would also provide navigation aids, improve river ports and develop the links to the land network link to promote the integration of the logistical chain. Lao has agreed to extend this plan up to Luang Prabang.

At present, the three main transit corridors from Lao through Thailand are the routes via :

- Thanaleng/Nong Khai
- Savannakhet/Mukdahan, and
- Pakse/Chong Mek

The first route serves cargo moving to/from Vientiane and the Northern Region. The route crosses over the Friendship Bridge to Nong Khai and from there by four-lane highway to Bangkok. The distance is about 642 kilometers.

The second route is used by cargo transported to and from the provinces of Khammuane, Savannakhet and Saravane. It crosses the Mekong River by barge and then by two-lane road through Ubon Ratchathani to Laem Chabang. A new international bridge will be completed by 2003 and the road from Ubon will be widened. The distance to Bangkok is 663 kilometers.

The third route is used by cargo transported to and from the Southern region, especially Champsack. It crosses the Mekong on a recently opened bridge and from there follows a two-lane road approximately 747 kilometers to Bangkok.

⁹ The Bangkok Post, Perspective, 12-03-2000, Internet Edition.

Lao trucks entering Thailand must pay for:

- a laissez passer issued by the Lao police,
- authorization from DCTPC,
- customs duties,
- document clearance and stamp, and
- a border pass.

On the Thai side of the border, the trucks must pay for document clearance and insurance.

Third party liability coverage is required for vehicles operating in the GMS countries. The contracts for this insurance are currently limited to the individual countries. Insurance for vehicles transiting other countries is purchased at the time of crossing the border. There is only one insurance company in Lao, Les Assurances Générales du Lao PDR. This company has a branch located at the border crossing which sells both Lao and Thai cover. The latter is offered in its capacity as an agent for a Thai insurance company. Regional cover is not yet available. The ASEAN countries have been discussing this but without much success. .

IMPORTS THROUGH THAILAND

The most expensive component of the movement between the vessel in Thai ports and Thanaleng is the trucking within Thailand, which costs around USD 1,000. Other types of charges can take up to 20% of the total transport cost with charges at Bangkok port representing 5% of the total transport cost.

The trucking costs are is high because all the trucks going to Thanaleng must come back into Thailand empty¹⁰. These trucks can wait in Nongkhai for export cargo, but with such low export volumes from Lao PDR the majority of trucks go back immediately. Similarly, for Bangkok-Thanaleng there is a problem of empty backhauls because the imbalance of Lao PDR foreign trade is compounded by the imbalance of flows from Bangkok to the Northeast of Thailand. This is compounded by restrictions in the Thai trucking market.

The main difference between importing via Laem Chabang port and Bangkok port depends on how long the goods will have to wait for their consular documents from the Lao embassy in Bangkok. If upon arrival at Laem Chabang port, the goods are not cleared for transit to Lao PDR, within 3 days, then they will be moved under Thai Customs escort to the Lao transit cargo warehouse in the vicinity of Bangkok port at the shipper's expense.¹¹ For this reason, most of the cargos imported through Laem Chabang port are project cargo or FCL boxes

¹⁰ Except if these trucks belonged to the transit traffic franchisees such as the ETO, Ubonsahatham, RCL, TL Enterprise, the SRT, and have return freight.

¹¹ In the early 1990s, transit procedures was even more restrictive with all Lao bound cargo upon arrival, in Thailand, transferred immediately to the dedicated transit warehouse no matter the port of arrival. All these transfers were made under Thai Customs escort. Only project cargo

For LCL imports, Bangkok is preferred because the storage charges can be better controlled and rectification of Lao consular documents can be made more easily given the proximity of the Lao embassy. For project cargo, Laem Chabang because the cargo can bypass Bangkok and its notorious congestion problems. The land transport cost is the same for Laem Chabang and Bangkok even though the distance from Laem Chabang to Nongkhai is slightly longer at 714 km. Transit times are also similar. The major distinction is the time spent clearing cargo and in port storage. Due to difficulties in document processing for import and transit cargo, Lao traders prefer Bangkok even though the infrastructure at Laem Chabang is better and the operations more efficient.

Another option is to import via Laem Chabang through the Lad Krabang Inland Clearance Depot (ICD) located in the outskirts of Bangkok with a direct rail link to Laem Chabang port. This is not used because the transport cost is greater with at least three intermodal transfers from the feeder vessel to the train and then transfer first to Lad Krabang and then to Nongkhai where the cargo is transferred to a truck for the journey into Lao PDR. In addition, there are delays waiting for the inland intermodal connection. The rail journey from Laem Chabang to Lad Krabang requires only three hours but the State Railway of Thailand is not renowned for its punctuality or quality of service. The majority of logistics operators in Lad Krabang also rely heavily on trucking companies to transport their cargo to Lad Krabang ICD from Laem Chabang port as this can be done within 1½ hour at a lower cost.

Import containers for Lao PDR that are shipped via the Lad Krabang ICD do not have to be checked at Laem Chabang port provided their seals are intact but they do have to be checked by Thai Customs at Lad Krabang before being released for the journey to Lao PDR. These procedures usually take at least 1 working day to complete. Nevertheless, Lad Krabang ICD might become more attractive if the intermodal connection is improved and Lao traders are given better information about the types of services offered in an ICD¹².

Bangkok Port remains till the dominant import port for Lao trade based not on price or time but rather on the proximity of transit-related regulatory agencies that may facilitate or impede the movement of imported goods from Bangkok Port to Vientiane (i.e. the Lao embassy, the Port Authority of Thailand and the location of the dedicated transit warehouse for Lao PDR under the Thai Customs Department).

IMPORTS THROUGH VIETNAM

Imports through Vietnam have a serious problem of delays. These are usually between 10 days to 2 weeks but a month is not uncommon. The delays will most likely occur when the goods arrive at Danang port in Vietnam. Before the goods can move out of the port, all documents and transit permit must be in order. The procedure for import cargo is similar to the procedure for

were exempt from that restriction. The current cost for the transfer to Bangkok port is of about USD 40-50 per TEU.

¹² Some Lao exporters were also unaware of the ICD concept and functions.

export cargo. When all the documents are ready, the goods move in transit to the border crossing at Lao Bao-Houey Khaki. Vietnamese customs officers will usually escort the cargo up to the border. The time for crossing the border is minimal. The distance from Vientiane to Bangkok (650 km) is shorter than to Danang (1060 km) and the transit time much greater, 3 to 4 days versus one day from Vientiane to Bangkok.

After crossing the Lao Bao-Houey Khaki border, the goods go to Thanaleng Custom's post where it will take usually 7 to 10 days to clear the cargo if all the documents are in order. While waiting for clearance, the owner of the goods is charged USD 10/TEU per day for storage. If the cargo is unstuffed at Thanaleng, there is an additional cost of USD 30 per TEU. This fee includes the transfer of the goods to local trucks for transfer to the importer's warehouse in Vientiane. More than USD 60 is paid to facilitate the routing of documents while processing import clearance to Customs officers, stevedores, etc.¹³.

The route through Vietnam is almost never used because of the problems with corruption, bureaucratic delay, pilferage and other uncertainties. It is mostly used for government cargo or certain project cargo being sent to the South of the country near Savannakhet.

EXPORTS THROUGH THAILAND

The most expensive inland leg is between Vientiane to Thanaleng with a freight rate of 3.6 USD/km, however, this high cost is a result of the short travel distance, relatively long loading/unloading times and slow travel speeds. The border crossing represents 20% of the transport cost up to Bangkok port with 12% going into document charges and 8% into 'tea-money'.

Bangkok port is also expensive for both Thai and Lao shippers. They pay around 161.8 USD per container for port handling charges. The Terminal handling charges (THCs) represents about 42% of these charges and 'Tea money' another 13%. The Port Authority of Thailand has tried to eradicate the latter but was unsuccessful as workers adopted a 'go-slow' policy causing congestion in the port area during early 1999. THC has come under the scrutiny of the Thai Ministry of Commerce but without much success as liner operators would not lower their THC charge without a reduction in corruption and restrictive labor practices.

For exports via Laem Chabang, the port charges represent only 20% of the inland transport cost compared to 26% for Bangkok port. The transit charge between Thanaleng and Nongkhai (including Customs and document charges) represents around 17% of the total inland transport cost. The trucking charge is USD 362 when going to Bangkok, 13% higher than Laem Chabang with no real difference in transit time.

The use of the route via Lad Krabang is marginally more expensive than the direct route between Vientiane and Laem Chabang route. This intermodal link has been heavily promoted by the State Railway of Thailand as a way around the congestion on the roads to Laem Chabang port but presently the service is not reliable enough, and a lot of cargo has diverted to road between

¹³ Gifts of similar value are also accepted

Lad Krabang and Laem Chabang port instead. The main weak point is the border crossing between Lao PDR and Thailand and the second one is the intermodal connection with rail transport at Lad Krabang ICD.

On certain routes, such as via Bangkok, transit and local charges represent around 10% of the total transport cost, with 'tea money ' representing up to 2%. The figure might not be very high, but this 2% does represent a loss in terms of the Laotian trade competitiveness.

CHAPTER 5

TRADE FACILITATION

FINANCING AND FINANCIAL INSTITUTIONS

An efficient financial system is critical component in logistics, not only to facilitate trade in goods and services but also to provide instruments for trading, hedging and pooling risks. The formal financial system in Lao PDR is limited to commercial banks and treasury bills. It is relatively shallow with M2 money supply equal to only 13% of GDP. However, there is considerable liquidity outside the formal system, especially in the form of foreign currency holdings. The perception that the domestic savings rate is relatively low ignores the significant savings in kind, including: precious stones. Nevertheless, this small ratio limits the power of government to provide macroeconomic stability.

The economy has relatively little reliance on formal sources of finance. The credit provided to the economy is less than 15% of GDP while the average for the ASEAN countries exceeds 100%. Only about 11% of all households carry debt and 1% have bank deposits. Eighty percent of the small and medium rural enterprises do not take out loans. Those that borrow rely mostly on family friends and moneylenders. Most rural households lack access to short-term credit facilities for the working capital to finance inputs and such as fertilizers and agrochemicals.

The banking system consists of the central bank (BOL), four state-owned banks, two joint venture banks and seven branches of foreign banks. The BOL sets interest rates for overdrafts and CDs. The rate for T-bills is set through auction although a rate cap is established. Interest rates for deposits and loans have been set by the market since 1995 except in times of financial crisis.

The three commercial state-owned banks (BCEL, Lao Mai, and Lane Xang) were formed through the merger of seven banks that had originally been formed by splitting up the State Bank of Lao. These seven banks had inherited many of the bad loans from the period of the planned economy and had not been provided with inadequate capital. They were recapitalized in 1994 by transferring \$25 million of non-performing loans to the Asset Management Division of MOF. This did not resolve the problem of non-performing loans, so they were merged into three banks in 1998. Since, there was no recapitalization. These banks are now insolvent with about US\$50 million of non-performing loans.

The two joint venture banks are between BCEL and Bank for Industrial Development of Vietnam and between BOL and Thai private investors. The foreign banks include six Thai banks and one Malaysian bank, their local offices were established during the period 1992-1994. The Thai banks concentrate on trade finance and corporate lending for working capital. The Malaysian bank focuses on garment manufacturing. In addition, Standard Chartered Bank has a representative office in Vientiane that provides offshore trade finance.

The total assets in the banking system at the end of 1999 were estimated to be just over \$400 million. About 80% of the deposits in the system were in the state-owned banks. Deposits are equally divided between individuals and firms. About 85% of all deposits were foreign currency. The four state-owned banks accounted for 70% of this total, the foreign banks about 21%.

About half the outstanding loans in the banking system loans are to the public sector and half to the private. A portfolio review conducted in 1999 estimated non-performing loans at 60 percent of the total outstanding loans. This percentage is much higher than put forward by the Bank of Laos. For the state-owned banks, about 4/5 of the loans are non-performing. This higher rate derives from the fact that a significant portion of these loans are policy-driven rather than financially justified. The loan-to-deposit ratio is relatively low at 50% and would be much lower if non-performing loans were excluded. Most of the revenues of the state-owned banks are derived from investing their liquid assets overseas.

The Banque pour le Commerce Exterieur Lao (BCEL) is wholly owned by MOF. It is involved in trade finance, providing services such as letters of credit, import and export settlements. About 90% of its assets are denominated in foreign currencies, primarily US\$. The bank will open L/Cs only with 100% cash cover. The Bank accounted for about half the total deposits, but only 40% of the outstanding loans at the end of 1999. As a result, the loan-to-deposit ratio was only 39 percent. About 60% of its loans are to SOEs. About 15% of its balance sheet is funded by BOL, primarily in US\$. Its income derives primarily from foreign exchange transactions.

While the banks have sufficient liquidity to prevent a run on the banks, they are no longer in a position to make loans necessary for the economy to grow. Under an agreement with the IMF, the three state commercial banks are currently undergoing external international standard audits and have stopped lending to those with non-performing debts. A restructuring plan has been agreed to including the merger of Lao Mai and Lane Xang.

CUSTOMS PROCEDURES AND DUTIES

Thai Customs Procedures

All Lao import cargo passing through Thai ports must, upon the vessel's arrival, be delivered to the transit warehouse at Klong Toey that is dedicated to transit cargo destined for Lao PDR. The goods remain there at least 2 to 3 days while waiting for consular documents from the Lao Embassy in Bangkok. The cargo is then examined by Customs. This includes cargo transported in sealed containers. The Port Authority of Thailand assumes responsibility for this movement if the cargo is unloaded at the Port of Bangkok. Cargo unloaded at the Laem Chabang or one of the five private ports is moved to the transit warehouse at the consignee's expense.

Once inspected, the cargo is loaded into trucks and Customs seals attached. The trucks move without escort to the Lao border, although an escort fee is charged. At the customs post at Nong Khai, the seals and documents are checked and the trucks continue to Thanaleng where the cargo is unloaded to the customs warehouse. For this journey, the cargo moves under an "In-Transit"

entry document issued by Thai customs. In order to obtain this document, the importer must submit a letter of authorization from the consignee, a letter from the commercial attaché at the Lao PDR Embassy in Thailand, a commercial invoice, packing list and bill of lading.

For export cargoes, the procedures are much simpler. Cargo is transported from the origin to the Nong Khai Customs clearance house under the truck operator’s bill of lading. There the cargo is inspected by Thai customs; this includes cargo in sealed containers. The cargo is then loaded into trucks, sealed with the Thai custom’s seal, and moved directly to the port under an “In-Transit” entry document.

The time required for clearance of the transit cargo is similar to that for Thai imports. Table 16 summarizes the average amount of time required for the release of imported goods. Most of delays for transit goods should be eliminated under the revised transit trade agreement to take affect in June 2002.

Document preparation is the most time-consuming activity. The purpose of these documents is to check that the goods imported are really destined for Lao PDR. A major problem with going through Bangkok is that Thai Customs open all containers to check if the goods are in conformity with the packing list. Many Lao importers have complained about this practice but to no avail as Thai Customs claim that they need to verify all Lao cargo for national security reasons.

Table 16: Average Time Required For Import Clearance & Release Of Goods

Activities	Customs Formalities	Average Time	
		(Hrs)	Percent
-Prepare documents for import clearance		119	61
	-Customs formalities & duty assessment	2	1
-Prepare document for payment of duty		41	21
	-Payment of duty	0.2	0.1
-Prepare for inspection		20	11
	-Manifest examination	0.2	0.1
-Port Authority release goods		2	1
	-Release of goods	0.5	0.3
-Prepare goods to move out of port		11	6
	-Check post	0.1	0.1
TOTAL		195	100%

Source: Adapted from Thai Chamber of Commerce (1999)

Thailand remains the preferred transit route for Lao trade with third countries despite its cumbersome customs procedures. It offers more frequent sailings and direct calls and Vietnamese procedures are even less efficient. Vietnam requires prior authorization from the Ministry of Trade for each shipment. In order to issue a transit permit, a formal request must be received from the Lao Ministry of Commerce along with the original copy of the import license. This procedure involves one to two weeks. Furthermore, the transit document designates which port can be used. This procedure has been simplified by allowing the provincial governments to

process the documents but it still requires approval from the central government. Once approved, the cargo can be carried on either Lao or Vietnamese vehicles to/from the port.

Lao Customs Procedures and Duties

Lao trade, especially exports, is constrained by myriad levels of government controls. Each exporter and importer must obtain licenses to act as a trading company both annual volume and individual shipments.

The time required to complete import/export procedures averages about two weeks because of the need to process the documents through four different agencies (Ministry of Commerce, Ministry of Finance, Trade Department of Vientiane and, Customs Department) each in a different location. For importers and exporters located outside of Vientiane municipality, there is the additional delay of processing the documents through the provincial offices.

The cargo clearance procedures of Lao Customs are relatively simple but not necessarily efficient. Customs documentation has been greatly simplified with the introduction of a Single Administrative Document that applies to imports, exports and transit. The commodity classification has also been standardized using the Harmonized System. There is a four-step clearance procedure: first, checking the document for errors, second, approving documents and assigning staff to inspect the cargo, third entering the data into statistical system, fourth performing the physical inspection.

Forwarders and consignee are responsible for clearing cargo. There are no licensed customs brokers or cargo agents.¹⁴ Lao PDR is not a member of FIATA (International Federation of Freight Forwarders Associations). There are a few international forwarders, e.g. Geodis and Schenker) which have representation in Lao. The Lao International Freight Forwarders Association (LIFFA) has 12 members and is seeking representation in FIATA. Its internal regulations are awaiting approval of MCTPC.

There is no procedure for early filing of cargo documents. Customs does not have any computerization except for the collection of trade statistics and revenue statistics.¹⁵ There is no automated document processing and no plan for introducing EDI since the volume of traffic is not sufficient. Customs does not exchange information with Thailand. The customs statistics are collected but not compiled or published

All imported cargo is cleared at Thanaleng, the Customs warehouse located near the Friendship Bridge. The exception is re-export cargo, which can be delivered direct to bonded warehouses

¹⁴ There is discussion about introducing a system of clearance agents in the future.

¹⁵ Customs has yet to computerize its operations because the relatively small volume of trade does not justify the investment.

located at the importers facilities.¹⁶ Goods stored in these warehouses do not pay duties until they are distributed to the domestic market.¹⁷ At present, there are only a few of these facilities.

The inspection of imported goods is at the discretion of the Customs officers. They will consider the risk associated with the commodity as well as the reputation of the importer. For a new importer they will inspect 100% of the merchandise. There are no published guidelines for these inspections, nor has customs applied any risk management strategy.

Under the law, the consignee has 10 days in which to clear the cargo without paying charges for storage in the Customs warehouse. Cargo can be cleared within ½ day if all documents are in order. There are relatively few problems associated with the importer not being able to pay the duty or incorrect reporting of goods on the cargo documents. Most of the delays are associated with obtaining import and export licenses from the Ministry of Commerce. The export licenses require 4-7 days while the import licenses usually require 2 weeks.

The duties on cargo imported to Lao range from 5% to 40% of CIF value depending on the type of commodity. For cargoes imported through Thailand, the Thai customs add 15% to the CIF value at the unloading port and this value is used by the Lao customs.

Cargo for temporary import, i.e. re-export cargo used as inputs to the production of exports, is charged a reduced duty. If the normal duty is 5%-10%, the reduced charge is only 3%, for import duties up to 20% the charge is only 5%, above 20%, the charge is 7%. There is no system of duty drawbacks. The exception is fabric imported for the manufacture of garments, which is not changed any duty but must be cleared at Customs. There is no physical inventory but an accounting record is maintained to balance the amount imported with the amount exported. Government project cargo is sometimes allowed to enter the country without paying duty but is then charged later

There are no duties on export cargo but there is a fee paid to customs based on the amount of cargo. Export cargo can be cleared at the factory under special arrangement with Customs. Cargo is sealed according to the requirement of Thailand rather than international convention. Exporters must complete Declaration 10, the export document, and also provide a packing list, invoice, export license (where required), health and agricultural licenses,

The border crossings operated by Lao customs are shown in the following table. Their operating hours are 08:00-12:00 and 13:00-16:00. The major crossing point is the Friendship Bridge between Nongkhai and Thanaleng. Operating hours on the two sides were harmonized in 1999 to a 7-day a week with operation from 06:00 to 22:00. However, trucks cannot cross the border after 16:00. The toll for crossing is about US\$5 for a ten-wheel truck and US\$8 per trailer.

¹⁶ The Customs laws of Lao PDR distinguish between four types of bonded warehouses: real, special, fictitious, and industrial.

¹⁷ Thailand provides for manufacturing bonded warehouses and for Free Trade Zones which are exempt from taxes and duties in order to promote exports for agricultural food and food processing, electronics, automobile manufacturing and assembly, jewelry, and high-quality, expertise-oriented industries.

Table 17: Lao Customs Checkpoints

Type	City, Province
With Thailand	
International	Houi Sai, Borkeo Thanaleng, Vientiane Thakhek, Khammouan Hanthabouly, Savannakhet Vangtao, Champasack Pascane, Borlikhamxay
Local	Kaen Thao, Sayabouly Salakham, Vientiane Paktaphane, Salavanh
With Vietnam	
International	Dansavanh, Savannakhet Nampaow, Bolikhamsay Na Meo, Houaphanh
Local	Nam Khan, Xiengkhouang

UNOFFICIAL CROSS-BORDER TRADE

Much of these imports are unofficial, cross-border trade not only at unofficial crossing points but also at the official crossings. Import duties in Lao PDR range from 10% to 40%. There is also an import quota system for certain products. In addition, Lao importers must provide their import plan for the year with an import ceiling fixed at not more than US\$ 600,000 per year. Given these constraints, official importers and authorized dealers have difficulty competing with the unofficial border trade. Smuggling also has the incentives of:

- A long border with relatively few official crossing points
- Well developed markets and supply chains on the Thai border towns
- Avoidance of local taxes and import duties which range from 10% to 40%
- Relatively lax customs procedures on the Lao side
- Corrupt and arbitrary customs procedures on both side
- Cumbersome government procedures for approving exports and imports

Smuggling also offers a more efficient logistics associated with smuggling, i.e., demand-pull supply, just-in-time delivery, cash transactions, variable order size, minimal paperwork,

It is unlikely that the government will be able to reduce the level of informal trade in the medium term, especially as the expansion of trade with China and Vietnam will create more locations/opportunities for smuggling.

If Lao is to expand its role as an entrepôt, it is desirable to reduce the impediments to the movement of goods across the border for both transit and bilateral trade. While the revenues from import duties are an important component of general revenues, they have limited potential for growth and are likely to act as a drag on the economic growth.¹⁸

TRADE AND TRANSIT AGREEMENTS

Bilateral Agreements with Thailand

The bilateral trade agreements between Thailand and the Lao PDR include:

- 1978 - Agreement on Trade - identifies specific traded goods, the organizations which can trade, and requirement for payment in a fully-convertible currency
- 1978 - Agreement on Transit Trade - facilitates exports and imports in transit, to and from a third country Thailand gives special consideration to goods that meet the basic needs of the Lao populace
- 1979 - Regulation on Permission for Traders to Trade (amendments in 1980, 1981, 1982, and 1985) - establishes requirements for Thai traders who are dealing with Lao counterparts
- 1990 - Agreement on Investment Promotion and Protection - provides protection to the investors for one country for their investments in the other country

The first two include procedures for shipping container in transit and for control of smuggling. They also establish a duty drawback system to allow agricultural and livestock products from Lao PDR to be imported into Thailand duty-free, processed and then re-exported to Lao PRD.

The 1978 Agreement on Transit Trade is in accordance with the Convention and Statute of Freedom of Transit, Barcelona, 20 April 1921. Lao is a signatory to this convention but not Thailand. The Agreement provides a framework for Thailand and Lao PDR to select transport companies eligible to carry transit trade. Each country holds an equal number of licenses. This Agreement is renewed automatically every year unless a termination notice is submitted by either party three month before the annual expiration date of June 1.

Agreement Between The Government of the Lao People's Democratic Republic and The Government of The Kingdom Of Thailand On Road Transport - March 5, 1999 and Subsidiary Agreement Specifying Road Transport Arrangements - August 17, 2001

¹⁸ Certain villages located across from each other on the Mekong River have a flourishing smuggling trade. The recent World Cup has seen a surge in the smuggling of television sets.

A new agreement on transit trade was negotiated in 1999 but the implementation protocols were not signed until 2001. It is expected that this new agreement will come into effect in June 2002. This agreement covers transport of goods and passengers in transit from one of the countries through the territory of other to a third country or vice versa. This agreement identifies specific border crossing points (Table 18). It allows goods to move directly between Lao PDR and the ocean-going vessel without having to stop at the transit warehouse and without additional approvals from customs.

Table 18: Border Crossings Included in 1999 Agreement

Lao PDR	Thailand
International	
Houeisai, Bokeo Friendship Bridge, Vientiane Thakhek, Khammouane Savannakhet, Savannakhet Vangtao, Champasak	Chaing Khong, Chaing Rai Nongkhai, Nongkhai Nakhon Phanom, Nakhon Phanom Mukdahan, Mukdahan Chong Mek, Ubon Ratchathani
Local	
Nam Ngeun, Sayabouly Kenethao, Sayabouly Paksane, Bolikhamxay Paktaphane, Salavane Ban Vang, Vientiane	Huai Kon, Nan Nong Phur, Loei Bueng Kan, Nong Khai Pak Seng, Ubon Ratchathani Khok Pai, Loei

The relative importance of these crossings can be seen in the volume of trade at the major crossings in Table 19.

Table 19
Ratio of cross border provinces (trade) in 2001

Nongkhai	50.33%
Mukdahan	22.07%
Nakorn Phanom	10.35%
Ubon	8.85%
Chieng Rai	5.07%
Loei	2.89%
Nhan	0.21%

Source: Thai Ministry of Commerce Statistics (2002)

The agreement stipulates seven transit routes within Lao PDR and ten within Thailand, with the provision that these may be amended from time to time. The Lao routes include No. 3 connecting China and northern Thailand, No.s 1, 8, 9, 12 and 18 connecting Thailand and Vietnam and No. 13 connecting to Cambodia. Thailand includes connections to the borders of Cambodia and Myanmar, and to the international gateways at Bangkok, Laem Chabang and Mataput.

Under this agreement, both cargo and vehicle will be inspected at the border crossings. The vehicle inspection will be in conformance with prevailing regulations. The cargo inspection will be in compliance with international practices. Since these provisions are vague, they create opportunities for delay. There is also a requirement for the driver to report to inspection points to be agreed upon by the contracting parties. This may also introduce unnecessary delays.

For each transport operation, the vehicle will require the following documents together with English translations: vehicle registration certificate, certificate for payment of road taxes, vehicle inspection certificate, operating license and vehicle permit, driver's license, third party motor vehicle liability insurance, and list of tools and spare parts. The cargo would be accompanied by a bill of lading, packing list, and invoice.

The cargo owner will be able to select the transport operator provided that operator is authorized to carry the goods under the laws and regulations of both contracting parties. This was clarified in a subsidiary agreement that allows each country to use its authorized licensed transport operators to provide cross-border transport. However, the subsidiary agreement requires that the transport operator apply with the other country to be permitted to provide international transport. No criteria for approval of this application is indicated

Each country will perform vehicle inspections and the certificates accepted by the other in accordance with an earlier agreement among ASEAN member countries. The vehicle must stop at designated rest and parking areas as specified in the agreement and exit the territory within the time period required. The purpose of this provision is unclear and may hinder the efficient movement of the vehicles.

Goods will be allowed to remain in transit for a period of up to 90 days after which they are considered unclaimed. This is more than enough time, but suggests that tighter controls would be needed on the movement of the goods.

There is a provision that the fees charged Lao cargo for warehousing, transshipment, truck terminals and port services should not exceed those collected from Thai cargo. However this refers to rates set by government, not those set by the private sector.

The agreement is in force for one year with an automatic renewal if there is no objection. It can be amended to incorporate any further benefits that are incorporated into future multilateral agreements.

This agreement will allow certified trucks from each country to deliver to or pickup cargo from the other, however, it will have little impact since the Laos trucking corporations lack the equipment and experience to operate successfully in Thailand. In contract, Thai trucks will have the option of carrying Laos transit traffic as a backhaul for domestic Thai cargoes.

The agreement will benefit Lao exporters by eliminating the need for transshipment at Nongkhai or Mukdahan. This will not significant reduce the total transit time but will reduce the damage to and theft of cargo. It should also reduce the unofficial payments to Thai and Lao customs at the

border. Finally, it should allow greater freedom in the selection of port of loading and reduce the time spent in the port.

Bilateral Agreements with Vietnam

Before the opening of Lao PDR’s economy, international trade was generally conducted with former communist countries. The only available access to the sea was through Vietnam. Transit trade between Lao PDR and Vietnam can cross at eight points designated in a 1991 Agreement between the two countries. These are listed in Table 20.

Under this bilateral protocol, all transit traffic through Vietnam must go through these official border crossings. Vietnam is currently developing the Port of Vung Ang specifically for Lao transit cargo. The Lao shippers can choose the port of import/export. Most of the cargo goes through Danang. Secondary ports are Cua Lo, Xuan Hai, and Quy Nhon, however, these are relatively small facilities and do not provide container feeder services.

Table 20: Vietnam Border Posts

Location	Route
Dae Chang	42
Pa Hang	43
Nam Meo	279
Kao Nua	8
Nam Can	7
Cha Lo	12
Lao Bao	9
Bai	18

Source: ESCAP (1994)

The protocol relates to the issue of transit permit and authorization for each shipment but does not cover vehicle movement. A transit permit would be issued by Vietnam’s Ministry of Commerce, on application by the state-owned Lao Freight Forwarder (LFF) through the Lao Ministry of Commerce. The information on the permit is used by Vietnamese Customs to create a transit document called ‘Import and Export Form for Transit Cargo’. The routing of documents from Vientiane to Hanoi to the port can take up to a few weeks whereas the transit time for cargo is not more than 3 to 4 days. Some of the additional problems associated with transit through Vietnam are poor infrastructure, cumbersome bureaucracy and pilferage.

Vietnamese customs officers usually escort the cargo in transit. Lao and Vietnamese customs officials recently embarked on a cooperation exercise to implement the trilateral agreement signed in 1999 dealing with border checkpoint environment improvements.

Agreement on Road Transport between Governments of the Lao People’s Democratic Republic and the Socialist Republic of Vietnam – 1996

Before the opening of the Lao PDR economy, international trade was generally conducted with Conecom countries and the only access to the sea was through Vietnam. This agreement identifies the same eight crossing-points for trade as in the earlier agreement. These are shown in Table 21.

Table 21: Border Crossing Points in 1996 Agreement

Lao PDR	Vietnam
International	
Kao Cheo, Bolikhamxai Dean Savahn, Savannakhet	Keo Nua, Ha Thinh Lao Bao, Quang Tri
Local	
Dae Chang, Lai Chau (Rt 42) Pa Hang, Son La (Rt 43) Nam Meo, Thanh Hoa (Rt 27) Nam Can, Nghe An (Rt 7) Cha Lo, Bai (Rt 12) Bai (Rt 18)	Sop Hun, Phongsaly Sop Bau, Houaphan Ban Loi, Houaphan Namkan, Xieng Khoang Tong Kham, Khammouane Yang Yeun

Under this protocol, all transit traffic through Vietnam must go through these border crossings. The protocol relates to the issue of transit permits and authorization for each shipment, it does not cover the issue of vehicle movements

Trilateral and GMS Agreements

A trilateral agreement, “Cross-Border Agreement between and among the Government of the Lao PDR, the Kingdom of Thailand and the Socialist Republic of Vietnam for the Facilitation of Cross-Border Transport of Goods and Services” was signed at the end of 1999. It is intended to facilitate cross-border movement of goods and people and to promote multimodal transport. It sought to harmonize legislation and regulations and, in this sense, resembles a broader framework developed by ASEAN

Agreement Between and Among the Governments of the Lao People's Democratic Republic, the Kingdom of Thailand, and the Socialist Republic of Vietnam for Facilitation of Cross-border Transport of Goods and People – November 26, 1999

This agreement is intended to facilitate the cross-border transport of goods and people between and among the three countries by simplifying and harmonizing legislation, regulations, procedures and requirements related to this movement.

It allows transport operators from any one of the countries to provide transport to, from or across the other countries, with the exception of cabotage, and in accordance with free market forces. These operators must be licensed for international transport in their home country. The protocols to the agreement define permissible routes, points of entry and exit and the type of vehicles that may be used. The charge for the cross-border transport services will be determined by market forces but subject to regulation by a joint committee to avoid excessively high and low prices.

This agreement allows for the gradual adoption of simplified border procedures including single window inspection by all the agencies involved and single stop inspection involving back-to-back inspection by the adjoining countries. This implies coordination of the hours of operation and exchange of information on clearing cargoes. For the phytosanitary and veterinary inspections, the agreement references the international conventions.

The agreement undertakes to promote multimodal transport by introducing a special container customs regime and developing a uniform multimodal transport liability regime. Transit cargo would be exempted from customs duties and taxes, physical inspections, customs escorts and guarantees for customs duties. Any charges levied on the transit traffic would be for recovery of the costs of providing the transit routes.

The roads and bridges on the transit routes would be constructed/rehabilitated in accordance with certain minimum characteristics and the country would ensure that these are safe, secure and in good condition. The transit vehicles would have to meet the standards for safety, emissions, axle load and dimensions that are in force in the country through which they are transiting. The country in which the vehicle is registered would be responsible to insure road worthiness and issue an appropriate inspections certificate. The vehicles would have to comply with compulsory third party motor vehicle liability insurance requirements of the country through which they travel.

Approval of this agreement requires acceptance of the three protocols related to routes and points of entry and exit, charges for transit traffic, and the issuance of quotas and permits. It also requires drafting and acceptance of various annexes related to customs procedures and trade facilitation, traffic regulation and infrastructure design standards, and licensing and permits for transport vehicles and operations.

There is a Greater Mekong Subregion agreement for the transportation of goods and people that is an extension of the trilateral agreement signed between Lao PDR, Thailand and Vietnam in 1999. Cambodia has acceded to this agreement while China and Myanmar have expressed an interest in joining. The GMS agreement has been designed to harmonize individual bilateral agreements among the member countries, in particular, the customs and immigration procedures. Physical constraints and insurance issues are not dealt with by these agreements.

ASEAN Agreements

Lao trade with Thailand and Vietnam is subject to their country's commitments under the Asian Free Trade Area (AFTA) and its Common Effective Preferential Tariff (CEPT) implemented in 1994. This proposes to reduce tariffs on 85% of dutiable goods to less than 5% by 2005. Originally the agreement covered only manufactured goods, including processed agricultural products. This was extended to unprocessed agricultural products but with allowance for domestic policies that protect certain products. The unprocessed agricultural products were divided into three lists, one for immediate inclusion, one for temporary exclusion, and one for sensitive goods. The first two would be included in the 5% tariff range by 2003. Those on the exclusion list were to be eliminated by 2010.

In 1998, the Economic Ministers of ASEAN signed three agreements to hasten the economic integration of the ASEAN member countries. Two of these, the Framework Agreement on Mutual Recognition Arrangements and the Framework Arrangement on the Facilitation of Goods and Services are intended to make trade among ASEAN countries easier and faster.

Framework Agreement on the Facilitation of Goods in Transit

The key objectives of this agreement are:

- Facilitate transportation of goods in transit,
- Support the implementation of the ASEAN Free Trade Area (AFTA),
- Further integrate the region's economies;
- Simplify and harmonize transport, trade and customs regulations and requirements for the purpose of facilitation of goods in transit; and
- Establish an effective, efficient, integrated and harmonized transit transport system in ASEAN.

This agreement is still not effective as there are difficulties regarding the negotiation of certain protocols, specifically:

- Designation of Transit Routes and Facilities
- Types and Quantity of Road Vehicles (draft)
- Dangerous Goods (draft)

As a signatory to the Barcelona Convention, Lao PDR does not assess charges on goods in transit provided that the necessary permits have been obtained from government ministries. A status of the protocols to this agreement is shown in Table 22.

Table 22: Status of Protocols for ASEAN Framework Agreement on Goods in Transit

PROTOCOL	STATUS AS OF MAY 2002
Protocol 1: Designation of Transit Transport Routes and Facilities <i>(pending)</i>	There has been no further development since October 2001 as Singapore and Malaysia cannot agree.
Protocol 2: Designation of Frontier Posts Protocol 7: Customs Transit System <i>(Both are still pending)</i>	Members countries of ASEAN are currently being asked to verify their designated frontier post in the annex of Protocol 2 and also the list of prohibited or restricted goods not permitted for transit transport in the annex of Protocol 7
Protocol 3: Types and Quantity of Road Vehicles Protocol 4: Technical Requirements of Vehicles <i>(Both signed on 15 September 1999)</i>	Signed and accepted by Lao PDR, Myanmar, and Vietnam Philippines ratified Protocol 3
Protocol 5: ASEAN Scheme of Compulsory Motor Vehicle Insurance <i>(Signed on 8 April 2001)</i>	Cambodia and Vietnam have accepted/ratified this protocol
Protocol 6: Border and Interchange Stations Protocol 9: Dangerous Goods <i>(Both are still pending)</i>	Singapore made representation that there are still a number of issues that needed further clarification for Protocol 6 and 9.
Protocol 8: Sanitary and Phytosanitary measures <i>(Signed on 27 October 2000)</i>	Only Vietnam has accepted this Protocol to date.

Source: compiled from ASEAN Secretariat

ASEAN Framework Agreement on Services

This document signed by the ASEAN Economic Ministers would make it easier for nationals of any ASEAN member to sell services in other member countries. This document covers air transport, business services, maritime transport, telecommunications and the tourism industry. So far, Lao PDR has not agreed to liberalization of any service sector

ASEAN Framework Agreement On The Facilitation Of Inter-State Transport-September 2000

The main objectives of this agreement are:

- Facilitate inter-state transport of goods between and among the countries,
- Support the implementation of the ASEAN Free Trade Area (AFTA) and integrate the region's economies,
- Simplify and harmonize transport, trade and customs regulations and requirements for the purpose of facilitation of inter-state transport of goods; and
- Work in concert towards establishing an effective, efficient, integrated and harmonized regional transport system that addresses all aspects of [transit and] interstate transport.

Most of the protocols are not yet in place, thus rendering this framework agreement non enforceable.

ASEAN Framework Agreement on Multimodal Transport

This Agreement will lay down the broad principles on minimum standard of registration and liability limits for ASEAN multimodal transport operators. It is scheduled to be adopted at the end of 2002.

In reality, ASEAN economic relationships have been more competitive than co-operative. National interest continues to dominate regional interest. Even under AFTA (ASEAN Free Trade Area), ASEAN countries can exclude goods and services from the scheme for alleged reasons of national security¹⁹: the political agenda of each member state does not facilitate the creation of economic co-operation and integration. Even with the Framework Agreement on the Facilitation of Goods in Transit and the Framework for Inter State Transport in place, the member states have had many difficulties in negotiating all these protocols.

¹⁹ "Is ASEAN a paper tiger?" in: *Bangkok Post*, 15 February 1998, Internet Edition.

CHAPTER 6

HOUSEHOLD CONSUMPTION AND POVERTY CONCERNS

Based on the Lao poverty line, 39% of the population is poor, with the lowest rate at 12% in the Vientiane municipality (Table 23), the highest rate at over 50% in the more mountainous north, and 35-38% in the center and south. Overall 90% of the poor are in rural areas, though in the Vientiane municipality poverty is 16% urban vs. 4% rural.²⁰ Adult illiteracy is 43%, though decreasing. Poverty is slowly decreasing but the income inequality is increasing.

Table 23: Incident of Poverty

Region	% poor (2000)			Population (mn 1992)
	Average	Urban	Rural	
Vientiane Municipality	12	16	4	0.5
North	52	43	54	1.4
Center	35	28	36	1.7
South	38	36	39	0.9
Average/total	39	27	41	5.0

Source: Interim Poverty Reduction Strategy Paper, April 2001

Eight provinces have more than 100,000 poor and would be priority for assistance. Since poverty is localized, it is necessary to look at indicators for areas smaller than provinces. Based on a district vulnerability index built on 6 sub-indexes, of the 134 districts, 22 are considered poor, and 35 very poor.²¹

There are several main reasons for the poverty, besides the rugged terrain. One is that 50% of Lao is still contaminated by UXOs (unexploded objects), remnants of the heavy bombing at the time of the Vietnam war, that limits the availability of land for cultivation. Another is limited irrigation, but the problem most cited by villagers in a participatory poverty assessment as preventing economic growth was lack of access roads, especially as most agricultural products are sold after harvest during the rainy season. This is corroborated by surveys showing that 40% of villages are 6 km or further away from a main road, that half are not accessible during the rainy season and that 20% are inaccessible even in the dry season (Table 24). Only 25% of provincial and district road length are motorable in the rainy season.

²⁰ The poverty line is based on the cost of 2,000 calories per day (including a minimum of 16 kg of rice per capita per month) plus a proportion for non-food necessities. It assumes that prices in rural areas are 20% lower than in urban areas (this assumption must introduce distortions).

²¹ The indexes comprise rice production per capita, large animals per capita, forest area per household, access road within 6 km, and 2 social indicators, % of people with no education, and crude death rate. Poor is with only 2-3 indexes satisfactory, very poor is with less than 2 satisfactory indexes

Table 24: Access and Poverty by province

Province	Poverty rate	% Road access		Population (m)	
		Dry	Rainy	(1992, to upd)	Poor
<i>Vientiane Mun.</i>	12	100	100	0.50	0.06
Phongsaly	54	45	31	0.15	0.08
Luangnamtha	57	43	34	0.13	0.08
Oudomxay	73	52	38	0.19	0.14 *
Bokeo	37	74	42	0.10	0.04
Luangphrabang	49	50	45	0.37	0.18 *
Huaphanh	75	20	36	0.23	0.17 *
Xayaboury	21	80	44	0.20	0.04
<i>Northern Region</i>	52	55	40		0.73
Xiengkhang	35	84	40	0.20	0.07
Vientiane Prov.	24	95	71	0.33	0.08
Borikhamxay	26	88	48	0.16	0.04
Khammamuane	41	96	46	0.26	0.11 *
Savannakhet	37	100	51	0.67	0.25 *
XaysomboomSR	55	59	45	0.07	0.04
<i>Central Region</i>	35	94	52		0.59
Saravane	40	100	52	0.24	0.10 *
Sekong	46	73	59	0.60	0.27 *
Champassak	36	69	44	0.48	0.18 *
Attapeu	45	77	35	0.08	0.04
<i>Southern Region</i>	38	79	46		0.59

Source: ADB Poverty Assessment TA, and population numbers.

* more than 100,000

The importance of transport in the household budget is shown in Table 25. On average it accounts for about 12% of the household budget. It is second in importance to food in all but the most isolated rural areas, but is important in both the urban and rural areas. Not surprisingly, it is a larger part of the budget for urban and rural connected areas where there are greater opportunities to use transport.

Table 25: Household Expenditure Data

	Urban			Rural Connected			Rural Isolated		
	North	Central	South	North	Central	South	North	Central	South
Food Expenditures	31.2	42.8	46.3	17.8	27.2	24.3	15.1	18.1	26.2
Own Food Produced	17.8	7.6	9.0	39.4	35.7	38.4	54.6	45.0	47.7
Clothing	3.8	3.2	1.5	2.4	2.4	3.4	3.5	2.6	2.1
Housing	10.1	10.2	10.7	6.5	6.5	4.1	6.0	6.1	4.4
Household	6.6	5.9	5.4	5.5	7.1	4.3	3.6	3.4	3.0
Medical	2.5	1.7	2.5	2.4	2.4	2.2	2.7	1.8	2.9
Transport/Communic	14.6	13.7	9.3	14.8	9.1	11.6	3.9	13.2	4.6
Recreation	8.4	7.2	10.2	7.3	4.9	6.8	6.3	5.0	4.3
Education	1.0	1.0	0.3	0.2	0.5	0.3	0.2	0.3	0.4
Other	4.0	6.7	4.8	3.7	4.2	4.6	4.1	4.5	4.4

Source :

The objectives for the World Bank’s 1999 Country Assistance Strategy for the Lao PDR reflected the ongoing economic crisis that began with the regional financial crisis but was exacerbated by domestic problems in the financial sector, weak macroeconomic management and a slowing of structural reforms. The strategy listed the following objectives:

“(a) Assist the Government in stabilizing the economy... (b) Return the economy to a sustainable growth path to reduce poverty, (c) focus on social service delivery and investments in the structure; and, (d) harness the country’s productive potential by working closely with other partners in the international community and the private sector.

The focus of this CAS was on:

- Deepening structural reforms
- Investing in health and education
- Investing in rural development and natural resource management, and

The last item included improving agricultural productivity and forestry management techniques and supporting infrastructure development including electrification and maintenance of the national highway network,

The principal objectives of the government’s development agenda are poverty reduction, infrastructure development and human resource development. The National Socioeconomic Development Plan for 1996-2000 identified priority programs to address these objectives including:

- Food production,
- Stabilization/reduction shifting cultivation,
- Commercial production and agriculture,
- Infrastructure development,

- Improved socioeconomic management and encouragement of foreign investment,
- Rural development,
- Human resource development, and
- Services development.

CHAPTER 7

LOGISTICS CHAINS

A variety of logistics chains were examined through interviews with producers and shippers. These include the inbound logistics for fertilizer and outbound logistics for rice, the inbound logistics for wood and outbound logistics for furniture, the inbound logistics for fabric and outbound logistics for garments, the inbound logistics for food and outbound logistics for processed foods.

FERTILIZER-RICE

Currently all chemical fertilizers are produced in Thailand and imported to Lao by the private sector. The raw materials for production are imported from third countries, but the finished product is sold directly to Lao so the fertilizers are not transit goods.

About 1/3 of imported fertilizers are urea. The rest are mixed fertilizers to overcome the lack of phosphate in the soil. The season for import is parallel to the rice season from July to August (rainfed) and January to February (irrigated). The estimated average volume of import for fertilizer is 60,000 tons per year with 50,000 tons for rice fertilizers. The use of fertilizer is a well-established practice in the Vientiane plains area but not so in other parts of the country. Fertilizers' consumption level is about ½ of recommended levels because of the high cost for imports. On the other hand, farmers make considerable use of organic fertilizers.

Fertilizers are transported from the factory in 18 tons trucks. The average transport cost is between \$20 and \$28 per ton plus an import duty of 5% on the CIF price. Customs charges represent around 2% of the CIF price to Vientiane. The delivered price in Vientiane is \$200 per ton including a profit margin between \$7 and \$12 per ton. The imports are purchased by wholesalers located in the major cities. They purchase the fertilizer in Baht through bank transfer.

The imports are sold to retailers and sometimes directly to farmers. The buyers collect the fertilizer at the importer's warehouse and transport it to the countryside. The cost for transport is \$2.5 per ton within Vientiane and \$5 for other adjoining provinces. They buyers usually pay cash on delivery in Kip. The importer assumes the currency exchange risk.

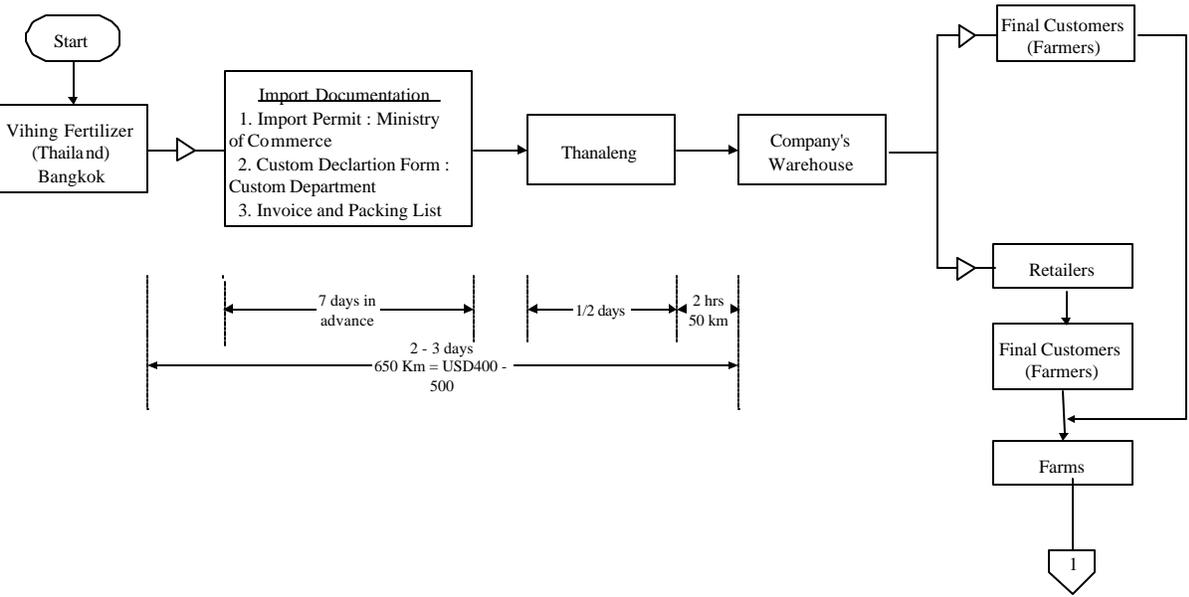
There would be little reason for Lao PDR to establish its own production activities since all of the raw materials must be imported, the market is small and the Thailand has excess production capacity. There are problems with the quality of the product

Lao is self-sufficient in rice production but there is considerable redistribution between surplus and deficit areas. The rice deficit areas are located in the hilly provinces of the North, where road access is scarce. The surplus areas are in the central part of the country, Vientiane Province through Khammuane. The cost of road transport is sufficiently high to encourage cross-border

movements to the deficit areas.

Most of the paddy is milled locally and used for household consumption. The limited surplus is sold to local mills, to local traders, who transport it to the mills located in the towns and along the major roads, and to the Lao Government. The private mills sell the rice in the local market and under contract to the Lao Government. Government buys from the state mills and distributes rice to the military and to provincial governments in the deficit areas.

Figure 17
Fertilizer Inbound Logistics



There are three sizes of rice mills. Most of these mills are very small units for local village use. They lack storage and operate only during the harvest season. The next most common are medium-size mills, with capacities of 2 tons per day or less. They have limited storage capacity and are traditionally operated by traders.²² There are relatively few larger mills. Most are operated by the Government and donor-funded. There are no large private mills and warehouses since the surplus is widely dispersed. These government mills have large warehouses and drying facilities but experience problems with insects and rodents infestation. Rain-fed rice has the additional problems of moisture since harvesting occurs at the beginning of the rainy season.

The Lao Government established a food security program, which included procurement during the harvest season, storage and sale of the rice at subsidized prices. This program was meant to stabilize rice prices but like many such programs around the world it lacked funds, post-harvest

²² Some mills have converted to the production of rice-based liquor as a way of improving their income and limiting the need for storage.

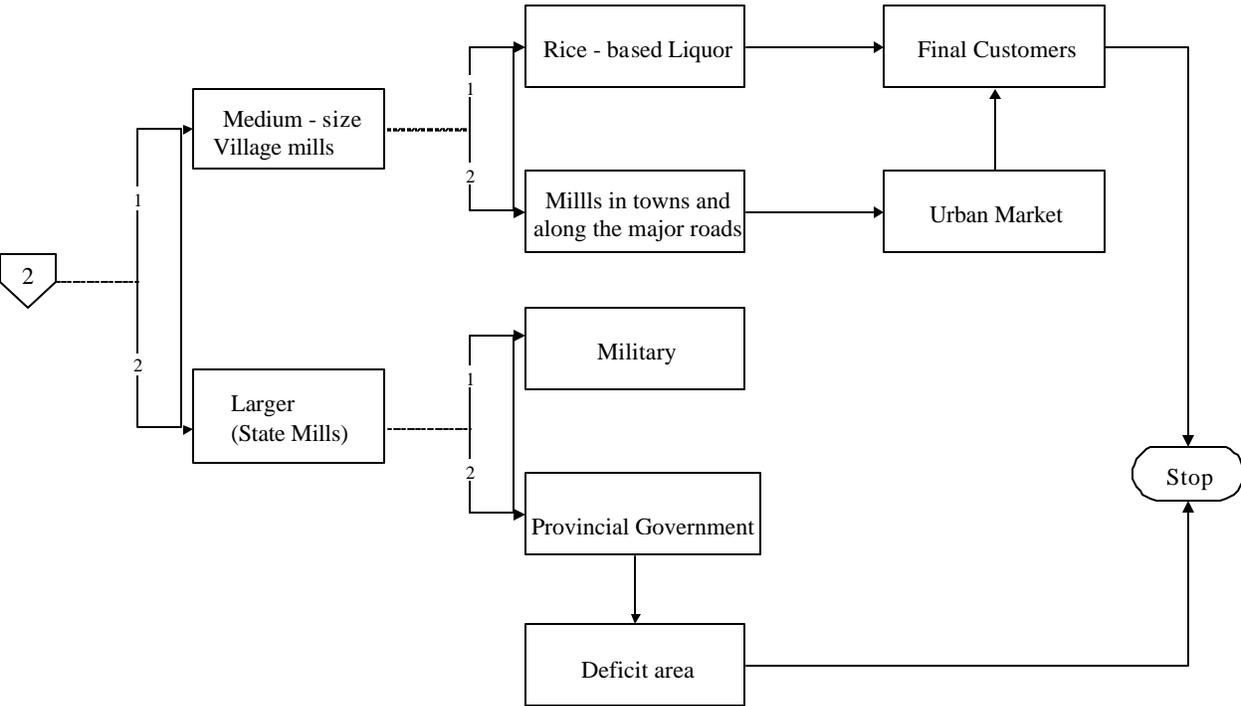
treatment and storage. As a result, the rice was damaged by pest infestation. Of the two state-owned enterprise established to implement this program, one is no longer functioning. The other has only a limited role despite donor-support for drying and storage facilities.

Farmers mill the rice locally for household consumption. When there is a significant surplus larger mills are used. This involves two basic logistics channels:

1. Private sector - The rice is sold to medium size mills located along the main roads and then sold onto the local market for consumption.
2. Public sector - The rice is sold to the large mills and then distributed to the military or provincial government and then onto the deficit areas.

The private sector logistics chain is more effective since the distribution of rice can be done without administrative constraints. The two chains compete with each other. The distribution is by road and river transport but the cost is relatively high.

Figure 18
Rice Outbound Logistics Chain



WOOD-FURNITURE

The government has encouraged the development of the wood processing industry including the manufacture of furniture, plywood, flooring, and sawn timber. These industries can be divided between those that use wood from the natural forests, e.g. rosewood, teak, ironwood, and those that use the plantation wood. The government manages the natural forests whereas the private sector manages the plantations. Harvesting is done during the dry season (November to May) because of transport problems during the rainy season.

The inbound logistics for wood from natural forests is under the control of government. The provinces develop an annual harvesting plan that is reviewed and approved by the national government. The latter allocates quotas to private wood-processing companies and designates the province from which the trees are to be harvested. The provincial government designates the specific area from which the logs are to be cut and the company that is to perform the logging. The forestry officials specify which trees are to be cut down within area and inspect the logs that have been cut down.

A fee is paid to the central government per cubic meter of wood cut based on the type of wood. The government sets the fee, although there are proposals to introduce competitive pricing. The provincial government receives a fee for cutting the tree and then pays the logging company to cutting the tree. The buyer moves the logs from the forest to the inspection site and then to the factory. The buyer also pays for an inter-provincial transit fees based on the CIF value of the logs. Some typical costs for natural rosewood are USD235/m³ to the national government for the wood, USD50/m³ to the provincial government for cutting, USD5/m³ plantation fee to the forestry officials, USD10/m³ for transporting the log to inspection site and USD45/m³ for transporting the log to the factory. Total delivered cost is thus USD 345 / m³. There are also various provincial transit taxes and surcharges for the movement of logs within Lao.

For 'plantation' wood, the procedure is much simpler. The buyer negotiates with the plantation for the purchase of a given amount of wood. The plantation arranges for the cutting. The buyer arranges for the transport.

For furniture making, the factory cuts the logs, dries the timber and manufactures the furniture. The furniture is sold either locally through retailers or exported. The principal destinations are Thailand, Hong Kong, Taiwan, Russia and Europe. For third countries, the furniture is usually sold FOB Bangkok. The overseas buyer nominates the vessel or the freight forwarder who receives the cargo in Bangkok. The furniture is loaded at the factory either in sealed containers for movement by Thai trucks to the ports or in Lao trucks for transshipment at Nongkhai and transport to Bangkok as loose cargo where the furniture is stuffed into containers. Products range in quality and price. The more expensive furniture is made from natural wood, the less expensive from plantation wood. The former is generally shipped by container from the factor and has a value of USD20-40 thousand per FEU

Timber and flooring are produced at the sawmills for both local consumption and export. These mills cut wood for their own account but are restricted from cutting wood for others. Exports are

limited because most mills lack the technology to meet international standards. The principal third country destinations are Japan and Taiwan. The exports are transported in Lao trucks to Nongkhai where they are loaded into containers. Thai Customs in Nongkhai will levy duty on wood that is to be re-exported after processing or transformation in Thailand.

Table 26: Logistics Costs from Vientiane to Vessel in Bangkok

Leg	Mode	Transit time	Distance (km)	Cost US\$ per FTL
Vientiane – Thanaleng	Road	2 hr	20	480
Thanaleng – Bangkok	Road	23 hr	650	
Document Charge				50
Customs:				
- Lao Side				13
- Thai Side			0	26
Thailand Forestry				300
Transit entry document			0	8
Bangkok Port		1 day		
1. Container stevedorage				21
2. Container wharfage				22
3. Lift on/off charges				17
4. THC				68
B/L Charges				13
Custom				6.7
Port				14.1

Source: Compiled from industry sources

After the wood is processed into furniture, the Lao exporter is then subject to complicated export quotas from the Lao Ministry of Commerce and to Thai customs official at the border. The local Thai customs officers levy transit-type taxes on exported wood product from Lao even though the wood is destined for a third country.²³ These valuation is very much dependent upon the Thai customs officer.

This logistics chain for wood projects has a number of problems. The exporter is not able to control the price and the quality of his inputs. The procurement process for wood is complicated for the users, liable to corruption and does not meet the government’s objective of preventing the felling rate from exceeding the re-planting rate. Good relationship with Lao forestry official at the site will enable the wood buyer to select good quality trees that may be different than the trees that have been approved by the central Lao government or the provincial authority. This is an added cost that may bring more value to the furniture in the exported market but reduces the stock of high quality trees without any effort to replant.

²³ It is unclear if there is any legal basis for this duty and it would surely not be legal under the new bilateral agreements much less under any regional or international convention.

Controlling the quality of the furniture making process is difficult due to the limits on the quality of labor and the technology used in the mills and factories. The cumbersome bureaucratic procedures for obtaining the wood and clearing the exports make it difficult to maintain a tight production schedule or to reduce the order cycle time. Finally, packaging and transport to the port in Bangkok create problems. The border crossing procedures is unnecessarily cumbersome, costly and involves unsanctioned charges as well as unofficial payments to Thai Customs. The multiple handlings associated with the transfer of the furniture at Nongkhai and again at Bangkok port cause unnecessary damage. Especially since the packing is often not up to international standard.

It should be possible under the new transit treaty to export by full container loaded at the factory and transported to the port under seal and without interruption. While this will resolve most of the problems with the outbound logistics, it does not address the inbound logistics for the trees. There is a need for more transparent management of the harvesting to insure both a sustainable yield and a reliable source of supply for manufacturers.

Figure 19
Wooden Furniture (Information Flow)

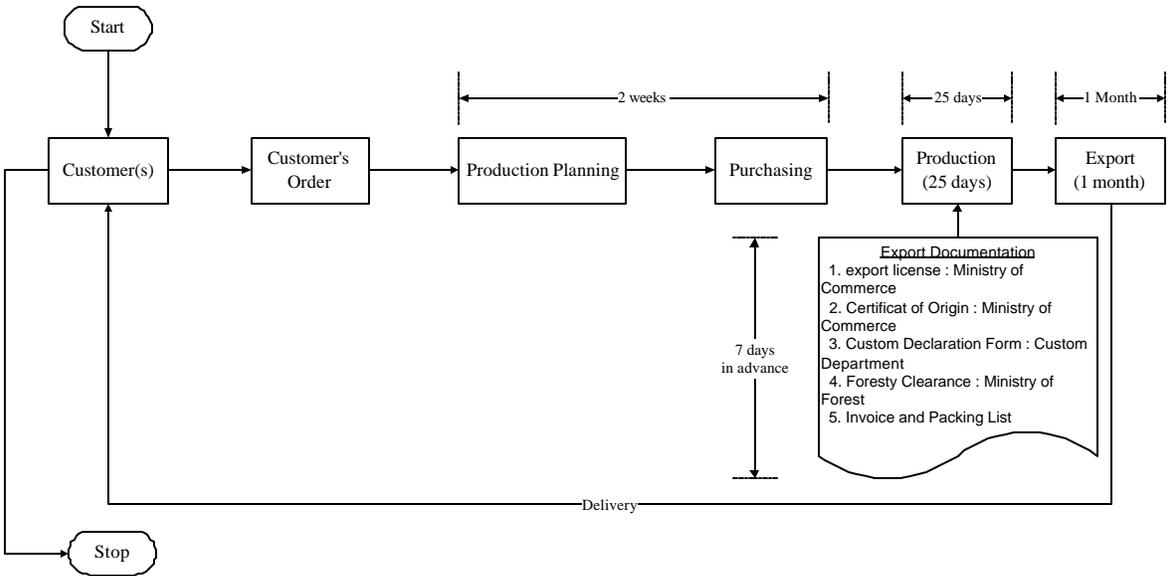
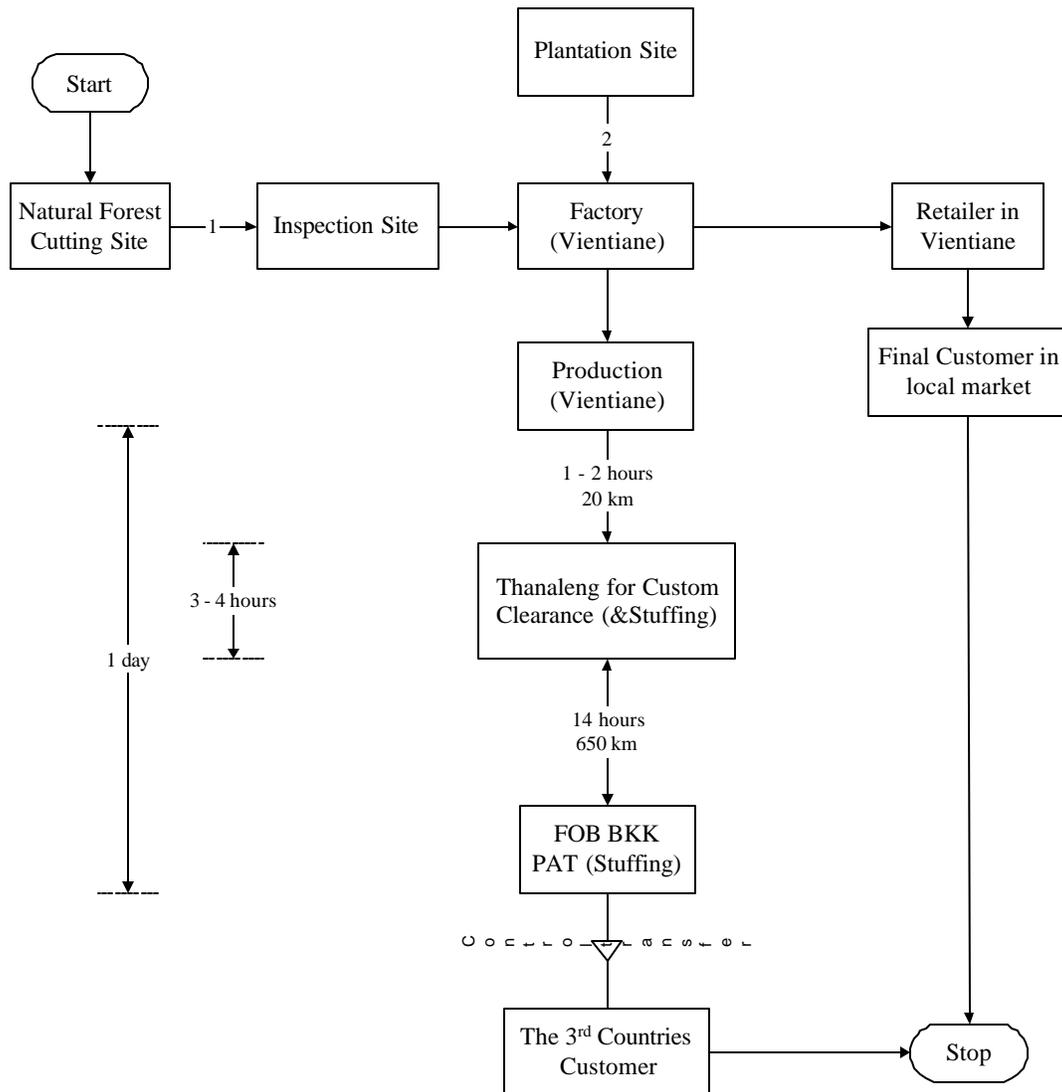


Figure 20
Wooden Furniture (Physical Flow)
Best Case Scenario



PAPER

Various types of paper products including newspaper, note paper and tissue paper, is produced using a mix of recycled waste paper and pulp imported from the U.S.²⁴ The craft paper for packaging is imported from Thailand.

The production process is relatively simple. The process involves mixing the recycled paper and pulp in water, which dissolves the ink and allows the materials to mix. This mix is then pressed between rollers to produce the paper. The input materials are shipped via Klong Toey in containers then destuffed and shipped to Vientiane as loose cargo because of the high cost of moving containers inland.²⁵ Delivered costs for the pulp and recycled paper averages \$500 per ton to Vientiane. The time for checking documents at Nongkhai is two hours. Cargo inspection, which includes documents and visual check at Thanlaeng, takes about 4 hours. Lao customs levy 10% duties for the waste paper. The terms of payment are CIF Bangkok and payment is by telegraphic transfer

The inputs are purchased under an open long-term contract basis. Order cycle time is only one month even though shipping time is 20 to 25 days since the suppliers are selling out of inventory. The production is sold to distributors/agents throughout the country on a truckload or less-than-truckload basis and either the manufacturer or distributor use their own trucks.

Agents make the orders for paper products one month in advance. The manufacturer has storage facilities and sells out of the stock. The paper products as sold on a 60-90 day basis.

FABRIC-READY-MADE GARMENTS

The textile industry in Lao PDR ranges from small-scale local production to medium size garment factories with substantial foreign participation. The latter serve primarily the European markets, taking advantage of the Lao PDR's quotas.²⁶ The technology and logistics have improved considerably over the last decade. While there is some local manufacture of cotton, most of the yarn or fabric is imported, primarily from neighboring countries, often from affiliated companies. Orders for plain or pre-dyed fabric and yarn are delivered in one to two weeks. The fabric is then prepared, cut and sewn generally using special-purpose machines. The designs and orders are transmitted electronically from the buyers via the Internet. The patterns are prepared using computers. The packaging is imported.

The order cycle includes:

1. Request for a sample, preparation
2. Sending and approval of the sample

²⁴ Pulp and recycled paper is available from Thailand or Indonesia but the quality is not as good.

²⁵ A 40' container moving round trip from Bangkok to Vientiane is 44 thousand Baht and requires six days versus 36 thousand for breakbulk

²⁶ The neighbouring countries are already operating close to their quota limits. Beyond the quota, Thai garments are charged a duty of 60% whereas under the arrangement with Lao PDR, the duty is only 14%

3. Ordering of material
4. Preparation of the order
5. Transport.

The order cycle time is 3-6 months. The shorter times apply for the higher value clothes. The fabric is obtained primarily from Thailand and shipped to Thanaleng on a CIF basis. There are no taxes on fabric imported for the manufacture of garments, but it must be cleared at Customs. The amount of fabric imported must match the amount of garment exported. Export cargo can be cleared at the factory on a case-by-case basis from the Customs department. Imports from Thailand require 1-2 weeks whereas imports from overseas require 1 month. For smaller factories, the ordering of the fabric is done by the buyer of the garments rather than the factory.

The garments are shipped from the factory in cartons on either Lao or Thai 10 wheel trucks (2 trucks per TEU). Some larger factories, that produce the higher value goods, use 40-foot containers and stuff them at the factory. Most factories ship to the port as loose cargo because of the high costs due to the need to deliver the empty box from Bangkok and the associated per diem charges. The cargo is inspected at Nongkhai and transported using Thai trucks either to Don Muang airport for airfreight or to Bangkok port for stuffing in containers or to Laem Chabang port as FCL shipments. Airfreight is generally used in situations where delays in production create a risk of missing order dates. Trucking costs are relatively high at Baht 1-2.5 thousand between Vientiane and Nongkhai per truck load using a 6 wheel truck and Baht10-12 thousand (USD250-300) for Nongkhai and Bangkok. Container shipments are more costly, about US\$600 per TEU from Nongkhai.

Leg	Mode	Transit time	Distance (km)	Cost USD
Vientiane – Thanaleng	Road	1 hour	13	50
Thanaleng – Bangkok	Road	23 hours	650	320
Document Charge				50
Customs :				
- Lao Side				13
- Thai Side				26
Transit entry document				5
Bangkok Port		1 day		
1. Container stevedorage				21
2. Container wharfage				22
3. Lift on/off charges				17
4. THC				68
B/L Charges				13
Custom				6.7
Port				14.1

Source: Compiled from Industry sources

Figure 21
Ready - Made Garment (Physical Flow)
Best Case Scenario

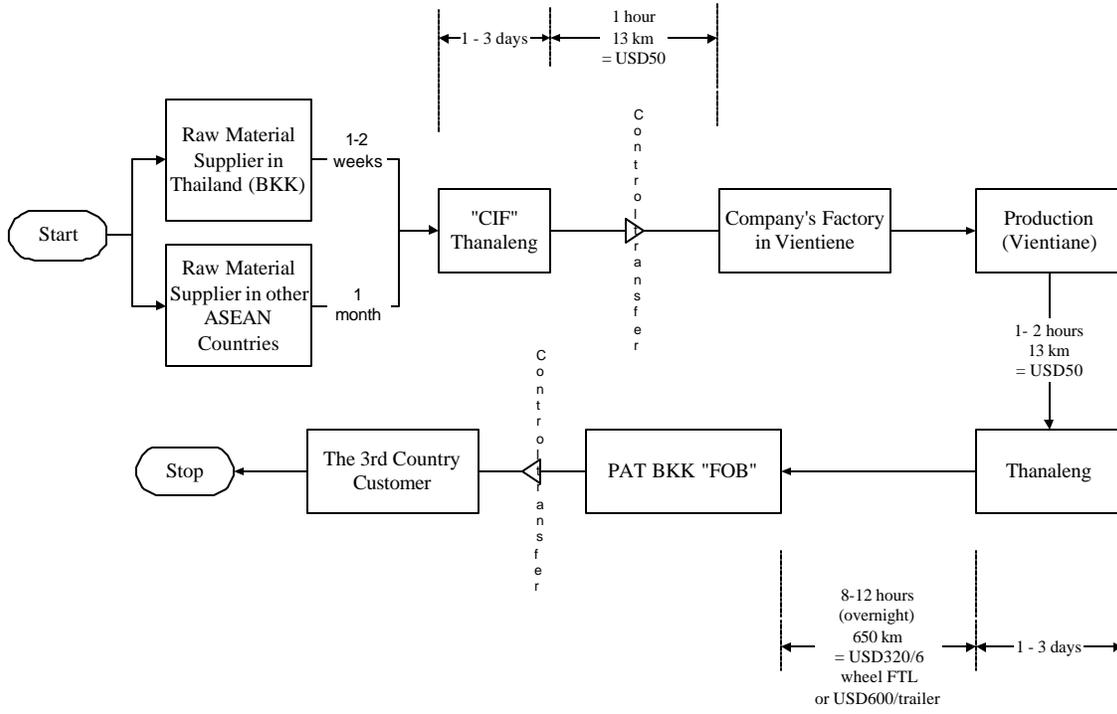
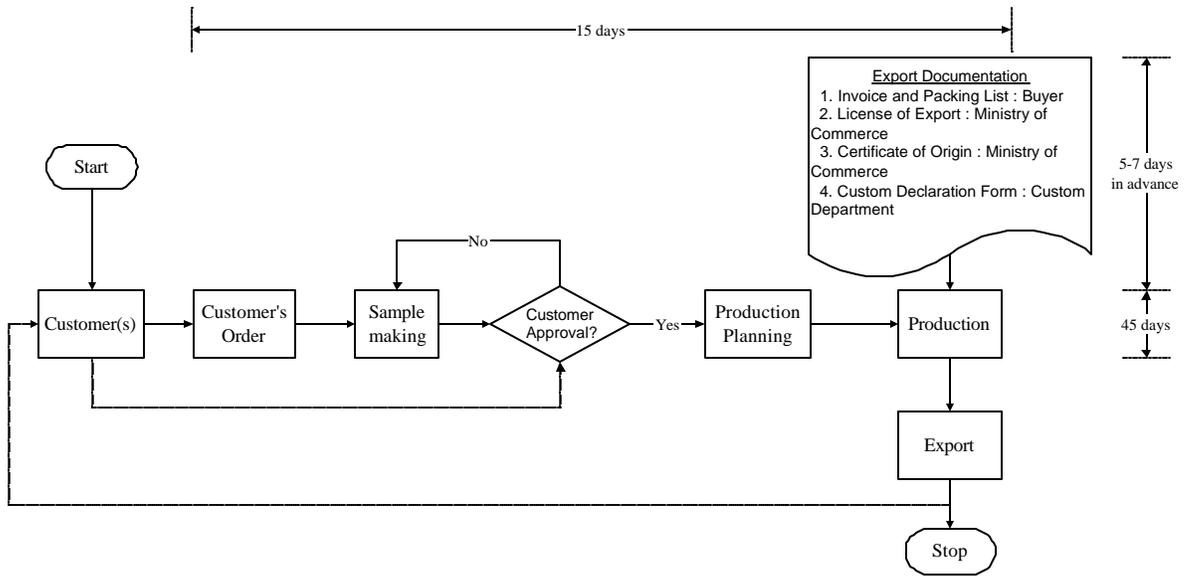


Figure 22
Ready - Made Garment (Information Flow)



The finished goods are typically about USD5 per woven shirt and USD3 per knitted shirt. The raw material typically represents 50% of the cost of the finished goods. Garments are normally sold FOB Bangkok or ex-factory (EXW). Payment is by irrevocable Letter of Credit. For the ocean transport, the buyer nominates the vessel. Either the buyer or shipper may nominate the trucking companies

The logistics for the garment industry has problems with raw material imported from Thailand or through Thailand from third countries. The Lao garment manufacturer cannot control the sourcing of his materials, except where the garment manufacturer is a foreign company with the headquarter coordinating the system. The inability to control sourcing affects the competitiveness of the Lao garment logistics chain by making the order cycle time not reliable.

Sophisticated manufacturing technology is imported from abroad and the operations are well organized. This is the strongest component of the garment logistics chain providing reliable cycle time and good quality control.

The export of garment to third countries is cumbersome whether through Vietnam or Thailand. In the case of transit through Thailand, container stuffing can be done at the factory at Nongkhai, which is rarely done since there are no facilities, or at Bangkok port with the dedicated facilities for container stuffing.

Inbound and outbound logistics are effectively outside the control of the Lao garment exporters and hinders their competitiveness. Some exporters have resorted to lowering the wages of their staff in order to compete with garments from China. The end of GSPs quotas will surely end any advantage Lao offered. The industry in Lao may not be sustainable and add risk to foreign investment in this industry. Lao garment exporters may reorient themselves to producing traditional or indigenous fabrics for sale on specialized high-end market.

PROCESSED FOODS

Lao PDR imports a large quantity of processed foods. It has a smaller quality of processed for exports. The majority of imports are from Thailand. Bangkok is the major distribution point for Thailand and Lao with secondary distribution centers located in Korat, Khon Kaen and Nongkhai. Some of the food originates from third countries but all pass through regional distribution centers in Thailand.

Most of the trade is cross border movements involving small-scale traders. The local trade on the Thai side will provide the food if available locally, otherwise he will order it from Bangkok. The trader on the Lao side will do the distribution. Because of access to Thai television transmissions, there is significant demand for new products. Lao traders can usually obtain these within one week's time. This trade is a mixture of formal and informal trade involving relatively small consignments.

For large-scale orders direct from manufacturers, the usual terms of trade for import is CIF Thanaleng. The terms of credit are usually 21 days following the day the goods are loaded from the factory or the warehouse in Thailand. Payment is made through direct bank transfer. Upon

arrival of the goods in Vientiane, distribution is provided to local wholesalers and retailers. If these wholesalers or retailers have a sub-distributorship agreement with the official dealer or importer, then their payment term will be 7 to 10 days upon receipt of goods in Vientiane. For other customers, payment is usually made on a cash basis.

Orders for processed foods are done on a fortnightly basis with an average volume of order between 10 to 20 ten-wheels trucks per month. The usual value of a shipment is estimated at around US\$ 30,000 per month. Importers keep about 2 weeks of stocks. The normal lead-time for order completion is 7 days. Forecasting is done by examining previous sales patterns during the same period in previous year. A major difficulty for official importers is the slow response time of the manufacturer or the warehouse in Bangkok in supplying goods.

The production of processed foods from locally-grown vegetables and fruits, including bamboo shoots, baby corn in brine, sugar palm (date palm), mangoes, ginger, garlic and mustard local agricultural production is undertaken in small factories. These involve the selection, cleaning, cutting and canning of fruits and vegetables. The processing technologies are labor-intensive with simple production lines and equipment for steaming and sealing containers. The packing materials are imported including jars, metal for cans, cartons and labelling.

The inputs are purchased directly from the farmers or middleman who bring it to the factory generally in truckloads. Most of the supplies are from middlemen who are under contract to the factory. The factories will process a variety of vegetables and fruits and schedule production to the harvests since there is little storage.

They sell to buyers in Thailand, Japan, Vietnam and Europe (the latter about 80%) who sell under their own label. The goods are shipped in containers from the factory. The terms of shipment are FOB Bangkok or Laem Chabang. The buyer nominates the vessel; the factory nominates the land transport.

Export documents must be submitted to the provincial offices of FIMC (foreign investment management committee), Commerce and Customs and then pass on to central government. This requires about two weeks to prepare. Sales are made based on Letters of Credit for new customers and telegraphic transfers for established customers

Figure 23

Processed Foods (Information Flow)

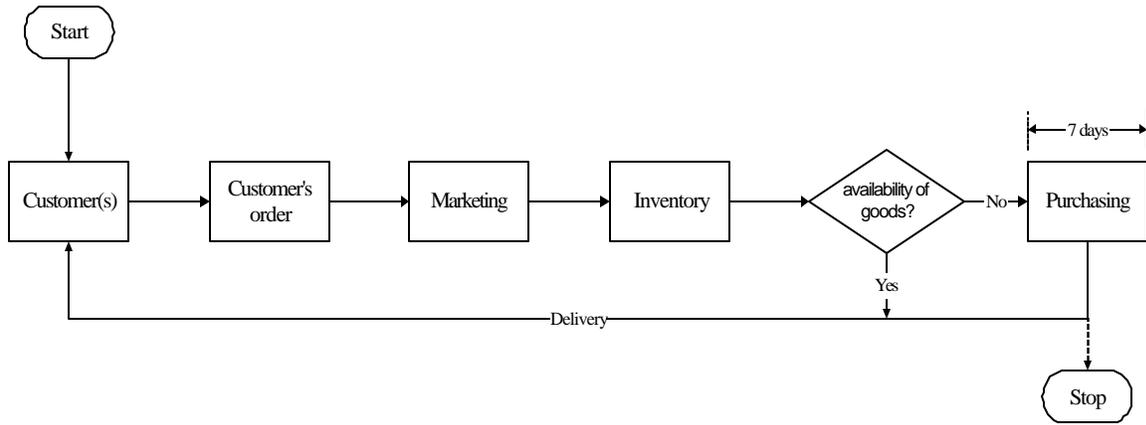
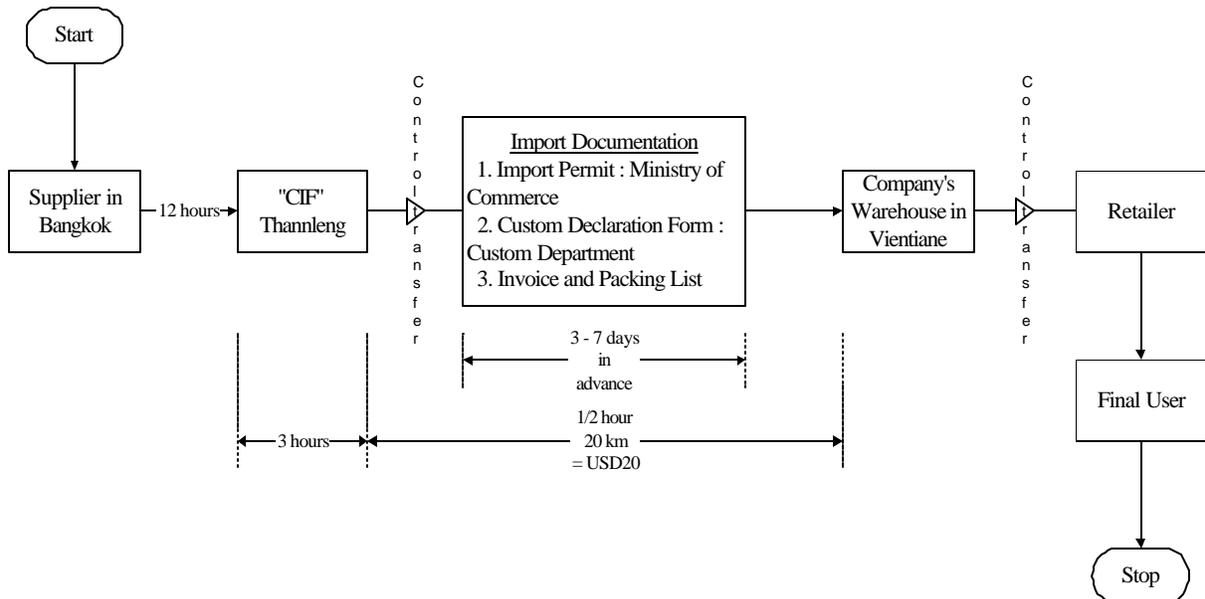


Figure 24

Processed Foods (Physical Flow)



Box: The sugar industry

The Wang Kanai group, Thailand's second largest sugar producer, runs the sole sugar mill in Lao PDR. This sugar mill has a capacity of 1,000 tons a year mostly serving the domestic market. The country's population consumes around 25,000 tons of sugar per year, mostly imported from Thailand. The Wang Kanai group is currently constructing a 15,000-ton sugar mill near Vientiane. The operations are expected to start by the year 2004. The group will source all of its sugarcane locally.

Sugarcane planting in Lao PDR starts when rain arrives in May, and the crushing season starts in November. The new Lao plant will also export through an Organization for Economic Co-operation and Development subsidy program, under which member import sugar under quotas allocated to developing countries at higher-than-market prices.

The group acknowledges that it cannot increase annual capacity to more than 30,000 tons due to infrastructure constraints and labor shortage. Even with the small 1,000 ton mill the group had to hire Vietnamese workers, as there are not enough Laotian workers.

Source: Adapted from the Nation, April 19, 2002

COFFEE EXPORTS

Depending on the size of the farmer, coffee will be sold differently:

- Small farms (<350-400 kg of coffee per harvest) will sell their coffee at the same time as the harvest; they do not have sufficient financial means to wait for better coffee prices.
- Medium farms (<400-1000 kg of coffee per harvest) will sell half of their harvest immediately and the other will be sold within a month depending on the traded price in London.
- Large farms (>1000 kg of coffee per harvest) will behave the same way as the medium farms but they can keep their coffee beans up to 3 months after harvest.

The majority of the coffee is Robusta as shown in Table 27. The amount of Arabica is much lower but the value per kilogram is almost double that of Robusta.

Table 27: Lao coffee export for 2001

Type of coffee	Quantity tons	Local buying price	FOB Price/ton Klong Toey
Arabica	350	7000kip/kg	US\$975
Robusta	13,695	3000kip/kg	US\$513

Source: Lao Coffee Exporters Association (2002)

Local credit is also available for the coffee farmers from Lao financial institutions, although there are some delays in obtaining this credit. The interest rate is between 8 to 10%, but the bank withholds 10% of the loan as a guarantee thus increasing the interest to 9%-11%.

The collection of coffee beans and shelling is done through a network of 50 to 70 coffee collectors. There are usually a number of pick-up agents, often village headman, helping the coffee collectors in more remote villages. The coffee collectors or their agents buy the coffee on a cash basis. These pick-up agents receive money from the coffee collectors to buy the coffee immediately upon harvest. The coffee production area is completely covered through this network of collectors. About 80% of the total coffee production is collected through coffee collectors. Another 15% is sold directly to buyer-wholesaler and 5 to the wholesaler-exporters.

After the coffee harvest, the coffee collectors send lots of 6 to 8 tons, according to the size of the order, to of the buyers-wholesalers in Pakse. Packaging and conditioning for export is done in Pakse. The coffee is put into 60 kg bags. Quality control, to the extent there is any, is performed in Pakse and Phi Boun. Orders for exports come from traders in Bangkok (Premjee) or direct from foreign buyers. The minimum export order is 18 tons, equivalent to 1 TEU.

The export of Lao coffee is monitored through the Lao Coffee Exporters Association which is the official organization controlling this activity. They document the sale, which is made by the traders and brokers in Chong Mek or across the border in Thailand. The wholesalers often use the services of Lacomex in Pakse to secure the necessary documents. The coffee is sold FOB Phi Boun or Bangkok. The terms of payment are either L/C or COD. The exporters are paid through the Lao Banks and receive 80% of the payment in Kips and 20% in US\$. There exist 3 main export flows for Lao coffee (Figure 25):

- Lao exporters sell 8%-10% of the total coffee exports direct to foreign buyers on an FOB Bangkok basis using a Letter of Credit.
- 45% is sold through a Thai trader: J. Premjee, which has a branch in Phi Bhoun and buys coffee FOB either Pakse or Phi Bhoun and pays within 2 to 3 days.
- 45% is sold through a Lao Broker, Lacomex in Pakse, who acts as an agent on behalf of the exporter and receives a commission of 2%-3%. The broker also assists in transport and clearing customs as well as documentary credit procedures for the exporter.

A number of documents are needed for coffee exports in Lao PDR. These include:

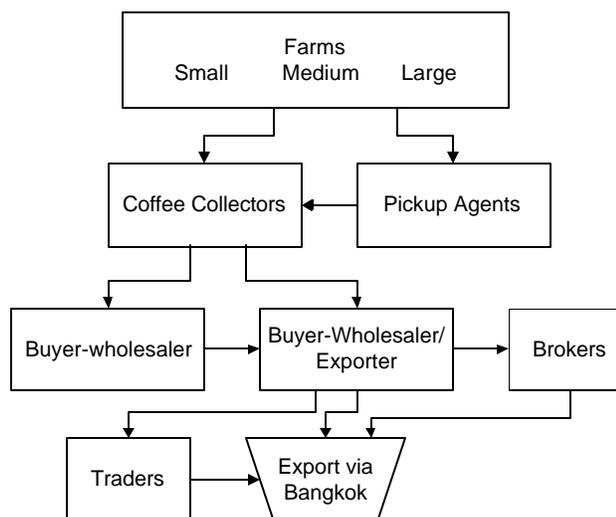
Certificate of quality with humidity content from the Ministry of Industry

- Phytosanitary certificate delivered by the Ministry of Agriculture
- Certificate of Origin from the Ministry of Commerce

The problem is that these documents are often inaccurate, especially the Certificate of Quality due to a lack of qualified technical staff at the Ministry of Industry.

For the export of coffee, it is transferred from the wholesalers in Pakse to the traders in Chong Mek. The transport is as loose cargo up to Chong Mek, about 1 hour from Pakse, at a cost of around 6 US\$/ton. There the bags are stuffed into containers in about 2 hours. From Chong Mek to Bangkok, the transit time is around 14 hours (mostly overnight) at a cost of around US\$ 35/ton. The price of a TEU of Robusta coffee is 9540 US\$/TEU (FOB Bangkok). The price breakdown is shown in Table 28

Figure 25: Channels for Coffee Exports



Source: Compiled from industry sources

Table 28: Price Structure of Robusta Coffee Exports (FOB Phi Bhoum)

	Other charges in Kips/kg	Kips/kg
Local buying price from the villages		3000
Coffee bags	5	
Commission for pick up agent	50	
Transport from village to collector premise	38	
Sorting	50	
Average margin for collector	100	
Transport from collector premise to Pakse	50	
Handling	14	
Sorting for export	30	
Tax on export profit	50	
Road transport (Phi Bhoum)	37	
River crossing	4	
Phytosanitary certificate	2	
Certificate of Origin	-	
Certificate of Quality	2	
Contribution to Lao Coffee Exporters Assoc.	3	
FOB Phi Bhoum In Kips/Kg		3435
FOB Bangkok in US\$/kg		0.53

Source: Lao Coffee Exporters Association (2002)

CHAPTER 8

PROPOSED IMPROVEMENTS

The previous chapters identified a number of problems with the logistics services in Lao that affect growth in both the domestic economy and the country's trade with its neighbors and third countries. In examining these problems, it is important to consider the low density of the population and the small size of the domestic market when comparing the costs and benefits of any improvement. One of the areas in which considerable investment has been made to improve logistics is the road network. However, there is some concern that the level of investment is not justified given the low traffic volumes, the difficulty in sustaining the existing network and the needs for investment in other sectors.

Logistics services in Lao PDR but services are still very much constrained by a number of factors such as:

1. Small and seasonal traffic flows which limits the quality of road, water and air transport services
2. Lack of reliable transport: physical conditions and administrative procedures increase delivery times and increase delays in both domestic and international movements
3. Physical constraints on containerization: there are few roads designed for carrying container trucks in Lao PDR.
4. Poor access links to ports in neighboring countries: access roads to port in Vietnam are difficult, the roads in Thailand are much better but are congested
5. Lack of modern handling methods: the lack of facilities for handling containers and pallet hinders the development of effective links between modes.
6. Bureaucratic bottlenecks: lack of transparency or efficiency in cargo clearance in Lao PDR and the surrounding countries and in the movement of goods between provinces.
7. Significant corruption and lack of control over enforcement of laws and protocols relating to international trade. Procedures are not designed to enable efficient transport and clearance.
8. Absence of cargo information system: no cargo tracking systems are available
9. Lack of a legal framework for logistics services.

These problems are mitigated by the relatively short distances over which cargo is transported. However, the logistics costs attributable to the land-locked status of Lao PDR are increased due to the inefficient logistics. This creates a significant competitive disadvantage for exporters and importers and limits most of their activities to trade with neighboring countries. The added costs due to customs duties, informal payments and delays in paperwork not only discourage formal trade but also encourage extensive informal trade across the border with Lao PDR's neighbors. While this informal trade is essential for meeting the needs of the domestic market, it is more costly than a properly functioning formal trade and creates a competitive disadvantage for those involved in formal trade.

Improvements in logistics can focus on either the domestic economy or international trade but these are likely to offer benefits to the other. More importantly, it will affect the location of that economic activity. Efforts to improve the logistics of international trade will focus on improving cross-border movements and will encourage the location of both export production and import distribution at the border. Efforts to improve domestic logistics will provide inland markets and production facilities with access to international trade. The following discussion considers both areas. This discussion is divided between industry-specific initiatives and general initiatives.

AGRICULTURAL AND INFORMATION LOGISTICS

The sector that suffers most from problems of logistics appears to be domestic agriculture. The logistics problems that need to be addressed include:

- Lack of connectivity of many of the rural households to markets,
- Largely subsistence nature of agricultural with a few areas of surplus production,
- Problems with distribution of agricultural inputs and promotion of modern agricultural techniques, and
- Lack of post harvest processing, storage and markets and market information are all.

However, the scope and level of effort at improving these logistics is necessarily limited by the benefits that can be achieved. The primary crop, rice, is grown primarily as a subsistence-based activity. The country has achieved self-sufficiency in rice and continues to increase productivity through the extension of irrigation, but there is little likelihood that Lao PDR will become a major exporter of rice. Most of the rice is glutinous, which has a limited export market. More importantly, the neighboring countries are major exporters of rice and have a significant competitive advantage in terms of scale, natural resources and access to markets. Any efforts to improve rice logistics should focus on domestic distribution between surplus and deficit areas.

There continues to be a need for more efficient transfer of rice between areas of surplus production and deficit areas and for long term storage to moderate price fluctuations throughout the year. Unfortunately, the small volumes involved make it difficult to justify any significant investment in this activity. Earlier efforts to improve logistics by developing larger state-operated rice mills with drying and storage facilities had limited impact on the income of farmers and the availability and quality of rice. Meanwhile, the network of small and medium scale mills appears to serve the basic requirements of the farmers.

Strengthening of local logistics services through improved delivery of information to farmers and through cooperative efforts on the part of farmers could provide significant improvements. Previous government-led initiatives have failed and the private sector lacks the incentives to take on this task. However, improvements in communications offer an opportunity to deliver directly to farmers the information on improved farming practices, prices in different markets and services available for post harvest processing. The experience of Thailand in extending the reach of internet services to the rural area provide a useful example, especially as the national telecommunications is provided through a joint venture with a leading Thai telecommunications company.

Improvements in agricultural logistics should focus on commercial crops where there is considerable potential for growth. Efforts should be made to improve the supply of fertilizers and improved seed, harvesting techniques, post harvest storage and processing, and marketing of the crops. Again, the most improvement can be achieved through provision of better information to the farmers. Existing extension services have not been effective in converting risk-averse farmers from traditional to modern methods but this may have less to do with the quality of the message and more to do with the quality of the messenger. The focus should be on providing carefully developed and formatted information distributed through modern communications. This would make efficient use the most scarce resource, talented communicators. Initially, this effort should focus on the production of vegetables in the Boolevan plateau and Vientiane Province. The major problems to be addressed are harvesting techniques and post-harvest processing to ensure the quality of produce. Better information on the relation between quality and sales price and between the requirements of different market channels and the prices offered would provide farmers with the incentives to change practices. Given the remoteness of the area, the strategy for improving information will require investment in communications infrastructure and development of centers where farmers can access this information.

The commercial crops are either transported to the urban centers and sold in the marketplace or exported to Thailand. For the latter, the only competitive advantage for Lao producers is the season of harvesting, which allows Lao producers to supply fresh vegetables to the Thai markets during their off-season. A large part of the export trade with Thailand is informal because of difficulties with Thai customs. This needs to be resolved through modification of the bilateral trade agreement and better control over Thai customs officials. For the formal trade, there is a need to improve the supply chain and provide more reliable deliveries to Bangkok markets. This requires better trucking services and reduced delays at the border. Over the long term, it also means more processing of the fruits and vegetables within Lao prior to sale in Thailand.

COFFEE AND OUTBOUND LOGISTICS

Another important commercial crop to be developed is coffee. Despite significant foreign participation in the cultivation and processing of coffee, quality control continues to be a significant problem that reduces both the price and market for Lao coffee. Better logistics are required in the post harvest processing, especially the grading, marketing and sale of the coffee. The Lao Coffee Exporters Association has not been successful in this area and new channels for exports need to be opened. Better integration of the supply chain allowing for demand-pull marketing requires direct involvement by overseas buyers rather than through intermediaries. This implies allowing foreign players who can offer better support for cultivation, harvesting and grading of the coffee beans to enter the market. It also implies more competition in the export of the coffee, which is currently dominated by two large traders. The transport component of the logistics functions reasonably well.

The food processing industries in Lao apply relatively simple technologies and small-scale production to process recently harvested crops. Given the low density of production and the higher transport costs due to relatively small consignments, there may be limited advantages to concentrating production. With small-scale production, the inbound logistics need to be relatively simple and robust. However, the outbound logistics for supplying urban markets and

for export should be efficient. Improvements in road transport will improve these logistics but improvements are also required in quality certification and in the integration of marketing and shipping services. Access to foreign markets is generally through Thai traders and companies. More direct linkages with food distribution chains would require better production planning but this would be difficult to achieve at this stage of Lao agriculture

WOOD INDUSTRY AND INBOUND LOGISTICS

The problems of the wood industry have less to do with logistics and more with government procedures and regulation. . The current system quotas and government pricing does not produce an efficient allocation. A more transparent and sustainable mechanism for the harvesting of wood can be introduced by relying on market forces.²⁷ The government's concern for limiting the cutting of trees to a sustainable level can be accomplished by relying on a pricing mechanism that includes stiff penalties for illegal cutting and direct taxes.²⁸ By making the availability of supply more predictable, it will be possible to consider improvements in the wood processing industry, primarily its technology. This involves capital investment in equipment to increase the yield and quality of timber and wood products. The remaining problems with inbound logistics are transporting the trees from the forest to the factory. This movement can be simplified from a two-stage movement to a direct movement. This system would allow manufacturers to reduce production costs by locating facilities near the source of the wood.

There are fewer problems with the outbound logistics for exports of manufactured wood products to third countries. The major problem is the high cost of container transport. Only the higher value furniture moves in containers from the point of production. The new treaty for transit trade is expected to reduce the delays with container movements to/from Lao, but it is unclear if it will provide the incentives for additional competition that would reduce the trucking costs. The high costs for repositioning of the containers for export will continue until an inland container depot is established, presumably along the border. Another problem is the unauthorized charges levied by Thai customs for wood products moving in transit through Thailand. These need to be eliminated through better enforcement of regulations by Thai customs following on negotiations between the Lao and Thai governments.

GARMENT INDUSTRY AND COMPETITIVE ADVANTAGE

The logistics of the garment industry are relatively good because of the extensive involvement of foreign manufacturers and the demands of the international garment market. Transport and telecommunications are relatively sophisticated. The supply chain management is will integrated. Despite these strengths, the potential for expansion of this industry is very limited. Lao PDR has limited comparative advantage since all the inputs must be imported into low-cost labor is offset by greater automation in neighboring countries. The surrounding countries have a comparative advantage in terms of technology, depth of labor pool, access to capital and connection to foreign markets. The attraction of Lao PDR is its quotas that provide access to US

²⁷ The current problem of cutting in excess of sustainable yields is linked to the illegal trade in logs. The government's ban on log exports, if enforced, would allow more wood to be harvested for domestic production

²⁸ A scarcity tax that reflect the replacement cost or the value of non-renewable species.

and European markets for companies that have reached their quota limits. The termination of the Multi-fiber Agreement in the next few years will eliminate quotas and end this advantage. If the Lao garment industry is to survive, it will have to become price-competitive despite its dependence on imports for all inputs and landlocked location surrounded by some of the world's largest garment-exporting nations. This will require relocating the factories near the border, preferably in Duty Free Industrial Zones where they can operate with minimal government interference and with competitive communications and container transport services.

TRANSIT ROUTES

Considering the limited capacity for growth in domestic markets, it is important for the Lao government to expand its external trade. This has already occurred for exports of hydroelectric power, wood products, and garments, but the amount of trade remains small relative to GDP. So far, the government has been cautious in opening the economy to external exploitation of domestic resources and to foreign ownership of businesses. Meanwhile, the informal sector has developed rapidly by avoiding the cumbersome procedures introduced by government.

The development of the transit routes across Lao connecting Thailand to Yunnan Province and Central Vietnam is expected to greatly expand the level of both formal and informal trade. The government needs to develop policies that take advantage of these transit activities and, at the same time, bring informal trade back to the formal sector. This can be accomplished by reducing import duties, simplifying trade documentation, eliminating import and export quotas and introducing one stop shop approvals for cargo clearance. Lao can generate economic activity by encouraging the use of these routes while providing services to the traffic on these routes. These include not only the basic services for trucks but also storage, consolidation, distribution, financing and other trade facilitation services.

It is also necessary to develop a cost recovery mechanism to maintain the transit routes. The success of these routes will depend on proper maintenance so as to avoid excessive operating costs. This will require regular maintenance as well as periodic overlays. Given the shortage of resources available for road maintenance and the expectation that these routes will attract heavily-laden vehicles, it is appropriate to collect a toll for the road. This could be done at the points of entry and exit and combined with inspections related to Gross Vehicle Weight and driver documentation. The tolls should be set at a level that will cover the long run maintenance costs but would not divert traffic during the initial years of operation when traffic volumes are low.

BORDER ENCLAVES

Lao PDR can create competitive advantage from its location at the center of three large economies that have enjoyed considerable growth through trade and that will now be in a position to expand their regional trade. Each of these countries place limits on the activities of the private sector (China and Vietnam through state control of economic activity) and Thailand through a policy of favoring business interests of Bangkok). They also place restrictions on foreign investment. Lao PDR could create an environment in which companies from these countries and from third countries can operate with fewer regulations and less corruption. This

would require significant deregulation. Initially, these freedoms would be limited to border enclaves but eventually it could be expanded to the provincial level.

This policy would lead to more rapid development of the border areas, to significant employment generation and to the development of supporting economic activities. There would also be some concentration of the population along the border and migration from the countryside and from agriculture to industrial employment. This should not cause a problem given the low density of population at present. The development of Lao PDR as a logistics hub is not without precedence, but it would represent the first time that it was attempted without a gateway to the sea. Efficient access to the Thai and Vietnamese ports would be essential to accommodate third country trade while unimpeded border crossings would be necessary to promote trade with adjoining countries. Bilateral and regional agreements would have to be revised to reduce the impediments to intra-regional trade.

This development would require investment in economic enclaves along the border to facilitate trade and encourage foreign investment in export-oriented industries. The need for such facilities has long been recognized. A modest attempt was made to develop an industrial zone near Thanaleng, but without a clear understanding of the market for and potential benefits of such a zone. The various studies of the East-West corridor connecting Thailand with Vietnam have highlighted the need for such zones at the crossing points between Mukdahan and Savannakhet. These were to be logistics centers that provided not only freedom from regulations and customs requirements that stifle export-oriented industries but also communications and transport services needed by these industries. This form of enclave already exists in the border towns serving the growing informal trade with Thailand, Vietnam and China. The new enclaves would serve both regional and third country trade and also manufacturing activities and would provide more efficient logistics and direct access to third countries.

The Japanese government is currently providing support for the planning and potential development of industrial zones near Savannakhet. What they have not yet addressed is the market that the zones will serve and the changes in regulatory environment necessary to make the zones attractive to Thai entrepreneurs. These zones, which could be located on either side of the Mekong River, should allow for free movement of both Thai and Lao labor to and within the zone. Similarly, they should allow for incorporation of enterprises within the zones separate from the requirements of domestic incorporation in either country.

INLAND CONTAINER DEPOT

The temporary import of containers into Lao PDR is possible but rarely done due to the cost involved in transporting the empty container to Thanaleng. It is used for certain fragile and high value goods. Most Lao importers prefer to un-stuff the container at Bangkok port and transship the goods onto 10-wheel trucks. In order to encourage greater use of containers, it is necessary to reduce the cost of the 'bond' levied by shipping lines for movement of containers into Lao PDR. Another is to develop a repositioning facility from where boxes could be dispatched for loading of export containers or for return of unstuffed import containers.

These facilities should be incorporated into the border enclaves as Inland Container Depots. These would provide the capability to implement the new treaty on transit trade. It would also encourage competition in the provision of trucking services and permit the unhindered flow of sealed containers between Lao and gateway ports. The IDC would have facilities for storage and dispatch of empties and for stuffing/unstuffing of containers and systems for inventory control and box tracking. It would accommodate both land and ocean containers. The ICD would serve containers moving under through-bills-of-lading as well as containers moving under separate land transport waybills. This facility would evolve into a dry port, which would allow shipping lines to issue ocean bills of lading for cargo received at of delivered to the enclave. These would allow for less costly container transport by providing competition and creating opportunities for reducing empty backhauls.

If effective, the ICDs should reduce the cost of container movements by up to 50%. They would also permit better scheduling of these movements to ensure a tight connection with vessel sailings.

BILATERAL AGREEMENTS

The development of bilateral and regional trade agreements is important to the economic growth of Laos PDR. The new transit treaty with Thailand to be enacted this year offers the potential for unimpeded movement of transit cargo between origins in Lao PDR and the ports of Thailand. It remains to be seen whether and how this treaty will be implemented. In particular, whether customs officials at the border will behave in accordance with the protocols in the treaty. It is unlikely that the regional agreements will be implemented within the next 2-3 years given the lengthy period required for formulating these agreements and the limitations place on the final protocols. It is essential for Lao PDR to negotiate better transit treaties if it is to develop economically. Both the strategy and the team negotiating these agreements need to be strengthened. In particular, it is necessary for the government to seek out the opinions of the parties that would be affected by these treaties and to incorporate their concerns in the government's negotiating position.

An underlying problem is the lack of persons in governmental and private sector to undertake negotiations on bilateral and international trade, transit procedures, reduction in duties and customs requirements, etc. Without these personnel and an integrated development policy, it would be very difficult for Lao PDR to negotiate transit and bilateral trade treaties that support the economic development of the country.

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ANNEX I Tables

Table A.1: Rice Production by Province 1999

	Wet Season Lowland	Dry Season Irrigated	Wet Season Upland	Total	% Total
North	241,304	26,650	183,906	451,860	21.5%
Phongsaly	18,761	360	24,802	43,923	2.1%
Luang Namtha	24,692	2,921	18,410	46,023	2.2%
Oudomsai	28,205	3,222	39,805	71,232	3.4%
Bokeo	32,740	702	8,720	42,162	2.0%
Luang Prabang	32,050	7,745	52,813	92,608	4.4%
Houaphan	37,252	4,557	20,050	61,859	2.9%
Sayaboury	67,604	7,143	19,306	94,053	4.5%
Central	864,975	231,300	43,046	1,139,321	54.2%
Vientiane Munic.	158,007	71,949	0	229,956	10.9%
Xieng Khoang	39,650	971	19,510	60,131	2.9%
Vientiane	114,906	22,300	7,207	144,413	6.9%
Bolikhamsai	72,050	25,400	4,612	102,062	4.9%
Khammouane	129,930	27,550	2,003	159,483	7.6%
Savannahkhet	336,037	82,629	6,510	425,176	20.2%
Saysomboune	14,395	501	3,204	18,100	0.9%
South	395,746	96,050	19,838	511,634	24.3%
Salavane	113,750	24,239	10,215	148,204	7.0%
Sekong	8,641	1,640	4,810	15,091	0.7%
Champassak	238,853	68,470		307,323	14.6%
Attapeu	34,502	1,701	4,813	41,016	2.0%
Total	1,502,025	354,000	246,790	2,102,815	

Table A.2: Value of Trade

	1990	1995	1996	1997	1998	1999	2000
Exports (fob)							
Total (US\$ mns)	79	348					360
Merchandise		313	317	313	337	302	336
As % of GDP	9.1	19.8			36.3		26.7
Components (%)							
Electricity	24.0	6.9					6.6
Manufacturing	9.0	44.5	21.1			22.5	22.8
Agriculture	27.8	30.9	53.3			53.5	52.9
Imports (CIF)							
Total (US\$ mns)	202	587					553
Merchandise		589	690	648	553	554	437
As % of GDP	23.3	33.4			47.6		41.0
Components (%)							
Investment		32.2					
Consumption		48.3					

Table A.3: Direction of Trade

	1991	1992	1993	1994	1995
Exports					
Thailand	66.4	50.5	37.0	40.9	40.9
Vietnam	15.5	9.9	9.6	25.2	25.2
China	0.9	9.9	10.6	2.7	2.7
France	2.9	5.8	5.2	6.8	6.8
USA	0.5	1.9	4.4	3.2	3.2
Taiwan	1.7	1.4	4.2	1.1	1.1
Japan	0.0	5.3	3.7	0.6	0.6
Other	12.1	15.2	25.3	19.5	19.5
Imports					
Thailand	51.6	45.9	49.2	48.4	45.2
Japan	21.4	17.3	13.0	11.8	11.0
Vietnam	6.9	4.6	4.5	4.1	3.9
Singapore	5.1	17.7	4.5	4.0	3.8
China	4.0	3.0	4.2	3.8	3.5
France	1.6	1.3	1.5	1.4	1.3
Taiwan	1.7	1.5	1.1	1.0	0.9
USA	1.1	1.1	1.0	0.9	0.8
Others	6.5	7.6	21.1	24.6	29.5

Table A.4: Forest Area and Production by Province

	Forest Land 000 ha.	Production forests		Amount Harvested	
		000 ha.	000 ha.	1980-1996 000 cu.m.	1988/89 000 cu.m.
North					
Phongsaly	667.1	65.1	17.3	61.4	2.3
Luang Namtha	531.5	13.0	6.4	24.0	4.2
Oudomsai	415.0	54.4	12.8	59.4	2.2
Bokeo	303.6	97.5	41.3	193.0	1.6
Luang Prabang	371.3	2.8	1.2	4.8	
Houaphan	594.0	306.4	27.8	221.7	.8
Sayaboury	688.4	430.0	46.7	729.1	11.8
Central					
Vientiane Munic.	125.4	56.0	7.6	160.0	.7
Xieng Khoang	746.4	223.3	11.8	154.3	5.3
Vientiane	637.1	122.7	30.3	491.9	.7
Bolikhamsai	966.1	268.9	26.7	233.4	48.3
Khammouane	962.6	196.1	84.6	4,269.8	285.5
Savannahkhet	1197.6	332.2	52.1	512.3	90.2
Saysomboune	349.3	101.6	47.5	391.7	
South					
Salavane	577.3	72.7	14.7	203.5	2.3
Sekong	413.9	45.5	6.9	62.6	5.7
Champassak	940.3	53.0	7.0	54.9	8.4
Attapeu	681.1	45.9	14.3	27.7	10.3
Special Projects*					132.0
Total	11,168.0	2,487.1	457.0	7,855.5	613.3

Source: MAF 1996 (2)

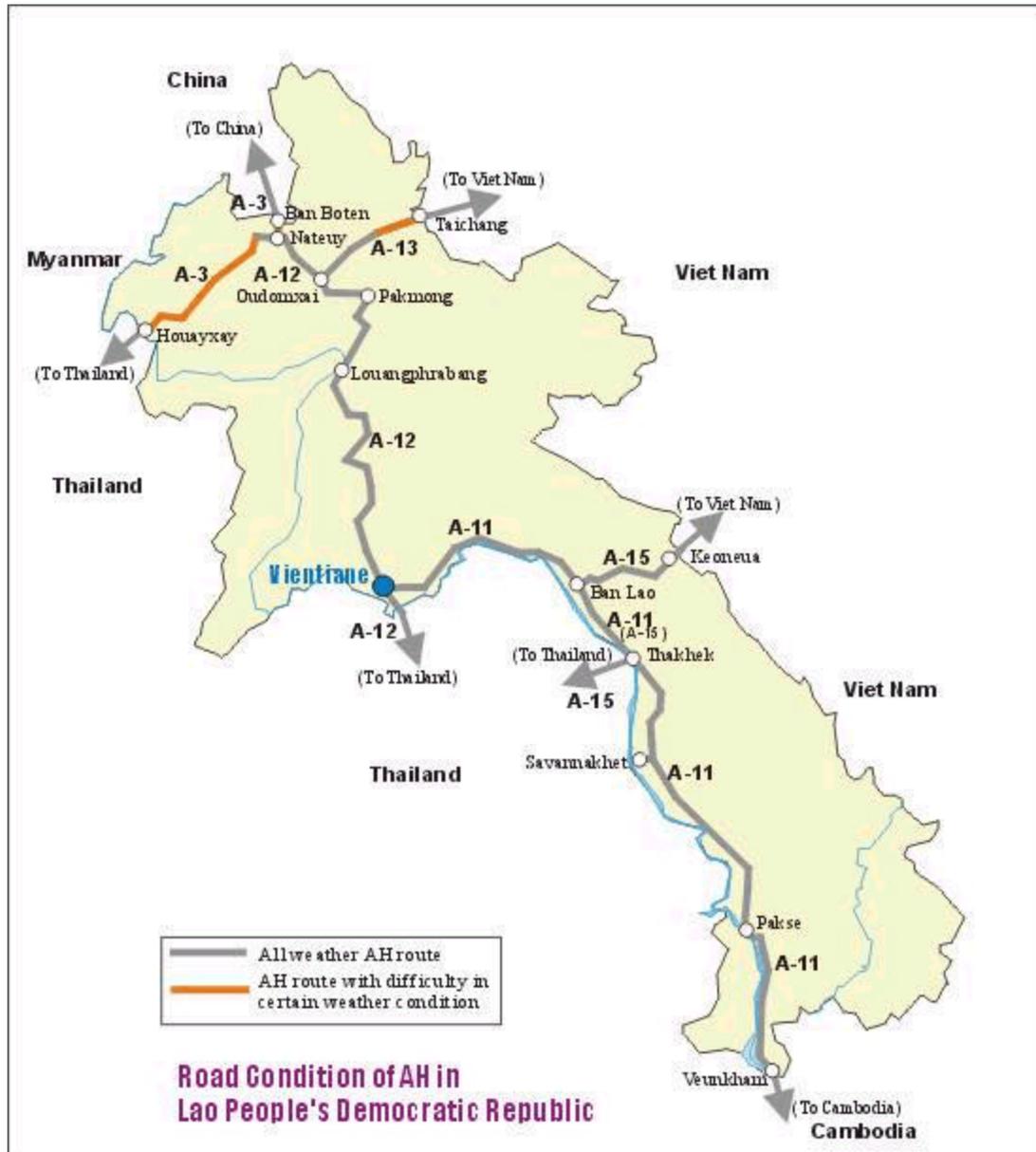
* Nam Leuk, Dong Kapho, Nam Ngum, Phoudoi, ADS, FMOCAMP

Table A.5: Accessibility of Populace by Province
(% villages with access to passable roads)

	Dry Season	Wet Season
North		
Phongsaly	45	31
Luang Namtha	43	34
Oudomsai	52	38
Bokeo	74	42
Luang Prabang	50	48
Houaphan	20	36
Sayaboury	80	44
Central		
Vientiane Munic.	100	40
Xieng Khoang	84	71
Vientiane Munic.	95	78
Bolikhamsai	88	46
Khammouane	96	51
Savannahkhet	100	45
Saysomboune	59	52
South		
Salavane	100	52
Sekong	73	59
Champassak	69	44
Attapeu	77	35
Total	79	46

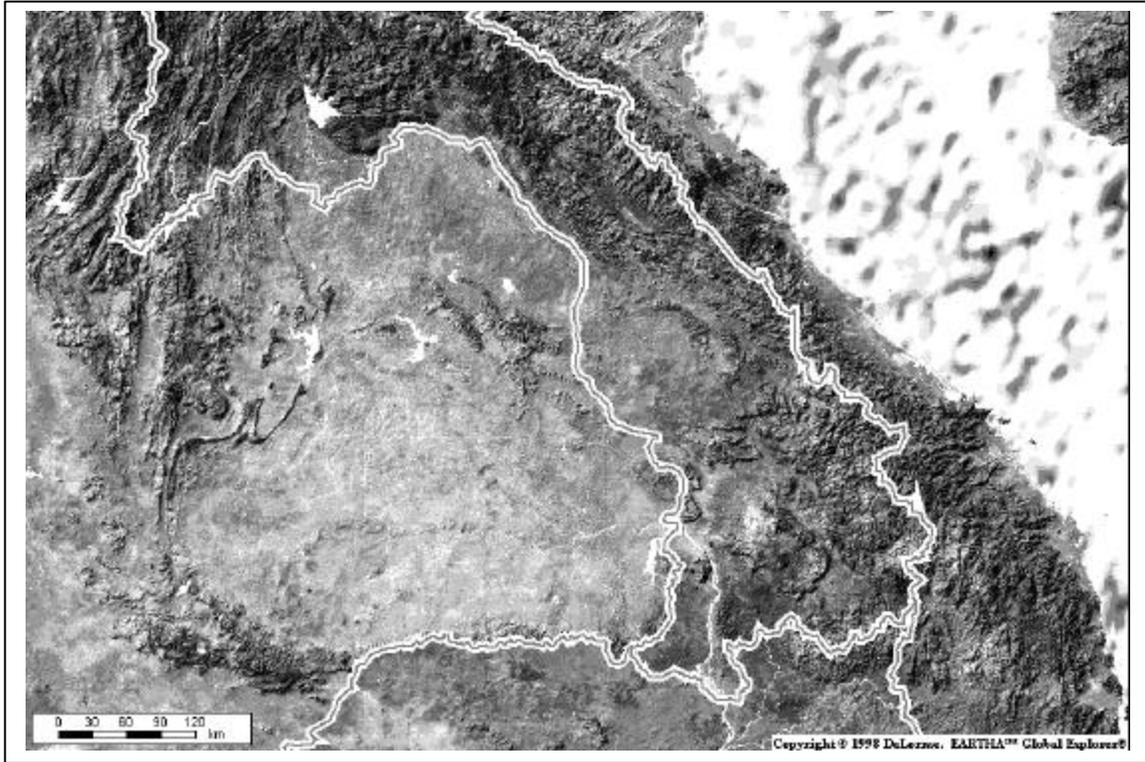
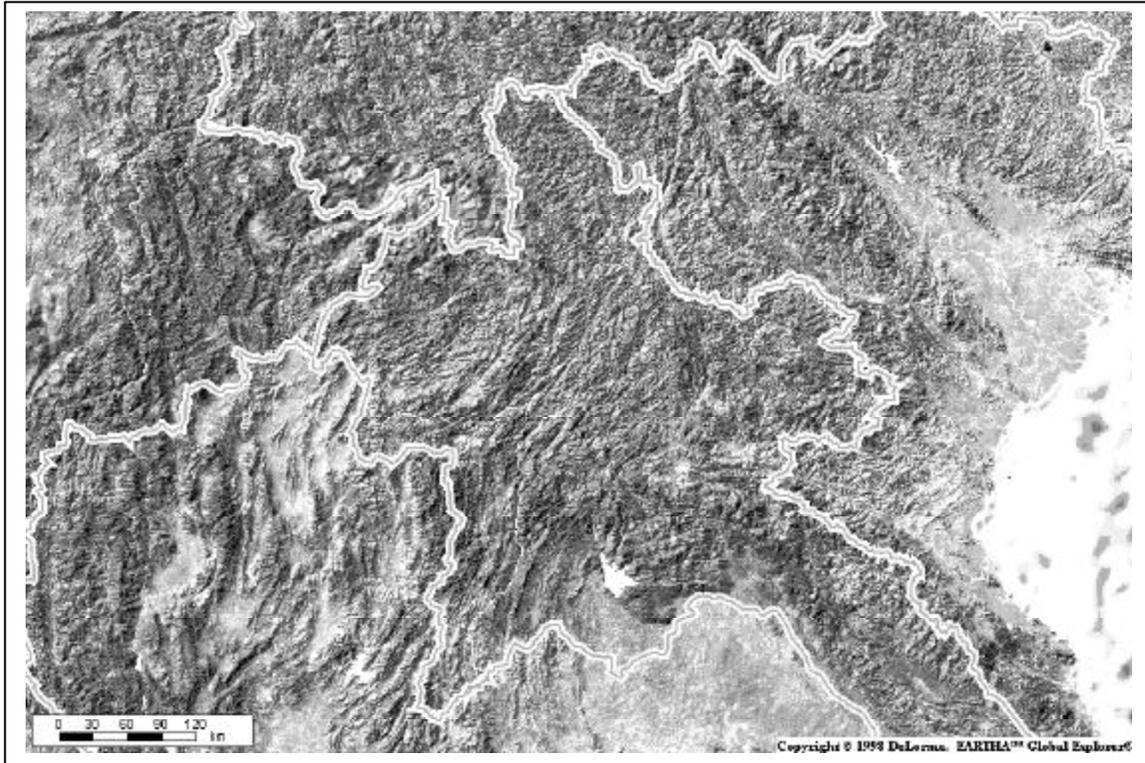
ADB Poverty Assessment TA

Photographs and Maps



Source: ESCAP Secretariat

Photographs and Maps



List of people met

Committee for Planning and Cooperation, Prime Minister's Office

H.E. Mrs. Kempeng Pholsena, Vice Minister
Singkham Khongsavanh, Deputy Director General
Soulivanh Pattivong, Desk Officer, IFAD and WB

Ministry of Commerce

H.E. Phoumi Thipphavone, Minister
Ms. Pholsena, Director Foreign Trade
Khenethong Sisouvong, Executive Director, Lao Trade Promotion Center

Dr. Sirisena Dahanaye, Economic Policy Advisor
Kamphet Vongdala, Officer, Economic Research Division

National Statistics Center

Mr. Bounthavy Sisouphanthong, Director

Ministry of Communications, Transport, Post and Construction

Thongsavath Bounsack, Deputy Director General, Department of Transport
Toui Phommasing, Director of Road Transport Development Division

Ministry of Agriculture and Forestry

Anonth Khamhung, Director General, Department of Planning
Inpanh Sounthanousinh, Deputy Director General, Department of Forestry

Societe Mixte de Transport

Prachith Sayavong, Managing Director
Sourasinh Sisaseuth, Export Manager

Lao National Chamber of Commerce and Industry

Dr Sananh Chounlamany, Vice President

Ministry of Foreign Affairs

Somchith Inthamith, Director General

Ministry of Finance, Customs Department

Chongphim Nhotluxay, Director of Legislation and Policy

Provincial Administration – Vientiane Province

Mr. Undong Phongpaypadith, Deputy Director

Vientiane Province – Agriculture and Forestry

Bouaphanh Konedavong

Asia Paper Mill Factory

Lin Fu-Lin, Manager

Pharmaceutical Development Center
Phoukhong Chommala, Vice Managing Director

Lampang Food Company
Mr.Chana

Kaew Wong Kham Sawmill
Mr. Lumkhan Wongsai

Geodis Overseas
Mr. Vira Salikoun

Lao Coffee Export Association
Mr. Bounlap Nhouyvanisvong

Lao Freight Forwarder
Mr. Vichit Saddettan

Dao Hueng Import:Export
Mrs. Luanglitdang

Lanexang Garment and Great Lao Garment
Mr. Somsouk Banouvong

Thai Farmers Bank
Mr. Thawee Nuangpuk

S.I. Garment
Mrs. Sujata Inthawong

Trimax
Mrs. Kanlayanee Jitraphai

First May Timber Processing and Wood Products
Mr. Viradeth Boupha

Sawanwale Trading
Mr.Pitoon Sakunchokechai

Udomsab Company Limited (coffee)
Mr. Amphai vanh Chanthasak

K.P Co.,Ltd.
Mrs. Sriratana Ratanamon

LACOMEX Co.,Ltd.
Mr. Eric Sisombat