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Socialist Transformation in the Lao People's Democratic Republic An Economic Report

(In Two Volumes)

Volume II: Annexes

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East Asia and Pacific Region

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GLOSSARY

CURRENCY EQUIVALENTS

March 1975-June 30, 1976

US\$1.00 = KL 37.5
KL 1.00 = US\$0.027
KL 1.00 million = US\$27,000
KL 1.00 billion = US\$27 million

July 1976-May 1978

US\$1.00 = KL 200
KL 1.00 = US\$0.005
KL 1.00 million = US\$5,000
KL 1.00 billion = US\$5 million

Since June 1978

US\$1.00 = KL 400
KL 1.00 = US\$0.0025
KL 1.00 million = US\$2,500
KL 1.00 billion = US\$2.5 million

LAO FISCAL YEAR

January 1 to December 31

SOCIALIST TRANSFORMATION IN THE
LAO PEOPLE'S DEMOCRATIC REPUBLIC

AN ECONOMIC REPORT
(IN TWO VOLUMES)

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LAOS

POST-WAR DIFFICULTIES

Crisis Period, 1975/76

1. In the period 1975/76, the Lao economy suffered from severe shortage of goods and foreign exchange, disruption in internal and external trade as well as financial instability and rapid inflation, due primarily to internal political upheavals and a sharp drop in foreign aid receipts. Although commitments of project aid (primarily from socialist countries) increased in this period, net foreign inflows dropped due to the withdrawal of import financing support and other activities financed directly by the former major donors.
2. The drastic reduction in foreign aid receipts since mid-1975 and the decline in economic activity, which accompanied the internal political developments, led to a sudden drop in the standard of living of the highly consumption-oriented urban areas, which had been the principal beneficiary of foreign assistance. Supplies there diminished as: (a) imports fell sharply following the rapid decline and then termination of the Foreign Exchange Operations Fund, FEOF (see para. 2.4 in main report for definition), and the closure from November 1975 to January 1976 of the Thai border, which was subsequently only partially reopened;^{/1} (b) output of factories declined due to the departure of a number of industrialists, the nationalization of some industries and the shortage of both technicians and imports of raw materials, fuel, and spare parts; and (c) poor weather reduced the 1976 rice crop and farmers withheld their surpluses from the markets in response to price controls and the subsequent establishment of a state-run marketing system; as a result, prices of food and basic commodities on the free market rose considerably above official levels.
3. The financial situation deteriorated rapidly in 1975/76 as expenditures rose, revenues declined and state enterprises, particularly the public distribution system created in late 1975 to market basic commodities at low and stable prices, incurred heavy financial losses. The increase in expenditures reflected primarily the shifting of items, formerly financed directly by foreign aid, to the government budget, the costs of initial resettlement of about a quarter million displaced persons and the increase of civil service salaries to help compensate for inflation, while the decline in revenues stemmed mainly from the sharp drop in foreign assistance. The financial losses by state enterprises resulted from rigid price policies, inadequate cost assessment and control as well as poor management. Recourse to bank credit to finance the growing budget deficits and financial losses of state enterprises led to rapid monetary expansion which, together with limited supplies, fueled inflation in the urban areas. In addition, the official exchange rate became increasingly unrealistic as the parallel market rate depreciated rapidly reflecting both rapid inflation and substantial capital flight, which accompanied the evolution of the transfer of power to the NLHS.

^{/1} The border was opened only at two frontier points (Vientiane and Savanakheth). Then in mid-1977, Thailand placed an embargo on exports to Laos of Thai goods which, except for a few strategic items, has subsequently been lifted.

4. Given the socio-political realities of the times, however, the Government had little choice but to follow the above policies. First, budgetary cuts were not possible because: (a) there was an urgent need to resettle the displaced population; and (b) any attempt to compensate for the drop in foreign aid through drastic cuts in outlays would have been politically and socially disruptive. Secondly, the need to prevent starvation necessitated massive subsidies and distribution of food through the state marketing system.

5. In June 1976, to control inflation and equalize cash holdings of the population, the Government demonetized the former Vientiane Kip (K) and replaced it with the Kip de libération (KL), which circulated in the former NLHS zone, at a conversion rate of K 20 per KL, and devalued the KL by nearly 70% vis-a-vis the US dollar. During the currency conversion, nearly half of the money supply was eliminated from circulation due to losses, non-declarations and withholdings. Nevertheless, the deflationary impact of these measures was short-lived as continued weak budget discipline and mounting financial losses by state enterprises nearly tripled the money supply in the second half of 1976.

Recent Stabilization Measures

6. Since early 1977, the country's economic situation, although still serious, is beginning to stabilize as a result of government measures to increase supplies, improve budget discipline and state enterprises' performance, and control monetary expansion. To improve the supply situation the authorities: (a) reopened more than 200 enterprises; (b) used official exchange reserves to import basic necessities and raw material requirements of industries; (c) in early 1977, raised the official procurement prices of major food and export cash crops (paddy, maize, soya beans and coffee); and (d) in the second half of 1977, eased controls on the free internal movement of agricultural products and private imports of basic consumption goods in small quantities. The balance of payments situation, however, remained critical despite a sharp reduction in nonessential imports. Border problems, inadequate price incentives and marketing difficulties kept export earnings considerably below their potential.

7. There were also efforts in 1977 to improve public finances by increasing revenues and controlling public expenditures. To increase revenues, the Government began to collect the agricultural production tax which was introduced in September 1976. However, due to a poor crop in 1976 and a disastrous harvest in 1977 as well as problems of tax administration, this tax has not yet yielded its full potential and proceeds have been limited. In September 1977, the authorities introduced a comprehensive tax reform designed to increase taxes and simplify the tax system./1 In addition, state enterprises were ordered to transfer their arrear payments to the budget.

/1 The main features of the agricultural tax and the recent tax reform are described in Annex X.

8. On the expenditures side, public outlays were cut substantially in the second half of 1977. In addition to freezing civil service salaries, the authorities reduced administrative outlays, slowed construction of nonpriority projects and ordered major cuts in transfers to state enterprises. These improvements in the fiscal situation reduced the bank-financed budget deficit by about 25% from an estimated KL 6.5 billion in 1976 ^{/1} to KL 5.1 billion in 1977.

MONETARY DEVELOPMENTS, 1975-78
(millions of KL) ^{/a}

	Dec. 1975	June ^{/b} 1976	Dec. 1976	Dec. 1977	June 1978
Net foreign assets	150	1,400	900	-350	-1,300
Credit to public sector (net)	4,280	1,820	7,200	11,130	13,000
Credit to Government (net)	(2,550)	(-)	(3,300)	(8,360)	(10,000)
Credit to state enterprises (net)	(1,730)	(1,820)	(3,900)	(2,770)	(3,000)
Credit to private sector	320	80	180	300	350
Total credit	4,600	1,900	7,380	11,430	13,350
Money supply	4,500	2,900	7,800	10,350	11,500
Quasi-money and other	250	400	480	730	550
Memo item:					
Change in money supply (%)		-70	170	33	11

^{/a} Rounded figures.

^{/b} June 1976 figures exclude all credit to the former Vientiane Government and most credit to the private sector which was retired, and portion of money supply which was not converted after the currency reform of mid-1976.

Source: National Bank of Laos and mission estimates.

9. Meanwhile, in order to improve the performance of state enterprises, the Government issued new guidelines covering their financial and management practices, and, in the second half of 1977, raised the retail sale prices of

^{/1} No formal budget was prepared in 1976. However, provisional figures covering the second half of 1976 showed a bank-financed deficit of KL 3.25 billion. Since budgetary discipline was reportedly worse in the earlier part of the year, it is reasonable to assume that the annual deficit was at least double that during the second half of the year.

a number of locally manufactured products. In April 1978, further increases ranging from 50%-300% were introduced on beverages, petroleum products, cigarettes, and some public services. By mid-1978, these measures led to a considerable reduction in the level of net bank credit to state enterprises. Thus, better budget discipline and improved financial performance of state enterprises combined with a large balance of payments deficit helped lower the rate of monetary expansion from about 170% in the second half of 1976 to about 35% in 1977 and less than 15% in the first half of 1978. These developments, combined with improvements in the internal supply situation have slowed the inflationary spiral considerably. Consumer prices, which in mid-1976 were rising dramatically at an annual rate of about 400% on the free market in Vientiane, have slowed down considerably to less than 15% on an annual basis between November 1977 and April 1978. In mid-1978, the rising trend in prices reversed and prices of several commodities actually declined in the second half of the year.

10. It is impossible to measure accurately the adverse impact of recent inflation on real incomes of the population. However, there are indications that the population in Vientiane and, in particular, other urban and rural areas has not been affected as severely as suggested by the free market inflation rates in Vientiane. First, a substantial part of the basic necessities of urban consumers is rationed at official prices through the public distribution system. With the exception of a few items, official prices have remained unchanged for over two years, while rations have varied. Although precise figures are unavailable, the authorities estimate that nearly half a million urban dwellers, mostly civil servants and their families, have access to rice and other items at official prices - whenever these are available.

11. Secondly, as shown by the following table, in June 1978, the free market price of an identical basket of goods was on the average more than twice as high in Vientiane than in ten other major cities; the price of the same basket on the official market was about one fifth the free market price in Vientiane. Finally, five cities with the lowest average price levels (where prices have reportedly remained stable in the last few years) were in the former NLHS zone, while the cities with the highest average price levels were in the former Vientiane zone. Therefore, it appears that the recent instability and high rate of inflation have primarily affected the real incomes of the urban population in the former Vientiane zone, which account for about 10% of the population. Real incomes fell most sharply in Vientiane, while rural areas, most of which are outside the monetized sector, were generally shielded from these developments.

INDEX OF RETAIL PRICES OF A SELECTED COMMODITY BASKET BY MAJOR CITIES, /a
JUNE 1978
(Vientiane Free Market = 100)

Commodities	Vientiane	Ten Major Cities /b			Official market
		Average	Lowest five	Highest five	
Food basket /c	100	35	15	49	16
Nonfood basket /d	100	61	32	89	27
<u>Total basket</u>	100	53	30	77	23

/a Mission estimates.

/b Attapeu, Luang Prabang, Ondomsay, Pakse, Phongsaly, Saravane, Savanakhet, Sayaboury, Thakek, Xieng Khuoung.

/c Based on adjusted monthly rations: rice, 20 kg; pork, .75 kg; beef, .25 kg; condensed milk, one can (.397 grams); sugar, .5 kg; salt, .2 kg.

/d Based on adjusted monthly rations: cloth, 5 meters; detergent, .25 kg; gasoline, 20 liters.

Source: Ministry of Industry and Commerce, and Table 7.3 in the Statistical Appendix.

LAOS

NATIONAL ACCOUNTS

A. Statistical System

1. The statistical system in Laos is still at an early stage of development. At present, the basic statistics needed for central planning are not collected systematically. The collection of statistics is hampered by shortage of trained personnel as well as the country's geographical configuration and its lack of communication and transportation networks. Macro-economic data are practically nonexistent. For example, the latest National Income Accounts estimates were published in early 1974 by the planning committee of the former Vientiane Government. These estimates were mainly based on the basic statistics collected in the former Vientiane zone, and consequently did not accurately reflect the overall picture of the Gross National Product (GNP).

2. Policy decisions within the framework of a centrally planned system need to be based on sound statistical information. In the following paragraphs the mission briefly describes what in its view should be the major building blocks of a statistical system.

3. The most important outcome of all economic activity is the final output and its distribution. However, the process of producing and distributing the final output of an economy, expressed as National Accounts, represents only a part of the total economic activity. In the course of producing the country's final output, a considerable part of the economic apparatus is in fact engaged in the production of intermediate products (i.e. raw materials and semi-finished materials) whose successive manufacturing phases will result in final products. Consequently, economic planning deals with the entire process of reproduction which precedes the finalization of products.

4. The formulation and the implementation of economic plans require that all sectors of economic activity be properly studied and given proper direction as they are inextricably mutually linked. Any proposal foreseeing the growth of any sector of final production would be deprived of its material base unless final producers can be sure that they will receive the necessary raw materials and labor and that other conditions which are required for the linear increase of production in a broad spectrum of economic activity are assured.

5. The basic statistical instrument for this kind of analysis of the process of reproduction in the economy is the tables of mutual relations of economic activities. In these tables, the entire activity is divided into a series of sectors whose production is shown in a twofold fashion, namely as a chain of deliveries of products to other sectors and as a series of procurements of necessary resources for the realization of this production. In accordance with the principle of commodities-monetary balance based on buying and selling transactions, deliveries of products represent the source of revenues of various sectors, so that the turnover of all deliveries, to which are added stocks, can be called the value of the production of a given

sector. In the same manner, the procurement of the necessary resources is linked with corresponding expenditures of each sector. These expenditures include above all else the payment for raw materials and labor used in production. However, to these forms of effective payment, which constitute the cost of production, must be added also amortization, accumulation, taxes and contributions. In this manner, the value of production becomes identical for each sector, whether we view this production as the sum of turnover and goods being processed, or as the sum of expenditures for raw materials, labor, and accumulation.

6. All these data are schematically shown in the matrix type table (shown below) which in its main part has the same number of lines and columns because the same sectors are given both in the headings and in the preliminary column and are numbered in order. The horizontal lines of the table show the value of deliveries of each sector to other sectors, while the vertical columns of the table show the value of procurements from other sectors and from the sector in question itself.

7. The table, however, is not square as would appear from the above explanation regarding the identical number of sectors appearing in horizontal lines and vertical columns. It is square only in one most important part of the table which shows the mutual turnover of intermediate products. However, the table extends to the right, in order to show in the horizontal lines of the table deliveries to final consumers and it extends downward in order to show expenditures for labor and amortization. Thus, the table looks as two rectangular overlapping tables, the overlap occurring in the square part of the table which deals with the turnover of intermediate products. In this manner, the sum of all items appearing in horizontal lines is identical with the sum of items appearing in the corresponding vertical column for each sector. As regards the economy as a whole, the sum total of all horizontal lines corresponds to the sum total of all vertical columns in the table.

	<u>Production</u>		<u>Final Demand</u>			Total distributed resources
	1	2... n	Investment	Consumption	Exports	
<u>Supplying Sectors</u>	1					
	2					
	.					
	.					
	.					
	n					
<hr/>						
Total						
<hr/>						
Value added						
<hr/>						
Domestic production						
<hr/>						
Imports						
<hr/>						
Total available resources						

The National Income Accounts, both industrial origin (value added) and expenditures, are derived from the final demand columns and the value added line.

8. In order to establish a "rudimentary" matrix as shown above, it is necessary to organize the statistical system, which would collect and process the information collected in the different sectors of the economy and to serve as an input for the matrix. For Laos, the paucity of basic economic statistics and incompleteness of its national accounts may make it difficult to undertake construction of such a matrix even in rudimentary form. Nevertheless, the mission feels that the Government needs to give due consideration to this undertaking since it provides a conceptual framework under which the Government can establish a consistent work program where priorities are to be set up for required statistical data collections and timetables are to be prepared for implementation against the given resources.

9. Since the mission's value added estimates (defined as total value of gross production less material inputs) for agriculture, forestry and fishing together constitute more than half of total value added in the Lao economy, their low reliability determines to a large extent the reliability of the GNP.

It is, therefore, necessary to conduct a census and/or survey (with special emphasis on paddy) of the agriculture sector to determine the basic information on: (a) area planted under different crops, (b) yields per hectare, (c) consumption of intermediate goods, i.e., seeds, fertilizers, and insecticides, (d) labor force, and (e) producer margins if any. Due to lack of roads and communications, consideration needs to be given to an aerial photography survey of the whole country. Technical assistance in this area would be very useful.

10. Due to the small size and the concentration in urban areas of the manufacturing sector, it should be feasible to take a census of all the manufacturing establishments (with the exception of rice milling and saw mills) for the purpose of collecting the relevant information on production, intermediate consumption, employment, prices and profit margins. In the case of rice milling and saw mills, a well designed small survey should be carried out to collect information on production, inputs, waste, employment and prices.

11. For the mining sector, the Government should make it mandatory for state enterprises to submit detailed annual information on production, inputs and prices.

12. Construction sector data should be obtained for the urban areas though the permits issued followed up by a survey to determine the actual construction on any given year, and through the agriculture sector surveys for the rural area construction.

13. For the wholesale, retail and foreign trade it would be necessary to conduct a small survey in order to calculate the trade turnover, and, even more importantly, the trade margins.

14. A household survey, covering major urban centers as well as rural villages, should be conducted. This survey should be designed in a way so as to provide necessary information (a) on prices; (b) for establishing a basket of goods for the calculation of the cost of living index; and (c) as a cross check with the results on production of foodstuffs and the trade survey.

15. The General Government data on expenditures for salaries and purchase of goods and services should be derived from the budget.

B. Mission Estimate of the National Accounts

16. General. The few statistical series which were made available to the mission were compiled and tabulated in the statistical offices of various ministries, mainly the Ministry of Agriculture and the Ministry of Industry and Commerce. The statistical unit within the Directorate of Macro-Economic Indicators of the Ministry of Planning is presently engaged only in collecting statistics from different organizational units of both Central and Provincial Governments. This unit, because of the lack of trained personnel, does not possess the capability to process these statistics and it has thus not made an attempt to estimate National Accounts.

17. The National Accounts estimates which have been incorporated in the 1977-80 plan are those made by Soviet statistical advisors for 1976. The estimates follow the Gross Material Balance method, but the mission has not been able to obtain information on the specific methodology used in those estimates, or on the basic data series underlying them. They are shown in Table 1 below. These estimates do not include the "nonproductive services" (general government and defense, ownership of dwellings, financial institutions and other services) and are apparently based on official prices. The mission estimates, which were calculated according to the UN National Accounts methodology are also shown for comparison in Table 1.

Table 1: NATIONAL INCOME ACCOUNTS, 1977
(Billions of KL)

	Gross material product /a	<u>Gross National Product /b</u>	
		Actual	"Normal" year /c
Agriculture	37.30	47.11	53.76
Industry	2.40	11.33	11.61
Services	3.05	6.22	6.68
<u>GMP</u>	<u>42.75</u>	<u>64.66</u>	<u>72.05</u>
Other Services	-	13.93	14.32
<u>GDP</u>		<u>78.59</u>	<u>86.37</u>

/a Estimates for 1976 prepared by Soviet statistical advisors; the estimates exclude nonproductive services and are based on official prices.

/b Including all services.

/c If weather had been normal.

If the difference in the concepts they are trying to measure is taken into account and assuming that the GMP estimates are based on official prices only, then the above estimates appear roughly similar.

18. To estimate the 1977 National Accounts, the mission had to rely heavily on the studies made (a) by the Statistical Office of the former Vientiane Government (The National Income of Laos, 1968-1972); (b) US Agency for International Development (USAID); (c) International Development Center of Japan (IDCJ); and (d) Swedish International Development Association (SIDA).

19. One of the major problems encountered in estimating the national income accounts was the prevalence of a dual price system. The government has fixed the prices for all the commodities which are produced or sold through official sources. There is a parallel, "free" market price for the commodities sold in the markets of major cities and villages; this price is determined by the supply and demand of the commodities at a given time. Because of data limitations, the prices used for the estimates of the value added of different sectors are often the official ones, but "free" market prices were also taken into account for some of the major products where significant quantities are traded at these prices. A description of the major specific assumptions made accompanies each of the sectoral estimates below.

Value Added by Industrial Origin in 1977 /1

20. Paddy. This is by far Laos' most important product. Because of drought losses in 1977, an estimate is also made of value added in a "normal" year.

Data and Assumptions

- Production (tons): 530,000 actual, 800,000 "normal" [Annex III].
- Prices: official KL 25, "free" KL 75, derived from estimated rice price of KL 130 (Table 7.3). Quantities traded in "free" market: Population without access to official market estimated at 280,000 by assuming urban population is 480,000 (15% of total) of whom 200,000 have access. Per capita paddy consumption (on basis of rice availability) estimated at 220 kg in 1977, 250 kg in "normal" year.
- Inputs used: Seed 30,000 tons [Ministry of Agriculture], other negligible.
- Trade, transport margins: Since market prices are used, trade and transport margins are deducted at 5% and 2% respectively [Mission].

/1 Where not indicated in the text, sources for data and assumptions are given between [].

Estimates

	Actual, 1977	"Normal" year
Production, (x '000 tons)	530	800
Ditto, net of seeds	500	770
of which: traded on "free market"	62	70
Market value officially traded paddy (billion KL)	10.95	17.50
Ditto , "free" market paddy (billion KL)	4.65	5.25
<u>Total market value paddy (billion KL)</u>	<u>15.60</u>	<u>22.75</u>
Deduct: Trade margin, 5% (billion KL)	.78	1.14
Transport margin, 2% (billion KL)	.31	.45
<u>Paddy value added (billion KL)</u>	<u>14.51</u>	<u>21.16</u>

21. Other Crops

Data and assumptions

- Production: Lao official statistics
- Prices: Lao official and free market prices (Lo and Lf in table below) or implied export prices obtained from Thai import statistics (T).
- Inputs used: Coefficients in first instance taken from 1968-72 Laos National Accounts estimates or from Northeast Thailand data where necessary adjusted according to Mission's best judgment.
- Trade, Transport margins: same as for paddy.
- Markup for "other" crops: because product coverage is not complete, value added for "miscellaneous" crops has been assumed to be 5% of the value added for the other crops in this table.

Estimates

Product	Production (tons)	Price (KL/kg)	Production Value (KL million)	Inputs (%) of production value)	Margins (KL mil.)		Value added (KL mil.)
					Trade (5%)	Transp. (2%)	
Maize	34,921	22 Lo	768	3	38	15	691
Roots (dried)	84,525	40 Lo	3,381	3	169	68	3,043
Peanuts	4,949	200 Lo (40%) 1,000 Lf (60%)	3,365	5	168	67	2,962
Tobacco	7,324	650 Lo x 2	4,761	10	238	95	3,951
Vegetables	30,816	183 Lf	5,639	13	282	113	4,511
Fruits	14,202	92 Lf	1,307	1	65	26	1,202
Soybeans	4,461	29.4 T	131	3	7	3	118
Coffee	4,315	200 Lo	863	5	43	17	759
Cotton	2,425	49 T	119	5	6	2	105
Miscellaneous			1,017		51	20	867
<u>Total</u>	180,614		21,351		1,067	426	18,209

22. Animal Husbandry./1

Data and assumptions

- Production: Beef: assuming a slaughter rate of 10% on a 1977 cattle herd of 324,600 [official data]; Pork: estimated consumption 20 gr/capita/day [IBRD appraisal report]. Poultry: estimated consumption per household (7.3 persons) of 12 chickens (weight 1 kg), 2.8 ducks (weight 1.8 kg), 130 eggs [1971 USAID consumption study].
- Prices: official prices (in the case of meat for civil servants only) are KL 250/kg for meat, KL 180/kg for poultry, and KL 15 for eggs. Free market prices in Vientiane were 6-7 times as high; elsewhere they were lower than that. The proportion officially traded is not known. For these calculations average prices have been assumed to be 1.5 times the official ones.
- Inputs used: these will be small under present Laotian conditions and are assumed to be cancelled out by the value of by-products.
- Trade, transport margins same as for paddy.

/1 Officially, slaughtering is considered an industrial activity in the UN system of National Accounts. Because most of the slaughtering in Laos is a "backyard" activity and no data on it are available, no attempt has been made here to separate slaughtering from animal husbandry.

Estimates

Product	Production (tons)	Price (KL/kg)	Production value (KL million)	Margins (KL mil.)		Value added (KL million)
				Trade (5%)	Transp. (2%)	
Beef	3,246	375	1,217			
Pork	23,360	375	8,760			
Chicken	5,260	270	1,420			
Ducks	2,209	270	596			
Eggs	56,986 pc	22.5	1,283			
<u>Total</u>			<u>13,276</u>	664	265	12,347

23. Fishery

Data and assumptions

An FAO study has estimated the consumption at 1.5 kg/capita/year. This implies a production of 4,800 tons. Official price is KL 200. For the reasons given for Animal Husbandry, average prices have been assumed to be 1.5 times this amount. Also the same trade and transport margins apply.

Estimate

On the basis of the above assumptions, production value is KL 1,440 million. Trade and transport margins are KL 73 and 29 million, respectively, and value added KL 1,339 million.

24. Forestry (logging)

Data and assumptions

The official statistics show a 1977 production of 80,000 cu m, and a unit price of KL 12,500. Production inputs are estimated at 10%, transport margins at 15% and trade margins at 5%.

Estimate

On the basis of the above assumptions, production value is KL 1 billion, trade and transport margins are KL 50 and 150 million respectively, and value added is KL 700 million.

25. Mining (tin, copper)

Data and Assumptions

- Production values were obtained from Thai import statistics.
- Inputs used: the input coefficient of 33% was taken from the 1968-72 Laos National Accounts; this includes trade and transport margins.

Estimates

Product	Production value (KL m)	Inputs, % of prod. value	Value added (KL million)
Tin	291	33	194
Copper	40	33	27
<u>Total</u>	<u>331</u>		<u>221</u>

26. Agro-Industry. The manufacturing sector is still relatively small in Laos, and estimates are therefore provided in less detail than for agriculture.

Rice Milling (including hand pounding). Assuming a 60% milling ratio, the official rice price of KL 45 translates into a milled-paddy price of KL 27. With an official paddy price of KL 25 and assumed inputs of KL 1, the milling value added is KL 1 per kg paddy input. Similarly estimated, the milling margin for free market paddy is KL 2. Taking the amounts of paddy estimated in para. 22, rice milling value added was KL 562 million in 1977 and would be KL 840 million in a "normal" year.

Saw Mills. Official statistics estimate production at 30,000 cu m at a unit price of KL 25,000. The value of physical inputs is estimated at 10%, plus 1.3 cu m of logs per cu m of sawn wood. Value added per cu m of sawn wood is then KL 6,250, and the value added of the subsector KL 188 million.

Lao Lao (local whiskey). Production is estimated at 30 liters per rural household or about 10.9 million liters at KL 50 per liter. Assuming production inputs of 35% (mainly broken rice) and trade and transport margins of 5% (KL 18 million) and 2% (KL 7 million), value added is KL 329 million.

Charcoal. The consumption is estimated at 1.5 kg/day per household, for a total of 240,000 tons/year, at a market price of KL 4.3/kg. Gross production value is then KL 1,034 million. Estimating inputs at 50%, and subtracting trade and transport margins (KL 26 million and 10 million), value added is KL 480 million.

Total Agro-Industries. With the above components, the total value added for agro-industries comes to KL 1,559 million in 1977 and KL 1,837 million in a "normal" year.

27. Other Manufacturing. The estimates for value added in other industries were derived from official data on production, prices and intermediate consumption. The results are (in KL million):

Soft drinks	85
Salt	79
Brewery	78
Tin roof sheet	77
Cigarettes	77
Textiles	65
Furniture	59
Distilleries	57
Plywood	26
Coffee	25
Ice	18
Parquet	-104
Other (all below 10 million)	24
<u>Total</u>	<u>566</u>

The above estimates do not cover handicrafts and cottage industries. No data on these are available, but there can be little doubt that many Lao households produce household utensils, do simple repairs, weave cloth, etc. As a broad order of magnitude, the mission estimates the value added in this sector at KL 200 per capita, or KL 640 million.

28. Construction. No direct information is available on the construction sector, so an estimate of its value added must be derived from data, however scanty, on investments. Public sector investments are estimated at KL 13 billion; given the character of the investments (roads, dams, water supply) it is estimated that 60% or KL 7.8 billion is construction. Labor intensity on these projects is high, but some of the labor is not Laotian. Estimating the (national) value-added coefficient at 70%, the value added in the public sector is KL 5.46 billion. These estimates do not include the construction of homes and public buildings in the settlement areas. These have been estimated as follows:

- 15,000 families were resettled in 1977, each house costing KL 80,000, for a total cost of KL 1.2 billion.

- The value of public buildings constructed is 2% of that of the buildings, so total construction in settlement areas is KL 1,224 million.
- The backlog in construction from earlier, very rapid settlement is 50% of this, for a total construction value of KL 1,836 million.
- The value-added coefficient is 80%, so value added is KL 1,469 million.

Finally, the existing housing stock has to be maintained, repaired and extended (given population growth). Assuming value added for these activities of KL 1,000 per household (except the recently resettled ones) the value added is KL 385 million. Total value added in construction is then KL 7,313 million.

29. Public Utilities

Water Supply. Based on the National Accounts estimates for 1968-72 the value added would in 1977 be 214 million. This has been reduced by 25% to KL 161 million to take account of the reduced urban population.

Electricity. the official production estimate is 265 million kWh. At an official price of 5 KL/kWh, the production value is KL 1,325 million. Given the preponderance of hydroelectric generation, the value-added coefficient has been estimated to be relatively high, i.e., at 65%. Rounding off upward to provide for some value added for small privately operated electrical plants in the rural areas, the value added is KL 870 million. Total value added in public utilities is thus KL 1,031 million.

30. Transport and Communications. There is some very incomplete information on the supply side of part of the transportation system, which can hardly serve as the basis for a value added estimate. Because of the generally low availability of transport infrastructure and equipment, and probably also because the price system does not provide for sufficient transport margins, the value added in transport is probably low by international comparison. The sum of the transport margins on domestically produced goods (as estimated for the various subsectors above) is KL 1,200 million in 1977 and 1,340 million in a "normal" year. Assuming an input ratio of 25%, the value added would come to KL 900 million and KL 1,005 million, respectively. To this should be added transport value added (if any) on imported goods, and on passenger transport (including air transport) on which no data are available. Under these circumstances, total transport value added has been put at KL 1,500 in 1977, or KL 1,600 in a "normal" year, still very low in relation to the GNP by international comparison. The value added for communications is estimated at KL 35 million, i.e., 50% of gross total revenues of the PTT company in 1977. Total value added for transport and communications then comes to KL 1,535 million (KL 1,635 million in a "normal" year).

31. Trade. Again few data on trade or trade margins are available. For domestic trade, the assumptions made earlier imply a total margin (which, in trade, is purely value added) of KL 2,680 million in 1977 and KL 3,040 in a "normal" year. With regard to international trade, it is assumed that there are virtually no margins on imports of investment goods, and essential intermediates and consumer goods, and that the rest of international trade (roughly estimated at KL 10 billion) carries a margin of 20%. Total value added in trade is then KL 4,680 million in 1977 and KL 5,040 in a "normal" year.

32. Ownership of Dwellings. No data are available on rents in Laos, but it is to be expected that they are relatively low. The mission estimates an average actual or imputed rent of KL 5,000/year for Laos' 440,000 households for a value added of KL 2.2 billion.

33. General Government. The value added comprises the wages and salaries of civil servants and military personnel, estimated at 80,000 (employees) x KL 97,500 (annual salary) = KL 7.8 billion.

34. Services and Miscellaneous. No data are available for this very heterogeneous category, but on the basis of international experience, this can roughly be estimated at 5% of GNP or KL 3.93 billion (KL 4.32 billion in a "normal" year).

35. All the above estimates are summarized in Table 1, which indicates a GNP of KL 78.6 billion or about KL 24,560 per capita in 1977. If weather had been normal, the GNP would have been about 10% higher at KL 86.4 billion or KL 27,000 per capita.

Availability and Disposition of Resources, 1977

36. Apart from its own national income, Laos was able to utilize significant foreign resources in 1977. The estimated import surplus was US\$75 million (see table on Balance of Payments in Annex XIV) or KL 15 billion. Public investment is estimated from the budget at about KL 13 billion and private investment at about KL 2 billion (including about KL 1.5 billion for new construction in settlement areas, see para. 30) for a total of also KL 15 billion. Government consumption on civilian and military goods, wages and salaries (but excluding subsidies) is estimated from the budget at KL 21 billion. Private consumption is then derived as residual. The quantitative summary of Laos' estimated actual availability and disposition of resources in 1977 is in Table 2.

Table 1: ESTIMATED 1977 GNP BY INDUSTRIAL ORIGIN (KL billion)

	Actual	With normal weather
Paddy	14.51	21.16
Other crops	18.21	18.21
Animal husbandry	12.35	12.35
Fishery	1.34	1.34
Forestry	0.70	0.70
Subtotal agriculture	<u>47.11</u>	<u>53.76</u>
Mining	0.22	0.22
Agro-industry	1.56	1.84
Other manufacturing	0.57	0.57
Handicraft and cottage industry	0.64	0.64
Construction	7.31	7.31
Public utilities	1.03	1.03
Subtotal industry	<u>11.33</u>	<u>11.61</u>
Transport and communication	1.54	1.64
Trade	4.68	5.04
Ownership of dwellings	2.20	2.20
General government	7.80	7.80
Services and miscellaneous	3.93	4.32
Subtotal services	<u>20.15</u>	<u>21.00</u>
<u>Total</u>	<u>78.59</u>	<u>86.37</u>

Table 2: ESTIMATED 1977 AVAILABILITY AND DISPOSITION OF RESOURCES
(KL billion)

GNP	78.6
Import surplus	15.0
<u>Total resources available</u>	<u>93.6</u>
Investments	15.0
Consumption	78.6
of which: public	21.0
private (residual)	57.6

LAOS

PADDY PRODUCTION ESTIMATES 1977-80

Current Production - Normal Year Basis

1. Estimates of paddy production in Laos have varied considerably due to the lack of reliable data. Poor weather conditions in 1976 and 1977 have further complicated recent efforts to arrive at reliable estimates of production under normal weather conditions.
2. The Ministry of Agriculture does not as yet conduct reliable and comprehensive surveys. In its planning exercise, the Ministry relies on area planted and production figures reported by the local authorities on the basis of field observations. However, at present, the local authorities have neither the required staff nor the necessary access to all the paddy growing areas to enable them to collect reliable information over most of the cultivated area. Thus, in most cases, the local authorities extrapolate from limited field observations. With such data limitations, any estimates of paddy production in Laos would contain a wide margin of error.
3. Given the above mentioned caveats, the mission estimates that paddy production in 1977 (normal year basis) would have been in the range of 750,000 to 850,000 tons. The lowland wet season crop is probably 530,000-580,000 tons from 400,000-430,000 ha and assuming an average yield of 1.3 tons/ha. Area estimates are based on figures used by the Ministry of Agriculture in its planning exercise. Yield assumptions are probably more reliable and are based on field observations under different soil conditions. The dry season crop is more reliably estimated at about 15,000 tons from some 8,900 ha and assuming an average yield of 1.7 tons/ha. Because the area under dry season cultivation is relatively small and concentrated in a few provinces, primarily Vientiane and Champassak, field observations are more comprehensive and data more reliable.
4. The most difficult to estimate is the upland crop which could range between 200,000 and 300,000 tons, depending on the area planted estimates used. In its planning exercise, the Ministry of Agriculture uses 240,000 ha, while, in 1975, the former Directorate of Agriculture had estimated the area under slash-and-burn cultivation at about 300,000 ha. The latter figure, even if representative of the situation in 1975, appears on the high side under present circumstances for two reasons. First, since 1975, nearly 100,000 (or about 20,000 families) from among the hill tribes have reportedly left the country. Most of these families had practised slash-and-burn cultivation on upland soils. Assuming that they had produced a subsistence crop of 300 kg of paddy per capita (about 165 kg of rice equivalent assuming a conversion factor of 55%) their total production would have been about 26,000 tons, which, given a yield of .9 tons/ha, would imply an area planted of some 33,000 ha.
5. Secondly, the new Government has actively encouraged the shifting cultivators to settle on permanent fields. Although precise figures on the numbers resettled so far are unavailable, the resettlement program is estimated

to have involved some 10,000 families. Using similar assumptions of per capita production and corresponding area planted, this group would have cultivated some 17,000 ha in the uplands before being resettled in the lowlands. Thus, overall it could be stated that emigration and resettlement have reduced the size of the upland area planted under paddy by some 50,000 ha in the last few years. Accordingly, a figure of 250,000 ha under upland paddy appears more reasonable.

6. Some of the past and present estimates of paddy production in Laos as well as the plan targets for 1978 and 1980 are summarized in Table 1 below. Details are in Table 2.

Table 1: AREA PLANTED, YIELDS AND PADDY PRODUCTION, 1970-80 /a

	1970-74 average /b	1977		Normal year /d	1978 target /e	1980 target /e
		Plan /c	Actual /c			
Area ('000 ha)	665	655	625	680	665	690
Production ('000 tons)	860	790	530	785	905	1,170
Yield (tons/ha)	1.3	1.2	.85	1.15	1.35	1.7

/a Rounded figures.

/b Ministry of Agriculture of the PGNU, from Volume II, 1975 Economic Report. Although the area estimate is in line with recent estimates, the average yield appears on the high side. A more reasonable yield assumption for that period is probably of the order of 1.1 tons/ha which would reduce the production estimate to about 730,000 tons.

/c Ministry of Agriculture.

/d Mission estimate.

/e National Planning Committee.

Plan Targets 1978-80

7. The 1978 plan target for paddy production is nearly 910,000 tons. This is to be achieved through: (a) expansion of area planted in the lowlands; and (b) increase in yields of the wet season and dry season crops. The area planted target is reasonable and likely to be achieved given the major resettlement and land clearing efforts under way. Yield targets, however, appear overly ambitious. Wet season, dry season and upland crop yields are projected to increase by 15%, 8%, and 22% respectively. In addition, as a result of poor weather yield increases are likely to be only marginally above the very low levels achieved in the previous year. Major flooding during the growing season has destroyed a sizeable portion of the 1978 crop.

8. Similarly, the 1980 targets for area expansion are attainable; however, major efforts would be required to achieve the implied yield levels on the wet season and upland crop production targets in particular. According to the Ministry of Agriculture, the overall target of nearly 1.2 million tons of paddy is attainable provided irrigation projects are completed on schedule, additional land is cleared, and a number of improvements are made in agricultural practices and on farm management. The required improvements and their effects on yields are given in Table 3.

Table 2: PADDY PRODUCTION, 1977-80

	Revised	Normal	Actual 1977	Plan target	
	plan 1977	year /a 1977		1978	1980
<u>Lowland</u>					
Wet season					
Area planted (ha)	411,500	420,000	376,800	424,200	445,000/b
Yield (kg/ha)	1,350	1,300	920	1,500	1,900/c
Production (tons)	555,500	546,000	348,000	636,300	841,000
Dry season					
Area planted (ha)	5,000	8,000	8,900	9,300	34,000/b
Yield (kg/ha)	1,300	1,750	1,700	1,900	2,200/c
Production (tons)	6,500	14,000	15,000	17,700	75,000
<u>Upland</u>					
Area planted (ha)	240,000	250,000	239,300	230,500	212,000/b
Yield (kg/ha)	950	900	700	1,100	1,200/c
Production (tons)	227,000	225,000	167,500	253,500	254,400
<u>Total</u>					
Area planted (ha)	656,000	678,000	625,500	664,000	691,000/b
Yield (kg/ha)	1,200	21,150	850	1,360	1,690/c
Production (tons)	789,000	785,000	530,000	907,500	1,170,000

Memo Items:

Rice production /d (tons)	471,000	318,000	544,000	702,000
Rice for human consumption /e (tons)	424,000	286,000	490,000	632,000
Imports (tons)	100,000	120,000	100,000	-
Total rice availability (tons)	524,000	406,000	590,000	632,000
Population (mln)	3.2	3.3/f	3.4/f	3.6/f
Annual per capita availability (kg)	164	123/f	173/f	175/f
Calories per capita/day /g (cal)	1,610	1,210/f	1,700/f	1,770/f
As % of normal daily requirement /h	77%	58%	81%	84%

/a Mission estimates based on 1976 area planted under wet season and upland paddy; 1977 revised plan targets and 1977 dry season actuals.

/b Preliminary targets, Department of Planning, Ministry of Agriculture.

/c Mission estimates from total production target and area target by type of planting.

/d Conversion ratio = 60%.

/e Allowing 10% for waste, seed, etc.

/f Since harvest is in November/December, production in one year is consumed in the following year. Therefore, population and per capita figures are for the year following the harvest.

/g 3,535 calories per kg glutinous rice.

/h 2,100 calories on average.

Source: Ministry of Agriculture, 1978 Plan, and mission estimates.

Table 3: POTENTIAL FOR INCREASING PADDY PRODUCTION, 1978-80 /a

	1978			1979			1980			1978-80
	Incremental area (ha)	Incremental yield (ton/ha)	Incremental production (tons)	Incremental area (ha)	Incremental yield (ton/ha)	Incremental production (tons)	Incremental area (ha)	Incremental yield (ton/ha)	Incremental production (tons)	Incremental Production (tons)
Expansion of cultivated area	15,000	-	22,000	14,000	-	21,000	11,200	-	17,500	60,500
Expansion of irrigated area	15,000	0.3	4,500	28,000	0.3	8,400	20,000	0.3	6,000	18,900
Expansion of dry season area	6,365	-	13,000	12,700	-	25,400	13,200	-	26,600	65,000
Use of improved seeds	6,150	0.8	5,000	14,700	0.8	13,000	23,500	0.8	19,000	37,000
Improved cultivation practices /a	410,000	0.27	110,000	420,000	0.27	126,000	424,000	0.27	129,000	365,000
<u>Total</u>			<u>154,500</u>			<u>193,800</u>			<u>198,100</u>	<u>546,400</u>

/a Incremental increase over 1977 normal year.

/b Timely planting, weeding and use of fertilizers.

Source: Ministry of Agriculture

LAOS

INDUSTRY

1. In addition to the usual artisanal activities in textiles, furniture, etc., the industrial sector in Laos includes inter alia three small mechanical textile (weaving) mills (one in Sam Neua, two in Vientiane) using imported yarn, four semi-mechanical textile mills (one each in the provinces of Luang Namtha, Oudom Say, Phong Sally and Khamouane; some 80 saw mills in the former Vientiane zone and possibly another 20-30 in the other zone; three modern furniture, parquet and plywood factories; two-three agricultural tools factories; 110-115 small and medium size rice mill; /1 several small coffee processing plants; a modern brewery; a detergent factory; cigarette and match factories; and a number of small establishments manufacturing plastic products, oxygen, corrugated iron, ice, soap, etc. Average capacity utilization in 1977 was estimated at about 30% /2 due primarily to shortages of raw materials, spare parts and trained staff at all levels, as well as disruptions stemming from changes in ownership and management. In addition, in the case of saw mills and rice mills much of the installed machinery and equipment was sabotaged and canibalized by the former owners before they fled the country.

2. Rice Milling. Among the immediate development priorities is a rice mill rehabilitation and expansion project. Rice milling capacity is very inadequate and will become more so as paddy production expands in the future./3 The existing mills are very old (40-80 years) and most are not in operating condition. Such a project could include: (a) procurement of spare parts and equipment to rehabilitate existing rice mills; (b) raw materials and spare parts for machine tool workshops which manufacture spare parts for rice mills; (c) establishment of new rice mills to replace very old mills and to expand capacity (total new capacity of 50,000 to 70,000 tons of rice); (d) construction of additional

/1 According to the SEDES report there were 93 rice mills in the former Vientiane zone in 1975; there is no reliable information on the other zone, but there are probably another 20 in that zone.

/2 Capacity utilization in some industries was as low as 10-15%. See Table 4.1 in the Statistical Appendix.

/3 Precise figures on installed capacity are unavailable. According to SEDES, installed capacity in 1973 in the former Vientiane Zone was about 160,000 tons of rice. Assuming another 40,000 tons in the former NLHS Zone, total installed capacity was probably on the order of 200,000 tons. Many of the mills are now idle; some were canibalized when their owners fled, others need replacement parts. Most of the existing mills are in such bad condition that they can never be rehabilitated. Roughly 70,000 tons of rice milling capacity could be rehabilitated. By 1980, 120,000 tons of milling capacity would be required (assuming a population of 3.6 million and that 20% of the population's demand for rice at 170 kg/capita would be supplied by industrial rice mills - the balance hand pounded for on-farm subsistence consumption).

storage to reduce grain losses; (e) low cost technical assistance to identify needs, procure and replace spare parts and equipment as well as to train Lao technicians; and (f) implementation of a national survey of rice mills. Total project costs are tentatively estimated at about \$8-10 million with foreign exchange component of about 80%.

3. Coffee Processing. There is also an urgent need to improve the quality of exported coffee through proper processing and grading. Most of the existing processing plants are obsolete and pulping is done on the plantations using small manual or diesel rice mills. In addition, coffee is not inspected for grade and quality at the official buying stations and there is no incentive for growers to improve quality of coffee. With small investments in new processing and sorting plants (for pulping, washing, drying and grading), Laos could obtain a higher unit price for its coffee and thereby increase export earnings quickly. The costs of plant and associated equipment and storage facilities to process about 3,000 tons of coffee annually are estimated at \$2-4 million. Additional processing equipment will be required as coffee production and exports expand in the future.

4. In addition to rice milling and coffee processing, an industrial rehabilitation project needs to be prepared for foreign financing. The following activities could be examined in designing such a project:

- (a) The "555 Factory" contains a workshop which could be adapted to the production of small farm implements. For this it would need a small foundry furnace costing about \$1.5 million. The main input would be steel plates, which would have to be imported.
- (b) Equipment for processing PVC exists, but has not been installed. To establish a viable production unit, an investment of approximately \$0.5 million is needed.
- (c) An electric cable factory could easily be made operational if the necessary imported raw materials could be provided.
- (d) The plastic bag factory, which has a capacity of 5,000 bags per day with only 4 employees requires a color printing machine costing about \$20,000. At present only 2 of the eight machines are being operated owing mainly to shortage of inputs.
- (e) Lao Handicrafts requires chemicals to enable the unit to work at full capacity.
- (f) Many sawmills require rehabilitation at an average cost of about \$1 million per mill.
- (g) A building costing about \$35,000 is needed to house furniture making equipment provided by UNIDO.
- (h) The existing seasoning (monosodium glutamate) factory is very out of date and needs renovation.

- (i) The plastic sandals factory needs to be completed; part of the new equipment was removed by the original owner.
- (j) Lao Plywood needs glue which must be imported for the time being.
- (k) Saw doctoring equipment is needed to service the many sawmills. Forty operators are currently being trained by UNIDO.
- (l) Electrification equipment and transformers are required by the salt mine.
- (m) The ice-making plant at the Lao Brewery could be rehabilitated at a cost of about \$15,000.
- (n) Some \$60,000 of equipment is required by the wood utensil manufacturing unit attached to Vientiane Technical College.
- (o) A number of small furniture factories require a variety of small tools.
- (p) Lao Industry, which manufactures farm tools, needs new equipment (presses, lathes, grinding machines and welding equipment), raw materials (alloy steel, carbon steel, chemicals) costing about \$250,000.

5. The following new industries could also be developed with foreign assistance in the medium term:

- (a) Foundry for making steel rods for reinforced concrete construction, with a capacity of 30,000 tons p.a. and costing about \$15 million, to be located in the Vientiane area.
- (b) Three oil seed mills, each to process some 5,000 tons p.a. of groundnuts, soya beans and sesame seeds, one to be located in the South, one in the Vientiane area and one in the North, with a total cost of about \$1 million.
- (c) Plant to produce glue for the plywood factory from cassava, via the production of tapioca flour, with an annual capacity of 5,000 tons p.a.
- (d) Cotton ginning and spinning factory producing 350 tons of cotton p.a.

These project ideas need further study.

LAOS

TRANSPORT

1. Three major factors dominate Laos' transport situation: the country is landlocked, mountainous and sparsely populated. The first modern roads were built during the colonial period. Up to the early 1940's, Laos' entire transport orientation was predominately towards VietNam, with most Laotian cities connected with the Vietnamese transport system; however, internal links between provincial centers were largely neglected. During the war, the former NLHS zone maintained links with former North VietNam, while the Vientiane zone established its major transit route via Thailand.
2. Road transport. The main national road network is almost completed. At present, it consists of about 1,300 km of paved roads, 5,300 km of gravel and 3,600 km of earth roads (see Table 4.2 of the Statistical Appendix). In the North, an extensive road network (with long stretches paved) has almost been completed with Chinese assistance; a 150 km stretch between Luang Prabang and Nam Bak is under construction. In the Northeast, an allweather network built with Vietnamese assistance links Sam Neua with Hanoi. Route 13, built by the French, runs almost 1,000 km from Luang Prabang to the Southern tip of the country bordering Kampuchea. This allweather national artery, paved over a third of its length, requires considerable repair and two major bridges (at Nam Kading and Nam Ngum) between Vientiane and Savanakheth (500 km). The Soviet Union has reportedly agreed to finance the bridge at Nam Kading.
3. River transport. The Mekong river, which flows through Laos over approximately 2,000 km, as well as some of its tributaries are the country's main navigable waterways. During most of the year, the Mekong is navigable between Ban Houayxay in the Northwest to Savanakheth in the South (about 1500 km). The Khemmarat Rapids between Savanakheth and Pakse and the Khone Falls near the Kampuchea border make navigation almost impossible in that region. In the past, there was considerable navigation on the Mekong, however, in recent years border difficulties with the Thailand have all but stopped river transport over about 1000 km of the river that forms the boarder with Thailand. There is excess barge carrying capacity which could be used to revive commercial navigation in the future. However, some additional investment would be required to improve commercial river landing ramps and install unloading equipment.
4. Air transport. Poor road condition and long distance make air transport indispensable in Laos. There is a good network of about 16 air fields, most located in the former Vientiane zone. In the North most runways have laterite landing strips, while in the South there are paved runways. The present civil aviation system was recently established with considerable assistance from Soviet Union, which included aircraft, pilots (Lao pilots have taken over as of July 1, 1978) and ground maintenance crews. There are regular scheduled flights between most cities and helicopter flights connect many more areas. Airport facilities are generally adequate. The Vientiane airport is capable of taking three engine modern jets and has modern equipment, some of which has yet to be installed.

5. Railways. There are no railways in Laos. Before World War II construction was started on a line from VietNam to Thakhek via the Mu Gia Pass, but only part of the earthworks and structures were completed. At present, given the limited traffic potential, there appears no justification to resume work on this project. However, there may be a need to link up Xieng Khuong to VietNam by a railway (cost estimates of the order of \$200-300 million) in the 1980's, if, and when, iron ore deposits in the Plain of Jars are exploited commercially for export. The Government also plans to study with foreign assistance the feasibility of establishing additional railway lines linking the central and southern provinces with Viet Nam.

6. Organization and Management. The Ministry of Public Works is responsible for all aspects of road planning, financing, construction and maintenance of principal roads. The Provinces (Khueng) are responsible for secondary and rural roads. There are no private road construction companies. There are, however, about 5 small private companies in building construction with an average of between 50 and 100 workers. Contracts between the Government and these private companies are negotiated on a cost plus basis without tendering. Ministry of Agriculture has a capability to construct infrastructure.

7. The bulk of transportation service is provided by the Ministry of Public Works and a joint venture company. There are also small private operators which must join cooperatives. Volume of cargo traffic is small. The number of trucks in reasonable operating condition is small. There also appears to be some under utilization of carrier capacity due to management problems and rigid tariff structures.

8. The Public Works Department's total 1978 transport budget was stated to be K 275 million (\$0.7 million at the official exchange rate) of which K 75 million is for paving and construction, K 87.5 million for the purchase of equipment and spare parts. In 1977-78 SIDA provided 70 items of plant plus spare parts, in all valued at about \$1.5 million. Although the maintenance budget was not disclosed to the mission, the operating cost breakdown was stated to be roughly as follows:

50% for fuel
35% for spare parts
15% for labor

This makes no allowance for depreciation.

9. As far as construction costs are concerned, the Government is currently planning on the following basis:

- (a) \$34,000 per km for the reconstruction of existing paved roads;
- (b) \$140,000 per km for the construction of a new road 12 m wide with 10-15 cm of road metal;
- (c) \$75,000 per km for the construction of a new road 7 m wide with 2 to 3 cm of road metal;

- (d) \$40,000-60,000 per km for 7 m wide gravel road;
- (e) \$30,000-40,000 per km for a good earth road;
- (f) \$10,000 per km for an earth road using labor-intensive methods and voluntary labor;
- (g) \$2,500 per km for resurfacing a gravel road.

10. The Communications Department has two teams working on the construction of paved roads (with a capacity to build 50 km per year of paved road 7 m in width) and seven teams working on the construction or upgrading of gravel and earth roads (with a capacity to build 70 to 100 km per year of earth and gravel road). Each team consists of about 200 workers and 30 to 50 items of plant, typically 20 trucks, 5 tractors, 5 bulldozers, 5 rollers, 5 payloaders and 2 water trucks). The Department also has seven maintenance crews, each based in Luang Prabang, Sam Nuea, Oudomsay, Khammouan, Savannaket, Saravane, and Champassak. Each crew includes about 200 workers with 20-30 items of plant. Plant availability (in operating condition) is estimated at about 50%, but owing to aging the trend is perhaps downwards, though not yet markedly so.

LAOS

POWER

1. Laos is endowed with great hydropower potential. Potential hydropower sites each from 100 MW to 2,000 MW capacity and totalling more than 10,000 MW capacity have been identified.^{/1} At present, electric power generation and distribution is in the early stage of development. Hydroelectric power accounts for 90% of total installed capacity (124 MW in mid-1978). The existing diesel plants (11 MW) serve a few urban areas without access to hydropower and provide standby reserve capacity. The Nam Ngum hydroelectric plant, located about 65 km north of Vientiane, was commissioned in 1972 with 30 MW capacity (two generating units of 15 MW each). With the installation of two additional units (40 MW each), its capacity was increased to 110 MW in mid-1978. A fifth unit could be added in the future if adequate sales arrangements are negotiated to make it economically justifiable. There are also a number of small (less than one MW) hydropower plants in the country. Vientiane, Luang Prabang and Pakse have their own source of energy, whereas Sarvanakhet and Thakhek are supplied by imports from the Thai grid. Relevant data are in Table 4.3 of the Statistical Appendix.

2. Since peak power demand in the country is less than 20 MW, surplus power is being exported to Thailand from Vientiane through 115 kv transmission lines across the Mekong River. In 1977, before the enlargement of the Nam Ngum station, the national system produced about 250 million kWh of which 174 million kWh were exported, earning about \$1.7 mn.^{/2} By 1979, when the enlarged installed capacity is fully operational, 700 million kWh could be produced and exports more than tripled to about 600 million kWh. Domestic usage accounts for the bulk of the internal energy consumption in the country. Industrial and agricultural uses (a few sawmills, irrigation pumps, etc.) are negligible. Electricity consumption has declined from about 75 million kWh in the early 1970s to about 60 million kWh in 1977 due to a reduction in the urban household and service sector demand. As economic activity revives, domestic consumption is expected to reach about 120 million kWh in 1980 and 180 million kWh in 1985. Electricity exports are, therefore, expected to decline from their peak of about 600 million kWh in 1980 to about 500 million kWh in 1985.

^{/1} See for example, Comité pour la coordination des études sur le bassin inférieur du Mekong, la République démocratique populaire lao et le project du Mékong, Note d'information du Secrétariat, Decembre 1976.

^{/2} Net exports at 10.5 mills/kWh; small amounts (about 6 million kWh) are imported from Thailand over two transmission lines in Savanakhet and Pakse.

LAOS

EDUCATION AND HEALTH

Education

1. The Government has overhauled the previous education systems prevailing in the former two zones and established a uniform system. At the base of the new education system are pre-school centers for 3-5 year old children. Statistics are unavailable; however, it appears that preschool education covers only a small portion of the child population. At the primary level, a five-year cycle accepts children from the age of 6. In 1977, the adjusted primary school enrollment ratio was 85%; and the average number of students was 320 per school and 40 per teacher. Given the general shortage of teachers, the latter figure appears unrealistic, unless, of course, instructors with little or no training are used as teachers. Primary school teachers are normally trained during the first cycle (three years) of secondary teacher training education. Education statistics are in Section 8 of the Statistical Appendix.

2. Secondary education lasts six years, and is divided into two three-year cycles. The first cycle leads to the second cycle or to vocational or teacher training education (sometimes in separate schools and often combined in one secondary school). Graduates of the second cycle can enter establishments of higher education. In 1977, the secondary school enrollment ratio was 15%, and there were 224 and 27 students per school and teacher, respectively. First cycle teachers complete six years of secondary level courses (i.e., the first secondary cycle plus three years of teacher training).

3. Higher education in Laos is limited to a teachers training college (four years), graduating second cycle secondary school teachers, and a faculty of medicine and dentistry (seven years). Instruction in the school of medicine was hitherto provided by expatriate French professors until the Government decided not to renew their contracts in mid-1978. The authorities have arranged to keep the school open with Lao and Soviet instructors. However, language problems present serious difficulties and may affect the quality of graduates.

4. In addition to restructuring formal education, the Government has embarked on an extensive adult literacy program. The objective is to enable every citizen up to the age of 45 to read and write by 1980. Instructors are either volunteers or civil servants and army officers who are asked to devote at least one hour each day to this work. The program includes, besides courses on reading and writing, training in good agricultural and irrigation practices as well as political orientation. Classes are also held by civil servants in every ministry twice a week for those adults who have completed the equivalent of primary education and who are willing to proceed to the secondary level. In 1977, about 600,000 adults had participated in this program; another 400,000 are expected in 1978. These are impressive accomplishments, but there is a need for follow up courses for these adults, lest they drift back into illiteracy again.

5. One of the main development constraints in Laos is the lack of trained cadres. Many professionals and technicians have fled the country since 1975. Accordingly, the Government places considerable emphasis on vocational training. The program, at the post primary level, lasts five years and consist of two cycles. The first cycle (two years) trains lower level technicians, while the second phase (three years) produces qualified technicians as well as auxiliary doctors (medical aides) and assistant pharmacists; the latter two groups could also proceed to the faculty of medicine and dentistry. In addition, every ministry operates a training institution in its own field. A number of other vocational schools have been established with foreign assistance. The Lao German Technical School, established with West German assistance in the late 1960s, trains about 200 technicians in electronics and mechanics. United Nations agencies have also provided considerable amounts of equipment and technical assistance for general education and vocational training.

6. The Government has recalled all Lao students studying in western countries and is sending hundreds to the socialist countries for training. In 1977, about 800 Lao students were studying abroad under various scholarships, most notably from the Soviet Union (600) and East Germany (100). Another 1,400 were sent abroad in 1978. Of these, a third would receive training as technicians and the rest are expected to complete university training.

7. Formal primary and secondary education is to be administered by the district (Muong); however, in areas where a Muong administration has not yet been established, the Khueng administration is responsible for all education matters. Vocational schools outside Vientiane are administered by the province (Khueng); however, the relevant ministries are responsible for preparing the curriculum. The teacher training college and vocational schools in Vientiane are administered and financed by the Ministry of Education, while the various institutes and the Faculty of Medicine are the responsibility of the relevant ministries. The construction of schools through first cycle of the secondary level is generally through self-help organized by the subdistrict (Tasseng) administrative committee, using as far as possible local materials, while the secondary cycle is financed by the Ministry of Education.

Health

8. At the base of the present health system is a network of "hygiene promoters" (combattant sanitaire) and low level nurses at the village level. The hygiene promoters, who are trained by district doctors for up to nine months, educate the population on sanitation standards.^{/1} Nurses, who receive two years of training after primary school, give first aid, treat minor ailments and dispense medicine for the common diseases. At present, most of the villages have at least one hygiene promoter, while less than half have a nurse. Health statistics are given in Table 8.1 of the Statistical Appendix.

^{/1} These include the three notions of drinking potable water, eating according to hygiene rules and living cleanly.

9. The next level of health care is provided at the subdistrict (Tasseng) level, where there is a dispensary with 5-7 beds. A traditional doctor /1 and one or two nurses/midwives operate a dispensary, which at present could be found in about half of the Tassengs. At the district (Muong) level there are small temporary hospitals (with about 30 beds each). These are staffed with auxiliary doctors /2 and nurses, and at present cover about two-thirds of the districts. There are 18 provincial hospitals (with about 150 beds each), of which 7 are temporary. The staff consists of general practitioners, auxiliary doctors and nurses. Finally, there are three hospitals (two general and one dermatological) in Vientiane. These have between 200 and 400 beds each and are staffed with specialist physicians.

10. The Ministry of Health supplies medicine and medical equipment at all levels. Operating costs and personnel salaries at the central, provincial and district levels are borne by the Ministry of Health, while at the subdistrict and village levels these are supported by the population./3

11. The Ministry of Health has prepared a five-year health plan, 1978-83, which includes the following objectives:

- (a) expansion of the present facilities at the basic levels to cover the whole population. At the district level there should be one hospital with 30 beds and a laboratory;
- (b) renovation and reequipment of 13 provincial hospitals to 150-200 beds each;
- (c) eradication of endemic diseases like malaria, diarrhea, tuberculosis and leprosy;
- (d) hygiene improvement in the rural areas through the construction of 2 wells per village and one latrine per household;
- (e) increasing the number of physicians by 10-15% annually;
- (f) construction of an institute for training auxiliary doctors; and
- (g) vaccination of at least one half to two-thirds of the population against cholera and smallpox.

/1 A self-trained person who treats people with herbs and roots.

/2 These receive three years of medical training after seven years of general education.

/3 Nurses at the village and subdistrict levels receive a free rice ration, but are otherwise unpaid and are regarded as voluntary workers.

LAOS

ADMINISTRATIVE STRUCTURE

1. Three basic elements permeate Laos' administrative and institutional structures, namely: the Party which directs; the Government which manages; and the mass organizations (e.g., Patriotic Youth, Patriotic Women's Organization, etc.) which execute. The fundamental elements of Laos' present administrative and institutional arrangements were adopted by the National Congress of People's Representatives in December 1975. Although the system is still in a transition stage and not all of the formal arrangements have been put into practice, what has emerged so far is a decentralized administrative structure which permits local authorities a considerable degree of initiative within the broad guidelines and set by the Central Government.

Central Government

2. The highest governing body in Laos is the Supreme People's Assembly, which has the power to legislate and to approve the Government's policies and programs. The President of the Assembly, appointed by the December 1975 Congress, is also the Head of State. The Assembly meets in full session twice each year, delegating the conduct of its daily business to a Standing Committee under the chairmanship of the President. The Assembly and its Standing Committee are assisted by several other commissions dealing with economic affairs, finance, security and cultural affairs. Laos does not as yet have a constitution; however, a special commission has been appointed to elaborate one.

3. The December 1975 Congress also appointed the Council of Ministers, which is the highest administrative body of the Government. The Council comprises a Prime Minister, four Deputy Prime Ministers (who also hold ministerial portfolios), the heads of ministries and of the National Planning Committee, the Nationalities Committee, the National Bank as well as four members of the Prime Minister's office (Presidence du Conseil des Ministres) who hold ministerial rank. In all there are 19 ministers or equivalent.

4. There are at present twelve ministries - Finance; Industry and Commerce; Public Works, Communications and Transport; Agriculture, Forestry and Irrigation; Ports and Telecommunications; Foreign Affairs; Defense; Interior and Social Affairs; Education, Sports and Cults; Health; Information, Propaganda and Tourism; Justice - organized vertically along conventional lines into departments, services and sections. Each minister is assisted by between one and three deputies referred to as Secretary of State. In all there are about 30 deputies with a rank of vice-minister. A Chef du Cabinet du Ministre coordinates the work of the different departments in each ministry. The Office of the Prime Minister is responsible for: (a) coordinating the activities of the Ministries and various state organizations at the Central Government level; (b) presenting legislation to the Assembly; and (c) liaison between the Central Government and the provincial authorities.

5. The Central Government, through its various economic ministries and agencies, directly manages economic activities that require centralized management (e.g., electric power, communications, banking) or are beyond the technical and managerial capacity of local authorities (e.g., mining, integrated wood processing operations and capital intensive enterprises). The long-term objective is to transfer more direct management responsibility to the local authorities.

Local Authorities

6. Laos is divided for administrative purposes into 13 provinces (Khueng) which are the direct responsibility of the Prime Minister's Office. Each Kueng is divided into between 5 and 14 districts (Muong) which in turn are divided into subdistricts (Tasseng). The population of a Muong varies between 30,000 and 80,000, while a Tasseng may have a population in the 1,000-8,000 range. A Tasseng covers between 5 and 10 villages (Ban), each with an average population of 250-300 and comprising about 50 households. See Table 1.3 in the Statistical Appendix for the distribution of administrative units.

7. The Khueng, Muong, and Tasseng each have elected People's Assemblies.^{/1} The Khueng Assembly consists of a President and between 15 and 30 members and meets monthly. The day-to-day administration of each Khueng, Muong and Tasseng is the responsibility of an administrative committee chosen from among the members of the People's Assembly. The President of the Assembly is also the Chairman of the Administrative Committee.

8. There are no autonomous municipalities in Laos. Urban areas fall within the administrative structure described. However, Vientiane has a unique status being administered by a Prefect who is one of three co-chairmen of the Vientiane Khueng Administrative Committee. One of the other co-chairmen is an appointee of the Prime Minister, and the third is elected by the Khueng.

9. The provincial authorities in Laos enjoy a wide measure of autonomy in the management of Khueng's affairs, always provided they follow the policy guidelines established by the Central Government under the direction of the Party. Khueng responsibilities cover all local affairs which do not have a national dimension, including agriculture and industry, education, health and other social and economic services. It administers all local projects which are within its technical competence in accordance with the directives and regulations of the Central Government. Khueng administration comprises 12 services which correspond to the 12 relevant Central Government Ministries. All Khueng staff are appointed by, responsible to, and under the direction of, the Administrative Committee and not the Central Government. However, the Central Government Ministries provide technical guidance and may second technical staff on request when available. At present, most Khueng do not

^{/1} In each instance an electoral committee under the direction of the Lao People's Party prepares a short list of candidates who stand for election.

have a planning and statistics service, but these are in the process of being set up. In each Khueng there is a branch of the National Bank, which comes under the administrative control of the Bank's head office in Vientiane.

10. The Muong is the basic political and economic unit of the state. Its administrative committee supervises staff divided into 7 separate sections (or bureaux) covering economic matters, finance, agriculture, transport, posts and telecommunications, security and education. These sections correspond to the 12 services of the Khuong except for defense, foreign affairs, information, justice and health. The members of the administrative committee of the Tasseng, who are unpaid, are each responsible for the administration of a Ban.

LAOS

PLANNING SYSTEM

1. Planning in a socialist system could take different forms. First, the form of very detailed central planning, as practiced in most East European socialist countries immediately after World War II, where the state, through administrative central decision making and management, directs economic activity. Second, on the other side namely, indicative planning, as practiced in Yugoslavia in 1965-75, where the plan establishes guidelines and objectives (forecasts) to provide a basis for rational decision making by enterprises through non-administrative instruments. The choice between these extremes or variants therein would depend on ideological as well as economic factors (e.g. level of development, availability of trained managerial cadres, etc.).

2. Planning through administrative central decision making provides the basis for producing and distributing the national product in the socialist economy which the Government wishes to create in Laos. Although planning procedures are being progressively introduced, the process is hampered by a lack of basic data and qualified cadres with a thorough grounding in the theoretical principles and experienced in the practical management of a centrally planned economy. It will, therefore, be some time before an effective central planning system with comprehensive procedures is developed to guide and monitor economic activity. In the meantime, there is the danger that planning will be ineffective, will be inefficient in guiding the economy, and will, therefore, neither be efficient in an economic sense, nor bring the society much closer to the realization of its socialist goals.

Planning Process

3. Primary responsibility for planning rests with the National Planning Committee (NPC), an independent agency whose chairman carries the rank of minister. The NPC is composed of 15 departments under two Assistant Directors General who report through a Director General to the Vice-Chairman and Chairman. The top management of NPC is assisted by a "Cabinet," which undertakes special studies for them as well as assuring the overall coordination of policy. In all, the NPC has a staff of 280, of whom 180 are support personnel. Of the professional staff, very few have experience or capability in project appraisal, macro-economic analysis or preparing national accounts and balance of payments tables. This situation is expected to improve as hundreds of Lao students complete their training abroad and return in the next few years.

4. To complete the planning apparatus, planning and statistics departments are being established within each technical ministry. However, at present the only ministries with an effective planning capability are Agriculture, Public Works and Interior; the latter two have only a technical capability and no economic expertise. The Ministries of Agriculture and Interior have design departments staffed with trained architects which enable them to plan and execute construction projects. All other buildings have to be designed and constructed by the Ministry of Public Works, either through its headquarters or through its service branches in the Khuengs.

5. The NPC currently performs two major functions each year. First, it assembles the production targets of the various Ministries and Khuengs, together with the required inputs, for presentation to the Council of Ministers. Not much has been done so far to establish material balances and there is little evidence of any checking of the internal consistency of the various targets. Second, the NPC reviews the projects submitted by the Ministries and Khuengs, eliminates those that are self-evidently unsound, unjustified or inconsistent with the overall guidelines laid down by the Council of Ministers. The remainder are put together as the first draft of the annual investment plan. Although an effort is made in the technical Ministries to relate the annual production targets to their proposed investment plans, there appears to be only cursory plan coordination in the NPC. Planning at the Khueng level seems to be even less systematic. The Khuengs have only recently acquired a planning and statistics service, and steps are being taken by the NPC to train staff for this purpose. The first such training program was started out in July 1978 involving two staff members from each Khueng.

6. The preparation of the annual plan starts formally at the beginning of September each year. The main priorities and broad guidelines are issued by the Prime Minister's Office and transmitted to each department of the NPC which consult with their relevant Ministries. Also, following the directive of the Prime Minister's office, the Khuengs submit a list of projects and targets that are reviewed by the Prime Minister's Office, which consults the relevant technical Ministry. In October, the NPC receives the proposed annual plan of each Ministry and Khueng. In theory, the plans of the national state enterprises are incorporated in the plan submitted by the Ministry of Commerce and Industry and those of Khueng state enterprises form part of the Khueng plan, but so far this has not happened systematically.

7. The Macro-Economic Indicators Department of the NPC reviews the production targets, while the projects are evaluated by the Projects Department in consultation with the various sector departments. The latter themselves have little responsibility for project appraisal, but rather have a role as technical advisers to the Projects Department. For 1978 over 500 projects were submitted to the NPC. Since the Projects Department has only one graduate economist and less than two months to complete the review of the proposed investment program, project evaluation is at best cursory. In practice, the more important projects will have been discussed over a longer period, but nevertheless the NPC is not staffed to conduct full project appraisal. The situation is expected to improve with the return of Lao planning specialists educated in the Soviet Union and other Socialist Countries.

8. By mid-November, the NPC has a first draft of the complete investment program for the coming year. This is then discussed at a meeting of the Planning Allocation Committee, comprising senior officials representing each Ministry, under the chairmanship of the President of the NPC. At this juncture, the Ministry of Finance, after consultation with the Budget Committee, indicates the global amount of local finance available to fund the investment program (see Annex X). By a process of negotiation and consultation the investment program is cut so as to fit the finance available. This excludes

some major projects being financed from external sources (e.g., in 1977/78 the Nam Ngum Phase II ^{/1} and Vientiane City Water Supply Project), which are presented separately in the Plan and for which separate allocations are made in the budget. The draft investment plan, revised to fit within the financial ceiling, is submitted for final approval first to the Council of Ministers and then, in December, to the Supreme People's Assembly, together with the recurrent budget. Once thus approved it has the force of law.

9. At present, it is not clear to what extent the capital expenditures included in the plan are a complete tally of the country's investments. It is certain that the budget includes some expenditures of a capital nature that are not specified in the investment plan. According to the authorities, the plan covers about 80% of locally financed investment expenditures. Moreover, during the course of the year the Ministry of Finance approves expenditure on a number of projects for which finance is provided as a contingency item in the budget. Lastly, full financial control is gradually being exercised over the Kheungs which in the past had the practice of using some of the revenue they collected to finance projects directly without going through the formal planning and budgeting procedures.

10. The NPC is responsible for monitoring progress made in the implementation of the investment plan. Each Ministry and Khueng is required to make a semi-annual report to the NPC which forms the basis of a summary report presented to the Council of Ministers. The Ministries' reports specify: (a) the percentage achievement of the plan target, project by project; (b) expenditures to date on each project; (c) finance needed to complete each project; (d) materials used to date; and (e) materials required to complete the projects. Under each heading, deviations from the plan target, particularly cost overruns, must be explained. The reports also contain a description of any special problems that have been encountered with suggestions for their resolution. It is unclear to what extent these procedures are followed in practice.

11. The intention is to develop: (a) five-year planning to provide the framework for long-term development strategy and national objectives; and (b) annual planning which would identify the specific short-term tasks and investments required to achieve the long-term objectives. The first five-year plan is likely to cover the period 1981-85. In the meantime, the Interim Three-Year Development Plan, 1978-80, will provide a temporary framework; it specifies production and other physical targets and identifies some of the projects but does not give the details of the investment program project by project. The three-year plan as well as the 1977 annual plan were produced with the assistance of Soviet experts from Gosplan who also helped establish the present planning procedures. The absence of data greatly hindered the work of the Soviet experts who attempted to construct an input/output matrix for the economy. The 1978 annual plan was produced without external assistance, but the Gosplan experts are again helping prepare the 1979 annual plan.

^{/1} The Nam Ngum hydroelectric scheme, located 65 km north of Vientiane was commissioned in early 1970s with 30 MW capacity. With the completion of Phase II in mid-1978, its capacity has been increased to 110 MW.

LAOS

FINANCIAL MANAGEMENT

Budgetary Process

1. The State Budget Committee, chaired by the Minister of Finance and comprising senior representatives of the National Planning Committee, the National Bank and the Ministry of Commerce and Industry, is responsible for the preparation of the state budget. The budgetary process starts in July when the Khueng authorities /1 and the central ministries begin preparing their respective budgets. The provincial budgets cover the recurrent and capital expenditures of provincial administrations as well as the state enterprises which they manage directly. Similarly, the central ministerial budgets comprise all the activities, including those of national state enterprises, managed directly by the ministries.
2. In early October, the provincial and ministerial budgets are submitted to the Ministry of Finance, where the Budget Department consolidates the various proposals into a draft state budget. During November, the Budget Committee amends this draft in light of the projected revenues and informs the National Planning Committee of the global fund available for locally financed investments. Since, at present, the revenues collected by the provincial authorities cover only a fraction of locally administered expenditures, the Budget Committee plays a major role in allocating central revenues and counterpart funds of external assistance between current and investment expenditures on the one hand and between provincial and central authorities on the other. It is unclear, however, to what extent provincial authorities will be allowed to determine their expenditure priorities in the future once they are able to raise sufficient revenues to finance expenditures.
3. The amended budget is then submitted for final approval first, in early December, to the Council of Ministers and then, in late December, to the Supreme People's Assembly, along with the annual plan. In theory, the budget is the financial reflection of the plan. So far, the link between the plan and the budget has not been fully established. At present, some development activities are included in the budget and not fully reflected in the plan, and current expenditures are excluded from the plan.

Revenues

4. The most important feature of the budget is its dependence on foreign support. In 1977, over 80% of total budget revenue was accounted for by foreign assistance, mainly in the form of project credits, commodity aid

/1 At present, the Muong do not have separate budgets. However, they are expected to prepare separate budgets beginning in 1980.

and cash grants. In 1978, despite a near doubling of domestic revenues, about three quarters of total revenues are expected to be derived from foreign sources due to a sharp increase in total expenditures. Nearly half of all foreign project aid is in the form of technical assistance, primarily from the socialist countries. However, it is unclear how this assistance is costed by the donors and it appears that the value of this technical assistance is overstated. Commodity aid from socialist countries is valued, wherever possible, at the international price of the commodity in convertible currency, converted into local currency at the official exchange rate. However, in the case of items for which world prices are not readily obtainable, the value of the commodity in nonconvertible currency of the donor country is converted into local currency at an administered exchange rate. Since these rates were not made available to the mission, it is impossible to say whether they are realistic.

5. Laos' domestic revenues are limited due to the country's low level of income. The most important source of domestic revenue is the contribution from state enterprises. These contributions, which in 1977 accounted for about 60% of total domestic revenues, are in the form of profits of enterprises which must be handed over to the Ministry of Finance at the end of the year. Only those enterprises that have an operating surplus are of course required to contribute to the budget. It is unclear what percentage of the industrial turnover these enterprises represent. The Government subsidizes those enterprises which are unable to generate surpluses due to underutilization of capacity and an obligation to maintain employees on full payroll even when the enterprises are not operating. Since the level of subsidies to these enterprises is unknown, it is impossible to determine their net contribution. However, it appears that the subsidy element is significant and that, therefore, the net contribution should be much lower than that which is implied above. As production revives, however, under improved management, state enterprise contributions should increase considerably in the future.

6. Since the establishment of the Republic, the Government has overhauled the former tax system. In September 1976, a progressive agricultural production tax was introduced. The tax is collected in kind and valued in terms of paddy. The current tax rates range from 8% to 30% of the estimated annual output under normal weather conditions (not the actual production) with the average rate expected to be about 12%. To encourage double cropping, the tax is applied only to the main crop. There are also exemptions to encourage shifting cultivators to settle on permanent fields and for farmers to join cooperatives (see Appendix for details). Two successive poor harvests since its introduction as well as problems of administration limited the proceeds of the agricultural tax to about 15,000 tons (KL 400 million) and 10,000 tons (KL 250 million) of paddy in 1977 and 1978 respectively. However, once the full potential of this tax is harnessed, it is expected to provide the bulk of the tax revenues in the future.

7. In August 1977, the Government announced a comprehensive tax reform designed to increase non-agricultural taxes and simplify the tax system. The main features of this reform are: more progressive rates, simplified classification, abolition of some former taxes, and replacement of specific taxes

with ad valorem taxes. Among the more important taxes are the turnover tax, incomes and profits tax and customs duties. The turnover tax is applied to all products which are not subject to the agricultural tax. The rates range from 2%-5% in the industrial sector and from 5%-25% in the commercial sector. The turnover tax is included in the ex-factory price of a product and must be turned over monthly by the enterprise to the Ministry of Finance (see para. 5, Annex XI). Personal income from salaries and profits from private industrial activity are subject to a tax rate ranging from 12%-40%, while income or profit from land and private commercial activities is taxed at a higher rate of 15%-50%. Exports are subject to a customs duty of up to 40%; import duties range from 0-20% on food, spare parts and industrial equipment, from 10-40% on raw materials, fuels and other equipment, and 10%-100% on luxury items. Direct and indirect taxes each account for about 20% of total domestic revenues. (As mentioned earlier, enterprises contribute the remaining 60%.)

8. Tax administration is improving as detailed procedures are developed and local authorities gain experience in tax assessment and collection. Except for customs duties and taxes of centrally managed enterprises, all other taxes are collected by the local authorities on behalf of the state. The Tasseng administrative committee is responsible for the collection of the agricultural tax. It retains up to 3% of the tax in kind for festive and cultural occasions and turns over the balance to the Muong, which stores the paddy. The Muong distributes the paddy in accordance with instructions from the Khueng authorities. All other taxes are collected directly by the Khueng and retained in their accounts at the National Bank. These funds, however, can be utilized by the Khueng only against a provincial budget incorporated in the approved state budget.

STATE BUDGET DEVELOPMENTS, 1976-78
(in millions of KL)

	Actual		Preliminary 1978
	1976 2nd half /a	1977	
<u>Total revenue</u>	<u>7,703</u>	<u>43,962</u>	<u>61,800</u>
<u>Domestic receipts</u>	<u>2,419</u>	<u>8,245</u>	<u>11,500</u>
State enterprise contribution	(888)	(5,084)	(5,400)
Direct taxes		(1,420)	
Indirect taxes	} (726)	(1,559)	} (4,850)
Other receipts	(805)	(182)	(1,250) /b
<u>External assistance /c</u>	<u>5,284 /d</u>	<u>35,717</u>	<u>50,300</u>
Project aid /e	n.a.	(23,607)	(30,400)
Commodity aid & grants	n.a.	(12,110)	(19,900)
<u>Total expenditures</u>	<u>10,990</u>	<u>49,038</u>	<u>65,600</u>
Defense & security	5,593	11,288	11,000
Civilian recurrent expenditures /f	1,429	11,250	19,200
Development expenditures /g	3,968	26,500	35,400
Externally financed /h /c	n.a.	23,600	30,400
Locally financed	n.a.	2,900	5,000
Agriculture	n.a.	n.a.	(2,760)
Transport	n.a.	n.a.	(700)
Industry & construction	n.a.	n.a.	(860)
Social sectors	n.a.	n.a.	(680)
<u>Budget deficit financed by the</u>			
<u>National Bank of Laos</u>	<u>3,287</u>	<u>5,076</u>	<u>3,800</u>

- /a A formal budget was not prepared in 1976; figures do not reflect all revenues and expenditures, and exclude most of the external assistance in that period.
- /b Includes about \$2.5 million (KL 1 billion) in payments by international carriers for overflight rights.
- /c Valued at the following exchange rates: KL200/\$ in 1976 and KL400/\$ in 1977/78.
- /d Excludes some of the external assistance from the socialist countries.
- /e Includes, in addition to financing for large projects like Nam Ngum, machinery and equipment as well as technical assistance not related to specific projects. The figures appear overstated; see para. 4 in Annex text.
- /f Includes salaries, supplies, maintenance expenditures of central ministries and provincial administrators as well as transfers to state enterprises for recurrent expenditures and subsidies.
- /g May include, in addition to capital expenditures, some recurrent expenditures.
- /h Includes considerable outlays for technical assistance.

Source: Ministry of Finance.

Expenditures

9. Budget allocation procedures are under review and reforms are being progressively implemented. According to the authorities, budgetary funds are disbursed into the bank accounts of the ministries (monthly) and the Khuengs (semi-annually). These allocations are disaggregated by type of expenditure (current, investment and state enterprises). Current expenditures cover the overhead costs of provincial and central administration and distinguish between salaries, supplies and maintenance. Investment is divided into foreign or locally financed projects. There is a separate allocation for each foreign financed project (except for the government's contribution, which is aggregated into one category) but the allocation is not subdivided into different components of the project. There are also separate allocations for some (usually large) locally financed projects, while others are aggregated into one category. It is unclear what criteria are used to make the above distinction.

10. Finally, there is an allocation for each state enterprise, disaggregated between recurrent and investment expenditures. At present, direct budgetary transfers account for 100% of total investments (which are negligible) and 50% of working capital of state enterprises; the balance is financed through the banking system. Working capital funds are transferred to the bank account of a state enterprise at the beginning of the fiscal year. Typically, the enterprise would have to exhaust those funds before borrowing from the National Bank. Investment funds are transferred through the respective ministries and provincial authorities responsible for managing the enterprise.

11. Financial control is assured through monthly, quarterly and semi-annual reports by ministries or provincial authorities. State enterprises report to the ministries or the Khuengs. There are indications that the procedures governing financial transfers to and from state enterprises need to be reviewed with a view to reducing delays and increasing accountability. The authorities have recently issued strict guidelines to ensure that taxes and profits of state enterprises are turned over to the state without delay. There is also a need to improve the procedures governing the review and approval of state enterprise budgets to ensure that decisions are communicated to the enterprises more promptly and are fully explained.

12. In the absence of detailed figures it is difficult to interpret the structure of state expenditures in Laos. Nevertheless, the following observation can be made. First, expenditures are divided roughly evenly between recurrent and development expenditures. Second, a large portion of the civilian recurrent expenditures consists of an accounting subsidy equivalent to the difference between the value of commodity aid at border prices (at the official exchange rate) and the official internal sale price of the commodities. Civilian recurrent expenditures are expected to have nearly doubled in 1978 largely on account of the increase in commodity aid and the concurrent increase in the subsidies; the latter are expected to account for nearly a third of all civilian recurrent expenditures.

13. Third, three large foreign financed projects (Nam Ngum, Water Supply and the Feed Mill), account for approximately a third of foreign financed development expenditures in 1977 and 78./1 Activities in the transport sector, financed by Soviet Union, Sweden and Viet Nam, account for the bulk of the rest of the foreign financed development expenditures. The level of development expenditures may be overstated since it is unclear how the large technical assistance component is valued. Finally, the emphasis in locally financed development expenditures is clearly on agriculture; the latter accounts for over half of the total, while transport, industry and construction, and the social sectors make up the other half in similar proportions.

14. Deficit financing has been a major contributing factor to Laos' financial instability over the past couple of years (see Annex I). The Government's success in controlling inflation will rest heavily on its ability to reduce the budget deficit. The projected deficit in 1978 is nearly 25% below the level of 1977. Achieving this target will depend on the government's ability to double domestic revenues.

The Banking System

15. The present banking system comprises the National Bank of Laos (NBL) and its subsidiaries which were established by statute in December 1975. The NBL, whose governor has the rank of minister, incorporated the old National Bank (the Central Bank of the Vientiane Zone), Banque de Pathet Lao, all the commercial banks and the Development Bank of Laos. In 1975, the Banque de Pathet Lao had its main office in Sam Nuea and had branches in the provinces controlled by the NLHS. All the other banks were based in Vientiane City; the only bank with a presence in the provinces was the Development Bank which operated a branch in Pakse.

16. NBL's Head Office, located in Vientiane, has departments inter alia dealing with: (a) the issuing of notes and coins (caisse centrale); (b) the accounts of the Government (functioning as the treasury); and (c) credit and savings. There is also a General Secretariat handling policy, internal administrative matters, training and research. The Bank has 15 branches: a Central Branch (serving the organizations and agencies of the Central Government) a Vientiane Prefecture Branch (for residents of Vientiane) and one branch in each of the 13 Khueng headquarters. Last, the External Trade Bank (Banque Pour le Commerce Exterieur Lao), a subsidiary of NBL, handles all foreign transactions, including managing Laos' foreign exchange reserves. In all, the NBL has a staff of about 750, nearly 400 of whom are employed at the Head Office, 60 at the External Trade Bank and some 300 in the various branch offices.

/1 Development expenditures may, in addition to capital, include some related recurrent expenditures.

17. The longer term objective is to facilitate the distribution of credit and to mobilize savings by establishing branches in each Muong. As an intermediate step, the NBL has established small offices (Bureaux d'Annex) in the administrative centers of 14 Muong with a staff of three to five trained by the NBL./1 In the remaining Muongs there is at least one Administrative Committee employee who has been trained by the NBL to act as its agent in the acceptance of savings and in passing on credit applications to the Khueng branch of the NBL.

18. The External Trade Bank, which has a management committee of three, and handles all foreign trade transactions, also acts as a secretariat for the Foreign Exchange Management Committee (FEMC), comprised of the Secretary of State for Finance as Chairman, the President of the NBL, the Secretary of State for Commerce and Industry and the Vice-Chairman of the Planning Commission. The FEMC establishes a quarterly budget for the use of foreign exchange, specifying inter alia the amount of goods for which import permits may be granted for each category of merchandise. Imports of food and basic necessities are accorded a priority in the foreign exchange budget. It is the External Trade Bank's responsibility in collaboration with the Ministry of Commerce and Industry, to ensure that this budget is adhered to.

Credit

19. The NBL, through its branches, provides credit to state and joint enterprises, to cooperatives and to groups of producers (farmers or artisans). Credit policy is used as an instrument for encouraging the formation of cooperatives; less than 10% of total credit outstanding is to private enterprises or individuals. An application for credit will only be considered if it has the approval of the Ministry concerned or the Kheung. Small producers may seek the assistance of the local Muong Administrative Committee in preparing an application for credit, but generally they are expected to form groups or cooperatives which facilitate the administration of credit. No collateral is required, the system operating largely on the basis of "character loans" and depending on group pressures and collective responsibility to ensure repayment. Loan repayments overdue were reported to amount to only a small percentage of the total loans outstanding, since with the agreement of the Ministry of Finance, some K 100 million of loans to farmers has recently been converted into grants. Two categories of farmers are involved: (a) shifting cultivators who have settled on permanent fields; and (b) resettled refugees. Most of the outstanding overdue credit relates to farmers hit by the drought whose loans have since been extended by one year.

20. The appraisal of all loan applications is made by the staff of NBL who make field visits as necessary. Staff below the level of the Khueng branch do not have authority to approve loans. At present the Khueng branches are authorized to approve loans up to K 50,000 per individual and

/1 Occasionally, for example in Champassak province, the NBL uses mobile units to reach its clients.

the Head Office staff may approve loans up to K 100,000 per individual. Any larger loans requires the personal approval of the President of NBL who in all important instances will consult the Cabinet.

21. In the case of industry, almost all credit is for short term working capital provided in accordance with the enterprises' approved budget. Very little development credit is currently being made available, as investments are mostly being financed directly by the Central Government budget. The opposite is the case in agriculture; 90% of agriculture credit is medium term (3 year repayment period) for land clearing (mainly labor), the purchase of seed, buffaloes, tools and the other equipment. Credit is not provided to private traders, except when they serve remote areas not well covered by state or cooperative shops./1 In 1978, a small amount of credit has been made available to those farmers worst hit by the drought to purchase rice which must be repaid once their next crop is harvested.

22. The interest rates are under review. The rates currently applied are as follows:

	Short term	Medium term
Agriculture	6% p.a. /a	3% p.a.
Industry	6% p.a.	6% p.a.
Commerce	12% p.a.	-

/a There is very little short term credit for agriculture. Those farmers worst hit by the drought receive short term credit interest free.

The source of funds is mainly credit creation by the NBL. The NBL has an operations budget like any other state enterprise, subject to approval by the Ministry of Finance. Any overall surplus generated by its operations is regarded as Government revenue.

23. Each year the NBL formulates a credit plan which incorporates credit to the Government, to state enterprises, to agriculture and to individuals. In 1978, lending to industry is not expected to grow significantly owing to a more rapid turnover in stocks as operations pick up. On the other hand, no limit is being imposed on lending to the agricultural sector which is accorded top priority. The expectation is that agricultural credit will more than double during 1978. Overall the intention is to limit the growth of credit in 1978 to under 30%, but since the major item is credit to the Central Government (deficit financing), the actual outcome depends primarily on budget control.

/1 Such cases are becoming increasingly rare, and may soon be expected to be phased out entirely.

Savings

24. The Government encourages private savings. Individuals or groups may deposit funds with the NBL which pays interest at the rate of 3.6% p.a. By mid-1978 the total amount deposited by private savers amounted to K 158 million, having grown from only K 50 million in June 1976. To mobilize savings the Government has under consideration a number of measures, namely (a) an increase in the interest rate; (b) an increase in the number of branches thus facilitating the access of depositors to the NBL; (c) training staff particularly in the Muong's who could act as agents for the NBL in the collection of savings; and (d) greater publicity and encouragement via the organs of the Party and the Administration.

LAOS

AGRICULTURAL PRODUCTION TAX

1. The State Decree on Agricultural Tax Regulations, dated September 29, 1976, and as ammended in late 1978, governs the administration of the agricultural production tax. The salient features of this tax are as follows:

- (a) Payment is made in kind; the tax will be collected once a year mainly in the form of rice (Article 2);
- (b) Agricultural products to be taxed are: rice, other food crops, agricultural raw materials for industrial use and edible-leaf plants (Article 7);
- (c) Tax is calculated in terms of paddy, and other products are converted into paddy according to stipulated ratios (Article 11);
- (d) The following progressive rates are applied to rice and other staple crops (Article 10):/a

<u>Class</u>	<u>Taxable Product /b</u>	<u>Average Tax Rate</u>
I	1 - 100 kg	8%
II	101 - 200 kg	10%
III	201 - 300 kg	12%
IV	301 - 400 kg	14%
V	401 - 500 kg	16%
VI	501 - 600 kg	18%
VII	601 - 700 kg	20%
VIII	701 - 800 kg	23%
IX	801 - 900 kg	26%
X	901 and above	30%

/a Originally, there were six tax rates each applicable to a wider production range.

/b Paddy equivalent production per household member after allowing for next season's seed requirements as well as deduction of 100 kg of paddy per person (Article 8).

- (e) A uniform tax of 8% is applicable to secondary crops with certain exemptions (Article 11), to agricultural raw materials for industrial use, without exemption (Article 13), and to fruit trees and edible-leaf plants, without exemption (Article 13);

- (f) Special exemptions and tax holidays are granted in order to encourage farmers to increase production by means of land reclamation, replanting, dry-season cropping, switching from shifting (upland) to settled paddy cultivation, etc. (Article 18); and
- (g) A special tax exemption is applied to regular soldiers, local troops, militia forces, cadres, or public servants working for the Party and the State (Article 5); and
- (h) In order to promote socialist collective production, a member of an agricultural cooperative is allowed an additional standard deduction of 20 kg paddy (Article 21).

2. The agricultural tax is assessed on the estimated normal year production, which is based on area planted and average yield in the village over the last three years. If actual production is above the estimated level, the increment is not taxed. The tax is therefore more of a fixed land tax than a production tax. The tax rates are applied to the average per capita taxable product and then multiplied by the number of household members. Thus, as shown below, the tax liability of two farm families with similar estimated normal year production but different household size would be different.

	<u>Farm Family A</u> <u>(8 members)</u>	<u>Farm Family B</u> <u>(7 members)</u>
Estimated production	4,000 kg	4,000 kg
Exemptions	1,000 kg	900 kg
Seed	(100)	(100)
Standard <u>/a</u>	(800)	(700)
Special	(100)	(100)
Taxable product	3,000 kg	3,100 kg
Per capita taxable product	375 kg	442 kg
Tax rate	14%	16%
Total tax	[(375 x 14)/100] x 8 = 420 kg	[(442 x 16)/100] x 7 = 495 kg

/a 100 kg per household member.

/b Exemptions for military service, cooperatives, etc.

LAOS

MANAGEMENT OF STATE ENTERPRISES

1. Public utilities, state enterprises and joint ventures (in which the state has a majority participation) all have similar management arrangements. A formal legal framework for these enterprises has not been elaborated, nor have the management procedures been set out in a legal text or regulation. Nonetheless, the broad outlines of a management system has been evolved, consistent with a centrally planned economy, and is being progressively introduced. The detailed application of the system is being adapted to each specific situation and, as experience is gained of the practical problems, the procedures are being adapted and improved.

Management Structure

2. In principle, each enterprise is under the direction of a general manager assisted by one or more deputy managers, who together comprise the Management Committee responsible for running day-to day operations. In the case of enterprises of national importance, the general manager and his deputies are directly responsible to a supervising Ministry. All other enterprises come under the direction of the local Khueng Administrative Committee. At present, there are no management boards (Conseils d'Administration), but the intention is to create them in the future. The general manager and his deputies are appointed by the responsible Minister or Khueng Administrative Committee.

3. State enterprises under the control of the Ministry of Commerce and Industry in Vientiane include:^{/1}

1. Plywood factory (K 121 million)
2. Lao wood factory (K 113 million)
3. Seasoning factory (nil)
4. Oxygen plant (K 3 million)
5. Tobacco factory (A)(K 63 million)
6. Tobacco factory (B)(K 367 million)
7. Pepsi plant (K 201 million)
8. Weaving mill (kilometer 10)(K 61 million)

The joint enterprises (sociétés mixtes) include:

1. Detergent factory (K 32 million)
2. Parquet factory (K 39 million)
3. Match factory (K 13 million)
4. Tire-retreading plant (K 1 million)
5. Furniture factory

^{/1} The figures given in brackets are the total value of sales in 1977. Total value of production of all manufacturing industries (excluding sawmills and rice mills) amount to K 3 billion in 1977.

4. Under the present administrative arrangements, control of state enterprises is achieved by (a) the approval of annual budgets and production plans specifying, on the one hand expenditure and revenue and on the other hand quantities of inputs and output, and (b) regular reports to the supervising authority (weekly, monthly, quarterly and annually). It is unclear whether reporting is as frequent in practice. For enterprises at the national level the annual budget and production plan must be approved by both the responsible Ministry and the Ministry of Finance, after consultation with the Planning Commission. The budgets and plans of the Khueng enterprises are consolidated in the Khueng budget and production plan. It would be necessary to simplify these procedures to ensure prompt communication of plans, budgets and guidelines between the enterprises and the Ministries of Industry and Finance, the Planning Commission and the local authorities.

5. The physical inputs required by an industrial enterprise must be purchased from approved suppliers (normally Société Lao d'Import et Export or the Department of Internal Trade) at fixed (official) prices and all its output must be sold to the Department of Interior Trade or, in the Provinces, to its agent, the Khueng Shop, at fixed prices. The enterprises are not able at present to assure the supply of inputs by means of legally enforceable contracts, nor are they contractually committed to producing a specified output. In the case of those enterprises requiring imported inputs, the enterprise must apply for an import permit from the Department of External Trade for each consignment and complete a complicated procurement process (see para. 2, Annex XIII).

6. Industrial enterprises must pay 2-5% and commercial enterprises 5-25% of all sales revenues received each month to the Government as a turnover tax. Also, the enterprise is required to make a monthly contribution to a central depreciation fund maintained by the NBL on behalf of the Government, on the basis of a schedule determined for each enterprise by the Ministry of Finance.^{/1} The depreciation fund is used by the Government to finance the investment requirements of state enterprises. However, budget allocations made for investment are not related to the contributions made by the enterprise to the depreciation fund.

7. In fixing the price of the product, the Government aims to allow the enterprise concerned a "profit" margin of 10% to 25% depending on the product. This margin is the difference between the sale price and all the operating costs including the turnover tax and contributions made to the depreciation fund. In the case of a product manufactured by several enterprises (e.g. sawn timber) a uniform sale price is established based on an

^{/1} Depreciation is calculated on the basis of the original cost of the assets of the enterprise; different rates apply to different categories of assets depending on the estimated productive life of the asset. For example, the brewery in Vientiane is being depreciated at an average rate of 3.3% p.a. calculated on the basis of original cost.

estimated average cost of production. Normally the cost is ex-factory and any transport costs are borne by the purchasing agency. At the end of the year all state enterprises are required to hand over their net balances to the Ministry of Finance after repaying outstanding credit from the NBL. Therefore, there appears to be little incentive for managers to maximize profits.

LAOS

MANAGEMENT OF AGRICULTURAL COOPERATIVES

1. According to the legislation governing the management of agricultural cooperatives (promulgated on May 15, 1978), the cooperative is to be under the overall control of a General Assembly of all the members, which meets at least twice each year. The principal functions of the General Assembly Meeting (GAM) are to receive the reports of the management and audit committees, to review the achievements and problems of the previous period and to adopt the financial and production plans for the next period. The GAM also appoints the manager and his deputy and elects the management and credit committees. It decides on the admission of new members and imposes, as appropriate, penalties or rewards on existing members. Last, the GAM decides on the distribution of income.

2. The Management Committee (MC) consists of between three and seven members plus the manager and his deputy. The MC prepares and executes the production and financial plans. It is responsible for introducing new production methods. It represents the cooperative in the signing of contracts in such a way as to achieve the production plan. It organizes the work, calls the GAMs and generally manages the cooperatives in accordance with resolutions of the GAMs. In so doing, the MC should seek to organize production groups which may compete. The head of each production unit is elected by the members of the group. The MC is enjoined to operate on the basis of a consensus of its members. Last, the MC is required to arrange for the training of its members in the management and work of the cooperative.

3. The Audit Committee is responsible for verifying that the work of the MC conforms to the approved production and financial plans and all other resolutions of the GAM. In particular, it verifies that the income of the cooperative is distributed correctly. The Audit Committee must report to each meeting of the GAM and where appropriate should make proposals for the resolution of any problems that have been noted. Members of the Audit Committee participate in the meetings of the Management Committee, but members of one committee may not belong to the other committee.

4. To join a cooperative a farmer must be over 16 years old and live within the area covered by the cooperative. The applicant must agree to abide by the regulations governing the cooperative and must submit a formal application for membership of the cooperative to be considered at the next GAM. An applicant must be willing to contribute his land and related productive assets, with the exception of a small plot which he may retain to grow crops primarily for consumption by his family. In the absence of land, the prospective member may offer cash or labor in an amount to be agreed by the GAM. A farmer who contributes more land than the standard contribution may request rent on this additional land in an amount to be agreed by the GAM in advance, but which may not exceed 15% of the production obtained in the last year prior to joining.

5. It is the duty of all members of a cooperative (a) to abide by the regulations and resolutions adopted by the GAM or the MC, (b) to carry out the work assigned to the members, (c) to respect the work regime and code of discipline, (d) to help look after the collective assets, (e) to be good citizens and (f) to raise his ideological consciousness and to protect the interests of the cooperative.

6, Each member has the right: (a) to a voice in and a vote on all activities, (b) to participate in the election of the MC and the Audit Committee, (c) to moral and material assistance especially in the case of illness, pregnancy and marriage, (d) to grow crops on a family plot, and (e) to be rewarded for his work.

7. The assets of the cooperative include: (a) the land and other productive assets contributed by the members, and (b) assets created by the cooperative or contributed by the state. The cooperative's production plan must be approved by a GAM. Normally a work unit (or group) would consist of between 20 and 30 members, but its exact size would depend on the specific task. The distribution of net income is to be based on the number of days worked by a member and the type of work performed.^{/1} The cooperative is entitled to retain a part of the income in order to help those not able to work whose subsistence must be assured. The net income is determined by deducting from total revenue all operating expenses, taxes, rents and a contribution to the cooperative's development fund amounting to between 5% and 7% of total revenue. Up to 70% of the proceeds of this fund may be used for the purchase of equipment. The remainder may be used for social welfare, cultural activities and the collective good.

^{/1} A three-point wage system is envisaged for performing the work assigned to each member of the cooperative: 12 points for good; 10 points for average; and 8 points for poor performances. These points are to be tabulated and form the basis for distributing the cooperative's income.

LAOS

TRADE MANAGEMENT AND PRICING SYSTEM

External Trade

1. All official exports and imports are now formally channelled through the Socie-'te-' Lao d'Import et Export /1 (SLIE) which operates under the supervision of the Department of External Trade in the Ministry of Commerce and Industry. While SLIE thus authorizes and controls external trade, responsibility for the physical handling of merchandise is often delegated to other enterprises more directly concerned with producing or using the goods. Unofficial imports by private traders are permitted. Since no foreign exchange is made available by the External Trade Bank for this purpose, such imports are financed through the parallel foreign exchange market. The volume of declared but unofficial imports is recorded by the Customs Department and may have amounted to \$15 million in 1977 or nearly the level of official imports (\$18 million)./2 However, it is likely that for a portion of unofficial imports no declaration is made to the Customs Department. For example, according to Thai Customs data, nearly \$50 million of Thai merchandise and goods in transit through Thailand were imported by Laos in 1977. This figure is considerably higher than that reported by Lao Customs (KL 6.7 billion or \$33 million) in the same period. Commodity aid has been handled in the past by the Planning Commission, but a decision has been made to transfer this responsibility to SLIE.

2. The procurement process begins with an import permit to be obtained from the Department of External Trade. A permit is only issued if provision for the imports has been made in the quarterly foreign exchange budget. The permit must also be approved by the Ministry of Finance. The External Trade Bank then arranges for a letter of credit. Once authorized, the import permit is passed to SLIE which contacts suppliers and arranges the transaction. These procedures may take several months to complete and are a major constraint to the efficient operation of enterprises. Steps are urgently needed to accelerate the process and reduce the paper work without reducing the existing tight control over the use of foreign exchange. This might be achieved by delegating responsibility for the implementation of the foreign exchange budget to the Department of External Trade and the Foreign Trade Bank with the Ministry of Finance maintaining its control through the quarterly meetings of the Foreign Exchange Management Committee.

3. Imports are paid for by the SLIE at the import price (c.i.f.), plus customs duty. In the case of commodity aid SLIE pays the Ministry of Finance for goods at the import parity price. SLIE sells all its import of

/1 External Trade Company of Laos.

/2 According to Customs data, KL 6.7 billion (\$33 million) of merchandise was imported in 1977 (see Table 6.3 in the Statistical Appendix); NBL data indicate that \$18 million in foreign exchange was used for imports handled by the state import agency.

consumer goods either to the Société de Distribution de Produits Alimentaires (SDPA) or to the Société de Distribution de Produits Industriels (SDPI) depending on the nature of the merchandise. Both are state enterprises hardly distinguishable from the Department of Internal Trade. Imported raw materials, intermediate products, spare parts and investment goods are sold directly to the enterprise or Ministry concerned. The SLIE selling price is 80% of the administered official retail price in the case of any of the 59 "basic commodities" which may be imported. The official prices of these items have remained mostly unchanged for over 10 years in the Pathet Lao areas and have been calculated on the basis of the purchasing capacity of an average farmer's family, which is valued in terms of farm production at official procurement prices. Other imports are sold to SDPA and SDPI at their cost price c.i.f. (calculated in Kip at the official exchange rate) inclusive of duties, with a 0.5-2% markup to cover SLIE's costs.

4. In the case of exports, SLIE purchases the goods either directly from the manufacturer or, where agricultural products are concerned, from the Khueng Administration. The price paid is the official producer price calculated by the Department of Pricing in the Ministry of Commerce and Industry, except that the Khueng Administration receives a 20% margin on the goods it handles. For industrial goods this is based on an estimate of production costs with allowance for depreciation and a margin of up to 25%. For agricultural commodities, the producer price is an estimate of a "fair return" to the farmer taking the official producer price of paddy as a benchmark. This procedure is inevitably somewhat rough and ready, especially where precise up-to-date data on yields and production costs are not available, which is the case in most instances. Some emphasis is being given to price incentives to stimulate production of those crops which would earn or save foreign exchange (coffee prices were recently increased by an average 60% and further increases are under consideration). In the case of coffee, a grading system with price differentials needs to be introduced to improve quality and increase the export unit price. Private traders are not authorized to export any goods, though it is believed that some unrecorded trade takes place especially in the case of coffee and wood. The value of unrecorded exports cannot be accurately determined; however, a comparison of Lao and Thai customs data indicates that such exports may have amounted to US\$3-5 million in 1977.

Internal Trade

5. SDPA and SDPI obtain locally produced goods either directly from the enterprise or producer at the producer price, or from the Khueng Administration at the producer price plus 20% to cover the Khueng's costs. SDPA and SDPI meet the transport costs to their depots. All imported consumer goods are obtained from SLIE. SDPA and SDPI act as central wholesalers supplying the State or Ministry shops in Vientiane and the Khueng shops in the provinces.

6. SDPA and SDPI meet all transport costs from their central depots to the buyers, who are allowed 20% discount from the official retail price to cover their distribution costs. Thus SDPA and SDPI sell at 80% of the official retail price, retaining in some cases little or no margin to cover their operating expenditures. The retail prices of basic imports are fixed at

their SLIE selling price plus a 20-30% margin which, as noted above, is mostly passed on to the Khueng shop. Their handling and transport costs are met by the Ministry of Finance on the operational budget of the Department of Internal Trade.^{/1} To reflect more accurately the cost to the economy of the distribution system there would seem to be justification in the case of non-essential items for fixing a larger margin between the official retail price and the import or producer price.

7. The Khueng shop is responsible for the procurement of its merchandise and for its distribution within the Khueng. The Khueng shop operates a retail shop for Khueng employees and acts as a secondary wholesaler in respect of the Muong shop and the Tasseng cooperative, each of which have been set up as the official outlet of the state distribution system. The Muong shop is run by the Muong Administrative Committee; it receives its merchandise from the Khueng shop at a 5% discount on the official retail price and sells either to the Muong employees or to the Tasseng cooperative retail shops within its area to which it passes on the 5%. Generally, the Tasseng cooperative arranges transport, but where this is assured by the Muong the costs may be deducted from the 5% margin.

8. The Tasseng retail cooperative shop has a voluntary membership open to the residents of the Tasseng. The membership contribution has been fixed at K 200. Members receive preferential treatment in the event that goods are in short supply - a frequent occurrence - but in principle a cooperative is willing to supply any member of the public. The cooperative may also obtain goods for sale directly from the producers, as may the Khueng and Muong shops in their areas, but the extent of such trade seems to be very limited so far. In Vientiane, most Ministries, Government agencies and State enterprises run their own shops for their staff, procuring goods directly from SDPA and SDPI and from their own cooperative farms.

9. Goods commonly sold in these official shops include rice, salt, meat, sugar, cooking oil, cloth, utensils, school materials and other basic goods. However, since the goods are mostly in very short supply a strict rationing system is in effect. A much wider range of goods is available on the free market, but at prices up to 10 times the official prices. Thus, goods purchased at the official prices which are surplus to the needs of the individual may be resold at a considerable profit. However, once Laos can generate sufficient foreign exchange to meet a large proportion of its population's basic consumption needs, the free market will decline in size and the differential between the official and free market for basic commodities will be greatly reduced. In any event, the problem is far more acute now in the Vientiane area than elsewhere in the country. However, for non-essential consumer goods, there is likely to be a free market with greatly elevated

^{/1} The distinction between SDPA and SDPI on the one hand and the Department of Internal Trade on the other appears to be blurred; a clear separation of the two functions is desirable in the longer term, so that the efficiency of the wholesaling function may be better assessed.

prices for the foreseeable future. This virtually amounts to a double exchange rate which values non-essential goods at very high prices, reflecting the scarcity of foreign exchange and the socialist priorities of the Government.

10. In all, there are 59 commodities categorized as "basic" for which the administered official price is not directly or indirectly related to the cost of supply. As mentioned earlier these prices have mostly been held constant for over 10 years in the areas administered by the Pathet Lao. A few adjustments have been made recently but generally no attempt has been made to reflect the cost of production or importation in the prices charged at the retail level. A recent study by the Ministry of Commerce and Industry revealed that in the case of imported goods the retail price of only two basic commodities were below the supply price if distribution costs were ignored. However, the ratio of the official price to the supply price varied greatly and in most cases the margin was not sufficient to cover the distribution costs, at least in the more distant provinces.

LAOS

BALANCE OF PAYMENTS /1

1. The fundamental weakness of the Lao economy is its inability to produce enough to meet its needs. As a result Laos has a chronic trade deficit. The country's balance of payments has come under considerable pressure since 1975, because of low export earnings and a sharp drop in external assistance following the end of the war and particularly after the establishment of the Republic. Despite the expected improvements in export earnings, these are likely to cover only food and other consumer imports in the medium term. Therefore, nearly all of the medium term import requirements of rehabilitation and development projects - raw materials, intermediate capital goods - would have to be financed through external assistance.

Recent Trends

2. Recorded merchandise export earnings, after a decline in 1975 because of internal and external factors, have improved steadily since.^{/2} Recorded official merchandise imports,^{/3} which had reached a record high in 1974, have since fallen considerably, reflecting lower real urban incomes and consequent substantial cuts in nonessential imports. Nevertheless, food products, including about 100,000 tons of rice, represent nearly a third of the annual import bill. The current account deficit, which averaged about \$65 million in 1975-77, was nearly fully covered by foreign grants, credits

^{/1} Laos does not compile balance of payments accounts. Trade data are sketchy and cover primarily official commercial transactions. Information on external assistance is incomplete, particularly aid flows from non-convertible currency areas. The analysis in this annex is based on mission estimates. The figures should be regarded as indicative.

^{/2} In the early 1970s a considerable portion of Laos' trade was in the form of unofficial border transactions and thus never recorded. See the 1975 Bank Report for details and estimates of levels involved. Although since 1975 unofficial transactions are believed to have declined considerably, nevertheless some of the trade still appears to go unreported.

^{/3} Unofficial imports by private traders are permitted. Since no foreign exchange is officially made available for this, such imports are financed through the parallel foreign exchange market. The volume of declared but unofficial inputs is recorded by the Customs Department and may have amounted to \$15 million in 1977 or nearly the level of official imports, \$18 million (see Tables 6.1 and 6.3 in the Statistical Appendix). However, it is likely that for a portion of unofficial imports no declaration is made to the Customs Department. For example, according to Thai Customs data, nearly \$50 million worth of Thai merchandise and goods in transit through Thailand were imported by Laos in 1977. This figure is considerably higher than that reported by Lao Customs (KL 6.7 million or \$33 million; see Table 6.3 in the Statistical Appendix).

and commodity aid averaging about \$60 million p.a./¹ This was, however, less than two-thirds of the average levels obtained in 1972-74 by the former Vientiane Zone alone.

3. Since mid-1975, aid from convertible currency areas (except Sweden, Netherlands, the Federal Republic of Germany and Japan) has declined sharply, while aid from nonconvertible currency areas, primarily in the form of commodities and technical assistance, has increased dramatically, rising from negligible amounts in 1972-74 to nearly an estimated half of all foreign economic assistance in 1975-77. Because of the sharp drop in total foreign assistance, the estimated overall balance of recorded payments has moved from nearly a \$15 million average surplus - most of which financed unrecorded imports and capital exports - in 1972-74 to a \$4 million average deficit in 1975-77. To finance these deficits, Laos drew nearly \$7.5 million from the IMF's Compensatory Financing Facility and used about \$4.5 million of its foreign exchange reserves.

4. The balance of payments situation remains weak and the outlook for 1979 is no more favorable than in recent years. In 1978, there was a slight overall balance of payments surplus, but this does not represent a basic improvement in the underlying balance of payments position because the increase was due to delays in rice imports on a commercial basis. Similarly, the increase in gross reserves from about \$4.8 million in mid-1978 (or equivalent to less than a month of total imports) to about \$18 million by end-1978 was due primarily to the receipt of about \$11 million from the IMF through purchase of the first credit tranche and a trust fund loan.

¹ The balance was covered by borrowing under IMF's Compensatory Finance Scheme and the use of reserves.

BALANCE OF PAYMENTS, 1972-1979 /a
(in US\$ millions)

	Average 1972-74	1975	1976	1977	1978	Forecast 1979
I. Merchandise trade (net)	-51.0	-50.0	-41.5	-55.0	-64.0	-65.0
Exports f.o.b.	6.0	3.0	6.5	9.0	11.0	15.0
Imports c.i.f.	57.0	53.0	48.0	64.0	75.0	80.0
Commercial imports/b	(24.0)/c	(15.0)/c	(16.5)	(19.0)	(20.0)	(30.0)
Project aid	(10.0)	(5.0)	(15.0)	(20.0)	(25.0)	(20.0)
Commodity aid	(5.0)	(22.0)	(14.7)	(25.0)	(30.0)	(30.0)
FEOF aid /d	(18.0)	(11.0)	(1.8)	-	-	-
II. Services (net)	-15.0	-8.0	-15.5	-20.0	-20.0	-22.5
Receipts	24.0	8.0	4.5	3.5	6.5	7.5
Foreign exchange sales to the banking system	(13.0)	-	-	-	-	-
Foreign exchange sales by diplomatic missions and tourists	(3.5)	(3.8)	(1.6)	(1.0)	(1.0)	(1.5)
Other	(7.5)/e	(4.2)	(2.9)	(2.5)	(5.5)/f	(6.0)/f
Expenditures	39.0	16.0	20.0	23.5	26.5	30.0
GOL expenditures aboard	(2.7)	(2.7)	(1.9)	(1.9)	(2.0)	(2.0)
Service of external debt/g	(1.3)	(0.8)	(1.6)	(1.6)	(1.7)	(2.0)
Purchase of foreign services (technical assistance)	(35.0)	(12.5)	(16.5)	(20.0)	(22.8)	(26.0)
III. Current account deficit (I + II)	-66.0	-58.0	-57.0	-75.0	-84.0	87.5
IV. Capital and Transfers	83.0	48.0	52.0	70.0/h	82.0/h	82.0
FEOF assistance (net)/i	18.0	10.0	1.5	-	-	-
Project aid (including technical assistance)		18.0	30.5	40.0	50.0	50.0
		} 65.0				
Commodity aid, cash grants & credits		20.0	20.0	30.0	32.0	32.0
V. Overall Balance (III + IV)/j	15.0/k	-7.0	-1.0	-4.8	1.3	-7.0
VI. Monetary Movements (net)	-2.6	7.0	1.0	4.8	-1.3	
Change in reserves (-increase)	(-2.6)	(3.1)	(-2.8)	(4.8)	(-12.3)	
IMF transactions	-	(3.9)	(3.8)	(-)	(11.0)	

/a Laos does not compile balance of payments accounts, table constructed on the basis of staff estimates and data provided by Lao authorities; trade figures limited to recorded transactions only; 1972-75 for the former Vientiane zone only; 1976-79 for the whole country.

/b For 1975-79, includes purchases requiring foreign exchange payments and financed out of foreign exchange earnings, cash grants or credits and reserves. Excludes private imports, commodity aid and imports of machinery and equipment related to foreign financed development projects.

/c Includes activities financed and managed directly by foreign aid programs.

/d Imports financed out of FEOF resources.

/e Includes that portion of FEOF resources which were converted into local currency (i.e., desterilized) by the donors and used to purchase laotian services. About a third of total FEOF resources were desterilized in this manner.

/f Includes \$2.3 million in payments by international carriers for overflight rights in Amber One air corridor.

/g Includes interest and amortization.

/h Figure is inconsistent with the budget (Annex X). Budget figure is adjusted downward by 25% to allow for the overvaluation of the technical assistance component of project aid from nonconvertible currency areas. See also para. 4 in Annex X.

/i Total FEOF resources net of desterilized portion included under service receipts; see footnote (e) above.

/j Includes errors and omissions.

/k Used to finance primarily capital exports and unrecorded imports.

Source: Data provided by the Lao authorities and mission estimates.

5. In 1979, the current account deficit is projected at about \$87 million because rice import requirements are expected to remain in the 100,000-120,000 ton range again due to this year's floods. Based on estimated current commitment levels, expected disbursements of commodity aid from nonconvertible currency areas combined with grants, credits and project aid from other bilateral and multilateral sources are unlikely to cover the projected current account deficit and the overall annual deficit is expected to reach about \$5 million.

Import Requirements

6. For many years Laos' imports consisted primarily of consumer goods to meet the demand of the large expatriate community and the small wealthy sections of the urban population. The trend has been reversed: non-essential imports have been slashed dramatically and imports of raw materials and capital goods have increased considerably. Although sizeable imports of essential items, food in particular, are likely to continue in the medium term, the structure of future imports is expected to emphasize intermediate and capital goods requirements of rehabilitation and development. In the absence of a detailed investment program and planned import targets, it is impossible to accurately assess the country's import requirements. Nevertheless, on the basis of current levels and general assumptions of a possible investment program which includes the priorities identified in Chapter IV of Volume I, annual average merchandise imports of the order of \$100-125 million are likely over the next five years. Food and other basic consumer goods could account for up to 25% of the total, the balance being raw materials and intermediate and capital goods.

Export Potential

7. Despite the considerable potential for hydroelectric, timber and mineral exports, Laos will be unable to earn the foreign exchange required to finance its medium-term import requirements for the following reasons. First, as explained in an earlier chapter, economic recovery and development of industries and expansion of pump irrigation will increase the demand for power and thereby limit expansion of power exports. Exports of electricity are expected to peak at 600 Gwh (earning about \$6 million) by 1980 but then level off to 500 Gwh (about \$5 million) by 1985 or about two and a half times their current levels (about 170 Gwh earning \$1.7 million in lion in 1977)./1 Second, with existing infrastructure, equipment and exploitation techniques

/1 For details of energy consumption and export projections see the IDCJ report.

and improved management the volume of timber exports could easily be increased to 250,000-300,000 cu m (or tenfold increase over average official levels in 1976-78). Expansion beyond that, however, should be preceded by a nationwide forestry survey, and would necessitate considerable investment in infrastructure and wood processing equipment, and more rational exploitation techniques. Assuming that processing quality improves with better management and installation of new equipment in saw mills, and Laos is able to diversify its export market and gain better market information, average unit prices of about \$75-100/cu m /1 (or about 25-50% above current levels) could be obtained. Thus, annual timber export earnings of say \$20-25 million are possible in the medium term if the Government moves quickly to secure the necessary external capital and technical and marketing expertise.

8. Third, coffee export earnings could be increased in the short run by obtaining higher unit prices through improved processing and sorting. But any significant increases of export volumes would depend on development of coffee plantations which would have a gestation period of 3-5 years. Thus, coffee exports are not likely to increase substantially in the medium term. Finally, mineral exploitation is just beginning and will take considerable capital (including major infrastructure development) and time to reach significant proportions, possibly in the later 1980s. Thus, on reasonable assumptions, total export earnings are not expected to average more than \$25 million (or two and a half times the current levels) over the next five years.

External Assistance

9. Because domestic resources and the country's capacity to import are quite inadequate for the needed development effort, Laos will have to rely on substantial external assistance - nearly all from official sources - to finance required investments over the next five to ten years. Because details of the Government's investment program were not provided to the mission, it is impossible in this report to estimate the size of the external assistance requirements with any degree of confidence. Nevertheless, if an investment program of a reasonable size is to be implemented, annual trade deficits averaging, say, \$75-100 million over the next five years are in prospect. Because factor service transactions are small, the trade deficits roughly indicate the net resource transfer requirements. In addition, considerable technical assistance would be necessary to support the preparation and implementation of the development projects.

10. Laos' external debt position is not serious. Debt outstanding and disbursed, the bulk of which is on soft terms and of long maturity, amounted to about \$75 million at end 1977. The debt service ratio, which in 1977 is estimated at about 20% of exports of goods, is expected to decline in the near future, since current exports are considerably below their medium term potential levels and the government's policy is not to undertake short-term borrowing on commercial terms.

/1 For sawn timber and logs.

STATISTICAL APPENDIX

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Table 1.1: POPULATION BY AGE GROUPS, 1977/a

Age group	Population			Percentage		
	Male	Female	Total	Male	Female	Total
0- 4	333,825	346,343	680,168	9.5	9.9	19.4
5- 9	274,688	290,375	565,063	7.9	8.3	16.2
10-14	205,155	213,409	418,564	5.9	6.1	12.0
15-19	62,576	69,970	132,546	1.8	2.0	3.8
20-24	93,862	104,955	198,817	2.7	3.0	5.7
25-29	135,532	167,926	303,460	3.9	4.8	8.7
30-34	146,037	153,930	299,967	4.2	4.4	8.6
35-39	132,155	108,517	240,675	3.7	3.1	6.8
40-44	118,342	83,964	202,306	3.4	2.4	5.8
45-49	69,584	59,474	129,058	1.9	1.7	3.6
50-54	52,185	45,480	97,665	1.5	1.3	2.8
55-59	41,752	34,985	76,737	1.2	1.0	2.2
60-64	27,830	24,490	52,320	0.8	0.7	1.5
65-69	24,355	20,990	45,345	0.7	0.6	1.3
70-74	13,910	13,994	27,904	0.4	0.4	0.8
Over 75	10,412	17,493	27,905	0.3	0.5	0.8
<u>Total</u>	<u>1,742,200</u>	<u>1,756,300</u>	<u>3,498,500</u>	<u>49.8</u>	<u>52.2</u>	<u>100.0</u>

/a Official estimates.

Source: Lao Authorities.

Table 1.2: VITAL STATISTICS

	1977	1978
Infant mortality rate (per '000)	123/ <u>a</u>	175
Crude birth rate (per '000)	45	44
Crude death rate (per '000)	23	21

/a A survey of villages around Vientiane found an infant mortality rate of 283 per thousand.

Source: World population data sheet of the Population Reference Bureau.

Table 1.3: DISTRIBUTION OF ADMINISTRATIVE UNITS BY PROVINCE

Khueng (Province)	Muong (District)	Tasseng (Subdistrict)	Ban (Village)
Vientiane	14	106	665
Savanakhet	9	102	1,211
Sayaboury	7	59	908
Champassak	10	68	831
Luangprabang	10	78	1,304
Khammouane	7	82	804
Oudomsay	8	66	923
Houaphanh	6	55	783
Saravane	9	44	816
Xieng Khouang	6	42	467
Luangnamtha	8	49	730
Phongsaly	5	55	599
Attopeu	6	19	156
<u>Total</u>	<u>105</u>	<u>825</u>	<u>10,197</u>

Source: Lao authorities.

Table 2.1: ESTIMATED 1977 GNP BY INDUSTRIAL ORIGIN

	Actual (billion KL)	With normal weather (billion KL)	Structure (% of total)
Paddy	14.51	21.16	24.5
Other crops	18.21	18.21	21.1
Animal husbandry	12.35	12.35	14.4
Fishery	1.34	1.34	1.6
Forestry	0.70	0.70	0.8
Subtotal agriculture	<u>47.11</u>	<u>53.76</u>	<u>62.4</u>
Mining	0.22	0.22	0.3
Agro-industry	1.56	1.84	2.1
Other manufacturing	0.57	0.57	0.7
Handicraft & cottage industry	0.64	0.64	0.7
Construction	7.31	7.31	8.5
Public utilities	1.03	1.03	1.1
Subtotal industry	<u>11.33</u>	<u>11.61</u>	<u>13.4</u>
Transport	1.54	1.64	1.9
Trade	4.68	5.04	5.8
Ownership of dwellings	2.20	2.20	2.5
General government	7.80	7.80	9.0
Services & miscellaneous	3.93	4.32	5.0
Subtotal services	<u>20.15</u>	<u>21.00</u>	<u>24.2</u>
<u>Total</u>	<u>78.59</u>	<u>86.37</u>	<u>100.0</u>

Source: Mission estimates.

Table 2.2: ESTIMATED AVAILABILITY AND DISPOSITION OF RESOURCES, 1977

	Billions of KL	% of GNP
GNP	78.6	100.0
Import surplus	15.0	19.1
<u>Total resources available</u>	<u>93.6</u>	<u>119.1</u>
Investment	15.0	19.1
Consumption	78.6	100.0
of which: Public	(21.0)	(26.7)
Private	(57.6)	(73.3)

Source: Mission estimates.

Table 3.1: AGRICULTURAL LAND USE
('000 ha)

	1977		1978	
	Area	Percentage	Area	Percentage
<u>Agricultural Area</u>	<u>1,652.5</u>	<u>100.0</u>	<u>1,713.9</u>	<u>100.0</u>
Cultivated area	852.5	51.6	913.9	53.3
Seasonal crops	838.2		868.2	
(Irrigated)	(66.0)		(78.0)	
Permanent crops	14.5		45.7	
Pastures	800.0	48.4	800.0	46.7
<u>Cropped Area</u>	<u>861.5</u>	<u>100.0</u>	<u>923.2</u>	<u>100.0</u>
Paddy /a	658.0	76.3	664.0	71.9
Upland	(240.0)		(230.5)	
Lowland	(410.0)		(424.2)	
Dry season	(8.0)		(9.3)	
Maize	24.6	2.9	32.1	3.5
Starchy crops	6.6	0.8	8.2	0.9
Vegetables and fruit trees	67.7	7.8	70.1	7.6
Industrial crops	11.5	1.3	42.4	4.6
Other	93.1	10.8	106.4	11.5

/a Normal year basis.

Source: 1978 Annual Plan and Ministry of Agriculture.

Table 3.2: AREA PLANTED, YIELD AND PRODUCTION OF MAJOR CROPS

Crops	Area planted ('000 ha)			Yield (tons/ha)			Production ('000 metric tons)		
	1976	1977	Target 1978	1976	1977	Target 1978	1976	1977	Target 1978
Paddy	678,000/a	625,500/b	664,000	1.15/a	0.85/b	1.36	785,000/a	530,000 /b	907,500
Maize	22,948	24,608	32,116	1.38	1.40	1.43	31,588	34,921	45,886
Potatoes Manioc Sweet potatoes & yams	5,334	6,600	8,222	12.17	12.80	12.80	64,911	84,525	105,360
Cotton	2,747	3,210	3,780	0.72	0.76	0.78	1,988	2,425	2,979
Coffee	6,185	6,605	7,604	0.67	0.47	0.50	4,122	3,104	3,821
Tobacco	10,352	11,867	12,000	0.59	0.62	0.62	6,210	7,324	7,440
Vegetables	3,460	3,880	4,430	7.81	7.94	8.06	27,040	30,816	35,739

/a 1977 normal year basis.

/b Actual

Source: Ministry of Agriculture, and 1978 Annual Plan.

Table 3.3: LIVESTOCK POPULATION

	1976	1977
Pigs	526,000	643,700
Cattle	308,100	324,600
Buffaloes	592,500	610,800
Chickens	3,028,000	3,381,100
Ducks	37,900	42,700

Source: National Planning Committee

Table 4.1: INDUSTRIAL PRODUCTION, EMPLOYMENT AND CAPACITY UTILIZATION

	Employment		Unit	Installed capacity	Production		Capacity utilization 1977 %
	Actual 1977	Target 1978			Actual 1977	Target 1978	
Electricity	924	1,171	mil. kwh	n.a.	265	340	n.a.
Tin	520	676	tons	1,360	612	900	45
Agricultural tools	70	100	'000 pieces	449	76.4	570	17
Logging	n.a.	n.a.	'000 cu m	700	70	211	10
Sawmills	n.a.	n.a.	'000 cu m	300	30	73	10
Plywood	230	230	'000 pieces	630	63	100	10
Veneer	n.a.	n.a.	tons	8,200	1,148	3,000	14
Parquet	88	88	'000 sq m	450	63	100	14
Bricks	61	331	'000 units	3,710	1,150	5,000	31
Tin roof sheets	'75	75	'000 pieces	3,708	445	1,000	12
Textiles	'521	642	'000 m	1,400	574	1,600	41
Cigarettes	311	311	mil. packets	45	12.9	21.7	29
Soft drinks	102	102	hl	45,000	12,540	20,000	28
Salt	45	345	'000 t	10	7	15	70
Matches	'38	38	'000 boxes	4,800	2,400	3,800	50
Furniture	595	595	mil. kips	380	213	250	56
Beer	122	122	hl	31,688	5,070	6,000	16
Coffee	n.a.	n.a.	t	n.a.	49.6	120	n.a.
Ice	n.a.	n.a.	t	n.a.	5,460	7,000	n.a.
Corrugated iron	n.a.	n.a.	'000 sheets	n.a.	445	1,000	n.a.
Oxygen	n.a.	n.a.	bottles	n.a.	2,222	3,100	n.a.
Seasoning	n.a.	n.a.	tons	n.a.	n.a.	120	n.a.
Retreading	n.a.	n.a.	tyres	n.a.	162	3,720	n.a.
Buckets	n.a.	n.a.	units	n.a.	31,142	168,830	n.a.
Plastic bags	n.a.	n.a.	tons	n.a.	38	120	n.a.
Electric cables	n.a.	n.a.	spools	n.a.	5,130	13,200	n.a.
Plastic rope	n.a.	n.a.	meters	n.a.	n.a.	540,000	n.a.
Candles	n.a.	n.a.	boxes of 10	n.a.	n.a.	5,803	n.a.
Mosquito spirals	n.a.	n.a.	1,000 boxes	n.a.	100	560	n.a.
Plastic sandals	n.a.	n.a.	pairs	n.a.	n.a.	260,000	n.a.
Car batteries	n.a.	n.a.	units	n.a.	30	2,640	n.a.
Sponges	n.a.	n.a.	units	n.a.	n.a.	78,000	n.a.
Noodles	n.a.	n.a.	tons	n.a.	122	429	n.a.
Soap	n.a.	n.a.	1,000 blocks	n.a.	572	3,000	n.a.
Coal	n.a.	n.a.	tons	n.a.	114	1,000	n.a.
Nails	n.a.	n.a.	tons	n.a.	33	497	n.a.
Ceramics	n.a.	n.a.	pieces	n.a.	409	12,000	n.a.
Ceramics	n.a.	n.a.	pieces	n.a.	409	12,000	n.a.
Lao Lao	n.a.	n.a.	1,000 liters	438	592	n.a.	n.a.

Source: Ministry of Industry and Commerce, and 1978 Annual Plan.

Table 4.2: TRANSPORT DATA

Length of Roads in kilometers

	<u>Paved</u>	<u>Unpaved</u>	
		<u>Gravel</u>	<u>Earth</u>
National	850	2,800	-
Provincial	400	2,200	2,600
Other	88	293	1,038
<u>Total</u>	<u>1,338</u>	<u>5,293</u>	<u>3,638</u>

Table 4.3: ELECTRIC ENERGY GENERATION, CONSUMPTION AND TRADE, 1975-79

Year	Installed capacity		Generation	Losses	Imports from Thailand	Total distribution (GWh)	Local consumption	Exports to Thailand	Value of exports /a (\$ mn)
	Total	Hydro							
	-----	(MW) -----	-----	-----	-----	-----	-----	-----	-----
1975	44	33	250	18.4	8.6	223	65	158	.8
1976	44	33	242	19.9	7.1	215	58	157	1.3
1977	44	33	265	24.0	6.0	235	58	177	1.7
1978 /b	124	113	340	5.0	6.0	330	72	258	2.7
1979 /c	124	113	760	14.0	6.0	740	90	650	6.8

/a In 1976 export price was raised from 5 mil/KWh to 10.5 mil/KWh.

/b Estimates.

/c Forecast.

Source: Electricité du Laos.

Table 5.1: DISTRIBUTION OF CREDIT BY THE BANKING SYSTEM, 1975-78
(in millions of KL)

Recipient	1975	1976		1977		1978	
	December	June	Dec.	June	Dec.	March	Planned
State enterprises	2,253	2,718	6,103	8,396	2,760	2,918	3,000
Handicraft & small-scale trade	13	16	28	75	80	147	97
Agricultural cooperatives <u>/a</u>	65	72	143	199	225	174	530

/a Including state farms and farmers associations.

Source: National Bank of Laos.

Table 5.2: DISTRIBUTION OF BANK CREDIT BY PROVINCE /a
(KL million)

Branches	Commitments			Outstanding ^{/b}		
	1975	1976	1977	1975	1976	1977
Vientiane /b	629	3,775	2,730	186	3,424	333
Houaphane	320	754	754	283	280	325
Xieng Khouang	455	740	1,058	62	352	470
Luang Prabang	153	309	542	302	300	319
Phongsaly	136	476	654	162	373	49
Oudomsay	195	237	300	56	70	98
Sayaboury	-	156	277	-	25	55
Luang Namtha	144	51	189	224	130	77
Khammouane	178	147	695	348	128	219
Savanakhet	160	585	80	275	581	138
Champassak	28	285	619	130	240	381
Saravane	222	338	834	218	218	417
Attopeu	81	101	292	84	54	85
<u>Total</u>	<u>2,700</u>	<u>8,155</u>	<u>9,026</u>	<u>2,331</u>	<u>6,274</u>	<u>3,065</u>

/a Credit to state enterprises, agricultural cooperatives and handicraft and small-scale trade.

/b End of year.

/c Primarily state enterprises.

Source: National Bank of Laos.

Table 5.3: OUTSTANDING AGRICULTURAL CREDIT BY PROVINCE, 1977/a
(KL '000)

Province	Outstanding
Houaphane	5,130
Xieng Khouang	9,500
Luang Prabang	8,930
Phongsaly	16,130
Luang Namtha	9,410
Khammouane	9,090
Savanakhet	24,200
Champassak	35,430
Saravane	5,690
Attapeu	10,930
Oudomsay	75,840
Sayaboury	0,180
Vientiane	<u>15,060</u>
<u>TOTAL</u>	225,520

/a End of year.

Source: National Bank of Laos.

Table 6.1: COMMERCIAL IMPORTS BY MAIN PRODUCT
(in US\$'000)

	1976	1977	<u>Jan-Apr</u> 1978	1978/ <u>a</u>
Rice				
Milled	5,561	1,401	171	2,000
Paddy	1,709	6,087	-	200
Other food items & beverages	1,377	271	-	500
Animal feed concentrates	329	279	-	500
Petroleum products (fuel)	3,782	5,865	2,113	8,000
Textiles	312	-	-	800
Machinery and tools	416	159	108	1,000
Other <u>/b</u>	3,006	3,997	1,608/ <u>a</u>	7,000
<u>Total</u>	<u>16,492</u>	<u>18,059</u>	<u>4,000</u>	<u>20,000</u>

/a Mission estimates.

/b Includes chemical and paper products, vehicles, cement and other raw materials.

Source: External Trade Bank of Laos.

Table 6.2: EXPORTS OF MAIN COMMODITIES
(in US\$'000)

	1974	1975	1976	1977	<u>Actual 78</u> 1st Quarter	1978/ <u>a</u>
Timber	7,383	605	702	1,263	448	3,000
Coffee	175	760	3,147	3,751	-	3,800
Tin	1,784	1,661	1,345	1,226	260	900
Wood products	347	677	571	594	159	600
Electricity			1,300	1,712	559	2,000
Other	48	59	49	344	160	700
<u>Total</u>	<u>9,737</u>	<u>3,762</u>	<u>7,114</u>	<u>8,890</u>	<u>1,586</u>	<u>11,000</u>

/a Mission estimates.

Source: External Trade Bank of Laos.

Table 6.3: MERCHANDISE EXPORTS AND IMPORTS, 1977
(tons and thousands of US dollars)

Products	1977	
	Quantity	Value
<u>Exports</u>		
Vegetables	535	1,613
Cardamom	160	281
Minerals (tin)	594	1,050
Wood	19,262	1,694
Plywood	655	32
Furniture	412	466
Others	5,277	1,954
<u>Total</u>	<u>26,895</u>	<u>7,090</u>
<u>Imports /b</u>		
Rice	64,776	7,624
Foodstuff	3,473	635
Petroleum	28,190	4,938
Textiles	1,366	1,886
Chemical products	514	254
Metal manufactures	2,985	9,254
Paper and paper products	586	562
Others	9,027	8,229
<u>Total</u>	<u>100,917</u>	<u>33,382</u>

/a Converted from KL at KL200/\$.

/b Includes in addition to official imports, all imports by private traders which have been registered at the Customs Department. Excludes some private unrecorded imports.

Source: Lao Customs Department.

Table 6.4: OFFICIAL FOREIGN EXCHANGE TRANSACTIONS
(In US\$'000)

	1975	1976	1977	Jan.-Apr. 1978	1978/a
Receipts /b					
Export earnings	3,078	6,483	8,890	1,586	11,000
Sales by diplomatic missions	3,746	1,525	723	160	800
Sales by tourists, etc.	75	125	81	31	100
Other receipts	1,169	2,794	2,574	1,064	5,500/c
<u>Total</u>	<u>8,068</u>	<u>10,927</u>	<u>12,268</u>	<u>2,841</u>	<u>17,400</u>
Expenditures					
Commercial imports /d		16,493	18,964	3,206	20,000
Government expenditures abroad		1,886	1,887	168	2,000
External debt service		1,561	1,591	719	1,700
Other		49	-	-	-
<u>Total</u>		<u>19,989</u>	<u>22,442</u>	<u>4,093</u>	<u>23,700</u>
Balance		<u>-9,062</u>	<u>-10,174</u>	<u>-1,252</u>	<u>-6,300</u>

/a Mission estimates.

/b Excluding loans and credits.

/c Includes \$2.5 million from overflight rights of international carriers.

/d Excluding commodity aid financed imports and imports of machinery and equipment related to foreign financed development projects.

Source: External Trade Bank of Laos.

Table 6.5: GROSS INTERNATIONAL RESERVES, 1975-78
(in US\$ millions)

	Foreign exchange	SDRs
<u>1975 December</u>	7.85	1.11
<u>1976 December</u>	10.64	1.46
<u>1977</u>		
January	10.93	1.46
February	11.13	1.46
March	12.39	1.39
April	7.26	1.28
May	10.46	1.28
June	8.88	1.62
July	9.12	1.62
August	9.44	1.62
September	7.40	1.62
October	6.45	1.54
November	6.51	1.54
December	5.86	1.54
<u>1978</u>		
January		
February	5.37	1.54
March	5.40	1.46
April	5.15	1.35
June	4.81	n.a.
September	16.86	n.a.
October	17.10	n.a.
December	18.20	n.a.

Source: External Trade Bank of Laos.

Table 7.1: OFFICIAL PROCUREMENT PRICES OF MAIN COMMODITIES
(KL per kg)

Commodity	Price
Dried arachid	80
Green beans	80
Dried soya	60
Coffee (Mik) /a	160
Coffee (Robusta)	200
Coffee (Arabica)	240
Dried manioc, tuber	25
Dried maize, grains	22
Tobacco leaves (fresh)	35
Tobacco leaves (dried)	350
Sticlax, No. 1	200
Sticlax, No. 2	150
Sticlax, No. 3	100
Benzoin, No. 1	1,400
Benzoin, No. 2	1,200
Benzoin, No. 3	1,000
Cotton	120
Paddy	25/b
Rice (first quality)	45
Rice (second quality)	40
Broken rice	15
Rice bran (well crushed)	10
Rice bran (normal)	7
Castor oil plant (dried)	20

/a Local variety.

/b The price varies between KL 22 and KL 27 depending on the distance from the Khueng Center.

Source: Ministry of Industry and Commerce.

Table 7.2: RETAIL PRICES OF SELECTED ITEMS IN VIENTIANE
(In KL per unit)

Item	Unit	Official	Free market price			
		price	June '76	June '77	June '78/a	Dec '78/a
		June '78				
Rice	kg					
Glutinous		45	60	173	180	-
Ordinary		45	110	403	450	460
Pork	kg		729	1,600	2,300	2,000
Civil servants		250				
Private		800				
Beef	kg		743	1,624	2,400	2,300
Civil servants		250				
Private		1,000				
Fish	kg	200	636	1,664	2,700	1,800
Chicken	kg	180	648	1,627	1,700	1,600
Eggs	pc	15	53	162	180	180
Salt	kg	15	63	92	130	150
Vegetables	kg			133	500	350
Condensed milk	can	120	267	624	620	600
Fish sauce	bottle		65	198	220	210
Gasoline (regular)	lt	<u>/b</u>	200	350	700	750
Industrial use		60				
Civil servants		120				
Private consumers		240				
Gasoline (super)	lt		-	400	830	850
Civil servants		140				
Private consumers		260				
Detergent	120 gm	80	-	600	750	700
Cloth (synthetic)	meter	1,400	-	-	5,300	5,000
Cloth (khaki)	meter	500	-	-	2,800	2,500
Sugar	kg	200	-	1,600	1,800	1,700

/a Prices collected by mission from morning and evening markets.

/b Before April 1978, gasoline price was KL 60/lt for all consumers.

Source: Ministry of Industry and Commerce and mission observations.

Table 7.3: FREE MARKET RETAIL PRICES OF SELECTED COMMODITIES BY MAJOR CITIES, JUNE 1978
(KL per unit)

Commodity	Unit	Vientiane		Sayabouly	Luang Prabang	Xieng Khouang	Phongsaly	Oudomsay	Savannakhet	Thakek	Pakse	Saravane	Attopeu
		/a	/b										
White rice (first grade)	kg	300-600	450	95	300	50	40	50	300	200	150	80	50
Pork	kg	2,000	2,300	800	1,000	500	200	220	500	500	270	300	200
Beef	kg	2,200	3,000	800	1,000	600	150	200	1,000	300	270	400	250
Fish	kg	2,000	2,700	1,500	2,500	400	180	500	1,200	700	800	1,000	150
Eggs	unit	150	180	80	150	35	10	20	70	60	40	20	25
Chicken	kg	1,700	1,700	1,500	1,400	800	220	500	1,200	700	1,000	600	150
Sugar	kg	1,800	1,800	1,800	2,200	300	200	500	2,000	1,250	1,900	1,500	200
Milk (condensed)	can 375 gr	800	700	1,000	700	170	120	200	700	300	900	800	100
Fish sauce	lt	n.a.	1,300	700	1,400	30	150	60	600	900	1,400	80	50
Salt	kg	100	200	150	150	150	50	50	100	100	300	100	30
Vegetables	kg	n.a.	500	100	300	100	10	50	150	500	150	100	50
Cloth	mt	n.a.	2,800	2,500	2,500	1,500	550	1,500	1,800	2,900	1,000	1,200	420
Detergent	190 gr	n.a.	750	800	800	400	30	600	600	100	500	1,000	200
Kerosene	lt	n.a.	1,000	1,000	1,000	50	50	200	300	500	700	300	50
Gasoline	lt	n.a.	700	1,500	850	60	60	300	400	250	700	400	60
Pickled fish	kg	n.a.	2,000	1,200	1,000	400	300	300	1,000	400	450	500	200
Mushrooms	kg	1,200	n.a.	n.a.	n.a.	n.a.	n.a.	n.a.	n.a.	n.a.	n.a.	n.a.	n.a.
Pineapple	1 piece	700	n.a.	n.a.	n.a.	n.a.	n.a.	n.a.	n.a.	n.a.	n.a.	n.a.	n.a.
Tennis shoes	pair	7,600	n.a.	n.a.	n.a.	n.a.	n.a.	n.a.	n.a.	n.a.	n.a.	n.a.	n.a.
Limes	3 pieces	100	n.a.	n.a.	n.a.	n.a.	n.a.	n.a.	n.a.	n.a.	n.a.	n.a.	n.a.
Peanuts	kg	1,000	n.a.	n.a.	n.a.	n.a.	n.a.	n.a.	n.a.	n.a.	n.a.	n.a.	n.a.
Tobacco	kg	1,500-4,000	n.a.	n.a.	n.a.	n.a.	n.a.	n.a.	n.a.	n.a.	n.a.	n.a.	n.a.
Coffee	kg	1,600-3,000	n.a.	n.a.	n.a.	n.a.	n.a.	n.a.	n.a.	n.a.	n.a.	n.a.	n.a.
Garlic	kg	1,500	n.a.	n.a.	n.a.	n.a.	n.a.	n.a.	n.a.	n.a.	n.a.	n.a.	n.a.
Sorghum	kg	5,000	n.a.	n.a.	n.a.	n.a.	n.a.	n.a.	n.a.	n.a.	n.a.	n.a.	n.a.

/a Collected by the mission in the morning and evening markets.

/b Ministry of Industry and Trade.

Source: Ministry of Industry and Commerce.

Table 7.4: COST OF LIVING INDEX FOR VIENTIANE, 1975-78/a
(1970 = 100)

Month/Year	Overall	Food
<u>1976</u>		
March	1,007	1,232
June	1,661	1,989
September	3,992	3,844
December	3,765	5,010
<u>1977</u>		
March	4,438	4,836
June	5,216	6,530
September	7,866	13,439
December	10,645	12,810
<u>1978</u>		
January	11,022	13,541
February	10,599	12,842
March	10,832	14,214
April	10,898	14,590

/a Free market prices.

Source: Lao Authorities.

Table 8.1: HEALTH STATISTICS

	1977	Plan		1983/a
		1978	1980	
<u>I. Establishments</u>				
Central hospitals	3	3	-	4
Khueng hospitals	12	13	-	14
Mueng hospitals	91	105	-	120
Dispensaries	355	400	-	900
Hospital beds /b	6,981	8,693	-	12,150
<u>II. Personnel</u>				
Physicians	104	114	154	-
Dentists	2	7	7	-
Pharmacists	18	18	18	-
Assistant physicians	415	485	585	-
Midwives /c	23	23	23	-
Nurses /d	4,000	4,400	5,450	11,700
<u>III. Indicators /e</u>				
Population per health unit	6,941	6,296		
Population per hospital bed	458	366		
Population per physician	30,769	28,772		

/a National Health Program, 1978-83.

/b National Planning Committee figures. Ministry of Health does not have independent figures. Ministry of Finance uses a figure of 3,895 for 1977.

/c Secondary level.

/d Primary level.

/e Implicitly derived.

Source: Ministry of Health and National Planning Committee.

Table 8.2: DISTRIBUTION OF SCHOOLS, TEACHING STAFF AND ENROLLMENT BY LEVEL

	1975	1976	1977	1978 planned
<u>I. Primary Level</u>				
Number of schools	1,160	1,234	1,435	1,580
Teaching staff	9,487	11,070	11,484	12,640
Enrollment	346,681	414,423	459,360	505,640
<u>II. Secondary Level (General)</u>				
Number of schools	127	185	270	345
Teaching staff	1,209	1,486	2,245	2,886
Enrollment	31,670	42,049	60,600	76,020
<u>III. Secondary Level (Vocational)</u>				
Number of schools	-	32	45	48
Teaching staff	-	579	681	783
Enrollment	-	7,892	10,082	13,845
<u>IV. Higher Level</u>				
Number of schools	-	3	2	2
Teaching staff	-	65	144	155
Enrollment	-	793	1,088	1,344

Source: Ministry of Education.

Table 8.3: SELECTED EDUCATION INDICATORS 1977/a

	Primary	Secondary	Vocational
Adjusted enrollment ratio <u>/b</u>	85	15	3
Average number of students per school	320	224	224
Average number of students per teacher	40	27	15

/a Figures derived from demographic and enrollment statistics.

/b Age group 6 to 10 for the primary level and 11 to 16 for secondary and vocational.

Source: Ministry of Education.