Socialist Transformation in the Lao People’s Democratic Republic
An Economic Report
(In Two Volumes)
Volume I: Main Report
February 26, 1979
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
This is the report of an Economic Mission which visited the Lao People's Democratic Republic from June 8 to June 30, 1978. The Mission comprised Messrs. Nicolas Gorjestani, Mission Chief; Pierre Landell-Mills, General Economist; Boris Blazic-Metzner, National Accounts Specialist; and Ms. Samia El Baroudy, General Economist/Young Professional. Mr. Willem Bussink was the mission's senior advisor.

A draft of this report was discussed with the Government during a second mission in December 1978.
SOCIALIST TRANSFORMATION IN THE
LAO PEOPLE'S DEMOCRATIC REPUBLIC

AN ECONOMIC REPORT
(IN TWO VOLUMES)

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</table>
LAOS
COUNTRY DATA

<table>
<thead>
<tr>
<th>AREA</th>
<th>POPULATION (1977)</th>
<th>DENSITY</th>
</tr>
</thead>
<tbody>
<tr>
<td>236,800 sq km</td>
<td>3.2 million (annual growth rate 2.4%)</td>
<td>13 per sq km</td>
</tr>
<tr>
<td>which Urban</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Labor force 10%</td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

POPULATION CHARACTERISTICS (1977)

- Crude birth rate (per 1,000) 45
- Crude death rate (per 1,000) 23
- Infant mortality rate (per 1,000 live births) 200

GROSS NATIONAL PRODUCT (1977)

US$290 million

GDP PER CAPITA (1977)

US$90

LABOR FORCE (1977)

1.6 million

GOVERNMENT FINANCE (Fiscal Years)

<table>
<thead>
<tr>
<th>State Budget 1975</th>
<th>1976</th>
<th>1977</th>
</tr>
</thead>
<tbody>
<tr>
<td>(Billion KL)</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Total Expenditures</td>
<td>49.0</td>
<td>65.6</td>
</tr>
<tr>
<td>Total Receipts</td>
<td>8.2</td>
<td>11.5</td>
</tr>
<tr>
<td>Deficit</td>
<td>40.8</td>
<td>54.1</td>
</tr>
<tr>
<td>External Assistance</td>
<td>35.7</td>
<td>50.3</td>
</tr>
<tr>
<td>Central Bank Borrowing</td>
<td>5.1</td>
<td>3.8</td>
</tr>
</tbody>
</table>

MONEY, CREDIT AND PRICES

<table>
<thead>
<tr>
<th>Money and Quasi Money</th>
<th>Bank Credit to Public Sector (net)</th>
<th>Bank Credit to Private Sector</th>
</tr>
</thead>
<tbody>
<tr>
<td>4.75</td>
<td>8.30</td>
<td>11.1</td>
</tr>
<tr>
<td>0.32</td>
<td>0.18</td>
<td>0.3</td>
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</tbody>
</table>

GOVERNMENT DEBT (Fiscal Years)

<table>
<thead>
<tr>
<th>State Debt 1975</th>
<th>1976</th>
<th>1977</th>
</tr>
</thead>
<tbody>
<tr>
<td>(Billion KL)</td>
<td></td>
<td></td>
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</tr>
<tr>
<td>Central Bank Borrowing</td>
<td>5.1</td>
<td>3.8</td>
</tr>
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</table>

BALANCE OF PAYMENTS

<table>
<thead>
<tr>
<th>Merchandise (net)</th>
<th>Exports</th>
<th>Imports</th>
<th>Services (net)</th>
<th>Receipts</th>
<th>Expenditures</th>
<th>Capital and Transfers</th>
<th>Overall Balance</th>
<th>Reserve Change (Increase)</th>
<th>IMF Borrowing</th>
<th>Cross Reserves (end year)</th>
<th>Petroleum Products Imports</th>
<th>Rate of Exchange</th>
</tr>
</thead>
<tbody>
<tr>
<td>(US$ million)</td>
<td></td>
<td></td>
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<td></td>
<td></td>
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<td></td>
</tr>
<tr>
<td>1974</td>
<td>-59.6</td>
<td>-50.0</td>
<td>-41.5</td>
<td>-55.0</td>
<td>-64.0</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td>-59.6</td>
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<tr>
<td>1975</td>
<td>-50.0</td>
<td>-50.0</td>
<td>-50.0</td>
<td>-50.0</td>
<td>-50.0</td>
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<td>-50.0</td>
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<td>-50.0</td>
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<tr>
<td>1976</td>
<td>-55.0</td>
<td>-55.0</td>
<td>-55.0</td>
<td>-55.0</td>
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<td>1977</td>
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<td>-64.0</td>
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<td>-64.0</td>
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<tr>
<td>1978</td>
<td>-59.6</td>
<td>-59.6</td>
<td>-59.6</td>
<td>-59.6</td>
<td>-59.6</td>
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<td></td>
<td></td>
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<td>-59.6</td>
<td></td>
<td>-59.6</td>
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RATIOS OF EXCHANGE

<table>
<thead>
<tr>
<th>Expenditure Rate</th>
<th>March 1975-June 30, 1976</th>
<th>July 1976-May 1978</th>
</tr>
</thead>
<tbody>
<tr>
<td>US$1.00 = KL 37.5</td>
<td>US$1.00 = KL 50</td>
<td></td>
</tr>
<tr>
<td>KL 1.00 = US$0.027</td>
<td>KL 1.00 = US$0.025</td>
<td></td>
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</tbody>
</table>

Since June 1978

<table>
<thead>
<tr>
<th>Expenditure Rate</th>
<th>US$1.00 = KL 400</th>
<th>KL 1.00 = US$0.025</th>
</tr>
</thead>
</table>

<table>
<thead>
<tr>
<th>Rate of Exchange</th>
</tr>
</thead>
<tbody>
<tr>
<td>US$1.00 = KL 37.5</td>
</tr>
<tr>
<td>KL 1.00 = US$0.027</td>
</tr>
<tr>
<td>Since June 1978</td>
</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th>Terms of Lending, December 31, 1977 (Million US$)</th>
</tr>
</thead>
<tbody>
<tr>
<td>IBRD/IDA LENDING, December 31, 1977 (Million US$)</td>
</tr>
<tr>
<td>Outstanding &amp; Disbursed</td>
</tr>
<tr>
<td>Undisbursed</td>
</tr>
<tr>
<td>Outstanding incl. Undisbursed</td>
</tr>
</tbody>
</table>

MERCHANDISE EXPORTS (AVERAGE 1976-78)

<table>
<thead>
<tr>
<th>US$ million</th>
<th>%</th>
</tr>
</thead>
<tbody>
<tr>
<td>Tin-in-concentrate</td>
<td>11.1</td>
</tr>
<tr>
<td>Coffee</td>
<td>40</td>
</tr>
<tr>
<td>All other commodities + electricity</td>
<td>25</td>
</tr>
<tr>
<td>Total</td>
<td>100</td>
</tr>
</tbody>
</table>

EXTERNAL DEBT, DECEMBER 31, 1977

<table>
<thead>
<tr>
<th>US$ million</th>
<th>%</th>
</tr>
</thead>
<tbody>
<tr>
<td>Public Debt, incl. guaranteed</td>
<td>75.0</td>
</tr>
<tr>
<td>Nonguaranteed Private Debt</td>
<td></td>
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<tr>
<td>Total Outstanding and Disbursed</td>
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</table>

DEBT SERVICE RATIO for 1972

<table>
<thead>
<tr>
<th>%</th>
</tr>
</thead>
<tbody>
<tr>
<td>Public Debt, incl. guaranteed</td>
</tr>
<tr>
<td>Nonguaranteed Private Debt</td>
</tr>
<tr>
<td>Total Outstanding and Disbursed</td>
</tr>
</tbody>
</table>

IBRD/IDA LENDING, December 1978 (Million US$)

<table>
<thead>
<tr>
<th>IBRD</th>
<th>IDA</th>
</tr>
</thead>
<tbody>
<tr>
<td>8.1</td>
<td>8.2</td>
</tr>
</tbody>
</table>

1/ Available data is very limited. Population, labor force, GNP and per capita GNP figures are estimates. In June 1976, the kip (K) was replaced by Kip de libération (KL) at a conversion rate of K 20 = KL 1; all figures in local currency have been converted to KL equivalents.

2/ Based on staff estimates for 1977 in local currency and converted at average 1977/78 exchange rate (KL 300/$). The lack of data precludes the use of Bank Atlas methodology.

3/ Preliminary.

4/ End of calendar year index; for 1976 and 1977, indices adjusted to reflect near zero inflation on the official market.

5/ Balance of payments accounts are not compiled in Laos; table constructed on the basis of staff estimates and data provided by Lao authorities; trade figures limited to official transactions only; 1975 for the Vientiane zone only; 1976-77 for the whole country.

6/ Includes commodity aid.

7/ Includes errors and omissions, and, in 1974, capital exports.

8/ Ratio of debt service to exports of goods.

---

.. not available - n/a
SUMMARY OF FINDINGS AND RECOMMENDATIONS

1. Laos, with a population of some 3.2 million, is one of the poorest nations in the world. Its poverty is partly a result of geographical factors. The country is landlocked, generally mountainous and sparsely populated. Transport within the country, as well as between the country and the sea, is costly and difficult. The country is overwhelmingly rural, and the small dispersed market impedes the realization of economies of scale in production. While vast forestry, mineral and hydro-power resources have been identified, exploiting especially the latter two would require large investments.

2. Laos' current economic structure is the product of centuries of weak government and foreign domination. More recently, the country suffered from war, which left in its wake not only physical destruction but also profound structural distortions. In the rural areas the war damaged some of the most productive lands, resulted in the killing of tens of thousands of draft animals and forced 400,000-700,000 persons or up to a quarter of the rural population to migrate to the cities. Agriculture did not keep pace with population growth, and Laos became a food-deficit country. Economic activity in the urban areas become dominated by a disproportionately large service sector geared to the war effort. The major source of urban income was foreign aid but it did little to improve the productive capacity of the country or to develop exports, and therefore tended to perpetuate foreign dependence.

3. The structural distortions and dislocations caused by the long conflict were compounded by the drop in foreign commodity assistance and the substantial emigration which followed the end of the war and the subsequent establishment of the Lao People's Democratic Republic in 1975. Thus, there was severe economic difficulty and rapid inflation during 1976 and part of 1977. The Government started to deal with these problems as rapidly as possible while at the same time restructuring and developing the economy along socialist lines. Many steps were taken in that direction, including the settlement of a large part of the idle urban population on new or abandoned land. As a result, Laos is gradually moving from a service-oriented economy based on aid receipts in the direction of one whose structure reflects the country's internal resource potential and is more geared toward long-term development.

Development Constraints and Priorities

4. There is little information on the structure of production, incomes and expenditures. However, mission estimates for 1977 indicate that Laos' real per capita income, most of which originated in agriculture, was about half the level of Northeast Thailand. This indicates that there is severe and widespread poverty in Laos. It is also estimated that Laos consumes nearly all it produces and has practically no national savings, so that the country is almost fully dependent on the outside world to finance its development needs. This underlines the large and complex task the Government is
facing in steering Laos gradually on to a path of self-sustaining growth. It also indicates the country's great need for continued and generous foreign assistance in the difficult period ahead. Even with generous foreign assistance, however, the foreign exchange and investment resources available to the country will for a considerable period remain extremely limited in relation to the need for them. In addition, qualified manpower is also very scarce. It follows that development programs should in the first instance emphasize simple, easy to implement, low cost projects which yield benefits quickly. Fortunately, it appears that many opportunities along these lines exist.

5. The main economic activity in Laos is agriculture and the major preoccupation is cultivation of rice, the main staple. Cropping intensity and yields are among the lowest in Asia, due primarily to the shortage of irrigation and flood control infrastructure. As a result of this, as well as of the abandonment of cultivated land, Laos is now not self-sufficient in food production. Apart from rice, there is a major shortage in meat production and it appears that the daily food intake is less than the normal daily caloric and protein requirement. Moreover, marketing and transport problems make food distribution difficult between surplus and deficit regions. Two successive disastrous crops, caused by drought in 1977 and flooding in 1978, have created a serious food crisis. To avert hunger, primarily in the cities, the Government has appealed for international relief aid and is rationing food at low prices. Top priority is given to rehabilitation of infrastructure damaged by the floods and to increasing rice production.

6. In addition to food production, the other immediate concern of the Government upon coming to power was the existence of large numbers of under-employed labor, which consisted primarily of persons displaced by the war but also of some other groups who lived in conditions which did not allow them to produce enough for their needs. The quickest way to address the problems of food production and unemployment was by combining the underemployed labor with unoccupied land, mainly land abandoned during the war. The Government has made considerable progress in this regard through its ongoing resettlement program. However, most of the resettled population is still not able to fully utilize the productive potential of the land due primarily to the shortages of draught power for plowing and tractors needed to clear land, which due to the existence of unexploded ordnance cannot be done manually. There is an urgent need for foreign assistance to help prepare and finance projects designed to remove the constraints to agricultural production in the resettled areas.

7. Many parts of Laos are or may be suitable for growing, apart from rice, a range of other food, feed and industrial crops such as maize, cassava, soya, coffee, tea, cotton, tobacco, pyrethrum and silk. Inadequate price incentives probably have been an important constraint to increasing production of these crops. Coffee, an important export, suffered considerably during the war as the plantations were abandoned or destroyed. Rehabilitation is under way; however, yields are low as about two-thirds of the plants are at the end of their active life. The immediate priority is to improve the
quality and hence obtain a higher unit value of coffee exports through proper processing, grading and price incentives. If technical assistance can be obtained to plan and implement sound projects, coffee plantation development could follow the immediate rehabilitation needs.

8. In the short and medium term, timber and wood products are the country’s most promising foreign exchange earner. However, timber production and exports have declined steadily since the mid-1970s due primarily to the lack of equipment and fuel, inadequate price incentives, weak management of processing industries, internal marketing difficulties, inadequate coordination between the logging and processing activities and border problems with Thailand. With the help of foreign assistance, the equipment constraint has been largely overcome. Now that relations with Thailand have improved, substantial expansion in timber exports is possible provided the internal organizational, management and marketing problems are solved. This appears to warrant a very high priority.

9. The industrial sector in Laos is still at an early stage of development. Except for rice mills and wood processing factories utilizing domestic raw materials and producing for export, most of the industries established during the war produce simple consumer goods, are relatively capital intensive and rely heavily on imported raw materials. Capacity utilization is very low due to shortages of raw materials, spare parts and managerial problems. The immediate priority is to rehabilitate selected existing plant and machinery which can efficiently produce basic commodities and agricultural tools, and earn or save foreign exchange. Foreign assistance is urgently needed for this purpose and to be most effective it should finance raw material and spare parts imports. Particular attention needs to be given to the rehabilitation and expansion of rice mills and saw mills whose equipment has been partly sabotaged.

10. With regard to minerals, Laos is producing and exporting minor amounts of tin. Among other minerals, large deposits of potash and especially iron ore of high concentration have been identified, but the economic net value of these minerals needs to be established and would depend primarily on the substantial transport costs to bring them to a market. If exploitation is found economically viable, these minerals could provide Laos with very substantial foreign exchange revenues for its long-term development. The estimated development and exploitation costs are, however, substantial and would presumably have to be financed by the buyers since Laos will not be able to mobilize the required capital from its own resources or "normal" foreign assistance. Given the large potential gains to Laos, the possibilities for such arrangements should be explored with all deliberate speed.

11. The transport and power network did not suffer greatly from the war. Overall, the national main road network is adequate for the present light traffic volumes, taking into account the sections currently under
construction. For the immediate future, road development should concentrate on repair, maintenance and upgrading of the existing network. In addition, a rural roads program in agricultural surplus areas or in conjunction with major agricultural projects deserves high priority. The Government also intends to open an alternative link to the sea through Viet Nam. In the case of power, the construction of the Nam Ngum hydroelectric scheme has made Laos a net exporter (to Thailand). In the short run there may be an economic justification to expand the distribution system to serve the requirements of agriculture and industry. Mini hydropower schemes could supply cheap energy at low investment cost to the rural areas elsewhere. Additional large hydropower schemes for export could again only be financed through special arrangements involving the buyers of electricity.

12. The education and health care systems in Laos have undergone major changes. The new education philosophy stresses: basic training for every child as well as an intensive literacy program for adults, and practical training in agriculture and other fields. Overall, given the country's low literacy level, the shortage of teachers and facilities and the urgent need for manpower development, the policy of a minimum basic education in the shortest time for a maximum number of people appears to make sense. Nevertheless, more attention needs to be given to the quality of education. The health situation in Laos appears to be serious because of malnutrition (mainly affecting children) and poor hygienic conditions. The new health system emphasizes preventive medicine and provision of basic health services to the whole population. Quality of health care is still very inadequate due to the shortage of personnel and facilities. Nevertheless, some health services have for the first time been made available to a large segment of the rural population.

The Evolving Planning and Management System

13. The Government is progressively implementing its policy of socialist transformation. State ownership still applies to a relatively small part of the economy; although the state manages all external trade, banking as well as many of the industrial enterprises and internal marketing of basic products, the greater part of agricultural production and retail trade is still in private ownership. Laos faces a formidable challenge in creating appropriate institutions for effective socialist economic management. A new decentralized administrative structure is emerging. A planning and management system has also been evolved and is being progressively introduced. These are impressive achievements for a young republic emerging from decades of conflict and facing an acute shortage of food and trained manpower as well as the difficult problems of consolidating the socialist revolution and preserving political independence. Nevertheless, a number of issues relative to the evolving planning and management system are emerging which require careful attention as the country embarks on the path to socialist transformation and development.
14. Although important reforms are under way, the following additional measures designed to improve the effectiveness and efficiency of the planning and management system need to be considered: better coordination and exchange of information between the central ministries on the one hand and between the single ministries and the local authorities on the other; less centralized planning as long as technical manpower is extremely limited and major data constraints exist; comprehensive procedures to ensure a close linkage between planning and budgeting; greater independence of state enterprises and managers, increased accountability of managers for their performance, and introduction of economic cost accounting, written contracts to govern the transactions between enterprises, and profit incentives.

15. The intention is to collectivize agricultural production. To avoid a drop in agricultural output, it would be prudent to implement the policy of collectivization of agriculture through the establishment of cooperatives at a pace compatible with the capacity of the administration to provide the necessary technical and management support. In addition, collectivization of labor may pose some difficulties unless the farmers clearly perceive an opportunity to improve their quality of life through collective agriculture. Adequate incentives, including, in the first instance, the increased availability of basic consumer goods at prices which are in line with rural incomes, would go a long way in inducing farmers to expand their production and create surpluses.

16. In the field of pricing policy, it is necessary to consider both the equity and efficiency objectives. Although the impulse to let equity considerations prevail will often be strong, it must be realized that doing so would generally entail a cost to the economy to the extent that resources would not be used optimally. Laos' poverty provides a strong incentive to use scarce resources efficiently, so that, with everything else the same, equity considerations should be applied with caution. However, the same poverty argument may make it sometimes imperative to let equity considerations prevail, e.g. to meet basic needs.

Towards Socialist Transformation: Development Strategy and Prospects

17. During most of the past three decades, wartime exigencies and insecurity precluded the formulation, let alone the effective pursuit of a long term development strategy. The country is now, at last, ready for planned economic development. Some of the problems which will have to be faced are common to most low income countries—low agricultural productivity, a weak industrial sector and shortages of capital and foreign exchange. Others relate basically to the structural distortions and dislocations wrought by war and to the managerial aspects of socialist transformation. The authorities intend to deal with these problems within the framework of long term planning which is just beginning. The objective is to develop five year planning supplemented by more specific annual planning.
18. In the meantime, the Interim Three Year Development Plan, 1978-80 provides a temporary framework. Given the data and manpower constraints, the plan is a major achievement. Understandably, however, it has its limitations: it specifies production and other physical targets and identifies some of the projects but does not give the details of the planned investment program. The main thrust is to transform and develop agriculture and forestry. The role of other sectors is to support agricultural development. Food production is the top priority and the objective is to make every province self-sufficient in food production by 1980. Given the country's geography and transport constraint as well as the good potential for growing food crops in practically every province, this policy appears sensible. Nevertheless, this is an ambitious target whose achievement would depend on: further rapid land (re)development in the (re)settlement areas, successful implementation of ongoing investments in irrigation, on-farm and other infrastructure development, considerable improvements in marketing and distribution, and the government's willingness to follow pricing policies which would provide incentives to producers. In the long term there is a need to focus on crop diversification to maximize the comparative advantage of the different regions in the country.

19. In elaborating the First Five Year Plan, systematic consideration will need to be given to the optimum use of Laos' scarce resources in terms of investment funds, foreign exchange and skilled manpower. These need to be combined with the largest possible amounts of the resources which in Laos are amply available: land and, at least to some extent, unskilled manpower. There is little doubt that development programs would need to continue to emphasize simple, easy to implement, low cost projects designed primarily to achieve agricultural self-sufficiency and expansion of agricultural exports. Investments to improve the productivity of the newly resettled population would probably remain the highest priority. At the same time, programs to intensify agricultural production should be pursued. Since current yields are low, with little investment, it should be possible to improve productivity; small irrigation and flood control schemes are the most appropriate method. In as little as half a decade, Laos could become a net exporter of agricultural products. Industrial crops may also be developed to support a range of agro-industries. Assuming the availability, by then, of a comprehensive development plan for forestry, production and export of wood could probably expand at a rapid pace. In infrastructure development, emphasis should initially be on small projects. Large capital intensive undertakings such as railroads, hydropower and mining development should be pursued only after considering them in the overall resource context, and if they then are not shown to preempt other, more urgent and more remunerative uses of the limited foreign capital available to Laos. On the other hand, increased accessibility to rural areas through low cost rural roads (together with other incentives) could become a major instrument through which production in and exports from Laos' rural areas may be stimulated.
20. Implementation of such a development strategy would depend first on the dedication of the Lao people and their leaders to make difficult decisions and for some time limit current consumption in favor of accumulation. Construction of a socialist and prosperous Laos would also hinge on the successful implementation of urgently needed reforms to improve planning and management efficiency. Laos would also need considerable assistance from the world community because the country is very poor and unable to mobilize sufficient domestic resources to finance development projects. In 1977, foreign aid amounted to $70 million (or about 18% of GNP). In the medium term, the country would need considerably more. The Lao people have demonstrated their determination to develop their country and deserve to be supported by the international community. In responding to Laos' needs, it would be prudent for foreign donors to recognize that Laos is still a young republic struggling to maintain its hard-won independence. Donors who are currently active as well as newcomers should bear in mind these special circumstances and adapt their policies and procedures accordingly.
I. INTRODUCTION

A. Background

1.01 Laos is one of the poorest nations in the world. Its poverty is at least partly the result of geographical factors. The country is land-locked and sparsely populated. Its population of somewhat over 3 million is spread over an area of nearly 240,000 sq km. Except for a strip of varying width along the Mekong River, much of the land is mountainous. Thus, transport within the country, as well as between the country and the sea, is costly and difficult. The country is overwhelmingly rural, and the small dispersed market impedes the realization of economies of scale in production. While vast forestry, mineral and hydro-power resources have been identified, exploiting especially the latter two would require large investments including considerable infrastructure development.

1.02 From a sociopolitical point of view, Laos has also not been fortunate. Its economic structure is the product of centuries of weak government and foreign domination. In the fourteenth century, the Kingdom of Laos comprised an area that encompassed not only the Laos of today, but also much of northeastern Thailand and the southwestern part of Yunnan Province of China. During most of the ensuing five centuries, Laos was subjugated and plundered by its various neighbors. At the turn of the twentieth century, the country was colonized by France. During the colonial period (which ended with Laos' independence in 1952), Laos received few investment or social benefits. More recently, Laos suffered from war, which stretched with some interruptions for nearly three decades and left in its wake not only physical destruction, but also profound structural distortions in the predominantly agricultural economy. As a result, the country is now severely deficient not only in investment resources, foreign exchange and skilled manpower, but even in food and other basic necessities.

1.03 Since the signing on September 14, 1973, of the Vientiane Peace Accord, Laos has undergone political and social changes which have major implications for the future course of its socioeconomic development. In April 1974, the Provisional Government of National Union (PGNU) was established bringing the former adversaries into a short-lived coalition. Although formally a national government seated in the capital city of Vientiane, PGNU's mandate extended only over the territory that had been controlled by the former Vientiane Government before the armistice. The rest of the country, with about three-quarters of the territory but only a third of the population, continued to be administered by the Neo Lao Hak Sat (NLHS) from its wartime headquarters in Sam Neua. Soon after the changes of government in neighboring South Vietnam and Cambodia in the spring of 1975, the year-old coalition in Laos began to weaken. Finally, the Prime Minister resigned, the King abdicated and on December 2, 1975, a National Congress of People's Representatives proclaimed the formation of the Lao People's Democratic Republic, thereby abolishing the PGNU and the monarchy. The present Government's principal objective is the socialist transformation of Lao society.
B. Outline of the Report

1.04 The last Bank economic report entitled Some Findings Relative to the Reconstruction and Economic Development of Laos, Report No. 668a-LA, (hereafter referred to as the 1975 Economic Report), was issued on April 4, 1975. The mission which prepared that report visited Laos when the PGNU was in power and was unable to travel in the former NLHS zone. Its report identified the priority post-war reconstruction and development needs of Laos. Since the change in Government, most studies of Laos have focused on either a particular sector or region of the country. See, for example: Société d'études pour le développement économique et social (SEDES), Perspectives d'industrialisation (en six volumes), Paris, juillet 1977; International Development Center of Japan (IDCJ), Laos: The Reconstruction and Development Programming Technical Assistance Project in the Vientiane Plain (in Two Volumes), July 1977; and Swedish International Development Agency (SIDA), The Forestry Sector in Vientiane Province, February 1978.

1.05 There has been no attempt until now to study the structure and organization of the new economic system which has been evolving since the establishment of the Republic. This report, prepared by an economic mission which visited Laos in June 1978, focuses on Laos' development constraints and priorities as well as on the institutional and management aspects of the restructuring of the economy along socialist lines. The Mission was able to travel in the northern, central and southern parts of the country, visiting the cities of Vientiane and Pakse and, for the first time, the Plain of Jars in the Xieng Khuong Province as well as the Boloven Plateau in the South. The mission had discussions with representatives of the following government agencies: Ministries of Agriculture, Industry and Commerce, Finance, Public Works and Transport, Education, Health, Foreign Affairs, the National Bank of Laos, Bank for External Trade, the National Planning Committee, Import-Export Corporation and the provincial administrative authorities in the areas visited.

1.06 Information on the Lao economy is primarily qualitative and sketchy. Few records on the economy were kept during the war period or during the period of political transition (1975/76). Macro-economic figures are almost non-existent. Moreover, for over two decades the country was de facto divided, with a capitalist system prevailing in one part and a predominantly socialist system in another part of the country. Consequently, even in those cases where records were kept, there are difficulties in reconciling different data bases. The Government is, therefore, reluctant to release figures pertaining to the period before the establishment of the Republic. Given these data limitations, it is impossible to draw a reliable picture of changes in the structure of the economy over the last decade or so. In some cases, it is even difficult to provide a satisfactory description of the current situation in the different sectors because the authorities have only recently
begun systematically to collect the most basic statistics. Under these circumstances, the objective of this report is to provide a descriptive framework of the economy, while using quantitative information — wherever available — primarily for illustrative purposes. However, the reader is cautioned against too much reliance on the figures contained in the report. In most cases, these are no more than rough estimates prepared either by the Lao authorities or by the Mission.

1.07 The outline of the report is as follows. The next chapter focuses on the present situation of the economy. It describes the distortions wrought by the long war, discusses the Government's immediate efforts to deal with them, presents mission estimates of national income and attempts to assess the situation in the major sectors of the economy. Chapter III examines some key issues relative to the evolving planning and management system. Chapter IV analyzes the country's objectives and prospects in the context of the Interim Three-Year Development Plan, 1978-80 and discusses problems of longer term development strategy for Laos. Detailed descriptions of the evolving planning and management system, as well as the current situation in the productive and social sectors are presented in annexes.

II. PROFILE OF THE LAO ECONOMY

2.01 The structural distortions and dislocations caused by the long conflict - artificial urbanization, abandonment of productive agricultural lands and unbalanced industrialization - still dominate the Lao economy as it begins to recover from a period of severe difficulty which followed the end of the war and the establishment of the Republic. Compounding the structural problems is an acute shortage of qualified cadres caused in part by the exodus of large numbers of trained personnel since the transfer of power to the NLHS. The Government's aim is to deal with these problems as rapidly as possible while at the same time restructuring and developing the economy along socialist lines. Many steps have already been taken in that direction, including the settlement of a large part of the idle urban population on new or abandoned land. As a result, Laos is moving from a service-oriented economy based on aid receipts in the direction of one whose structure reflects the country's internal resource potential and is more geared to long-term development needs.

A. Consequences of the War

Structural Distortions

2.02 In the rural areas, the war damaged some of the most productive lands, resulted in the killing of tens of thousands of draft animals and caused the displacement, mostly involuntary, of 400,000-700,000 persons or up to a quarter of the rural population. Moreover, wartime exigencies severely restricted public investments in the agricultural sector. As a result of these developments, agricultural production did not keep pace with population growth, and Laos became a food-deficit country, importing about 15% of its annual rice requirements in recent years, basically to feed the urban population.
2.03 The displacement of the rural population led to artificial urbanization and a decline in per capita output. Moreover, public resources were diverted to feed hundreds of thousands of refugees in the urban areas. Economic activity in the urban areas, which were almost entirely in the former Vientiane zone, was mainly geared to servicing the needs of the large expatriate community, the small wealthy section of the Lao population and the Royal Lao Army, and had little development impact on the economy as a whole. The major source of urban income was foreign aid, which, until mid-1975, had enabled the urban population to enjoy an artificial prosperity, substantially above the standard that could have been supported by the country's internal output and capacity to import.

2.04 Bilateral aid programs and the Foreign Exchange Operations Fund (FEOF), which was set up in 1964 by a group of donors /1 under the auspices of the IMF, financed the entire current account deficit (about a quarter of the GNP in the early 1970s), and nearly 80% of the budgetary expenditures in the former Vientiane zone. Although external assistance played a key role in maintaining financial and price stability for a decade, it perpetuated foreign dependence and retarded the development of an indigenous revenue base. Moreover, because this assistance primarily financed urban consumption and sizable capital exports, it did little to improve the productive capacity of the country or develop exports.

**Post-war Difficulties /2**

2.05 The financial and price stability of the war period began to weaken soon after the armistice and the establishment of PGNU. Foreign-financed, war-related expenditures declined rapidly, eliminating a major source of income in the economy; the withering of PGNU and the establishment of the Republic accentuated the problem. The drastic reduction in foreign aid receipts /3 combined with internal and external political developments led to: (a) a sharp decline in modern sector economic activity; (b) the elimination of a major part of the services sector; (c) severe urban unemployment; and (d) a sudden drop in the standard of living of the highly consumption-oriented urban areas.

2.06 Faced with a serious food shortage and unemployment in the urban areas, the Government launched a food distribution program at low subsidized prices to prevent starvation. In addition, the Government began a massive program to resettle displaced persons./4 The subsidies, combined with the

\[1\] Australia, France, Japan, United Kingdom and United States.

\[2\] A more detailed description of postwar events is in Annex I.

\[3\] Although commitments of project aid (primarily from socialist countries) increased in this period, net foreign inflows dropped sharply due to the withdrawal of import financing support and other activities financed directly by the former major donors.

\[4\] This is described in more detail in paras. 2.19-2.23 below.
cost of resettlement and the maintenance of minimum services, led to large budget deficits, which were financed by the banking system. Supply shortages and monetary expansion drove up prices on the free market. The official exchange rate became unrealistic as the currency depreciated rapidly on the free market, reflecting both severe inflation and substantial capital flight. In June 1976, to control this inflation, the Government demonetized the former Vientiane Kip (K) and replaced it with the Kip de libération (KL), which circulated in the former NLHS Zone, and at the same time devalued the KL by nearly 70% vis-à-vis the US dollar. However, the effect of these increases was short-lived. In the second half of 1976, the money supply still expanded by 170%.

2.07 Since early 1977, the Government has progressively introduced a number of measures to increase supplies, improve budget discipline, reduce public enterprise deficits and thus control monetary expansion. As a result, monetary expansion fell to 33% in 1977, and 23% (annual rate) in the first half of 1978, and inflation slowed down considerably. Although the disastrous end-1977 harvest again threatened to cause severe food shortages and rising prices, timely response of the world community to an international food aid appeal assured reasonable food supplies in 1978. The rising trend in free market prices reversed in mid-1978 and prices of several commodities actually declined in the latter half of the year. However, major flooding has damaged the 1978 crop and unless the world community responds promptly again, the food situation is again likely to become serious in 1979. The balance of payments situation remains weak, but the expected overall deficit in 1979 should be covered with the help of about $11 million obtained from the IMF through a purchase in the first credit tranche and a trust fund loan. In May 1978, the Government adjusted the exchange rate by another 50% (from KL 200/$ to KL 400/$). As part of a stabilization program agreed with the IMF, it is also taking additional measures, including price incentives, to stimulate production and exports, reduce unemployment and stabilize prices.

2.08 It is impossible to measure accurately the adverse impact of the recent high rate of free market inflation on real incomes of the population. However, it must be remembered that there is an official market, serving most of the urban and some of the rural population, where prices have remained stable even though supplies are irregular and extremely limited. Free market prices are also much lower in most of the country than in the major towns. Those primarily affected by the higher prices are the urban population in the former Vientiane zone, which accounts for 10% of the population. The rural areas, which remain largely outside the monetized sector, were generally shielded from these developments. Indeed, a large part of the population — those in the rural areas affected or displaced by the war — has benefited immeasurably from the cessation of organized hostilities.

B. The Present Level and Structure of Production, Incomes and Expenditures

2.09 With the war and its aftermath now gradually receding into the past, economic stabilization largely accomplished, resettlement of the displaced population well on its way, and the new system to plan and manage the economy mostly in place (see Chapter III), Laos is now turning to the herculean task of developing its economy. One of the main obstacles to development planning
is that little is known about the structure of the economy and the inter-
relationships between its different sectors. If planning is to be effective, there is clearly a high-priority need to improve the planners' information on the basic structure and needs of the economy, and the changes therein over time. To make at least a beginning in fulfilling this need, the Mission has made an attempt to estimate the 1977 level and structure of production, incomes and expenditures of the Lao economy. Given the high level of aggregation of the estimates and the large number of as yet unverifiable assumptions on which they had to be based, their usefulness is still limited. Much more work will be needed to develop the statistical basis for a useful planning system. This is further discussed in Chapter III below. The following paragraphs summarize the Mission's work in this area. A more detailed description of methodology and techniques is given in Annex II.

2.10 Table 1 summarizes the Mission's estimates of the 1977 GNP by industrial origin. The estimates come to about KL 79 billion, or about KL 24,500 per capita. However, weatherwise 1977 was not a normal year, as the drought severely damaged the paddy crop. With average weather, the value added in paddy production would have been about 45% higher. This would also have led to higher activity in the rest of the economy, and as a result the "normal" level of Laos' GNP can be estimated at about KL 86 billion, or about KL 27,000 per capita. At the official exchange rate of 1977 (KL 200/$) this would come to US$135 per capita. Since then, however, the official exchange rate has been adjusted to KL 400/$. At the average exchange rate of 1977/78 (KL 300/$), the "normal" level of Laos' GNP would come to US$90 per capita.

2.11 Table 1 also shows the structure of production. Over 60% of the GNP is estimated to originate in agriculture, and less than 5% in manufacturing and mining. Within manufacturing, about three-fourths of the value added is in activities which hardly qualify as manufacturing in the usual sense: rice milling, the rural production of charcoal and Lao Lao (local whiskey), handicraft and cottage industry. The also relatively low share of trade and transport (by international comparison) reflects the large proportion of pure subsistence farmers in Laos, as well as the fact that Laos' trade and transport margins, as determined by the Government, are probably too low to pay for these activities.

2.12 The above structural characteristics of the Lao economy are generally associated with a low level of economic development. Indeed the economy, which the present Government inherited and which it is now attempting to improve as speedily as possible, belongs to the least developed in the world. This also follows from an assessment of the absolute level of per capita income. Such an assessment can most easily be made through a comparison with Northeast Thailand, a relatively backward region of that country, which is geographically similar to the Southern part of Laos. In relative terms, the crop subsector (the backbone of both economies) is significantly smaller in Northeast Thailand than in Laos. Other sectors which are relatively

/1 Earlier estimates, the details of which were not made available to the Mission, were made by Soviet statistical advisers. These follow the Gross Material Balance method, rather than the UN system of National Accounts followed by the Mission.
Table 1: ESTIMATE OF 1977 GNP BY INDUSTRIAL ORIGIN

<table>
<thead>
<tr>
<th></th>
<th>Actual Total (billion KL)</th>
<th>Actual Per capita (’000 KL)</th>
<th>With normal weather /a Total (billion KL)</th>
<th>With normal weather /a Per capita (’000 KL)</th>
<th>Structure (% of total)</th>
</tr>
</thead>
<tbody>
<tr>
<td>Paddy</td>
<td>14.5</td>
<td>4.5</td>
<td>21.2</td>
<td>6.6</td>
<td>24.5</td>
</tr>
<tr>
<td>Other crops</td>
<td>18.2</td>
<td>5.7</td>
<td>18.2</td>
<td>5.7</td>
<td>21.1</td>
</tr>
<tr>
<td>Animal husbandry</td>
<td>12.4</td>
<td>3.9</td>
<td>12.4</td>
<td>3.9</td>
<td>14.4</td>
</tr>
<tr>
<td>Fisheries</td>
<td>1.3</td>
<td>0.4</td>
<td>1.3</td>
<td>0.4</td>
<td>1.6</td>
</tr>
<tr>
<td>Forestry</td>
<td>0.7</td>
<td>0.2</td>
<td>0.7</td>
<td>0.2</td>
<td>0.8</td>
</tr>
<tr>
<td></td>
<td></td>
<td></td>
<td><strong>Subtotal agriculture</strong></td>
<td><strong>53.8</strong></td>
<td><strong>62.3</strong></td>
</tr>
<tr>
<td></td>
<td><strong>47.1</strong></td>
<td><strong>14.7</strong></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Mining</td>
<td>0.2</td>
<td>0.1</td>
<td>0.2</td>
<td>0.1</td>
<td>0.3</td>
</tr>
<tr>
<td>Manufacturing</td>
<td>2.8</td>
<td>0.9</td>
<td>3.1</td>
<td>1.0</td>
<td>3.5</td>
</tr>
<tr>
<td>Construction</td>
<td>7.3</td>
<td>2.3</td>
<td>7.3</td>
<td>2.3</td>
<td>8.4</td>
</tr>
<tr>
<td>Utilities</td>
<td>1.0</td>
<td>0.3</td>
<td>1.0</td>
<td>0.3</td>
<td>1.2</td>
</tr>
<tr>
<td></td>
<td></td>
<td></td>
<td><strong>Subtotal industry</strong></td>
<td><strong>11.6</strong></td>
<td><strong>13.4</strong></td>
</tr>
<tr>
<td></td>
<td><strong>11.3</strong></td>
<td><strong>3.6</strong></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Trade, transport, communication</td>
<td>6.2</td>
<td>2.0</td>
<td>6.7</td>
<td>2.1</td>
<td>7.7</td>
</tr>
<tr>
<td>General government</td>
<td>7.8</td>
<td>2.4</td>
<td>7.8</td>
<td>2.4</td>
<td>9.1</td>
</tr>
<tr>
<td>Other services</td>
<td>6.2</td>
<td>1.9</td>
<td>6.5</td>
<td>2.0</td>
<td>7.5</td>
</tr>
<tr>
<td></td>
<td></td>
<td></td>
<td><strong>Subtotal services</strong></td>
<td><strong>21.0</strong></td>
<td><strong>24.3</strong></td>
</tr>
<tr>
<td></td>
<td><strong>20.2</strong></td>
<td><strong>6.3</strong></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Total</td>
<td>78.6</td>
<td>24.6</td>
<td>86.4</td>
<td>27.0</td>
<td>100.0</td>
</tr>
</tbody>
</table>

/a With normal weather, the paddy crop would have been substantially larger, and this would have led to increased activity in manufacturing (rice milling), transport, trade and services.

larger in Laos are construction (due to post-war reconstruction) and Government (Northeast Thailand does not need to support a central government). Conversely, Northeast Thailand has a relatively higher production level in manufacturing, and private services, including trade and transport. In nominal terms, the per capita GNP in Northeast Thailand is about one sixth higher than in Laos. However, the price of rice, the staple food, was in 1977 substantially higher in Laos than in Northeast Thailand./1 Taking this factor into account, and assuming that most other prices are related to the rice price, the real per capita national income was probably not more than half of that in Northeast Thailand.

/1 After the 1978 devaluation, however, the price in Laos, expressed in US$, is now lower.
2.13 The above assessment, however rough, has severe implications for the level of socio-economic welfare in Laos. In 1976, it is estimated that 36% of the population of Northeast Thailand was absolutely poor. In 1962, when average incomes were some 40% lower, the poverty incidence was over 70%. On a level 50% lower, as currently in Laos, nearly everybody would then be in poverty. Using a slightly different approach: the absolute poverty line (i.e. the income at which basic human needs can just be fulfilled) in rural Thailand is now estimated at B 1,800, while the average per capita income is B 3,140. If the average real income in Laos is now about half that in Northeast Thailand (or equivalent to less than B 1,600), the average per capita national income in Laos (let alone private consumption) is lower than the poverty line. Thus, the incidence of poverty in Laos must be extremely high even if the incomes are evenly distributed. These comparisons clearly underline the enormous development task with which the new Government is confronted.

2.14 For a general assessment of the Lao economy it is important to know not only how the national income is created, but also how it is used. Data on this are even scarcer than those on the origin of the GNP. Table 2 summarizes the Mission’s best estimates. It appears that in 1977 there was a surplus of imports over exports equal to about 19% of GNP, mainly financed by foreign assistance in various forms. Thus, the country was able to use about 19% more goods and services than it currently produced. Roughly, this 19% addition was spent for investment, leaving the country able to consume what it produced. Of this consumption, about 27% was done by the Government, leaving 73% available for private use.

Table 2: ESTIMATE OF AVAILABILITY AND DISPOSITION OF RESOURCES, 1977

<table>
<thead>
<tr>
<th></th>
<th>Billions of KL</th>
<th>% of GNP</th>
</tr>
</thead>
<tbody>
<tr>
<td>GNP</td>
<td>78.6</td>
<td>100.0</td>
</tr>
<tr>
<td>Import surplus /a</td>
<td>15.0</td>
<td>19.1</td>
</tr>
<tr>
<td>Total available resources</td>
<td>93.6</td>
<td>119.1</td>
</tr>
<tr>
<td>Investments</td>
<td>15.0</td>
<td>19.1</td>
</tr>
<tr>
<td>Consumption</td>
<td></td>
<td>100.0</td>
</tr>
<tr>
<td>of which: public</td>
<td>78.6</td>
<td>26.7</td>
</tr>
<tr>
<td></td>
<td>21.0</td>
<td></td>
</tr>
<tr>
<td>private (residual)</td>
<td>57.6</td>
<td>73.3</td>
</tr>
</tbody>
</table>

/a At the official 1977 exchange of KL 200 per US$. Some government documents already value the US$ at KL 400 in 1977, even though this exchange rate was officially adopted only in May, 1978.

/1 Thailand: Toward a Development Strategy of Full Participation; Basic Economic Report, IBRD, September 1, 1978.
2.15 It thus appears that in 1977 Laos had no national savings, and that the country was fully dependent on the outside world to finance its development needs. This is what one would expect for a country as poor as Laos. It underlines the large and complex task the Government is facing in steering Laos gradually on to a path of self-sustaining growth. It also indicates the country's great need for continued and generous foreign assistance in the difficult period ahead.

C. Major Sectors: Structure and Development Constraints

2.16 Given the general structure of the economy as described above, this section focuses on the major issues in the main sectors in some detail and describes the Government's efforts to deal with these issues. Supporting information is provided in a number of annexes to this report.

Agriculture and Rural Development /1

2.17 General. Approximately four-fifths of the population derives the bulk of its income from agriculture. The sector currently accounts for more than 60% of the national product and for a comparable percentage of export earnings (in the form of timber and coffee). It also provides the basis for Laos' agro-industries such as saw mills, rice mills and wood processing factories.

2.18 Most agricultural production in Laos is by small cultivators, tilling about 2 ha of land to which they have customary settler and cultivation rights. Recently a number of cooperative and state farms have also been established in accordance with Government's policy of introducing socialist production methods. Most cultivators produce glutinous rice, the staple food, on 650,000-700,000 ha (or about three-quarters of the cultivated area), of which nearly two thirds consist of lowland permanent and semipermanent paddy fields and the other third of upland soils under slash-and-burn techniques of cultivation. Less than 10% of the paddy area is irrigated and double cropping is practiced on less than 2% of the area planted. Paddy production is, therefore, dependent upon wet season rainfall (June-November), which is unreliable and often insufficient, and cropping intensity is low (40%-50%). In addition, excessive flooding, interspersed with periodic drought, often destroys a substantial portion of the wet season crop. Where precipitation is low and unreliable, the returns to modern inputs are low and farmers have developed a low input, low risk system of traditional-rice cultivation. Consequently, rainfed paddy yields, estimated at an average of 1.3 ton/ha on lowland areas and about 0.9 ton/ha on upland soils, are among the lowest in Asia. These low

/1 Available information on the agricultural sector is still qualitative and sketchy. To improve the data base, the Ministry of Agriculture and the provincial authorities have in the past two years begun collecting some basic statistics. Most of these data are being collected unsystematically and are probably unreliable. The authorities are planning a sample survey in 1979. Aerial photography also needs to be considered.
yields, together with the abandonment of part of the land during the war, have caused Laos to become more and more dependent on food imports to feed its population.

2.19 Resettlement. To deal with the problem of food deficits as well as that of unemployment in the cities, the Government has mounted an extremely ambitious resettlement program, thus combining underutilized land and labor. The underemployed labor consists of: (a) persons displaced by the war who live in conditions which do not allow them to produce enough for their needs; (b) demobilized elements of the armed forces of both sides of the civil conflict; and (c) that portion of the urban population which earned a living from the large service sector during the war and is now unemployed. The Government has made remarkable progress in resettling this underutilized manpower, mainly on agricultural lands abandoned or destroyed during the war. By the end of 1977, the Government had resettled nearly 400,000 persons, and another 150,000 are to be resettled in 1978/79.

2.20 Displaced persons are interviewed by resettlement authorities, and may elect to be resettled either in their former villages, or on lands within the province where they currently live; most have chosen to be resettled in their former villages. Upon resettlement, each family is provided with a package of agricultural and building tools, some supplies to construct temporary shelter as well as food until the first crop is harvested. Initially, a Government appointed administrative committee is responsible for village administration and the establishment of a cooperative. Eventually villagers elect their own administrators. In addition to constructing the family house, the settlers participate in the construction of community wide infrastructure such as a school, a cooperative store and a meeting hall.

2.21 Nearly 100,000 from those who elected to return to their former lands have so far been resettled on the Plain of Jars and other parts of the Xieng Khuong Province, which was one of the areas most severely affected by the war. In this area, which was visited by the mission, villages consist of some 30-50 houses neatly lining a center square. Behind each house there is a private plot of about 150 square meters. In areas that were resettled two-three years ago elected committees are already administering the village, production is organized into cooperatives and there are schools and sanitary facilities. Although life seems normal, numerous craters dotting the landscape as well as the nearby paddy fields are a reminder of a war which to these settlers is dangerously close in space. Remaining ordnance from the war still claims hundreds of victims as the settlers attempt to bring their land, which has been left fallow for years, back into cultivation.

/1 The United Nations High Commissioner for Refugees (UNHCR) has provided nearly $15 million since 1974 in support of resettlement costs, construction of dispensaries and schools as well as medicine and medical equipment.

/2 Many have also been resettled in the provinces of Saravane, Attapeu and Champassak.
2.22 Many of these villages are still not self-sufficient in paddy production due primarily to the serious shortage of draught power. In some villages, nearly the whole buffalo herd was killed during the war. In addition, rural roads and irrigation infrastructure are inadequate and there is a shortage of land clearing equipment, seeds, medicines and agricultural tools. Foreign assistance is urgently needed to: (a) purchase buffaloes for distribution among the resettled population; (b) procure tractors to clear additional land, which due to the existence of unexploded ordnance cannot be done manually; and (c) finance a rural development program consisting of rural infrastructure, land development and provision of inputs to farmers.

2.23 The largest concentration of displaced persons who have elected to remain in their present general area is in the Vientiane Province. These are being resettled on lands served by newly constructed irrigation schemes. The Government is also resettling the demobilized elements of the armed forces and other unemployed on state farms and plantations producing primarily feed and industrial crops (maize, coffee, etc.) Finally, as part of a long-term policy to improve agricultural productivity, the authorities provide special tax and credit incentives to encourage the hill tribesmen who are traditionally shifting cultivators to move to permanent paddy fields and adopt settled farming practices.

2.24 General Agricultural Potential. In addition to the special opportunities available through resettlement, the basic potential for agricultural development in Laos is generally good. The ratio of cultivable land to population is relatively high. Large tracts of land are being newly settled, resettled or rehabilitated and the best use of scarce financial and human resources in the short run is probably to speed up this process, for example through accelerated provision (and improved servicing) of tractors. Yields are low and only a fraction of cultivable area (less than 10%) is irrigated. Thus, there is considerable potential to improve yields in the short and medium term through increased supplies of inputs and rehabilitation or new construction of small irrigation and flood control works. Specifically on irrigation, the many valleys and the plains of Laos are served by thousands of permanent streams, which can make a significant contribution to irrigated agriculture at a very modest cost. Minor dams or simple pumping structures and diversion weirs can provide an assured water supply during the wet season and, in some cases, even dry season, thus reducing the uncertainty of main crop production and allowing the cultivation of a second crop. A project

/1 Four major schemes (Nam Houn, Nam Souong, Nam Cheng and Nam Moun) are being developed covering nearly 20,000 ha of irrigated land. Construction is mainly through labor-intensive methods. In addition, the OPEC Special Fund is financing $5 million in equipment.

/2 The Government is preparing a nationwide master plan for the development of small irrigation schemes.
including these types of activities in the Vientiane Plain is being financed by IDA./1

2.25 The Government is giving high priority to programs to improve agricultural productivity. In 1977, a mass, locally financed campaign was launched to construct irrigation infrastructure in the major deficit areas through primarily labor intensive methods. Hundreds of kilometers of canals, three medium sized (concrete) and about 250 small (earth) dams and nearly 25 kilometers of flood control earth dikes were constructed and considerable numbers rehabilitated. In addition, about 70 small and medium-sized irrigation pumps, supplied by foreign donors, were installed. These activities will bring assured supply of water over 23,000 additional ha and flood protection to another 9,000 ha. Moreover, 400 tons of improved seeds were distributed, 10,000 ha of land were cleared, 9,000 ha of abandoned paddy fields rehabilitated and 6,200 families encouraged to abandon shifting cultivation and adopt settled agriculture. Similar activities on a larger scale have been undertaken in 1978.

2.26 Although agriculture is still predominantly labor-intensive, a number of state farms and cooperatives have been established and are being mechanized. According to the authorities, nearly 200 tractors (financed with assistance from Soviet Union, Sweden and UNHCR) were distributed in 1977; another 100 were planned for distribution in 1978. In this connection, it is necessary, for example, to ensure that supporting services such as extension advice, facilities to repair agricultural machinery and qualified technicians are available. There is also an urgent need for facilities to repair the growing number of irrigation pumps (an additional 250 are planned in 1979/80). Many pumps appear to be idle from want of repair facilities. Given the dispersed location of these pumps, mobile repair units would appear most appropriate. The World Council of Churches and others have already provided more than 100 pumps and other donors would serve the country well by providing these repair facilities together with additional irrigation pumps./2

2.27 Overall Development Constraints. The war retarded expansion of cultivated area and inhibited improvements in productivity over the last two decades. Present constraints to agricultural development on a national scale are: (a) the lack of feasibility studies on which to base development projects; (b) the shortage of qualified and experienced staff to prepare and manage development projects; (c) inadequate institutions for extension, farm inputs and credit delivery (see para. 3.20 below); (d) poor land communications./1

/1 Given the country’s shortage of investment, foreign exchange and trained manpower resources (see Chapter IV) such small irrigation and flood control schemes, which are simple and quick to build at low per hectare investment costs, are now more appropriate to the needs of the country than larger, more capital-intensive projects.

/2 Where the density of demand is sufficient, consideration may be given to the early electrification of selected rural areas (see para. 2.60 below).
in the rural areas (see para. 2.57 below); (e) inadequate price incentives (pricing policies are discussed in paras. 3.43-3.47 below); and (f) weak marketing arrangements.

2.28 At present, paddy, maize and export crops must be marketed through a state marketing system. The system is not fully developed yet and does not have sufficient collection and distribution outlets. The Government is taking steps to improve the situation. There is also an urgent need to increase the availability of consumer goods in the rural areas to provide incentives to farmers to expand production. At present, the official distribution system does not appear to reach the rural areas and farmers often have to travel long distances to the towns or administrative centers to procure on the free market at high prices the many basic consumables. As an interim measure, before the distribution system is fully developed, consideration needs to be given to a mobile distribution system which would bring basic goods (kerosene, soap, textiles, agricultural tools, medicines, and cooking utensils, etc.) to the rural areas, especially at the time of the harvest. Even with improved distribution, the main problem for some time will be the shortage of these goods to be distributed, given the insufficient availability of foreign exchange. At the margin, the Government should, however, consider carefully whether using scarce foreign exchange for popular consumer goods to provide incentives may not be more productive than the import of more investment goods.

2.29 Paddy. 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 main assumptions are described in Annex III. After allowing some 12% for losses, seeds and other uses, the total amount of paddy available for human consumption is probably in the range of 650,000-750,000 tons, or (assuming a milling yield of 60%), 400,000-450,000 tons of rice. Assuming an annual per capita human consumption of 160-170 kg and an estimated population of about 3.2 million, total rice demand in 1977 would have been in the range of

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/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 These figures are in line with per capita consumption in Northeast Thailand where production and consumption patterns are similar to those in Laos. See also Annex III, Table 2 for estimates of caloric intake.

/3 The official population estimate in 1977 is 3.45 million. This figure is based on the official population estimate of 1962 which is assumed to have increased by 2.4% p.a. Even assuming that the 1962 figure was a reliable estimate, the growth rate in the past 2-3 years appears on the high side because some 7% of the population have reportedly left the country since 1975: 100,000 from among the hill tribes; 100,000 from among the minority ethnic groups (primarily of Chinese origin); and another 50,000 from among the urban population. Accordingly, the official estimate has been adjusted downward by 250,000 to 3.2 million. The latter figure is used throughout this report.
525,000-550,000 tons. Therefore, in a normal year, Laos has an apparent rice deficit of about 100,000 tons. Import requirements are in fact higher (probably on the order of 125,000 tons) because the southern provinces produce an overall surplus (about 25,000 tons in a normal year), which, due to transport difficulties, however, do not supply the deficit provinces in the north and most likely "leak" from the economy through relatively high storage losses /1 and unrecorded border transactions. In recent years, annual recorded imports (commodity aid and official commercial imports) have averaged about 100,000 tons. If all of the above estimates are correct, this implies that either additional amounts on the order of 25,000 tons may be imported privately, or annual per capita human consumption is below 160-170 kg.

2.30 Adverse weather conditions have seriously affected the last two paddy harvests. The 1977 paddy harvest (in November/December) fell sharply below the plan target due to the disastrous drought, which in some provinces wiped out nearly half of the crop. After allowing for losses, rice availability for human consumption in 1978 was down to 290,000 tons (or less than 90 kg per capita). Large-scale famine was averted as international assistance brought in nearly 120,000 tons of rice and cereals and the Government mounted a successful mass campaign to plant substitute food crops. Rice availability including imports in 1978 (estimated at about 120-130 kg/capita) was considerably below the average requirements of 160-170 kg/capita and as a result, the Government was forced to reduce rice rations. /2 Although reliable data are lacking, the general impression is that the daily food intake in Laos is less than the normal daily caloric requirement. Major flooding reduced the 1978 crop below the normal year levels. In addition, the floods caused considerable damage to rural infrastructure and livestock. International aid is again urgently needed to avert a serious food shortage in 1979 as well as to rehabilitate infrastructure and replace draft animals and seeds for the next cropping season.

2.31 With population growing at about 2.5% p.a. nearly 80,000 additional people would have to be fed every year, implying additional paddy production of about 26,000 tons a year. By 1980, 1-1.2 million tons of paddy will be required to meet human consumption demand at 160-170 kg/capita (after allowing for losses and other uses). This means that an increase of about 50% over the 1977 (normal year) production level will be necessary if imports are to be eliminated and the additional population fed.

/1 Given the general lack of proper storage facilities, losses account for a higher percentage of the paddy crop in the surplus areas compared with deficit areas where post-harvest stocks are depleted more rapidly.

/2 Following the 1977 drought, monthly rations of glutinous rice were reduced from 30 kg to 24 kg per adult, and in mid-1978, they were reduced further to 15 kg of regular (imported) rice. In late 1978, rations were further cut to 13 kg.
2.32 Animal Protein. From a nutritional point of view, the second most important need, after rice, is animal protein. At present, there is also a major shortage in meat production. Livestock weaning rates are generally low due to low genetic potential, poor quality of feed, and widespread occurrence of debilitating diseases.\footnote{1} In addition, during the war thousands of head of livestock, buffalo in particular, were destroyed. Pig production is far below the level required to meet demand for pork (a favorite in the local diet), particularly in the urban areas. Consequently, protein intake appears relatively low. The overall nutrition situation is weak. According to the World Health Organization, malnutrition is probably most severe among children, particularly those below school age.\footnote{2}

2.33 While the country's livestock subsector has the potential for rapid expansion, its development is seriously constrained by a shortage of breeding stock and animal feed. To encourage private livestock operators, the authorities intend to arrange contracts with farmers whereby the Government would provide them with breeding stock \footnote{3} and animal feed, and purchase fattened animals from farmers. The success of this program will depend on the attractiveness of the relative prices of inputs and fattened animals. The authorities also plan to establish state livestock farms.

2.34 Fish is not an important component of the Lao diet. Although fishing is currently a minor activity, the Government is encouraging the development of fish ponds to increase the supply of fish protein.\footnote{4} During the wet season, the many bomb craters in the countryside are suitable spawning grounds and are increasingly being used for this purpose.

2.35 Other Crops. With regard to the other agricultural subsectors, which are less immediately basic from a nutritional point of view, many parts of Laos are or may be suitable for growing feed crops \footnote{5} (primarily maize and soya) as well as industrial crops such as coffee, tea, cotton, tobacco, pyrethrum, silk and fruit trees. One such area is the Boloven

\footnote{1} National data on livestock production are sketchy (see Table 3.3 of the Statistical Appendix). Most farmers raise buffalo as draft animals, and have one or two pigs and 10-20 poultry.

\footnote{2} This problem is aggravated by the existence of at least 60,000 war orphans and abandoned children, or about 4% of the population under 14 years of age. The Government is handling the serious social problem through special projects with assistance from the World Food Program.

\footnote{3} A project to produce piglets for distribution to farmers is under implementation with IDA assistance.

\footnote{4} A fishpond development project is under implementation with assistance from the Netherlands.

\footnote{5} A strain of "nitrogenous grass" has been introduced in Northeast Thailand. The possibilities of its introduction into Laos need to be studied.
Plateau, which traverses parts of the provinces of Champassak, Saravane and Khamouane in the South at an average altitude of 800 m. See Table 3.2 in the Statistical Appendix for production figures of major crops.

2.36 Maize, the most important feed crop, is grown on about 25,000 ha in different parts of the country and production is of the order of 30,000-40,000 tons. The Government recognizes the urgency of increasing feed crop production and is taking important steps in this regard. Inadequate price incentive has been an important constraint to increasing maize production. In 1977, the official farmgate price of maize was increased from KL 17/kg to KL 22/kg and the authorities are considering a further upward adjustment.

2.37 Coffee and rubber were first introduced in Laos during the colonial period. Many coffee and some rubber plantations, almost all concentrated on the Boloven Plateau, were either damaged or abandoned during the war years, and for many years replanting was neglected. Before the war, 6,000 ha were planted under coffee. Nearly two-thirds of the area was subsequently abandoned or destroyed. Most of the abandoned plantations have recently been rehabilitated; however, yields are low (about half a ton/ha) as about two-thirds of the plants are approaching the end of their productive life. Although growers prefer planting the robusta variety because it requires less maintenance, the Government is promoting the arabica variety and expects, in the long run, to convert all coffee production to arabica. In 1977, coffee production was about 3,100 tons, of which about 1,500 tons were exported, earning $3.7 million. To encourage replanting, the authorities increased the average procurement price of coffee in 1976 from KL 120/kg to KL 200/kg; another increase is under consideration. In addition, price differentials linked to a grading system for each variety need to be introduced to improve the quality of coffee for export.

2.38 In the short run, the immediate priority is to improve the quality of processed coffee, thereby increasing export earnings (see section on industry below). There is also great potential to increase production in the future through replanting of existing and establishment of new plantations. The Government is establishing experimental stations which would develop improved strains for replanting by private growers who would be encouraged to join cooperatives. In addition, through the establishment of state coffee

/1 A modern feed mill, under construction with French and German assistance, should be completed in early 1979. In addition, maize development projects are being prepared; one of these, located in Vientiane Province, is being considered for possible financing by IDA.

/2 Old rubber plantations have been completely abandoned because the trees are no longer productive. Given the favorable long-term world price for rubber, this subsector could be developed for export in the future. The Government is planning to establish an experimental station in the next couple of years. However, the fairly long gestation period of rubber trees is a factor to be considered.
plantations, the Government also plans to bring an additional 3,000 ha (or 50% increase over existing area) under cultivation by 1980. Bulgaria has already agreed to study the establishment of one such plantation. If technical assistance can be obtained to plan and implement sound projects, coffee plantation development could follow the immediate need to rehabilitate the coffee processing industry. To the extent that coffee plantation would compete for resources with food production programs, the latter would appear to command higher priority given the Government's objective to achieve self-sufficiency in food production. Thus, it may be more appropriate to use the limited numbers of tractors to develop newly resettled paddy fields than to clear land for coffee plantation development.

2.39 The main constraints to expanding coffee plantations are the lack of equipment to clear land as well as the shortage of qualified managers to run large state farms and, to a lesser extent, of labor. An appropriate plantation development strategy needs to be developed based on a careful study of the existing financial, skilled manpower, and managerial constraints. The central issue is whether Laos should follow capital-intensive methods or a more balanced strategy combining modern technology and labor-intensive techniques. Although the use of machinery for initial land clearing is probably justified, mechanized weeding, for example, may not be appropriate at this stage. Moreover, due to the shortage of technicians, considerable external technical assistance would be required to make proper use of machinery and to manage the plantations efficiently.

2.40 A number of other factors should be carefully considered in designing coffee development projects in the Boloven Plateau. First, because of the lack of managerial experience in plantation development, it is appropriate to establish initially nuclea farms of say 100-200 ha and gradually expand them to say 500-1,000 ha. Secondly, adequate infrastructure development should be included, since rural roads and other facilities in the area are inadequate. Thirdly, existing processing equipment is obsolete and appropriate new equipment would need to be installed to process the expanded production. A related consideration is the electric power requirements of processing plants. At present, there is only a small hydroelectric plant (100 KW) at Paksong, operating at half capacity due to war damage.

2.41 Finally, the issue of manpower availability should be closely reviewed because it could be the determining factor in deciding on an appropriate strategy as discussed in para. 2.39 above. According to the authorities, existing private plantations require 4 workers/ha. The authorities estimate that 2 workers/ha would be sufficient on large state farms; this means 6,000 additional workers (or 2,000-3,000 families) would be required to operate 3,000 ha of newly established state farms. As explained earlier, the Government's policy is to resettle the urban unemployed on these state farms. The main sources of such labor are the cities of Pakse and Paksong (total population of about 50,000). Since some unemployed in these areas have already been resettled on about 6 state farms (on about 1,000 ha producing coffee, livestock and vegetables), careful planning will be required to identify additional sources of labor.
2.42 In the early 1970s, cotton was grown on about 6,000 ha with an estimated seed-cotton production of 3,000 tons. However, area and consequently production has steadily declined (3,200 ha and 2,400 tons in 1977) due to poor marketing arrangements and lack of proper organizations for seed and insecticide distribution. Since Laos has no ginning mills, seed cotton is exported to Thailand, while at the same time textiles and cotton yarn for the cottage industry are imported. The Government has plans to expand the area under cotton to 5,500 ha by 1980. Expansion of cotton production may be justified not only by itself but also because it may provide a foundation for establishing ginning mills, and subsequently spinning mills and garment factories as well as oil extraction plants to supply domestic needs and save foreign exchange. However, a careful assessment is necessary because cotton cultivation is complex and dependent on very specific climatological conditions. A cotton industry will have to be of a minimum size if it is to be efficient, otherwise it may waste rather than save foreign exchange.

Forestry

2.43 Forests are one of Laos' main sources of wealth. Although it is estimated that forests cover 40-50% of the country's total area, it is difficult to estimate forest potential in the absence of an accurate national forest inventory of the species and exploitable area. Timber production and wood export (logs and sawn timber) earnings have declined steadily since 1974, dropping from 350,000 cu m to 80,000 cu m and from $12-14 mn to $1.5 mn respectively in 1977 due primarily to the lack of equipment and fuel, inadequate price incentives, weak management of wood processing industries, internal marketing difficulties and border problems with Thailand.

2.44 In the short and medium term, timber and wood products are Laos' most promising foreign exchange earner. An integrated plan for forest exploitation is urgently needed to coordinate upstream (logging) and downstream (wood processing) activities (see para. 3.04 below). The first priority is to resume exploitation of surveyed forests and to remove the various raw material, managerial and marketing constraints facing the logging and wood processing industries. Several projects to survey and exploit timber resources in various regions are under study for early implementation with foreign assistance. Although these regional surveys are useful in the short run, they should not in any way be viewed as a substitute for a national inventory which is urgently needed. Moreover, since considerable logging and road building equipment and machinery has recently been provided, primarily by Sweden, and more is in the pipeline, prompt and careful attention needs to be given to the organizational, marketing, management and maintenance aspects of the logging and wood processing industries.

/1 See the SEDES report for a detailed elaboration of the potential for the vertical integration of the cotton growing and the spinning, weaving and textile industries.

/2 Only a small portion of the production was exported in 1977.

/3 A project to improve logging and wood processing activities in Vientiane province is to be implemented with ADB assistance.
2.45 If the internal constraints are overcome, there are favorable prospects for rapid expansion of wood exports following the recent trade agreement with Thailand. Exports of the order of 250,000–300,000 cu m a year (similar to the volumes exported annually in the early seventies) are clearly within grasp. To maximize its earnings, however, Laos would need better market information, particularly on international timber prices since, in the past, unit export prices of Lao timber were at times as low as one-third the price of similar wood exported by neighbouring countries. A technical assistance project recently proposed by the International Trade Center could form the basis for establishing a wood export center which would on the one hand advise the industry on international quality standards and on the other obtain better price and market information.

Industry

2.46 The industrial sector in Laos is still at an early stage of development. Mining and manufacturing account for less than 5% of the GNP and employ fewer than 10,000 people. Except for rice mills, sawmills and a few wood processing factories utilizing domestic raw materials and producing for export, most industries established during the war: (a) produce simple consumer goods; (b) rely heavily on imported raw materials; (c) are relatively capital-intensive given the country's level of development; and (d) have a very low value added component.

2.47 Average capacity utilization in 1977 was estimated at about 30%, 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, the lack of binding contracts governing the transactions between enterprises has frequently caused bottlenecks in the production process. Finally, in the case of sawmills and rice mills, much of the installed machinery and equipment was sabotaged and cannibalized by the former owners before they fled the country.

2.48 The immediate priority in the industrial sector is to rehabilitate selected existing plant and machinery by: (a) securing the necessary technical assistance and (b) allocating foreign exchange for imports of raw materials

/1 Although part of the reason was the poor quality of sawing, as well as the high cost of transport through Thailand, nevertheless, the differentials were striking. For details see Part Two, Volume IV of the 1975 Economic Report.

/2 See Annex IV for a more detailed description of the industrial sector, as well as the industries which may be rehabilitated and developed in the short and medium term. See also the SEDES report, which is the most comprehensive study of the industrial sector in Laos and includes pre-feasibility studies of a range of potential industries to be developed in the medium and long term.

/3 Capacity utilization in some industries was as low as 10-15%. The target for 1978 was to raise the average figure to 48% (see Table 4.1 in the Statistical Appendix).
and spare parts. Given the severe foreign exchange constraint and the need to restructure production away from low value added industries, preference needs to be given to industries which earn or save foreign exchange. An industrial rehabilitation project needs to be prepared as soon as possible to investigate which industries (including repair facilities) are promising in this respect. Moreover, foreign donors may serve the country's needs well by allocating part of their aid for the purchase of raw materials and spare parts in short supply.

2.49 Existing rice milling capacity is very inadequate to meet even very modest objectives and will be even more so as paddy production grows in the future. Many rice mills are idle, some due to the lack of spare parts and others because their equipment had been sabotaged. Although some of the missing parts could be manufactured by local machine tool shops, the latter are themselves frequently idle due to shortages of raw materials. A quick disbursing rice mill rehabilitation and expansion project needs to be prepared urgently. See Annex IV, para. 2 for details.

2.50 There is also an urgent need to improve the quality of exported coffee through proper processing and grading. Most of the existing plants are obsolete and pulping is done on the plantations using inappropriate 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 the quality of coffee. With small investments in new coffee processing and sorting plants, Laos could obtain a higher unit price for its coffee and thereby increase export earnings quickly. Additional processing equipment will be required as coffee production and exports expand in the future.

2.51 As explained in an earlier section, Laos has vast timber resources. Development of wood-based industries to process these vast resources for export may, therefore, play a major role in the country's long-term development strategy. Although further feasibility studies are needed, a wide range of potential activities has already been studied in the SEDES report. These include: (a) modern saw mills; (b) plywood and parquet factories; (c) furniture factories; (d) pulp and paper; and other products based on chemical transformation of wood. Some of these industries will probably be too capital-intensive to be considered in the short run.

2.52 In addition to wood processing, industries which should be investigated are: (a) integrated agro-industries which are based on domestic raw materials (e.g., ginning and spinning mills and oil extraction plants utilizing the domestic cotton production; animal feed mills based on maize and

/1 See Annex IV for a detailed list of industries which could be included in a possible rehabilitation project.

/2 The Swedish Government has recently agreed to release $0.5 million from its current aid program to finance imports of chemicals for the detergent factory.
other feed crops, etc.); (b) industries in support of agricultural development (e.g., foundry and agricultural tools manufacturing); and (c) basic consumer goods industries. Finally, Laos may also want to consider developing export industries based on imported raw materials. For example, a number of Southeast Asian countries have been successful in exporting garments.

**Mining Potential**

2.53 Laos is rich in mineral resources. However, given the country's mountainous geography, the economic net value of most of these minerals would inter alia depend on the probably substantial transport costs (including investments for bulk transport) to bring them to a market. If, after these costs are taken into account, exploitation is found to be economically viable, these minerals could provide Laos with the foreign exchange necessary to finance its long-term development programs over the next several decades. At present, only tin is mined for export. In the early 1970s, tin production averaged 1,500 tons of concentrate; however, in 1977, only 600 tons were exported (earning $1.2 million). The Government's objective is to increase production to 2,000 tons in 1980. However, considerable technical assistance and additional investment will be required to rehabilitate and manage the mines. /1

2.54 Iron ore deposits of nearly a billion tons have been identified around two sites in the Xieng Khuong Province. The ore, which could be mined in open pit, compares favorably in quality (60-70% pure iron content) with that mined in Mauritania and Venezuela, and in size with the deposits of Canada, Australia and Mauritania. Prefeasibility studies have been done by SEDES and the Soviet Union is currently carrying out detailed feasibility studies. If exploitation is found to be economically viable, Laos could become the supplier of the best quality iron ore in South Asia primarily for the Japanese market. According to the SEDES study, investment costs necessary to begin exploitation including infrastructure is about $500 million in 1975 prices ($235 million for mining and $265 million for a railroad link to the Port of Vinh in Viet Nam). The same study estimates that if feasibility work is completed by the early 1980s, the mines could be producing 10-15 million tons of ore per annum by 1990. However, it is clear that additional resources have to become available (presumably from the buyers of the ore) to finance these investments, since Laos will not be able to mobilize such resources from its own resources or "normal" foreign assistance.

2.55 In addition to iron ore, large quantities of potash have been identified in the Vientiane Plain. /2 Also, undetermined quantities of the following minerals have been identified: coal (anthracite) around Vang Vieng and Luang Prabang; copper south of Pakse; gypsum near Savanakhet; lead north

/1 The Soviet Union is providing assistance to rehabilitate the tin mines.

/2 In the early 1970s three bore holes were drilled near the Nam Ngum river north of Vientiane. The results confirmed the existence of large deposits of potash.
of Vang Vieng; limestone deposits of the order of 20-30 billion tons in the vicinity of Vang Vieng, Thakek and Savanakhet; and manganese around Paklay. Moreover, oil could theoretically be located near Savanakhet.

Transport /1

2.56 Three major factors dominate Laos' transport situation: the country is landlocked, mountainous and sparsely populated. Poor road conditions and long distances make air transport indispensable in Laos. There is a good network of air fields; regular scheduled flights and helicopter flights connect most cities. Although the Mekong River, which flows through or borders Laos over approximately 2,000 km, is a good navigable waterway, border difficulties with Thailand in recent years have greatly hindered river transport over about 1,000 km of the river that forms the border with Thailand./2

2.57 Although with about 0.04 km of road per sq km the road density in Laos is one of the lowest in Asia, overall the national main road network is mostly adequate for the present light traffic volumes, taking into account the sections currently under construction. For the immediate future, road development should be concentrated on: (a) repair, maintenance and upgrading of key stretches to all weather standards; (b) linking the road networks developed in the former two zones; and (c) construction of provincial and secondary roads in the rural areas where commercial traffic is currently all but impossible, particularly during the rainy season. A rural roads program in agricultural surplus areas or in conjunction with major agricultural projects such as coffee development probably deserves high priority because it would help improve the flow of commodities to the major deficit areas and to foreign markets.

2.58 The Government's most important objective in the transport sector is to open alternative links to the sea through Viet Nam. There are two possibilities namely, Route 7 linking Xieng Khuong in the North with the Port of Vinh and Route 9 in the South linking Savanakhet with Danang. The following projects are under implementation or are being considered:

(a) upgrading Route 9 linking Savanakhet with Viet Nam to good allweather gravel standard; under implementation with Swedish and Vietnamese assistance. This project is of high priority since it will open an alternative route to the sea and would also serve as the main link with Viet Nam in the south. The volume of traffic is expected to reach sufficient levels to make the road economically justifiable./3

/1 The transport sector is described in detail in Annex V.

/2 Also, because of the Khon Falls south of Pakse, the Mekong cannot become an outlet for Laos to the sea.

/3 At present most of the trade between Laos and Viet Nam is by costly air transport.
(b) upgrading Route 7, which is the main east-west access road in the North, to all-weather gravel road; section east of Phone Savan to the Viet Nam border is under construction with assistance from Viet Nam and the Soviet Union, but work on the section west (not passable in the wet season) to Route 13 is yet to be started and foreign financing is being sought. This road is also of high priority since it will link the newly resettled areas of the Province to the national road network. More attention, however, needs to be given to secondary and rural roads in conjunction with Route 7.

(c) paving the main north-south axis road (Route 13) along its entire length to a width of 7 m; sections outstanding include Luang Prabang to Nam Ngum (280 km) and Vientiane Savanakhet (500 km) at a total cost of about $60 million. The economic justification of this proposal needs to be investigated in detail given the low volume of traffic and the existence of an alternative mode of transport (the Mekong) along most of route 13 from Vientiane to Pakse; and

(d) upgrading Route 23 in the South to all-weather gravel standards. The economic justification of this road needs to be established.

Power

2.59 Laos is endowed with great hydropower potential. At present, electric power generation and distribution is in the early stage of development. The Nam Ngum hydroelectric complex,1 located 65 km north of Vientiane, supplies more than 90% of the energy generated. Since power demand in the country is much below generating capacity, surplus power is being exported to Thailand. Household usage accounts for the bulk of the internal energy consumption; industrial and agricultural uses are negligible. However, as economic activity revives and more industries are developed, domestic consumption is expected to grow rapidly, limiting power availability for export in the future. For details see Annex VI.

2.60 In the short run there may be an economic justification to expand the distribution system to serve the requirements of agriculture and industry. Rural electrification and extension of transmission lines along main rivers to operate irrigation pumps in areas served by cheap hydroelectric energy will be costly but may save foreign exchange on a net basis if the density of demand is high.2 There are numerous small rivers all over Laos, and particularly in the South, where mini hydropower schemes (less than one MW each)

1 Phase I was commissioned with 30 MW capacity in 1972; with the completion of Phase II in mid 1978, installed capacity was increased to 110 MW. Both phases were financed by a consortium of donors.

2 Prefeasibility studies have already been made for a rural electrification and pumping stations project in the Vientiane Plain and indicate that these are economically justifiable investments. For details see the IDCJ report.
could supply cheap energy at low investment cost to the rural areas. Such schemes have been tried successfully in a number of West African countries. China and Norway apparently manufacture small compact hydroplants which are simple to install and would appear to be ideal for Laos' needs. Feasibility studies are required to establish the economic justification of these schemes compared to diesel generators.

2.61 However, because of the presence in the country of a number of promising hydropower sites, there is a natural temptation to focus on large projects, running into hundreds of millions of dollars which would generate electric power well in excess of the foreseeable needs of Laos (for example, Nam Theun with 2,000 MW capacity and a cost of nearly a half billion dollars). Fascination with such projects, which have an export earning potential, should not overlook the issue of whether these large investments would preempt other, more urgent uses of the limited internal and foreign capital available to Laos./1 The same considerations which were made in the case of mining projects (see para. 2.54 above) apply to hydropower projects as well.

Education /2

2.62 Education in Laos plays an important role in socialist transformation through reshaping the population's cultural values and socio/political attitudes. Upon coming to power, the new Government overhauled the previous education systems prevailing in the former two zones and established a uniform system. Three fundamental principles dominate the new educational philosophy in Laos: the country's development depends on a literate population; education at all levels should inculcate the notion of work and respond to the immediate reconstruction and development needs of the country; and because state resources are limited, education programs require considerable input from the population. Accordingly: (a) basic training would be provided through a five-year primary education cycle for every child as well as an intensive literacy program for adults./3 (b) conventional academic education would be reoriented in favor of practical education that combines both theory and practice in agriculture, handicrafts, animal husbandry and small industry; (c) volunteers would be called upon to instruct both children and adults; and (d) schools would become productive cooperative enterprises which enable pupils to partially satisfy their consumption needs. The Government also places considerable emphasis on vocational training to increase the number of technicians. In addition to expanding the facilities in the country, the authorities are sending students abroad for technical as well as university training.

/1 For a more detailed discussion of this issue see the 1975 Economic Report.

/2 The new education system is described in detail in Annex VII.

/3 The objective is to enable every citizen up to the age of 45 to read and write by 1980.
2.63 According to the authorities, since the establishment of the Republic: enrollments are up 25-100% and more than half a million have participated in the adult literacy program. It is difficult, however, to judge the quality and efficiency of the education program. Although the pupil to teacher ratios are low, the level of training of the teachers is unknown. Similarly, no evaluation has been made as to the permanency of the literacy skills imparted to adults. There is a need for follow-up courses for these adults and a larger distribution of reading matter lest they drift back into illiteracy. Overall, given the country's low literacy level, the shortages of teachers, facilities and financial resources, and the urgent need for better trained manpower, the Government's policy of a minimum basic education in the shortest time for maximum number of people appears to make sense. Nevertheless, more attention needs to be given to the quality of education so that the next generation is capable of handling the more complex development tasks of the future.

Health /1

2.64 Malnutrition, unsafe drinking water combined with endemic diseases such as malaria, dysentery, tuberculosis, respiratory infections and leprosy as well as shortages of health care facilities and medicines have produced a serious health situation which affects the most vulnerable elements of the population namely, preschool children, pregnant women and old people. Although reliable information for the whole country is unavailable, recent survey information indicates that infant mortality could be above 200 /2 per thousand and the rate of mortality among children under 4 years as high as 20-25 per thousand. Therefore, only two out of three children reach the age of four. The crude death rate (22.8 per thousand) is high and life expectancy at birth (about 40 years) one of the lowest in Asia.

2.65 The Government is determined to improve the current poor health and nutrition standards and has, in the past two years, instituted a new health care system based on the principles of preventive medicine and provision of basic health services to the whole population. In some cases, temporary hospitals have been built to meet the basic health care needs. Although quality of health care is still very inadequate and medicines are in short supply, nevertheless, some health services have for the first time been made available to a large segment of the rural population. A five-year health plan has also been developed. However, given the financial resource constraint and the lack of training facilities, the targets appear quite ambitious. For details see Annex VII.

/1 For a description of the present health care system in Laos, see Annex VII.

/2 A survey of villages around Vientiane found an infant mortality rate of 283 per thousand. This is apparently due to the very unsafe quality of drinking water. If this level were indicative of the country average, it would be much higher than in any other country in the world.
III. ISSUES RELATIVE TO THE EVOLVING PLANNING AND MANAGEMENT SYSTEM

Introduction

3.01 The Government's basic objective is to guide the country step by step towards socialism while simultaneously developing the economy. Public ownership of the means of production will be the cornerstone of the future economic system. Thus, in addition to the related development problems described in the previous chapter, Laos faces a formidable challenge in creating appropriate institutions and machinery for effective socialist economic management.\(^1\) Substantial progress has already been made. In less than three years since the establishment of the Republic, a new decentralized administrative and institutional structure is emerging. A planning and management system has also been evolved and is being progressively introduced.\(^2\) These are impressive achievements for a young republic emerging from decades of conflict and facing an acute shortage of food and trained manpower as well as the difficult problems of consolidating the socialist revolution and preserving political independence. However, a number of issues relative to the evolving planning and management system are emerging which require careful attention as the country embarks on the path to socialist reconstruction and development.

The Emerging Administrative Structure: Problems of Coordination

3.02 The fundamental elements of Laos' present administrative and institutional arrangements were adopted by the National Congress of People's Representatives in December 1975 (for details, see Annex VIII). The highest governing body in Laos is the Supreme People's Assembly (SPA) which has the power to legislate and approve the Government's policies and programs. The President of the SPA is also the Head of State. The Council of Ministers 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 12 ministries and of the National Planning Committee, the Nationalities Committee, the National Bank as well as four members of the Prime Minister's office who hold ministerial ranks. There are twelve provinces (Khueng) whose administrative committees are directly responsible to the Prime Minister's Office. Each Khueng is divided into districts (Muong) which are in turn divided into subdistricts (Tasseng). Each of these

\(^1\) The management issues identified in this chapter are closely related to the sectoral problems discussed in Chapter II. In fact, these managerial problems are an important constraint to the development of some subsectors, manufacturing in particular.

\(^2\) Planning in a socialist economy is essentially concerned with the question of what and how to produce and who is to consume what. Management is the collorary to planning - that is, it comprises the totality of instruments (administrative guidelines as well as monetary, credit, pricing and marketing policies) which regulate production and consumption in accordance with the directions given in the Plan.
units have elected People's Assemblies. However, the day-to-day administration is the responsibility of an administrative committee at each level chosen from among the members of the People's Assembly.

3.03 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 set by the Central Government. The latter, through its various economic ministries and agencies, directly manages economic activities that require centralized management (e.g., electric power and communications) or at present are beyond the technical and managerial capacity of local authorities. The long-term objective is to transfer more direct management responsibility to the local authorities as their technical and managerial capacity improves.

3.04 A number of aspects of the still evolving administrative system need to be reviewed with the aim of improving the coordination of policies and exchange of information between the central ministries on the one hand and between the single ministries and the local authorities on the other. First, at present, related activities within some subsectors are managed by different ministries, and there is not always adequate consultation. For example, in the forestry subsector, the upstream (logging) and downstream (wood processing) operations have been handled by the Ministries of Agriculture and Industry respectively. This has led to conflicting policies which have in part contributed to the decline in the output of the logging and wood processing industries (see para. 2.44 above). In an important step towards the development of an integrated plan for forest exploitation, the Government has recently decided to transfer all activities in this sector to the Ministry of Agriculture. Similar measures are needed to coordinate activities in other subsectors, such as rice milling and animal feed production.

3.05 Second, similar coordination problems exist in the management of the external assistance programs in Laos where a number of ministries are involved: the Ministry of Foreign Affairs (aid from international organizations), Ministry of Industry and Commerce (commodity aid), National Planning Committee (resettlement aid and assistance from socialist countries), and Ministry of Public Works (transportation projects). Very often these ministries are unaware of the content of the various assistance programs handled by other ministries. Moreover, it appears that no single agency is effectively coordinating all aid programs. Since foreign assistance accounts for the bulk of budgetary resources, it is essential that one central agency is clearly designated to coordinate all aid programs. This function could logically rest with the Department of International Assistance in the National Planning Committee, which currently handles only a few of the programs. This would lead to more rational distribution of foreign assistance in accordance with the sectoral priorities set out in the development plan.

/1 Rice bran (by-product of the rice mill industry) is an important ingredient in the production of mixed animal feed and it is, therefore, essential to follow complementary policies with respect to rice milling and feed production.
Finally, the procedures governing the relationship between the ministries and the provincial authorities on development matters need to be reviewed to ensure that locally administered activities are technically sound and fit the overall sectoral development priorities. At present, the local authorities liaise directly with the Prime Minister's Office on administrative matters and the National Planning Committee on development (project) matters, with the ministries providing technical assistance service to the local authorities upon the latter's request. Since the technical capacity of the local authorities is still not fully developed, it would be desirable for the ministries to screen (for technical feasibility and sectoral justification) the development projects proposed by the local authorities before these are submitted to the central planning authorities. Similarly, it would be desirable for ministries to advise the Ministry of Finance on the timing of disbursements for locally administered development projects to ensure that the activities for which disbursements are being made are ready for implementation.

Planning Effectiveness

Central planning provides the basis for producing and distributing the national product in the socialist economy which the Government wishes to create in Laos. In theory, if central planning is to provide an effective foundation for all economic activity it should be precise and detailed. To do this the planning authority requires clearly defined planning procedures and access to the most detailed and comprehensive information possible. Although, in the brief period since the new Republic was created, Laos has made good progress in elaborating planning procedures (for details, see Annex IX), considerable additional steps are needed to improve planning as the economic system becomes more complex.

At present, the main constraint to effective planning is the lack of cadres with a thorough grounding in the theoretical principles and experiences in the practical management of a centrally planned economy. The situation is expected to improve, however, as a number of Lao students complete their training abroad (mostly in socialist countries) and return in the next few years. Nonetheless, some intensive courses in the practice of central planning are urgently needed for the existing senior cadres.

Another important constraint is the lack of basic data. Although the Lao economy is relatively simple, the planning organization does not yet have access to the variety of detailed data which are essential if it is to ensure that plans are sound and internally consistent (i.e., take into account interrelationships between factors of production, external trade, accumulation and consumption) and that critical bottlenecks do not arise. A major effort is needed to improve the data system.

Therefore, as long as the country faces an acute technical manpower constraint, it may be desirable to follow less centralized planning. It may

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The planning authority could conceivably perform this function itself but, at present, it does not have the necessary expertise.
also be prudent to build into the management system some flexibility by allowing the managers of enterprises greater initiative in solving their supply problems (see para. 3.30 below). Furthermore, in the future, it would be desirable not to rely too much on statistics collected administratively by the Ministries and local authorities. More reliable data need to be derived from properly conducted sample surveys. A centrally-planned system depends for its success on building up a reliable input-output matrix which may be used to calculate material balances for each subsector (see Annex II, Section A). There is also a need to strengthen the planning units within the central ministries and the provincial administrations.

Financial Management /1

3.11 Laos is in the early stages of developing financial instruments to support the evolving central planning and management system. The budget is the basic instrument for distributing the national product between consumption and accumulation. A central banking system has also been created to handle the monetary and credit aspects of economic management.

3.12 Budgetary process. Laos went without transition from colonial dependence into war and, as a result, has not had the opportunity to develop budgetary practices suitable to the peacetime development needs of an independent country. In the past, the Government budget in the former Vientiane zone reflected only the operations for which actual cash payments were made or received; foreign expenditures directly made in Laos were not reflected in the budget. Immediately following the establishment of the Republic, short-term management of the economy was neglected and the Government operated without a formal budget through 1976— an important contributing factor to the financial instability of that period. Since 1977, a basic budgetary framework has been evolved, but detailed procedures are yet to be worked out. This work should be regarded as the highest priority.

3.13 In theory, the budget is the financial reflection of the plan. So far, however, the link between the plan and the budget has not been fully established and the budget is the more comprehensive in coverage. 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. Comprehensive procedures ensuring a close linkage between planning and budgeting need to be elaborated urgently to ensure efficient management of public resources. 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.

3.14 Since, at present, the revenues collected by the provincial authorities cover only a fraction of locally administered expenditures, the

/1 The financial management system including the budgetary process, the banking system and credit delivery is described in detail in Annex X.
Budget Committee /1 plays a major role in allocating central revenues and counterpart funds of external assistance between current and capital expenditures on the one hand and between central and provincial authorities on the other. Given the Government's intention to decentralize administration and allow local authorities considerable initiative in managing their affairs, it would be desirable to allow the provincial authorities to have a greater say than at present in determining their expenditure priorities in the future. In addition, it would be desirable to include provincial representatives on the Budget Committee.

3.15 Revenues. Laos' domestic revenues are limited due to the country's low level of income and difficulties in tax administration. The most important feature of the budget is its dependence on foreign support (mainly in the form of project credits, commodity aid and cash grants), which in 1977-78 accounted for about 80% of total revenues. Nearly half of the project aid is in the form of technical assistance, primarily from socialist countries. Since the establishment of the Republic, the Government has introduced new taxes and instituted major reforms /2 designed to simplify the tax system and improve tax administration.

3.16 The most important domestic revenue source (60% of domestic revenues in 1977-78) is the contribution from state enterprises, which must turn over their surpluses to the budget. At present, many enterprises are unable to generate surpluses due to underutilization of capacity; however, as production revives under improved management and raw material supplies, budget contributions from state enterprises should increase considerably in the future. The Government is reviewing the procedures governing financial transfers to and from state enterprises with a view to reducing delays and increasing accountability./3

3.17 The most important tax is the agricultural production tax. This tax is applied to all crops and is collected in kind and valued in terms of paddy equivalent at 8% to 30% of the estimated annual output under normal weather conditions /4 (not actual production) and after allowing for various exemptions designed to provide incentives for intensive cultivation and cooperative farming. In fact, because of the special assessment procedures,

/1 Composed of the Minister of Finance and senior representatives of the National Planning Committee, the National Bank and the Ministry of Industry and Commerce.

/2 The main features of the reforms are: more progressive rates, simplified classification, abolition of some former taxes, and replacement of specific taxes by ad valorem taxes.

/3 The authorities have recently issued strict guidelines to the state enterprises to turn over their taxes and profits to the budget without delay.

/4 On the basis of area planted and average yield in the village over the previous three years.
the tax presents a much lighter burden on the producer than expected (see Appendix in Annex X for details). First, the tax is more of a fixed land tax than a production tax in that the increment between the estimated and actual output is not subject to tax. Therefore, even though the marginal tax rates are relatively high, the tax is not a disincentive to increasing production. Secondly, the tax is assessed on the average taxable product per family member. Finally, if, due to poor weather, production falls below the normal level, the tax is adjusted downward accordingly. Two successive poor harvests since its introduction in late 1976 as well as problems of administration have limited the proceeds of this tax to less than 1% of the estimated GNP (or about 4% of the total paddy production in 1977). However, once the full potential of this tax is harnessed, it is expected to provide substantial tax revenues (about 5% of GNP).

3.18 Among the more important non-agricultural taxes are: (a) the turnover tax /1 applied to all products not subject to the agricultural tax; (b) income and profits taxes; and (c) customs duties. Although these taxes have a potential to yield revenues equivalent to about 10-15% of GNP, they currently contribute less than 5% of GNP, due primarily to the low level of economic activity and problems of tax administration. However, tax administration is expected to improve as detailed procedures are elaborated and local authorities gain experience in tax assessment and collection.

3.19 Expenditures. In the absence of detailed breakdowns, it is difficult to interpret the structure of state expenditures in Laos. Nevertheless, the following observations can be made (see table below). First, total expenditures, which in 1977 were about half of GNP, /2 are divided roughly evenly between recurrent and development outlays. Second, a large portion of the civilian recurrent expenditures consists of an accounting subsidy equivalent to the difference between the value of commodities at border prices (at the official exchange rate) and the official internal retail prices of the commodities. In a sense, a clearer picture of the budget would be obtained if these subsidies were netted out of taxes so as to indicate the net tax and subsidy burden on the domestic economy. Third, three large foreign financed projects (Nam Ngum Phase II, /3 Vientiane Water Supply and the Feed Mill), account for approximately a third of foreign financed development expenditures. Activities in the transport sector, financed by the Soviet Union, Viet Nam and Sweden, account for the bulk of the balance of the foreign financed development expenditures. /4 Finally,

/1 Included in the ex-factory price. See also Annex XI, paras. 6-7.

/2 The figures for 1977 in Table 3 are not directly comparable with those in Table 2, because foreign aid is valued differently.

/3 See para. 2.59 above.

/4 Development expenditures may, in addition to capital, include some related recurrent expenditures. Furthermore, the level of development expenditures may be overstated since it is unclear how the large technical assistance component is valued.
the emphasis in locally financed development expenditures is clearly on
agriculture; the latter accounts for over half of the total, while transport,
industry and the social sectors make up the other half in similar proportions.

Table 3: STATE BUDGET, 1977-78 /a
(in billions of KL)

<table>
<thead>
<tr>
<th></th>
<th>1977</th>
<th>1978</th>
</tr>
</thead>
<tbody>
<tr>
<td>Total Revenue</td>
<td>43.9</td>
<td>61.8</td>
</tr>
<tr>
<td>Domestic receipts</td>
<td>8.2</td>
<td>11.5</td>
</tr>
<tr>
<td>External assistance</td>
<td>35.7</td>
<td>50.3</td>
</tr>
<tr>
<td>Project aid /b</td>
<td>(23.6)</td>
<td>(30.4)</td>
</tr>
<tr>
<td>Commodity aid and grants</td>
<td>(12.1)</td>
<td>(19.9)</td>
</tr>
<tr>
<td>Total Expenditures</td>
<td>49.0</td>
<td>65.6</td>
</tr>
<tr>
<td>Recurrent expenditures</td>
<td>22.5</td>
<td>29.2</td>
</tr>
<tr>
<td>Development expenditures /c</td>
<td>26.5</td>
<td>35.4</td>
</tr>
<tr>
<td>Externally financed /d</td>
<td>(23.6)</td>
<td>(30.4)</td>
</tr>
<tr>
<td>Locally financed</td>
<td>(2.9 )</td>
<td>(5.0 )</td>
</tr>
<tr>
<td>Deficit Financed by the National Bank of Laos</td>
<td>5.1</td>
<td>3.8</td>
</tr>
</tbody>
</table>

/a Foreign assistance and externally financed development expenditures are valued at KL 400/$. See also table in Annex X for details.

/b Includes, in addition to financing for large projects like Nam Ngum, machinery and equipment as well as technical assistance not related to specific projects.

/c May include, in addition to capital expenditures, some recurrent expenditures.

d Includes considerable outlays for technical assistance.

Source: Ministry of Finance

3.20 Banking and Credit. Monetary and credit policies play a limited role in Laos because first, the banking system is not yet well developed; and second, a considerable portion of the economic activity in the rural areas is outside the monetized sector. The present banking system comprises the National Bank of Laos (NBL) and its subsidiaries, which were established by statute in December 1975 (see Annex X for details). At present, there is at
least one branch per province. The long-term objective is to facilitate the distribution of credit and to mobilize savings by establishing branches in each district.\footnote{As an interim step, the NBL has established small offices (Bureaux d'Annexe) in the administrative centers of a number of districts. In the remaining districts there is at least one Administrative Committee employee, trained by the NBL, who acts as an agent in the acceptance of savings and in passing on credit applications to the provincial branch.}

3.21 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. Current interest rates, which are under review, are 3-6% in agriculture and 6-12% in industry and commerce. In the case of industry, almost all credit is for short term working capital. Very little development credit is currently being made available, as investments are mostly being financed directly by the budget. The opposite is the case in agriculture; 90% of agricultural credit is medium term for land clearing, the purchase of buffaloes, seeds, tools, etc.

3.22 There is an urgent need to train cadres in order to expand the credit delivery system. There is also a need to increase savings, which at present are very low. The Government has a number of measures under consideration, and is taking a pragmatic approach to credit policies. Finally, it would be useful to consider a gradual move towards associating a cost to the use of capital by economic units to ensure more efficient resource allocation policies in the future (see also para. 3.28 below).

Managerial Efficiency

3.23 Since the establishment of the Republic, the broad outline of a state enterprise management system has been evolved, consistent with a centrally planned economy, and is being progressively introduced (for details see Annex XI). 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.

3.24 So far the Government has had only limited experience in the management of a centrally planned system. Since the number of enterprises is small and their operations are mostly relatively simple, the system does not yet have to cope with the more complex management problems confronting the more industrialized socialist countries. Nevertheless, it appears that problems related to the change in management and organization of enterprises has affected the performance of many industries, sawmills in particular (see para. 2.43-2.47 above). Under the present planning/management system, the managers of most enterprises have little control over production decisions or the flow of funds in their enterprises but are typically responsible for meeting the physical targets in the Plan; in many respects state enterprises are virtually Government departments.
3.25 The Government is considering a number of reforms of the present system to be implemented in 1979. The first aims at simplifying the procedures by which working capital is made available. At present, half of the working capital requirements are provided through direct budgetary transfers; the balance is financed through the banking system. Under the new proposal, all working capital would be provided by the NBL. The second proposal is to allow enterprises to retain part of their profits to be shared among three funds: (a) Development Fund (50%) /1 to be used for minor modernization of plant and equipment; (b) Social Welfare Fund (25%) to be used for social services to workers such as day care facilities for children; and (c) Workers’ Bonus Fund (25%) for distribution among workers. It is unclear, however, how much autonomy enterprises will have in managing these funds. Moreover, it would appear difficult to link the bonus to the profits generated by an enterprise since these would greatly depend on factors outside the control of either workers or management, such as the availability of inputs and the profit margin allowed by the fixed prices of inputs and outputs (see paras. 3.43-3.47 below on pricing issues).

3.26 The third modification under consideration is a proposal to facilitate greater worker participation in the management of state enterprises by the establishment of workers organizations. This might require the creation of management boards on which the manager, the worker and the Government would be represented. This proposal would be a step towards implementing the Government’s declared objective of encouraging greater involvement of the mass organizations in the development of the economy.

3.27 The Government may wish to consider a number of additional reforms to ensure that the present state enterprise management system in Laos implements the tasks outlined in the plan more efficiently. First, in many cases there is a gap between theory and practice in that managerial procedures elaborated at the policy level are not adequately explained to the enterprises. The circulation of written instructions on the required procedures would greatly help to rectify this situation.

3.28 Second, the system as currently envisaged does not seem to provide an adequate accounting mechanism for ensuring that managers of state enterprises are made aware of the economic costs of different production options, nor has sufficient attention yet been paid to devising mechanisms to encourage higher productivity. Clearly, the intention to establish the bonus, social welfare and development funds for each enterprise as described above is an important and welcome reform to deal with this problem. However, the way these are set up (yet to be decided) will be critical in determining their effectiveness. It would be desirable to give enterprises more independence in managing these funds. In addition, as these changes are progressively implemented and as the banking system becomes better equipped, there will be a need to gradually reduce the share of investment financing through budgetary grants in favor of long term credit from the banking system. Similar resource

/1 The percentage distribution between the three funds given in parentheses is indicative and subject to final review and decision by the Council of Ministers.
allocation policies which associate a cost to the capital provided to enterprises have been adopted in most East European socialist countries over the past decade and are being studied in Viet Nam.

3.29 Third, at present, management of state enterprises is overly centralized. Administrative orders from the central authorities apply to the bulk of the internal operations of enterprises and offer few outlets for initiative or innovativeness to managers. In addition, there is limited scope at present for worker participation in management. The experience of a number of socialist countries, in particular Hungary, Poland and Yugoslavia, suggests that the more enterprises are allowed to function as autonomous units which are judged and rewarded on the basis of performance, the more responsive and responsible managers and workers are likely to be. There is also a need to establish performance criteria which emphasize quality versus fulfillment of physical plan targets. The intention to introduce piece work and develop indices of raw material usage are welcome steps in this regard.

3.30 Finally, current procedures governing the transactions between state enterprises are not binding on the parties and frequently lead to bottlenecks in the system. As discussed in para. 2.47 above, this situation has contributed to the decline in the capacity utilization of main industries. A useful step, which is under consideration, would be to formalize these transactions through written contracts with enforceable penalties which impinge directly on both management and workers. Such contractual arrangements are vital for any decentralized management system. Furthermore, they could lead to more flexible pricing - within the broad guidelines established by the central authorities - insofar as these prices are an outcome of negotiated contracts between suppliers and purchasers. Finally, prices determined in the above fashion would probably better reflect the economic cost and scarcities of the goods and services in question (see also paras. 3.43-3.45 below).

Private Sector

3.31 The private sector is likely to retain only a minor role in the evolving management system in Laos. In the agricultural sector, the Government's objective is to promote collective ownership of the means of production. Collectivization of agriculture is discussed in a later section. The Government has also nationalized industries of strategic and national importance, with compensation being determined on a case by case basis following negotiations with owners. In addition, the state has taken over without compensation the enterprises of those who have fled the country. In accordance with the Government's policy of socialization of the means of production, private entrepreneurs have been given three alternatives: sell their enterprises to the state, enter into a joint enterprise with the state, or continue operating, but within the framework of the new socialist system - purchasing all inputs from and selling all output to the state trading enterprises at official prices and in quantities determined by the Ministry of Commerce and Industry. In respect of joint enterprises (sociétés mixtes) the Government has fixed its minimum participation at 51% of the equity in the case of foreign investors and 75% for joint ventures with local entrepreneurs.
3.32 Private enterprises are required by the Government to operate in much the same way as state enterprises, submitting each year a budget and production plan to the Ministry of Commerce and Industry for approval. This plan must indicate inputs needed (including imported raw materials, intermediate goods, machinery and spare parts) and would specify the output. On the basis of the budget of the enterprise as adjusted by the Ministry, the latter calculates the official purchase price of the output, which includes a small profit margin. The actual margin may be increased in practice by a lowering of costs through the more efficient operation of the enterprise than assumed in the calculations of the Ministry. Some enterprises have incurred losses, however, because the required inputs have not been supplied by the State on time. The system could be improved considerably (in the same way as proposed in para. 3.30 above for state enterprises) by instituting a practice of legally enforceable contracts, which would commit both the private enterprise and the state supplying and purchasing agencies to adhere to the approved and agreed production plan, or meet the cost of any default.

Foreign Investment

3.33 The Government has expressed interest in attracting new foreign investment. At present, the Government's approach is to negotiate an investment agreement on a case by case basis. The success of this policy will depend on establishing a record which gives confidence to the investing public, but this, by definition, will inevitably take time. There is an urgent need for an early formulation of an investment code with proper incentives to encourage foreign investment. Initially, new foreign investment is likely to be mainly in the field of forestry where Laos has a valuable product that may be processed at relatively low cost. Another field where private foreign investors might usefully be brought in would be the rehabilitation and management of some of the enterprises that have been abandoned by their owners. In the 1980's foreign investment could be used to exploit the country's vast mineral resources and to establish other industries which require outside technical expertise. The key to success is to devise arrangements that adequately reassures the investor, and provide an internationally competitive return to investment without fixing prices at levels which are unfair to Laos. In such contracts, specific reference should be made to the training of nationals in the management and running of the enterprise. The contracts will need to be sufficiently comprehensive to eliminate any doubt on the part of either party as to the precise nature of the operations, of the arrangements for their execution and of the rights and obligations of each party.

Towards Collectivization of Agriculture

3.34 The Government's long term objective in the rural sector is to collectivize agricultural production. At present, most agricultural production is in private ownership. In the future, cooperatives are expected to become

/1 Because of the large resources needed, financing arrangements for the development of mineral and hydro-electric resources would have to be of a special nature (see para. 4.26 below).
the principal form of organization for agricultural production, although state farms are also planned for the production of industrial crops and livestock. The authorities envisage three stages in the development of cooperatives. In the first stage, the principles of joint farming are promoted through the establishment of "farmers associations" or work brigades designed to facilitate the exchange of labor and the sharing of tools and draught power. In the second stage, arrangements are made to cultivate the land collectively and to share the crops in proportion to the days worked by each farmer. The final stage is to convert these farmers' groups into formal agricultural cooperatives operating as collective farms. This may occur in two phases, with some of the land being "rented" from members initially, but eventually all the land is to be communally owned.

3.35 The Government is taking a pragmatic approach and intends to proceed gradually with the establishment of cooperatives starting mainly in areas devastated by the war (primarily in the former NLHS zone) where, according to the authorities, the population is psychologically and ideologically ready to engage in joint farming. According to the authorities, approximately 1,000 cooperatives at various stages of organization have been established. The authorities also estimate that nearly 150,000 people (about 25,000 farm families or some 5% of rural households) are organized in about 400 "final stage" cooperatives. Nearly half of these are located in the provinces of Saravane and Xieng Khuong where many displaced persons have been resettled. The intention is to double the number of these cooperatives by 1980.

3.36 Legislation governing the management of the new agricultural cooperatives was promulgated on May 15, 1978. This law states that the objective of the new form of agricultural cooperative is the modernization of the rural sector by (a) introducing new methods of cultivation; (b) educating and training the peasants, (c) reorganizing the agricultural and forestry systems, and (d) strengthening the links both between town and countryside and between the peasants and the government through improved marketing.

3.37 The principles governing the organization of the cooperatives are the following: (a) participation must be voluntary; (b) reciprocal interests must exist between the members of the cooperative, the cooperative itself and the State; (c) the organization must be democratic, while at the same time stressing the development of the role of collective ownership and control of property; (d) the cooperative must be guided by the policies of the Party and the Government, and (e) production must be organized on a collective basis.

3.38 The regulations governing the management of cooperatives (for details see Annex XII) are to be regarded as provisional, to be modified in the light of experience. Before any changes or additions are made, however, the Government's consent must be obtained. Responsibility for the implementation of the regulations and, more generally, for the supervision of cooperatives rests with the Ministry of Agriculture. For dealings with individual cooperatives the Ministry of Agriculture will normally work through and depend

/1 There are between 50-100 farm families per cooperative.
on the Khueng and Muong Administrations. It is understood (although no mention of this is made in the law) that primary responsibility for organizing and controlling cooperatives will be with the Muong agricultural service once they are adequately staffed. At present, however, the Khueng are taking the main initiatives often dealing directly with the farmers.

3.39 At present the Ministry of Agriculture has not included in its internal organization any department specifically concerned with the promotion of cooperatives. Indeed, a number of cooperatives have come under the direction of the Ministry of the Interior, mostly as a result of the latter Ministry's involvement in the resettlement of displaced persons. The Government is taking steps to strengthen the Ministry of Agriculture's capability in this field.

3.40 Laos has a low population density and there is an abundance of cultivable land. Therefore, there is good potential for resettlement through the formation of cooperatives (particularly among those farmers who were displaced by war), provided that farmers can be shown that collectivization offers an opportunity to better their lives. Since there is not much landlordism - the few warlords in the southern provinces have fled the country and their lands have been expropriated - Laos does not have to cope with the very difficult problems of land reform and distribution as in some other countries. Ownership of draught animals is also relatively even - except for regional disparities arising from the destruction of livestock in some areas (e.g., Xieng Khuong Province) during the war.

3.41 Collectivization of labor, on the other hand, may pose some difficulties unless the farmers clearly perceive an opportunity to improve the quality of their lives through collective agriculture. Therefore, to ensure the successful implementation of the collectivization program, the Government would have to follow policies which would maximize incentives to farmers who join cooperatives.

3.42 It would be prudent to implement the policy of collectivization of agriculture through the establishment of cooperatives at a pace compatible with the capacity of the administration to provide the necessary technical and management support. This is necessary so as to avoid a drop in agricultural output such as occurred in a number of socialist countries in the past and, most recently in Tanzania as a result of the creation of ujamaa villages. It must also be stressed that farmers can only be expected to expand their surplus production of paddy if the incentives are adequate. At present the producer price is too low and, in any event, consumer goods at official prices are frequently unavailable. As a first step, there is an urgent need to increase the availability of basic consumer goods in the rural areas at official prices through the state distribution system (see para. 2.28 above).

/1 At present, there is a serious shortage of cadres who would have to explain the details of cooperative management and provide guidance in running the cooperatives.
Pricing Policies /1

3.43 In Laos, pricing policy is one of the instruments used to regulate production and consumption in accordance with the directives in the Plan. In determining prices within this framework, the Government will have to consider the two objectives of equity and efficiency. The efficiency objective stresses the need to have prices reflect the real economic cost and scarcity of these goods and services and thereby facilitate the optimal use of resources in satisfying consumption needs. The equity objective, on the other hand, may put emphasis, for example, on the need to ensure that basic necessities are made available to the population at prices which all can afford. If these prices are then kept below the production and distribution costs of the goods in question, the need for subsidy would arise. To the extent that the above considerations give conflicting signals to the planners, the pricing decision would have to reflect a compromise between the needs for equity and efficiency. Efficiency considerations would need to prevail in setting producer prices. For example, farm-gate prices would have to be set at levels which at least cover the production costs and allow a producer margin so as to provide an incentive to the farmer to produce a marketable surplus. Equity considerations may sometimes have to prevail in determining consumer prices. However, it must be realized that giving priority to equity considerations would generally entail a cost to the economy to the extent that resources would not be used optimally.

3.44 A system of administratively determined prices which does not equate supply and demand is only made workable by an administratively controlled rationing system. In the case of enterprises where there are no incentives tied to profits, the prices paid for inputs and the revenues received from sales also serve virtually no function, since the loss or profit is absorbed by the government and depends critically on the prices fixed by the government. To the extent that a profit-based incentive system is introduced, management decisions based on cost or revenue considerations may result in a misallocation of resources since arbitrarily determined prices are likely to provide incorrect signals.

3.45 The above considerations suggest that it may be desirable, even in a centrally planned developing economy, to move in the direction of fixing prices as far as possible to reflect relative scarcities and costs of production. Past experience of some East European socialist countries indicates that as these economies developed they changed their pricing systems to better reflect the relative scarcities and costs of production. Of course, Laos' poverty provides an even stronger incentive to use scarce resources efficiently, so that, with everything else the same, equity considerations should be applied with caution. However, the same poverty argument may make it sometimes imperative to let equity considerations prevail, e.g. to meet basic needs.

/1 The marketing and pricing system is described in detail in Annex XIII.
3.46 So far as basic agricultural commodities are concerned, the present pricing system in Laos is based on the official price of rice (see Table 7.1 in the Statistical Appendix for procurement prices of main commodities). Yet, the internal price of rice bears no obvious relationship to the import parity price not only at an exchange rate closer to the purchasing power parity rate, but also at the official exchange rate.\footnote{Before the recent devaluation, the price of rice was in line with the import price at the official exchange rate. The price of rice has remained unchanged since the devaluation.} However, since the price of rice is the kingpin of the Government's price and wage system, any dramatic change in the former would necessitate a complete restructuring of all prices and salaries. Therefore, it may not be feasible to undertake such a review at this time due to its obvious inflationary and political consequences. Nevertheless, it would be desirable to review the relative prices of a number of key commodities, maize in particular, to encourage their production. In addition, in the case of coffee, a grading system with price differentials needs to be introduced to improve quality and thereby obtain a higher export unit price (see para. 2.50 above).

3.47 In the case of "basic" products, the administered official price does not fully reflect the costs of production (or importation) and distribution.\footnote{A recent study by the Ministry of Industry of Commerce and Industry revealed that in the case of imported goods the retail price of only two out of the 59 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.} So far as non-essential imports are concerned, the present system in Laos is based on border prices, at a relatively overvalued official exchange rate, but generally with too little allowance for marketing and distribution margins.\footnote{As a result of very low margins, the operating costs are subsidized by the budget.} To reflect more accurately the cost to the economy of the distribution system there would seem to be justification in the case of nonessential items at least, for fixing a larger marketing margin between the official retail price and the import parity price. In setting the prices of these goods there is also a need to take into account to a greater extent than at present the scarcity of foreign exchange. Consideration needs to be given to the use of a special exchange rate including an implicit surcharge. It would be useful to undertake a thorough study of the relative prices of the basic commodities using (a) official prices, (b) import parity prices, and (c) estimated prices based on production costs.
IV. TOWARDS SOCIALIST TRANSFORMATION: DEVELOPMENT STRATEGY AND PROSPECTS

4.01 During most of the past three decades, war-time exigencies and insecurity precluded the formulation, let alone the effective pursuit of a long-term development strategy. In the aftermath of the war and the subsequent internal political changes, the new Government focused its attention on the need to consolidate the revolution, establish an administrative apparatus capable of maintaining law and order, mitigate the incidence of extreme hardship for the bulk of the population, and stabilize the economic situation. The country is now, at last, ready for the much delayed task of economic development.

4.02 The Government's long-term aim is to develop the economy while relying as far as possible on the country's own resources, and to guide the country step by step towards socialism. Laos will face difficult development problems in the coming years. Some of these are problems common to most low-income countries—low agricultural productivity, a weak industrial sector and shortages of capital and foreign exchange. Others relate basically to the structural distortions and dislocation wrought by war—artificial urbanization, abandonment of productive agricultural lands and imbalanced industrialization—and to the managerial aspects of socialist transformation as analyzed in the previous chapter.

4.03 There is a need to define a broad development strategy to provide a framework for dealing with these problems over the next decade or so. The following paragraphs first review the objectives and targets of the Interim Three-Year Development Plan, 1978-80, and then discuss the main outlines of a long-term development strategy for Laos. Most of the elements in the development strategy presented are consistent with the Government's basic objectives and programs as defined in the Interim Plan. Others would require consideration in elaborating the First Five-Year Plan, 1981-85, which is to be prepared over the next couple of years.

A. Development Plans

4.04 Long-term planning is just beginning in Laos. The intention is to develop five-year planning supplemented by more specific annual planning. The first five year plan is expected to cover the period 1981-85. In the meantime, the Interim Three Year Development Plan, 1978-80, provides a temporary framework for long-term development strategy and national objectives. Given the data and manpower constraints, the plan is a major achievement. Understandably, however, it has its limitations. It specifies production and other physical targets and identifies some of the projects but does not give the details of the planned investment program project by project. Meanwhile, investment is undertaken within a framework of annual plans; two have been prepared
4.05 The Government has three fundamental political objectives for the period 1978-80. The one which relates directly to the economy is:

"To promote and coordinate socialist transformation with socialist construction; gradually advance socialist production relations in the national economy; incessantly develop and increase production forces; build new technical and material bases; resume food production, restore and develop the economy and culture; stabilize the economic and financial situation, and normalize people's living conditions; and create conditions for vigorously developing the national economy from 1981 onward."/2

4.06 Based on the fundamental objectives, the Interim Plan identifies ten main tasks. The main priority is to transform and develop agriculture and forestry. The role of other sectors is to support agricultural development. The most important tasks which relate directly to economic management are to:

(a) "Restore forestry and agricultural production; lead the country to follow the path of socialist collectivization; rehabilitate the economy; swiftly develop the state marketing network; strengthen the industrial and communications sectors; and advance the state economy to a collective socialist economy;

(b) Strive to ... develop basic construction work, concentrate on developing agricultural and forestry production and on meeting the need for food supplies in the country...; develop industries to serve agriculture and forestry; promote exports in coordination with imports; and build basic conditions for and develop a new structure of the national economy;

(c) Develop transport networks along strategic routes and deep into rural areas; improve and broaden an all-weather road through Viet Nam to the sea;

(d) Increase trade; formulate regulations for organizing and managing the distribution of goods; fully promote the state trade role in

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/1 The three-year plan as well as the 1977 annual plan were prepared 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 experts who attempted to construct an input/output matrix for the economy. The 1978 annual plan was produced without external assistance, but Gosplan experts are again helping prepare the 1979 annual plan.

/2 From a report to the joint session of the Supreme People's Assembly and the Council of Ministers by H. E. Kaysone Phomvihan, Prime Minister, March 2, 1978. Translated.
broadening the circulation of goods; satisfy the need for a balance between currency and goods; and create conditions to ensure the stability of the currency and prices;

(e) Eliminate illiteracy; expand ... public health networks and improve the quality of their services; and

(f) Increase the number and quality of cadres, particularly in key organizations and sectors; strive to provide economic management training for cadres; and formulate economic management procedures in a planned manner;"/1

4.07 The Three Year Plan and the 1978 Annual Plan have also set a number of physical production targets. The most important are food production targets which are summarized in the table below, /2 together with estimates of current production.

Table 4: PRODUCTION OF FOOD CROPS, 1977-80 /a
(in '000 metric tons)

<table>
<thead>
<tr>
<th></th>
<th>1977 Actual</th>
<th>1978 Target</th>
<th>1980 Target</th>
<th>% /c increase</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>Normal year</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Paddy</td>
<td>530</td>
<td>905</td>
<td>1,170</td>
<td>49</td>
</tr>
<tr>
<td>Other food crops:/d</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Gross weight</td>
<td>135</td>
<td>205</td>
<td>290</td>
<td>100</td>
</tr>
<tr>
<td>Paddy equivalent</td>
<td>45</td>
<td>70</td>
<td>100</td>
<td>100</td>
</tr>
<tr>
<td>Total paddy</td>
<td>575</td>
<td>975</td>
<td>1,270</td>
<td>52</td>
</tr>
<tr>
<td>equivalent</td>
<td>835</td>
<td></td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

/a Rounded figures.
/b Mission estimates.
/c 1980 over 1977 normal year.
/d Sweet potatoes, cassava and other starchy crops.
/e Conversion ratio of three to one.

Source: Ministry of Agriculture, National Planning Committee and mission estimates.

/1 Ibid.
/2 See also Table 4.1 in the Statistical Appendix for targets in industry and mining.
4.08 The Government’s objective is to make every province self-sufficient in food production by 1980. Given the country’s geography and difficult transport situation as well as the good potential for growing food crops in practically every province, this policy appears sensible. However, in the long-term there is a need to focus on crop diversification and on development of marketing and rural infrastructure to maximize the comparative advantage of the different regions in the country.

4.09 For 1978, paddy production fell short of the Plan target due to the severe flooding during the growing season. If achieved, the 1980 target would make Laos overall self-sufficient in food production. However, achieving this target would require a major expansion in area planted and considerable improvement in yields. These are attainable provided the proposed irrigation projects are implemented, resettlement and land clearing programs are continued and a number of improvements are made in agricultural practices and on-farm management. According to the Ministry of Agriculture these improvements are technically feasible. The detailed assumptions are in Annex III.

4.10 Implementation of the above program will involve substantial investments in irrigation, on-farm development and other infrastructure development as well as considerable improvements in marketing and distribution. However, given the limited number of trained cadres, the country will experience difficulties in preparing and implementing the required development projects. To the extent possible, simple techniques will need to be pursued. The Government has in the past two years demonstrated an impressive capacity to mobilize manpower for labor-intensive projects. Nevertheless, some projects would still require engineering studies and detailed designs and more complex organizational and management arrangements. Therefore, Laos will need substantial technical assistance to help the Government in preparing and implementing its investment program.

4.11 Success in achieving the targets in agriculture would also to a large extent depend on the Government’s willingness to follow pricing policies which would provide incentives to producers. As explained in the preceding chapter, the existing price structure does not appear to be geared to this end and substantial attention needs to be given to adjusting the relative prices of commodities so that they are consistent with the Government’s objectives of promoting the production of certain commodities, food and feed crops in particular.

4.12 Apart from food production, there are two priorities namely, reduction of unemployment and expansion of foreign exchange earnings which would require immediate attention in the remaining two years (1979/80) of the Interim Plan. With the physical resettlement of displaced persons nearly completed, priority would need to be given to activities designed to enable the resettled population to become productive by utilizing the land’s full potential. There is an urgent need to prepare rural development projects including the provision of tractors, draught animals, inputs and irrigation. Foreign financing is critically needed for this purpose. To increase foreign exchange earnings, two activities appear to warrant high priority. First, the expansion of timber exports through the rational exploitation of surveyed
forests, the improved management of wood processing industries, and the elimination of marketing constraints. Foreign assistance could also play a useful role in this regard in the form of technical assistance as well as financing of spare parts and balancing equipment of wood processing factories. Second, it should be possible to improve the qualify and hence obtain higher unit export value of coffee quickly through small investments in coffee processing and establishment of price differentials linked to quality.

B. Outlines of a Development Strategy

4.13 In attempting to determine a development strategy for the 1980s and beyond a useful starting point is the relative abundance and scarcity of the various resources available to Laos in the years to come. Insofar as certain resources are scarce and cannot easily be substituted in the production process, they need to be used sparingly and combined with large amounts of the more abundant resources, if optimal results are to be obtained. Given Laos' present poverty and the complexity of its development problems, the country can ill afford to put its scarce resources to less than optimal use, and as a result to develop its economy slower than is economically and technically feasible. This is not to imply, of course, that economic considerations should always prevail. Where they are set aside, however, in the interest of attaining other objectives, it will always be useful to identify the cost of pursuing these objectives in terms of incomes or growth opportunities foregone.

4.14 Two resources which in Laos, as in most of the least developed countries, are in extremely short supply are savings and foreign exchange. Savings are short because Laos needs at present to apply nearly all its income to consumption, if a minimum standard of living for its population is to be maintained. Even as production and incomes grow in the future, it will be difficult to increase accumulation very rapidly, since at least some incentives will need to be given to increase production. With regard to foreign exchange, a small low-income country like Laos cannot hope to satisfy all its needs (especially for the more sophisticated investment goods) itself and will therefore require substantial imports. In comparison to its import needs, Laos' exports have always been small, and this shortfall has been exacerbated in recent years.

4.15 The savings and foreign exchange constraints can both be reduced through capital imports. Given its weak repayment capacity Laos cannot for the time being afford to borrow on anything but extremely soft terms. Only after its own exports and savings will have gone up substantially, will it be able to borrow on somewhat harder terms, thereby further increasing the resources available for development. The only possible exception to this is the development of resource-based exports in the mineral, hydropower and forestry sectors, which may pay for themselves and which, therefore, may be financed from special loans serviced from the export proceeds from the projects.
4.16 Apart from the above, and from the possibility of a further substantial increase in aid from socialist countries, Laos' foreign exchange and investment resources are expected to remain very limited for the next few years. The following discussion is based on the structure of trade and foreign assistance in 1977-78 as reflected in the estimates for 1979 in Table 5 below. Although foreign assistance is substantial in per capita terms (about $20-25), the absolute amounts are not large in relation to Laos' needs. Moreover, much of the assistance is tied to specific uses. Nearly 60% or some $50 million is expected to become available in project aid, about half of which will be for physical components, and the other half for technical assistance. In addition, some 35% will be in the form of commodity aid, including food and other supplies. Only a relatively minor amount of foreign aid is expected to be available in the form of free foreign exchange.

4.17 Even on fairly optimistic assumptions, it is unlikely that Laos' exports of goods and services will in the next few years average more than $20-25 million (for details see Annex XIV). Total foreign exchange resources not tied to specific uses will then not surpass $35 million. Of this amount, probably at least half will have to be spent on essential imports of goods and services (petroleum, debt service, Government expenditures abroad) which cannot be reduced. Thus, the net amount of foreign exchange which Laos can use at its own discretion will only amount to some $10-20 million per annum. The potential claims on these resources, consisting of essential consumer goods and industrial raw materials not financed by commodity aid, and of high-priority investment needs not financed by project aid, are clearly very large. The use of these resources will, therefore, have to be very carefully planned.

4.18 Another essential resource which is scarce in Laos is skilled manpower. Notwithstanding substantial training efforts being undertaken in Laos and abroad, trained cadres can only be built up gradually. In the meantime, the shortage can be alleviated partially by importing skilled manpower in the form of technical assistance. In planning its development effort, Laos will, however, have to take account of the manpower constraints. This will make, at least for the time being, for relatively simple projects and organizational procedures.

4.19 As against the above scarce factors, land of varying soil quality is still abundantly available in most parts of Laos. In some places only labor is needed to develop it. In others, however, especially where the land has been damaged in the war, capital (tractors) will be needed to redevelop the land. Other natural resources, such as minerals and potential hydropower, need much capital to develop and special considerations apply (see paragraphs 2.54 and 2.61 above). Finally, forest resources are large, need less capital to develop (at least in the more accessible areas) and are a prime candidate for exploitation.

/1 To the extent that project aid includes local currency financing, this adds to Laos' freely available foreign exchange.
Table 5: BALANCE OF PAYMENTS, 1975-79 /a
(US$ million)

<table>
<thead>
<tr>
<th></th>
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<th></th>
<th></th>
<th></th>
<th></th>
<th></th>
</tr>
</thead>
<tbody>
<tr>
<td>Trade (net)</td>
<td>-51.0</td>
<td>-50.0</td>
<td>-41.5</td>
<td>-55.0</td>
<td>-64.0</td>
<td>-65.0</td>
<td></td>
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<tr>
<td>Exports</td>
<td>6.0</td>
<td>3.0</td>
<td>6.5</td>
<td>9.0</td>
<td>11.0</td>
<td>15.0</td>
<td></td>
</tr>
<tr>
<td>Imports</td>
<td>57.0</td>
<td>53.0</td>
<td>48.0</td>
<td>64.0</td>
<td>75.0</td>
<td>80.0</td>
<td></td>
</tr>
<tr>
<td>Services (net)</td>
<td>-15.0</td>
<td>-8.0</td>
<td>-15.5</td>
<td>-20.0</td>
<td>-20.0</td>
<td>-22.5</td>
<td></td>
</tr>
<tr>
<td>Receipt</td>
<td>24.0</td>
<td>8.0</td>
<td>4.5</td>
<td>3.5</td>
<td>6.5</td>
<td>7.5</td>
<td></td>
</tr>
<tr>
<td>Expenditures /c</td>
<td>39.0</td>
<td>16.0</td>
<td>20.0</td>
<td>23.5</td>
<td>26.5</td>
<td>30.0</td>
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<tr>
<td>Current balance</td>
<td>-66.0</td>
<td>-58.0</td>
<td>-57.0</td>
<td>-75.0</td>
<td>-84.0</td>
<td>-87.5</td>
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<tr>
<td>Capital &amp; transfers /d</td>
<td>83.0</td>
<td>52.0</td>
<td>52.0</td>
<td>70.0</td>
<td>82.0</td>
<td>82.0/f</td>
<td></td>
</tr>
<tr>
<td>Overall balance /e</td>
<td>15.0</td>
<td>-7.0</td>
<td>-1.0</td>
<td>-4.8</td>
<td>1.3</td>
<td>-5.0</td>
<td></td>
</tr>
</tbody>
</table>

Memo items:
- Change in reserves
  (- increase)                       -2.6  3.1  -2.8  4.8  -12.3/f
- IMF borrowing                     -       3.9  3.8   -     11.0

/a Balance of payments accounts are not compiled in Laos; table constructed on the basis of staff estimates and data provided by Lao authorities; trade figures limited to recorded transactions only; 1973-75 for the former Vientiane zone only; 1976-80 for the whole country. See also Annex XIV for details.

/b Mission estimates.

/c Includes technical assistance.

/d Includes commodity aid and technical assistance. For 1978, the figure is not consistent with the budget in Table 3 because of adjustments to reflect the real value of the large technical assistance component of the aid from non-convertible currency areas.

/e Includes errors and omissions.

/f In 1977-78, nearly $15 of the annual capital inflow was on account of the Nam Ngum Phase II Project, which has been completed. Thus the level of aid in 1979, although similar to that of 1978, in fact represents a major increase in capital inflows.

/g Increase in gross reserves due primarily to the receipt of about $11 million from IMF.

Source: Data provided by Lao authorities and mission estimates.
4.20 The most difficult production factor to assess in terms of scarcity is unskilled labor. As mentioned before, there was, nationally, a substantial labor excess at the end of the war. Much of this labor has, however, already been resettled, or shortly will be. Thus, in many parts of the country, there will soon not be any obvious labor surplus in terms of fully unemployed people who could be set to work elsewhere. Still, even in those areas, labor utilization might not be full in the sense that there may be slack seasons in the year or slack periods during the day, or that some members of the household may not be busy. To the extent that this is the case, extra labor will be available at little economic cost, and this is an important factor to take into account in planning additional activities.

4.21 In assessing the priority to be given to certain activities and sectors, some factors besides Laos' productive endowments are also important. One is Laos' low population density, consequently underdeveloped transport system, and its landlocked position, which make domestic and external transport and trade costly. This provides a relative advantage to local production, especially of bulky goods. However, it also implies a disincentive to exports of such bulky goods, although these can still be exported, especially if transport costs can be held in check by improving facilities for bulk transport. In principle, however, given high transport costs, it will be advantageous to Laos to export goods with a high value per unit of weight, and/or to increase that value through processing or quality improvement. In addition, also, the above indicates that increased accessibility to rural areas through improved rural roads may (together with the provision of sufficient incentives) be a major instrument through which production in and exports from Laos' rural areas may be stimulated.1

4.22 The Government may in future attempt to set its priorities more systematically by adopting a cost/benefit accounting framework in which the scarcities of the various production factors, as well as the values of the products, are reflected in accounting prices which differ from official prices. In fact, the Government already moved in this direction when it in 1977 valued foreign exchange at double its official price, before the exchange rate was adjusted to this level in 1973. Given the scarcity of project appraisal expertise in the Government, it is not possible to effectively apply a full-fledged accounting price system, but even a few rules of thumb may assist the policy makers substantially in their difficult task of allocating extremely scarce resources.

4.23 Summarizing the overall development priorities for the short and medium term, development programs should primarily emphasize the achievement of overall agricultural self-sufficiency and expansion of agricultural exports. The Government's resettlement program is eminently sensible and should go a long way in rendering productive anew the idle population of the cities and in restoring the productivity of the abandoned lands at low investments costs. Emphasis should also be placed on intensifying agricultural production and raising yields. Since current yields are very low, with

1 This conclusion rests largely on an assessment of Thailand's experience over the last 15 years.
little investment it should be possible to improve productivity and expand
agricultural production quickly. Similarly, expansion of export earnings
should in the first place concentrate on those products, namely, timber, coffee and other crops, where with small investments it is possible to
improve quality (thereby increasing their unit export price) and expand
production. Finally, in the industrial sector, the priority is the rehabi-
litation of existing capacity of certain essential industries.

4.24 In as little as half a decade, the country could become a net ex-
porter of agricultural products, including rice. If their production proves
to be economically advantageous, development of other food, feed and indus-
trial crops such as maize, cassava, coffee, cotton, oil seeds, silk and
pyrethrum could sustain a range of agro-industries as well as direct exports.
In addition to agro-industries, other activities may be pursued which would
supply the requirements of the agricultural sector such as foundries which
would support the manufacturing of agricultural tools and implements and, in
the future, even small hand tractors and tillers. Finally, Laos is likely to
have a comparative advantage in wood processing industries—saw mills,
plywood and furniture factories—utilizing the country’s vast timber re-
sources for export.

4.25 Infrastructure development should be in support of agriculture and
industry. Main emphasis would have to be placed on the development of a
provincial/rural roads network which would link agricultural surplus areas to
the national road network. This is an essential ingredient of a balanced
development strategy based on agricultural development. Laos would need to
concentrate on small infrastructure projects and embark on costly, capital
intensive undertakings such as railroads only after considering them in the
overall resource context and following careful study of their economic
justification. Such projects might be justified in connection with mining or
forestry exploitation but only if the resulting exports would pay for the
infrastructure as well as the mining or forestry projects themselves.

4.26 For the longer term, there is significant hope that Laos’ very se-
vere resource constraint can be reduced or even eliminated through the
development of its mineral and/or hydroelectric resources. However, projects
in these sectors with supporting infrastructure will cost hundreds of mil-
ions of dollars, which Laos will simply not be able to allocate from the
resources currently in sight. In fact, such capital-intensive but foreign
exchange earning projects can be attractive only if they do not pre-empt
other, more urgent and more remunerative uses of the limited foreign capital
available to Laos. Thus, the only way to effectively implement those projects
and earn net foreign exchange for Laos is to assure markets for their products
through long-term sales contracts, and then arrange separate and full foreign
financing on the basis of these assured proceeds. Given the severity of its
long-term resource problems, Laos should attempt to obtain such arrangements
with all deliberate speed.

/1 The economic justification for developing some of these crops has been
established (see SEDES report). Additional work is required to determine
the economic viability of others.
4.27 Implementation of a development strategy along the lines presented would first and foremost depend on the will and determination of the Lao people and their leaders to make difficult choices and for some time to come limit present consumption in favor of accumulation. In addition, the construction of a socialist and prosperous Laos would depend on the successful implementation of urgently needed reforms to improve the efficiency of the planning and management system.

4.28 Laos would also need the assistance of the world community to help it prepare and finance development programs for the foreseeable future. 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 and capital goods - would have to be financed through external assistance. If an investment program of a reasonable size is to be implemented in line with the strategy presented above, foreign aid averaging say $100 million per annum would be needed in the medium term. See also Annex XIV.

4.29 The Government is seeking foreign aid from any source provided it is offered without political conditions. It has recently concluded long-term aid agreements with its major socialist donors and has received new commitments from Eastern European countries, the OPEC Special Fund and a number of voluntary and relief organizations.¹ In 1978, a number of countries made special commitments in response to the emergency appeal for food. In addition, the Government is seeking concessional aid from international organizations such as IIA, ADB and the UN group. Aid from nonconvertible currency areas is expected to provide roughly half ($50 million) of the required net annual external resource transfers as well as considerable technical assistance over the next five years. The balance (roughly another $50 million) and additional technical assistance would need to come from the convertible currency areas and international organizations. It must be recognized that the lack of a published development plan detailing the policies, development strategy and investment program presents an important obstacle to the negotiations of aid.

4.30 Given the country's poverty and difficult financial and balance of payments situation, external aid should be on the softest possible terms including, in the first few years, commodity aid or cash grants to finance imports of food and basic necessities and to stabilize the budget; assistance will also be needed to finance nearly all of the local currency costs, as well as foreign exchange requirements of projects. Given the urgent need to complete rehabilitation, program credits would appear to be the best mechanism through which donors can assist Laos. Moreover, in financing specific development projects, donors would best respond to the country's needs by not insisting on complex engineering and sophisticated project designs. At this stage, what Laos needs most are simple projects which can be implemented as quickly as possible. This would also imply devising disbursement procedures.

¹ The mission was unable to obtain detailed information on the current and future level and country source of the aid from nonconvertible currency areas. The estimates presented here are only rough orders of magnitude.
which would transfer resources to Laos without undue delay. The Government, for its part, however, would also need to simplify the existing procurement procedures to ensure that committed funds are disbursed expeditiously and that delays in project implementation are avoided (see also para. 2, Annex XIII for some suggestions in this regard).

4.31 Technical assistance needs to be tailored to the country's needs. Specifically, maximum use needs to be made of low cost technicians. These experts could be used most effectively in identifying the rehabilitation needs of industries, prepare specifications and procure the equipment and spare parts and in fact install them and get factories working again. By working in the factories, these experts can also provide the badly needed practical training to Lao technicians./1

4.32 Finally, in responding to Laos' needs, it would be prudent for foreign donors to recognize that Laos is still a young republic struggling to maintain its hard won independence. Donors who are currently active as well as new comers should bear in mind these special circumstances and adapt their policies and procedures accordingly. The Lao people have demonstrated their determination to develop their country and they deserve to be supported by the international community. Meanwhile, the Government, for its part, must recognize that if it is to secure the external support it needs, there must be a reasonably frank and open exchange of basic information.

/1 The UNDP (Laos) is moving in the direction of securing such experts through its Technical Cooperation Among Developing Countries (TCDC) Program.