

Economy of Laos. 1960-12

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by

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I. Present Condition of Toonomy

General Characteristics

The economy of Laos is evidently prevailed upon largely by its geographical characteristics.

Being a country of quite typical tropical climate, with a dry season and an outstanding and very prolonged rainy season, especially in the North and in the South, it is fundamentally constituted by a part of the Mekong Valley and by its tributaries and a complex mountainous region, with varying subsoils, with an intricate and rugged surface, especially in the North and in the East where the Annamese mountain chain distinctly separates Laos from Vietnam. (Note the presence of the two tablelands of Kieng Khoueng and of the Bolovens.)

It thus results in the great varieties in the agricultural possibilities due to the climatic differences (crops of temperate countries are possible in the high altitudes, especially on the tablelands), and the soils, certain of which, like the soil of volcanic origin of the Bolovens, are of a particularly interesting fertility. Resides, the varied subsoil has yielded up to now numerous signs of mineral veins which, if they reveal to be economically exploitable, can constitute a new wealth.

On the other hand, interior communication is difficult. This is due to the rugged land surface and the fact that the rivers and waterways cut off by falls, and rapids offer only fragmentary possibilities to navigation.

Moreover, its continental situation, far away from scaports, together with the fact that it is surrounded by countries whose productions are greatly similar to those of Laos, constitute a serious handicap for the development of export.

The population, estimated at about 2,000,000, has a very low density, especially if we compare them with the averages of other Asian countries.

The grave problems of overpopulation, though often occuring in Asia, are thus non-existant in Lace, where there still exist vast areas of land to be developed. This, together with a traditionally rather slack

land system (not to say non-existent) also keeps laos away from the problems of land reform except in very local situations.

In general, the population can be brothen down according to the altitudes: the se-called Lao occupy the plains and valleys, the Lao Thomas ("Wha") occupy the average altitudes, and the se-called "Chinese-like" population (especially the Mec) occupy the higher altitudes. This want in a problem of utilization of land due to the practice of "ray" cultivation (nomadic agriculture) by the mountain people.

The mass of these population is agricultural but a good few of them, not to say the majority, live on a subsistence economy in which they produce most - but not all - of the products which are necessary for them. This again aggrevates the economic influence of the smalness of the population. Internal progress is very reduced and can give rise to an interesting development only if, by a progressive evolution, we make the population step towards a more generalized economy of exchange.

During the past twenty years, various elements of political order have prevented the economy of the country from developing.

At first, under Franch rule, lass was only a part of the Indechinese Federation. In this Federation, the economic development was carried out mostly in regions where it was more immediately profitable, and in the areas of more Savorable natural conditions. This resulted in lass not having attained a standard of development comparable to that of the other countries of the Federation.

On the other hand, as elsewhere in Indochina, lacs struggled for its existance from 1940 to 1945 under a state of war which practically rendered my development impossible.

Finally, the brutal changes of trends have not yet permitted the stabilisation of the economy.

Cnce member of a colonial territory, the economy of which was linked directly to that of the parent state, less became part of a Customs and Monetary Union only to break itself from that Union in 1955. The mometary reform of 1957aagain modified economic conditions.

These modifications of structure corresponded with the modifications of economic trend.

To mention only some examples, it is thus that before 1915 the stress rate on the east-west road communications to connect the different parts of lacs with the coast of Tonkin and Annam, Thep, under the Customs Union, the commerce was directed toward Vietnam at the profit of the provinces of the south. At present, the Lacs-Bangkok railway connection will, on the contrary, lead to the spectacular development of Vientiane.

It is evident that these viciositudes have not been made without humpering the establishment of a normal economy capable of following up and supporting the political evolution of the country.

II. Agriculture

A. General Churacteristics:

less is an agricultural country in the sense that nearly all the pppulation is formed of peasant farmers.

This agriculture is primarily an agriculture of subsistence - spart from certain exceptions (the Polovens Plateau), the Lac peasant seeks first of all to satisfy his requirements and to make himself self-supporting. His crops and his hervests first go to support himself. Only the surplus and the products of pathering are commercialized, for example, the importance of rice crop, thus the rice business is very slack.

This agriculture still has numerous characteristics linking it with the sconcay of gathering ("rays," or important products gathered in the forcet which play an important role in the life of the villager.)

To be self-contained the Lao peasant is obliged to engage in a vary diversified agriculture.

Rice is evidently the principal occupation. But there is added, in the case field many times, various crops. Aside from crops intended for his food, the villager also grows other more commercial-type crops when the economic and natural conditions permit him to do such. (Examples: tobacco, cotton, red peopers. and so on.)

We is at the same time & livestock broader, and posseses some buffalo, oxen, pigs, and chickens.

Finally, he goes into the forest to find important complements to his resources. (Examples: edible roots, leaves, medicaments, timber, balbho.)

Nearby rivers are searched for fish.

An evolution has been full during the past few years, especially around the towns, as a commercialization of agriculture has developed. It is rultiplied by the possibilities of new non-agricultural resources (army, officials, employees, workers).

But, on the whole, the general characteristics mentioned above remain true for the majority of the population.

9. The Problem of the Utilization of Land:

to are able to estimate that two-fifths of the population is engaged

in "ray" agriculture in one form or another. The area thus cultivated is estimated at from 160,000 to 200,000 hectares, which indicates the importance of this problem.

The consequences are disastrous in the long run. In the standpoint of forestry (impoverishment of the forests but especially the disastrous effects of descretation in the mountains), of agriculture (because this descretation finally has an influence on the water system, hence on the possibilities of cultivation in the plan), of economy (because the population living in such econditions is, economically speaking, practically non-existant), and finally, from the Juman standpoint (these isolated populations profit only with difficulty from the efforts of the government to improve roads, schools, and hospitals, and politically have a tendency for autonomy that can be dangerous for national unity.)

This question is too important to be dealt with fully in a general report. Let us simply point out that the solution lies in a coordinated policy of stimulating and setting up rice paddy farming: this in most cases leads us to the question of irrigation.

Some years ago we considered that the populations concerned would only with slight difficulty accept a modification in their mode of living and settle down to paddy farming. We have lately noted a very distinct evolution. At present the Department of Forestry and Waterways, the only Department that must grapple with this problem is overwhelmed with requests, requests that exceed its possibilities and that substantiate the success of the experients that it has tried. The silution of this problem is certainly not easy, but the concrete realizations of this Service, withouthpretending to be perfect, have undeniably in ficated that it was possible.

C. The Principal Crops of Lacs

a) The Food Crops

1) Rice

This is the most important crop of Laos. The most generally cultivated variety is the "glutinous" rice. Rice fields are either submerged (the most economically important) or dry.

The superficies of these rice fields are estimated at about 700,000 hectares. The vield, very varying, fluctuates at around one ton per hectare. On the whole, in a normal year, the production m v be sufficient for consumption, but various factors, natural or artificial, have intervened and importation has become necessary.

The Rice-fields cultivated with a system of irrigation are the exception. Production thus depends on the rule of the rains. Now that the periods of starting of the rains (end of May - June) and of stopping (October) are

only impunctual. Most of the bur harrents are the bors belated beginning of the rains. Prilombility and sorly and. This soffices to dent strate the advantages which lie in development in the libe.

Though rice is the most important name, the rice business has been depressed. The pandy rice market, except in living of the south where there are rice mills, such as Savennakheb and Pakee, is practically consciutant. Vientians, a city of 70,000 importants, it the only city in Asia of this size where, at present, no rice mill is in operation other than some endit business.

The result is premioricall Look is a country of expensive rice and cherp peoply, a million detrimental to the persons, and, lift to by limits, losses interest in this cultivation, with the persons to the situation.

The importance of Ingo lating has been a community of the best of operation of the Licensen. That seem the interpretation of which may be evaluated the later to such any to organize the paddy runs and white rice markets.

The difficulties of transportation cake this operation many tricky. It often happens that the regions where there is a scarcity of rice border on the vice-abundant regions we hout the sharing that could be made. A stricking example is Sayahoury province, which could largely supply the rice to the plain of Vientians for the food of the city. Difficulties of a transportation result in the necessity of working on the local level rather than on the national level to improve rice production; that is, by considering such region separately.

- 2. Corn Corn is grown everywhere, seldon as a single crop of it in the northern Meo country, where it plays an important role in the food supply. From etion ranges from 10 to 15 tons.
- 3. Pepper Being an indispensable complement of hea foot, paper is generally grown. This crop, very easy to moitiply; could fire the to so exportable product. Many attempts have been made to do this, but her have failed because of the differences between the world prior and the higher price offered in the local markets.
- the tablelands (Nieng Knowing and especially the Bolovens plateau) would easily enable an intense cultivation, especially for temperate type vegetables. But the difficulties of transportation have restrained these operations. Production is clearly not amough in the Vientance region, but no technical consideration can explain this problem. We again encounter a question of organizing the market.
- 5. Fruit Trees The range of local fruits includes bananes, papayas, ranges, longman, pomelos, pineapples, and coconuts. Citrus fruits are important especially in the north, and we must note the presence of temperate fruit on the tablelands, especially strawberries on the Rolevens and some peaches, particularly in Kieng Khouang.

Pinsapples have, for some years, been cultivated quite extensively.

There certainly is room for development, to introduce both tropical varieties of fruit from neighboring countries and to bring in fruits of the temperate countries. Experiments have already been carried out in Rieng Rhouang and Paksong. As in the case of vegetables, transportation problems impade commercialization, especially for citrus fruits of Nam Tha and to the north of Luang Brabang.

- 6) Potatoes This root crop grows very well in Laos, in the north and in the Bolovens. In 1950, the harvest on the Bolovens was 1,000 tons. But here again the difficulties of commercialization have caused a decline of production. Plants have degenerated and not been transformed for many years, and this has made production less and of poor quality. New seed plants should be periodically imported. It is curious to note that the crop is better accepted as a food by the people of the north than by those of the south. They could, however, constitute an interesting secondary crop for their food value.
- 7) Sugar Cane This crop has been much developed and is a profitable crop in areas surraunding towns. But in most cases, canes of local varities are for mastication and not suitable for a sugar industry.
- 8) Secondary Crops Various crops cassava, soybeans, potatoes, etc. are quite generally regarded as food supplements. They would be multiplied to vary the alimentary diet and to substitute for the possible lack of rice. For the first time, in 1959, the soybean has given rise to a notable exportation (135 tons for 1,000,000 kip).

b) Commercial Crops

1) Coffee - This was formerly the commercial crop of Laos. It constituted the prosperity of the Bolovens region. Two principal varieties are grown: the Robusta, which grows at an average altitude, has a less preference in the foreign markets, and the Arabica, recently introduced, which grows at altitudes higher than 1,000 meters and produces a coffee very much appreciated for export. Unfortunately, these crops have been devastated by some years of frost, and the advent of the "coffee mildew," (Hymelio devastatrix), the have of which has been so great because the plantations were badly maintained, less fertilized and badly dressed.

Cultivation of the Arabica has decreased markedly. Attempts are underway to introduce varieties of plants that can withstand the mildew.

When production exceeded 2,000 tons, it was only by a few hundred tons. With the havor of plant disease, plus Economic difficulties, access to the Vientiane market became difficult following the discontinuence of the Customs Union. Reduced to nearly nothing (48 tons in 1958), exports rose to 300 tons in 1959.

For coffee, problems are thus technical (restoration of plantations), and commercial (to find markets).

Regarding restoration of plantations, contrary to a widely-held opinion, the bulk of harfest has never been due to the European plantations (which were themselves of quite moderate importance). Coffee cultivation is suitable to family-type cultivation since it disposes of the problems of securing seasonal labor for the harvest.

We must also note the quasi-disappearance of the cooperatives of the Bolovens, the role of which could have been important for the donditioning and the commercialization not only of coffee, but also of other products of the tableland. This is an essential reorganization which we will discuss later.

- 2. Cotton This formerly, like food crops, was a general crop. The cotton crop has dropped following the decrease of family weaving when facing the introduction of imported textiles. The principal centers of this crop are the Polovens and the Sayaboury region which export more than 100 tons per year. These exports would be developed by treating the cotton in the ginning centers, by introducing longer fiber varieties, and, if possible, by increasing quantity.
- 3. Tobacco The existance of this crop in nearly all villages indicates that this crop can easily be generalized. Two regions are particularly interesting, the land on the banks of the Mekong River and its tributaries, where yellow tobacco is grown, and the heavier soils of the Bolovens, where black tobacco is grown. Cultivation along the Mekong gives rise to an important export which cannot be calculated, because it is carried out directly towards Thailand without commercial traffic in Laos. The production of dry tobacco has been estimated (without vouching for accuracy) at about 1,000 tons. We should also note the current practice of Thai peasants, who cross the river to cultivate islands and the Lao bank.

Development of tobacco cultivation is linked with that of the tobacco and local cigarettemanufacture, and with the necessity for these enterprises to use at least a portion of the local tobacco. We will talk about this later, but the example of Thailand and the fact that the MIC company has been established in the Vientiane plain leaves no doubt about this possibility.

h. Tea - Though of trifling importance at present, since there is only one or two plantations in operation, it is curious to note that tea grows wild in the Kieng Khouang region. This tea, of excellent quality, was originally from garden seedsmen of Paksong and Kieng Khouang, who have supplied a good portion of seeds for the creation of plantations in Viet-Nam.

Here there is a possibility of extension. Being a light and expensive product, the tea can support high transports, sets few problems of labor since the harvest is quasi-permanent, and preparation - easy for green

tea, more delicate for black tea) - could be made in cooperative centers.

- 5. Cardamon This exists, mostly cultivated but also in a wild form, in the tableland of the Bolovens plateau and area. Export is a recent development and is from 100 to 200 tons per year (nearly 10,000,000 kip worth in 1959).
- 6. Ground-nuts (Peanuts) Groundnuts are primarily groun in the Savennakhet region and the Bolovens. Froduction seems to be on the rise. This could, in addition to becoming a small export, become a source of oil and oil-cake for local use.
- 7. Industrial Crops The following are industrial crops that might become economic growth possibilities but presently have very low production.

Ramie - This crop has almost completely disappeared from the Eclovens, and restoring this crop would mean a serious search for markets, since the use of nylon for thread and fishing nets has largely taken over the market.

The Castor Gil plant seems to have a promising prospect as the source of plastic (Rilsan), but the ostensibly easy cultivation is actually a very delicate process, and varieties grown must be those suitable to users. It would be desirable to look for available markets before cultivation is launched.

The Tung tree has met with bad luck in Kieng Khowang. If production of fruit there was not difficult, extraction of oil has never been realized in a practical manner. Changes in paint manufacturing seem to have made the market less interesting than formerly.

The Cinchona has been introduced successfully in Bolovens stations, but the marketing of natural Quinine now eliminates interest in cultivation of this product.

8. Other Possibilities

Pepper marketing and production looks possible but it is too early to come to a conclusion.

Rubber from rubber trees has been harvested on two small para-rubber plantations situated near Pakse on red soil. These plantations are in very bad condition, but cultivation appears possible.

Jute is acknowledged as a great development possibility in northeast Thailand, where conditions are close to those of Laos. Laoscultivation would depend on prices of the Thai market.

III. Livestock Breeding

Most Lao peasants are breeders and farmers at the same time. Livestock raising is done the traditional way. Like crops, the peasant first of all



attempts to meet his own needs. In general, animals are left in cemi-liberty except when rice is being grown, when the herds are kept pens, and they find food for themselves. Only the breeders of the north of Laos find food for their animals. The Meo particularly supply food for pigs and chickens.

The horned cattle are bred primarily for work and slaughter. Suffalo take care of the need for draft animals in the rice fields. Production of milk is practically unknown. Estimates stand at about 500,000 buffalo and 300,000 onen.

Principal regions for livestock raising are the tablelands, and, expecially for owen, the forests that extend from south of Thakhak on to Pakse, particularly the valleys of the Kebang Fay, Kebang Hieng, and the Kedone rivers.

Horses (about 15,000) are mainly raised in northern less where they are used for transportation of goods. Use of the horse as a draft animal is unknown. They are small animals, but very strong, sober and trustworthy, especially in the mountains.

Pigs (About 700,000) are found in almost every village. Pork is a well-known food, like chicken, and constitutes an important part of the diet.

The economic importance of elephants has diminished to where they are used only in the north and the extreme south for carrying goods. Most of them are captured in these regions. Before World War II, they were exported in the direction of Burma.

Sheep - Refere the war a government herd of about 200 sheep was kept in Kieng Khouang. After recent events, this breeding stock completely disappeared. Lace' very humid climate is not condusive to sheep raising.

Through bred without great care, the general state of the cattle is far from being bad, and there is no grave epizooties. The cattle pest disappeared many years ago. Main diseases are the Barbone disease for oxen and buffalo, and the Pasteurellosis for pigs and Surra for horses. Economic utilization of livestock is low. Oxen and buffalo are used mainly for work. Slaughterhouses are operated only near the towns. The internal consumption is estimated at 50,000 buffalo, 10,000 oxen, and 200,000 pigs. This has led to a small industry in animal hides (as far as the stage of arseno-therapy) which showed the export of hides for about 1,190,000 kip for 95 tons.

Cattle exports were quite important before the war, as evidenced by the fairs of Attapeu and Hatsaikhoune. During the Indochinese war, Laos supplied the populations and troops of Tonkin and of Annam. Export of animals was most often from Savannakhet and Kieng Khouang by plane. These exports reduced the number of livestock, but not in the proportion that has been believed. We presently have at our disposal a possibility of 10,000 oxen per year (about 20,000,000 kip) for this trade. We have tried to resume such trade this year. Only some 40 buffalo were exported in 1959 and some hundred oxen in 1960.



Many purchasers presented themselves, requesting 2,000 head to be sent to Hong Kong, but export through Thailand proved impossible. Negotiations between the Thai and Lac Veterinary Service took place and an agreement was reached - but the question of availability of railway cars on the Mongkai - Bangkok line could not be settled. Some of the own actually exported were sent by road to Saigon under less profitable conditions. Construction of a slaughterhouse in Vientiane, with refrigeration equipment, and possibilities of exporting meat by plane, are still under study.

IV. Forests

Forests cover the greater part of Laos: 150,000 square kilometers (about 60% of the surface) are estimated to be occupied by wooded areas. The economic value of these forests varies - they are composed of all types of tropical forests from the primeval thick forests, with mixed-up species of good value, to the sparse forests stretching towards the savanna.

Breakdown of forest types is as follows:

Type .	Area (Hectares)
Sparse forests	2,500,000 2,500,000

Sparse forests, sometimes classifed as "fire climax" type, is of the type common to all countries in this region. The typical element is a plant flora with thin bark, defoliating during the dry season. Depending on the condition of the soil, we can observe all traits from an open forest to the arbored savenna. The soil is badly covered with hard weed, regularly burnt every year. Certain species of these forests, considered for a long time as having no economic value, are of an interesting usage and now open for exploitation.

Thick Forests are the primeval forests of the monsoon countries, which produce the most used species. These forests include numerous species and only about one-sixth of the standing timber is commercially usable.

The demi-thick forests are attached to these thick forests, characterized by a mingling of species to which the species with deciduous leaves are apparent. The bamboos are often an undergrowth. It is to this last type that the teak forests belong; setting the limit to the geographical area of these species that exist in the region of Paklay and a few at Ban Houei Sai.

In areas of high altitude, and especially in the north, these types change and we note the appearance of the species which have a more temperate character, such as cake and chestnut trees. We find some species of conifers in the plains, (prinus merkusii at h0 kilometers from Vientiane, and in the vicinity of Khongsedone in the province of Champassak), but most of these species are found at high altitudes. These stands are often constituted in patches and with a variety of leaves.

Forest areas should be made firm in less. There at present is nothing of this sort and many areas are subject to intense deforestation.

The principal cause of destruction is due to the practice of "ray" cultivation. An emphasis must be made on the danger of this practice, in that it eliminates the forests which cover a good part of the mountains in the north of laos. If the forest recedes in the face of cultivation in the plains, it should be preserved as cover in the mountains. Brush fires eat up sparse forests, picking little by little at the outskirts of the thick forests. In most cases, the fires are unintentially made, or for various reasons - grazing ground, hunting, clearing of roads or even for pleasure. A systematic fight against these fires would be too onerous, and we can only turn toward a long process of education to made it understood to the population that the people's benefits must be protected.

The forest plays an important role in the life of the Iso, over and above "rai" cultivation. They get many of the products required for their life - barboo, timber for their houses, wood-oil for lighting, vegetables, edible roots and raw material for all the ordinary instruments of their activity. Gathering of byproducts for marketing gives them, without necessity of capital, relatively large sums of money which are often, especially in remote villages, the only resources of ready money. It is quite evident that such an economy leads to such an excessive exploitation that preservative measures should be brought in.

The forest plays a role of economic production over and above its role of giving cover. It is estimated that about one quarter of the forests can present an economic characteristic. This low proportion is due to the rugged surface of the country, and especially the difficulties of trensportation. At present, except for teak, most exploitation is made to meet local requirements - sawmills, carpenter shops - and takes place within a redius of less than 100 kilometers around towns.

Commercial exploitation has considerably progressed since the creation of the Department of Forestry.

Year	Lumber used i	n busins s s
19江	13,720 Mg	to the second second second
1950	700 m ³	
1955	29,000 m	* · /*
1956	32,000 m ³	
1.958	40,000 m ³	
1959	29,000 m ³	

This falling-off during the past year is due to slackening in the construction business, an indirect consequence of monetary reform. If we include other lumber use in this - for firewood and chartoal - we have a total quantity of wood sold in the merket of more than 120,000 m³.

These figures do not include the teak from Paklay forests which are not the property of the state but are Crown Lands. These forests are the only important stands of teak in Laos. They are situated in the region of Paklay (Syaboury province) and cover a total of 500,000 hectares.

Their exploitation has produced from 3,000 to 5,000 m³ per year solely for export. The standing exploitable material can be evaluated at from 15,000 to 20,000 m³.

There exists a very small stand of teak in Housi Sai and the Department of Forestry has worked on plantations of this species, empecially in the region of Pakse, which cover more than 500 hectares. In addition to teak, the principal species of timber exploited are as follows:

De-luxe timber	Quantity exported (1958-1959)
Mai Kanhoung (Dalbergia Cochinchininsis) Mai Dou (Pterccarpus Marocarpus) May Kha (Pahudia Cochinchininsis)	140 m ³ 2,200 m ³ 420 m ³
First Category timber	
Mai Mhang (Diptercearque alatus) Mai Khene (Hopea) Mai Sideng Mai Back (Finisoptera robusta) Mai Mao (Parashorea stellata) Mai Deng (Kylia Kerrii) Mai Chik Dong (Vatica astroticha) Mai Sadeng (Dipteracarpus intricatus) Mai Sat(Dipteracarpus obtusifilius)	6,125 m ³ 13,000 m ³ 1,100 m ³ 2,100 m ³ 1,000 m ³ 1,000 m ³ 750 m ³ 900 m ³ 660 m ³ 750 m ³

This timber is mostly utilized on the spot.

In 1950, there was no mechanical samuill in Laos. Since that date a large mumber of samuills have been put into operation are well supplying the sawed timber market. A certain number of samuills have closed since the mometary reform.

At the same time, cabinetwork and carpentry wookshops have been created, and one mechanised operation in Vientiane. In lumber and in furniture, there has been a great deal of progress and Laos can completely satisfy its requirements. A part of woodworking should be directed towards manufacturing furniture at cheap prices, similar to sawaill operation. It would be interesting to equip internal centers of small sawaills to provide for improvement of housing.

Byproducts of the forests play a natable role in the accnow, not only for the direct use by the inhabitants, but also in the connerce.

Own benzoin is the most important product, an exudation of the styles (Mi Nhan) and mainly used in creating perfumes. That produced in lacs, commercially known as gum benzoin of Thailand, is of high quality and very different than Indonesian benzoin. This market is very limited with from 30 to 50 tons per year to France, England, Germany, and the U.S.A. Exports decreased abruptly in 1959 - 7.3 tons for 3,400,000 kip.



If this movement continues, we must examine the causes. The establishment of plantations could improve the production and lower prices. But an obstacle in concentrating production in plantations is that it would deprive those presently producing the product of a portion of their income.

Sticklac, a product of insect secretion in trees, was, before the war, a bulk of production of Laos, particularly in the north. The replacement of this product by plastic materials and the systematic production of sticklac in plantation has reduced the production. It is now concentrated mainly in the south. The market is unstable, bringing ups and downs in production: 110 tons in 1957-1958, 52 tons in 1959-1960. It would be desirable to increased the value of this product by returning to the conditioning of the "seed lac" which was currently practiced before the war by washing and crushing.

There is a great variety of byproducts - rattan, barks, fruits, game hides, etc. - whose export has been reduced since the monetary reform. Export has also modified considerably in the last few years. Formerly they were mainly directed towards Saigon, but are today directed towards Thailand, and teak has usurped the place of benzoin and other byproducts. Exports of timber other than teak have become less important although they may be renewed in the matter of some hundreds of cubic meters of cabinet making timber. The high freight cost, dissapearance of home freight on the Pakse - Saigon route, and customs barriers, are the main causes of this. The forests are far from being throughly exploited.

African timbers of excellent quality are sold in Europe for less than 30,000 old francs, by rail from the importing ports. Timber value at the departure from Laos is from 1,000 to 2,000 kip, and transportation costs from Vientiane to Bangkok are more than 2,000 kip per ton. Exports are possible only with an improvement of the transit and transportation system.

Utilization of this forest reserve for raw material for industry - pulp and paper, plywood panuels, etc. - may be tempting. But we come up against the same difficulties - small internal demand. The total requirement for paper in Laos ranges from 500 tons in all categories. We have recently considered the installation of a pulp and paper factory of 5 tons capacity per day, making it from bamboo. (Wood pulp has to be separated for multiple reasons). This quantity, considered as a low limit of renability, would be greatly higher than consumption. The same conclusion has been reached for plywood.

In conclusion, forests play an important role and should be protected. Their economic role is far from unimportant, but their intensive export will only follow the general economic evolution of the country

V. Mineral Resources

1. Existing exploitations

The only mineral exploitation at present is that of tin and salt.

Tin is mined near Thakhek. Only one mine, that of Phone Tiou, which belongs to a French company, is now in operation. There were two before the war. Its production in 1959 was 555 tens, concentrated at 55%. Production does not warrent a rafining installation. Recent exploration indicates large reserves of ore. The company has attempted to replace hand labor by mechanical squipment. Recently there has been a question of reinitiating, on a reduced scale, activity at the nearby mine of Bonneng, by local enterprise.

Tin constitutes the principal export of Laos - 25.3 million kip out of a total export of 78 million in 1959: The international market has recently improved, after a short crisis, and expanded production should be possible.

Salt is mined at numerous points in Laos, generally by salt wells or by exploiting salty earth. The most important activity is in the region of Ban Keun, where production is about 1,200 tons per year. The system is to pump the water by hand or pail, and heat it over an open fire. This renders such exploitation less profitable. It lasts only a few months each year. Improvement of technical aids and techniques - mechanical pumping, pre-evaporation, heating with heat recovery techniques - would necessitate surveys on cutput of wells and the geological conditions. A well drilled on the grounds of the American Embassy in Vientians indicates the existence of a salt layer 70 meters deep and considerably thick. The problem of supplying salt to the mountain peoples is great due to the high costs of transportation.

2. Principal Ore Locations

The presence of numerous ores has been located in Lacs.

Coal - The Saravane basin has a good potential: there is a seemingly important lode of anthracite. Also, we have found two other lodes in the vicinity of Vientiene, on the Man Sang and the Nam Lick, and a lode on the Cam Chan in the region of Luang Prabang, and one in the Fhongsaly region.

Lignite deposits are numerous, sometimes burning, expecially in Muong Sing, Luang Prabang, the Kieng Khouang plateau, and in Sayaboury.

Iron - There are numerous local deposits in Luang Prabang, Phong Saly, Houa Phan, Khammouane, and Saravane, and there is a big deposit in the Kieng Fhouang region. A deposit of iron and manganese has recently been located in Sayaboury province on the Thai border.

Copper - Frequently found: Phong Salay (rather rich), Luang Prabang (Phu Tong Nam Pak), Kieng Khoung (where many deposits have been found,)Houa Phan, Thakhek, Savannakhet, Sedone, Bassac and Attapeu.

Pyrites - Sulphur was formerly mined in Sam Neus and exists in Moung Soui.

Lead - Frequently mixed with zinc, antimony, and silver. The most interesting deposit is that of Tchepone which has already been exploited. It also exists in Luang Prabang, Kleng Khouang, Houa Phan, and Bassac.

Gold - Frequently found. Placer mining still practiced on rivers, especially in northern lace. It also exists in the form of reefs in Paklay, in the Trank Mink, the regions of Thakkek, Savannakhet, and Attopeu.

Memazite - A deposit has been located near Sam Teu. In spite of the value of this ore, its remote situation seems to deprive it of any practical interest.

Gypsum - Most important lode is in Dong Hene, where it has been exploited in small quantities during the war for the cement factories of Tonkin. It is also found at Fhong Saly.

Phosphates - Phosphates of guano are often found in the massive limestone formations, especially those of Thakhek. Tests indicate that these deposits present no practical interest.

Oil - There is a possibility of petroleum deposits in the plains extending, on the left bank, along the Korat basin. French companies should have started their searches.

This list may seem to be sensational, but it is advisable to note that the presence of mineral signs does not indicate that there are economically fesible deposits. Problems of wealth, of quantity as well as of geographical situation of deposits, not counting those of product utilization, determine possibility of exploitations. Many of the deposits already located will prove to be economically unfesible or without interest. We must wait for results of systematic surveys, undertaken by the French mining mission, to know whether the hopes that we place in the mineral wealth of Laos will become realities.

VI. Handicrafts and Industries

A. Handicrafts

Traditional handicrafts present real artistic value. They have not gone beyond the family stage, and, for lack of commercial organization, are on the decline. The Department of Fine Arts has just created a cooperative

store to support the efforts of craftsmen, but, for lack of credit, this cooperative has not yet been able to operate efficiently. It would be desirable to open a sales outlet in Vientiane.

Wand loom weaving deserves its own place. It was formerly common and every house sheltered a local. Cotton weaving disappears increasingly in the advent of imported textiles: that of silk has been maintained, as the lao women remain faithful to the silk sinhs (lao-style skirts) with borders embroidered with gold. But they slmost always use imported silk. Breeding of silkworms has almost completely disappeared. An attempt at reactivation is underway on the Bolovens plateau. We also note the recent creation of a private weaving school, which should be supported and reorganized.

Ulitarian handicrafts also exist - pottery, basketwork, carpentry, etc. But these are now in competition with imports. It could be developed by the creation of commercial organizations and professional training. Many small crafts (carpentry, plumbing, mechanics, masonry) are in the hands of foreigners - especially Vietnamsse, Chinese, and Thai. Here professional training could play a large role, but it must be recognized that traditionally the Lao pay less attention to these crafts, which often necessitate regular routine and monotonous work. Government positions attract them most.

B. Industries

The term "industries" may be showy for the installations in Laos, which, with some exceptions, are nothing but workshops.

We have already covered mining industries, rice mills, sawmills, and carpentry shops. Let us mention now the garages and mechanical workshops, printing shops, ice houses, brickworks, construction companies, and various small installations such as distilleries, soap works, candle factories, and so on. Nearly all of these - except rice-mills, are concentrated in Vientiane.

A modern installation for production aerated baverages (licensed as "Green Spot") has been started in Savannakhet, but that, following the competion of imported products and the internal transportation costs, attains the height of its production capacity.

Three cigarette factories are located in Vientians: one is distinctly more important and better equipped than others.

Most of these factories unfortunately depend upon imported products.

Two important industrial projects have been under consideration. One deals with a cement factory (Thakhek) and the other with a plywood factory (Savannakhet). In both cases, financing would require the whole of capital investments from the state, either under the form of loans or participation, and realization of these projects has not come about. The cament factory, however, has started purchasing materials and equipment.

General conditions make industrial development difficult. The Lao market is narrow: exports involve a high costs of transportation. To be profitable, industry necessitates reserve production that it would be difficult to find in Laos. Foreign private capital investors are very reluctant to invest in Laos, where political uncertainty is added to economic difficulties. Moreover, the technical difficulties, high costs of business undertaking, difficulties of distribution in the interior - we conceive that first of all we must provide small or average installations to satisfy local requirements rather than spectacular creation. Legislative efforts have been made to promote industry. The Commission for the Plan has provided for customs exceptation for equipment, for tax reduction and for customs protection. Industrial development has also not taken place with much harmony. Sammills, equipped during the height of construction, are now plagued with overproduction. There are similar problems with rice mills, printing companies, cigarette manufacturers, etc.

To avoid wasting of capital in over-equipping, we have created the necessity of a preliminary license for installation for industrial enterprises. This measure, however justified, has sometimes had the effect of proclaiming a monopoly, but it has had less practical effects, the multiplication of similar projects turning it the other direction. The necessity of an arrangement, however, is indispensable.

VII. Commerce

A. The Commercial Balance

This table shows the commercial balance of Lacs. (All figures in hip.)

Year	Imports	Exports	Remarks
1953 1954	366,145,000 662,962,000	76,536,000 17,262,000	
1955	662,962,000	1,8,051,000	(Discontinuation of the Customs Union)
1956	1,236,000,000	44,450,000 38,000,000	US\$1=35 kip.
1958 1959	1,011,000,000	55,000,000 78,000,000	Monetary reform: US\$1 = 80 kip. Free exchange and trade.

(For 1959, the figure corresponds to the truly connercial imports and exports. We have withdrawn amounts corresponding to the gold trade, in effect for a short period, following total freedom for exchanges and trade, Vientiane has become a center for gold transit. Rough figures are 170,000,000 kip for imports, and 1,160,000,000 for exports, figures with no significance for our trade evolution examination.)

An examination of these figures shows the artifical characteristics of the commercial evolution, especially that of the imports. If imports surpass 366 million kip in 1963 to more than one billion in 1956, it is evident that this is not due to the natural evolution of the economy of the country, but to an external support given in foreign currencies. This table also shows a chronic commercial deficit since between 195h and 1959 the percentage of covering imports by the exports varied between 3.6% in 1956 and 7.5% in 1959. Putting this together with the fact that laos has been able, since October, 1958, to maintain a system of face convertibility with money coverage at 77.5%, we immediately see that this situation is possibile only with the contribution of foreign correncies coming from foreign aid, especially American aid programs.

Imports - During 1959, imports were raised to 1,023 million kip against I,011 million in 1958. 1959 is the first year after the monetary reform and the liberialization of foreign exchange. If the difference in absolute value of the imports between 1958 and 1959 saoms low, it corresponds to a decrease in imported goods, if we take the variation of foreign exchange into consideration. This decrease has been especially severe in livestock, paper, timber, metal, and transportation means, especially automobile, shoes, machines, feed products and chemical products. Only mineral-oil products and dairy-products are still maintained.

It is enough to have lived in Laos during this period to be able to state that it was not a period of poverty. This reveals once again that the import trade is artifical in character. Laos does not import that which corresponds to its essential requirements, but that which the situation allows it to import. It is also normal that Laos, an underdeveloped country where the economy must be raised all around, presents an adverse balance, but examining the statement of imports in detail we see that they primarily correspond with foodstuffs rather than with equipment and materials.

Principal nations supplying Laos were, in 1959, Japan (17.8%, against 14.7% in 1958, Indonesia (14.8% against 5.8% for oil products), the U.S.A. (12.9% against 11.7%), France (12.1% against 16.9%), Thailand (10.7% against 13.5%), but tese figures are lower than the reality because they do not take into consideration the border imports - Hong Kong (9.3% agains 16.1%), Great Britain (3.8% against 4.3%), Germany (3.7% against 6.5%), and South Viet-Nam (2.2% against 2%). Among the first four supplying countries of Laos, none is a customer of Laos.

Exports - In 1959, exports attained a much highr level than 1953. This figure includes a certain number of products not originating from Laos, and the re-export of which was made possible following the liberalization of commerce. But considering the real value of money, they are certainly still lower than in 1953. While the imports increased, the exports decreased, corresponding with an economic deterioration. The reasons are multiple: suppression of the Customs Union is one of them. (Under this system, products could freely flow down to Saigon.) Also, the difficulties of transportation, the high costs of transportation (due to the arrangement of the profitable return freight in that trucks would transport freight on the Laos - Saigon trip, while the Nongkai - Eangkok railway has a high and

unique tariff on both trips), and the disinterest of traders, attracted by the prospects of possibly larger profits on the fantastic imports under the license regulations. The main products were:

Tin - 555 tons for 25.3 million kip.
Teak - 5.325 tons for 12.7 million kip.
Coffee - 329 tons for 10.5 million kip.
Cardamon - 246 tons for 9.7 million kip.
Benzoin - 7 tons for 3.4 million kip.
Cotton - 154 tons for 1.2 million kip.
Hides - 107 tons for 1.2 million kip.
Soya - 135 tons for 1 million kip.
Forest byproducts - .7 million kip.
Buffalo - 40 tons for .3 million kip.

Contrary to must imports, which pass through Bangkok, a large portion of tin exports (and coffee) pass through Saigon. The countries of destination are Singapore and Malaysia (where tin is refined), Thailand (teak), South Vist-Ham (coffee), Hong Kong (Cardamon), and France (Benzoin).

Except for tin and benzein, exports are generally in small quantities and of special transactions, brought to local markets where they are put into the national products. Most are agricultural origin, and the limiting factor is commercialization difficulty rather than technical problems. The volume of exports could be considerably increased if export conditions, especially transportation costs and conditions of transport, could be improved.

Commercial Organization

In the interior of Laos, commercial organization is extremely rudimentary and consists of a multitude of small shopkeepers, mostly Chinese, who both sell imported products and collect local products. Big business is concentrated in Vientiane, at the terminus of the Bangkok-Nongkai route, which has replaced the old Saigon-Pakse route, where the issuing services for the license system are located. This results in the decrease of activity in regional centers such as Savannakhet and Pakse. Liberialization of foreign exchange has caused many import-export companies to disappear. A reasonable improvement is felt by the creation of banking organizations also concentrated in Vientiane (five, plus the National Bank). Opening of banking branches in regional centers would be desirable.

It would be necessary to strengthen internal commercial organizations in order to encourage the sale of agricultural products. For that, the resumption of fairs and markets, and the creation of commercial organizations (especially in the form of cooperatives), would be desirable. There are three regional Chambers of Commerce and of Agriculture, the union of which constitutes the National Chamber of Commerce. A direct collaboration of the services dealing with the economy with this organization is absolutely necessary.

Ba Transportation

Transit problems play an important part in Leos' economy. Transit agreements have been made between Laos and Thailand (July 22, 1959), Laos and Viet-Nam (June 11, 1959), and Laos and Cambodia (October 10, 1959).

Lacs-Thailand Transportation Agreement - The agreement of July 22, 1959, supercedes the agreement of July 8, 1955. This provides for transit according to terms of the Barcelona Convention through the following routes:

1) By rail: Bangkok-Nongkai, Bangkok-Ubol, Nongkai-Vientiana.

2) By road: Ubol-Nakorn Panon, Ubol-Mukdahern, Ubol-Pibulmangsaharn, and Moung Kao-Pakse.

Air transit is made solely through Dong Muong Airport, Bangkok.

Transit is carried out through Thailand by the Express Transport Organization (ETO), a Thai organization. Between Thai and Lao transit warehouses, road transportation is jointly executed by the Thai and Lao transport enterprises.

Lacs-Vietnam Agreement - This agreement also refers to the Barcelona Convention, providing for the execution of transit by the enterprises of the two states upon the simple condition of a preliminary agreement of the two Customs Administrations concerned.

A supplementary agreement specifies the conditions according to terms stipulated in the I.R.T. (International Road Transit) established to accelerate the transportation of goods by reducing customs formalities. Pending the time when the material conditions for the application of the I.R.T. can be realized during the period of transition, the system of ordinary transit is applicable on the following routes:

- 1) By road: Tourane Lao Bao Tchepone Laos, Saigon Vientiane (via Loc Ninh).
- 2) By rail: Saigon or Tourans Lacs (via Dong Ha, Lac Bac).

The Saigon-Laos route through Cambodia is the only one used at present.

Lacs-Cambodia Agreement - This agreement also refers to the Barcelona Convention. It provides for the execution by vehicles of the two countries, subject to an agreement by the customs authorities. An explanatory note specifies the following routes:

1) By road: Sihancukville - Leos, via Fhnom Penh; Viet-Nam - Lacs, via Stungtreng; and Phnom Penh - Veenkham, via Strungtreng (by waterway.

The organization of the joint Khmer-Leo companies is looking for those who can obtain the monopoly of transportation of goods through Sihanouk-ville, as well as the future application of the terms of the I.R.T. Only the Viet-Nam - Leos route via Stung Treng is now used.

These arrangements would appear to be satisfactory but in reality there are certain disadvantages. Transit by rail through Thailand is the most practical system, and has practically replaced road transportation between Saigon and Pakee, which was formerly the most-used route, and is presently carrying 2,000 to 3,000 tons of goods per month. But the concentration of commerce through this single route has brought about a concentration of commerce in Vientiane, to the detriment of southern provinces.

Secondly, the monopoly given to the Express Transport Organization is the cause of high tariffs. (Transportation cost and the miscellaneous costs from Vientiane to Bangkok ranges from 2,200 kip). A reasonable improvement should have been produced in the new agreement. It should be normal that the two governments agree to reduce tariffs for the trip from Vientiane to Bangkok, often with empty train cars.

The Saigon-Pakse highway has lost much of its importance, one reason being difficulties encountered passing through Cambodia. It had the advantage of assuring on account the exports to Saigon as empty returning freight (in case of timber especially, the export of which has considerably decreased due to the diminuation of traffic.)

The Savannakhet - Tourane route has been practically unused since the conclusion of the agreement, due to a difficult route selection, inactivity at the port of Tourane, difficult access to ships which cannot discharge cargo at the wharf, and the very high Saigon-Tourane costal tariff. The route was used before the war particularly along the Savannakhet-Dongha portion where it connected with the railroad.

Development of the port of Sihanoukville can offer a very interesting new route.

No relations hav e existed with North Viet-Nam since the war.

It would be profitable to use several transit routes, putting neighboring countries in competition which would allow better conditions to be attained and economic activity inside the country to be broken down.

II. Economy of Laos: The Possibilities of Development Foundations of a Policy of Economic Development

Considering the different sectors of the economy has shown that in all cases the difficulties of marketing are the real cause of limited production. Some of these difficulties are due to general conditions of Laos - such as distances, lack of means of transportation, etc. - other than the present state of markets. The difficulties are of economic nature rather than of a technical nature. Purely technical measures - plantation, extension of crops, exection of factories, etc. - will effect the country development only if they are carried out within the setting of the economic policy, closely considered and strictly applied, tending to expand the available markets for Lao products.

There are three kinds of outlets for laos' products:

A. Economy of Subsistence

The economy of subsistence is one where products are consumed by the producers themselves. This is prevalent in Lacs, especially among those peoples of remote or mountain regions. The main problem is to procure for these people enough food (and especially rice) to meet their requirements, by developing rice-cultivation and solving the problem of "rays." Even if this problem is an important one, its solution will not create economic progress. It is necessary to turn the population to the economy of exchange. This is the only means of enabling them to raise their standard of living. They must be offered the opportunity to sell crop surpluses.

B. The Iternal Market

Building up this is the easiest goal to accomplish - the state can protect local products against imports, create new outlets, and thus help the economy. This is contrary to economic liberalism, but it must be noted that there are few countries that could afford to fully apply this doctrine. The United States itself, where economic power is uncontested, has resorted to the protective system, by instituting a quota on oil products and sugar, and through a system of tariffs whereby an industry threatened by foreign competition can secure custom protection. In some cases, agreements are made with certain countries to voluntarily limit exports to the U.S., as with Hong Kong and Japan for textiles.

Total economic liberalism has yet to be applied by any underdeveloped country such as laos, where the economy is almost non-existant. Protection for growing production is all the more necessary artifically after an examination of the commercial balance. Laos possesses more than enough foreign currency to import not only everything it requires but also beyond that.

a striking example is that of the rice of Vientiane. In this city of

70,000 people, there is a shortage of ricemills. In the vicinity of Vientiane, however, there are fertile, populated regions capable of assuring a sufficient production of rice if they were properly cultivated. But it is easier for a rice dealer to go to Nong Kai to procure Thai rice than to invest his money in a rice mill, to trouble himself to organize the collection of paddy, or to immobilize his capital in rice stocks. Such an example indicates that the protection under the form of removal of customs tariff is not always enough; in case of competition, it could be almost the same between a local product and an imported product. But in such cases, any measure would not be sufficient because there is no competition and it is sometimes necessary to go so far as to carry out prohibitions.

Such measures should double efforts to bring production up the the level necessary for the local consumption, and to organize markets. The partial applications of this policy have already been executed; it is advisable to systematize it, but its adoption brings about the consequences that it is necessary to admit.

The principal budgetary resources of lacs are represented by the import custom duties. Development of national production will be at the detriment of these imports. Proposed measures will thus have an unfavorable effect on budgetary receipts, and results in frequent conflicts which have been brought to light, especially when the question of cigarette manufacturing has been considered, a question that hasn't yet been settled. The problem of budgetary resources and the state fiscal system must be considered in the light of economic development necessities.

Another reason is that the imports which assume the major part of budgetary income can be held on this high level only by massive influxes of foreign aid. Every budget system depends on continuation of this aid. Is this prudent? Experts of the Department of Finance who are considering the monetary reform think that it is possible to arrive at a more balanced system not relying anymore on the customs duties. Finally, on industries, it is possible that this system of protecting local products could avoid the repreach of "creating monopolies" which has sometimes been done.

C. The External Markets

Los' disporportionate commercial balance has suprised observers: everyone agrees on the necessity of developing exports. There must not be any illusion: remedies to cure the insufficiency of amports are much more difficult to find than those for the development of the internal market.

Lacs' situation is very unfavorable:

Laos is surrounded by countries which have products similar to those of Laos.

Leo products must pass through in transit, these other countries, with comercial complications and a high cost for transport.

Certain conditions aggrevate these problems: protective systems of some countries such as Viet-Nam's policies toward coffee, or the material impossibilities of transportation, such as transit of cattle through Thailand. Existing quantities of numerous Lao products would be sufficient to assure large exports but they are scarcely indicated in the export list.

How can this situation be improved. First, transportation and transit conditions can be improved, and exports can be encouraged through economic measures. The system of direct or indirect subsidies from exports can be set aside as being impracticable because of weak budgetary resources. The free-dom of exchange also sets aside the classical system of differential tariffs. It was applied with a certain success during the period when foreign exchange was controlled by granting, to certain forest byproducts (especially cardamon and sticklae), low repatriation tariffs, which brought about an increase in trade.

The system remaining to be tried is that of commercial agreements. But in order for this system to be effective, we must again avoid economic liberalism. Since the commerce is entirely free, the government is unable to direct purchases to such and such countries. On the other hand, because of this economic freedom, the foreign countries with which agreements are entered into do not want to import products from Laos in order to sell products to Laos. Such agreements are platonic.

It should be that in entering into commercial agreements, the RIG should subordinate the import of goods from the country with which the agreement is made, to the purchase of certain Iao products by the latter. This does not involve the return of foreign exchange control. We can control the imports of certain goods by a quota system without controlling foreign exchange. Such agreements will not head to balances, at least during a long enough period of time, but they can encourage export of products from Iaos.

D. Thus we arrive at the conclusion that, out of any technical action aimed at increasing or promoting production, the government will have to make decisions on an economic policy aiming at (1) developing internal markets, and (2) developing exports. This policy can exist only by setting aside, at least partially, the concept of total liberalism. It should be a governmental policy, not the policy of a service or a Ministry, because its repercussions play almost on all fields including the financial field.

II. Agriculture

A. Long term general action

It is evident that progress and efforts should be made on the agricultural sector, the most important foundation of the economy of Laos. These efforts should be made essentially on a direct action directed towards the people, to (1) get them the means of increasing and improving their production, and (2) enable them to profit from new outlets that the general economic policy should provide.

1. Agricultural Development Centers - Agricultural agencies and stations

should be transformed into agricultural development centers throughout the country. They should assure procurement of plants, grains, and seed for farmers, assure percelling out of land and irrigation development, lead the peasants in extension work, and work in the fight against disease, and work towards commercialization of products. Whenever an agricultural development zone reaches a high enough stage in development, we must move efforts from this area to another, undeveloped area.

2. Organization of Parmers - Agricultural evolution necessitates investment in one form or another, for land clearing, purchase of seeds, and so on. At present, farmers lack these means. On the other hand, individual agricultural credit would, in the matter of agricultural economy, be only an exception. It is therefore necessary to organize farmers into cooperatives that may receive credit. Such cooperatives should work in direct liason with the Agricultural Services. During the Sirst stage of development, they should be placed under the strict supervision of this service and evolve progressively towards a trae form of cooperative as fast as the farmers become capable of taking management into their own hands. These associations will also work on commercialization and conditioning of products.

Investments will be made first in kind - ground clearing and installation of improvements, procurement of seeds, plants, irrigation, conditioning equipment. The statutes of national credit, under revision, provide for short term loans for these organizations.

There is a risk in development due to the problem of staff personnel, It is necessary to accelerate training of personnel in this field, to "re-convert" a number of extension agents to these activities, (especially those whose training has been directed towards creation of youth clubs), and use foreign technicians - especial the Rural Action teams of the Commission for Rural Affairs.

3. Scordination of Efforts

The Agricultural Service can operate only in some areas due to a lack of means. It will be necessary to use other services and organizations to participate in this program. The provincial administrations have an important role to play. So do the rural action organizations. In this matter, we are sorry for the separation of the Commission for Rural Affairs from the Ministry of National Economy. The two programs should be coordinated. It is especially necessary to direct the rural action teams, whose installation is laid down for activities which are economic in character.

This coordination is particularly necessary to solve the program of the nemadic agriculture (rays). Let us resume here the recommended solution for the reinstallation of a portion of these populations on the lands that can be transformed into rice paddies.

- a) The provincial administration selects the best requests from the mountain peoples who want to resettle, and leads them towards one of the solutions below. It also authorizes the change of village sits only after being assured that the new site is suitable for fixed crops.
- b) The Forestry Service works on the resettlement of mountain people who want to change their abodes after the preservation of formsts, the conservation of which is necessary.
- e) The Agriculture Service installs the mountain people on the new lands opened for cultivation by hydraulic works as already provided and by executing the projects especially conceived for this purpose in the most important cases.
- d) The Commission for Rural Affairs takes charge in making sure that the people involved can take care of themselves, and helps procure tools, seeds, animals, and other working instruments.

4. Regional Parcelling Out.

We have already said that, owing to the fractional character of the country and the difficulties intransportation, economic and agricultural development should be carried out on a regional plan rather than by a general plan. It would be best to resume surveys on the needs and the economic possibilities of each region. These surveys would be of the type of those made by Mr. Havard Duclos, FAO expert, for certain regions of the north.

5. Basic General Surveys

Planning for economic development is hindered by the lack of basic statistical elements. This is even moveso in the agricultural field. These surveys cannot be made without massive foreign assistance, both in personnel and in money - but they are necessary. At a minimum, they should include a population census, a chart of land development, an agricultural census (including livestock), and a forestry savery.

B. Program for Immediate Execution

1. Rice Cultivation

a) Increasing Production - Agricultural irrigation work, building small dans to provide needed water, should constitute the main part of the program. We have more than enough credits under foreign aid, but not enough personnel for topographic surveys and supervision of construction. (Leo personnel with recent training lack experience). Therefore we must first obtain such personnel under foreign aid programs. We must also concentrate efforts by zones: provinces of Luang Prabang, Kieng Khouang, Sayaboury, Vientiane, and Saravane, where work has already been started, can constitute the first zones, the provinces of Nam Tha and Sam Neua can be added later.

- Additional measures should include those aiming at the increase of the yield, such as (1) accelerating distribution of homogenous seeds (the Vientiane station should increase production to 20 tons per year), (2) increasing the fight against disease, establishing stocks of insecticides, and studying types of insects attacking rice to determine best methods, and (3) increasing the use of manure, compost, and green manures.
- b) Improvement of the Rice Market The Vientiane sector calls for a quick solution. A commercial ricemill should be set up with a load from National Credit, and area farmers should be organized to assure a supply of paddy rice while protecting their interests. As soon as the capacity of the rice-mills is assured, it is advisible to prohibit imports at least during the period following the harvest, then to extend this measure. In the interior of the country, the Army should supply itself from each area, either from existing rice-mills or by purchasing paddy and setting up mills to husk rice. (This through the QMC or cooperatives run by war veterans). Except in case of famine, paddy rice should be able to circulate freely between provinces. If these first measures prove to be inadequate, we must go further to create a Rice Office, which will work directly in the fields of commercialization, storage, and distribution of paddy.

2. Miscellaneous Crops

- a) Coffee Technical action should be started to reactivate plantations.

 Emphasis should be made on the Robusta, pending the accumulation of enough.

 Arabica which can resist mildew. Bolovens cooperatives should be reactivated for continued commercialization. This area should become the center for extension (especially trimming and smoke-curing), profits of the cooperatives being reserved for cultivators applying directives of the Agriculture Service. Prohibition of imports and searches for external markets are economic measures which must be taken in setting policies of commercial agreements.
- b) Tea Stations of Kieng Khouang should start producing plants for the establishment of plantations. As this proceeds, measures similar to those for coffee should be taken protection, and search for foreign markets.
- c) Tobacco Development should start first in the Vientiane region where the cigarette factories are located. These should create nurseries of good species, buy green tobacco, create and use drying-rooms, and enter into cultivation contracts with farmers. These companies can use up to 50% of the local tobacco. The obligations would be fixed under agreements between the companies and the State. Among economic protective measures, we must recommend the distribution of the circulation tax for cigarettes manufactured with local tobacco.
- d) Market-gardening products. In the Vientiane region, it is advisable to continue action undertaken (distribution of seeds in extension work), but the supply of this center will be easily assured with the execution of the harmesing of hydraulies of the "casier sud," that should start soon. (Special Pand of the United Nations.) In the Bolovens, reactivated cooperatives should

work on the commercialization of vegetables. In the interior, the extension of secondary crops should be carried on.

- e) Fruits By the application of the advocated system for the agricultural stations, we should proceed to:
 - -- the improvement and the extension of existing species.
- -- the multiplication and the distribution of plants of the species imported from neighboring countries.
- -- the beginning of distribution of plants of the temperate species already introduced (Faksong, Kieng Khouang).

On the commercial plan, we will create a cooperative of commercialization of citrus fruits of the north in connection with the agricultural station established in that region. With regard to the pineapples of the Bolovens that find the markets with difficulty, the most practical solution would consist in the manufacturing of acrated beverages made up from the pineapple juice by the Savannakhet factory, but here again the protective measures would be imperative.

f) Industrial Crops - Mainly directed for expertation (castor oil, ramic, jute, cotton), these industrial crops should be produced by the population only after the surveys for external markets have been made indicating that they are profitable. In the setting of these surveys whenever the situation will permit, it will be of urgent need to carry out the survey by requesting French aid for the elaboration of an economic plan of development of the Bolovens. This region is in fact that which offers most of the interesting prospects and should play an important role in the economic development of the country.

III .. Livestock Breeding

A. Long Term General Action

An evolution similar to that recommended for the agricultural stations and sectors should be made for the Veterinary Service. While continuing the fight against the epizootic diseases that constitute the bulk of their activities, the local echelons of the service should undertake a systematic action on the breeders inculcating upon them the principles of feeding cattle and the method of supervising a herd (choice of sires, elimination of old or unsound animals, etc.).

It is the diffusion of this education that will enable the efforts undertaken in the stations (introduction of more improved animals such as pigs and chickens) to attain their fruit. Such an effort could be started for ozen by the creation of a station in sparse forest (project under discussion under Australian aid). On a longer term -- if the economic development of livestock breeding permits it -- we can look forward to the parceling out of grazing land by the introduction of plants that can endure drought, the pastoral hydraulics, etc.

We recall that even in its present state livestock breeding could procure a big contribution to the exports of Laos. It is the question of settling the problems of transportation and transit.

B. Pregram of Immediate Executions

- 1. Sanitary Action We have said that in general the sanitary condition of the cattle is satisfactory. It is advisable to maintain this situation by organizing the systematic rounds of vaccinations and the sending of mobile teams into the specific homes by establishing a rapid system enabling farmers of the infected areas to warn the service quickly.
- 2. Improvement of the Methods of Breeding The educative action that we have talked about above should be started from now on by the application of the principles of agricultural extension. Especially it should rely on the existing stations (chickens, pigs) to which the cattle station already anticipated should be added. These stations should specify the methods of breeding and of feeding within the understanding of the farmers and not to establish the model centers that could not be executed by the breeders. This effort should distinctly bear on the use of local products for feeding. The introduction of animals with pure and too developed races will be difficultly made on a generalized scale. Anticipation should be made either on the distribution of sires (which will result in the cross-breeding later) or on the distribution of the cross-breed products.
 - 3. The creation of the slaughter house of Vientiane should be followed upaccording to surveys already made. The principle of the constitution of
 a joint capital company has already been adopted. We should step up the
 surveys of the markets in order to settle once and for all any question of
 the possibility of the exportation of meat by airplane.
 - 4. For the exportation of live cattle, it seems that the Bangkok route might be difficultly realizable. Another route should be considered (Cambodia Vientiane?).

IV. The Forests

A. Long Term General Action

The role played by the forests in the economy should be doubled.

- 1. A Protective Role It is advisable to assure the conservation of the forests that are considered to be indispensable to:
- -- maintain an adequate forest-tree cover with an aim to avoid the consequences of deforestation to the country.
- -- assure an adequate lumber production for the economic needs (internal and external).

This could be realized:

- -- by the continuation of the preservation of the most interesting clumps of trees for one or another role.
- -- by an educative action for the population to let them understand the benefit of the forests.
- 2. An Economic Role The development of the forests should bring about a precious contribution to the economy. We have seen that the importance of this role can only follow the evolution of the development of the economy of the country. The timbers constitute a latent wealth that can be used only withever the improvement of the conditions of transportation and of transit will allow their exit to meet the competitive prices.

B. Program of Immediate Action

- 1. Extension of the implantation of the Service of Forestry Whenever the situation will permit, it would be advisable to create three new divisions of forestry in the north of Laos. As a matter of fact, the action of the Service of Forestry is, at present, concentrated mainly in the south. The personnel of these divisions will be taken from those of the department and of the divisions in the south.
- 2. Acceleration of the Reservations of Forests should follow this reorganization. But these reservations would be in vain if the regulations were not strictly applied.

3 The works of re-afforestation of teak in the region of Houei Sai should be undertaken (while continuing the works of re-afforestation previously started in the other regions).

4. Economic Develor ment

- (a) A Japanese Mission has recognized the possibility of exploiting the lacquer plantations existing in the north of Lacs. This Mission has amounced its next return to enter into the contract for exploitation. In a parallel direction the Service of Ferestry will search for the new plantations and will start a campaign of lacquer plantations of the raus essence (the highest esteemed).
- (b) A local company has announced its intention to exploit the plantations of "polompon" of the Nam Ngum valley. Discussions on this dealing are underway.
- (c) The protective measures of certain forest products (undressed and shaped timbers basket works, rattan charcoal etc.) should contribute to the improvement of the forest products.

V. Mines - Handicrafts - Industries

We have already indicated that we should wait for more complete surveys to judge the possibilities of developing numerous known lodes. However, the coal lode of Saravane seems to be very interesting.

At present we can anticipate:

- (a) an increase of tin production;
- (b) a technical and economic improvement of the salt production of Ban Keun.

Handicrafts and Industries

A. Long Term Ceneral Action

 We have already seen in the first part that the economic structure of the country, for the time being, would unlikely render the development of important industrial installations. Those installations we can look forward to in the near future will be of moderate importance and will be directed, first of all, to meet the local requirements.

It is evident that in this nation priority should be given:

- (a) first to the industries using local raw materials.
- (b) to the industries transforming imported products only in those cases where the value added by the on-the-spot transformation renders this operation profitable for the economy.
- 2. As for all the economic sectors, the protection of the locally manufactured products should be assured. The statutory texts of principle have already existed.

This is all the more necessary for the industries as the investments, hence the depreciation costs will be heavy for Laos (because of the general conditions of economy) and as a growing industry is always placed in a lower state with regard to a competition which has already solidly been established.

3. But this protection and the advantages granted by the state should not be without the other party. The protected industry should operate in a manuer that is favorable to the development of the national economy subject to conditions of quality and price conforming to the general interest.

To do this the system of conventions, which has already been approved theoretically (but not realized practically) in the case of the cigarette industry, can be generalized. It is a matter of an agreement fixing the advantages granted by the State and the obligations that the company (or the professional group) should fulfill to profit from these advantages.

For example, in the case of cigarettes, these obligations would consist of the use of a certain percentage of local tobacco and the setting up of devices for the development of tobacco cultivation that we have described in the chapter dealing with agriculture.

4. We have already pointed out the difficulties of financing of the necessary investments and the scarcity of private capitals. The theory of intervention by the State has been adopted and we are anticipating the intervention of the national credit and the mutual credit companies. But it seems that the role of the national credit should especially be to bring about the financial complement to the efforts of the individuals. On the contrary, when it is the matter of important investments and which should be procured almost totally by the State, it seems that considering the scarcity of budgetary resources we would have to find the new sources. These sources can be provided only from the foreign aids or from the specialized international organizations. Up to now the action of the

foreign aide has been quite reduced in this field (apart from the French participation in the fund for the Forestry Service). It is quite evident that these sources will require profound and thorough investigations concerning the benefit of the creation and the profitability of the considered enterprise.

B. Program of Immediate Action

1. An entirety of measures siming at the develoment of national products has been elaborated during the meetings of July 1960 between the National Chamber of Commerce and the representatives of the Ministry of National Economy.

It consists of:

- -- a list of products to be prohibited from importation;
- -- a list of products to be protected by customs measures;
- a list of local products and services that the civil and military administrations should buy or contract on the spot on preference.

The detail of these lists is given in the following chapter.

- 2. The same meeting has asked for the reduction of custom's tariffs for certain raw materials used for the local industry:
 - fat for soaps and candles
 - -- coconut oil
 - -- vegetable oil
 - -- chemical products for matches
 - gas for the manufacturing of ice
 - -- gold and silver threads for textile
 - -- cotton
 - -- silk
 - cigarette paper

This list should be reexamined. Cartain enumerated products at the end of a certain period of time can be produced on the spot (fatty materials. silk cotton). Such measures would have only a temporary character.

3. We have seen in the chapter on agriculture that it would be necessary to settle the ever undecided question of the cigarette factories (to promote the cultivation of tobacco) and the agrated beverage factories (in connection with the problem of pineapple).

- 4. The development of handicrafts and arts should be promoted by granting to the recently created cooperative a loan from the national credit and by encouraging the installation of a selling warehouse.
- 5. The weaving school should be reorganized, supported and especially completed by a cooperative organization of commercialization of tissues made by the old students after their going out of the school.
- 6. We have pointed out that if a subject were taken to subordinate the creation of industries to a preliminary authorization, itsapplication would come up against numerous difficulties. Such a measure is, however, justified to avoid the squandering of capital which is very scarce in the sectors where the production is sufficient for the requirements. One of the causes of these difficulties is the multiplicity of subjects that enables each to avoid his responsibilities.

A project uniting all the regular measures into a unique procedure has been elaborated. Its examination and its promulgation would be necessary.

VI. The Commerce

A. Long Term General Action

- 1. We could only repeat the considerations made in the heading of the second part of this study (bases of a policy of economic development) and which justify the establishment of a policy aiming at the resolution of a portion of the difficulties of commercialization by:
 - -- the protection of internal market;
 - the development of emports.

We maintain that we have looked to this policy solely under the angle of the development of the Lao economy. If we have to propose the measures that will reduce the imports and will develop the experts, it is out of any consideration with regard to the monetary balance. They will not, by any means, have a favorable effect on the commercial balance.

- If, because of the foreign supports, the freedom of exchange can be maintained, an effort in the sense of commercial balance can only favorably impress the countries that supply that aid.
- If, for unforeseeable reasons, these contributions were reduced and even stopped, the situation would change entirely and the measures in line with those advocated here would become obligatory and should take still more severity.

 We have, on several occasions, called up the importance of the problem of transit in the economy.

The most favorable solution would be found in a regional and multilateral agreement between Laos and the neighboring countries. The existing political differences among these countries render this solution hardly probable.

The arrival of an expert anticipated in the plan of assistance of the United Nations should help in the consideration of the question in its entirety and put forward the desirable modifications to the present agreements by aiming, especially, at a more elaborate diversification of transit routes used.

3. Transportation plays an important role in the economic difficulties. The Ministry of Public Works and the Cotomission for the Plan have considered this question and submitted a plan of road construction in the country with an aim to complete the road network.

But the execution of road construction drops out of the present financial possibilities and can be carried out only by the foreign aids. This network can difficulty cover the entire territory of the country. The construction of secondary roads down to the modest tracts of villages is all the more important. These tracts can be constructed with local means and the populations concerned directly with their execution can collaborate in this matter efficiently through their work.

B. Program of Immediate Action

Apart from the particular measures already elaborated in the preceding chapters, we can recommend:

- 1. The liberalisation of the inter-provincial trade. A text had been prepared for this purpose and could be promulgated.
- 2. Consideration in view of adopting the recommended protective measures that we have talked about in the preceding chapter. \

(a) Prohibited from Importation:

- -- green and roasted coffee
- -- fresh, dried and powdered red pepper
- -- sawed and planed lumber
- -- articles of carpentry, door-frames, framework articles
- -- brick, tile

- -- brooms
- -- bamboo and rattan furnishing articles

(b) Products to be Protected by Customs Measures

- -- foodstuffs prepared or powdered coffee
- -- artificial aerated waters, neither aromatised nor sweetened,
- -- lemonades, aromatized aerated waters.
- -- ice
- -- candles
- -- bamboo basketworks

This list should be examined by taking the recent modifications made on the customs tariffs into consideration.

(c) List of Products and Services that the Governmental Organizations should Buy from the Local Production.

- -- coffee
- -- salt
- -- rice
- potatoes
- -- red papers
- -- fresh vegetable
- -- fruits
- -- padek (fermented fish)
- -- Chinese-type sauces made with soya bean.
- -- alcohol, which is possible to distill locally
- -- fresh and dry meat
- -- groundnut
- -- aerated water and beverage
- -- 300
- -- tobacco cigarettes (consisting of a certain proportion of local tobacco)
- -- soap
- -- candle
- -- matches
- -- charcoal
- -- brick and tile
- -- cement-based products
- -- wooden and rattan furnishing articles
- -- sawed timber
- -- woodwork articles
- -- Kapok
- -- mattresses and pillows
- -- cotion
- -- silk or cotton tissue local made (Pha Khama, Pah Salong, Sinh)
- -- bamboo and articles made with bamboo

-- ready-made shops -- printing shops

(A part of the products of the last list was made subject of a letter from the Minister of Finance to the Minister of National Defense concerning the purchases by the Army. But this action should be extended to the civil administrations and taken by a statutory text which would give the financial services the power to refuse the orders for payment in case of non-observance.

The three lists can constitute a chain of measures to be taken, but may perhaps be extended later as the evolution of the situation proceeds.

- 3. The creation of the fairs and markets by the local authorities in collaboration with the Chambers of Commerce and the Regional Services of Agriculture.
- 4. The creation (anticipated but not yet realized) of an Office of the Commercial Relations in the Department of Commerce. This office relieved of any administrative formalism should work in direct connection with the Chambers of Commerce and even with the individual merchants. Its role would be to make surveys of markets, to promote exportation, especially in looking for prospective outlets.
- 5. The realization of the companies provided by the agreements on transit with Vietnam and Cambodia.

CONCLUSION

We have examined in this report only the elements of the economic development such as they appear at present and on which it is possible to act immediately.

The others can come out later in the setting of investigations undertaken on the Mekong Basin -- the possibility of mining industry, etc.

We have especially emphasized the necessity of adopting a governmental policy permitting the solution of difficulties that hinder the development of the economy that still remains and will remain so for a long period of time at the rustic level.

This policy, like all the policies of austerity and of efforts, will be in vain if it is not applied with severity and particularly with impartiality. Personal interests should be sacrificed for the benefit of public interests.

It will necessitate an entire collaboration of the various administrations.

But especially its success will depend on the manner whereby the population is made to understand and the way they participate through their work and their efforts.

4/2/70